

BOARD OF DIRECTORS' MEETING

August 18, 2022

9:00 A.M.

AGENDA

This meeting is being held pursuant to and in compliance with the Albemarle County Emergency Ordinance No. 20-E (2); An Emergency Ordinance to Ensure Continuity of Government during the Covid-19 Disaster. The ACSA Board of Directors is responsible for receiving public comment. The opportunities for the public to access and participate in the electronic meeting are as follows: Join the meeting virtually through Zoom by visiting our website at www.serviceauthority.org; call in and leave a message prior to the meeting at (434) 977-4511, or email the Board prior to the meeting at board@serviceauthority.org.

9:00 a.m.	1. Call to Order and Establish a Quorum –Statement of the Board Chair
9:05 a.m.	2. Service Recognition – Pete Gorham
9:20 a.m.	3. Approve Minutes of July 21, 2022
9:25 a.m.	4. Matters from the Public
9:35 a.m.	5. Response to Public Comment
9:40 a.m.	6. Consent Agenda
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. CIP Authorizations
	d. CIP Project Close-Outs
	e. Monthly Maintenance Update
	f. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	g. ACSA Board Policy Future Issues Agenda 2022
	h. Advanced Metering Infrastructure (AMI) Project Update
10:10 a.m.	7. Year-End Appropriations
10:20 a.m.	8. Investment Policy Report – Update
10:40 a.m.	9. Future Board Meetings – Virtual Option Discussion & Resolution
10:55 a.m.	10. Operational Presentation – ARC GIS
11:15 a.m.	11. Items Not on the Agenda
11:20 a.m.	12. Executive Session
	13. Adjourn



ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF CHAIR TO OPEN AUGUST 18, 2022 MEETING

This meeting today is being held pursuant to and in compliance with the Albemarle County Ordinance No. 20-A (16); an Ordinance to Ensure the Continuity of Government During the COVID-19 Disaster.

The Directors who are electronically present at this meeting are.... **(Name the directors electronically present for the meeting)**

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

R E S O L U T I O N

*WHEREAS Peter C. Gorham was employed by the
Albemarle County Service Authority on
July 17, 1979; and*

*WHEREAS "Pete" has served the Albemarle
County Service Authority for a total of*

43 Y E A R S; and

*WHEREAS his sociable personality, undeniable wit,
and refreshing humor have positively impacted the
work environment of all those around him; and*

*WHEREAS his admirable work ethic and dedicated service
to the Albemarle County Service Authority has contributed
to the reliability of the public water and sewer systems in
Albemarle County; and*

*WHEREAS his leadership and planning have considerably
advanced the ACSA's engineering efforts and
infrastructure; and*

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

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

*I hereby certify the foregoing to be a true and exact copy of a
resolution adopted by the Board of Directors of the Albemarle County
Service Authority in a regularly scheduled meeting held August 18,
2022 by a vote of ___ to ___.*

Gary B. O'Connell, Secretary-Treasurer

1 The Board of Directors of the Albemarle County Service Authority
2 (ACSA) met virtually in a regular session on July 21, 2022, at 9:00 a.m.
3 through Zoom. Mr. Roberts joined the virtual meeting at the Administration
4 and Operations Center at 168 Spotnap Road in Charlottesville, Virginia.

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

7 **Members Absent:** Dr. Lizbeth Palmer.

8 **Staff Present:** Kenny Barrow, Jim Bowling, Daniel Fouch, Quin Lunsford,
9 Jeremy Lynn, Michael Lynn, Alex Morrison, Gary O'Connell, Justin Ray,
10 Jay Thomas, Justin Weiler, Deanna Davenport, Danielle Trent, April
11 Walker, Theresa Whiting.

12 **Staff Absent:** Emily Roach.

13 **Public Present:** Mike Derdeyn, Flora Pettit PC.
14

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

16 The Chair called the meeting to order, and a quorum was
17 established. He then read the Board Chair statement declaring an
18 electronic meeting (Attached as Page _____).
19

20 2. Service Recognitions – Mike Lynn, Kenny Barrow, Jay Thomas,
21 Mark Clinedinst

22 Mr. Roberts stated that there are some rather extraordinary periods
23 of service being recognized today. Mr. O'Connell stated that it was his
24 great pleasure to introduce this item, and he would begin by presenting the
25 service recognition for Michael Lynn, Director of Operations. He noted that
26 there are 135 years of service amongst the four employees being
27 recognized today.

28 Mr. O'Connell stated that Mr. Lynn is the epitome of a succeeding
29 employee, having moved up at the ACSA to his current position, which he
30 has held for the past decade. He stated that Mr. Lynn has brought a great
31 deal of knowledge and experience to the job and is especially adept at

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1 preparing the organization for emergencies, including developing a detailed
2 emergency plan. He stated that he wanted to extend his gratitude and
3 congratulate Mr. Lynn on 45 years of service with the ACSA.

4 Quin Lunsford, Director of Finance, presented the next recognition
5 for Kenny Barrow, Meter Operations Supervisor. He stated that Mr. Barrow
6 arrived for his first day of work with the ACSA on July 6, 1982. He stated
7 that as the Meter Operations Supervisor, Mr. Barrow leads the Meter
8 Operations team to ensure accurate and timely meter readings are
9 available for billing, and that the meter reading system is well-maintained.
10 He mentioned that Mr. Barrow has led a number of technological initiatives
11 over the course of his career. He noted that when Mr. Barrow began work
12 in 1982, meter readings were manually recorded in a physical book and the
13 consumption was hand-computed in the field. He mentioned that a major
14 improvement to this process, that Mr. Barrow helped lead, was the
15 deployment of a touch-read system, which eliminated the manual meter
16 reading process.

17 Mr. Lunsford stated that Mr. Barrow has been an integral member
18 of the AMI deployment and is the ACSA's expert on that technology. He
19 stated that Mr. Barrow's contributions to this project cannot be overstated.
20 He stated that Mr. Barrow has generously shared much of his 40 years of
21 professional experiences with others throughout the organization, some of
22 which were related to staying safe from snakes, spiders, dogs, and other
23 animals that are occasionally encountered reading meters. He mentioned
24 that the one piece of advice that sticks out above the rest is, when reading
25 a meter, never turn your back on a ram. He noted that Mr. Barrow had an
26 encounter with a ram a few years ago in which, luckily, he was not harmed.

27 Jeremy Lynn, Senior Civil Engineer, stated that he had the pleasure
28 of presenting recognitions to two ACSA construction inspectors, the first
29 being Jay Thomas. He stated that Mr. Thomas is a lifelong North Garden
30 resident who enjoys working on his farm and spending time with his
31 grandchildren. He stated that before Mr. Thomas began working in the

1 ACSA's Maintenance department, he worked for a local contractor and
2 builder. He mentioned that Mr. Thomas also worked as a hydrant/valve
3 mechanic, before moving to the Engineering department to serve as a
4 construction inspector. He stated that Mr. Thomas used his extensive
5 building experience when he served as the inspector for the Glenmore
6 Ground Storage Tank & Pump Station project. He noted that Mr. Thomas
7 recently served as the inspector for the Key West Water Main Replacement
8 Project, which included a directional drill under the Rivanna River. He
9 added that later this summer, Mr. Thomas will serve as the ACSA inspector
10 for the Jefferson Village Water Main Replacement project. He stated that
11 Mr. Thomas is currently serving on the confined space rescue team, which
12 works in conjunction with the ACSA's sewer flow modeling efforts.

13 Mr. Lynn stated that Mr. Thomas is one of the most conscientious
14 workers he has worked with and is always willing to lend a helping hand.
15 He stated that on behalf of the ACSA, the Engineering department, and
16 himself, he wanted to express his sincere gratitude to Mr. Thomas for his
17 25 years of service.

18 Mr. Lynn stated that the second individual, Mark Clinedinst, is not
19 on the call today, but is also celebrating 25 years of service with the ACSA.
20 He stated that Mr. Clinedinst is also a lifelong resident of Albemarle County
21 and lives in Crozet. He stated that Mr. Clinedinst is also a lifelong member
22 of the Crozet Volunteer Fire Department and enjoys working on trucks in
23 his free time. He added that Mr. Clinedinst worked with SL Williamson
24 before his employment at the ACSA.

25 Mr. Lynn stated that Mr. Clinedinst began his career with the ACSA
26 in the Maintenance department, serving as a construction crew leader
27 overseeing the construction of the Red Hill water distribution system. He
28 stated that as an inspector, Mr. Clinedinst has been involved in the
29 construction of the North Fork Regional Pump Station force main and
30 gravity sewer, Crozet Phase 2 Water Main Replacement Project, and
31 recently involved with the Oak Forest Pump Station Abandonment Project.

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1 He mentioned that Mr. Clinedinst also serves on the Cityworks guiding
2 team that meets monthly to work through issues and improve the CMMS
3 software. He added that Mr. Clinedinst is a problem solver, usually coming
4 up with several solutions to handle challenges that arise. He stated that on
5 behalf of himself, the ACSA, and the Engineering department, he wanted to
6 thank Mr. Clinedinst for his 25 years of service.

7 ***Mr. Moore moved to approve the four recognition resolutions***
8 ***as presented to the Board (Attached as Pages _____), seconded by***
9 ***Mr. Tolbert. The Chair asked for a roll-call vote: Mr. Tolbert, aye; Mr.***
10 ***Armstrong, Mr. Parcels, aye; Mr. Moore, aye; Mr. Roberts, aye.***

11
12 3. Approve Minutes of June 8, 2022 & June 16, 2022

13 There were no corrections or additions to the minutes of June 8,
14 2022 or June 16, 2022.

15 ***Mr. Moore moved to approve the minutes, seconded by Mr.***
16 ***Tolbert. All members voted aye.***

17
18 4. Matters from the Public

19 There were no matters from the public.

20
21 5. Response to Public Comment

22 There was no response to public comment.

23
24 6. Consent Agenda

25 ***a. Monthly Financial Reports*** – Mr. Parcels stated that he was glad to
26 see the progress being made in the arrearages.

27 ***b. Monthly CIP*** –

28 ***c. Monthly Maintenance Update*** –

29 ***d. Rivanna Water and Sewer Authority (RWSA) Update*** – Mr. Parcels
30 stated that he had a question about the Wholesale Metering

1 Agreement with RWSA, with respect to the City of Charlottesville. He
2 stated that he noticed for the month of May, RWSA shows a million
3 more gallons of consumption for the ACSA, than what was reflected in
4 the ACSA's monthly report. He stated that he assumes that as the area
5 continues to grow, the ratio of what the City and ACSA pays will
6 change, and he wonders how the ACSA will be affected by that change
7 in ratio.

8 Mr. O'Connell stated that the Wholesale Metering Agreement was
9 an effort to allocate the new Ragged Mountain Reservoir water. He
10 stated that since the County was paying for the biggest portion of that
11 cost and the future pipeline, there needed to be a mechanism in place
12 to measure the water use and allocate cost accordingly. He stated that
13 in the case of the City and County, the overall system has not grown
14 as rapidly as the agreement anticipated.

15 Mr. Parcels stated that he was surprised how close the numbers
16 are for the City and County, given that the County has Scottsville and
17 Crozet as well. Mr. O'Connell stated that the agreement just includes
18 the Urban system, thus Crozet and Scottsville would not be included in
19 those numbers. He stated that the agreement looks at the water in the
20 Ragged Mountain Reservoir, which only serves the Urban system.

21 Mr. Parcels stated that this was part of his confusion, as he thought
22 the total in the ACSA monthly reports included Scottsville and Crozet.
23 Mr. Lunsford stated that RWSA meters the water that they put into the
24 system, but there are losses within the system. He stated that the
25 numbers the ACSA reports reflect billed consumption, so there will
26 always be some differences. He also noted that the ACSA's reading
27 cycles do not mirror RWSA's reading cycles, which can account for
28 differences as well.

29 Mr. Parcels asked if at some point in the future, there will be
30 adjustments made for the growth, given that the debt from RWSA is
31 proportional. Mr. O'Connell replied that the City has proportionally

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1 grown almost as much as the County, thus the percentages have not
2 grown that much. He stated that the agreement, however, does
3 provide for growth.

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

5 ***f. Strategic Plan Update –***

6 ***g. ACSA Rules and Regulations Update – Resolution to Amend***
7 ***Appendix C***

8 ***h. Advanced Metering Infrastructure (AMI) Project Update –***

9 ***Mr. Armstrong moved to approve the Consent Agenda,***
10 ***seconded by Mr. Tolbert. The Chair asked for a roll- call vote:***
11 ***Mr. Tolbert, aye; Mr. Armstrong, Mr. Parcels, aye; Mr. Moore, aye;***
12 ***Mr. Roberts, aye.***

13
14 7. Cityworks Demo – Service Requests, Work Orders, Inventory,
15 Reporting

16 Mr. O'Connell stated that this presentation (Attached as
17 Pages_____) is designed to give an overview of the ACSA's new service
18 request and work order system, Cityworks. He stated that Justin Ray, GIS
19 Coordinator, will be giving the presentation.

20 Mr. Ray stated that he is the GIS/CMMS Coordinator at the ACSA
21 and has been with the organization for 7 ½ years. He noted that CMMS is
22 the Computerized Maintenance Management System, which is Cityworks.
23 He stated that the ACSA has been in production with the bulk of the
24 Cityworks implementation for what will be two years in October. He noted
25 that the Customer Portal went live about four months ago, in March.

26 Mr. Ray stated that CMMSs, and specifically Cityworks, have five
27 components which are inventory, work orders, service requests,
28 inspections, and reporting. He noted that even though the number of
29 templates for inspections is the lowest, they make up the bulk of the work
30 activity in Cityworks.

1 Mr. Ray stated that service requests are how a lot of the activity is
2 initiated in Cityworks, by either an employee or customer. He stated that
3 staff could be in the field and notice something like a broken meter box, or
4 a customer could call in or use the customer portal. He mentioned that
5 even though there have been a good number of service requests, it is still
6 the least used work activity in Cityworks, which is a good thing. He noted
7 that the most common service request types are water leaks, pressure or
8 quality complaints, no water, and sewer backup.

9 Mr. Ray stated that the Customer Request Portal has seen 32
10 requests as of this morning. He stated that the portal has been advertised
11 on social media and the customer newsletter, and there has been an
12 increase in use. He mentioned that of the 32 requests, 25 were requests to
13 close or transfer an account.

14 Mr. Parcels asked if there is on-call staff to respond to customer
15 portal requests that come through on the weekends and holidays. Mr. Ray
16 responded that if customers pick up the phone and call in, there is an
17 answering service that will send the call to the on-call employee. He stated
18 that if the request comes through the customer portal, there are instructions
19 directing the customer to call in if it is an emergency. He added, however,
20 that even if the customer fills out the request through the portal, it will still
21 go to the on-call employee as an email.

22 Mr. Parcels asked if texting would be an option. Mr. Ray replied
23 that it is not something that has been considered, but he does not know if
24 there is a good way to integrate that feature. He stated that it may be a
25 question for the answering service. Mr. Lynn stated that the on-call
26 employee does receive texts on the standby phone from the answering
27 service.

28 Mr. Ray stated that in terms of inspections, there are an average of
29 over 44 per day that come through Cityworks, which is probably more like
30 50 if weekends and holidays are excluded. He stated that there are several
31 staff members whose primary focus is conducting inspections. He

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1 mentioned that the most common types are valve inspections, hydrant
2 inspections, manhole and CCTV inspections, pump station inspections,
3 and monthly vehicle inspections.

4 Mr. Ray stated that he would now show the board a quick clip of
5 Jimmy Dennis, Hydrant/Hydrant Valve Inspector, completing a hydrant and
6 hydrant valve inspection in Cityworks. He stated that Mr. Dennis completes
7 both inspections in just over a minute, which is pretty impressive. He noted
8 that if there were any issues found during the inspection, it might take a bit
9 longer to fill out more detail.

10 Mr. Ray stated that works orders are utilized when there is a
11 problem or a task that needs to be done. He stated that some of the most
12 common types of work orders involve tasks like raising or lowering meter
13 boxes or setters or repairing fire hydrants and sewer manholes. He
14 mentioned that when materials from the storeroom are used, they get
15 applied to work orders which is how inventory transactions take place. He
16 noted that work order tasks are more intense than inspection tasks, with
17 the average duration of a work order task being 2.6 hours.

18 Mr. Ray stated that staff is able to do dive deep in Cityworks and
19 really use the data that is being collected. He stated, for example, they can
20 see that a valve box repair takes about 4 hours average and costs about
21 \$100 to repair. He stated that this helps with the decision-making process.

22 Mr. Ray stated that reporting is another big component of
23 Cityworks. He stated that there are about 40 reporting templates currently,
24 but reporting ideas are being generated all the time from a management
25 perspective. He noted, however, that the reporting is not just for
26 management. He stated that if someone needs to be charged for damage
27 caused, a report will be generated. He mentioned that the report will pull
28 information from the work order to create an invoice. He stated that there
29 are various reports for the inventory system and a report for sewer
30 overflows as well.

1 Mr. Ray stated that Cityworks is not something that is static, thus
2 there is always something in the pipeline. He stated that the ACSA has a
3 group of staff members that meet every month to look at where the
4 organization is in terms of Cityworks and where it wants to go, what needs
5 to change, and different ideas in general. He noted that there is a CIP
6 project coming up this year, Operational Insights, which is more focused on
7 the asset management side of Cityworks. He stated that currently, the staff
8 is collecting a lot of data, and Operational Insights will help to utilize that
9 data to make important decisions. He stated that there is also the Utility
10 Network Feasibility project, which is more of a GIS project, but heavily
11 impacts Cityworks use. He noted that Respond is the new, upgraded office
12 interface for Cityworks, which the ACSA will be rolling out soon. He added
13 that RWSA is in the process of implementing Cityworks, and there are a
14 few ACSA staff members that participate in meetings with them quarterly to
15 share knowledge based on lessons learned.

16 Mr. O'Connell stated that he wanted to thank Mr. Ray for all the
17 work he has done with Cityworks. He stated that it has been a long project
18 and there is a continuing effort to train employees. He stated that Mr. Ray
19 has really brought energy and leadership to the project. He mentioned that
20 he also wanted to thank the entire IT department and a whole team of
21 employees that are utilizing Cityworks in the field.

22
23 8. AMI (Advanced Metering Infrastructure) Project – Update and
24 Video

25 Mr. O'Connell stated that as the ACSA is moving from one phase to
26 the next with the AMI project, it seemed like a good time to give a more in-
27 depth update than what is given in the monthly report. He stated that there
28 is also an informational video for customers that will be shared with the
29 Board, as well as some discussion about where the project is headed in the
30 future.

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1 Quin Lunsford, Director of Finance, stated that the staff is excited to
2 share that there are over 1,730 meters in the system that have been
3 configured and are communicating back to the office daily. He stated that
4 of those meters, all of the 1 ½ inch and 4-inch meters have been upgraded
5 to communicate through the AMI system, which includes the ACSA's
6 largest customers. He mentioned that all of the meters in Scottsville, as
7 well as a large portion of meters in Crozet have been upgraded as well.

8 Mr. Lunsford stated that the ACSA staff is monitoring the AMI
9 system daily and contacting customers that are flagged for continuous
10 consumption. He stated that the continuous consumption alarms often
11 indicate a leak or inadvertent water use, and there has been incredible
12 feedback from the customer outreach regarding those alarms. He
13 mentioned that most of the time, those alarms are caught between 24-48
14 hours, and involve things like service line issues, flush valves failing at
15 commercial facilities, or a hose bib that was left on. He added that these
16 alarms are not only helpful for conservation, but they also help to prevent
17 the customer having to go through the leak adjustment process or face
18 financial hardship from astronomical bills.

19 Mr. Lunsford stated that the staff has roughly estimated about 1
20 million gallons of water saved through this early detection process, the bulk
21 of that being from one instance at an Albemarle County public school
22 facility. He stated that a flush valve failed at one of the sports facilities that
23 was not being used at the time. He mentioned that the water loss was
24 about 2,000 gallons an hour, which could have been very wasteful if not
25 caught early.

26 Mr. Lunsford stated that the hope is to begin the final phase of this
27 project in early calendar year 2023. He stated that the contractor that is
28 coordinating the implementation of the AMI meters is compiling meter
29 shipments as they come in. He mentioned that the plan is to compile
30 enough meters to deploy the meter installers once.

1 Mr. Lunsford stated that the ACSA staff has worked hard over the
2 last few years to ensure that customers have information pertinent to the
3 AMI project. He stated that one of the ways the ACSA is getting information
4 to customers is through a public service announcement video that was
5 prepared earlier this year. He noted that the video is available on the
6 ACSSA website and outlines the project and what customers can expect
7 during deployment. He stated that once the final deployment begins and
8 meters are being installed continuously throughout the community, there
9 will be a more active push to advertise the video. He stated that he would
10 now share the video with the Board and answer any questions they may
11 have. He added that he did want to thank the staff that appeared in the
12 video.

13 Mr. Tolbert asked if there was any idea as to when the entire
14 system will be complete. Mr. Lunsford replied that it will depend on the
15 meter shipment. He stated that if all 12,000 components were received at
16 one time, the installers could devote a larger team to the project and
17 complete the work more quickly. He stated that if the shipments are
18 staggered, a smaller team may be deployed, and work would be done in
19 smaller segments. He stated that he would estimate it taking about 6-12
20 months once full deployment begins.

21 Mr. O'Connell asked Mr. Lunsford to talk about the status of the
22 network and antennas. Mr. Lunsford replied that in 2019, the ACSA
23 conducted an AMI Feasibility Study. He stated that through that study, the
24 Radio Frequency (RF) engineers identified locations that needed base
25 stations, which are essentially antennas. He stated that with the exception
26 of one location, all of the large base stations have been installed and are
27 communicating with the meters that are currently in the field. He noted that
28 at the one outstanding base station, there was an issue with affixing the
29 antenna to a structure based on rock that was encountered. He stated that
30 this base station is a redundant station, thus the ACSA is evaluating if it is

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1 absolutely necessary. He added that there are also other options using
2 smaller hardware, should there be issues with meters not communicating.

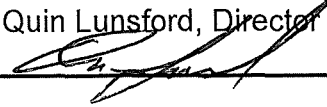
3 Mr. O'Connell stated that the staff has been very pleased with the
4 initial rollout of this project. He stated that he wanted to thank Mr. Lunsford,
5 Kenny Barrow, and the entire Customer Service department. Mr. Lunsford
6 added that staff is excited about the system and recognize its potential to
7 help serve customers.

8
9 9. Adjourn

10 ***There being no further business, Mr. Tolbert moved that the***
11 ***meeting be adjourned, seconded by Mr. Parcels. All members voted***
12 ***aye.***

13
14
15
16
17 _____
18 Gary B. O'Connell, Secretary-Treasurer
19

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

AGENDA TITLE: Monthly Financial Reports	AGENDA DATE: August 18, 2022
STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance 	ACTION: Informational
	ATTACHMENTS: Yes

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

DISCUSSION:

- Water consumption for the month of June increased 4.2% compared to May. Water consumption for the month of June 2022 compared to June 2021 decreased 6.5%.
- The ACSA Customer Service Team continues to work closely with customers that are in arrears. These efforts have led to 74 "payment plans" and totals over \$65,000 in deferred delinquent charges. This group has and continues to diligently work to assist our customers. Staff is scheduled to present a comprehensive update on overall arrearages, assistance provided, and additional steps to improve collections.
- RWSA's invoice of \$1,812,590 for the month of June was paid on July 8, 2022.
- Unearned water and sewer connection charges totaled \$1,895,192 at month end.
- System connection charges were above budgeted expectations with \$662,330 recognized in June. Total system connection charges for FY 2022 are less than those in FY 2021 by 12%.
- Water and Wastewater revenues for FY 2023 are above budgeted expectations by 5.0%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption are considered, revenues are 2.5% lower than budgeted expectations.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

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

1. Statement of Net Position
2. Year-to-Date Budget to Actual Comparison/Commentary
3. 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

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STATEMENT OF NET POSITION
July 31, 2022

ASSETS

Cash and cash equivalents	\$ 8,782,702
Accounts receivable	4,984,861
Investments	42,903,668
Capital assets: (net of accumulated depreciation)	176,763,715
Inventory	587,091
Prepays	240,025
Cash and cash equivalents, restricted	640,361
	<hr/>
Total assets	234,902,423

DEFERRED OUTFLOWS OF RESOURCES

Combined deferred outflows of resources	<hr/> 1,856,772
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LIABILITIES

Accounts payable	2,283,628
Accrued liabilities	367,570
Compensated absences	693,271
Net pension liability	3,659,743
Other post-employment benefits	1,448,953
Unearned connection fees	1,895,192
Long-term debt	5,044,118
	<hr/>
Total liabilities	15,392,475

DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	<hr/> 584,136
--	---------------

NET POSITION

220,782,584

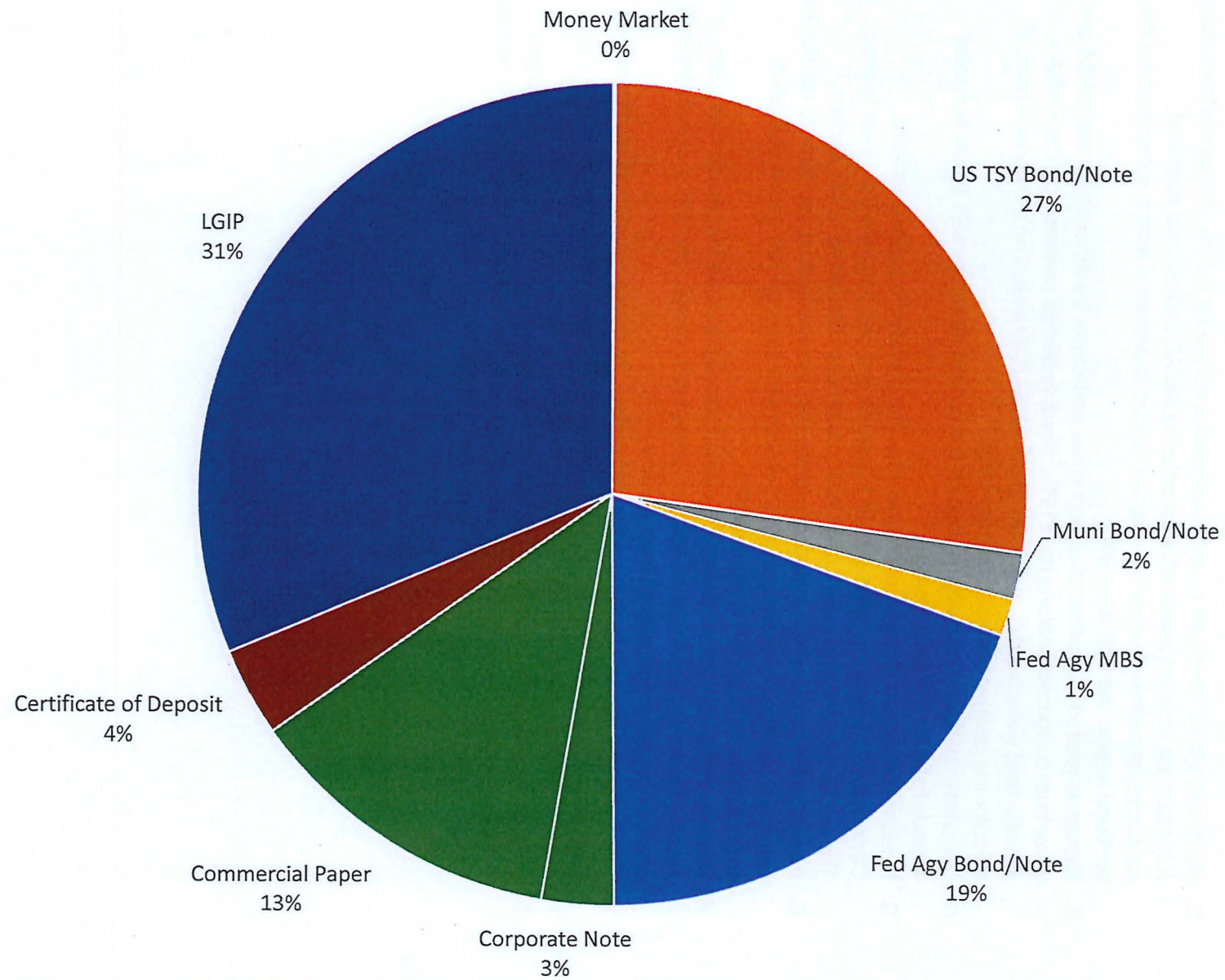
ALBEMARLE COUNTY SERVICE AUTHORITY
For the One Month Ending July 31, 2022

	Budget FY 2023	Budget Year-to-Date 2023	July Actual Year-to-Date	Actual vs. Budget	Variance Percentage
Revenues					
Water Sales	19,285,000.	1,607,083.	1,709,127.	102,044.	6.35%
Sewer Service	15,137,000.	1,261,417.	1,303,100.	41,683.	3.30%
Total operating revenues	34,422,000.	2,868,500.	3,012,227.	143,727.	5.01% A
Operating Expenses					
Purchase of bulk water	(13,774,000.)	(1,147,833.)	(1,170,607.)	(22,774.)	1.98% B
Purchase of sewer treatment	(10,776,000.)	(898,000.)	(871,350.)	26,650.	(2.97%) B
Administration	(1,286,500.)	(107,208.)	(83,759.)	23,449.	(21.87%) C
Finance	(2,502,100.)	(208,508.)	(151,853.)	56,655.	(27.17%) C
Information Technology	(1,521,900.)	(126,825.)	(63,228.)	63,597.	(50.15%) C
Engineering	(2,288,400.)	(190,700.)	(182,992.)	7,708.	(4.04%) C
Maintenance	(4,509,000.)	(375,750.)	(254,272.)	121,478.	(32.33%) C
Total operating expenses	(36,657,900.)	(3,054,825.)	(2,778,061.)	276,764.	(9.06%)
Operating gain(loss)	(2,235,900.)	(186,325.)	234,166.	420,491.	(225.68%)
Nonoperating Revenues					
System connection charges	5,926,800.	493,900.	832,710.	338,810.	68.60% D
Investment/Interest Income	100,000.	8,333.	115,082.	106,749.	1280.98% E
Rental income	16,000.	1,333.	1,215.	(118.)	(8.88%)
Miscellaneous revenues	455,000.	37,917.	71,243.	33,326.	87.89% F
Total nonoperating revenues (expenses)	6,497,800.	541,483.	1,020,250.	478,767.	88.42%
Nonoperating Expenses					
Miscellaneous expenses	(434,200.)	(36,183.)	0.	36,183.	(100.00%) G
Bond interest charges	(162,272.)	(13,523.)	(94.)	13,429.	(99.30%) H
Depreciation	0.	0.	(342,288.)	(342,288.)	0.00% I
Total nonoperating revenues (expenses)	(596,472.)	(49,706.)	(342,382.)	(292,676.)	588.81%
Capital contributions	0.	0.	4,167.	4,167.	0.00%
Change in Net Position	3,665,428.	305,452.	916,201.	610,749.	199.95%

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

- A.** Water and sewer revenues exceed budgeted amounts by 5.01%. Consumption through July (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 lower than budgeted amounts by 0.19%. Monthly billings prepared by the RWSA allocate total water/wastewater flows to the ACSA/City based on the consumption of each for the quarter immediately preceding.
- C.** Departmental operating budgets through the current month remain below budgeted expectations for the fiscal year.
- D.** System connection charges are higher than the prorated budgeted amount. Connection charges are often difficult to project and can fluctuate from year to year. These charges are dependent upon new customers connecting to the system.
- E.** Investment income, which includes both interest income and adjustments to fair market value are recorded in these accounts. Investment earnings are above 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 **July 31, 2022**

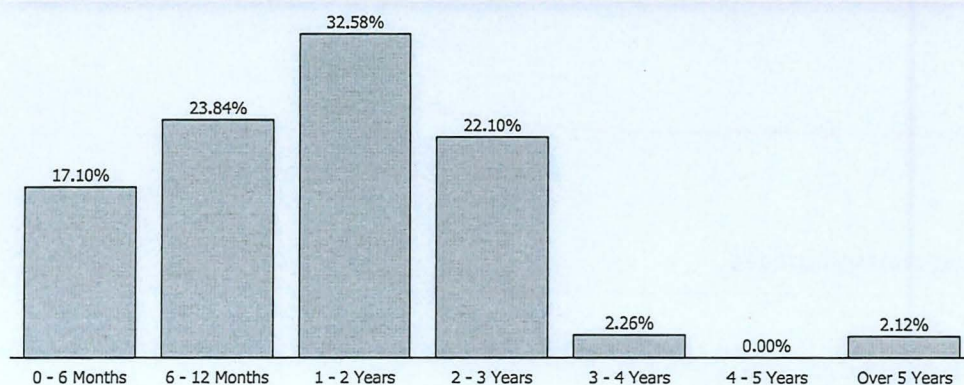
ACSA OPERATING FUNDS - 03100100

Account Summary

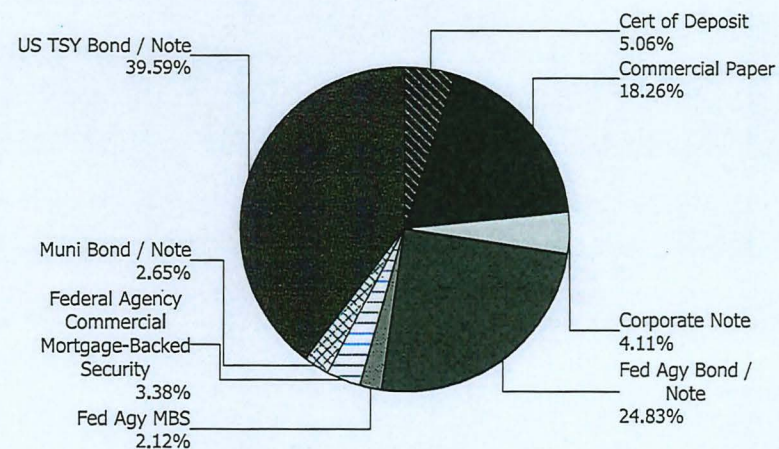
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	12,105,000.00	11,650,931.30	39.59
Municipal Bond / Note	800,000.00	778,205.00	2.65
Federal Agency Mortgage-Backed Security	632,208.87	623,173.43	2.12
Federal Agency Commercial Mortgage-Backed Security	1,002,073.50	993,313.20	3.38
Federal Agency Bond / Note	7,460,000.00	7,303,545.35	24.83
Corporate Note	1,225,000.00	1,209,009.10	4.11
Commercial Paper	5,400,000.00	5,371,474.80	18.26
Certificate of Deposit	1,500,000.00	1,488,890.45	5.06
Managed Account Sub-Total	30,124,282.37	29,418,542.63	100.00%
Accrued Interest		42,986.67	
Total Portfolio	30,124,282.37	29,461,529.30	

Unsettled Trades **600,000.00** **599,559.60**

Maturity Distribution



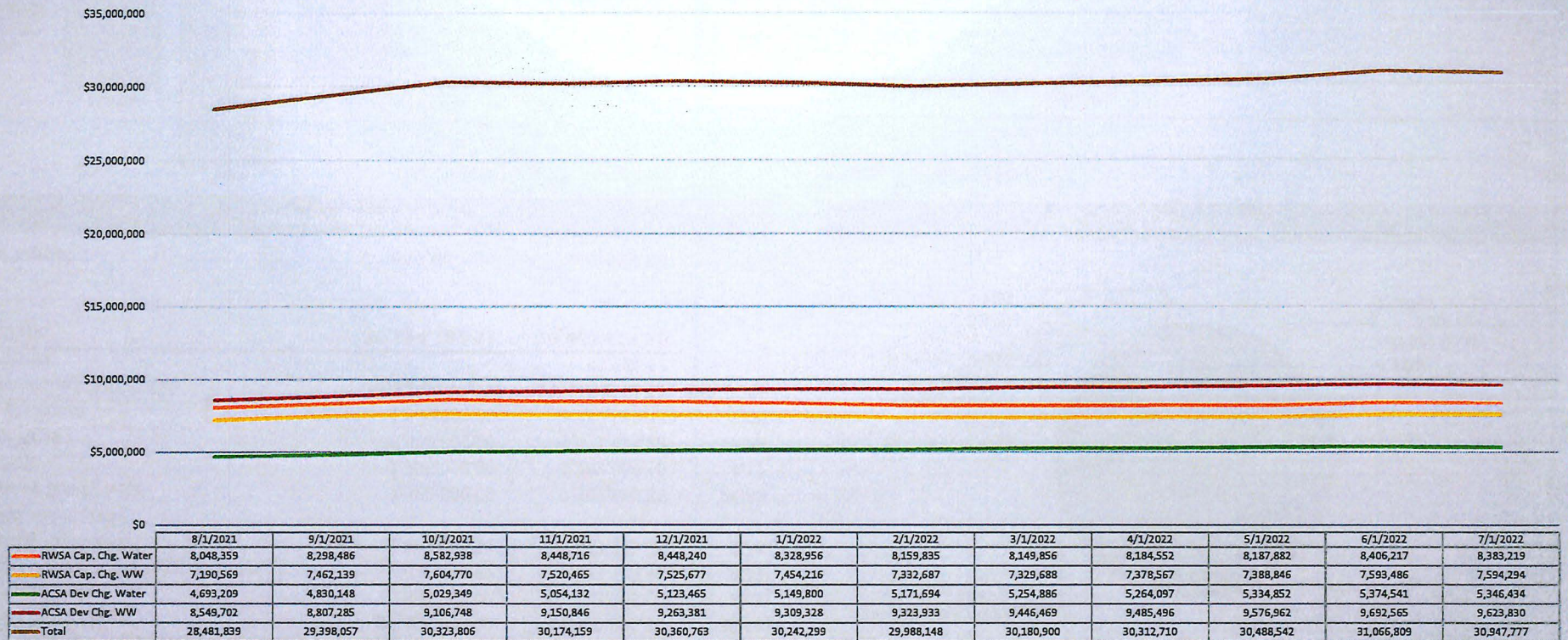
Sector Allocation



Characteristics

Yield to Maturity at Cost	1.10%
Yield to Maturity at Market	3.08%
Weighted Average Days to Maturity	552

Capacity/System Development Reserves



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

Albemarle County Service Authority
Connection Fee Analysis
June 2022

Area	June 2022 Monthly Connection Fees	June 2021 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 121,230	\$ 228,990	\$ (107,760)	-47%
Urban	541,100	269,060	272,040	101%
Scottsville	-	-	-	-
Total Connection fees	\$ 662,330	\$ 498,050	\$ 164,280	33%
Through June				
Area	YTD FY 2022 Connection Fees	YTD FY 2021 Connection Fees	\$ Change	% Change
Crozet	\$ 1,571,100	\$ 3,054,705	\$ (1,483,605)	-49%
Urban	7,229,542	6,912,988	316,554	5%
Scottsville	-	-	-	-
Total Connection fees	\$ 8,800,642	\$ 9,967,693	\$ (1,167,051)	-12%

Area	June 2022 ERC's	June 2021 ERC's	Change	% Change
Crozet	9	17	(8)	-47%
Urban	40	20	20	100%
Scottsville	-	-	-	-
Total ERC's	49	37	12	32%
Through June				
Area	YTD FY 2022 ERC's	YTD FY 2021 ERC's	Change	% Change
Crozet	117	227	(110)	-48%
Urban	537	513	24	5%
Scottsville	-	-	-	-
Total ERC's - YTD	654	740	(86)	-12%

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
June 2022**

Area	June 2022 ERC's	June 2021 ERC's	June 2020 ERC's
Crozet	9	17	19
Urban	40	20	34
Scottsville	-	-	-
Total ERC's	49	37	53

Through June			
Area	YTD 2022 ERC's	YTD 2021 ERC's	YTD 2020 ERC's
Crozet	117	227	247
Urban	537	513	555
Scottsville	-	-	1
Total ERC's - YTD	654	740	803

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 2022 appear reasonable considering continued development within the ACSA's service area.

**Albemarle County Service Authority
Consumption Analysis
Fiscal Year 2022**

	FY 2022 Consumption	FY 2021 Consumption		Monthly Precipitation (In.)	
				FY 2022	FY 2021
July	162,247,194	158,247,100	2.53%	2.30	3.94
August	183,549,927	160,498,300	14.36%	4.60	7.90
September	167,986,757	152,817,725	9.93%	5.46	4.90
October	159,438,005	146,675,175	8.70%	5.26	5.90
November	148,641,595	143,888,525	3.30%	1.01	4.84
December	140,551,064	129,490,677	8.54%	0.26	5.70
January	142,192,560	141,920,135	0.19%	4.04	2.37
February	127,434,073	119,808,532	6.36%	1.81	4.51
March	131,636,356	128,124,393	2.74%	3.50	2.13
April	135,122,656	131,020,458	3.13%	3.23	3.24
May	144,519,955	145,813,573	-0.89%	6.04	0.81
June	150,608,842	161,128,651	-6.53%	4.11	2.80
	1,793,928,984	1,719,433,244		41.62	49.04

YTD	1,793,928,984	1,719,433,244	4.33%	41.62	49.04
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Note: Consumption through June 2022 is 4.33% more than the same period in fiscal year 2021. Monthly precipitation figures have been included for comparison purposes. Trends in rainfall can sometimes correlate with trends in consumption however, depending on the intensity, days between rain events, or other factors, this may not always be the case.

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



Water and Sewer Report

(Volumes in Gallons)

June 2022

Billed by Area:	Water	Sewer
Crozet	16,888,667	15,297,765
Scottsville	1,587,343	889,019
Urban	132,092,488	112,395,209
Red Hill	40,344	0
Total	150,608,842	128,581,993

Billing by Sewer Plant:	
AWT	127,692,974
less Glenmore	(4,377,322)
Urban Total	123,315,652
Scottsville	889,019
Total	124,204,671

Number of Installed Meters:	
Urban	26
Crozet	10
Scottsville	0
Total	36

Metered Consumption:	
Urban	1,581,900
Crozet	72,600
Scottsville	0
Total	1,654,500

Unmetered Consumption:	
ACSA Fire Flow Consump.	Urban 25,560

Unmetered Leak Consumption:	
1595 Derby Lane	Urban 100
1469 Wickham Pond Dr	Urban 200
Total	300

Billed Consumption for Selected Customers

	<u>Water</u>	<u>Sewer</u>
*Virginia Land Holding	325,488	325,488
Southwood Mobile Homes	1,655,000	2,050,000
Turtle Creek Apts.	1,223,764	1,217,464
Barracks West Apartments	1,473,800	1,473,800
Monroe Health and Rehab	769,579	769,579
Sunrise Senior "Colonnades"	926,997	804,997
ACRJ	1,073,840	941,840
Westminster Canterbury	1,536,450	1,394,450
SEMF Charleston	1,449,054	1,449,054
Martha Jefferson Hospital	2,138,315	1,173,315
Crozet Mobile Home Village	236,100	236,100
Fashion Square Mall	143,390	143,390
County of Albemarle	1,581,998	1,247,408
University of Virginia	2,299,273	2,291,756
Wegmans	319,534	319,534

	<u>Water</u>	<u>Sewer</u>
Boar's Head Inn	479,620	397,220
Farmington, Inc.	718,831	465,280
Westgate Apts.	1,355,491	1,355,491
Abbingdon Crossing	1,571,998	1,571,998
Four Seasons Apts	1,479,526	1,479,526
Ch'ville/Alb Airport	195,064	196,208
State Farm	106,660	43,660
Hyatt @ Stonefield	340,496	340,496
Doubletree	682,153	682,153
Arden Place Apts.	435,946	435,946
Hilton Garden Inn	266,395	266,395
Ridgewood Homes	0	n/a
The Lodge @ Old Trail	225,377	225,377
Gov't-Defense Complex	1,007,619	880,482
Harris Teeter Stores	180,681	180,681

* Indicates Industrial Discharge Permit Holders

June 2022

WATER

Class Type	Number of Connections by Area			Total
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	15,592	3,687	196	19,475
Multi-Family Residential	546	43	3	592
Commercial (Offices)	203	12	5	220
Commercial (Other)	916	76	52	1,044
Industrial	36	9	4	49
Institutional	171	32	12	215
Total Water Accounts	17,464	3,859	272	21,595
Plus Multiple Units	12,664	748	89	13,501
Total Water Units	30,128	4,607	361	35,096

SEWER

Class Type	Number of Connections by Area			Total
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	13,284	3,409	158	16,851
Multi-Family Residential	515	41	4	560
Commercial (Offices)	187	12	5	204
Commercial (Other)	711	52	44	807
Industrial	15	5	1	21
Institutional	133	25	10	168
Total Sewer Accounts	14,845	3,544	222	18,611
Plus Multiple Units	12,247	745	56	13,048
Total Sewer Units	27,092	4,289	278	31,659

POPULATION SERVED

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

	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	<u>Total</u>
Total Water Customers	70,640	11,088	713	82,440
Total Sewer Customers	63,828	10,385	535	74,748

Albemarle County Service Authority
Major Customer Analysis
June 2022 and May 2022

	June 2022		May 2022		Increase(Decrease) Water Consumption	Increase(Decrease) Sewer Usage
	Water*	Sewer*	Water*	Sewer*		
Martha Jefferson Hospital	2,138,315	1,173,315	1,577,978	995,978	35.51%	17.81%
Westgate Apts.	1,355,491	1,355,491	1,067,849	1,066,649	26.94%	27.08%
Westminster Canterbury	1,536,450	1,394,450	1,337,210	1,303,210	14.90%	7.00%
University of Virginia	2,299,273	2,291,756	2,114,156	2,071,179	8.76%	10.65%
Four Seasons Apts.	1,479,526	1,479,526	1,385,203	1,385,203	6.81%	6.81%
County of Albemarle	1,581,996	1,247,408	1,513,378	1,334,941	4.53%	-6.56%
SEMF Charleston	1,449,054	1,449,054	1,400,593	1,400,593	3.46%	3.46%
Abbingdon Crossing	1,571,998	1,571,998	1,572,592	1,572,592	-0.04%	-0.04%
Southwood Mobile Homes	1,655,000	2,050,000	1,687,000	3,606,328	-1.90%	-43.16%
Turtle Creek Apts.	1,223,764	1,217,464	1,271,021	1,265,621	-3.72%	-3.81%
ACRJ	1,073,840	941,840	1,120,190	1,029,190	-4.14%	-8.49%
Old Salem Apts.	1,473,800	1,473,800	1,852,000	1,852,000	-20.42%	-20.42%

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
June 2022 and June 2021

	June 2022		June 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Martha Jefferson Hospital	2,138,315	1,173,315	1,633,172	934,172	30.93%	25.60%
Westgate Apts.	1,355,491	1,355,491	1,311,000	1,311,000	3.39%	3.39%
Southwood Mobile Homes	1,655,000	2,050,000	1,655,000	2,736,055	0.00%	-25.07%
County of Albemarle	1,581,996	1,247,408	1,627,755	864,555	-2.81%	44.28%
Westminster Canterbury	1,536,450	1,394,450	1,585,140	1,465,140	-3.07%	-4.82%
Four Seasons Apts.	1,479,526	1,479,526	1,585,000	1,585,000	-6.65%	-6.65%
Old Salem Apts.	1,473,800	1,473,800	1,601,100	1,601,100	-7.95%	-7.95%
Turtle Creek Apts.	1,223,764	1,217,464	1,359,800	1,358,000	-10.00%	-10.35%
University of Virginia	2,299,273	2,291,756	2,607,181	2,594,200	-11.81%	-11.66%
ACRJ	1,073,840	941,840	1,491,760	1,367,760	-28.02%	-31.14%
SEMF Charleston	1,449,054	1,449,054	2,463,450	2,463,450	-41.18%	-41.18%
Abbingdon Crossing	1,571,998	1,571,998	3,380,200	3,380,200	-53.49%	-53.49%

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 -- June

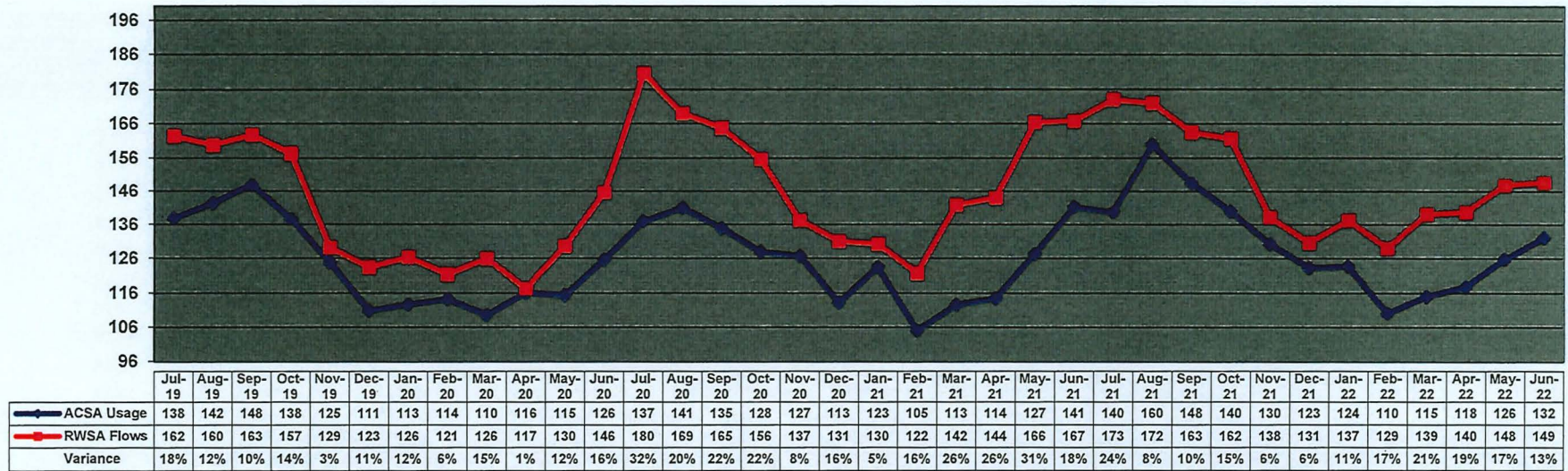
	YTD FY 2022		YTD FY 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	16,665,097	13,487,323	12,090,106	8,691,007	37.84%	55.19%
University of Virginia	27,168,485	26,199,487	24,154,124	23,589,900	12.48%	11.06%
Martha Jefferson Hospital	21,519,595	12,781,495	19,186,588	12,097,788	12.16%	5.65%
Westminster Canterbury	17,623,050	15,875,050	16,368,290	15,814,705	7.67%	0.38%
Westgate Apts.	14,744,275	14,731,875	14,481,000	14,466,800	1.82%	1.83%
Four Seasons Apts.	18,582,556	18,582,556	18,828,000	18,828,000	-1.30%	-1.30%
Old Salem Apts.	18,313,700	18,313,700	18,885,900	18,885,900	-3.03%	-3.03%
Southwood Mobile Homes	21,831,000	47,324,231	23,024,000	24,128,002	-5.18%	96.14%
Abbingdon Crossing	20,913,323	20,913,323	23,461,700	23,461,700	-10.86%	-10.86%
SEMF Charleston	22,579,303	22,579,303	25,370,000	25,370,000	-11.00%	-11.00%
ACRJ	16,113,290	14,773,290	18,768,680	17,719,680	-14.15%	-16.63%
Turtle Creek Apts.	15,491,435	15,459,435	19,478,600	19,465,000	-20.47%	-20.58%

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.

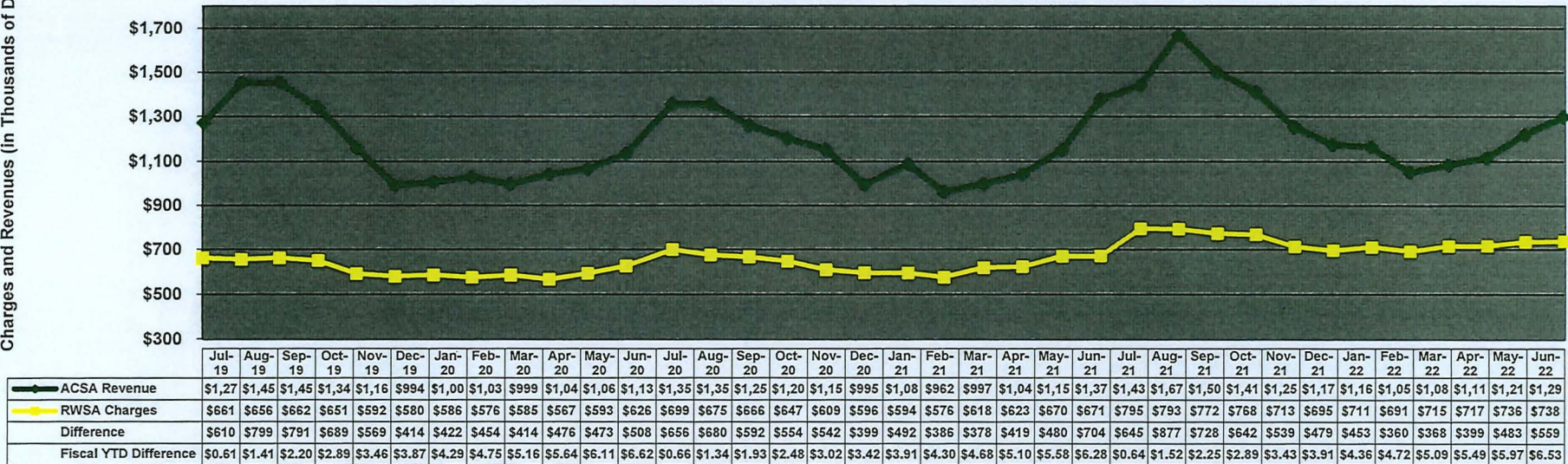
FY 2020, 2021, and 2022 Urban Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



FY 2020, 2019, and 2022 Urban Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

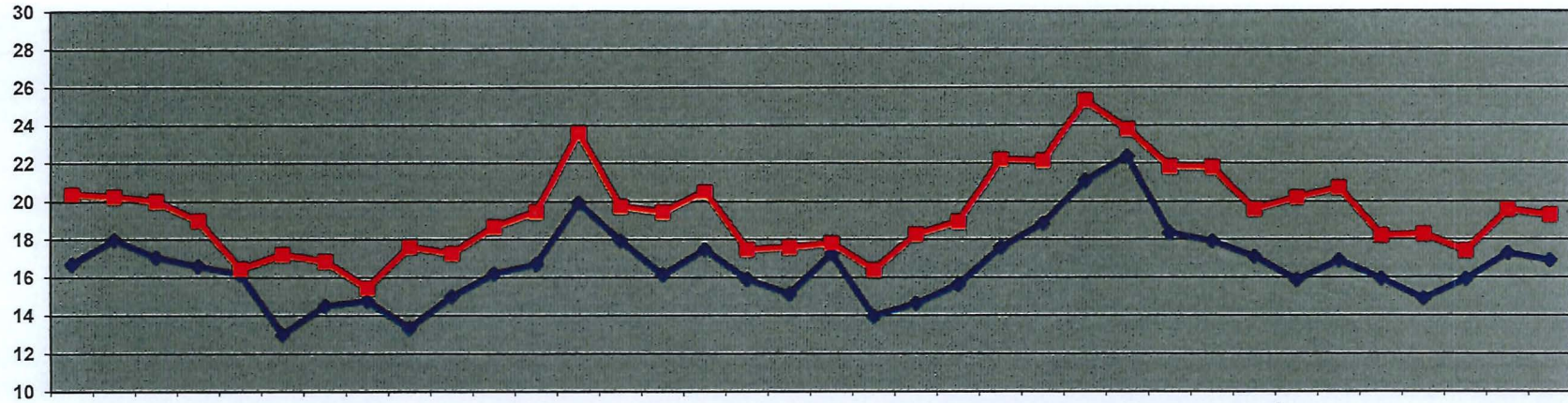
Charges and Revenues (in Thousands of Dollars)





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

**FY 2020, 2021, and 2022 Crozet Water Comparison
RWSA Flows & ACSA Customer Usage**

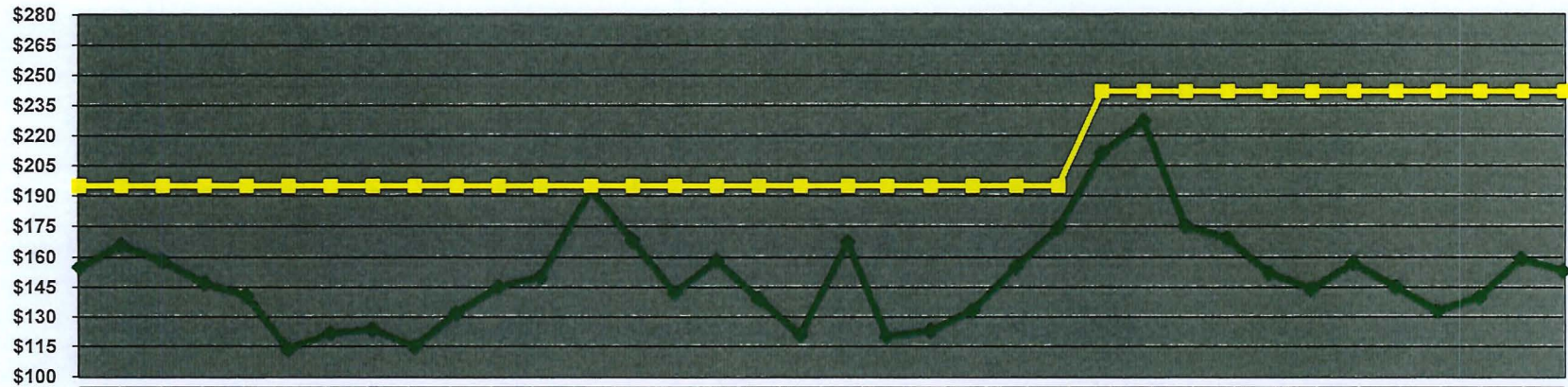
Flows & Usage (in Millions of Gallons)



	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	
 ACSA Usage	17	18	17	17	16	13	15	15	13	15	16	17	20	18	16	17	16	15	17	14	15	16	18	19	21	21	22	18	18	17	16	17	16	15	16	17	17
 RWSA Flows	20	20	20	19	16	17	17	15	18	17	19	19	24	20	19	21	17	18	18	16	18	19	22	22	25	24	22	22	20	20	21	18	18	17	20	19	
Variance	22%	13%	17%	14%	2%	32%	16%	4%	32%	15%	15%	17%	18%	10%	21%	18%	10%	16%	3%	17%	25%	21%	26%	18%	20%	6%	19%	22%	15%	27%	23%	14%	23%	9%	13%	14%	

**FY 2020, 2021, and 2022 Crozet Water Comparison
RWSA Billed Water Charges & ACSA Billed Water Revenues**

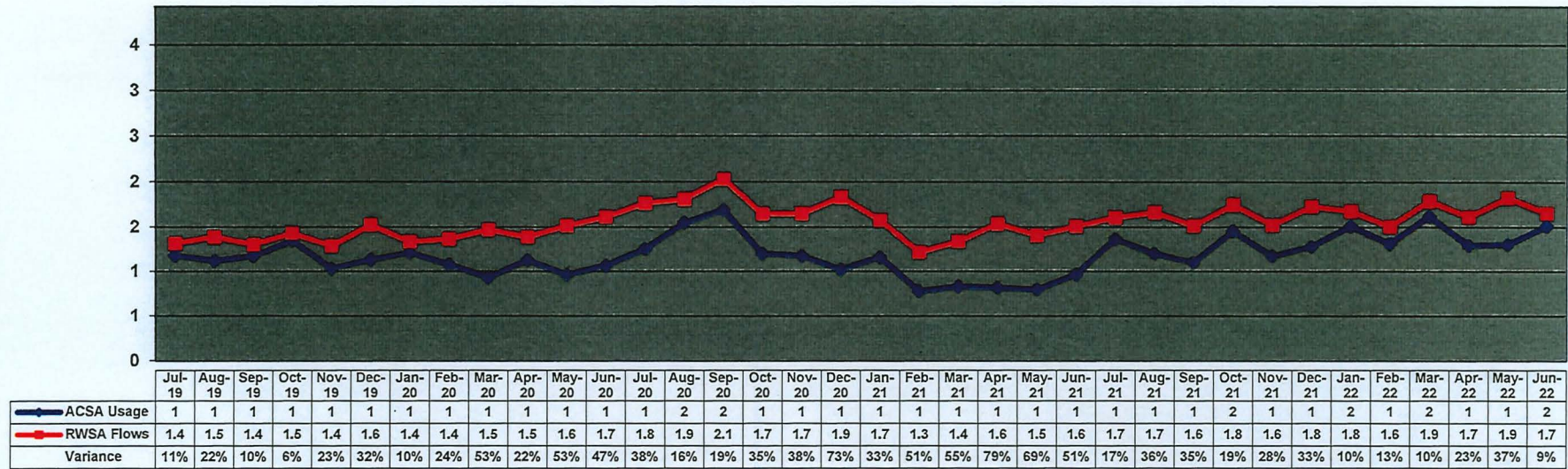
Charges and Revenues (in Thousands of Dollars)



	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
ACSA Revenue	\$155	\$166	\$158	\$147	\$141	\$114	\$122	\$124	\$115	\$132	\$145	\$150	\$193	\$168	\$142	\$158	\$139	\$121	\$167	\$120	\$123	\$133	\$155	\$174	\$211	\$227	\$175	\$169	\$152	\$144	\$157	\$145	\$133	\$140	\$159	\$153
RWSA Charges	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$195	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242	\$242
Difference	(\$40)	(\$29)	(\$37)	(\$48)	(\$54)	(\$81)	(\$73)	(\$71)	(\$80)	(\$63)	(\$50)	(\$45)	(\$2)	(\$27)	(\$53)	(\$37)	(\$56)	(\$74)	(\$28)	(\$75)	(\$72)	(\$62)	(\$40)	(\$21)	(\$31)	(\$15)	(\$67)	(\$73)	(\$90)	(\$98)	(\$85)	(\$97)	(\$109)	(\$102)	(\$83)	(\$89)
Fiscal YTD Difference	-\$0.0	-\$0.0	-\$0.1	-\$0.1	-\$0.2	-\$0.2	-\$0.3	-\$0.4	-\$0.5	-\$0.5	-\$0.6	-\$0.6	\$0.00	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	-\$0.0	(\$0.0)	(\$0.1)	(\$0.1)	(\$0.2)	(\$0.3)	(\$0.4)	(\$0.5)	(\$0.6)	(\$0.7)	(\$0.8)	(\$0.9)

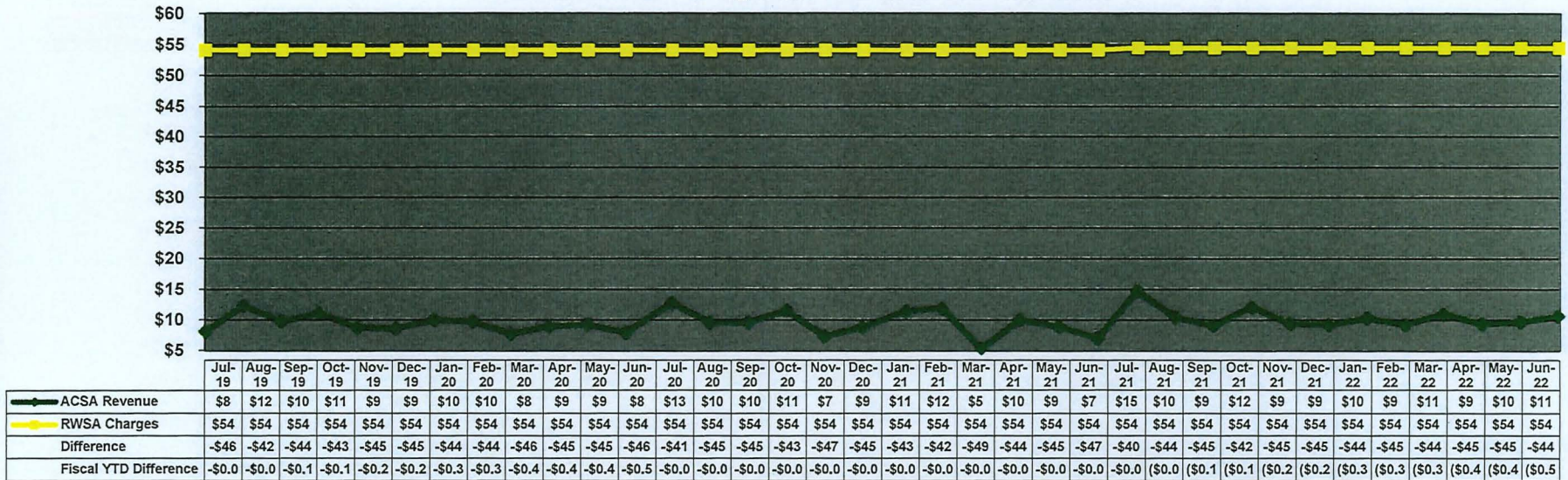
FY 2020, 2021, and 2022 Scotts Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



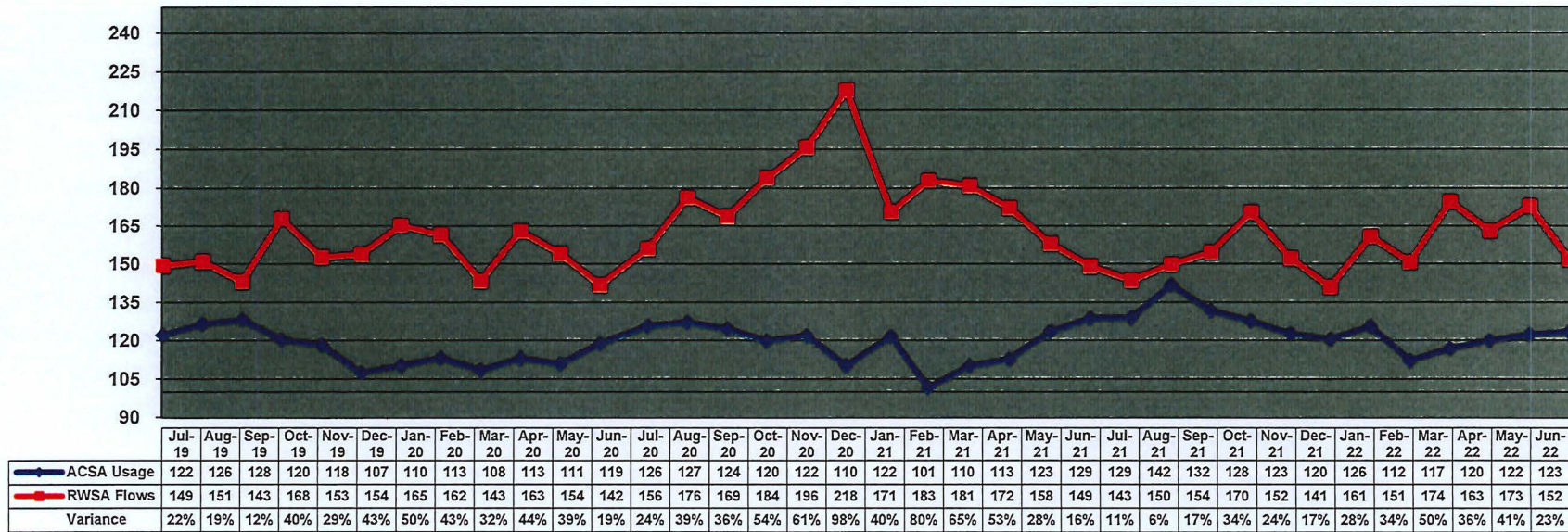
FY 2020, 2021, and 2022 Scottsville Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

Charges and Revenues (in Thousands of Dollars)



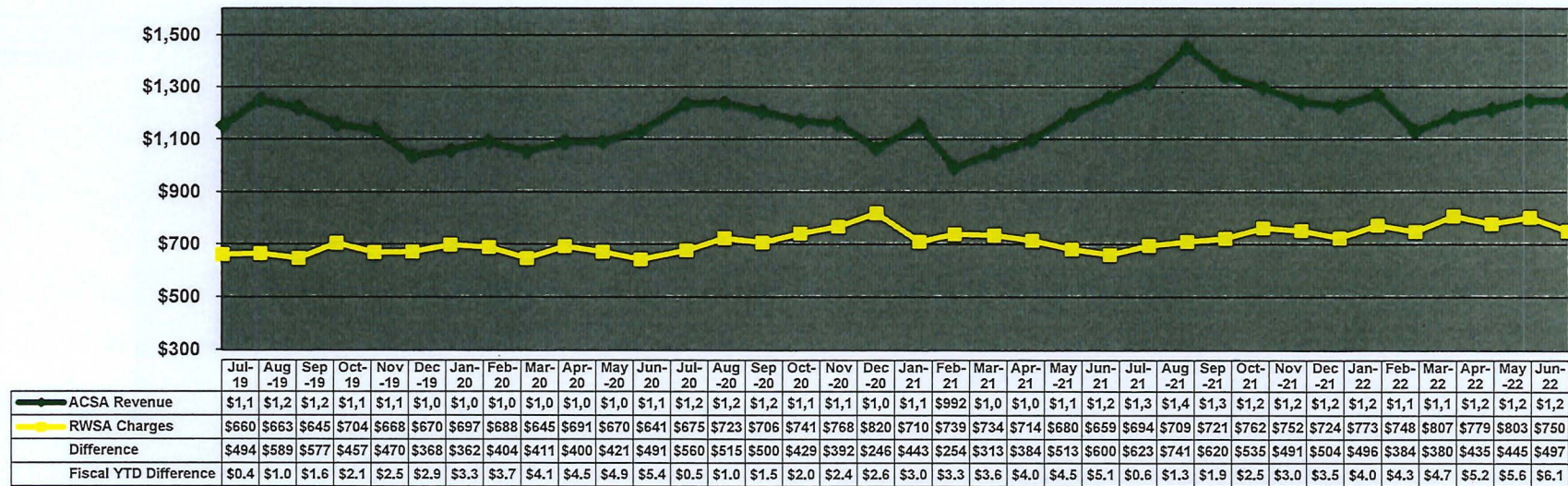
**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Customer Usage & RWSA Flows**

Usage & Flows (in Millions of Gallons)



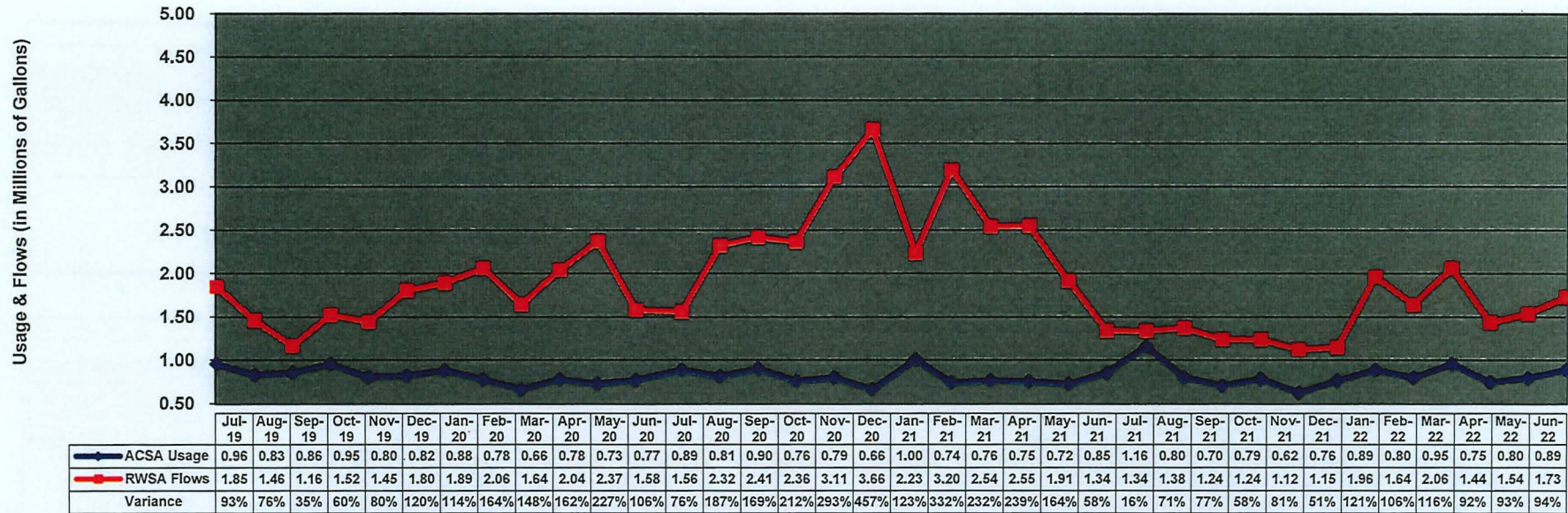
**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Billed Sewer Usage & RWSA Billed Sewer Charges**

Charges & Revenues (in Thousands of Dollars)

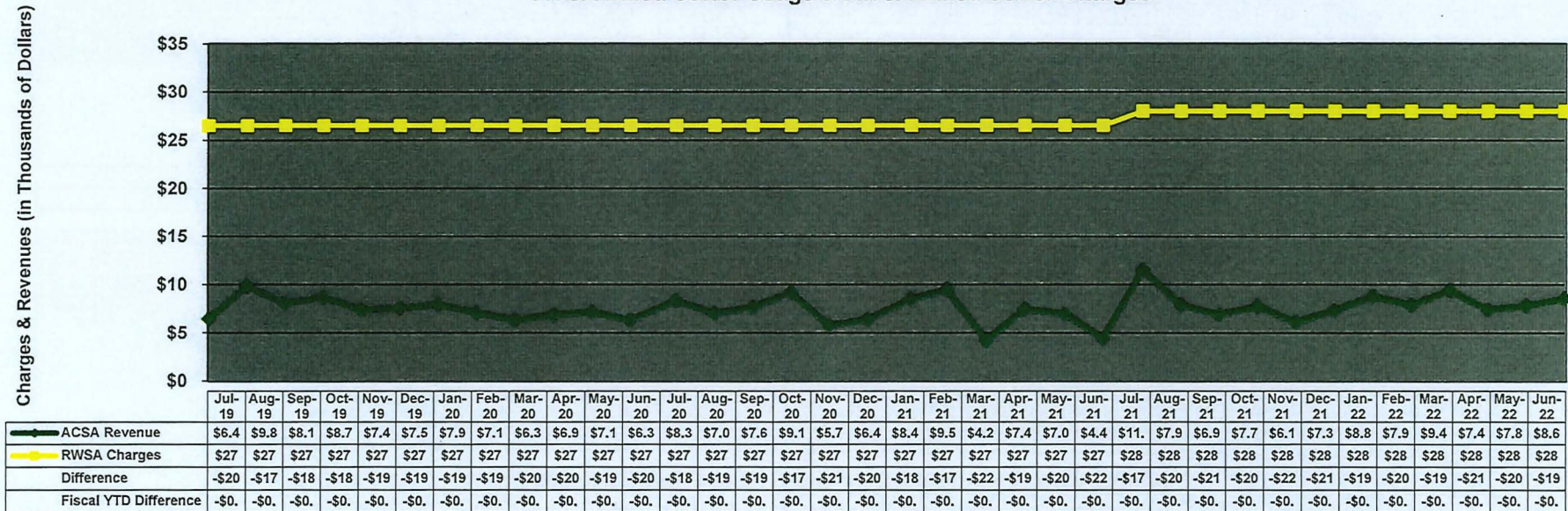


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

FY 2020, 2021, and 2022 Scottsville Sewer Comparison ACSA Customer Usage & RWSA Flows



FY 2020, 2021, and 2022 Scottsville Sewer Comparison ACSA Billed Sewer Usage & RWSA Billed Sewer Charges



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

Single-Family Residential Water Usage

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

	FY 2020											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	42,713,300	43,137,333	43,334,400	43,096,780	42,936,430	42,119,430	42,703,630	42,241,370	41,816,500	44,763,900	44,866,800	45,270,400
Level 2 (3,001 - 6,000 gallons)	15,949,700	16,292,100	16,866,900	16,130,400	14,335,400	12,178,000	13,878,000	12,751,500	11,702,100	17,979,400	18,259,500	19,520,800
Level 3 (6,001 - 9,000 gallons)	4,810,200	5,067,100	5,227,300	5,376,600	3,511,800	2,062,800	2,654,300	2,244,300	1,845,500	4,227,900	4,419,500	5,469,300
Level 4 (over 9,000 gallons)	7,075,500	7,794,200	8,297,500	8,434,400	3,764,200	1,254,000	1,733,000	1,154,300	2,152,500	1,849,800	2,662,900	3,968,100
Total	70,548,700	72,290,733	73,726,100	73,038,180	64,547,830	57,614,230	60,968,930	58,391,470	57,516,600	68,821,000	70,208,700	74,228,600

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

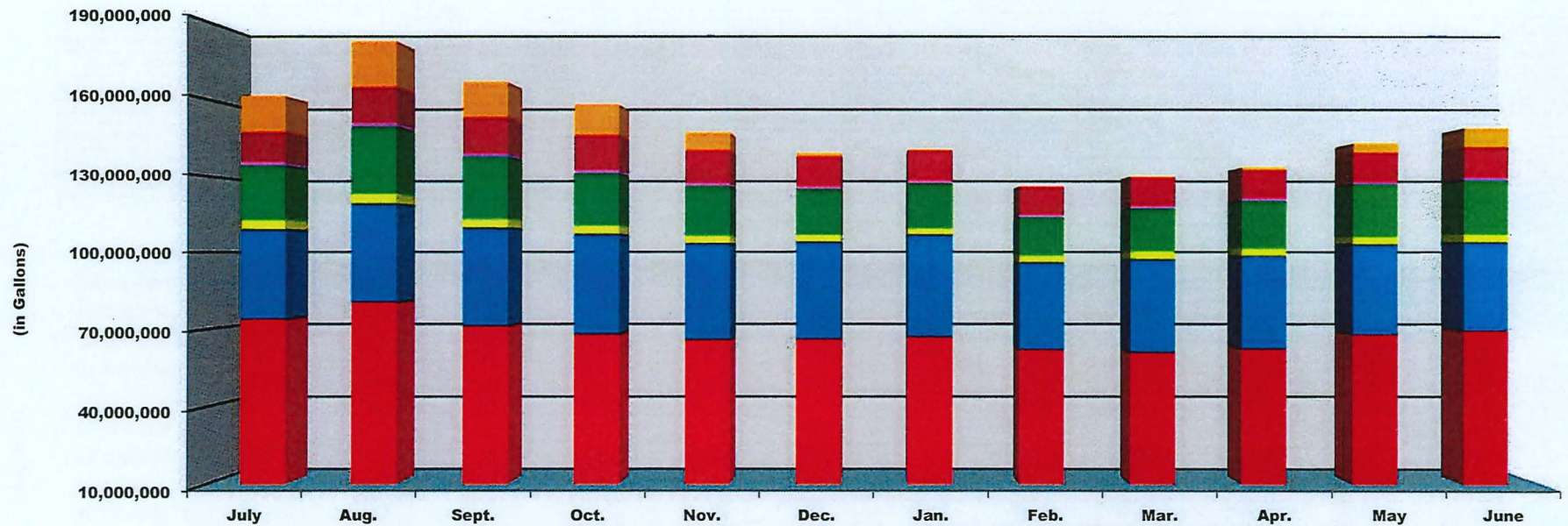
	FY 2022											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,715,768	46,650,649	45,763,766	45,032,204	45,171,862	45,419,967	45,519,835	43,528,147	44,213,375	44,847,991	45,928,802	46,038,996
Level 2 (3,001 - 6,000 gallons)	18,273,794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

System-Wide Irrigation Water Usage

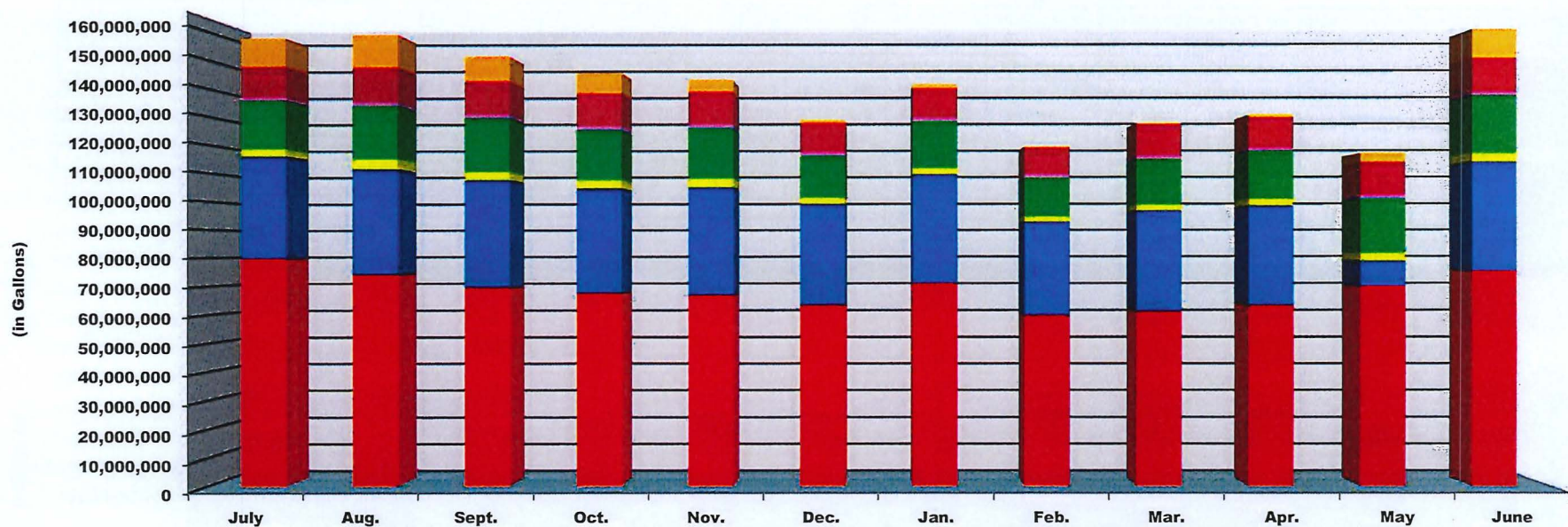
(All usage measured through exclusion, irrigation, and auxiliary meters)

FY 2022	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	227,735	245,814	228,478	203,450	155,121	17,400	3,524	3,931	8,114	24,844	76,177	150,165
Level 2 (3,001 - 6,000 gallons)	962,522	1,040,603	904,153	849,482	602,101	69,638	14,390	13,183	17,563	39,381	277,100	638,368
Level 3 (6,001 - 9,000 gallons)	1,134,487	1,351,889	1,085,629	1,060,900	690,400	56,305	11,043	10,729	12,057	34,193	283,548	694,310
Level 4 (over 9,000 gallons)	11,756,763	15,108,350	11,413,176	9,936,698	5,645,695	1,263,435	441,698	329,481	459,753	960,114	3,032,903	6,008,211
Total	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

Monthly Water Consumption Fiscal Year 2022

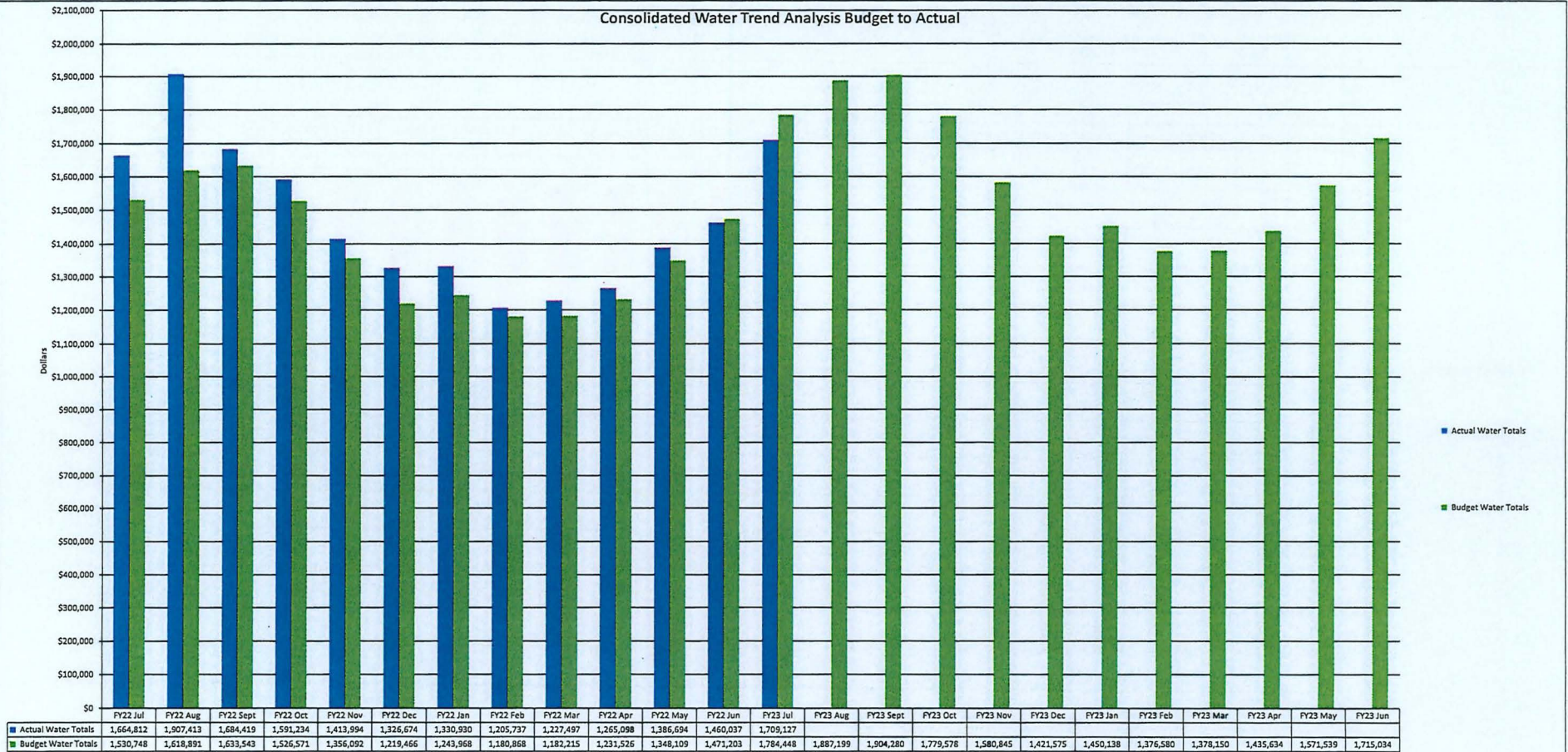


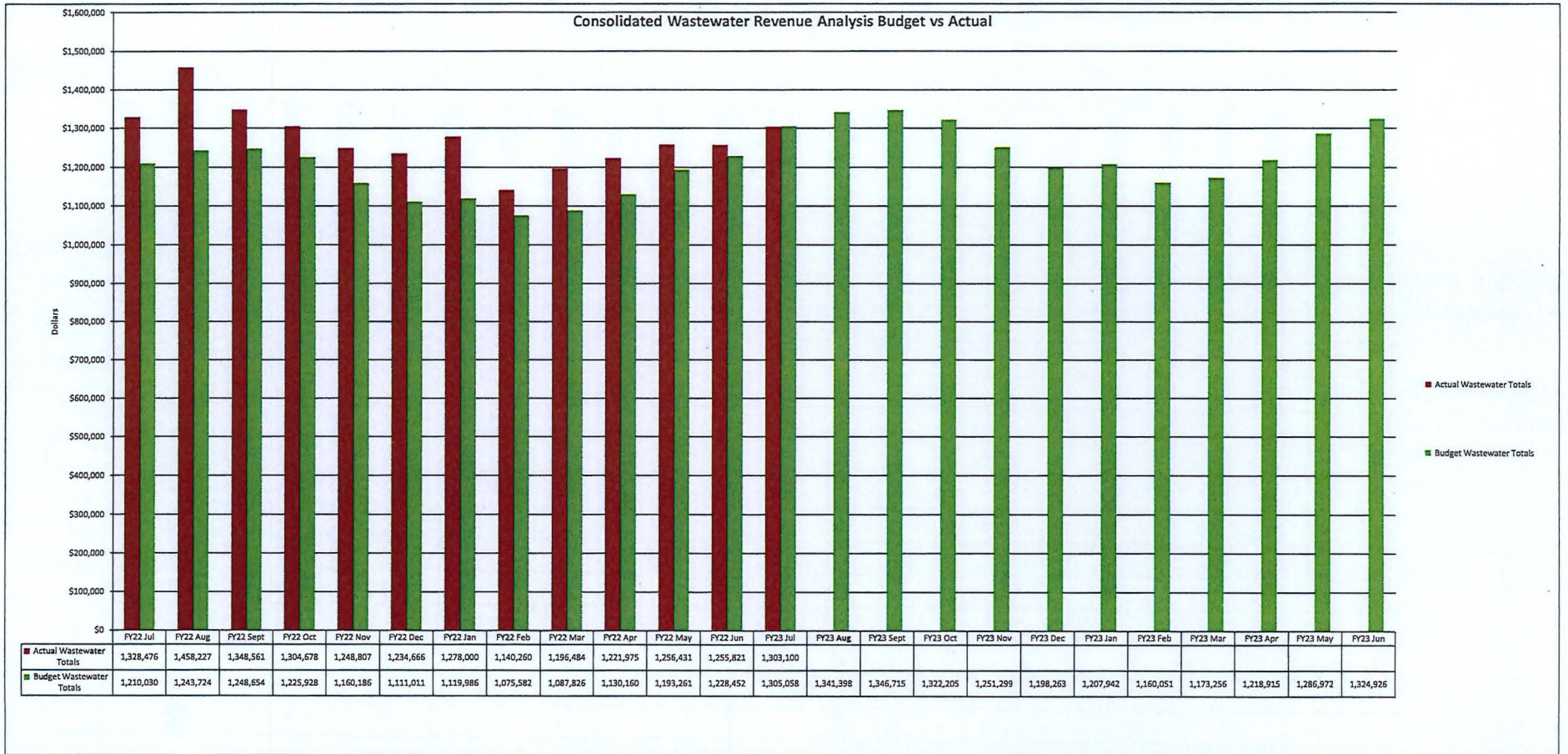
Monthly Water Consumption Fiscal Year 2021



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	6.43%	7.32%	5.75%	5.06%	2.94%	0.85%	0.99%	0.38%	0.35%	0.69%	2.81%	6.44%
Total Irrigation	10,119,091	11,616,375	8,666,494	7,348,137	4,183,034	1,083,884	1,388,900	448,272	442,048	894,200	3,277,869	10,315,679
Institutional - Domestic Consumption	10,568,409	12,140,425	11,678,506	11,592,763	11,532,166	10,326,116	10,458,000	9,512,728	11,284,152	10,850,000	11,623,430	11,941,286
Industrial	886,300	1,008,000	998,100	964,600	959,200	898,200	866,700	1,017,500	887,700	842,500	942,247	919,754
Comm. (Other) - Domestic Consumption	17,206,900	18,949,400	18,962,000	17,753,400	17,829,600	14,671,800	16,424,700	13,374,600	15,838,400	16,733,200	19,222,088	20,173,174
Offices - Domestic Consumption	2,911,400	3,649,600	3,121,500	3,109,800	3,273,900	2,403,400	2,476,900	2,068,300	2,213,000	2,563,700	2,911,328	3,450,136
MFR - Domestic Consumption	36,132,000	37,252,500	37,977,025	37,009,175	37,967,925	35,675,750	38,491,150	32,947,050	35,512,025	35,090,050	8,922,190	38,394,860
SFR - Domestic Consumption	79,627,400	74,038,200	69,379,800	67,387,100	66,738,600	63,181,700	70,731,000	59,544,933	61,021,500	63,113,371	69,645,238	75,023,673

Consolidated Water Trend Analysis Budget to Actual







Albemarle County Service Authority

July 2022 Checks

CHECK NUMBER	CHECK DATE	VENDOR NAME	Amount	DESCRIPTION OF ITEMS OVER \$5,000
63282	07/15/2022	S L Williamson Company Incorporated	434,707.97	Hessian Hills - Georgetown Barracks Paving FY22
63310	07/22/2022	Metra Industries and S L Williamson Co Inc	185,223.36	Hessian Hills WMRP Construction
63346	07/29/2022	Ramboll Americas Engineering	98,424.90	Northfields Water Main Replacement 4/1-5/31/22 & Various
63329	07/29/2022	Core & Main LP	35,144.00	Inventory - Radio units
63252	07/15/2022	Dewberry Engineers Incorporated	33,463.00	Avon Maint. Yard Design thru 5/27/22
63236	07/15/2022	Bank of America	21,617.31	Office Supplies, Memberships, Tools, Travel, Software Renewals
63363	07/29/2022	Tyler Technologies Incorporated	20,079.20	MUNIS - ERP Implementation
63366	07/29/2022	UVA Darden School Foundation	19,975.00	Executive Education - Q. Lunsford 10/16/22-5/5/23
63358	07/29/2022	St John, Bowling, Lawrence & Quagliana LLP	17,480.00	Legal Services June 22
63348	07/29/2022	Paymentus	16,425.30	Transaction Fees for June 22
63332	07/29/2022	Dewberry Engineers Incorporated	16,310.00	ACSA Risk Assess. Improvement PH1 thru 6/30/22
63246	07/15/2022	Core & Main LP	15,463.82	AMI - Hardware
63261	07/15/2022	James River Communications Inc	15,315.36	Network Security Camera
63343	07/29/2022	Kappa Sigma Fraternity	15,033.98	Kappa Sigma Water/Sewer Oversizing Reimbursement
63364	07/29/2022	U S Postmaster	12,800.00	Bulk Mail Permit 205 - FY 23
63373	07/29/2022	Whitman, Requardt & Associates	12,234.14	ACSA-SCADA Implementation 3, 6/5-6/30/22 & Various
63300	07/15/2022	Verizon Wireless	9,761.59	Monthly Cellular Service
63319	07/29/2022	Burns & McDonnell Engineering Co., Inc.	9,250.00	ON-Call Hydraulic Modeling 6/30/22
63266	07/15/2022	Linco Incorporated	8,971.51	FY22 Sanitary Sewer Replacement 6/1-6/25/22
63315	07/29/2022	Allison Partners	6,975.00	Coaching - January - June 22
63275	07/15/2022	Ramboll Americas Engineering	6,570.15	Oak Forest Pump Station Abandonment June 22 & Various
63352	07/29/2022	Quarles Petroleum Incorporated	5,891.06	Monthly Fuel
63336	07/29/2022	Ed's Floor Care Services LLC	3,703.33	
63372	07/29/2022	WaterPIO	3,500.00	
63350	07/29/2022	Prism Contractors	3,418.35	
63254	07/15/2022	Dominion Energy Virginia	3,381.12	
63306	07/15/2022	NewGen Strategies & Solutions	3,360.00	
63304	07/15/2022	Whitman, Requardt & Associates	3,130.20	
63356	07/29/2022	Reserve Account	3,000.00	
63347	07/29/2022	ODP Business Solutions, LLC	2,988.05	
63296	07/15/2022	Tyler Technologies Incorporated	2,608.00	
63259	07/15/2022	Hach Company Incorporated	2,028.50	
63383	07/29/2022	Minnesota Life Insurance Company	2,017.49	
63380	07/29/2022	Guardian	1,827.81	
63345	07/29/2022	Mayer Electric Supply	1,800.86	
63271	07/15/2022	McClung Companies	1,731.00	
63302	07/15/2022	Virginia Utility Protection	1,652.70	
63293	07/15/2022	Syn-Tech Systems	1,618.75	
63334	07/29/2022	Dominion Energy Virginia	1,497.61	

63354	07/29/2022	Rappahannock Electric Cooperative	1,481.46
63281	07/15/2022	Rivanna Water & Sewer Authority	1,412.00
63328	07/29/2022	Comcast Business	1,410.11
63323	07/29/2022	Childress Paints	1,089.00
63359	07/29/2022	Super Shoe Stores Incorporated	955.94
63265	07/15/2022	LB Water Service Incorporated	949.68
63344	07/29/2022	Mailing Services of Virginia	918.70
63299	07/15/2022	University Tire & Auto	869.80
63249	07/15/2022	Data West Corporation	855.00
63280	07/15/2022	Rivanna Solid Waste Authority	789.00
63365	07/29/2022	UniFirst Corporation	782.12
63298	07/15/2022	UniFirst Corporation	781.73
63250	07/15/2022	Delta Systems Environment LLC	774.16
63264	07/15/2022	LB Technology Inc	687.50
63375	07/29/2022	ACAC	676.00
63382	07/29/2022	Herbert Beskin Trustee	669.00
63287	07/15/2022	Siemens Industry Inc	650.00
63361	07/29/2022	Tencarva Machinery Company Incorporated	649.25
63368	07/29/2022	Virginia Department	640.00
63327	07/29/2022	Comcast	636.95
63367	07/29/2022	VACORP	613.97
63360	07/29/2022	The Supply Room	613.08
63268	07/15/2022	Mailing Services of Virginia	582.60
63242	07/15/2022	Childress Paints	571.50
63357	07/29/2022	S L Williamson Company Incorporated	565.66
63355	07/29/2022	Red Wing Business Advantage Account	560.78
63301	07/15/2022	Virginia Rural Water Association	550.00
63369	07/29/2022	VLGMA	525.00
63247	07/15/2022	Crown Communication LLC	515.00
63248	07/15/2022	The Daily Progress	499.10
63267	07/15/2022	Luck Stone Corporation	491.70
63239	07/15/2022	C-ville Holdings	450.00
63270	07/15/2022	Mayer Electric Supply	437.04
63308	07/15/2022	Treasurer of Virginia	430.90
63387	07/29/2022	Treasurer of Virginia	430.90
63351	07/29/2022	Pom Pruangkarn	422.28
63307	07/15/2022	Cincinnati Insurance Company	415.67
63232	07/15/2022	Allied Industrial Products, LLC	399.37
63379	07/29/2022	Cincinnati Insurance Company	371.00
63297	07/15/2022	U S Bank	336.09
63337	07/29/2022	Ferguson Enterprises LLC #1300	314.19
63235	07/15/2022	Aqua Air Laboratories Incorporated	300.00

63277	07/15/2022	Anna Dinwiddie	300.00
63317	07/29/2022	Aqua Air Laboratories Incorporated	300.00
63370	07/29/2022	VoiceLink Communications	297.22
63311	07/29/2022	Advance Auto Parts	284.96
63339	07/29/2022	Hathaway	275.95
63340	07/29/2022	Michelle Heppner	271.25
63258	07/15/2022	Ferguson Enterprises LLC #1300	270.15
63269	07/15/2022	Tammy C Mawyer	266.94
63286	07/15/2022	Takuro Shirasu	253.35
63255	07/15/2022	Ennas Technology Systems Integration Inc	240.00
63385	07/29/2022	Snap Fitness	239.76
63384	07/29/2022	Piedmont Family YMCA	225.00
63316	07/29/2022	Appalachian Power	202.03
63279	07/15/2022	Republic Services	198.93
63291	07/15/2022	Super Shoe Stores Incorporated	193.48
63253	07/15/2022	Issa Dibaj	192.64
63244	07/15/2022	Comcast	189.85
63294	07/15/2022	Sharon Teng	184.07
63233	07/15/2022	Amerigas	173.56
63305	07/15/2022	John Munnelly	161.80
63257	07/15/2022	Flexible Benefit Administrators, Inc	160.25
63272	07/15/2022	Jessica McDermott	157.85
63309	07/15/2022	Virginia Department	150.00
63388	07/29/2022	Virginia Department	150.00
63338	07/29/2022	Gingerich Outdoor Power Specialist	146.58
63256	07/15/2022	Allison Erlinger	141.42
63381	07/29/2022	The Gym	130.00
63274	07/15/2022	Elio Nunez Rodriguez	129.38
63326	07/29/2022	Clear Communication & Electronics Incorporated	124.74
63321	07/29/2022	Cardinal Home Center	120.27
63320	07/29/2022	Brad Burton	120.18
63322	07/29/2022	Adrian Castro	114.77
63285	07/15/2022	Sherwin Williams Company	111.10
63278	07/15/2022	Performance Signs LLC	110.00
63353	07/29/2022	Jessica Raines	107.45
63262	07/15/2022	Kav Real Estate Services, LLC	106.76
63290	07/15/2022	Peter H. Sorensen	104.02
63331	07/29/2022	Culpeper Auto Parts Incorporated	103.27
63240	07/15/2022	Central Battery Specialist	100.00
63312	07/29/2022	Aireco Supply Incorporated	98.60
63273	07/15/2022	Jason McGhinthy	93.96
63374	07/29/2022	Jill A Zimmerman	93.60

63362	07/29/2022	Drew Thach	85.60
63237	07/15/2022	Rory Bosek	79.48
63283	07/15/2022	Steven Scott	75.90
63238	07/15/2022	Laura Brown	74.71
63288	07/15/2022	Anastasia Simmons	70.92
63303	07/15/2022	W A Wells Excavating LLC	70.00
63371	07/29/2022	W A Wells Excavating LLC	70.00
63333	07/29/2022	Document Destruction of Virginia, LLC	69.95
63245	07/15/2022	Ann Cooper	69.15
63284	07/15/2022	Tomeka Scott	67.24
63263	07/15/2022	Ryan Kuhns	66.31
63231	07/15/2022	Advance Auto Parts	58.63
63251	07/15/2022	Christina DeMariea	53.17
63276	07/15/2022	Blake Omohundro	52.59
63313	07/29/2022	Albemarle Lock & Safe Company	51.90
63342	07/29/2022	MyFleetCenter.com	47.68
63292	07/15/2022	The Supply Room	43.56
63376	07/29/2022	Anytime Fitness-Pantops	40.00
63377	07/29/2022	Anytime Fitness-Ruckersville	40.00
63378	07/29/2022	Anytime Fitness - Zion VA	40.00
63386	07/29/2022	Snap Fitness Hollymead	39.96
63341	07/29/2022	Jeffrey Herr	39.01
63335	07/29/2022	William Duff	36.01
63241	07/15/2022	Central Virginia Electric Cooperative	33.07
63324	07/29/2022	City of Charlottesville	25.51
63314	07/29/2022	Allied Concrete Company	25.18
63234	07/15/2022	API Service Center	20.00
63325	07/29/2022	City of Charlottesville	19.06
63389	07/27/2022	Lora Dalton	16.10
63260	07/15/2022	Mohamed Hemeda	14.70
63243	07/15/2022	City of Charlottesville	14.67
63349	07/29/2022	Piedmont Power	9.30
63289	07/15/2022	Snow's Garden Center	8.99
63318	07/29/2022	Cooperative Financial Solutions	7.99
63295	07/15/2022	Thryv, Inc.	6.59
63330	07/29/2022	County of Albemarle	5.27

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: FY 2023 Capital Improvement Program (CIP)	AGENDA DATE: August 18, 2022
STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Senior Civil Engineer	CONSENT AGENDA:
	ACTION: ■ INFORMATION: ■
	ATTACHMENTS: YES

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 three 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
August 2022

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2023
Total Budget:	\$1,063,950
Appropriated Funds:	\$529,048

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.

7/12/2022: One bid was received on July 1, 2022, from Harrisonburg Construction Co., Inc. (HCC) totaling \$311,000, which was \$194,000 more than budgeted in the CIP Rate Model. ACSA staff will reach out to HCC to see if we can negotiate some cost reductions by identifying any value engineering adjustments with assistance from Dewberry.

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:	July 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.

7/12/2022: The Draft Final Report has been received and is currently under review.

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	65%
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.

8/8/2022: Dewberry has finalized design of the stormwater connection for the future improvements to our Avon Street entrance. This storm pipe will be installed as part of the County's Avon Street Extended Sidewalk Project. The County is in the process of obtaining change order pricing from their contractor for installation of this stormwater stub-out.

d) HVAC System Upgrade (Account Code 1619):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction

Percent Complete:	99%
Contractor:	eTEC Mechanical Corporation (eTEC)
Construction Start:	February 2019
Completion:	August 2022
Total Budget:	\$1,378,000
Appropriated Funds:	\$1,034,297

Project Description - During recent years it has become apparent that the HVAC system serving the Administration Building is in need of replacement. This evaluation will review the existing HVAC system and recommend solutions and alternatives. HVAC efficiency and life cycle cost analysis will be performed as part of the evaluation.

8/8/2022: The final Change Order has been executed and eTEC is working on their closeout documents.

e) 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.

8/8/2022: After consultation with our Finance Department, ACSA staff is planning to break the project down into smaller geographic areas and seek pricing from local plumbing contractors under the ACSA's "Small Purchases" policy (ACSA Purchasing Manual, Chapter 22). Approximately 42 customers have executed the access and ownership agreement for the installation of the BFP assemblies.

f) 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. The design will begin in FY 2019 and carry over into FY 2020. Construction is not anticipated to begin until FY 2025.

6/7/2022: The 90% design documents have been received and are currently under review. The start of the geotechnical borings has been delayed while F&R is trying to work out the pavement repair requirements for any holes that are made in the pavement, as they apply for the VDOT permit.

g) 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. This is the fourth of five phases that have been defined to carry out these improvements.

6/7/2022: To date 14 of 19 easements required for construction have been acquired.

h) 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:	2022
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.

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	0%
Contractor:	Commonwealth Excavating, Inc. (CEI)
Construction Start:	2022
Completion:	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.

8/8/2022: ACSA staff has reviewed and approved all pipe submittals. Construction is anticipated before the end of August. The Pre-Construction Conference is scheduled for August 11, 2022.

j) 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:	\$583,497

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.

8/8/2022: ACSA staff has submitted the Land Use Permit Application to VDOT for the test holes and geotechnical borings that are anticipated along the neighborhood streets.

k) Hessian Hills Water Main Replacement (Account Code 1753):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Construction
Percent Complete:	99%
Contractor:	Metra Industries, Inc. (Metra)
Construction Start:	April 2021
Completion:	July 2022
Total Budget:	\$5,070,000
Appropriated Funds:	\$5,107,562

Project Description - The water mains in the Hessian Hills area are of a similar age and material as the water mains in the Barterbrook Phase 2 Project, plus they are in the same general area. By extension we are assuming their condition is similar with respect to tuberculation and they are also undersized throughout most of the subdivision. This project follows our Strategic Plan goal to replace aging and undersized water mains throughout our system. It will also eliminate a small amount of PVC main installed in the early 1980's.

8/8/2022: All pavement restoration work is complete and S.L. Williamson is currently working on VDOT's punch-list.

l) 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.

m) 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.

8/8/2022: A site meeting was held on August 3, 2022 with Dewberry to incorporate several alignment revisions in advance of sharing the plans with the property owner.

n) 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.

o) 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.

6/7/2022: Field surveying and boundary research are currently underway.

p) Pantops Drainage Basin Rehabilitation (Account Code 1824):

Consultant:	O'Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction

Percent Complete:	95%
Contractor:	Prism Contractors & Engineers, Inc. (Prism) & Linco, Inc. (Linco)
Construction Start:	March 2021
Completion:	August 2022
Total Budget:	\$400,700
Appropriated Funds:	\$515,056

Project Description - The wastewater flow metering in 2015 for the update of the RWSA sewer interceptor model has shown the Pantops Area is experiencing peak wet weather flows due to infiltration and inflow (I/I). This project will continue our efforts to maintain the integrity of our wastewater collection system by reducing I/I. The sanitary sewer evaluation survey (SSES) will include the ACSA collection system east of the South Fork Rivanna River and north of I-64, including the Peter Jefferson Place Pump Station. The sanitary sewer evaluation survey (SSES) will consist of manhole inspections, sewer flow monitoring, smoke testing, night flow isolation and measurement, flooded dye testing and CCTV of sewer mains.

8/8/2022: Prism has mobilized to the area and has completed rehabilitation on two of the five manholes that remain in the Pantops Drainage Basin.

q) Hollymead Drainage Basin Rehabilitation (Account Code 1825):

Consultant:	O'Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction
Percent Complete:	65%
Contractor:	Prism Contractors & Engineers, Inc. (Prism) & Linco, Inc. (Linco)
Construction Start:	October 2021
Completion:	October 2022
Total Budget:	\$454,700
Appropriated Funds:	\$472,786

Project Description - ACSA staff has identified other large drainage basins to be evaluated for infiltration and inflow (I/I) to continue our efforts to maintain the integrity of our wastewater collection system. The study area includes the oldest portions of the Hollymead Subdivision, as well as, the offsite portion of the sewer main that serves the westernmost area of Forest Lakes South. The Forest Lakes Offsite Sewer will be the primary collector for the upcoming extensive Brookhill development and the evaluation of this trunk main will provide an excellent baseline of pipe integrity in advance of the future construction activities around this sewer.

8/8/2022: Prism has mobilized to the area and have completed rehabilitation work on approximately 114 of 172 manholes.

r) 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:	\$363,467

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.

8/8/2022: 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. Baker has prepared a proposal for Landscape Architectural Services. A Board authorization is proposed for this project.

s) 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:	2022
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.

8/8/2022: Linco has received the final construction drawings and is currently preparing a fee proposal for the work. ACSA staff is still awaiting the approval of DEQ for the stream disturbance necessary for the project.

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

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	75%
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	October 2020
Completion:	September 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.

5/10/2022: The CCTV and cleaning work ahead of the relining proposed under Work Order No. 7 in the Hessian Hills area have been completed. One sewer segment relining in this work order will be replaced with some segmental lining.

u) FY 2022 Miscellaneous Sewer Repair/Replacement (Account Code 1905):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Underway
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.

7/12/2022: Linco has completed the point repair of a gravity sewer main near the Fontaine Research Park associated with Work Order No. 1. ACSA Maintenance has performed some easement clearing in Highlands to provide access for Linco to complete another sewer point repair.

v) 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:	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 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.

8/8/2022: One manhole in Forest Lakes under Work Order No. 2 has been rehabilitated.

w) **Bellair – Liberty Hills Sewer (Account Code 1829):**

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	10%
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.

5/10/2022: ACSA staff have reviewed a map of parcels where a low pressure pump system may be required to avoid excessive depths for the new sewer mains. After a preliminary review and discussion ACSA staff have asked Baker to set the maximum depth of sewer at 15 feet and they will use this criteria to determine how many private grinder pumps can be eliminated.

x) **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:	2022
Completion:	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.

8/8/2022: During the bidding of the Madison Park Pump Station Upgrade Project, the ACSA was approached by a nearby developer seeking additional capacity be built into the project. ACSA staff has worked closely with WRA to determine the required pump upgrades to handle projected wastewater flows from this new development. ACI has provided proposed pricing for the necessary upgrades and that information has been provided to the developer for review. The costs associated with these upgrades would be the responsibility of the developer.

y) 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.

8/8/2022: ECUC has performed field visits to each of the sites to confirm equipment measurements and has placed the order for the grinders.

z) 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:	2022
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.

8/8/2022: ACSA staff recently made contact with the new Lewis Hill HOA President and they have been provided preliminary design documents for review and comment.

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

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
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.

5/10/2022: ACSA staff have completed an internal review of the 50% design documents. During the week of May 9, 2022, our staff engineer will reach out to a couple of companies that specialize in Maintenance of Traffic (MOT) design to request proposals.

bb) Briarwood Pump Station Generator (Account Code 1767):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	60%
Contractor:	ACSA Maintenance Department
Construction Start:	October 2021
Completion:	August 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.

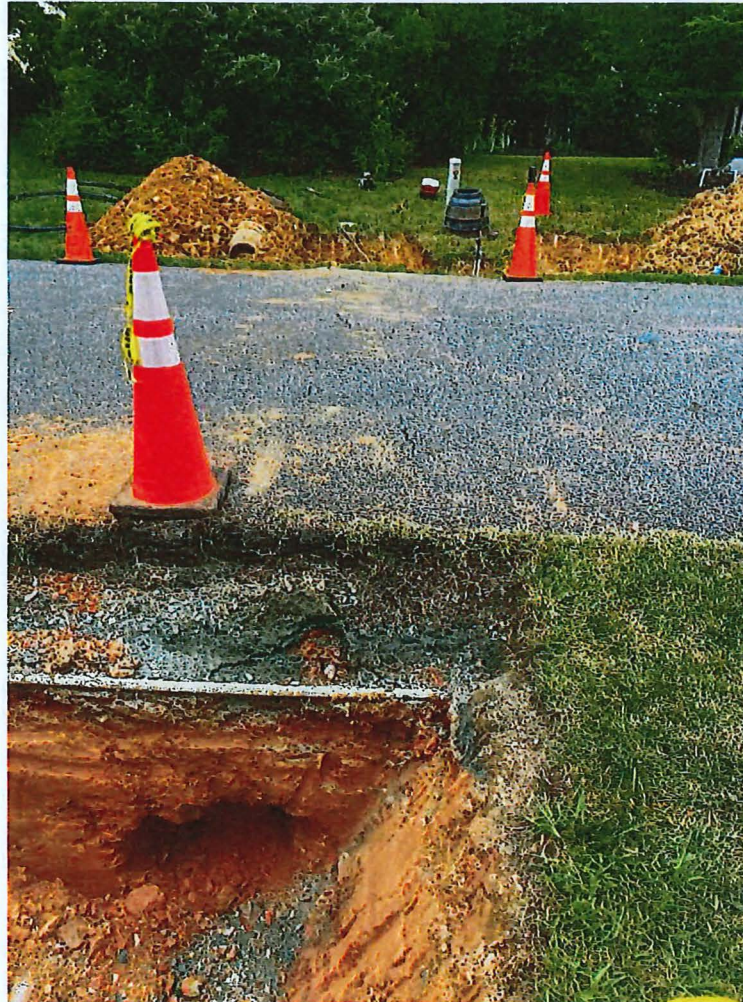
8/8/2022: The new standby generator has been shipped and delivery to the site is anticipated within the next 1-2 weeks.

cc) Exclusion Meters Replacement (Account Code 1759):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	26%
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. At that time the existing exclusion meters were grandfathered and allowed to stay in place unless the irrigation system was voluntarily abandoned. 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.

8/8/2022: ACSA Maintenance is currently working on exclusion meters in the vicinity of Darby Road (west) in advance of Glenmore's repaving efforts scheduled for late October 2022. This new group totals 69 private exclusion meters. There are currently 364 exclusion meters remaining in our system.



dd) Sewer Force Main Condition Assessment (Account Code 1826):

Consultant:	ACSA Engineering Department
Project Status:	Study
Percent Complete:	100%
Contractor:	Pure Technologies (Pure)
Construction Start:	N/A
Completion:	March 2020 (Study)
Total Budget:	\$149,468
Appropriated Funds:	\$228,745

Project Description - This project will address the ACSA's Strategic Plan to complete condition assessments on all sanitary sewer force mains at pump stations within the ACSA wastewater system. This project will utilize SmartBall and transient pressure monitoring technology to determine any problem areas that require correction or further detailed investigation.

8/8/2022: This project will transition to the Woodbrook Force Main Replacement Project beginning in September 2022. ACSA staff recently received a fee proposal from Ramboll for Design Phase Services, which was significantly higher than anticipated. ACSA staff will be meeting with Linco to determine if a GIS-based design would be acceptable as an alternative to a full design.

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

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2023
Total Budget:	\$943,115
Appropriated Funds:	\$324,472

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.

7/12/2022: ACSA staff has begun the competitive negotiation stage.

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Albemarle County Service Authority (ACSA)

CIP Schedule Revisions
August 2022

1. The construction phase of the Hessian Hills Water Main Replacement Project has been extended to August 2022.
2. The construction phase of the Pantops Drainage Basin Rehabilitation Project has been extended to August 2022.
3. The construction phase of the Sewer Pump Station Comminutors Project has been extended to March 2023.

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

- a. 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.
- b. 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.
- c. 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.
- d. 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.
- e. 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.
- f. 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.
- g. Flow Automotive – 1300 Richmond Road (Rivanna): Water main extension to provide water service and fire protection to a new/renovated car dealership. This project is located along Richmond Road, across from People Place.
- 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. Polo Grounds Road Improvements – Phase 2 (Rivanna): Water main extension along sections of Polo Grounds Road to serve eastern blocks of the Brookhill Subdivision. This project is located east of Route 29, along Polo Grounds Road.
- n. 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.
- o. PVCC - Advanced Technical Training Center (Scottsville): Water main extension to serve new building on PVCC campus off College Drive.
- p. Regents School of Charlottesville (Samuel Miller): Water and sewer main extension to serve a private school, grades K-12. The site is located east of Trinity Presbyterian Church, along Reservoir Road.
- q. 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.
- r. 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.
- s. 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.
- t. Southwood Redevelopment - Village 1 (Scottsville): Water and sewer main extensions to serve 49 residential units and future commercial blocks. This project is located east of Old Lynchburg Road and south of I-64.
- u. Stonefield Block D1 (Jack Jouett): Water main extension to serve a 220 unit apartment building at the intersection of Inglewood Drive and Bond Street.

- v. 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.
- w. 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.

JML/jl

0506 Active Private Development Projects 080822

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: FY 2023 CIP Authorizations	AGENDA DATE: August 18, 2022
STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Senior Civil Engineer	ACTION: <input type="checkbox"/> INFORMATION: <input type="checkbox"/>
	CONSENT AGENDA:
	ACTION: <input checked="" type="checkbox"/> INFORMATION: <input type="checkbox"/>
	ATTACHMENTS: (YES)

BACKGROUND: Authorization for one CIP Project, which is included in the CIP Rate Model Budget. This authorization is for the Landscape Architectural Services required in connection with the Airport Trunk Sewer Upgrade Project.

DISCUSSION:

- ❖ Provides ACSA staff with the professional expertise of our term contract consultant during the design of the Airport Trunk Sewer Upgrade Project.
- ❖ Allows ACSA staff to continue easement negotiations with property owners at 1705 Jumpers Run.

BUDGET IMPACT: The cost of Landscape Architectural Services for the Airport Trunk Sewer Upgrade Project will be within the amount budgeted in the CIP Rate Model.

RECOMMENDATIONS: Authorize funding for this project to keep our CIP Project Schedule moving forward and improving our utility system.

BOARD ACTION REQUESTED: Approve the Consent Agenda.

ATTACHMENTS:

- ❖ Detailed memo of the proposed CIP authorization.
- ❖ Proposal prepared by Michael Baker International for Landscape Architectural Services on the Airport Trunk Sewer Upgrade Project.



MEMORANDUM

To: Board of Directors
From: Jeremy M. Lynn, P.E., Senior Civil Engineer
Date: August 9, 2022
Re: FY 2023 CIP Authorizations
cc: James M. Bowling, IV

The following project requires Board authorization:

- A. Airport Trunk Sewer Upgrade Project:** During the easement acquisition phase of the Airport Trunk Sewer Upgrade Project, the Albemarle County Service Authority (ACSA) identified the need to provide Landscape Architectural Services due to the impacts anticipated during construction at 1705 Jumpers Run. Attached is a letter from Michael Baker International (Baker), dated July 8, 2022, with their fee proposal for providing these services. The ACSA staff has reviewed this proposal and finds it satisfactory. The estimated cost for Landscape Architectural Services is \$14,991.25.

Board Action

We request the Board of Directors appropriate \$14,992 from the FY 2023 3R Fund for Landscape Architectural Services for the Airport Trunk Sewer Upgrade Project.

JML/jml
Attachment
010101CIPAuthorizations080922

July 8, 2022

Mr. Jeremy M. Lynn, P.E.
 Albemarle County Service Authority
 168 Spotnap Road
 Charlottesville, VA 22911-8690

Transmitted electronically to:
 jlynn@serviceauthority.org

RE: Airport Trunk Sewer Upgrade Project – Additional Services
 Landscape Architectural Services

Dear Mr. Lynn:

Please see the attached scope, and labor and cost breakdown spreadsheet for additional services for the landscape design for the Weiss Property, located at 1705 Jumpers Run, Charlottesville Virginia, per your email request dated June 28, 2022. This project consists of additional necessary engineering design required to prepare design documents including the following:

Task 1: Landscape Architecture Construction Documents: for landscape design at the Weiss Property. These plans will include planting design, locations; mulch locations and layout; planting details; planting quantities schedule; specifications for exterior plants, turf, plant establishment, and coordination with the Albemarle County Service Authority for the following areas shown in Figure 1:

- Entrance Driveway: Tree Replacement
- Lawn Area Adjacent to Driveway: Slope seeding/sodding and shrub planting

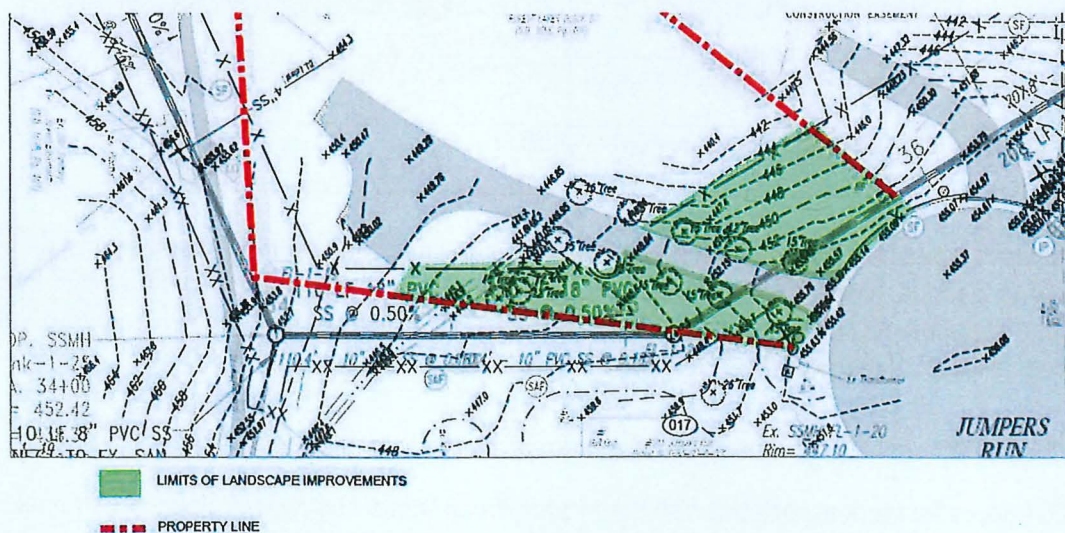


Figure 1

Task 2: Meetings with Weiss Family. Includes (1) Landscape Architect to attend (1) virtual meeting and (1) site visit with Weiss Family to review plan submission.

Deliverables: The team will provide in PDF and DWG format the necessary plans, to facilitate the planting and construction of the project.

Schedule: Work can begin immediately upon a signed contract. Anticipated schedule is below:

ITEM	DURATION
Signed Contract	
Draft Landscape Plans	
Draft Landscape Plan Submitted to Albemarle County Service Authority (ACSA)	14 Days After Signed Contract
Comment Review Meeting with Albemarle County Service Authority	7 Days After ACSA Draft Landscape Plan Submission
Weiss Family Reviews Draft Landscape Plans	21 Days, begins two days after ACSA Comment Review Meeting
Landscape Architect Meeting with Weiss Family (Virtual or In Person)	Within 7 Days after Weiss Family Review Ends
Final Landscape Plans	
Final Landscape Plans Submitted to ACSA	7 Days After Meeting with Weiss Family
Comment Review Meeting with Albemarle County Service Authority	14 Days after ACSA Final Landscape Submission
Weiss Family Reviews Final Landscape Plans	21 Days, begins two days after ACSA Comment Review Meeting
Landscape Architect Meeting with Weiss Family (Virtual or In Person)	Within 7 Days after Weiss Family Review Ends
Final Bid Set – addresses Weiss Family Comments from Final Submission	TBD

Draft and final landscape plans will be provided as standalone drawing sets. Upon approval of final plans by the Albemarle County Service Authority, the landscape drawings will be incorporated in the design documents currently under development for the Airport Trunk Sewer Upgrade Project (ACSA Project No. 2020-02). Michael Baker's proposal consists of the following components:

1. Design Phase Services: Lump Sum \$14,991.25

The Scope of Services for work associated with the Airport Trunk Sewer Upgrade Project – Additional Services project shall be in accordance with the approved Scope of Services dated December 9, 2019 and executed Letter of Agreement dated January 16, 2020 for the Airport Trunk Sewer Upgrade Project.

The following exclusions have been made in the development of this scope of services:

Michael Baker
INTERNATIONAL

Mr. Jeremy M. Lynn, P.E.
July 8, 2022

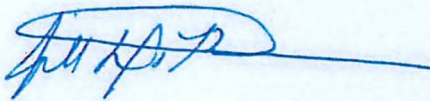
Page 3 of 3

Photorealistic drawings of the proposed design; hardscape design or repair, pond/firepit/bridge design or repair, design of vehicular paving; lighting design; design of fencing; design of new or relocation of telephone, gas, electrical, fiber optic, CATV or other utilities; Mechanical, Electrical and Plumbing design; Structural Engineering services; Geotechnical investigations; Photometric analysis; Pipe video investigations; Easements; Permits and documents for permitting; Site Plan special exceptions and zoning type submissions; Design of groundwater collection systems; Bulk printing for agency submissions; Hazardous material analysis; Soil testing; Irrigation design; Specifications sections addressing procurement or general requirements; additional meetings on or off site; changes in scope of work; site observation for work in progress; and coordination with regulatory boards are not included.

If you have any questions or need additional information, please do not hesitate to contact me at (757) 631-5421 or jdbattista@mbakerintl.com. As always, we thank you for this opportunity to provide engineering services to the Albemarle County Service Authority.

Sincerely yours,

MICHAEL BAKER INTERNATIONAL, INC.



Jill DiBattista, P.E.
Project Manager

Enclosures: Michael Baker Labor and Cost Breakdown

cc: Gary Heisler, PE (Michael Baker)
Project File

Airport Trunk Sewer Upgrade Project - Additional Services
 Albemarle County Service Authority
 Landscape Architectural Services
 July 8, 2022

TASK		LABOR CLASSIFICATIONS					TOTAL (HRS)	DIRECT EXPENSES (\$)	COST PER TASK (\$)
		Program Mgr. \$ 215.00 (HRS)	Task Mgr. \$ 180.00 (HRS)	Landscape Arch \$ 106.00 (HRS)	CADD Tech. \$ 90.00 (HRS)	Clerical \$ 70.00 (HRS)			
LANDSCAPE DESIGN FOR PARCEL 16									
TASK 1: LANDSCAPE ARCHITECTURE CONSTRUCTION DOCUMENTS		0	6	114	0	0	120	\$ -	\$ 13,164.00
TASK 2: MEETINGS WITH WEISS FAMILY (incl Travel time)				16			16	\$ -	\$ 1,696.00
TASK 2: MILEAGE (210 MILES @ \$0.625/MILE)								\$ 131.25	\$ 131.25
SUB-TOTAL		\$ -	\$ 1,080.00	\$ 13,780.00	\$ -	\$ -	136	\$ 131.25	\$ 14,991.25
							136	\$ 131.25	\$ 14,991.25

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Capital Improvement Program (CIP) Project Close-outs	AGENDA DATE: August 18, 2022
STAFF CONTACT(S)/PREPARER: Peter C. Gorham, P.E., Director of Engineering	ACTION: <input type="checkbox"/> INFORMATION: <input type="checkbox"/>
	CONSENT AGENDA:
	ACTION: <input checked="" type="checkbox"/> INFORMATION: <input type="checkbox"/>
	ATTACHMENTS: Yes

BACKGROUND: This is a routine process to close-out CIP Projects that have been completed and no longer require expenditures of funds. Six CIP Projects are to be closed-out with a balancing of expended funds in the 3R Fund.

DISCUSSION:

- ❖ Questions about the CIP Projects being closed-out.

BUDGET IMPACT: None.

RECOMMENDATIONS: Close-out the six CIP Projects listed in the detailed memo.

BOARD ACTION REQUESTED: Approve the Consent Agenda.

ATTACHMENTS:

- ❖ Detailed memo of the completed CIP Projects and the amount of expended funds.



MEMORANDUM

To: Board of Directors
From: Peter C. Gorham, P.E., Director of Engineering
Date: August 18, 2022
Re: Capital Improvement Program (CIP) Project Close-outs
cc: James M. Bowling, IV

The following projects have been completed in the Capital Improvement Program (CIP):

ACSA Restroom and Customer Service Area Renovations (Account Code 1624): This project served to modernize the restrooms by upgrading the fixtures, replacing wall and floor tile, and adding motion-detection lighting. The Customer Service area was renovated to create an additional office, plus reorganize, and replace all workstations. The project resulted in over-expended funds of \$17,506.62, due to unforeseen existing conditions in the restrooms, addition of fire strobes in restrooms, the addition of some office furniture for the Customer Service Area, and overtime expenses.

Operations Center Paving (Account Code 1626): This long-delayed project finally replaced all the deteriorated paving at the Operations Center and numerous pavement patches from on-site improvements over the last several years. Also, some gravel areas of the Maintenance Yard were paved. This project resulted in over-expended funds of \$55,575.33 due to the added cost of installing a grated storm drain ahead of paving, the repair of damaged concrete curbing, pad and sidewalk, and the purchase of a striping machine.

Camelot Water Main Replacement (Account Code 1737): This project addressed our Strategic Plan to replace undersized and deteriorating asbestos-cement (AC) and PVC water mains in our system. Several hundred feet of undersized mains were replaced along with badly deteriorated AC pipe and poor quality PVC pipe. The project resulted in over-expended funds of \$165,961.70, due to construction costs being more than anticipated because of increases in

pipe length, increases in paving quantities due to badly deteriorated roads, and poor soil quality requiring over-excavation and backfill with select stone.

Mosby Mountain Water Storage Evaluation (Account Code 1762): This project was undertaken to evaluate the available useful water storage in this pressure zone to address added development beyond that anticipated with the original construction of the water tank and pump station. The project did not result in any over or under expended funds.

Ashcroft Pump Stations #2 & #3 Capacity Improvements (Account Code 1879): This project was created to increase the pumping capacities of Pump Stations #2 and #3 in Ashcroft to allow for greater cycling of the water in the Upper Ashcroft Storage Tank by reducing the time to refill the tank after being drawn down. The project resulted in over-expended funds of \$109,521.11, due primarily to the addition of a retaining wall for the new generator at Pump Station #2, and the addition of a free standing radio tower at the upper tank that would benefit the AMI project.

FY 2021 Miscellaneous Sewer Repair/Replacement (Account Code 1901-100): This project addresses our Strategic Plan goal to reduce infiltration and inflow (I&I) in our wastewater collection system. This is part of our "Find and Fix" miscellaneous sewer rehabilitation program, which is separated into two contracts, one for rehabilitation by excavation, and the other for rehabilitation by trenchless means. This project covers sewer rehabilitation through the adjustment of manhole elevations, point repairs, and pipe replacement. The project resulted in over-expended funds of \$104,857.32, due to the cost of defects requiring excavation to be more than anticipated, plus work by the ACSA Maintenance Department replacing outdated manhole frames and covers.

The following is a financial summary of the projects:

Account Description:	Appropriated Amount	Expended Amount	Unexpended Amount
ACSA Restroom and Customer Service Area Renovations	\$ 337,719.00	\$ 355,225.62	\$ (17,506.62)
Operations Center Paving	\$ 186,826.00	\$ 242,401.33	\$ (55,575.33)
Camelot Water Main Replacement	\$ 2,054,866.00	\$ 2,220,827.70	\$ (165,961.70)
Mosby Mountain Water Storage Evaluation	\$ 12,765.00	\$ 12,765.00	\$ 0.00
Ashcroft Pump Stations #2 & #3 Capacity Improvements	\$ 1,229,163.00	\$ 1,338,684.11	\$ (109,521.11)
FY 2021 Miscellaneous Sewer Repair and Replacement	\$ 200,000.00	\$ 304,857.32	\$ (104,857.32)
Total	\$ 4,021,339.00	\$ 4,474,761.08	\$ (453,422.08)

Board Action

We are requesting the Board of Directors close-out the listed projects.

PCG/pcg

010101ProjectCloseoutsBoardMemo081822

AGENDA ITEM EXECUTIVE SUMMARY

CONSENT AGENDA

AGENDA TITLE: Inventory and Cityworks in an unpredictable world	AGENDA DATE: August 18, 2022
STAFF CONTACT(S)/PREPARER: Mike Lynn, Director of Operations; Calvin Underwood, Operations Supervisor and Roland Bega, Operations Supervisor	ACTION: Informational ATTACHMENTS: No

BACKGROUND: In 2020 Cityworks was implemented to make the inventory process more efficient. Simultaneously, the complexity of ordering was affected by two unprecedented factors: COVID-19 and Supply Chain Issues.

DISCUSSION: The advantage of the Cityworks inventory process is to streamline ordering and inventory. The recent year-end inventory on hand revealed that ACSA has 420 different parts valued at \$574,405.18 Cityworks is a valuable tool to manage an inventory that continues to increase.

Cityworks Process Overview:

1. On hand stock exists physically on warehouse shelves and virtually on Cityworks.
2. Crew leaders determine job needs and picks (sells) parts from the shelves in our warehouse to the job at hand by making a transaction on Cityworks.
3. Supervisors approve the Cityworks transaction.
4. Cityworks has a minimum on hand feature which provides a guideline to reorder inventory and prevent stock depletion.
5. Orders for materials are placed with vendors to replenish stock taken from the warehouse to use on maintenance jobs.
6. When the orders are received, they are verified by Crew Leaders and/or Supervisors. Parts are assigned their respective Cityworks number and entered in Cityworks by the Procurement Financial Specialist, Tonya Foster. Only after the parts are in Cityworks, are they available for use by the Maintenance crews.
7. Quarterly physical inventories provide a check on Cityworks accuracy and quantities are adjusted.
8. Cityworks allows inventory to be monitored accurately in real time.

As soon as Cityworks was brought into operation, major changes occurred worldwide that profoundly affected ordering materials. The term "Supply Chain Issues" became an undesired and often repeated buzz phrase. Very quickly in


2020, Covid-19 led to manufacturing and transportation shortages that continue to the present. Routine orders of the past now take months or in some cases about a year. As an essential critical infrastructure entity, ASCA must have materials on hand for routine and emergency situations. In addition to material shortages and longer delivery times, rising costs and added surcharges have become commonplace. Often in the time it takes to solicit quotes and process a Purchase Order, the selected vendor's price has increased again. In extreme conditions orders have exceeded \$50,000, which involves additional bid procedures.

One strategy to insure ASCA has sufficient materials on hand is to utilize Emergency Procurements to buy large quantities on short notice in reaction to market conditions. The Maintenance Department has learned to adapt to the changing market by being alert to buying opportunities and reacting quickly to obtain them. Cityworks has been a timely addition to help navigate this new landscape.

BOARD ACTION REQUESTED: None

ATTACHMENTS: None

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Rivanna Water & Sewer Authority (RWSA) Monthly Update STAFF CONTACT(S)/PREPARER: Gary O'Connell, Executive Director 	AGENDA DATE: August 18, 2022 CONSENT AGENDA: Informational ATTACHMENTS: Yes
--	--

BACKGROUND: This report continues the monthly updates on the Rivanna Water & Sewer Authority (RWSA) projects and Board meetings. Below are some updates on RWSA major projects and issues, including updates from the July 26th RWSA Board Meeting and other communications.

RWSA Board Meeting and other Updates and Approvals at the July 26th Board Meeting:

- **Transfer of Ownership to ACSA of the Upper Woodbrook Sewer Interceptor Lines:** Similar to the Ednam area recent line transfer. This sewer line has been recently rehabbed. It serves more as a residential “collector” and is more appropriate for ACSA ownership and responsibility. We will ask the Board for formal approval to accept this line at the September Board meeting (see attached for more detail).
- **Cyber Security Updates:** RWSA update on actions to address physical and cyber security at their facilities in a comprehensive way.
- **Strategic Plan Update:** RWSA has engaged Raffetis consultants to assist in preparing their next five-year (2023-2028) Strategic Plan. This presentation was also a working session with the RWSA Board. Five theme areas have emerged thus far from the stakeholder surveys/interviews: Workforce (attract, develop, retain); Optimization and Resiliency (be efficient, leverage technology, risk mitigation); Planning and Infrastructure (long-term view, CIP delivery); Stakeholder, Communications, Collaboration (elevate brand and awareness); Environmental Stewardship (a strong voice for sustainability) (see attached summary slides).

RWSA Major Capital Project Updates:

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

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company
Construction Start:	May 2020
Percent Completion:	65%
Completion Date:	May 2023
Base Construction Contract:	\$37,467,169.49
Approved Capital Budget:	\$43,000,000

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

Work continues on the South Rivanna Water Treatment Plant, the Administration Building and improvements at the Raw Water Pump Station. Work at the Observatory Water Treatment Plant includes the new Chemical Storage Building, sedimentation basin improvements, foundation work for the GAC expansion, and a large retaining wall.

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

Contractor:	Anderson Construction
Bidding:	
Construction Start:	December 2021
Percent Complete:	10%
Completion Date:	December 2023
Base Contract:	\$8,520,312.50
Budget:	\$10,000,000

Current Status:

The contractor has installed approximately 700 feet of pipe at the Kohl's site. Cleaning and grubbing of the pump station site is complete. Grading will occur next month.

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

AGENDA ITEM EXECUTIVE SUMMARY

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:	Design (20%) and Easement Acquisition in Progress
Construction Start:	2025
Completion:	2028
Current Project Estimate:	\$29,375,000

Current Status:

Preparation of engineering plans and specifications is underway. Topographic survey work to the east of the proposed pump station site continues, while stake out on UVA Foundation property has been completed to further easement negotiations. Easement negotiations with one private owner, UVA, and the UVA Foundation continue. Staff met with the UVA Foundation on June 8th to examine the proposed alignment through Foxhaven Farm, as well as discuss potential laydown areas on the property.

History:

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

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

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

- **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:	Summer 2022
Completion:	2023
Current Project Estimate:	\$1,980,000

Current Status:

Preparation of engineering plans and specifications is substantially complete for a 0.25-mile section of the 36" raw water pipe from Birdwood to Old Garth Road. One remaining easement is under negotiation with the UVA Foundation (UVAF) 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 and Pump Station and Piping Improvements**

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen and Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	80% NRCS Planning Process
Construction Start:	2024
Completion:	2027
Budget:	\$30,870,000

Current Status:

RWSA staff is moving forward with development of a Joint Permit Application and supporting documents for submission to DEQ in August. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion by December 2022. An application for design and construction funding from NRCS will be submitted in 2022.

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

AGENDA ITEM EXECUTIVE SUMMARY

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:	45% Design
Construction Start:	January 2023
Completion:	April 2024
Budget:	\$5,850,000

Current Status:

Baker has recommended a water line route that will cross 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.

History:

RWSA has previously identified through master planning that a 24-inch water main will be needed from the South Rivanna Water Treatment Plant (SRWTP) to Hollymead Town Center to meet future water demands. Two segments of this water main were constructed as part of the VDOT Rt. 29 Solutions projects, including approximately 10,000 LF of 24-inch water main along Rt. 29 and 600 LF of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl's department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. Acquisition of right-of-way will be required at the river crossing.

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

Design Engineer:	Michael Baker International (Baker)
Project Start:	October 2017
Project Status:	Easement Acquisition Underway

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Completion Date:	2022
Total Capital Project Budget:	\$2,295,000

Current Status:

Progress continues in RWSA efforts to acquire 8 miles of easements and agreements (with VDOT) for this 36" water line. Discussions continue on 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

Phase 2 of the study continues with detailed reservoir water quality modeling performed by DiNatale Water Consultants. Modeling efforts using the Excel-based desktop model have been completed, and while these efforts were helpful in determining high-level transfer scenarios, the more detailed reservoir model will be utilized to help better present the future conditions at Ragged Mountain Reservoir based upon the known characteristics of the proposed transfer system. RWSA staff continues to evaluate potential pretreatment and water quality improvement solutions, and toured Western Virginia Authority's Hypolimnetic Oxygenation Systems at their reservoirs on June 15th.

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

Design Engineer:	SEH
Project Start:	August 2020
Project Status:	100% (Phase 1) 70% (Phase 2)

AGENDA ITEM EXECUTIVE SUMMARY

Completion:	July 2022
Budget:	\$22,969 (Phase 1)
	\$98,629 (Phase 2)

Current Status:

Phase 2 of the study continues and includes detailed reservoir water quality modeling performed by DiNatale Water Consultants. Development of a more detailed reservoir model was completed.

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 – Routing Study**

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	6% Design
Construction Start:	2024
Completion:	2028
Budget:	\$31,000,000

Current Status:

Detailed field investigations and design are underway. The RWSA Board approved the project route alignment – Cherry Avenue.

History:

The hydraulic connectivity in the Urban System is less than desired, creating operational challenges and reduced system flexibility and redundancy. Recent efforts and modeling for the Urban Finished Water Infrastructure Master Plan have determined

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

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:	99% (WA 2 & 3) 80% (WA 4) 40% (WA 5)
Based Construction Contract + Change Orders to Date = Current Value:	\$718,428.00 (WA1) + \$91,130.32 (WA2) +\$128,166.69 (WA3) + \$189,698.95 (WA4) = \$1,127,423.96 (total)
Completion:	December (WA 2 & 3) February 2022 (WA 4)
Budget:	\$2,810,000

Current Status:

Finally, WA #4 includes security conduit at the South Rivanna and Observatory WTPs. Security 101's subcontractor has largely completed Observatory. In WA #5 the remainder of the facilities will have card access installations.

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 a 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.

010101RWSAUpdateExecSumm081822



MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS

FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING AND
MAINTENANCE

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: TRANSFER OF OWNERSHIP TO ALBEMARLE COUNTY
SERVICE AUTHORITY – UPPER WOODBROOK
INTERCEPTOR

DATE: JULY 26, 2022

In Spring 2022, RWSA rehabilitated a significant portion of the Woodbrook Interceptor (WBI). The upper portion of the WBI originates just northeast of the Fashion Square Mall and contains approximately 3,400 LF of 8" Ductile Iron and 10" Vitrified Clay Piping and 13 manholes. Upper WBI carries on average approximately 130,000 gallons per day of dry weather sanitary sewage, mostly from residential and small non-residential sewer connections. The nature and volume of the discharges into this sewer aligns better with sewers owned and operated by the Albemarle County Service Authority (ACSA), thus staff recommends that ownership of the Upper WBI be transferred to ACSA.

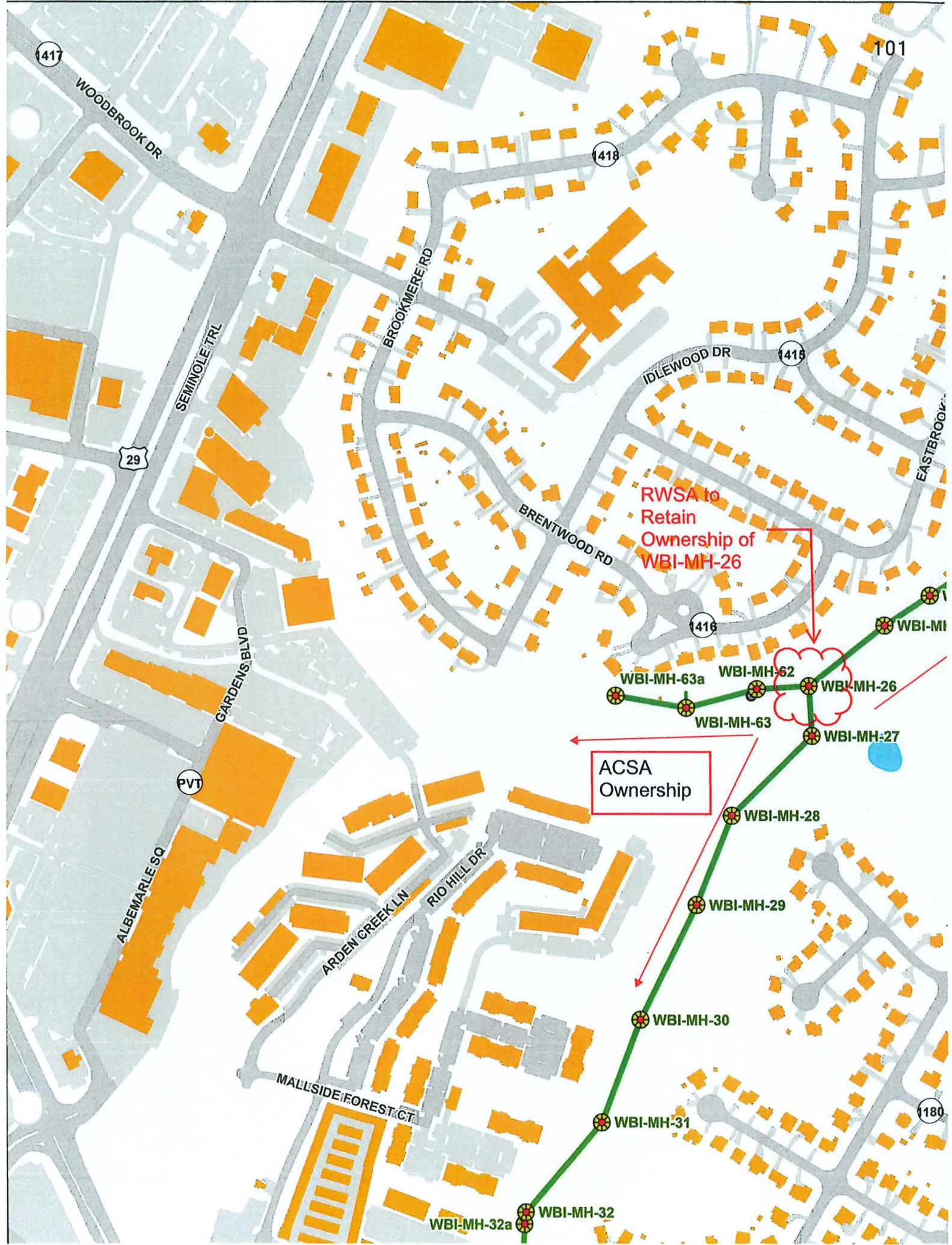
Background

The Woodbrook Interceptor (WBI) was constructed in 1973-1977 and carries sanitary sewage from the Urban Area of north Albemarle County to the Rivanna Interceptor and the Moores Creek Advanced Water Resource Recovery Facility. The uppermost reach of WBI is known as the Upper WBI and is an 8-10" sanitary sewer that originates just northeast of the Fashion Square Mall. From the first manhole (MH-34A) to the manhole on WBI where the 8" and 10" come together (MH-26), the sewer is characterized by small residential and non-residential direct connections and acts as a low-flow collector sewer. At WBI-MH-26, the 8" and 10" portions of WBI come together and upsize to 12", and the downstream portions of WBI function as a more typical RWSA Interceptor, with higher flows and fewer direct connections. At the time of construction, the ACSA and RWSA established an understanding that these smaller diameter, lower flow sections would eventually revert to ACSA ownership.

In fall 2021, Closed-Circuit Television footage revealed that the 10" Vitrified Clay portion of Upper WBI needed significant sewer and manhole rehabilitation, to include cured in place piping (CIPP) and manhole coatings. These efforts were completed by RWSA in June 2022. With the 10" Vitrified Clay portion of the Upper WBI rehabilitated to the confluence at MH-26 and the overall lower flow characteristics of Upper WBI, staff recommends the Upper WBI (8" and 10" sections) from WBI-MH-34A and WBI-MH-63A, respectively, to WBI-MH-26 be transferred to ACSA.

Board Action Requested:

Authorize the Executive Director to execute a deed with the Albemarle County Service Authority that will transfer ownership of approximately 3400 LF of the Woodbrook Interceptor upstream of WBI-MH-26 to ACSA. RWSA will retain ownership of MH-26 and all of WBI downstream of this manhole.



RIVANNA

WATER AND SEWER AUTHORITY
SOLID WASTE AUTHORITY

Board of Directors Briefing, July 26, 2022



THEMES - ASPIRATIONS

Regional
Leadership – a
Model for Others

Excellent
Workforce
Development and
Engagement

Updated Facilities
and Infrastructure

Streamlined and
Efficient
Operations

Stakeholder and
Community
Understanding

THEMES - STRENGTHS

- Professional, Knowledgeable Workforce
- Excellent Product Quality
- Leadership and Organizational Culture
- Capital/Long-range Planning
- Responsive and Reliable
- Sufficient Resources (e.g., Financial, Operational, Internal Expertise)

THEMES - OPPORTUNITIES



Increased Regional
Visibility



External Partnerships
to Support Rivanna
Goals (e.g., PVCC)



Employee
Recruitment and
Retention



Cohesive, Shared
Vision for Solid
Waste



Environmental
Stewardship



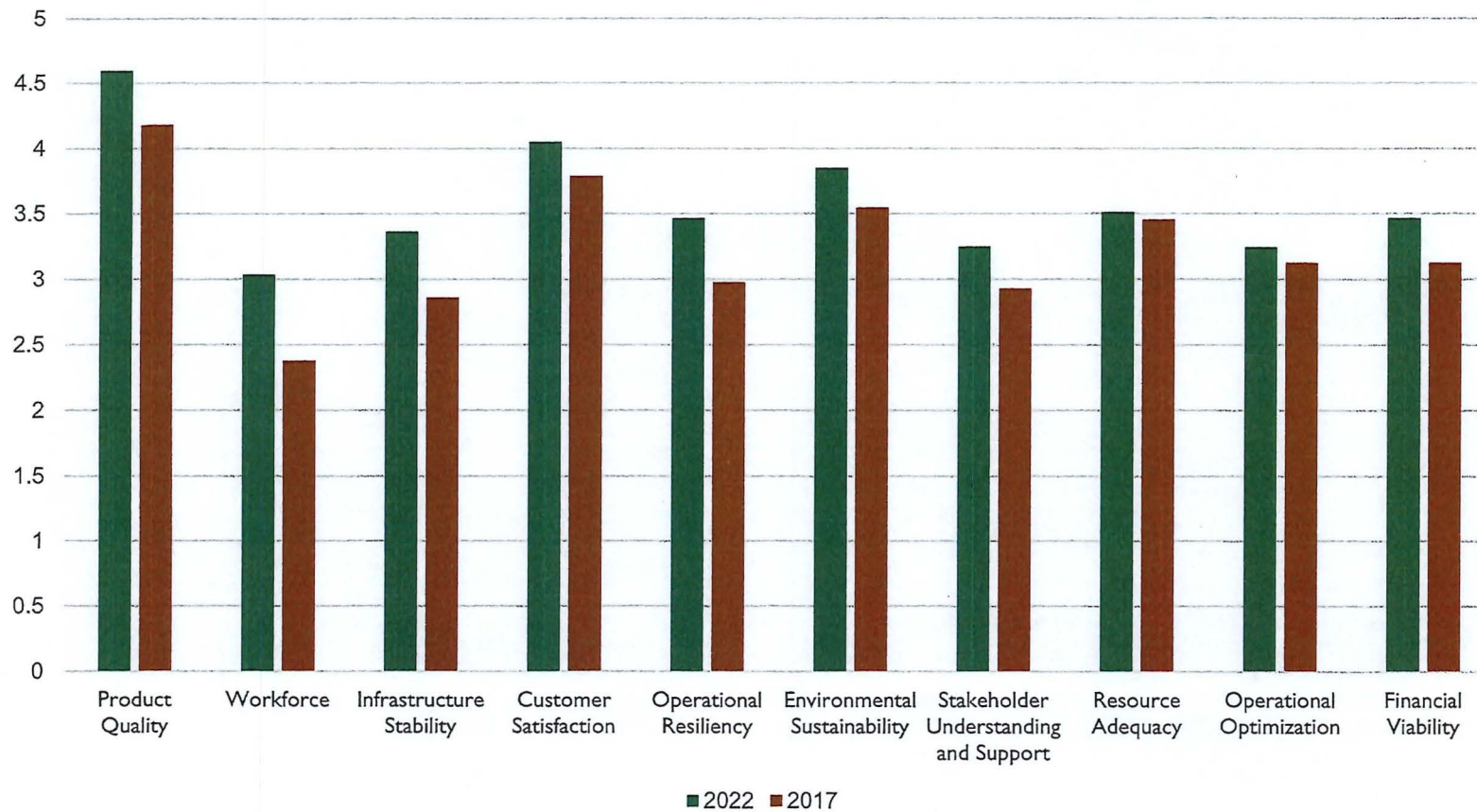
Organizational Focus
on Diversity, Equity,
and Inclusion

THEMES – CRITICAL ISSUES

- Technology Upgrades / Cyber Security
- Population / Service Area Growth
- Supply Chain Issues
- Lack of Community Understanding and Awareness
- Service Affordability / Capital Project Financing, Regulatory Requirements
- Staff Workload / Capacity
- Climate Change / Resiliency

EMPLOYEE SURVEY PERFORMANCE RATINGS

Average Performance Ratings (2022 vs. 2017)



CHECK-IN ON VISION, MISSION, VALUES

Vision - Current

"To serve the community and be a recognized leader in environmental stewardship by providing exceptional water and solid waste services."

Vision - Proposed

"To serve the community as a recognized leader in environmental stewardship by providing exceptional water and solid waste services."

CHECK-IN ON VISION, MISSION, VALUES

Mission - Current

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

Mission - Proposed

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

CHECK-IN ON VISION, MISSION VALUES

Values - Current

The Rivanna Water and Sewer and Rivanna Solid Waste Authorities are committed to the following values:

- Integrity
- Teamwork
- Respect
- Quality

Values - Proposed

No Change Proposed

PRIORITIES “GOAL AREAS” FOR NEXT 5 YEARS

Current

**WORKFORCE
DEVELOPMENT**



**ENVIRONMENTAL
STEWARDSHIP**



**OPERATIONAL
OPTIMIZATION**



**INFRASTRUCTURE
AND MASTER
PLANNING**



**COMMUNICATION
AND
COLLABORATION**



**SOLID WASTE
SERVICES**



Proposed/Emerging

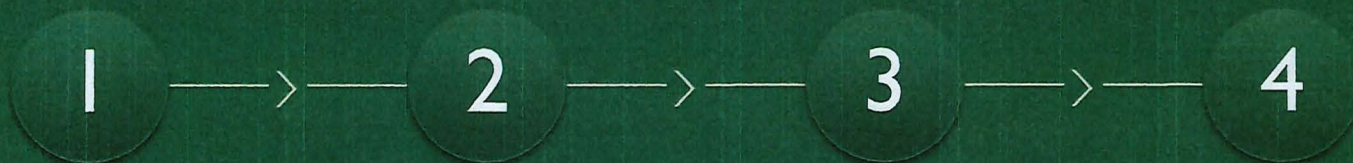
Workforce
(Attract, Develop, Retain)

Optimization & Resiliency
(Be Efficient, Leverage Technology, Risk Mitigation)

Planning & Infrastructure
(Long-Term View, CIP Delivery)

Stakeholder, Communications, Collaboration
(Elevate Brand and Awareness)

Environmental Stewardship
(A Strong Voice for Sustainability)



Incorporate feedback from today in the Strategic Framework

Work with the Leadership Team to define Strategies and Measures for Success

Draft updated Strategic Plan

Determine Implementation Approach

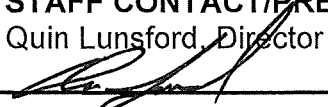
NEXT STEPS



ACSA Board Future Policy Issues Agendas 2022-2023

	Sept. '22	Oct. '22	Nov. '22	Dec. '22	Jan. '23	Feb. '23	March '23	April '23	May '23	Pending Issues
Regular 3rd Thursday Monthly Meetings	September 15th Recognitions	October 20th Recognitions	November 17th Recognitions	December 15th Recognitions	January 19th Recognitions	February 16th Recognitions	March 16th Recognitions	April 20th Recognitions	May 18th Recognitions	Water Supply Plan Project Status Reports Water Treatment Plants RWSA CIP Central Water Line
	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	
	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorization	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	
	Resolution-Imagine a Day Without Water	Operational Presentation - Training and BizLibrary	Operational Presentation - Exclusion Meter Program - Maintenance	Operational Presentation - 4 Story Backflow	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Board Organizational Meeting each January
	Report on status of customer accounts in arrears	Energy Audit Report	Annual Financial Report	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	Water Audit and Energy Audit
	Construction Specifications (VDH)	Recognition for Tony Gibson	Water Audit Report	Annual Investment Report	ACSA Annual Report 2021	Security Assessment Updates; IT Report	AMI Update	Public Hearing on Proposed FY '24 Capital Improvements Program (CIP)		Strategic Plan Updates-2023-2025 January and July
	Supplier Issues	Operational Presentations - ARV's and Auto Flushers		Best Practices Review Panel	Strategic Plan Updated 2020-2022 Final Report	New Strategic Plan Draft 2023-2025		Proposed FY '24 Budget and Rates Overview Presentation		Annual Water Conservation Report - January
	Strategic Plan Process 2023-2025	Construction and Engineering Contracts - Processes		Recognition for Jim Bowling	Water Supply Plan and Treatment Projects Updates	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
	Approval-accept Woodbrook Sewer Interceptor from RWSA			New Attorney Appointment	Annual Water Conservation Report (Consent Agenda)			National Drinking Water Week Resolution		AMI Updates - Customer Portal Video
	Approval of Fire System			Recognition for Calvin Underwood						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 Mid-Year Performance Review				Executive Director Annual Review			

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

AGENDA TITLE: Advanced Metering Infrastructure (AMI) Monthly Update STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance 	AGENDA DATE: August 18, 2022 ACTION: Informational ATTACHMENTS: No
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BACKGROUND: The ACSA Board authorized staff at its October 2019 meeting to execute agreements related to the AMI project. Monthly status updates are provided below:

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

- We continue to monitor meters that have been deployed and are notifying customers daily of irregular consumption/leaks.
- Supply chain disruptions continue to impact meter manufacturers and significant improvement in delivery of outstanding meters is not expected until at least October of 2022. Upon improvement of meter/component availability, the ACSA is poised and prepared for final deployment of the remaining 20,000 meters.

BUDGET IMPACT: Informational only.

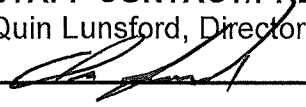
RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS: N/A

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Request for Re-appropriation STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance 	AGENDA DATE: August 18, 2022 ACTION: <input checked="" type="checkbox"/> INFORMATION: <input type="checkbox"/> ATTACHMENTS: Yes
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BACKGROUND: Please consider the following requests for re-appropriation and transfer of funds from fiscal year 2022 to fiscal year 2023.

DISCUSSION:

- There are thirteen (13) requests for re-appropriation of funds from fiscal year 2022 to fiscal year 2023 totaling \$252,361.43. These requests relate to purchases that were budgeted for and are actively being procured. Documentation related to these requests is attached.

BUDGET IMPACT: \$252,361.43

BOARD ACTION REQUESTED: We respectfully request approval of the re-appropriation of \$252,361.43 from fiscal year 2022 to the following accounts in fiscal year 2023:

1. Education/Training (5407-510)	\$ 19,975.00
2. Small Tools (5208-520)	300.00
3. Equipment Replacement (5803-520)	2,500.00
4. Hyd. Meter Prog. (5517-520)	751.80
5. Printing (5311-520)	10,430.40
6. Small tools (5208-540)	1,321.00
7. Small Tools (5208-550)	9,196.00
8. Labor Out (5304-550)	7,650.00
9. Materials Water (5502-550)	810.00
10. Sewer Pump St. Supp. (5508-550)	6,820.75
11. R&M Vehicles (5511-550)	7,873.75
12. Machinery & Equipment (5604-550)	73,977.82
13. Equipment Replacement (5803-550)	110,754.91
Total	\$ 252,361.43

ATTACHMENTS:

- Summary of requested re-appropriation for fiscal year 2023.

**Albemarle County
Service Authority**

Serving • Conserving

MEMORANDUM

To: Quin G Lunsford, Finance Director
Gary B. O'Connell, Executive Director
From: Tonya T. Foster, Procurement/Financial Specialist, *TF*
Date: August 8, 2022
Re: Items for Re-appropriation
cc:

There are several outstanding purchase orders for FY-22. Requests have been submitted for items that were still in progress at the close of the fiscal year. I would like to request re-appropriation of funds from last fiscal year's budget to cover these expenses. The requests are as follows:

Education (5407-510) \$19,975

Training for Q. Lunsford.

Small Tools (5208-520) \$300

To purchase desk chair for the Accounting Clerk.

Printing & Duplicating (5311-520) \$10,430

To purchase billing supplies.

Hydrant Meter Program (5517-520) \$752

To purchase meter supplies.

Equipment Replacement (5803-520) \$2,500

To purchase office furniture for the Accounting Supervisor.

Small Tools (5208-540) \$1321

To purchase solar-powered logger and sensor array.

Small Tools (5208-550) \$9,196

To purchase flush nozzles.

Labor Outside (5304-550) \$7,650

Load bank testing of generators.

Materials Water (5502-550) \$810

To purchase marking paint.

Sewer Pump Station Supplies (5508-550) \$6,821

To purchase rotating assembly and wear plates for Camelot.

Repair & Maintenance – Vehicles (5511-550) \$7,874

Repairs to Unit 32.

Machinery & Equipment (5604-550) \$73,978

To purchase sewage air release valve. **(\$3,866)** To purchase radio desktop charger. **(\$445)** To purchase Ford F550 Cab & chassis with hydraulic dump bed. **(\$69,667)**

Equipment Replacement (5803-550) \$110,754

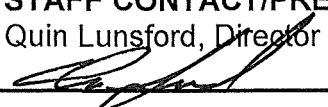
To purchase blade and accessories for Kubota UTV. **(\$3668)** To purchase Kubota UTV. **(\$19,237)** To purchase Manitou forklift. **(\$87,849)**

TTF

Attachments

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Investment Policy Report - Update STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance 	AGENDA DATE: August 18, 2022 ACTION: Informational ATTACHMENTS: No
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BACKGROUND: The Board approved revisions to the ACSA Investment Policy on March 17, 2022 to:

- Update rating requirements for Commercial Paper to follow the modification of Virginia Code Section 2.2-4500 et seq. to expand the list of NRSRO's ratings that qualify certain credit securities.
- Increase sector limits for Federal Agency/GSE and Municipal Obligations to help further diversify the portfolio by allowing a higher sector allocation while still being in line with the issuer limits and credit rating requirements.
- Expand governmental sector to permit investments in Supernationals to help further diversify the overall portfolio and potentially enhance yield.
- Expand to additional high quality investment sectors to permit investment in corporate notes and negotiable certificates of deposit to enhance the overall diversification and potential yield of the overall portfolio by taking on additional credit risk.

Additionally, PFM Asset Management LLC (PFMAM) presented an overview of "Socially Responsible Investing" (SRI) and "Environmental, Social and Governance" (ESG) investing programs. The Board requested staff to further pursue these programs and related policies.

DISCUSSION: Authority staff, in conjunction with consultation from PFMAM, have explored the process to implement an SRI/ESG program which would reflect the Board's goals, objectives, and values. This process would require specific identification of SRI/ESG priorities and objectives, evaluation of SRI/ESG approaches, review investment and SRI/ESG criteria options and analyze SRI/ESG integration impact. Once these steps are complete, an update to the investment policy with SRI/ESG parameters would be proposed and if approved would allow PFMAM to integrate into the investment process.

PFMAM has suggested that if the Board wishes to further evaluate SRI/ESG options, the next step would be to meet with the PFMAM ESG team to review in detail specific objectives or areas of concern to develop specific recommendations for Board consideration. To ensure this meeting addresses values of the Board, staff requests direction related to which type of sustainable investment method should be evaluated (SRI or ESG). The SRI method is exclusionary and avoids socially adverse industries like fossil fuels while the ESG method systematically considers impact of environmental, social, and governance risks or more of a risk management approach. As noted in the March 17, 2022 Board meeting, environmental considerations of issuers was of interest but if there are other areas of concern, we will incorporate those into our conversations to develop a proposal for consideration.

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

It is important to note, the Code of Virginia and current ACSA investment policies greatly limit issuers who are qualified and among those issuers that qualify under current policy, only about 15-20 issuers frequently issue in the overall marketplace and have the credit ratings necessary to meet Code of Virginia requirements.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS: N/A

Remote Participation Policy
of
Albemarle County Service Authority

Effective September 1, 2022

1. Applicability of Policy.

A. Purposes. Pursuant to *Virginia Code § 2.2-3708.3*, the following policy:

1. describes the circumstances under which an all-virtual public meeting and/or remote participation will be allowed and the process the Albemarle County Service Authority (hereinafter "ACSA") will use for making requests to use remote participation, approving or denying such requests, and creating a record of such requests; and
2. fixes the number of times remote participation for personal matters or all-virtual public meetings can be used per calendar year, not to exceed the limitations set forth in *Virginia Code § 2.2-3708.3(B)(4) and (C)(9)*.

B. Application. This policy will be applied strictly and uniformly, without exception, to the entire membership and without regard to the identity of the member(s) requesting remote participation or the matters that will be considered or voted on at the meeting.

2. Non-Emergency Individual Participation. Except as provided elsewhere in this policy, individual members may use remote participation instead of attending a public meeting in person only pursuant to and in compliance with the following rules:

A. Grounds for Remote Participation; Advance Notice of the Chair. Individual members may use remote participation instead of attending a public meeting in person if, in advance of the public meeting, the member notifies the Chair that:

1. **Personal Medical Condition.** The member has a temporary or permanent disability or other medical condition that prevents the member's physical attendance;
2. **Family Member's Medical Condition.** A medical condition of a member of the member's family requires the member to provide care that prevents the member's physical attendance;
3. **Distant Meeting Location.** The member's principal residence is more than 60 miles from the meeting location identified in the required notice for such meeting; or
4. **Identified Personal Matter; Limitation on Use.** The member is unable to attend the meeting due to a personal matter (such as a family event or business commitment) and identifies with specificity the nature of the personal matter. However, the member may not use remote participation due to personal matters more than two meetings per calendar year or 25 percent of the meetings held per calendar year rounded up to the next whole number, whichever is greater.

B. Minutes. If participation by a member through electronic means is approved by the ACSA Board pursuant to Paragraph 2, with a quorum of the Board physically assembled, the ACSA shall record

in its minutes the remote location from which the member participated; however, the remote location need not be open to the public and may be identified in the minutes by a general description.

1. **Medical Condition.** If participation is approved pursuant to Paragraphs 2(A)(1) or 2(A)(2), the ACSA shall also include in its minutes the fact that the member participated through electronic communication means due to a (i) temporary or permanent disability or other medical condition that prevented the member's physical attendance or (ii) family member's medical condition that required the member to provide care for such family member, thereby preventing the member's physical attendance.
2. **Distant Meeting Location.** If participation is approved pursuant to Paragraph 2(A)(3), the ACSA shall also include in its minutes the fact that the member participated through electronic communication means due to the distance between the member's principal residence and the meeting location.
3. **Identified Personal Matter.** If participation is approved pursuant to Paragraph 2(A)(4), the ACSA shall also include in its minutes the specific nature of the personal matter cited by the member.
4. **Disapproval.** If a member's participation from a remote location pursuant to Paragraph 2 is disapproved because such participation would violate this policy, such disapproval shall be recorded in the minutes with specificity.

C. When Chair Requests to Participate Electronically. In the event the Chair seeks to participate through electronic communication means from a remote location, the Chair must notify the Vice-Chair or other presiding officer and should notify the Secretary [or Clerk] on or before the day of the meeting.

D. Audibility of Absent Member. The Secretary [or Clerk] will arrange for the voice of the absent member to be heard by all persons in attendance at the meeting location. If, for any reason, the voice of the absent member cannot reasonably be heard, the meeting may continue without the participation of the absent member.

3. **All-Virtual Public Meetings [NOT for use by Board of Supervisors, School Board, Planning Commissions, Architectural Review Board, or Board of Zoning Appeals].** Except as provided in Paragraph 4 below, the ACSA may hold all-virtual public meetings only (i) for regular and special meetings deemed appropriate to be done virtually by the chair of the ACSA and (ii) pursuant to and in compliance with the following rules:

A. Meeting Notice. An indication of whether the meeting will be an in-person or all-virtual public meeting must be included in the required meeting notice along with a statement notifying the public that the method by which the ACSA chooses to meet shall not be changed unless the ACSA provides a new meeting notice in accordance with the provisions of *Virginia Code* § 2.2-3707;

B. Public Access. Public access to the all-virtual public meeting must be provided via electronic communication means;

C. Member Audibility/Visibility. The electronic communication means used must allow the public to hear all members of the ACSA participating in the all-virtual public meeting and, when audio-

visual technology is available, to see the members of the ACSA as well;

- D. Contact for Transmission Failure.** A phone number or other live contact information must be provided to alert the ACSA if the audio or video transmission of the meeting provided by the ACSA fails, the ACSA must monitor such designated means of communication during the meeting, and the ACSA must take a recess until public access is restored if the transmission fails for the public;
 - E. Meeting Materials.** A copy of the proposed agenda and all agenda packets and, unless exempt, all materials furnished to members of the ACSA for a meeting must be made available to the public in electronic format at the same time that such materials are provided to members of the ACSA;
 - F. Public Comment.** The public must be afforded the opportunity to comment through electronic means, including by way of written comments, at those public meetings when public comment is customarily received;
 - G. Multiple Members in a Single Location.** No more than two members of the ACSA may be together in any one remote location unless that remote location is open to the public to physically access it;
 - H. Closed Sessions.** If a closed session is held during an all-virtual public meeting, transmission of the meeting to the public must resume before the ACSA votes to certify the closed meeting as required by *Virginia Code* § 2.2-3712(D);
 - I. Number and Frequency of All-Virtual Meetings.** The ACSA may not convene an all-virtual public meeting (i) more than two times per calendar year or 25 percent of the meetings held per calendar year rounded up to the next whole number, whichever is greater, or (ii) consecutively with another all-virtual public meeting; and
 - J. Minutes.** Minutes of all-virtual public meetings held by electronic communication means must be taken as required by *Virginia Code* § 2.2-3707 and must include the fact that the meeting was held by electronic communication means and the type of electronic communication means by which the meeting was held. If a member's participation from a remote location pursuant to this subsection is disapproved because such participation would violate this policy, such disapproval shall be recorded in the minutes with specificity.
- 4. All virtual meetings of ACSA Committees.** Any committee of the ACSA may hold an all-public virtual meeting. The requirements for a committee all virtual meeting are set forth in Section 3.A-J above.
 - 5. During a Declared Emergency or When a Continuity of Government Ordinance is in Effect.** The ACSA may meet by electronic communication means without a quorum of the ACSA physically assembled at one location when a state of emergency is declared pursuant to *Virginia Code* § 44-146.17 or a local emergency is declared pursuant to *Virginia Code* § 44-246.21, subject to the provisions and requirements of *Virginia Code* § 2.2-3708.2. The ACSA also may meet by electronic communication means when an ordinance adopted pursuant to *Virginia Code* § 15.2-1413 to ensure the continuity of County government is in effect.

(*Virginia Code* § 2.2-3708.2 and § 2.2-3708.3)

* * * * *

(Adopted [Date]).



GIS OVERVIEW

Justin Ray
8/18/2022



WHAT IS GIS?

GIS

Geographic Information System

ESRI: A spatial system that creates, manages, analyzes, and maps all types of data

ACSA

Digitized spatial representations of the ACSA's water, sewer, and facility infrastructure

Over 90,000 Water Assets

Over 43,000 Sewer Assets

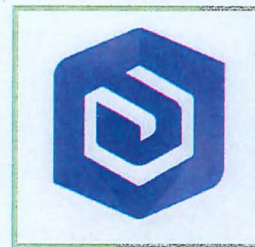
MYRIAD SOFTWARE APPLICATIONS



ARCGIS PRO



FIELD MAPS



ARCGIS ENTERPRISE



ARCGIS DESKTOP



ARCGIS ONLINE



CMMS - CITYWORKS
Integration

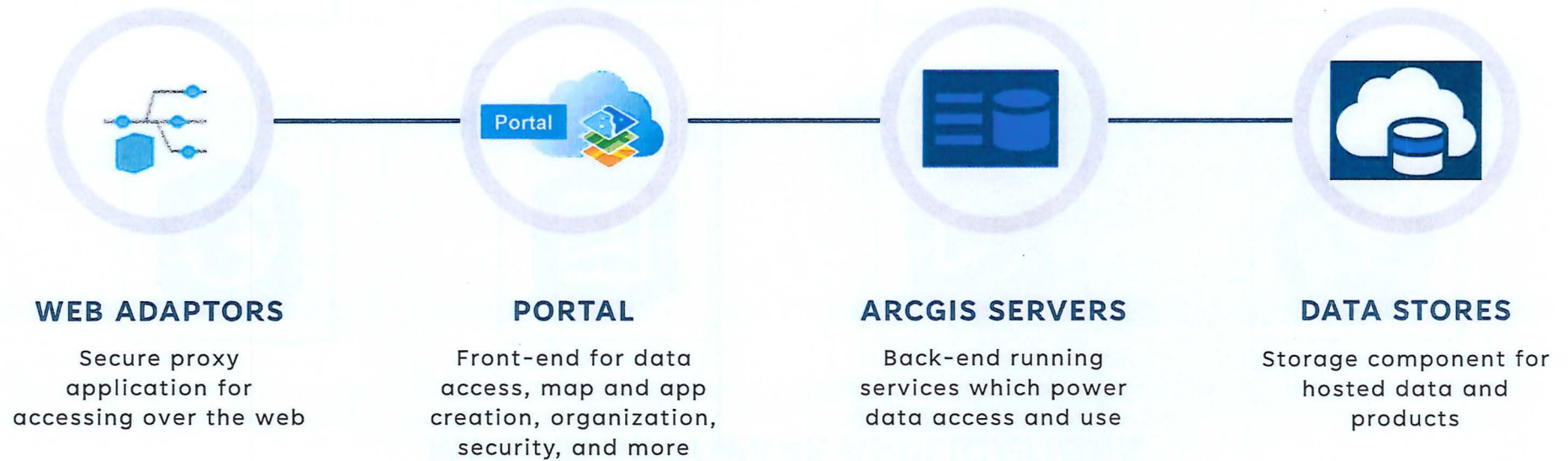


CCTV - GRANITENET
Integration



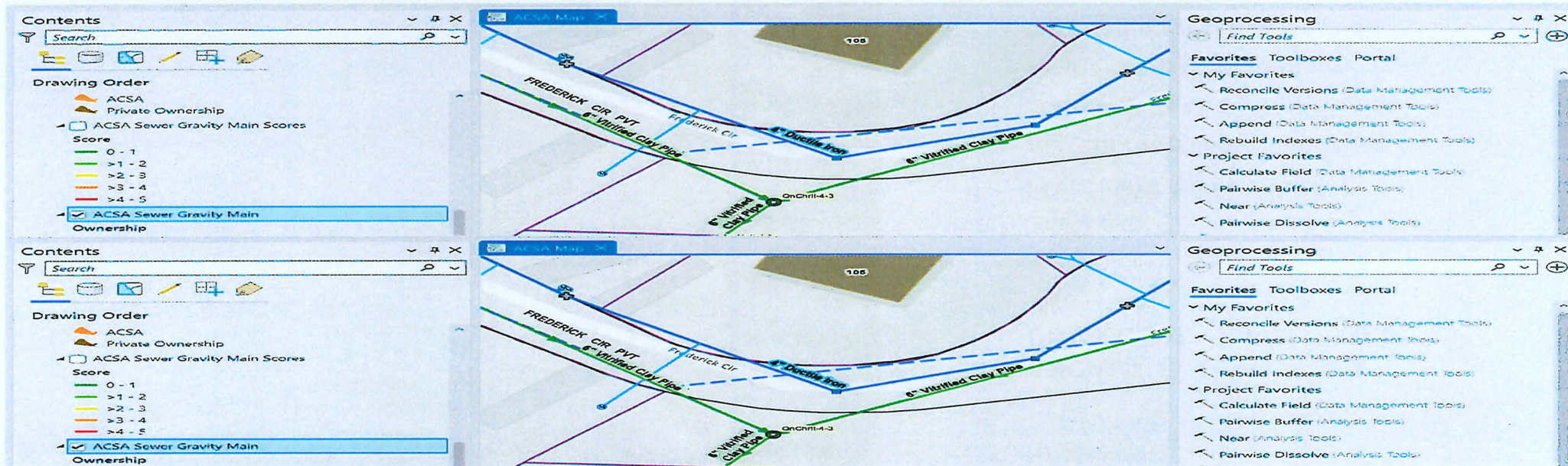
MODELLING - INNOVYZE
Integration

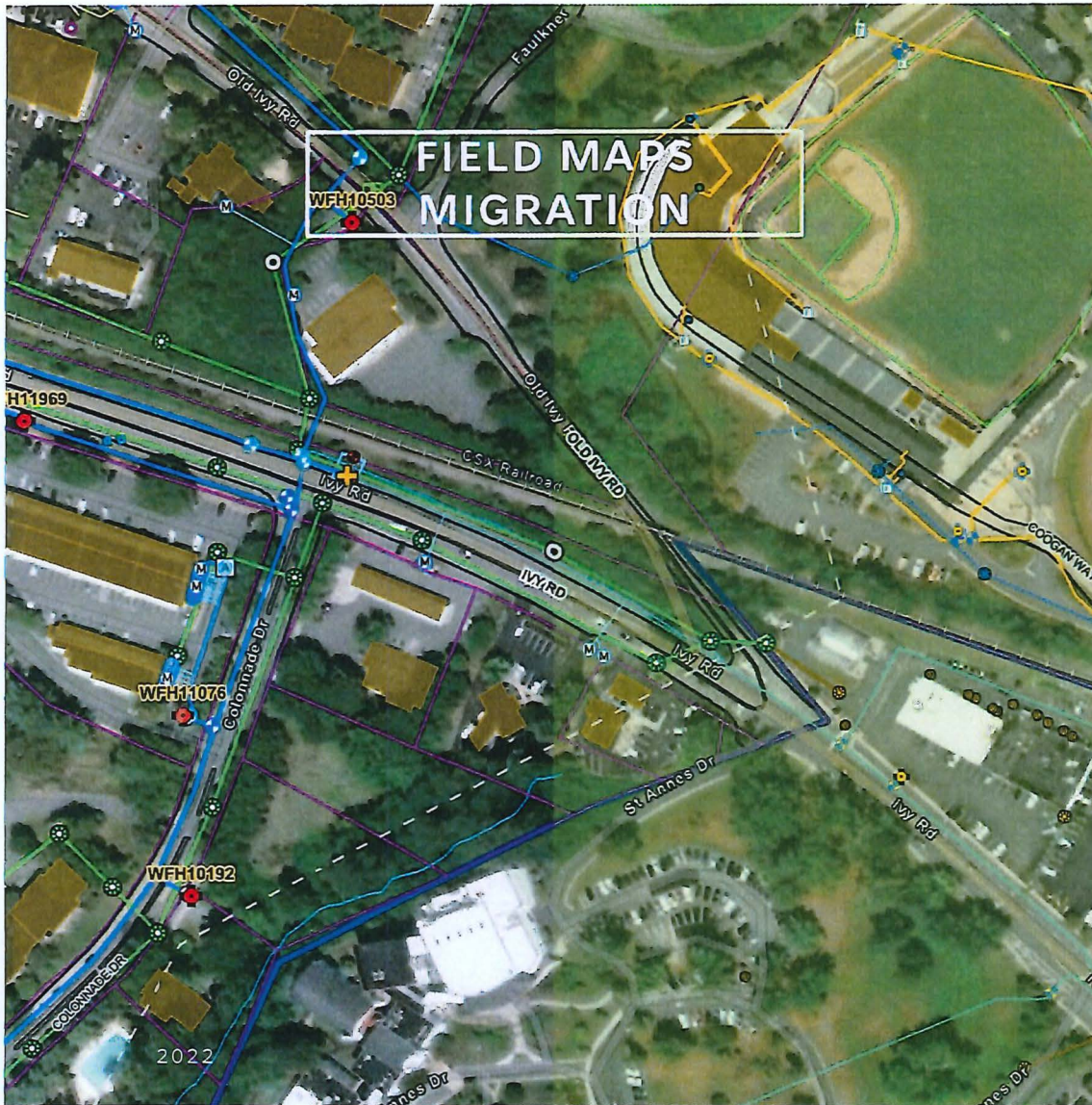
ARCGIS ENTERPRISE



ARCGIS PRO MIGRATION

ArcGIS Desktop was used by the ACSA for over two decades. 15 staff underwent training to begin using ArcGIS Pro in May, 2022.





**ARCPAD → EXPLORER &
COLLECTOR → FIELD MAPS**

FIELD GIS SOFTWARE

ArcPad required a Windows computer for use. Impractical for field staff and higher learning curve than an iPad.

APP CONSOLIDATION

Explorer (for viewing) and Collector (for editing) were consolidated by ESRI into Field Maps

HOW IT'S USED

DATA COLLECTION

Inspectors regularly GPS locate new point features using Field Maps and Trimble R2 receivers with decimeter accurate real-time correction

DATA CREATION

Engineers / GIS staff create new line features to 'connect the dots' in ArcGIS Pro

CARTOGRAPHY

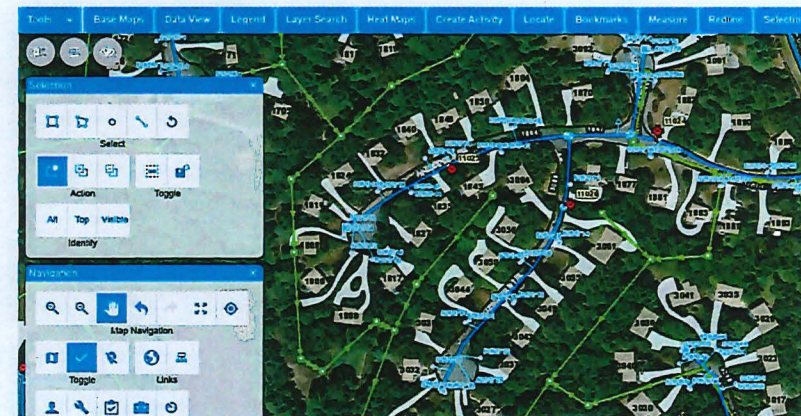
Maps are created and distributed to interested parties; engineering firms, customers, Miss Utility tickets, etc.

LOCATING

Field staff use Field Maps to regularly determine what assets are in the ground around them, and to plan their work.

INTEGRATIONS

GIS data and services provide the asset repository for several integrations to prevent redundant data creation



NEW DATA

Data Creation Workflow

GNSS LOCATING

Inspectors use Field Maps with high-accuracy GNSS receivers to digitize point features

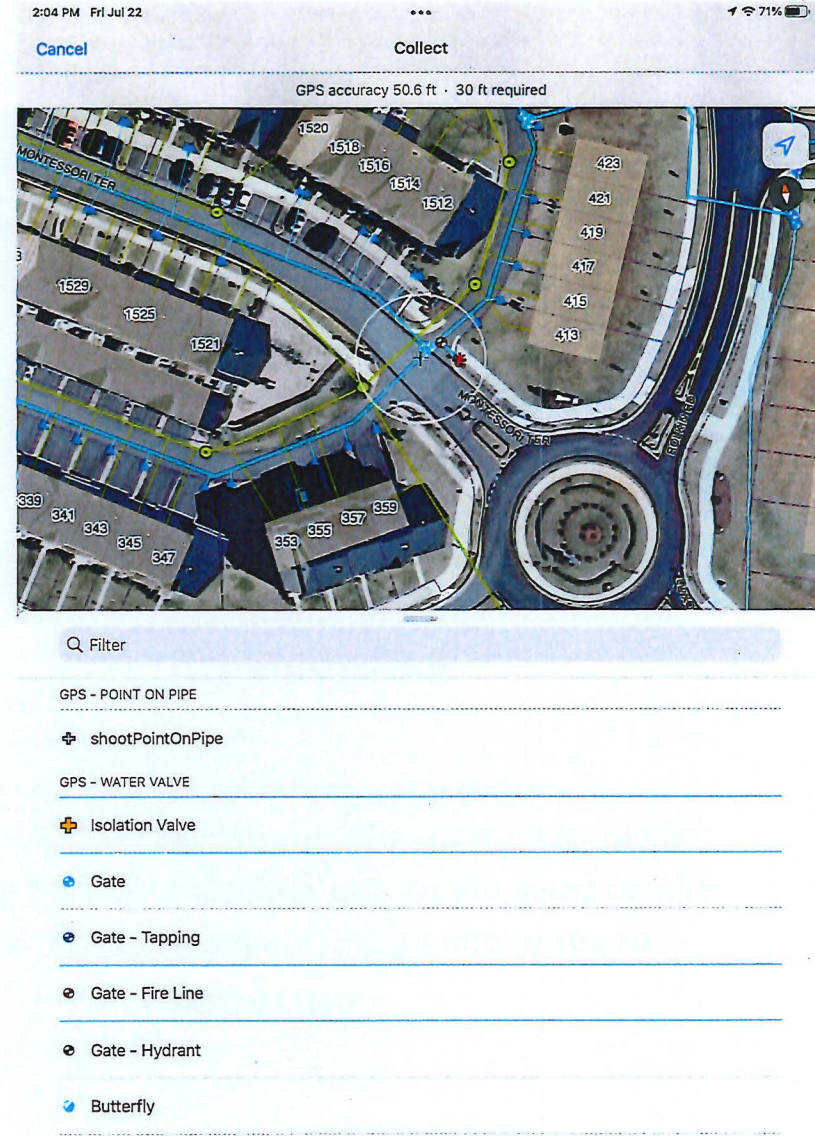
ADDING LINES & QA/QC

Office staff draw in any line features using the new points and construction plans. Data quality is vetted and finalized.

INTEGRATED

Once the data is in the GIS, it is then able to be used for work in the CMMS, CCTV software, and hydraulic model

2022



- acsagis.DBO.Reference
- acsagis.DBO.SanitarySewer
 - acsagis.DBO.ssAncillaryValve
 - acsagis.DBO.ssFitting
 - acsagis.DBO.ssFlowMeter
 - acsagis.DBO.ssForceMain
 - acsagis.DBO.ssGravityMain
 - acsagis.DBO.ssGreaseTrap
 - acsagis.DBO.ssLateralLine
 - acsagis.DBO.ssLateralPoint
 - acsagis.DBO.ssManhole
 - acsagis.DBO.ssPump
 - acsagis.DBO.ssPumpStation
 - acsagis.DBO.ssRepair
 - acsagis.DBO.ssSystemValve
- acsagis.DBO.WaterDistribution
 - acsagis.DBO.wAncillaryServiceLine
 - acsagis.DBO.wAncillaryValve
 - acsagis.DBO.wAutomaticFlushing
 - acsagis.DBO.wBlowOffBox
 - acsagis.DBO.wFitting
 - acsagis.DBO.wFlowMeter
 - acsagis.DBO.wHydrant
 - acsagis.DBO.wMain
 - acsagis.DBO.wMeter

DATABASE

SEWER

13 Feature Classes
e.g. manholes, gravity
mains, pump stations

WATER

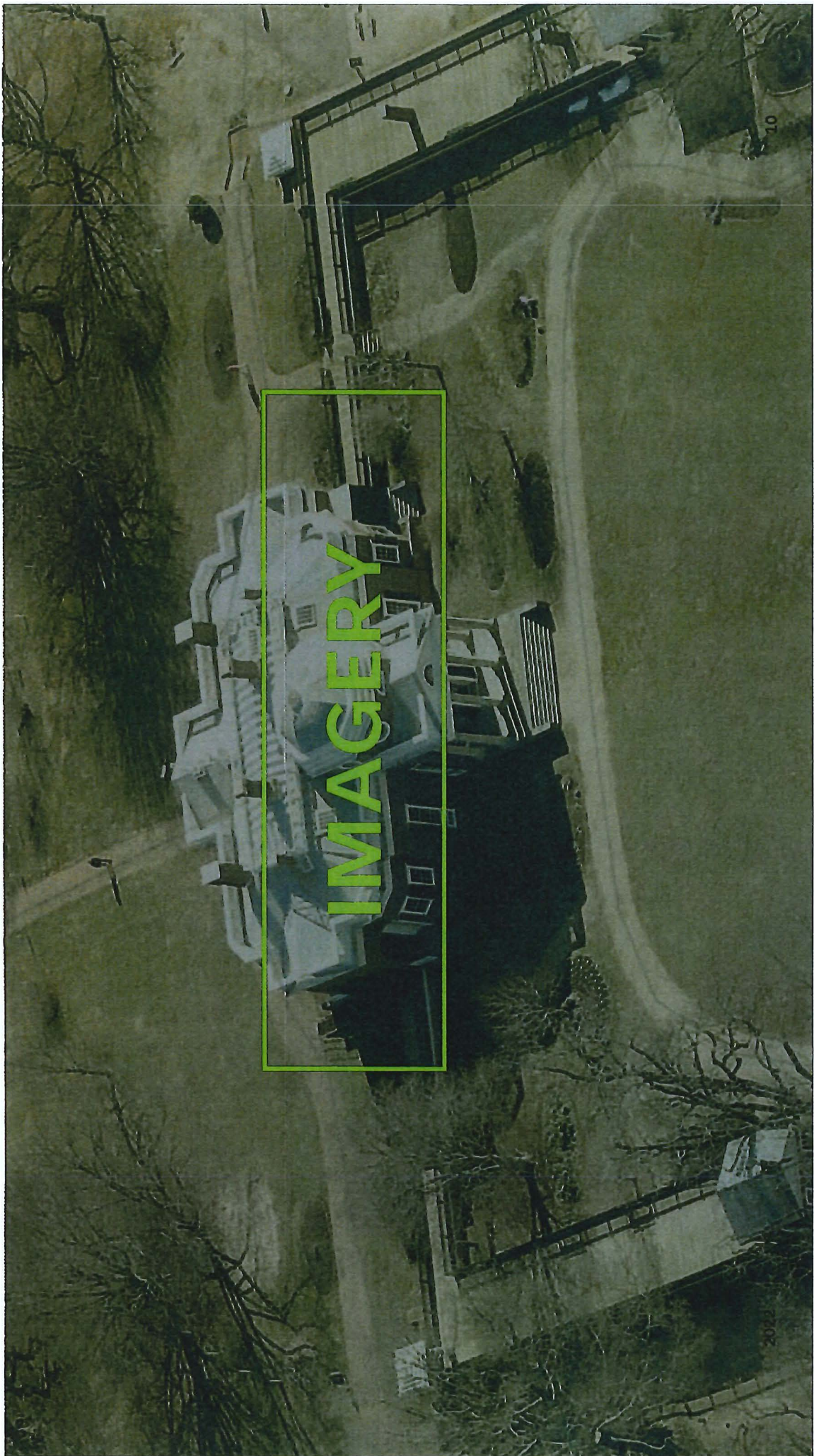
22 Feature Classes
e.g. tanks, valves, meters, PRV
stations

TABLES

10 vertical asset tables
e.g. fleet, generators,
motors, variable frequency
drives

MISCELLANEOUS

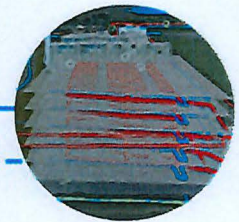
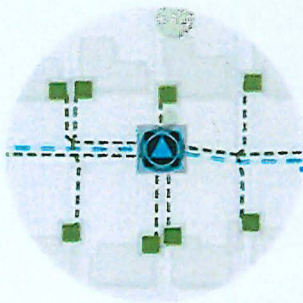
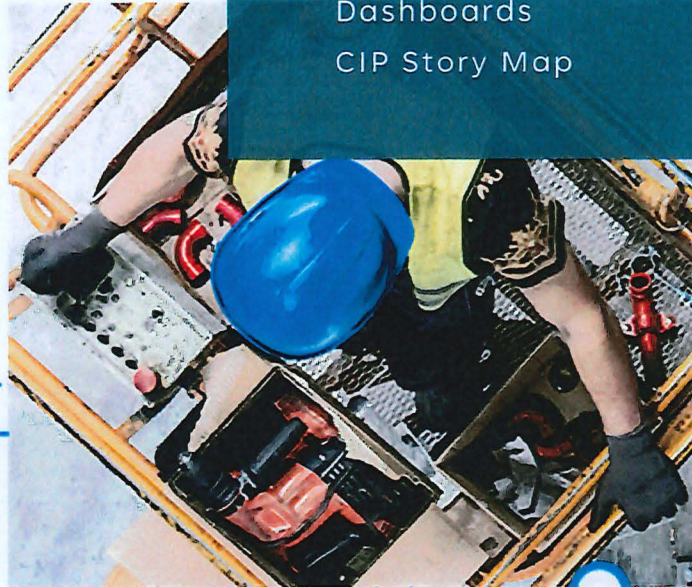
17 Feature Classes
e.g. pipe crossings, points on
pipe, rain gauges



WHAT'S NEXT?

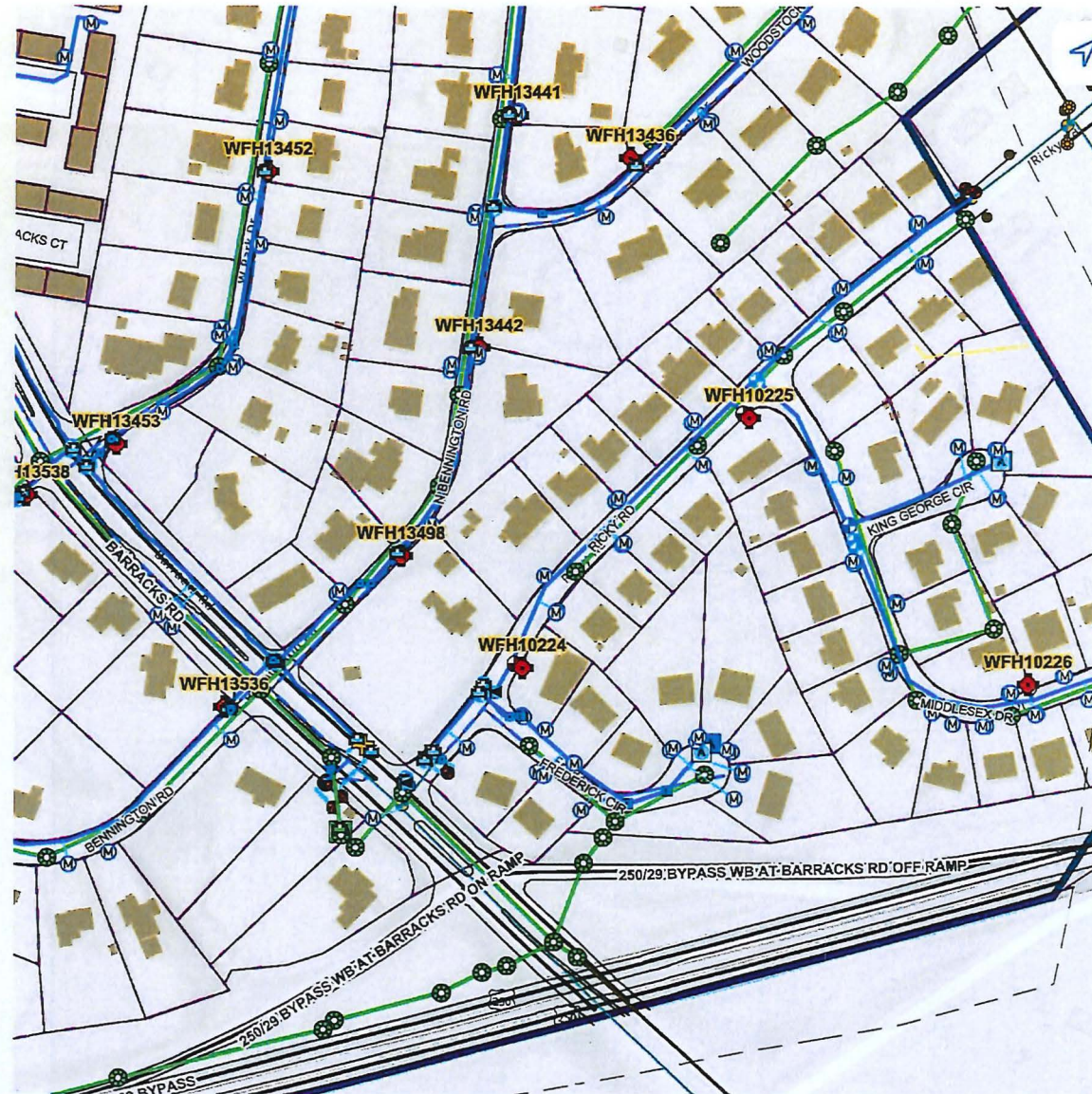
CIP Projects:
Utility Network Feasibility
Cityworks Operational Insights

Software Upgrades
Data Reviewer
Dashboards
CIP Story Map



QUESTIONS?

2022



MOTION:

MEETING DATE: August 18, 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 Performance Goals for 2022-23.

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:

Gary B. O'Connell, Secretary-Treasurer

MOTION:

MEETING DATE: August 18, 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:

Gary B. O'Connell, Secretary-Treasurer