



BOARD OF DIRECTORS' MEETING

April 21, 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. GFOA Distinguished Budget Award Recognition
9:10 a.m.	3. Approve Minutes of March 17, 2022
9:15 a.m.	4. Matters from the Public
9:25 a.m.	5. Response to Public Comment
9:30 a.m.	6. Consent Agenda
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. Monthly Maintenance Update
	d. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	e. ACSA Board Policy Future Issues Agenda 2022
	f. CMMS/ Cityworks (Work Order System) Update Report
	g. Advanced Metering Infrastructure (AMI) Project Update
9:40 a.m.	7. Proposed Capital Improvement Program (CIP) FY 2023 Presentation
10:10 a.m.	8. Public Hearing –Proposed FY 2023 Capital Improvement Program (CIP)
10:20 a.m.	9. Proposed FY 2023 Budget and Rates - Overview Presentation
10:50 a.m.	10. Resolution scheduling Budget and Rates Public Hearing for June 16, 2022
10:55 a.m.	11. Northern Urban Water System Cost Allocation Agreement
11:25 a.m.	12. Items Not on the Agenda
	13. Adjourn



ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF CHAIR TO OPEN April 21, 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.

November 12, 2021

Quin Lunsford
 Director of Finance
 Albemarle County Service Authority
 168 Spotnap Road
 Charlottesville, VA 22911

Dear Mr. Lunsford:

We are pleased to inform you, based on the examination of your budget by a panel of independent reviewers, that your budget document has been awarded the Distinguished Budget Presentation Award from Government Finance Officers Association (GFOA) for the current fiscal period. This award is the highest form of recognition in governmental budgeting. Its attainment represents a significant achievement by your organization.

The Distinguished Budget Presentation Award is valid for one year. To continue your participation in the program, it will be necessary to submit your next annual budget document to GFOA within 90 days of the proposed budget's submission to the legislature or within 90 days of the budget's final adoption. Information about how to submit an application for the Distinguished Budget Program application is posted on GFOA's website.

Each program participant is provided with confidential comments and suggestions for possible improvements to the budget document. Your comments are enclosed. We urge you to carefully consider the suggestions offered by our reviewers as you prepare your next budget.

When a Distinguished Budget Presentation Award is granted to an entity, a Certificate of Recognition for Budget Presentation is also presented to the individual(s) or department designated as being primarily responsible for its having achieved the award. Enclosed is a Certificate of Recognition for Budget Preparation for:

Finance Department of Finance Department

Continuing participants will receive a brass medallion that will be mailed separately. First-time recipients will receive an award plaque within eight to ten weeks. Enclosed is a camera-ready reproduction of the award for inclusion in your next budget. If you reproduce the camera-ready image in your next budget, it should be accompanied by a statement indicating continued compliance with program criteria. The following standardized text should be used:

Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to **Albemarle County Service Authority, Virginia**, for its Annual Budget for the fiscal year beginning **July 01, 2021**. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

A press release is enclosed.

Upon request, GFOA can provide a video from its Executive Director congratulating your specific entity for winning the Budget Award.

We appreciate your participation in this program, and we sincerely hope that your example will encourage others in their efforts to achieve and maintain excellence in governmental budgeting. The most current list of award recipients can be found on GFOA's website at www.gfoa.org. If we can be of further assistance, please contact the Technical Services Center at (312) 977-9700.

Sincerely,

A handwritten signature in black ink, reading "Michele Mark Levine". The signature is written in a cursive, flowing style.

Michele Mark Levine
Director, Technical Services Center

Enclosure

FOR IMMEDIATE RELEASE

November 12, 2021

For more information, contact:

Technical Services Center

Phone: (312) 977-9700

Fax: (312) 977-4806

E-mail: budgetawards@gfoa.org

(Chicago, Illinois)--Government Finance Officers Association is pleased to announce that **Albemarle County Service Authority, Virginia**, has received GFOA's Distinguished Budget Presentation Award for its budget.

The award represents a significant achievement by the entity. It reflects the commitment of the governing body and staff to meeting the highest principles of governmental budgeting. In order to receive the budget award, the entity had to satisfy nationally recognized guidelines for effective budget presentation. These guidelines are designed to assess how well an entity's budget serves as:

- a policy document
- a financial plan
- an operations guide
- a communications device

Budget documents must be rated "proficient" in all four categories, and in the fourteen mandatory criteria within those categories, to receive the award.

When a Distinguished Budget Presentation Award is granted to an entity, a Certificate of Recognition for Budget Presentation is also presented to the individual(s) or department designated as being primarily responsible for having achieved the award. This has been presented to **Finance Department of Finance Department**.

There are over 1,700 participants in the Budget Awards Program. The most recent Budget Award recipients, along with their corresponding budget documents, are posted quarterly on GFOA's website. Award recipients have pioneered efforts to improve the quality of budgeting and provide an excellent example for other governments throughout North America.

Government Finance Officers Association (GFOA) advances excellence in government finance by providing best practices, professional development, resources and practical research for more than 21,000 members and the communities they serve.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Albemarle County Service Authority
Virginia**

For the Fiscal Year Beginning

July 01, 2021

Christopher P. Morill

Executive Director

1 The Board of Directors of the Albemarle County Service Authority
2 (ACSA) met virtually in a regular session on March 17, 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; Dr. Lizbeth
6 Palmer; Mr. John Parcels; Mr. Clarence Roberts, Chair; Mr. Charles
7 Tolbert, Vice-Chair.

8 **Members Absent:** None.

9 **Staff Present:** Jim Bowling, Daniel Fouch, Pete Gorham, Quin Lunsford,
10 Jeremy Lynn, Michael Lynn, Alex Morrison, Gary O'Connell, Justin Ray,
11 Terri Knight, Emily Roach, Danielle Trent, April Walker, Jill Zimmerman.

12 **Staff Absent:** None.

13 **Public Present:** Michael Derdeyn, Flora Pettit; Nelson Bush, Leslie
14 Weaber, PFM Asset Management; Mike Maker, NewGen Strategies and
15 Solutions, LLC.

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

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

21
22 2. Approve Minutes of February 17, 2022

23 There were no corrections or additions to the minutes of February
24 17, 2022.

25 ***Mr. Tolbert moved to approve the minutes, seconded by Mr.***
26 ***Parcells. All members voted aye.***

27
28 3. Matters from the Public

29 There were no matters from the public.

30
31 4. Response to Public Comment

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1 There was no response to public comment.

2
3 5. Consent Agenda

4 **a. Monthly Financial Reports** – Mr. Parcels stated that revenues and
5 overall consumption seem to be very positive compared to the budget.
6 He asked if the RWSA rate increase was in effect and if so, how the
7 numbers can be so good. He added that he also noticed Southwood
8 Mobile Home Park shows a sewer consumption of 5 million gallons,
9 which seems way out of line. He asked if that could have contributed to
10 the positive numbers. Mr. Lunsford replied that the Engineering group
11 is working with Southwood on that sewer only meter, which is slated to
12 be replaced soon if it has not been replaced already. He stated that it
13 has some effect on the overall revenue, but it is certainly not driving
14 the overage. He noted that the 10.2% that is reflected on the income
15 statement, compared to the budget, is not adjusted for monthly
16 expectations. He stated that when the staff was budgeting in 2021 for
17 FY 2022, it was in the middle of the pandemic and there was
18 uncertainty about what to expect. He mentioned that this accounts for
19 some of the overage as well.

20 Mr. Roberts asked if the revenue overage would be used to keep
21 rates reasonable in FY 2023. Mr. Lunsford replied yes. He stated that
22 any surplus is available in the reserves. He stated that the surplus is
23 driven either by connection charge revenue in excess of growth-related
24 capital projects, and any revenues in excess of expenses for the
25 ACSA. He added that the surplus can be a bit deceiving in that if cash
26 funded ACSA projects are delayed, the surplus will increase for that
27 given year. He stated that when those projects near completion, use of
28 those reserves will come down.

29 Mr. Parcels stated that his next question was about the arrearages
30 on customer accounts. He stated that while it was good to see a
31 decline in the 60-day arrearages, there was a bounce in the 90-day

1 arrearages. He asked if all the relief money had been expended, and if
2 that has contributed to the increase in receivables. Mr. Lunsford replied
3 that all the ARPA funding has been applied to eligible accounts. He
4 stated that the decrease in the 60-day arrearages does not mean that
5 the accounts have been paid. He stated that they could have simply
6 transitioned to the 90-day arrearages. He noted that notices were sent
7 to about 200 customers with arrearages last week, requesting payment
8 on those accounts. He stated that by yesterday, 25% of those
9 customers had made payment.

10 **b. Monthly CIP Report** – Mr. Tolbert stated that he had a question
11 about the HVAC System Upgrade project. He asked if all employees
12 have returned to the building, and does the staff have access to the
13 contractor during the summer months to balance out the AC in the
14 warmer weather. Mr. Gorham replied that there is a fair mix of
15 employees throughout the building, thus there are no parts of the
16 building that are isolated. Mr. Morrison added that the HVAC issue
17 turned out to be a faulty sensor, not part of the project, that prevented
18 the compressors from turning on when going into cooling mode. He
19 added that this was a simple fix that has been completed and tested.
20 He stated that the commissioning report is being finalized and there will
21 be a one-year warranty period once the project is complete.

22 Mr. Tolbert stated that he had another question about the Hessian
23 Hills Water Main Replacement project. He asked when Barracks Road
24 and Georgetown Road would be repaved. Mr. Lynn stated that the
25 contractor is projecting to have all the utility work completed by the
26 middle of April. He stated that during the second half of April/ early
27 May, SL Williamson is planning to repave the disturbed portion of
28 Barracks Road and all of Georgetown Road from Barracks to Old
29 Forge Road. He added that VDOT will have a contractor pave the
30 portion of Barracks Road that the ACSA did not disturb.

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Mr. Tolbert stated that the concern the residents of Canterbury Hills have is that the entrance streets have been disturbed by contractors storing their heavy equipment there. He stated that the residents want to ensure that enough paving is done to correct any damage. Mr. Lynn replied that there is already a plan to repave some of those entrances. He noted that the ACSA will ensure that the paving is done extensively enough to resurface any damaged portion of the asphalt.

c. CIP Authorizations –

d. Monthly Maintenance Update –

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

f. ACSA Board Policy Future Issues Agenda 2022 –

g. CMMS/Cityworks (Work Order system) Update Report –

h. Advanced Metering Infrastructure (AMI) Project Update –

Mr. Parcells moved to approve the Consent Agenda, seconded by Dr. Palmer. All members voted aye.

6. Proposed Capital Improvement Program (CIP) FY 2023

Mr. Lynn stated that before he began his presentation, he wanted to thank the members of the CIP team – Gary O'Connell, Pete Gorham, Michael Lynn, Alex Morrison, and Richard Nelson. He stated that he could not thank them enough for the time and energy they spent putting the CIP together.

Mr. Lynn stated that overall, the FY 2023 CIP totals a little more than \$8 million, which is about \$3 million less than the FY 2022 budget. He noted that this decrease is largely due to the AMI project. He stated that the funds for that project were included in the current FY 2022 budget, but they have not been expended yet. He stated that approximately 45% of the funds for FY 2023 are associated with the Avon Street Maintenance Yard project. He stated that 59% of the CIP expenditures are on the water side, with 41% allocated to sewer. He mentioned that this breakdown reflects the ACSA's continued focus on water main replacement projects. He added

1 that as far as new and existing projects, existing projects account for 93%
2 of the total budget while new projects make up the remaining 7%.

3 Mr. Lynn stated that while the Board packet includes maps for all
4 the proposed projects in FY 2023, he would only be introducing the seven
5 new projects to the Board today. He mentioned that of the seven new
6 projects, five are non-utility projects, one is a water project, and the
7 remaining one is a sewer project. He added that there is an emphasis on
8 data analysis and utilization throughout the projects.

9 Mr. Lynn stated that the first project he would present is the Data
10 Management and Dashboarding project, with an overall goal of business
11 intelligence. He stated that initial efforts will allow the ACSA to inventory all
12 its data and establish policies on maintenance and usage of that data. He
13 stated that this project was one of the recommendations that came out of
14 the IT Security Assessment conducted last year and will allow employees
15 to access individualized data without providing them access to the entire
16 data source. He stated that following a needs analysis, dashboards will be
17 developed to display relevant data for staff to utilize in their specific job
18 responsibilities. He stated that the budgeted amount of \$20,000, which will
19 be split between water and sewer projects, is expected to cover the
20 consulting services during the upcoming fiscal year. He added that
21 dashboard development is anticipated in FY 2024, with additional funds
22 required.

23 Mr. Lynn moved to the next new project – Billing System Analysis
24 and Replacement. He noted that the current billing system is more than 30
25 years old and integrating a new billing system with AMI and the new ERP
26 system will be crucial to the overall success of these efforts. He mentioned
27 that this initiative is included in the ACSA's current Technology Plan
28 adopted by the IT department. He stated that the budgeted amount of
29 \$50,000 is expected to cover the assessment, RFP development, review,
30 and submission, as well as contract negotiations, and will be split evenly

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1 between water and sewer projects. He added that full implementation of a
2 new software is expected in FY 2024, with additional funds required.

3 Mr. Parcels asked if there was any idea of how much additional
4 funding will be needed in FY 2024. Mr. Lynn replied that the total project
5 cost for the billing system is \$100,000.

6 Mr. Lynn stated that the ESRI Utility Network Implementation was
7 the third new project. He stated that the utility network leverages ArcGIS
8 enterprise to create seamless web GIS, which will enable sharing the
9 ACSA network across the entire organization. He mentioned that the utility
10 network will allow the ACSA to model assets with greater detail and over
11 larger sets of data. He noted that the budgeted amount of \$30,000 is
12 expected to cover consulting services in FY 2023, with full deployment
13 anticipated in FY 2024. He added that the funds for this project will also be
14 split evenly between water and wastewater projects.

15 Mr. Lynn stated that the next new project was the Cityworks
16 Operational Insights Implementation. He stated that, over the last few
17 years, the ACSA has been collecting tremendous amounts of data on its
18 water and wastewater assets through its Cityworks/ CMMS program. He
19 mentioned that the staff feels they are at a point to begin using that
20 historical data from an asset management prospective. He noted that
21 Operational Insights is an extension of the Cityworks software, with the
22 primary goal of identifying infrastructure risks and evaluating maintenance
23 and replacement strategies. He stated that the budgeted amount of
24 \$45,000 is expected to cover full implementation, as well as deployment in
25 FY 2023.

26 Mr. Lynn stated that the last non-utility project in his presentation is
27 the ACSA Facilities Security System Upgrade and Expansion. He stated
28 that this project is a direct result of recommendations from both the
29 Vulnerability Assessment and the IT Security Assessment. He mentioned
30 that the project will upgrade the existing security system at the ACSA
31 Operations Center. He added that it will also position the ACSA for

1 expansion at the Avon Street property and includes security cameras and
2 monitoring of pump stations and water storage tanks. He stated that the
3 \$158,000 budgeted is anticipated to cover full implementation in FY 2023.
4 He noted that the funds are allocated proportionally between water and
5 wastewater projects.

6 Mr. Roberts asked who monitors the security cameras. Mr. Lynn
7 replied that he does not believe the cameras will be monitored 24/7, but
8 staff will have the necessary data if an incident occurs. He stated that there
9 will also be sensors deployed on some of the water tanks, which will
10 provide real-time monitoring if a tank hatch or ladder is accessed.

11 Mr. Parcels asked if there was any way to monitor the hydrants
12 that are designated for commercial use to ensure they are secure. Mr. Lynn
13 replied that none of the hydrants are currently monitored. He stated that as
14 the AMI deployment progresses and all the assets are in place, there will
15 be opportunities to start monitoring the pressure, temperature, and access
16 to various hydrants in the system.

17 Mr. Parcels asked if the ACSA had ever experienced any
18 tampering or theft associated with the hydrants. Mr. Lynn replied that he is
19 sure there is unauthorized use of hydrants in the system. He noted that the
20 ACSA has pursued legal action when staff was made aware of such
21 instances. Mr. Parcels asked if there is a timeline for security of those
22 hydrants. Mr. Lynn replied that it would be sometime in the next fiscal year
23 before any sort of hydrant monitoring deployment.

24 Mr. Roberts stated that there are many hydrants in the system that
25 one could illegally draw water from. He asked if the ACSA would put
26 cameras on all of them. Mr. Lynn replied that they would not put cameras
27 on them, but rather a pressure monitoring device. He noted, however, that
28 there are thousands of hydrants in the system so they would not put the
29 device on all of them. Mr. Gorham concurred. He stated that the practicality
30 of security on each hydrant is low. He added that currently, the ACSA

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1 depends on the public and staff in the field to report any suspicious or
2 potentially illegal use.

3 Dr. Palmer asked if there are some hydrants that are more
4 vulnerable than others like the one on Hydraulic Road on Route 743, just
5 past The Rock Store. Mr. Gorham stated that the sensors are built into
6 what looks like a normal hydrant cap. He stated that it transmits by radio,
7 and most are designed to link into a radio system such as AML. He stated it
8 would probably be most practical to begin installing the devices on
9 hydrants in more remote areas. He added that the ACSA has a very
10 extensive and closely monitored hydrant meter program to promote the
11 legal use of the water.

12 Mr. Lynn stated that he has two new utility projects to introduce this
13 morning, the first being the Townwood Water Main Replacement project.
14 He stated that the Strategic Plan for the ACSA calls for the eventual
15 replacement of pre-1990 PVC water mains in the system. He stated that
16 the water mains in Townwood were installed in the 1980's, and recently
17 there have been breaks causing water service disruptions to a lot of the
18 community. He mentioned that the budgeted amount of \$170,000 will allow
19 design to begin in FY 2023, which will carry into FY 2024 and require
20 additional design funds.

21 Mr. Lynn stated that last, but not least, was the Northfields Phase 5
22 Sewer project. He stated that during the design of the Northfields Water
23 Main Replacement project, the ACSA staff identified several areas along
24 the roadway where sanitary sewer service could be extended. He stated
25 that it seemed appropriate to include this sewer work in the design and
26 construction of the water main replacement project. He noted that the
27 budgeted amount of \$70,000 will allow design of the project to be
28 completed in FY 2023.

29 Mr. Tolbert asked if the ACSA would require property owners in
30 Northfield to hook up to the new public sewer. Mr. Lynn replied that the
31 ACSA does not require anyone to connect. He stated that some of these

1 areas were identified as a result of interest from the community. He
2 mentioned that while maybe not all the parcels will connect, the ACSA
3 does feel that most of them will once sewer is made available. He noted
4 that Northfields has historically had challenges with multiple drain field
5 locations on these size lots, thus providing the public sewer is a great
6 benefit to the community.

7 Dr. Palmer stated that there was some discussion about using
8 some of the ARPA funding for sewer connections, some of which she
9 believed to be in this area. She asked if Mr. Lynn could expand on that. Mr.
10 Lynn replied that the ACSA will not see any direct funding. He stated that
11 Albemarle County is trying to include funds to allow residents to connect to
12 readily available sanitary sewer. He stated that it would not necessarily
13 cover construction of ACSA projects, but a homeowner would be able to
14 apply those funds to the fees associated with connecting to sewer or
15 running a sewer lateral to the ACSA's existing sewer service. Mr. O'Connell
16 added that there is a budget recommendation in the County Executive's
17 budget for \$1 million towards that program.

18 Dr. Palmer asked what happened with the Buckingham Circle
19 sewer project. Mr. Lynn replied that the design for the sewer was
20 completed when the water main replacement was done, as it seemed
21 appropriate to construct them simultaneously. He mentioned, however, that
22 when staff began to reach out to individual property owners, there was very
23 little interest in connecting to public sewer. He stated that the project has
24 been delayed until there is stronger interest from the community. Mr.
25 O'Connell added that the ACSA also investigated the possibility of using a
26 Community Development Block Grant (CDBG, which has an income
27 requirement. He noted, however, that income surveys showed that
28 Buckingham Circle would not be eligible for the funding.

29 Mr. Lynn stated that this would conclude his presentation. He noted
30 that the ACSA staff is requesting Board authorization for the advertisement

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1 of a public hearing to address the FY 2023 CIP at the April Board meeting
2 on April 21, 2022.

3 ***Mr. Armstrong moved to authorize the advertisement for a***
4 ***public hearing to address the FY 2023 CIP, seconded by Dr. Palmer.***
5 ***The Chair asked for a roll-call vote: Mr. Armstrong, aye; Mr. Moore,***
6 ***aye; Dr. Palmer, aye; Mr. Parcells, aye; Mr. Tolbert, aye; Mr. Roberts,***
7 ***aye.***

8
9 7. Rate Study Update and Recommendations

10 Mr. O'Connell stated that the ACSA conducts a rate study every
11 five years and, in a sense, starts the budget process. He stated that the
12 information presented today is not necessarily what will be recommended
13 in the final budget, as that is still being developed. He mentioned, however,
14 that it will give the Board a sense of the type of financial future the ACSA is
15 facing and recommendations to use in future rate models. He stated that
16 Mr. Lunsford will add to the summary and introduce the NewGen
17 representative joining the meeting today.

18 Mr. Lunsford stated that the information presented today will be
19 used as a basis for the rate and budget recommendations that will be
20 presented at next month's meeting. He stated that this comprehensive rate
21 study provides a solid foundation for the proposals that will be presented.
22 He noted that the model as designed does leverage considerable use of
23 ACSA reserves to mitigate rate increases into the future. He stated that the
24 model is projected into the future using estimates mainly related to ACSA
25 CIP project costs, as well as RWSA projections into the future. He added
26 that the ACSA does expect to see considerable increases from RWSA for
27 the next 5 to 10 years.

28 Mr. Lunsford stated that the ACSA's rate recommendations next
29 month will differ slightly from what NewGen presents, which will be based
30 on more up to date information than what was available for NewGen at the
31 time they began their study last fall. He stated that he wanted to

1 acknowledge the contributions from the NewGen team, as well as Pete
2 Gorham, Jeremy Lynn, Terri Knight, and Gary O'Connell.

3 Michael Maker with NewGen stated that he has a brief
4 presentation prepared for today (Attached as Pages _____). He
5 stated that he would begin with some guiding principles and objective of
6 the Rate Study. He stated that ideally, the water and sewer fund should be
7 financially self-supporting. He mentioned that the utility should maintain
8 reserves to provide for contingencies and unplanned expenses, and water
9 and sewer rates should be kept as low as possible over time. He noted that
10 the objective is to ensure rates are stable through sound financial
11 management and system maintenance.

12 Mr. Maker stated that one of the factors that affects charges and
13 rates is operating and maintenance expenses such as salaries and
14 materials. He noted that the ACSA's largest operating expense is the
15 purchase of water and wastewater treatment from RWSA. He noted that in
16 addition to an average yearly increase of 8% for water and 7% for
17 wastewater treatment over the next five years, the ACSA is also looking at
18 an increase of 13% in labor costs in FY 2023 and a 0-2.5% per year for
19 other expenses. He stated that the ACSA's CIP plans is also a factor
20 affecting rates and charges, as well as debit service, customer changes,
21 water usage, miscellaneous revenue changes, and reserve targets.

22 Mr. Maker moved to the next slide illustrating the relationship
23 between user rates and system development fees. He stated that operating
24 expenses are paid through user rates, while capital expenses can be non-
25 growth related or growth related. He stated non-growth, or system
26 maintenance, expenses can be cash or debt funded through user rates,
27 while system expansion, or growth, expenses should be paid for with
28 system development fees. He noted that the caveat is if the system
29 development fees are less than the cost or anticipated system growth does
30 not occur, then existing customers would have to make up the difference
31 through user rates.

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1 Dr. Palmer asked if Mr. Maker could further explain the concept of
2 existing customers paying higher user rates if the system does not grow as
3 anticipated, given the ACSA's policy of "growth pays for growth." Mr. Maker
4 replied that system development fees are based on existing capacity and
5 growth projections. He stated that if the ACSA overly projects system
6 growth or does not set the system development fees at the correct rate,
7 then revenues may not cover expenses. He mentioned that the shortfall
8 would have to be covered somehow, which would come from the user
9 rates.

10 Dr. Palmer stated that she thinks it is good for the public to know
11 that the ACSA expands its system before the actual growth occurs, and
12 that expansion must be paid for. Mr. Maker stated that a wise capital
13 investment would be to build capacity in the system for future growths, not
14 just what is needed for that specific project. Mr. Lunsford added that the
15 formalization of the ACSA's growth-related reserves and growth policy will
16 help to illustrate this idea. He stated that the development of those growth-
17 related reserves helps to illustrate that changes in user rates are not
18 subsidizing new growth.

19 Mr. Maker stated that the next slide shows the building blocks of
20 the ACSA's annual revenue requirement. He stated that operating and
21 maintenance expenses are the foundation, followed by outstanding debt,
22 capital projects, and contributions to reserves.

23 Mr. Maker stated that the next slide shows the growth-related water
24 system revenues and expenses for the next five years. He stated that the
25 projected system development fee for FY 2023 assumes that there are no
26 changes in the current fees and is based on roughly 440 ERCs. He noted
27 that the less funding of RWSA Debt Service line reflects the portion of debt
28 service that is growth-related and paid by new customers. Mr. Parcels
29 asked what the new debt service was reflected in the expenses. Mr. Maker
30 replied that the new debt service was for the Avon Street project.

1 Mr. Maker moved to the next slide, outlining the growth-related
2 revenues and expenses for the sewer system over the next five years. He
3 stated that there is no new debt service anticipated. He mentioned that
4 there is a slight surplus the first few years, with a shortfall projected in the
5 fifth year.

6 Mr. Maker stated that he would next move to the non-growth side,
7 showing the revenue requirements over the next five years for water. He
8 stated that the total revenue requirement, less any miscellaneous revenues
9 and the growth-related debt service to RWSA, is roughly \$20 million in FY
10 2023. Mr. Parcels stated that the cash funded capital projects cost for FY
11 2023 is shown at \$2.7 million, which seems much different than what Mr.
12 Lynn presented in his CIP presentation earlier. Mr. Maker replied that the
13 \$2.7 million is the net cost of the non-growth-related capital projects. He
14 stated that perhaps Mr. Lynn presented both growth and non-growth-
15 related projects. Mr. Lunsford confirmed that Mr. Maker is correct.

16 Mr. Maker stated that in terms of sewer revenue requirements,
17 there is one debt service issuance. He stated that there is no non-growth-
18 related debt service anticipated and the 3R reserve has already met the
19 necessary balance. He stated that less miscellaneous revenues and the
20 growth-related debt service to RWSA, the net revenue requirement is \$15.2
21 million for FY 2023.

22 Mr. Maker stated that the ACSA's current charges and fees as of
23 July 1, 2021 include the monthly service charge that varies by meter size
24 for water. He noted that about 90% of customers pay the ¾ inch meter
25 service charge. He stated that there is also the volume charge for actual
26 consumption, which is charged per thousand gallons. He stated that for
27 single-family residential customers, there are four tiers. He noted that the
28 more water a single-family residential customer uses, the more they pay.
29 He stated that consumption for multi-family/ non-residential customers is
30 charged at one flat rate of \$9.09. He added that other charges include the

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1 sewer charge, which is one flat rate, system development fees, and RWSA
2 capacity fees.

3 Mr. Maker stated that the recommended water and sewer rates
4 shown on the next slide are expected to increase over the next five years.
5 He stated that the monthly service charge is shown to increase 5%, with
6 volume charges going up roughly 7%. He mentioned that the American
7 Water Works Association (AWWA) has recommended equivalents based
8 on how much flow can travel through the meter.

9 Mr. Maker stated that customers are more concerned with how the
10 rate increase will impact their monthly bill than the actual increase. He
11 moved to the next slide, which outlined the expected FY 2023 monthly bill
12 impact for single-family residential customers with a ¾ inch meter, which is
13 roughly 90% of the ACSA's customer base. He noted that a median user
14 can expect to see an increase of about \$2.83 on their monthly combined
15 water and sewer bill.

16 Mr. Maker stated that this average combined monthly bill of an
17 ACSA median customer for FY 2023 is then compared to surrounding
18 utilities, shown on the next slide. He noted that the ACSA is currently in the
19 middle of that comparison and would stay in roughly the same place with
20 the increase in FY 2023.

21 Mr. Maker stated that in terms of growth-related fees, the ACSA
22 system development fees offset the capital costs of backbone capacity in
23 the water and sewer system. He stated that these fees are calculated
24 based on the historic cost of capacity, the future cost of capacity, or the
25 weighted average of both. He noted that the ACSA's current fees are
26 \$1,890 per equivalent residential connection (ERC) for water and \$2,970
27 per ERC for sewer. He added that the recommendation is to maintain those
28 current fees.

29 Mr. Maker stated that the other growth-related fee is the RWSA
30 capacity fee, which offsets the capital costs of backbone capacity in
31 Rivanna's water and sewer system that the ACSA is responsible for. He

1 noted that the same calculation used to determine system development
2 fees is used to determine these fees as well. He stated that the current fees
3 for water are \$4,760 for water and \$3,850 for sewer. He added that the
4 recommendation is no change to those fees.

5 Mr. Maker stated that overall, the rate study yielded several
6 recommendations. He stated that the first is to adopt the suggested water
7 and sewer rates for FY 2023. He stated that the second recommendation
8 would be to review those rates and charges on an annual basis. He noted
9 that the presentation today shows projections for five years, but the model
10 goes out ten years. He mentioned that the third recommendation would be
11 to perform a full cost of service study for all rates and charges every five
12 years. He added that the final recommendation would be to maintain the
13 current system development and capacity fees.

14 Mr. Moore asked what implications the 5% annual increase in
15 customer bills will have for the ACSA's cash balances and savings. Mr.
16 Maker replied that the recommended policy for the 3R reserve is to
17 maintain a balance of 90 days operating expenses, which has been met
18 and exceeded. He stated that there is some room to use some of those
19 reserves to keep increases low, as opposed to passing the increases from
20 RWSA on to the customer.

21 Mr. Moore asked where the recommendation to have 90 days of an
22 operating cash balance in the reserves comes from. He noted that the
23 ACSA has had more than \$20 million on hand for a long time, not to
24 mention an aging system with a lot of capital improvement projects. He
25 stated that he is confused by the suggestion to use a large portion of the
26 reserves just to keep rates low.

27 Mr. Lunsford replied that the ACSA has continued to expect certain
28 revenues, expenses, and capital projects. He noted that some of those
29 have happened, and some have not, however this presentation assumes
30 that everything in the CIP non-growth related is spent. He stated that this
31 does not actually happen. He added that projects committed to in prior

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1 years will deplete that balance as well. He stated that the AMI project is a
2 perfect example. He noted that the Board has historically been supportive
3 of maintaining smooth rate increases over time, and he thinks the intent is
4 to continue to do so.

5 Mr. Lunsford stated that there are a lot of assumptions in this rate
6 model, some which are out of the ACSA's control. He stated, for example, if
7 there is an incredibly rainy summer, this will dramatically decrease water
8 sales and has the potential to increase sewer treatment expenses from
9 RWSA. He noted, however, that assumptions must be made whether they
10 come to fruition or not, which is why the annual evaluation is so critical.

11
12 8. **ACSA Investment Policy – Socially Responsible Investing Report**
13 **and Recommended Policy Changes**

14 Mr. O'Connell stated that the staff had an earlier discussion with
15 the Board about some investment policy changes that will be
16 recommended. He mentioned that the ACSA has also explored socially
17 responsible investing in response to a Board question that came up during
18 the last investment policy presentation.

19 Mr. Lunsford stated that today's Power Point presentation
20 (Attached as Pages _____) by PFM Asset Management takes the last
21 presentation a step further in asking the Board to approve an amendment
22 to the Investment Policy. He stated that the amendment will further diversify
23 what the ACSA is able to invest in, as well as update the policy for
24 modifications in Virginia code. He stated that Leslie Weaber and Nelson
25 Bush are present on the call today and will elaborate on those revisions
26 and provide additional information.

27 Ms. Weaber stated that she and Mr. Nelson would be going over a
28 brief market update on a very high level to show how the ACSA's portfolio
29 is affected with current events. She stated that they would also discuss a
30 summary of the recommended changes to the investment policy as well.
31 She noted that Mr. Bush would then discuss the topic of ESG and SRI.

1 Ms. Weaber stated that in terms of a market update, the FED met
2 Tuesday and yesterday, and stated how they are committed to achieving
3 their monetary policy goals with maximum employment and price stability.
4 She stated that U.S. economy activity continues to expand, due to the
5 progress on vaccinations, COVID cases decreasing, and fiscal monetary
6 support. She noted that looking at the fourth quarter Gross Domestic
7 Product (GDP), most of the growth was driven by inventory.

8 Ms. Weaber stated that the labor market continues to strengthen.
9 She noted that during the first two months of 2022, the number of jobs
10 added back is already more than 1 million, and unemployment has
11 decreased to 3.8%. She stated that there is still a strong demand for labor,
12 and labor participation has somewhat increased. She mentioned, however,
13 that the labor supply remains a bit subdued, and employers are having
14 difficulty filling jobs as wages are rising.

15 Ms. Weaber stated that inflation has been at a 40-year high, which
16 is well above the Fed's long-term goal of 2%. She stated that the
17 Consumer Price Index is one of the metrics used to gauge inflation. She
18 stated that demand continues to be strong, but supply chain bottlenecks
19 have limited production causing the elevated inflation to last longer than
20 anticipated. She noted that with the Russian invasion of Ukraine, there has
21 also been an increase in energy prices, which is evident here with the price
22 of gas recently. She added that the Fed continues to reiterate that with
23 monetary policy, such as raising the interest rates, they expect the inflation
24 rate to return to normal, but it will take a lot longer to do so.

25 Ms. Weaber stated that the Fed did decide to raise the interest
26 rates by a quarter of a basis point, or .25%. She stated that the new target
27 range is 25-50 basis points. She noted that this is the first time rates have
28 been raised since 2018, and they believe that ongoing rate increases will
29 be appropriate.

30 Ms. Weaber stated that looking at the U.S. Treasury yield curve,
31 there are increases across the curve because the market is already pricing

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1 in the potential rate hikes. She stated that in terms of the ACSA's portfolio,
2 as yields rise, the securities will decrease in market value. She mentioned
3 however, that the ACSA will be able to buy securities at a much higher
4 yield, as securities are sold. She stated that there has also been a widening
5 of credit spreads due to the market volatility because of geopolitical issues.

6 Ms. Weaber stated that in terms of the recommended investment
7 policy changes for the ACSA, the first is to update the rating requirement
8 for commercial paper to be in line with Virginia code. She stated that the
9 second consideration is to increase sector limits for Federal Agency/GSE
10 and municipal bonds, which will help to diversity the portfolio while
11 maintaining issuer limits and credit rating requirements. She mentioned that
12 PFM also recommends the ACSA expand its governmental sector by
13 adding supranationals and look to add high-quality investment sectors such
14 as corporate notes and negotiable certificates of deposit.

15 Ms. Weaber stated that if the ACSA were to adopt the
16 recommendations, based on a 0–3-year investment strategy, a sample
17 portfolio would have about 5% corporate notes/bonds and 19% negotiable
18 certificates of deposit. She noted that there is no guarantee that the ACSA
19 will be able to get it based on supply and approved issuer list, while
20 adhering to Virginia code.

21 Mr. Parcels asked if Ms. Weaber had a prediction on what type of
22 yield this model portfolio would have, in comparison to the ACSA's current
23 portfolio. Ms. Weaber stated that she could show the Board the yield
24 spreads specifically for corporate notes, to give them an idea of the additive
25 value. She noted that there is a .52% increase in yield. Mr. Parcels asked if
26 overall, including the supranationals and negotiable certificates of deposit,
27 there would be higher yield rates. Mr. Bush concurred. He stated that there
28 would not be anything added to the investment portfolio if it did not add
29 value. He stated that if the consideration of risk, in comparison to the
30 return, does not suggest value then there is no reason to buy it. He

1 mentioned that their default is U.S. Treasury securities, as they are the
2 most liquid fixed income securities in the marketplace.

3 Mr. Bush stated that sometimes federal agency securities can add
4 value to the portfolio and PFM will buy them. He noted that supranationals
5 are sometimes in the marketplace and price 10-15 basis points better than
6 U.S. Treasuries and have similar credit quality and liquidity. He mentioned
7 that he wishes there were more issuances of supranational debt. He stated
8 that PFM may also look to commercial paper, corporate notes, municipal
9 obligations, or negotiable certificates of deposit.

10 Mr. Bush stated that credit spreads are currently wide. He stated
11 that looking back over the past five years, whether it was a highly rated
12 corporate note or negotiable certificates of deposit, PFM has averaged 20
13 basis points in additional yield. He stated that currently, because of what is
14 going on in the interest rate environment and corporate entities issuing at
15 high levels, the yield spreads at the one-year range are near 50 basis
16 points.

17 Dr. Palmer asked if Mr. Bush could comment on the wide yield
18 spread in March 2020. She stated that she assumes this was because of
19 the Covid and the greater risk assumed during difficult times. She stated,
20 however, that this must have happened more than once over the last 15
21 years. Mr. Bush replied that Dr. Palmer is correct in her assumption. He
22 stated, however, that the last time there was a jump like that was during the
23 credit crisis of 2007-2008. He mentioned that the most recent jump has
24 been because of Covid. He stated that the thought was that no one knew
25 what would happen with Covid in terms of the public health and impact on
26 the U.S. economy. He noted that this uncertainty was reflected in the stock
27 market where people pulled billions of dollars out and put the money in low-
28 risk securities like U.S. Treasury securities.

29 Mr. Bush stated that in terms of different approaches to sustainable
30 investing, the two most common approaches are SRI, or socially
31 responsible investing, and ESG. He stated that SRI looks are certain

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1 industries to exclude from an investing portfolio, such as fossil fuels or
2 tobacco companies. He stated that SRI is an exclusionary approach to
3 portfolio investing by identifying an industry that one does not wish to
4 include in their portfolio. He mentioned, for example, that the City of
5 Charlottesville is the one entity he knows of in Virginia that has adopted an
6 SRI approach to the management of their general fund dollars.

7 Mr. Bush stated that ESG investing is a bit different. He stated that
8 ESG investing considers impacts on the environment, social issues, and
9 risks related to governance. He stated that the goal is to score issuers
10 based on their ESG risk level. He mentioned that an investor may limit their
11 investments to entities that only have certain levels of ESG risk. He stated
12 that with an ESG strategy, investors do not necessarily avoid industries but
13 rather focus their investments in certain areas.

14 Mr. Bush stated that two other approaches to sustainable investing
15 are thematic and impact investing. He stated that thematic investing is
16 more in line with objectives for sustainable development, such as the UN
17 sustainable development goals. He stated that impact investing specifically
18 looks for companies that are focused on positive societal change, such as
19 clean energy. He stated that in the fixed income marketplace, most of the
20 focus is on SRI or ESG investing. He noted, however, that thematic and
21 impact investing are much more common in the equity marketplace.

22 Mr. Bush stated that environmental investing considers how a
23 company limits its environmental impact. He stated that social investing is
24 related to things like ensuring human rights, gender and diversity goals,
25 and data protection. He stated that governance is about a variety of things
26 such as executive compensation in comparison to employee
27 compensation. He mentioned that these three areas are the topics that
28 influence ESG investing. He added that PFM can speak to these topics
29 extensively because the firm has a service specifically related to ESG
30 investing.

31

1 Mr. Bush stated that investors that want to implement an ESG
2 approach to investing must first understand what their own goals,
3 objectives, and values are. He stated that there may be some external
4 pressure. He noted, for example, that UVA and the City of Charlottesville
5 have some external pressure to focus on ESG investing. He stated that risk
6 management may also be part of the decision to implement ESG investing.
7 He added that seeking competitive returns may also be a reason that
8 investors take an ESG approach.

9 Mr. Bush stated that the Code of Virginia requires an AA credit
10 rating on any negotiable certificate of deposit or corporate notes that are
11 bought for periods of one year or longer, and similar ratings for shorter-term
12 investments. He stated that this limits the corporate universe of issuers,
13 with probably about 1500 issuers who issue debt in a publicly available
14 debt market. He stated that of those, there are only about 50 that have an
15 AA credit rating. He mentioned that of those that have the necessary credit
16 rating, there is an even smaller number of issuers that are actually active,
17 meaning they issue on a regular basis. He stated that he would say there
18 are only about 15-20 issuers that meet the level of being frequent issuers in
19 the overall marketplace and have the credit ratings necessary to meet the
20 Code of Virginia requirements. He added that the ACSA might adopt an
21 ESG investment approach, but it is not something that is anticipated to
22 enhance investment returns.

23 Mr. Bush stated that PFM partners with a firm called Sustainalytics
24 that helps look at the entire corporate universe including industrial, retail,
25 finance, and pharmaceutical companies. He stated that this allows PFM to
26 help its clients establish policies to identify a level of risk that is comfortable
27 to them, whether the focus is on governance, social, or environmental
28 issues. He noted that different industries will carry different risks. He stated
29 that Chevron, a company in the energy industry, will be very focused on
30 environmental issues, whereas a company in the technology industry like
31 Apple tend to have very little environmental risks.

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1 Mr. Bush stated that if the ACSA is interested in exploring ESG
2 investing, PFM would talk to staff and the Board about what level of risk is
3 suitable for the organization's investment portfolio. He stated that PFM
4 would also help the ACSA come up with additional policies that would be
5 memorialized in the investment policy to lock in those guidelines. He
6 mentioned that if negotiable certificates of deposit and corporate notes are
7 not something the ACSA would consider investing in, then ESG does not
8 have much application.

9 Dr. Palmer stated that, although she was not present for the
10 December discussion on this topic, she feels as if there are a lot of
11 variables here in terms of what is an acceptable investment. She stated
12 that she does not really see the benefit of ESG investments, and would
13 lean towards not adopting this particular approach, unless persuaded
14 otherwise by the other members of the Board.

15 Mr. Parcels stated that his position would be that diversification is
16 better in the long run, especially when there is the opportunity to be socially
17 responsible and still obtain a decent rate of return. He stated that he feels it
18 is a good thing overall for the community, and as a policy for an
19 organization to demonstrate as the City of Charlottesville is doing. He
20 added that he feels it would behoove the ACSA to look at these
21 opportunities to improve its overall position and returns. He noted that the
22 performance of the current portfolio year-to-date has dropped a little more
23 than the average, compared to the benchmarks that it is measured against.

24 Mr. Moore stated that he would echo Mr. Parcels sentiments in that
25 it makes sense to take this approach where possible. He stated that he
26 also gathered from Mr. Bush's presentation that if every filter possible is
27 applied, the ACSA would be looking at investing in about a dozen
28 companies which is not necessarily diversification. He stated, however, that
29 there are steps the organization can take that will yield a good return on
30 investment, as well as a good social return.

31

1 Mr. Parcels stated that the corporate notes and certificates of
2 deposit are what will allow the ACSA to practice socially responsible
3 investing, which is only about a third of the recommended mix of assets. He
4 stated that in this sense, it is not a whole lot but would have some impact.
5 He stated that overall, the diversification would be approved, which is a
6 good thing. He added that the presentation persuades him to believe that
7 ESG investing is a smart approach to take.

8 Mr. Armstrong stated that he agrees with Mr. Parcels and Mr.
9 Moore. He stated that if the ACSA is expanding the areas it will invest in, it
10 makes sense that an organization on the frontline of providing clean water
11 would have some filters on its investments. He mentioned, for example, it
12 would not make sense to invest in a company that pollutes the water when
13 the ACSA is charged with providing clean water to its community. He stated
14 that he feels it would be a good idea to expand the ACSA's range of
15 acceptable investments, as long as they are within the legal limits of the
16 Code of Virginia. He added that the second part of that would be filtering
17 those investments to ensure they are consistent with the organization's
18 own goals and principles.

19 Mr. Parcels asked what PFM envisions in terms of a timeline for
20 transition the ACSA's portfolio to one that includes the options proposed
21 today. Mr. Bush replied that if the investment policy change is approved by
22 the Board, it would take several months. He stated that PFM would begin
23 looking for opportunities to buy those different types of corporate securities
24 in the near-term. He noted that the interest rate environment is volatile at
25 the moment, which means moving more judiciously than normal.

26 Dr. Palmer stated that her objection was certainly not to the
27 diversification of the portfolio. She stated that her concern is figuring out
28 what is socially or environmentally responsible, with the amount of
29 greenwashing amongst companies. She added that the other thing she is
30 unsure of are the management fees associated with this type of investment
31 approach. Mr. Lunsford replied that the management fees are based on

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1 the total amount invested. He stated that the ACSA pays PFM
2 approximately \$3,500 per month to manage its portfolio and transact on
3 direction from the organization. He stated that he does not know if there is
4 a surcharge related to the ESG analysis. Mr. Bush stated that there is an
5 additional fee, but he would need to consult with PFM's ESG team to
6 determine what that fee would be for the ACSA. He noted that simply
7 adding new sectors to the portfolio does not change PFM's fee. He added
8 that as the new sectors are implemented, there may be some moderate
9 additional fees at the custody bank, but that would not be on the investment
10 advisory side.

11 Mr. Roberts asked who manages processes going forward or, in
12 other words, who would approve an investment. Mr. Lunsford stated that
13 the ACSA allows PFM to transact on its behalf, based on the board
14 adopted investment policy. He stated that the ACSA reviews investment
15 reports from PFM monthly, reconciles those with statements from the
16 custody bank, and ensures the investments that have been bought and
17 sold are in line with the investment policy.

18 ***Mr. Parcels moved to approve the revisions to the ACSA's***
19 ***Investment Policy, as presented to the Board; seconded by Mr.***
20 ***Armstrong. The Chair asked for a roll-call vote: Mr. Armstrong, aye;***
21 ***Mr. Moore, aye; Dr. Palmer, aye; Mr. Parcels, aye; Mr. Tolbert, aye;***
22 ***Mr. Roberts, aye.***

23 Mr. O'Connell stated that before moving to the next item, he wanted
24 to clarify the Board's decision, as there seemed to be some difference of
25 opinion, so that the staff has direction on how to proceed. He asked if the
26 majority of the Board wanted the ACSA to pursue the socially responsible
27 investment policy and bring back more information later. Mr. Parcels
28 replied yes. Mr. Moore stated that he would like to see more information,
29 specifically on the ESG investment policy. Mr. Parcels stated that he would
30 appreciate information about how to make the change. Mr. Armstrong
31 concurred. Mr. Moore stated that Dr. Palmer's concern about

1 greenwashing is a valid point. He stated, however, that he does not feel the
2 answer is to not pursue it, but rather to investigate it smartly. Dr. Palmer
3 concurred with Mr. Moore.

4
5 9. Items Not on the Agenda

6 Mr. O'Connell stated that he wanted to get some feedback from the
7 Board about virtual meetings. He stated that the recent action by the
8 County Board of Supervisors essentially lifted the emergency ordinance,
9 but that there is also a provision that some parts of that ordinance could
10 continue for 12 more months. He stated that beginning in April, there is the
11 option for the ACSA Board to begin meeting in person again. He noted that
12 the ACSA is prepared to conduct a hybrid meeting, which would allow the
13 Board to meet in person, while giving the public the option to join either in
14 person or via Zoom.

15 Mr. O'Connell stated that the ACSA would re-open to the public on
16 April 4, 2022. He stated that the CDC risk levels are beginning to decline,
17 so he felt it made sense to begin thinking about meeting in person again.
18 He added that this is really a Board decision, but there are several options
19 for conducting the Board meetings going forward.

20 Mr. Tolbert stated that although Zoom meetings are fine, he would
21 personally like to resume meeting in person. He stated that he feels the
22 meetings go better and there is better contact with each other. Mr. Parcels
23 stated that he as enjoyed the Zoom meetings. He stated that they are more
24 convenient, as his drive to the ACSA office is 30 minutes. He added that
25 secondarily, he also can still participate in the meeting if he is out of town.

26 Mr. O'Connell stated that there would be an option for Board
27 members to attend virtually if there is a physical quorum of the Board. Mr.
28 Moore stated that he likes the idea of having a hybrid option. He stated that
29 while he has never actually met most of the Board and staff in person, he
30 agrees that Zoom is very convenient.

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1 Dr. Palmer asked if there is no physical quorum present, can there
2 still be a meeting. Mr. Bowling replied that it depends on how the meeting
3 is set up. He stated that Board members could still meet in person but
4 conduct a Zoom meeting. Dr. Palmer stated that she knows groups that
5 have brought their laptop to the meeting and held a Zoom meeting while
6 being physically present. Mr. Bowling stated that the ACSA could follow a
7 similar format, at least until March 2023. He stated that after that date, the
8 ACSA would be limited to the policy that allows an individual Board
9 member to participate electronically, for an approved reason.

10 Mr. Parcels asked if in-person meetings would be recorded the
11 way the Zoom meetings are. Mr. O'Connell replied yes. He stated that if the
12 Board would like to try a hybrid option, he would suggest continuing to
13 meet virtually in April, giving the staff time to work out the logistics. Mr.
14 Roberts stated that this sounds like a reasonable plan. The Board
15 concurred. Mr. Moore added that he likes the idea of meeting in person,
16 but he would also like to have the option to join the meeting remotely if
17 necessary.

18 Mr. O'Connell stated that the second item he wanted to discuss
19 was the budget and rates. He stated that the formal budget presentation to
20 the Board begins next month, with some of the recommendations different
21 than what the Board has seen. He stated that the ACSA has received
22 updated financial information that will be used for the final budget. He
23 mentioned that there will also be a lengthier CIP presentation during the
24 public hearing that was approved today. He added that there is a budget
25 workshop in May to take a closer look at the budget and rates, followed by
26 the public hearing and adoption of the budget, rates, and CIP program in
27 June.

28
29 10. **Executive Session – Executive Director's Annual Review**

1 Ms. Trent read a Resolution to enter Executive Session
2 pursuant to Virginia Code §2.2-3711 A (1) and A (7) to discuss a
3 personnel and legal matter (Attached as Page_____).

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

8 The Board of Directors came back into regular session. Ms. Trent
9 read into record a Resolution stating that only matters so previously stated
10 and exempted from open discussion in regular session were discussed in
11 Executive Session (Attached as Page_____).

12 ***Mr. Armstrong moved to approve the Resolution as presented***
13 ***to the Board, seconded by Mr. Parcels. The Chair asked for a roll-***
14 ***call vote: Mr. Armstrong, aye; Mr. Moore, aye; Dr. Palmer, aye; Mr.***
15 ***Parcels, aye; Mr. Tolbert, aye; Mr. Roberts, aye.***

16
17 11. Adjourn

18 ***There being no further business, Mr. Armstrong moved that***
19 ***the meeting be adjourned, seconded by Mr. Parcels. All members***
20 ***voted aye.***

21
22
23
24
25 _____
26 Gary B. O'Connell, Secretary-Treasurer
27

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Monthly Financial Reports STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance	AGENDA DATE: April 21, 2022 ACTION: Informational ATTACHMENTS: Yes
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BACKGROUND: Water and sewer financial reports and check registers for the month of March are attached for your review.

DISCUSSION:

- Water consumption for the month of February decreased 10.4% compared to January. Water consumption for the month of February 2022 compared to February 2021 increased 6.4%.
- RWSA's invoice of \$1,764,098 for the month of February was paid on March 10, 2022.
- Unearned water and sewer connection charges totaled \$2,958,212 at month end.
- System connection charges were above budgeted expectations with \$667,305 recognized in February. Total system connection charges for FY 2022 are less than those in FY 2021 by 17%.
- Water and Wastewater revenues for FY 2022 are above budgeted expectations by 8.5%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption, revenues are 6.9% higher than expectations.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS:

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

ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF NET POSITION

March 31, 2022

ASSETS

Cash and cash equivalents	\$ 9,727,971
Accounts receivable	4,234,751
Investments	42,864,790
Capital assets: (net of accumulated depreciation)	175,318,689
Inventory	466,792
Prepays	71,916
Cash and cash equivalents, restricted	<u>503,219</u>
Total assets	<u>233,188,128</u>

DEFERRED OUTFLOWS OF RESOURCES

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

Accounts payable	2,158,673
Accrued liabilities	466,971
Compensated absences	693,271
Net pension liability	3,659,743
Other post-employment benefits	1,448,953
Unearned connection fees	2,958,212
Long-term debt	<u>5,142,353</u>
Total liabilities	<u>16,528,176</u>

DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	<u>584,136</u>
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NET POSITION

	<u><u>217,932,588</u></u>
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**Albemarle County Service Authority
Actual-to-Budget Year to Date Commentary**

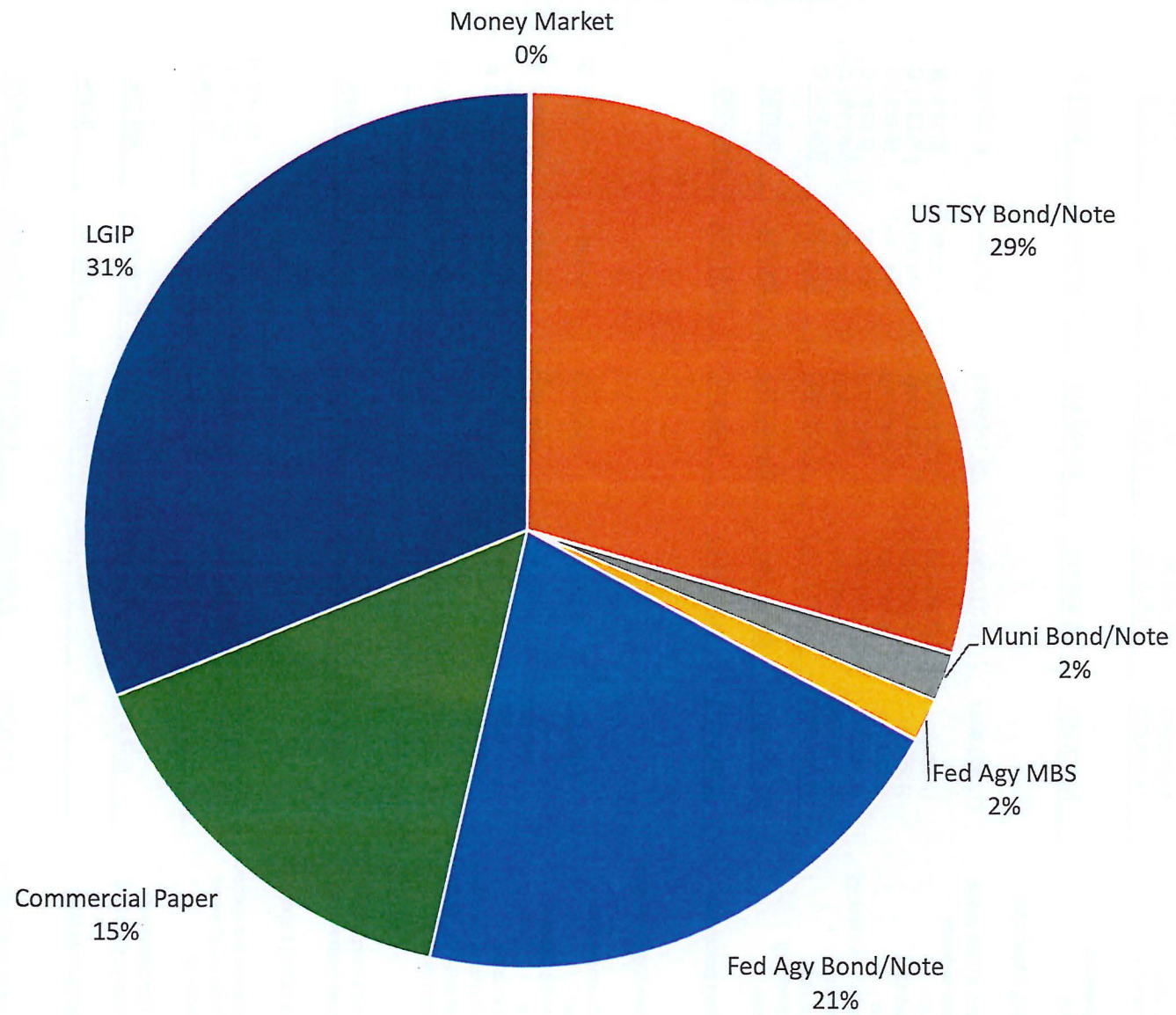
- A. Water and sewer revenues exceed budgeted amounts by 8.53%. Consumption through March (gallons) appears reasonable considering the ACSA's normal seasonal consumption pattern and resumption of more normal consumption from compared to periods of more restrictive shutdowns from COVID-19. Further information 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 1.09%. 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(loss), which includes both interest income and adjustments to fair market value are recorded in these accounts. Investment earnings are below budgeted expectations.
- 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 federal subsidy related to the 2010 debt issuance of BAB will not be earned in FY 22. These bonds were refunded in August 2021 yielding a net budgetary savings of \$1.2 million.
- H. The budgeted amount includes expected outlays for capital equipment and losses on disposal of capital assets. Equipment is capitalized when placed in service.
- I. Bond interest charges are recorded as incurred.
- J. 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.

ALBEMARLE COUNTY SERVICE AUTHORITY
For the Nine Months Ending March 31, 2022

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	Budget FY 2022	Budget Year-to-Date 2022	February Actual Year-to-Date	Actual vs. Budget	Variance Percentage
Revenues					
Water Sales	16,543,400.	12,407,550.	13,352,720.	945,170.	7.62%
Sewer Service	14,034,800.	10,526,100.	11,538,176.	1,012,076.	9.61%
Total operating revenues	30,578,200.	22,933,650.	24,890,896.	1,957,246.	8.53% A
Operating Expenses					
Purchase of bulk water	(12,450,600.)	(9,337,950.)	(9,166,686.)	171,264.	(1.83%) B
Purchase of sewer treatment	(9,685,800.)	(7,264,350.)	(7,255,060.)	9,290.	(0.13%) B
Administration	(1,253,400.)	(940,050.)	(794,079.)	145,971.	(15.53%) C
Finance	(2,243,574.)	(1,682,681.)	(1,569,506.)	113,175.	(6.73%) C
Information Technology	(1,162,387.)	(871,790.)	(803,140.)	68,650.	(7.87%) C
Engineering	(2,107,300.)	(1,580,475.)	(1,422,180.)	158,295.	(10.02%) C
Maintenance	(4,018,540.)	(3,013,905.)	(2,390,126.)	623,779.	(20.70%) C
Total operating expenses	(32,921,601.)	(24,691,201.)	(23,400,777.)	1,290,424.	(5.23%)
Operating gain(loss)	(2,343,401.)	(1,757,551.)	1,490,119.	3,247,670.	(184.78%)
Nonoperating Revenues					
System connection charges	7,000,000.	5,250,000.	6,198,507.	948,507.	18.07% D
Investment/Interest Income	200,000.	150,000.	(559,592.)	(709,592.)	(473.06%) E
Rental income	16,000.	12,000.	14,711.	2,711.	22.59%
Miscellaneous revenues	455,000.	341,250.	528,471.	187,221.	54.86% F
Federal subsidy, Build America Bonds	87,000.	65,250.	0.	(65,250.)	(100.00%) G
Total nonoperating revenues (expenses)	7,758,000.	5,818,500.	6,182,097.	363,597.	6.25%
Nonoperating Expenses					
Miscellaneous expenses	(304,179.)	(228,134.)	(373,641.)	(145,507.)	63.78% H
Bond interest charges	(274,436.)	(205,827.)	(317,822.)	(111,995.)	54.41% I
Depreciation	0.	0.	(3,081,178.)	(3,081,178.)	0.00% J
Total nonoperating revenues (expenses)	(578,615.)	(433,961.)	(3,772,641.)	(3,338,680.)	769.35%
Capital contributions	0.	0.	2,072,306.	2,072,306.	0.00%
Change in Net Position	4,835,984.	3,626,988.	5,971,881.	2,344,893.	64.65%

Allocation of Investments by Type



Portfolio Summary and Statistics

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

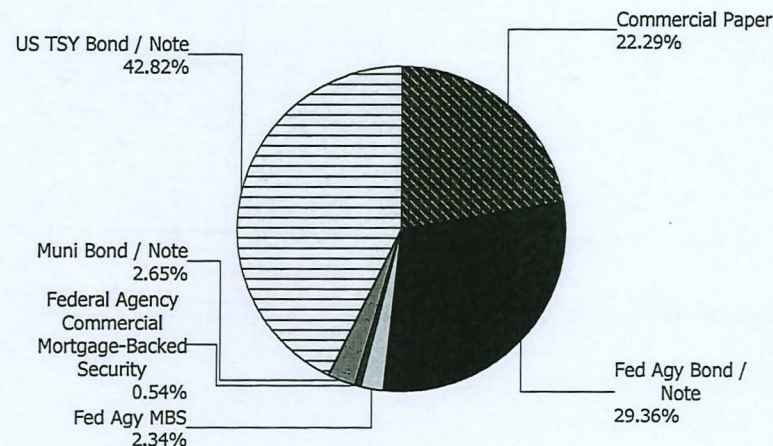
ACSA OPERATING FUNDS - 03100100

Account Summary

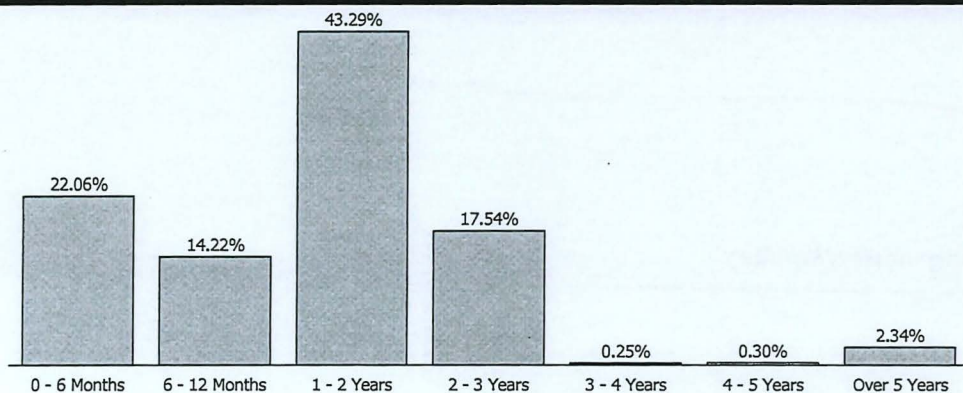
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	13,000,000.00	12,610,664.17	42.82
Municipal Bond / Note	800,000.00	780,936.50	2.65
Federal Agency Mortgage-Backed Security	691,749.03	688,717.90	2.34
Federal Agency Commercial Mortgage-Backed Security	168,688.97	160,279.99	0.54
Federal Agency Bond / Note	8,785,000.00	8,649,033.93	29.36
Commercial Paper	6,600,000.00	6,566,809.20	22.29
Managed Account Sub-Total	30,045,438.00	29,456,441.69	100.00%
Accrued Interest		41,297.43	
Total Portfolio	30,045,438.00	29,497,739.12	

Unsettled Trades **0.00** **0.00**

Sector Allocation



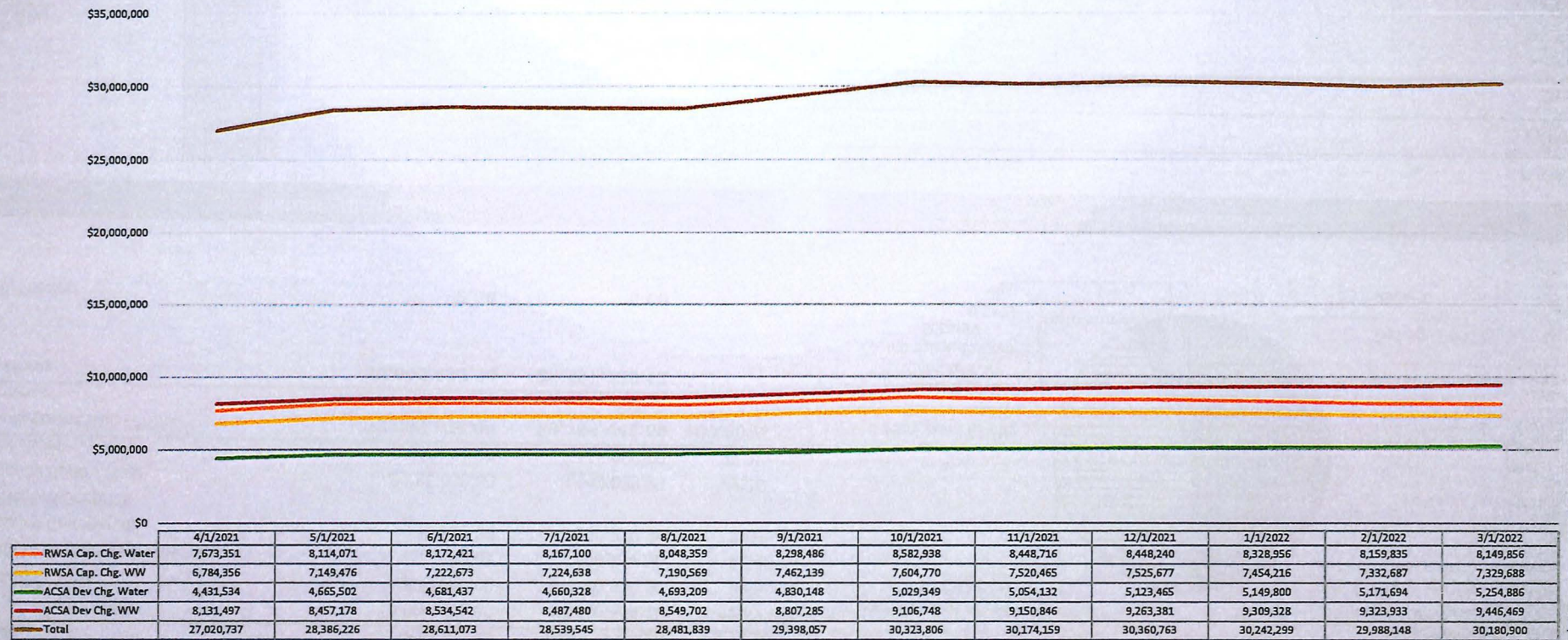
Maturity Distribution



Characteristics

Yield to Maturity at Cost	0.55%
Yield to Maturity at Market	1.85%
Weighted Average Days to Maturity	561

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
February 2022**

Area	February 2022 Monthly Connection Fees	February 2021 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 249,990	\$ 202,050	\$ 47,940	24%
Urban	417,315	424,470	(7,155)	-2%
Scottsville	-	-	-	-
Total Connection fees	\$ 667,305	\$ 626,520	\$ 40,785	7%

Through February				
Area	YTD FY 2022 Connection Fees	YTD FY 2021 Connection Fees	\$ Change	% Change
Crozet	\$ 977,370	\$ 1,923,225	\$ (945,855)	-49%
Urban	4,306,415	4,455,220	(148,805)	-3%
Scottsville	-	-	-	-
Total Connection fees	\$ 5,283,785	\$ 6,378,445	\$ (1,094,660)	-17%

Area	February 2022 ERC's	February 2021 ERC's	Change	% Change
Crozet	19	15	4	27%
Urban	32	32	-	0%
Scottsville	-	-	-	-
Total ERC's	51	47	4	9%

Through February				
Area	YTD FY 2022 ERC's	YTD FY 2021 ERC's	Change	% Change
Crozet	73	143	(70)	-49%
Urban	320	331	(11)	-3%
Scottsville	-	-	-	-
Total ERC's - YTD	393	474	(81)	-17%

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
February 2022**

Area	February 2022 ERC's	February 2021 ERC's	February 2020 ERC's
Crozet	19	15	71
Urban	32	32	36
Scottsville	-	-	-
Total ERC's	51	47	107

Through February			
Area	YTD 2022 ERC's	YTD 2021 ERC's	YTD 2020 ERC's
Crozet	73	143	181
Urban	320	331	440
Scottsville	-	-	1
Total ERC's - YTD	393	474	622

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		128,124,393	-100.00%		2.13
April		131,020,458	-100.00%		3.24
May		145,813,573	-100.00%		0.81
June		161,128,651	-100.00%		2.80
	1,232,041,175	1,719,433,244		24.74	49.04
YTD	1,232,041,175	1,153,346,169	6.82%	24.74	40.06

Note: Consumption through February 2022 is 6.82% 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)

February 2022

Billed by Area:	Water	Sewer
Crozet	15,920,000	14,732,200
Scottsville	1,394,217	796,824
Urban	110,091,956	100,835,581
Red Hill	27,900	0
Total	127,434,073	116,364,605

Billing by Sewer Plant:	
AWT	115,567,781
less Glenmore	(3,432,700)
Urban Total	112,135,081
Scottsville	796,824
Total	112,931,905

Number of Installed Meters:	
Urban	17
Crozet	10
Scottsville	0
Total	27

Metered Consumption (billed by invoice)	
Urban	132,600
Crozet	8,400
Scottsville	0
Total	141,000

Unmetered Consumption:	
ACSA Fire Flow Consump. Urban	6,282
ACSA Fire Flow Consump. N Rivanna	12,700
ACSA Fire Flow Consump. Crozet	7,662
Total	26,644

Unmetered Leak Consumption:	
Whirlaway Dr - Urban	60
Rowcross St - Crozet	1,000
Total	1,060

Billed Consumption for Selected Customers

	Water	Sewer
*Virginia Land Holding	420,000	420,000
Southwood Mobile Homes	1,754,000	4,581,028
Turtle Creek Apts.	1,203,900	1,201,000
Old Salem Apts.	1,438,000	1,438,000
Monroe Health & Rehab.	801,000	801,000
Sunrise Senior "Colonnades"	776,700	776,700
ACRJ	986,190	984,190
Westminster Canterbury	855,150	855,150
SEMF Charleston	1,452,675	1,452,675
Martha Jefferson Hospital	1,179,423	1,113,423
Crozet Mobile Home Village	244,000	244,000
Fashion Square Mall	93,000	93,000
County of Albemarle	909,292	854,120
University of Virginia	1,577,560	1,477,400
Wegmans	204,000	204,000

	Water	Sewer
Boar's Head Inn	248,200	169,100
Farmington Inc.	101,300	251,208
Westgate Apts.	1,171,000	1,171,000
Abbingdon Crossing	1,474,000	1,474,000
Four Seasons Apts	1,385,000	1,385,000
Ch'ville/Alb Airport	84,000	84,840
State Farm	24,970	23,970
Hyatt @ Stonefield	230,000	230,000
Doubletree	434,000	434,000
Arden Place Apts	478,800	478,800
Hilton Garden Inn	194,000	194,000
Ridgewood Homes	381,000	n/a
The Lodge @ Old Trail	198,000	198,000
Gov't-Defense Complex	376,200	376,200
Harris Teeter Stores	87,000	87,000

* Indicates Industrial Discharge Permit Holders

February 2022

WATER

Class Type	Number of Connections by Area			Total
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	15,504	3,646	196	19,346
Multi-Family Residential	540	43	3	586
Commercial (Offices)	203	12	5	220
Commercial (Other)	909	76	52	1,037
Industrial	36	9	4	49
Institutional	171	32	12	215
Total Water Accounts	17,363	3,818	272	21,453
Plus Multiple Units	12,560	748	89	13,397
Total Water Units	29,923	4,566	361	34,850

SEWER

Class Type	Number of Connections by Area			Total
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	13,197	3,366	158	16,721
Multi-Family Residential	509	41	4	554
Commercial (Offices)	187	12	5	204
Commercial (Other)	704	52	44	800
Industrial	15	5	1	21
Institutional	133	25	10	168
Total Sewer Accounts	14,745	3,501	222	18,468
Plus Multiple Units	12,143	745	56	12,944
Total Sewer Units	26,888	4,246	278	31,412

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	70,160	10,985	713	81,858
Total Sewer Customers	63,350	10,278	535	74,163

**Albemarle County Service Authority
Major Customer Analysis
February 2022 and January 2022**

	February 2022		January 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	909,292	854,120	613,437	583,337	48.23%	46.42%
Southwood Mobile Homes	1,754,000	4,581,028	1,647,000	5,064,841	6.50%	-9.55%
University of Virginia	1,577,560	1,477,400	1,546,760	1,456,100	1.99%	1.46%
Martha Jefferson Hospital	1,179,423	1,113,423	1,310,093	1,087,093	-9.97%	2.42%
Four Seasons Apts.	1,385,000	1,385,000	1,569,000	1,569,000	-11.73%	-11.73%
Old Salem Apts.	1,438,000	1,438,000	1,659,000	1,659,000	-13.32%	-13.32%
Westgate Apts.	1,171,000	1,171,000	1,389,000	1,389,000	-15.69%	-15.69%
Turtle Creek Apts.	1,203,900	1,201,000	1,476,100	1,475,000	-18.44%	-18.58%
SEMF Charleston	1,452,675	1,452,675	1,835,325	1,835,325	-20.85%	-20.85%
ACRJ	986,190	984,190	1,248,440	1,212,440	-21.01%	-18.83%
Abbingdon Crossing	1,474,000	1,474,000	1,981,400	1,981,400	-25.61%	-25.61%
Westminster Canterbury	855,150	855,150	1,190,390	1,190,390	-28.16%	-28.16%

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
February 2022 and February 2021

	February 2022		February 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	909,292	854,120	338,100	315,900	168.94%	170.38%
University of Virginia	1,577,560	1,477,400	1,136,400	1,131,900	38.82%	30.52%
Old Salem Apts.	1,438,000	1,438,000	1,315,800	1,315,800	9.29%	9.29%
Westminster Canterbury	855,150	855,150	785,000	785,000	8.94%	8.94%
Southwood Mobile Homes	1,754,000	4,581,028	1,670,000	633,768	5.03%	622.82%
Westgate Apts.	1,171,000	1,171,000	1,142,000	1,142,000	2.54%	2.54%
Four Seasons Apts.	1,385,000	1,385,000	1,370,000	1,370,000	1.09%	1.09%
Turtle Creek Apts.	1,203,900	1,201,000	1,303,600	1,303,000	-7.65%	-7.83%
Abbingdon Crossing	1,474,000	1,474,000	1,640,700	1,640,700	-10.16%	-10.16%
Martha Jefferson Hospital	1,179,423	1,113,423	1,383,500	1,022,500	-14.75%	8.89%
ACRJ	986,190	984,190	1,248,000	1,247,000	-20.98%	-21.08%
SEMF Charleston	1,452,675	1,452,675	1,905,150	1,905,150	-23.75%	-23.75%

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 -- February

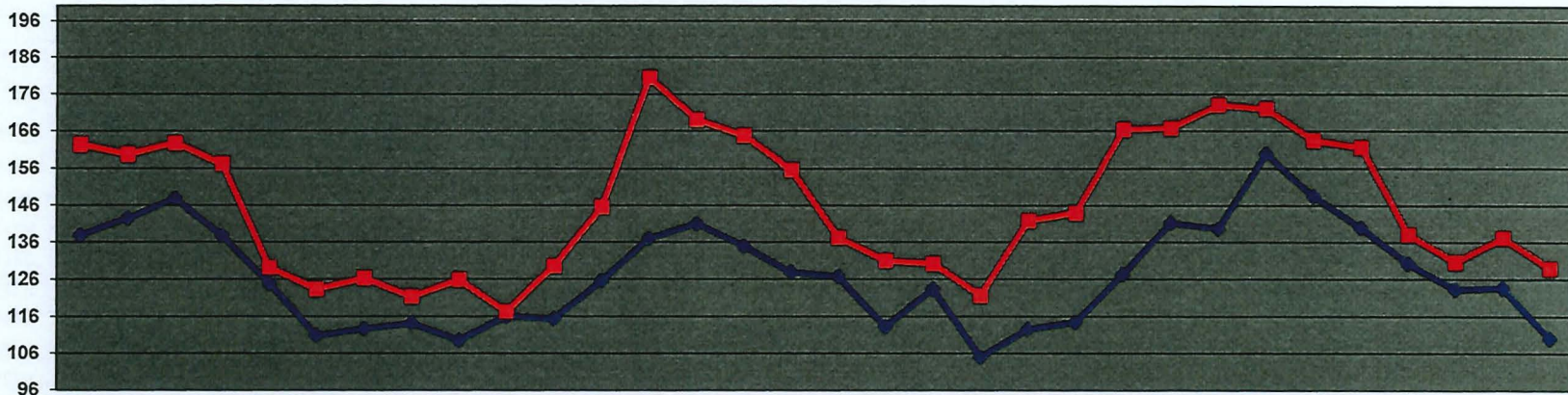
	YTD FY 2022		YTD FY 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	10,928,355	8,571,083	7,303,300	5,173,600	49.64%	65.67%
Martha Jefferson Hospital	15,246,549	8,608,449	13,378,900	8,117,100	13.96%	6.05%
University of Virginia	18,759,740	18,277,993	16,467,400	15,933,000	13.92%	14.72%
Westminster Canterbury	12,633,920	11,061,920	11,170,000	10,665,000	13.11%	3.72%
Westgate Apts.	9,929,000	9,920,000	9,540,000	9,526,800	4.08%	4.13%
SEMF Charleston	16,611,850	16,611,850	16,578,775	16,578,775	0.20%	0.20%
Four Seasons Apts.	12,536,000	12,536,000	12,618,000	12,618,000	-0.65%	-0.65%
Southwood Mobile Homes	15,078,000	32,007,419	16,009,000	17,409,225	-5.82%	83.85%
Abbingdon Crossing	13,994,600	13,994,600	14,974,500	14,974,500	-6.54%	-6.54%
ACRJ	11,697,820	10,658,820	12,751,000	11,957,000	-8.26%	-10.86%
Old Salem Apts.	11,821,300	11,821,300	12,938,100	12,938,100	-8.63%	-8.63%
Turtle Creek Apts.	10,311,200	10,300,000	14,174,700	14,166,000	-27.26%	-27.29%

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

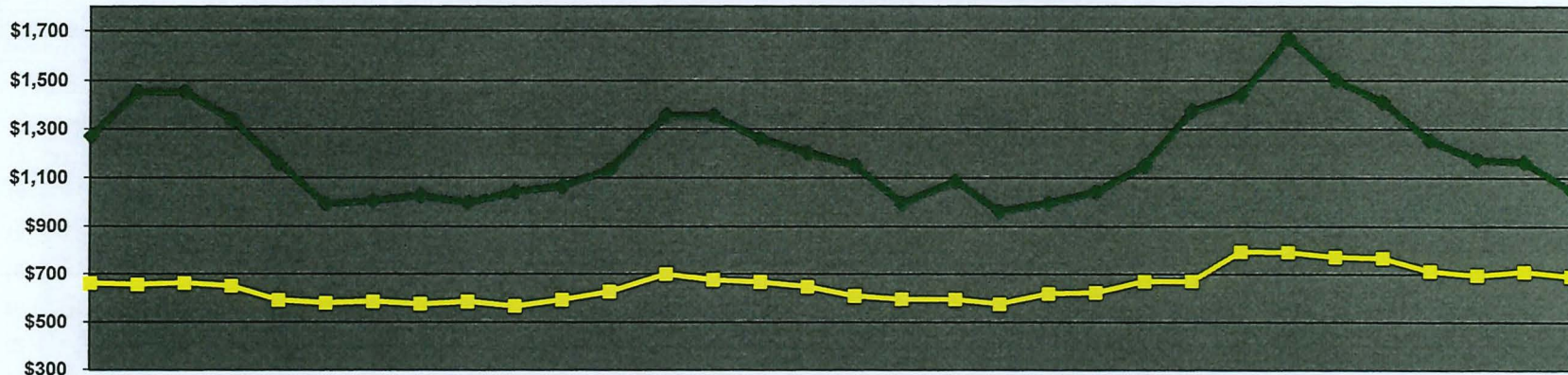
Flows & Usage (in Millions of Gallons)



	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
ACSA Usage	138	142	148	138	125	111	113	114	110	116	115	126	137	141	135	128	127	113	123	105	113	114	127	141	140	160	148	140	130	123	124	110
RWSA Flows	162	160	163	157	129	123	126	121	126	117	130	146	180	169	165	156	137	131	130	122	142	144	166	167	173	172	163	162	138	131	137	129
Variance	18%	12%	10%	14%	3%	11%	12%	6%	15%	1%	12%	16%	32%	20%	22%	22%	8%	16%	5%	16%	26%	26%	31%	18%	24%	8%	10%	15%	6%	6%	11%	17%

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

Charges and Revenues (in Thousands of Dollars)

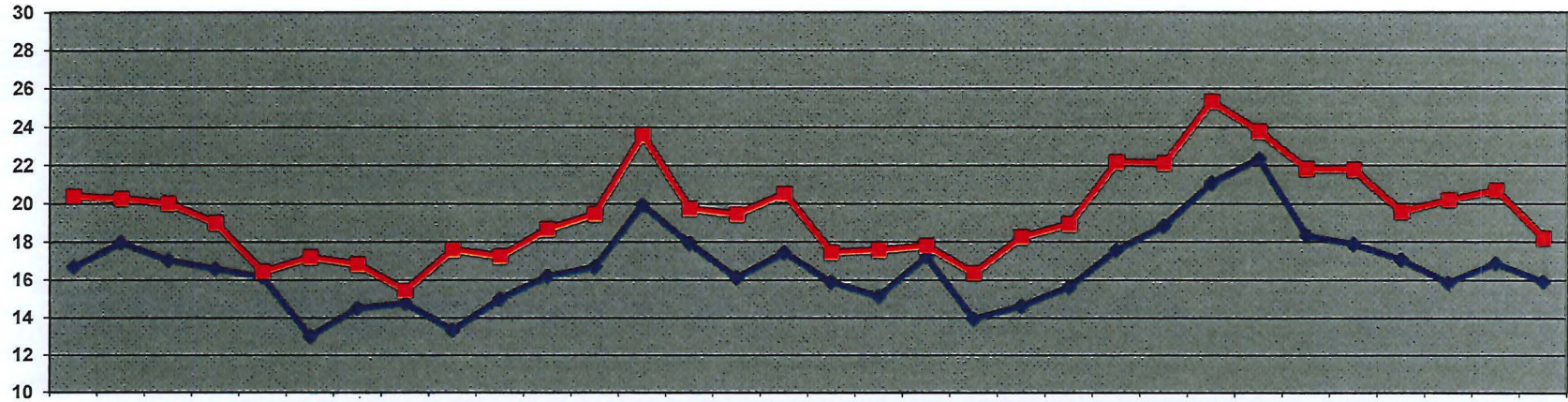


	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22
ACSA Revenue	\$1,27	\$1,45	\$1,45	\$1,34	\$1,16	\$994	\$1,00	\$1,03	\$999	\$1,04	\$1,06	\$1,13	\$1,35	\$1,35	\$1,25	\$1,20	\$1,15	\$995	\$1,08	\$962	\$997	\$1,04	\$1,15	\$1,37	\$1,43	\$1,67	\$1,50	\$1,41	\$1,25	\$1,17	\$1,16	\$1,05
RWSA Charges	\$661	\$656	\$662	\$651	\$592	\$580	\$586	\$576	\$585	\$567	\$593	\$626	\$699	\$675	\$666	\$647	\$609	\$596	\$594	\$576	\$618	\$623	\$670	\$671	\$795	\$793	\$772	\$768	\$713	\$695	\$711	\$691
Difference	\$610	\$799	\$791	\$689	\$569	\$414	\$422	\$454	\$414	\$476	\$473	\$508	\$656	\$680	\$592	\$554	\$542	\$399	\$492	\$386	\$378	\$419	\$480	\$704	\$645	\$877	\$728	\$642	\$539	\$479	\$453	\$360
Fiscal YTD Difference	\$0.61	\$1.41	\$2.20	\$2.89	\$3.46	\$3.87	\$4.29	\$4.75	\$5.16	\$5.64	\$6.11	\$6.62	\$0.66	\$1.34	\$1.93	\$2.48	\$3.02	\$3.42	\$3.91	\$4.30	\$4.68	\$5.10	\$5.58	\$6.28	\$0.64	\$1.52	\$2.25	\$2.89	\$3.43	\$3.91	\$4.36	\$4.72

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

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

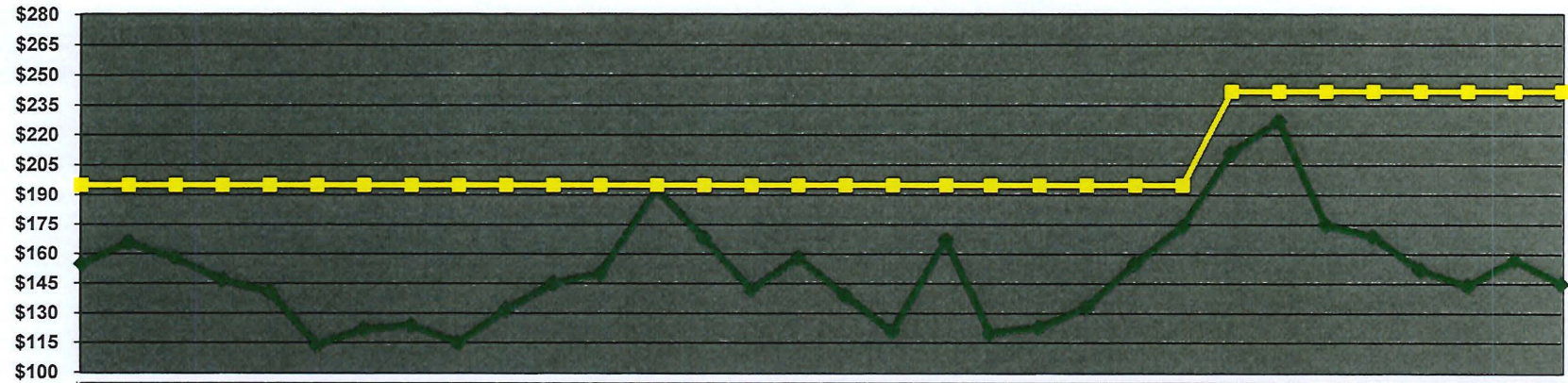
Flows & Usage (in Millions of Gallons)



	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
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	22	18	18	17	16	17	16
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
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%

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

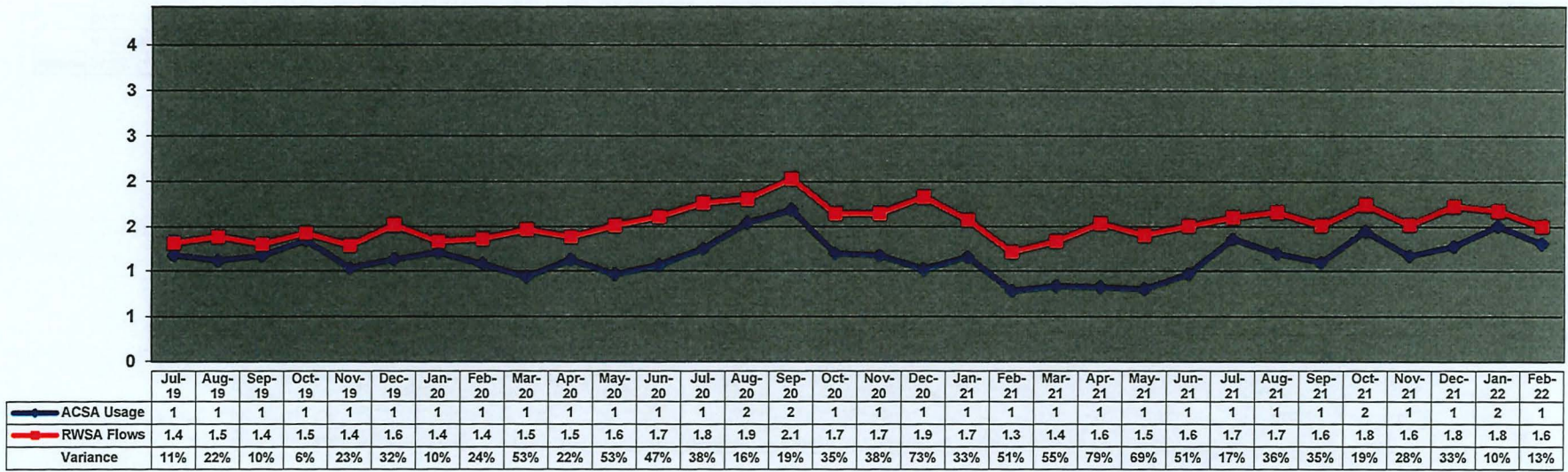
Charges and Revenues (in Thousands of Dollars)



	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
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
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
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)
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)

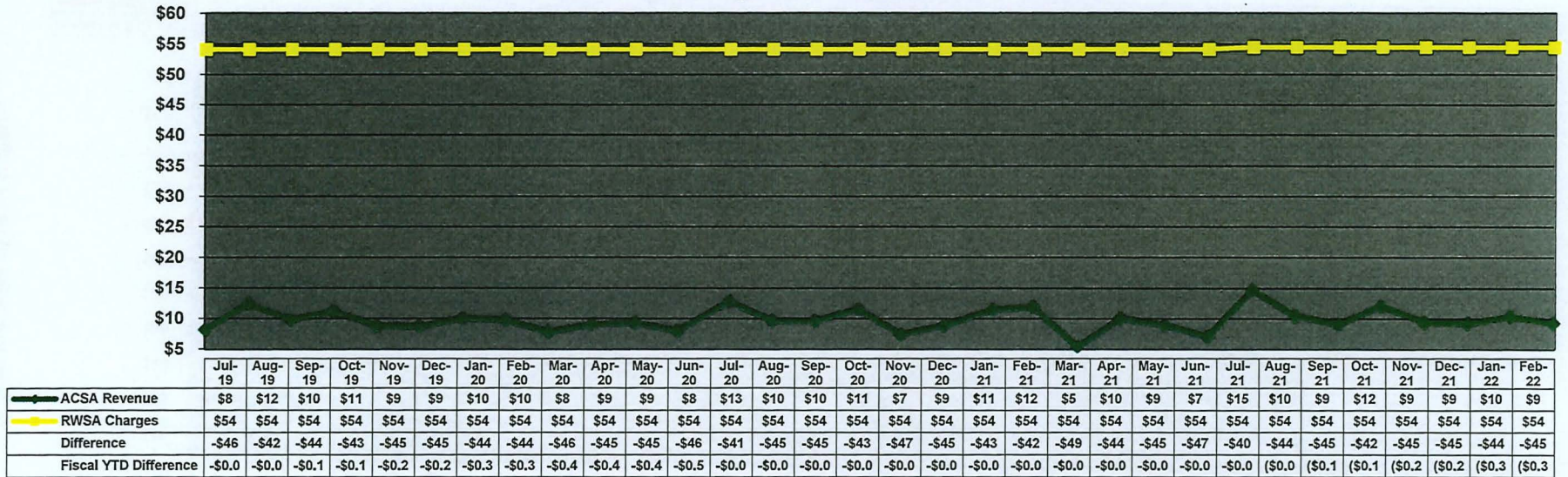
FY 2020, 2021, and 2022 Scottsville Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



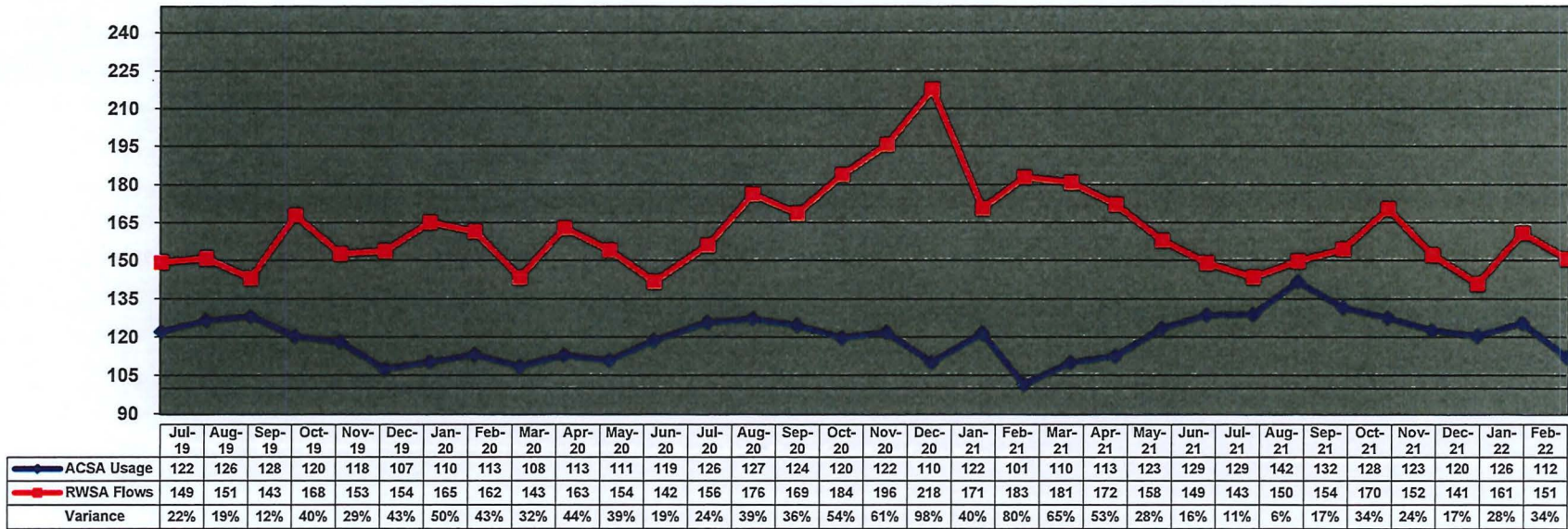
FY 2020, 2021, and 2022 Scottsville Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

Charges and Revenues (in Thousands of Dollars)



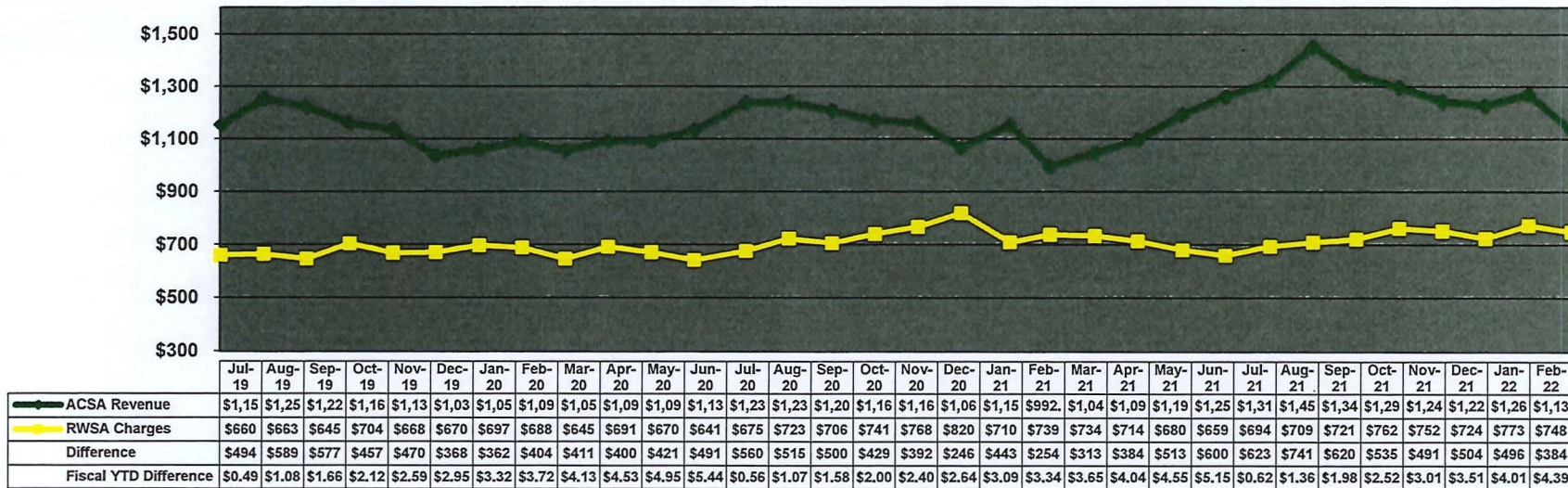
**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Customer Usage & RWSA Flows**

Usage & Flows (in Millions of Gallons)



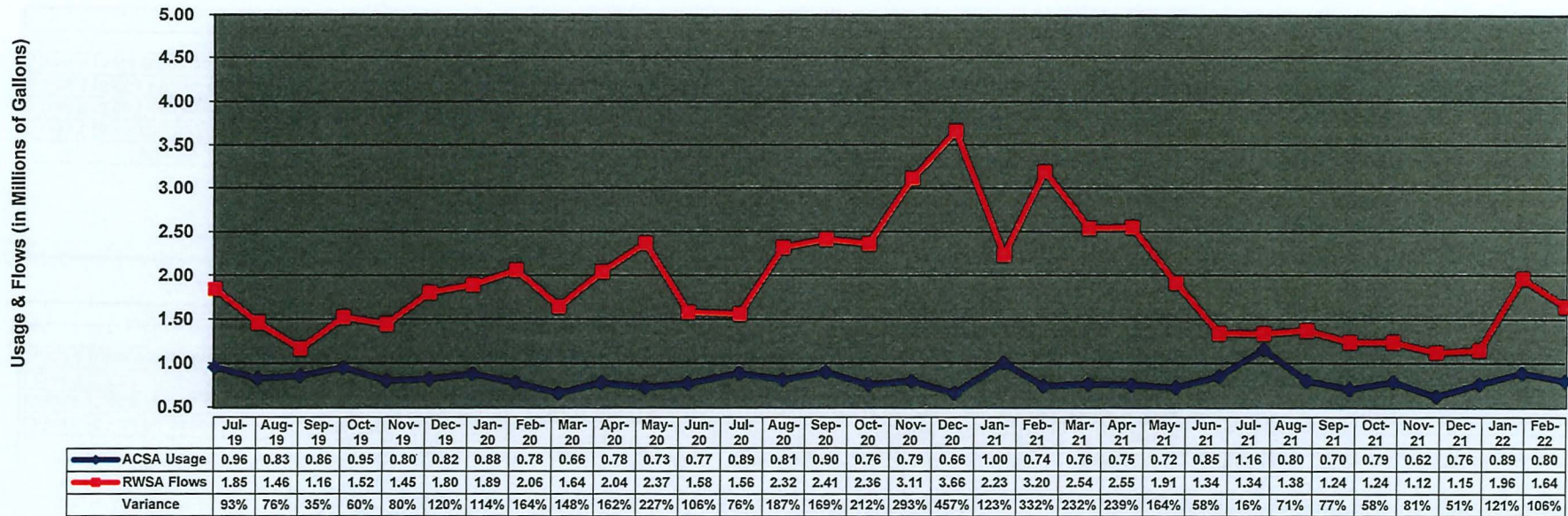
**FY 2020, 2021, and 2022 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Billed Sewer Usage & RWSA Billed Sewer Charges**

Charges & Revenues (in Thousands of Dollars)

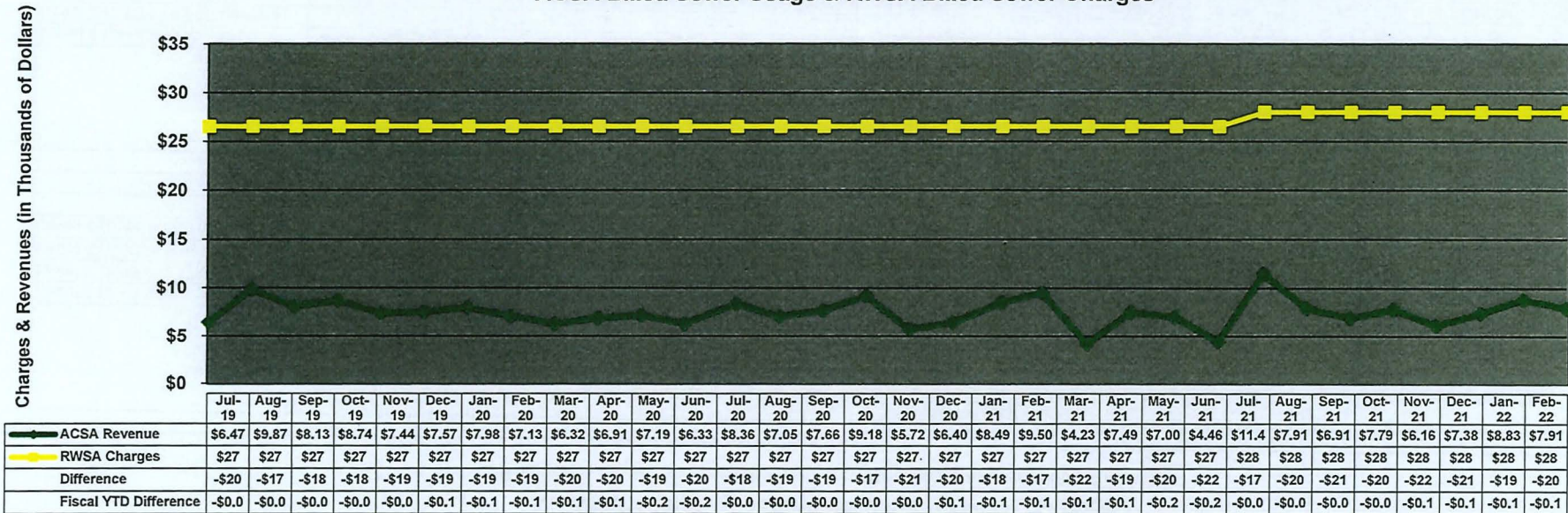


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

**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)

55

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

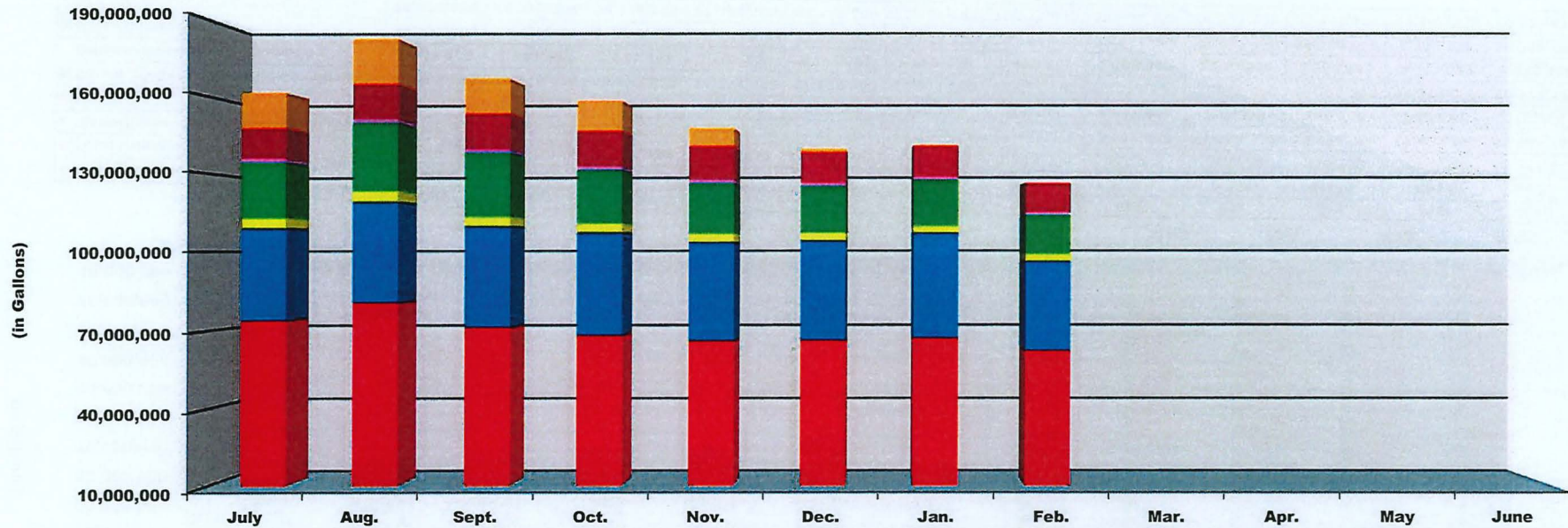
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,715,768	46,650,649	45,763,766	45,032,204	45,171,862	45,419,967	45,519,835	43,528,147				
Level 2 (3,001 - 6,000 gallons)	18,273,794	20,170,499	17,049,266	15,725,032	15,151,382	14,875,487	15,122,551	12,929,554				
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				
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				
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	-	-	-	-

System-Wide Irrigation Water Usage

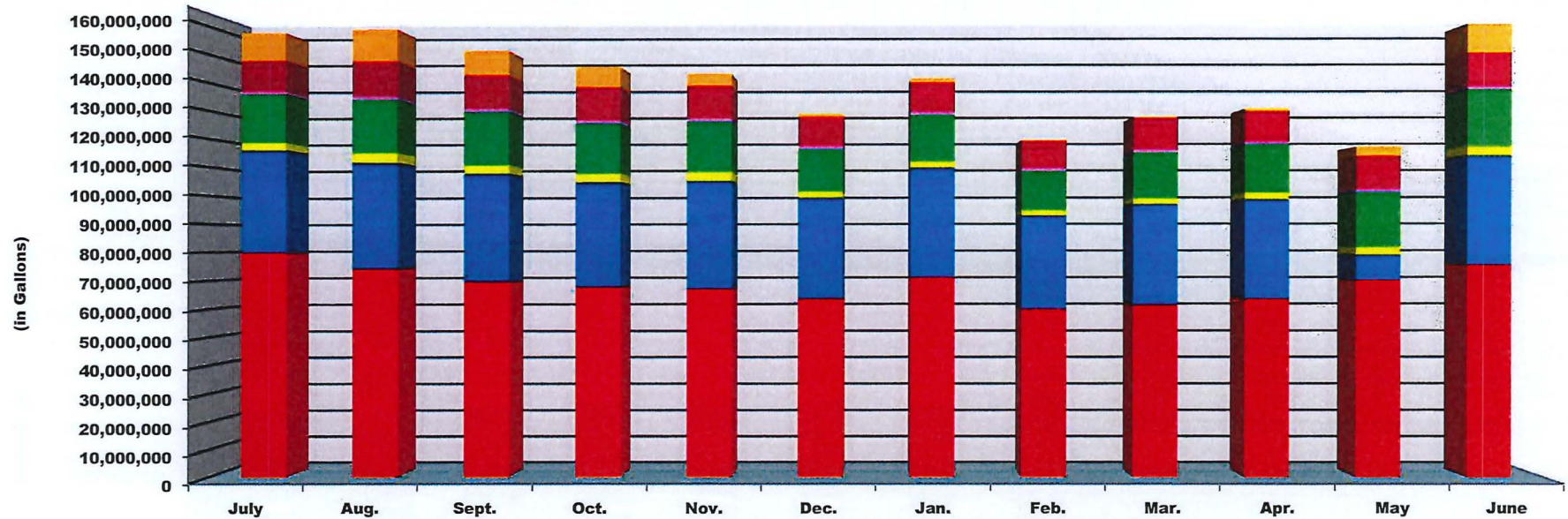
(All usage measured through exclusion, irrigation, and auxiliary meters)

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				
Level 2 (3,001 - 6,000 gallons)	962,522	1,040,603	904,153	849,482	602,101	69,638	14,390	13,183				
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				
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				
Total	14,081,507	17,746,655	13,631,436	12,050,529	7,093,317	1,406,778	470,655	357,324	-	-	-	-

Monthly Water Consumption Fiscal Year 2022

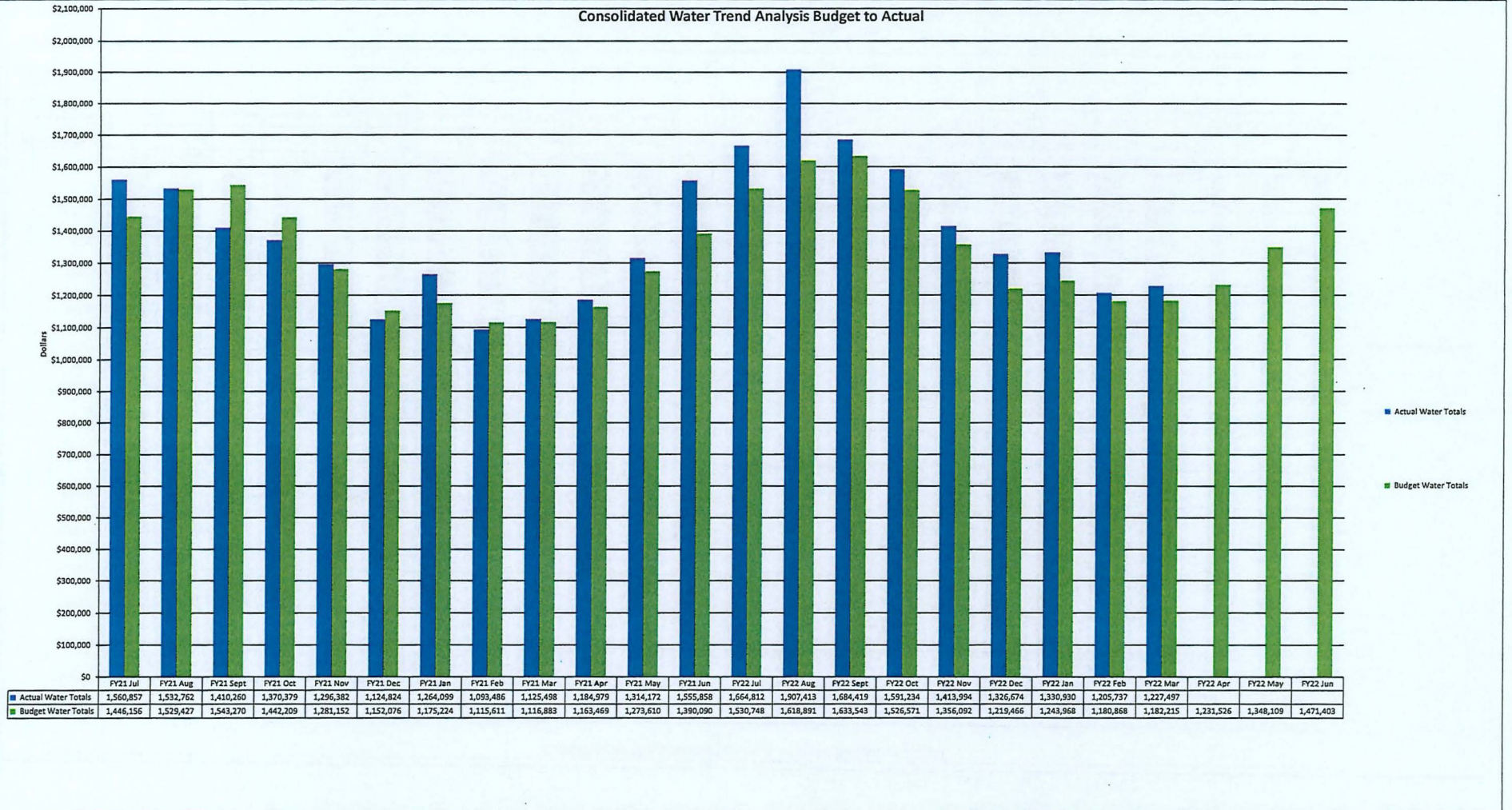


Monthly Water Consumption Fiscal Year 2021

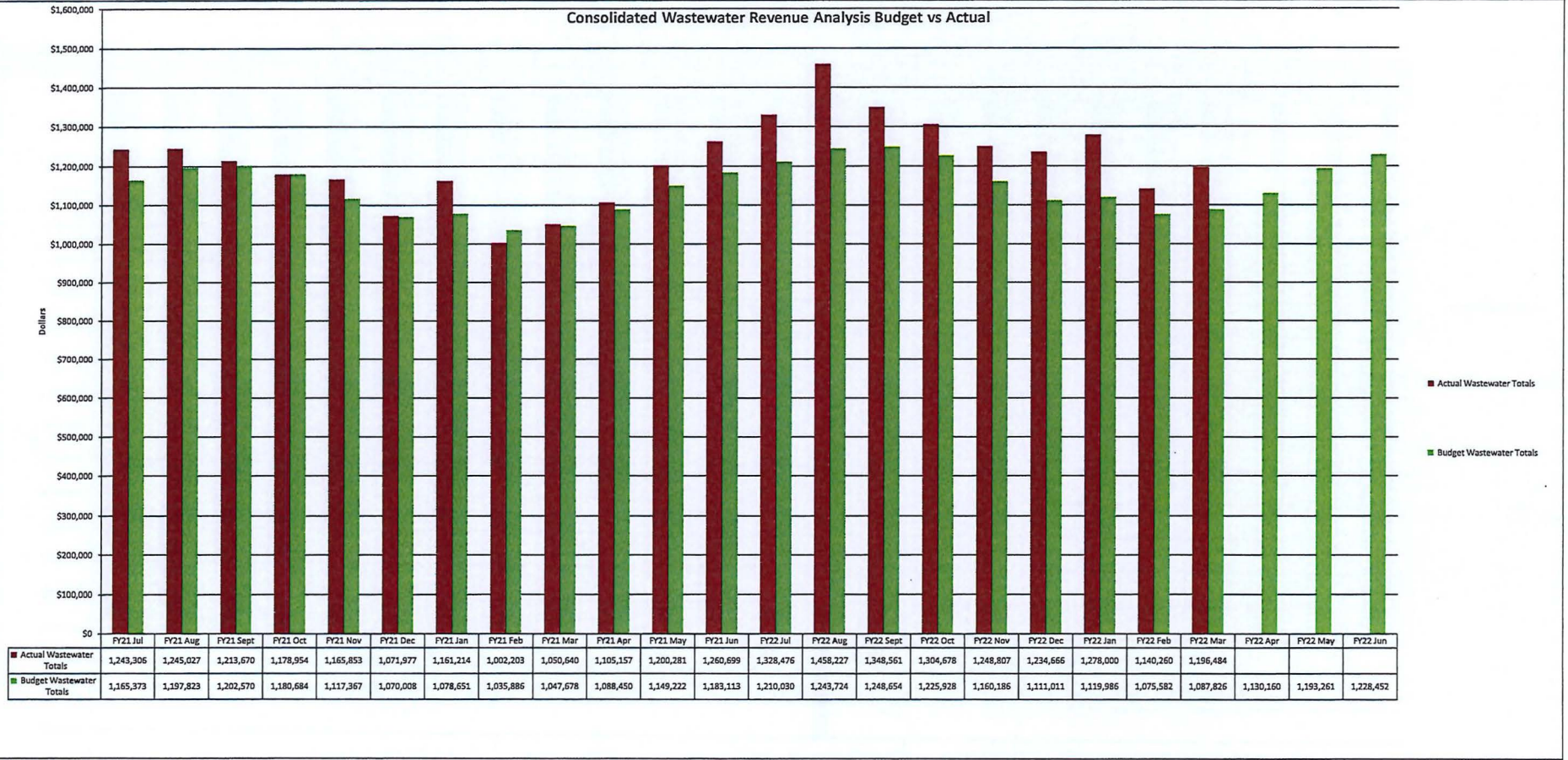


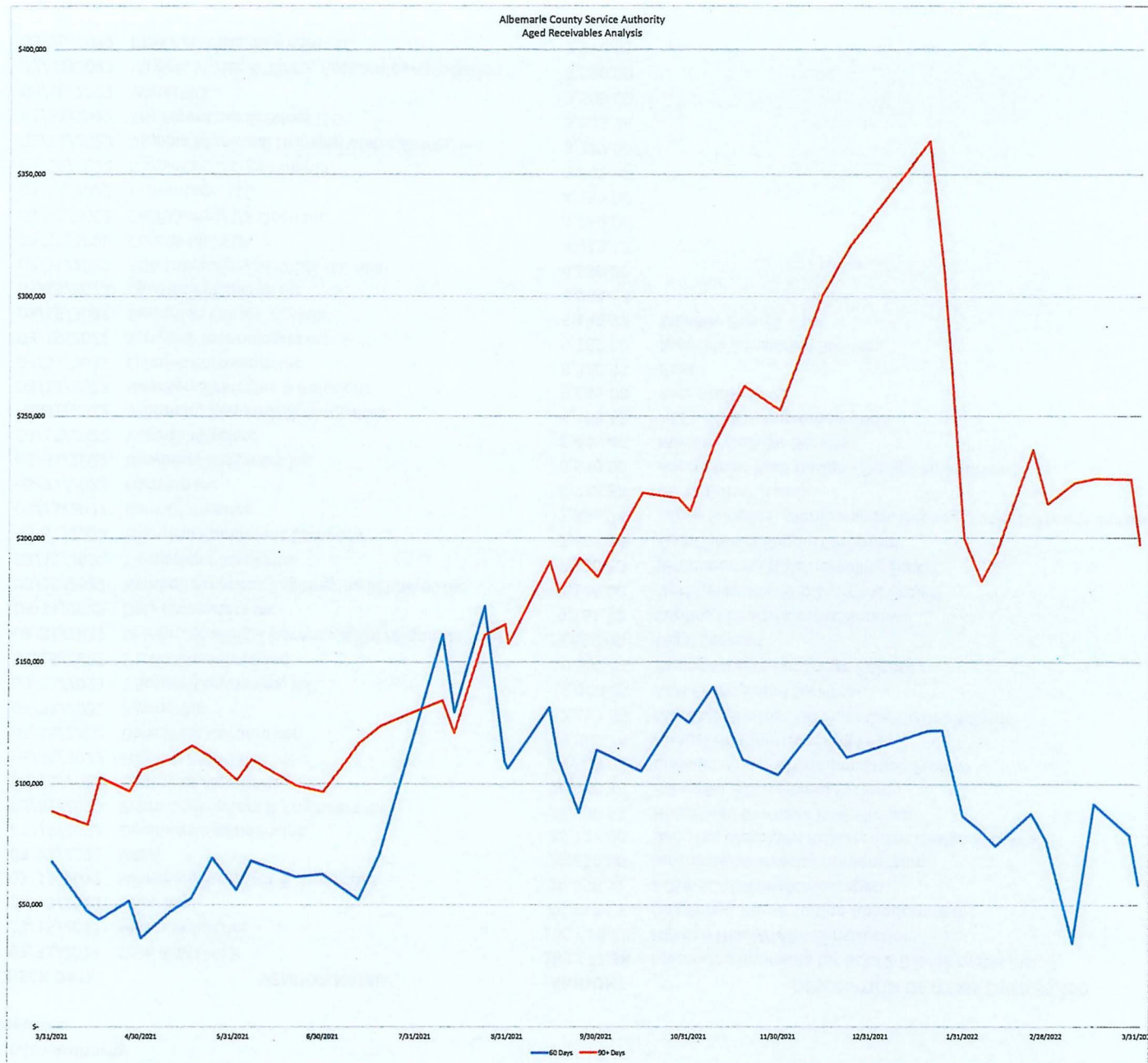
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	6.43%	7.32%	5.75%	5.06%	2.94%	0.85%	0.99%	0.38%	0.35%	0.69%	2.81%	6.44%
Total Irrigation	10,119,091	11,616,375	8,666,494	7,348,137	4,183,034	1,083,884	1,388,900	448,272	442,048	894,200	3,277,869	10,315,679
Institutional - 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



Consolidated Wastewater Revenue Analysis Budget vs Actual





Albemarle County Service Authority
March 2022 Check Registers

CHECK NUMBER	CHECK DATE	VENDOR NAME	AMOUNT	DESCRIPTION OF ITEMS OVER \$5,000
62515	03/31/2022	Core & Main LP	189,477.38	Meters/components for Beta 2.0 large meter install
62461	03/15/2022	Metra Industries	160,128.20	Hessian Hills WMRP Construction
62453	03/15/2022	Linco Inc	65,538.11	Oak Forest Pump Station Abandonment
62498	03/15/2022	Whitman, Requardt & Associates	29,656.92	ACSA-SCADA Implementation
62495	03/15/2022	VRSA	29,610.00	Insurance/Worker's Compensation
62433	03/15/2022	Dewberry Engineers Inc	26,724.00	Barracks West WM Replacement Design and Avon
62550	03/31/2022	Prism Contractors & Engineers Inc	24,270.55	Hollymead Drainage Basin Rehab
62429	03/15/2022	County of Albemarle	20,965.13	Billing for 800Hz Radio System
62534	03/31/2022	Frank & Associates Inc	17,500.00	Classification and Compensation Project
62432	03/15/2022	Data West Corporation	15,065.76	Annual Hosting/Licensing Fees
62549	03/31/2022	Paymentus	12,197.56	Monthly Fee for Customer Credit/Debit Cards
62438	03/15/2022	E Source Companies, LLC	11,960.25	AMI Professional Services
62479	03/15/2022	S L Williamson Co Inc	10,967.45	Paving Project-Retainage Release
62559	03/31/2022	St John, Bowling, Lawrence & Quagliana LLP	9,680.00	Legal Services
62522	03/31/2022	Daly Computers Inc	9,161.42	Sophos Firewall License Renewal
62465	03/15/2022	Ramboll Americas Engineering Solutions Inc	9,146.00	Norhfields WM Replacement Project
62457	03/15/2022	Timberland Associates	7,800.00	Briarwood PS & Vulnerability Fence
62527	03/31/2022	Electrical Equipment Company	7,454.16	TechConnect Support Proposal
62418	03/15/2022	Bank of America	7,395.74	Office Supplies, Memberships, Repairs, Tools, Software Renewals
62533	03/31/2022	Fortiline Inc	6,778.33	CL-12 Cutter Heads
62523	03/31/2022	Dewberry Engineers Inc	6,570.00	Avon Maint Yard Design - Design Amendment
62492	03/15/2022	Verizon Wireless	6,440.46	Monthly Cellular Service
62573	03/31/2022	Whitman, Requardt & Associates	6,405.58	ACSA-SCADA Implementation
62464	03/15/2022	NewGen Strategies & Solutions	5,645.00	Rate Study FY 22
62552	03/31/2022	Quarles Petroleum Inc	5,320.94	Fuel
62485	03/15/2022	Synigent Technologies Inc	5,160.00	Monthly Consulting Services
62437	03/15/2022	Dominion Energy Virginia	5,136.77	Monthly Energy Cost
62474	03/15/2022	Quarles Petroleum Inc	4,794.13	
62536	03/31/2022	RCA Laboratory Services LLC dba	4,500.00	
62428	03/15/2022	Core & Main LP	4,419.13	
62561	03/31/2022	SwiftComply US Opco Inc	4,250.00	
62551	03/31/2022	Provantage, LLC	4,150.00	
62524	03/31/2022	Dominion Energy Virginia	3,842.60	
62570	03/31/2022	Virginia Municipal Drinking Water Assoc., Inc.	3,747.00	
62526	03/31/2022	Eds Floor Care Services LLC	3,703.33	
62499	03/15/2022	WaterPIO	3,500.00	
62571	03/31/2022	Virginia Water & Waste Authorities Association	3,000.00	
62471	03/15/2022	PFM Asset Management LLC	2,970.61	

62481	03/15/2022	See-Mor Truck Tops & Customs	2,864.20
62435	03/15/2022	DLT Solutions LLC	2,840.10
62530	03/31/2022	Ferguson Enterprises LLC #1300	2,680.86
62416	03/15/2022	Appraisal Group, Inc.	2,500.00
62446	03/15/2022	Hawkins-Graves Inc	2,424.00
62548	03/31/2022	Office Depot Inc	2,371.32
62566	03/31/2022	UniFirst Corporation	2,317.11
62466	03/15/2022	Ignacio Ocampo	2,300.00
62452	03/15/2022	LB Water Service Inc	2,242.40
62454	03/15/2022	Lowes Companies Inc	2,214.62
62423	03/15/2022	Charlottesville Settlement Company	1,750.00
62493	03/15/2022	Virginia Utility Protection Service	1,687.35
62490	03/15/2022	UniFirst Corporation	1,509.95
62427	03/15/2022	Comcast Business	1,420.52
62519	03/31/2022	Cues	1,420.19
62477	03/15/2022	Rivanna Water & Sewer Authority	1,412.00
62545	03/31/2022	Mailing Services of Virginia	1,399.00
62447	03/15/2022	Hydraflo, Inc.	1,393.80
62574	03/31/2022	Angel D. Monterrozo	1,337.32
62503	03/31/2022	Advantage Office Systems	1,229.50
62516	03/31/2022	Albemarle Circuit Court	1,200.00
62439	03/15/2022	Ennas Technology Systems Integration Inc	1,170.00
62563	03/31/2022	Timmons Group, Inc.	1,125.00
62419	03/15/2022	Campbell Equipment	1,123.96
62553	03/31/2022	Rappahannock Electric Cooperative	1,105.88
62509	03/31/2022	Campbell Equipment	1,031.96
62554	03/31/2022	Spigone, Rick & Carol	1,000.00
62412	03/15/2022	Advance Auto Parts	953.49
62482	03/15/2022	Servicemaster Cleaning Charlottesville	915.00
62483	03/15/2022	Sunbelt Rentals Inc	902.16
62579	03/30/2022	Guardian	858.28
62589	03/31/2022	Guardian	858.23
62525	03/31/2022	Dr. Hinkle & Associates	850.00
62463	03/15/2022	Networks 2000	845.10
62557	03/31/2022	Servicemaster Cleaning Charlottesville	845.00
62455	03/15/2022	Luck Stone Corporation	828.01
62467	03/15/2022	Office Depot Inc	827.72
62543	03/31/2022	Terri M. Knight	801.30
62539	03/31/2022	Doug and Elizabeth Hidlay	800.00
62434	03/15/2022	Ditch Witch of Roanoke Inc	755.67
62582	03/30/2022	Minnesota Life Insurance Company	740.37
62592	03/31/2022	Minnesota Life Insurance Company	740.34

62440	03/15/2022	Ferguson Enterprises LLC #1300	691.88
62451	03/15/2022	LB Technology Inc	687.50
62537	03/31/2022	William and Bonita Griffith	675.00
62546	03/31/2022	Timberland Associates	675.00
62556	03/31/2022	S L Williamson Co Inc	672.01
62442	03/15/2022	Flora Pettit PC	630.00
62456	03/15/2022	Mailing Services of Virginia	592.70
62540	03/31/2022	JF Petroleum	580.35
62568	03/31/2022	USABlueBook	568.25
62518	03/31/2022	Crown Communication LLC	515.00
62450	03/15/2022	Jim Price Chevrolet	492.66
62473	03/15/2022	Professional Meters, Inc.	490.00
62521	03/31/2022	The Daily Progress	484.40
62511	03/31/2022	Central Battery Specialist	474.94
62441	03/15/2022	Fisher Auto Parts Inc	465.87
62445	03/15/2022	Hathaway	458.12
62532	03/31/2022	Flora Pettit PC	455.00
62544	03/31/2022	Jason Lilly	444.72
62487	03/15/2022	The Roanoke Times	443.90
62514	03/31/2022	Comcast	442.52
62500	03/16/2022	Treasurer of Virginia	430.90
62595	03/31/2022	Treasurer of Virginia	430.90
62476	03/15/2022	Rivanna Solid Waste Authority	429.38
62470	03/15/2022	Performance Signs LLC	420.00
62517	03/31/2022	Charles and Linda Crank	400.00
62542	03/31/2022	John Deere Financial	399.64
62528	03/31/2022	eTEC Mechanical Corporation	397.00
62564	03/31/2022	Traffic Safety Supplies, LLC	370.10
62569	03/31/2022	UVA-WorkMed	364.00
62488	03/15/2022	Traffic Safety Supplies, LLC	360.25
62508	03/31/2022	Paul and Lea Becker	350.00
62502	03/31/2022	Advance Auto Parts	347.75
62585	03/31/2022	ACAC	338.00
62581	03/30/2022	Herbert Beskin Trustee	334.50
62591	03/31/2022	Herbert Beskin Trustee	334.50
62575	03/30/2022	ACAC	332.00
62486	03/15/2022	Tencarva Machinery Company Inc	318.96
62443	03/15/2022	Fortiline Inc	310.00
62462	03/15/2022	Diana Grigera Monteagudo	300.00
62535	03/31/2022	Michael Garstang	300.00
62489	03/15/2022	U S Bank	291.67
62506	03/31/2022	Appalachian Power	285.15

62510	03/31/2022	Cardinal Home Center	281.43
62555	03/31/2022	Ricoh USA Inc	275.00
62459	03/15/2022	Mayer Electric Supply Company Inc	254.40
62541	03/31/2022	Jim Price Chevrolet	250.14
62538	03/31/2022	Heritage Crystal Clean LLC	247.50
62430	03/15/2022	County of Albemarle	247.22
62494	03/15/2022	VoiceLink Communications	227.71
62425	03/15/2022	Suzanne Clark	200.00
62475	03/15/2022	Republic Services	198.24
62491	03/15/2022	United Rentals	194.16
62513	03/31/2022	City of Charlottesville	193.50
62420	03/15/2022	Cardinal Home Center	190.69
62426	03/15/2022	Comcast	189.85
62431	03/15/2022	Culpeper Auto Parts	188.63
62583	03/30/2022	Piedmont Family YMCA	168.30
62593	03/31/2022	Piedmont Family YMCA	168.30
62448	03/15/2022	James River Communications Inc	159.00
62413	03/15/2022	Advantage Office Systems	155.97
62529	03/31/2022	Flexible Benefit Administrators, Inc	150.25
62501	03/16/2022	Virginia Department	150.00
62572	03/31/2022	W A Wells Excavating LLC	150.00
62596	03/31/2022	Virginia Department	150.00
62472	03/15/2022	Priority Elevator	149.39
62505	03/31/2022	American Pest	142.60
62584	03/30/2022	Snap Fitness	119.88
62594	03/31/2022	Snap Fitness	119.88
62484	03/15/2022	The Supply Room Companies Inc	110.66
62421	03/15/2022	Central Battery Specialist	102.58
62469	03/15/2022	Mark Passarella	100.00
62480	03/15/2022	Diana Sacra	100.00
62460	03/15/2022	McCarthy Tire Service	95.43
62507	03/31/2022	AutoZone Inc	87.96
62468	03/15/2022	Pack 'N' Mail	82.87
62547	03/31/2022	Mayer Electric Supply Company Inc	76.42
62436	03/15/2022	Document Destruction of Virginia, LLC	69.95
62417	03/15/2022	Cooperative Financial Solutions	65.46
62565	03/31/2022	Commonwealth of Virginia, DPOR	65.00
62496	03/15/2022	W A Wells Excavating LLC	60.00
62504	03/31/2022	Aireco Supply Inc	56.26
62512	03/31/2022	Childress Paints	54.20
62449	03/15/2022	MyFleetCenter.com	52.63
62414	03/15/2022	Albemarle Lock & Safe Company	48.85

62567	03/31/2022	University Tire & Auto Center Inc	40.00
62558	03/31/2022	Shade Equipment Company, Inc.	35.90
62422	03/15/2022	Central Virginia Electric Cooperative	33.07
62580	03/30/2022	The Gym	32.50
62590	03/31/2022	The Gym	32.50
62411	03/15/2022	ABC Extinguishers, LLC	31.10
62424	03/15/2022	City of Charlottesville	29.72
62458	03/15/2022	Mansfield Oil Company	29.00
62560	03/31/2022	The Supply Room Companies Inc	21.01
62415	03/15/2022	API Service Center	20.00
62576	03/30/2022	Anytime Fitness-Pantops	20.00
62577	03/30/2022	Anytime Fitness-Ruckersville	20.00
62578	03/30/2022	Anytime Fitness - Zion VA	20.00
62586	03/31/2022	Anytime Fitness-Pantops	20.00
62587	03/31/2022	Anytime Fitness-Ruckersville	20.00
62588	03/31/2022	Anytime Fitness - Zion VA	20.00
62478	03/15/2022	Roach, William H.	18.35
62520	03/31/2022	Charles R. DaCosta	11.81
62531	03/31/2022	Fisher Auto Parts Inc	8.32
62562	03/31/2022	Thryv, Inc.	6.59
62444	03/15/2022	Gingerich Outdoor Power Specialist	2.20

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: FY 2022 Capital Improvement Program (CIP)	AGENDA DATE: April 21, 2021
STAFF CONTACT(S)/PREPARER: Peter C. Gorham, P.E., Director of Engineering	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. The proposed CIP Schedule has been revised by removing FY 2021 and including FY 2023.

DISCUSSION:

- Questions about the status of active CIP Projects.
- Schedule changes for seventeen projects.
- Addition of seven new CIP Projects, all of which are part of the proposed FY 2023 CIP Budget.

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
April 2022

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	95%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$1,476,050
Appropriated Funds:	\$518,898

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 the next two to three fiscal years based upon priority.

4/12/2022: A punch list has been provided to JRC for items needing correction on the pedestrian access gates and they are preparing a schedule to complete this work. The ACSA Maintenance Department will construct an anti-climb device for installation on the light pole next to the Maintenance Yard security fence.

b) Energy Audit (Account Code 1625):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Study
Percent Complete:	85%
Contractor:	Unknown
Construction Start:	N/A
Completion:	July 2022 (Study)
Total Budget:	\$300,000

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.

4/12/2022: A review meeting was held with ACSA staff and Ramboll to complete the EV analysis in preparation for finalization of the decision spreadsheet that will guide our transition to an electric vehicle fleet. Ramboll is completing the work to analyze potential operational changes at pump stations to achieve some energy conservation. We anticipate receiving the draft final report by mid-May 2022.

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.

4/12/2022: Dewberry has provided questions to the ACSA Design Team who will meet internally to provide guidance for the completion of the final site plan. ACSA staff and Dewberry have met with the County Engineer and VDOT to review some of the comments on the initial site plan submission.

d) HVAC System Upgrade (Account Code 1619):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	95%
Contractor:	eTEC Mechanical Corporation (eTEC)
Construction Start:	February 2019
Completion:	May 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.

4/12/2022: The programming subcontractor has completed work on the heating issues in the building and is following up on additional issues identified by WRA in their review of the most recent construction and acceptance log. The cooling issue has been resolved. After the programmers additional work is finished ACSA staff will virtually verify a couple of alarms are working properly that had failed during the final Functional Testing.

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

Consultant:	ACSA/Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	85%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$348,000
Appropriated Funds:	\$353,000

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) device on the domestic water service line to high rise structures, defined as four (4) or more stories.

4/12/2022: A project update has been mailed to customers along with access agreements and BFP assembly ownership agreements. ACSA staff is working with the County Building Division to see if we can obtain a “batch” permit for all of the backflow prevention assemblies rather than process a permit for each address. ACSA will act as a third party inspector during the project to verify the proper installation and testing of the assemblies. We anticipate bidding the project near the end of April 2022.

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

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2024
Total Budget:	\$4,369,900
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 occur until FY 2022 and FY 2023.

4/12/2022: RWSA is conducting a test hole investigation of the inlet and outlet pipes of their water storage tank to verify the location of the transitions from asbestos-cement to cast iron, plus attempt to assess the condition of the cast iron. Accumark has begun work on the 29 test holes planned for the design phase. Lincoln Surveying is re-establishing the field markings for the geotechnical borings, which we expect Froehling and Robertson (F&R) to begin in mid to late April 2022.

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:	2023
Total Budget:	\$5,432,700
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.

4/12/2022: Offers for two unresponsive customers have been sent via FedEx and we have been contacted by one other non-responsive property owner. ACSA staff has met with another property owner and is negotiating a possible adjustment to our standard easement language. We are also coordinating with the Crozet Vet Clinic on Crozet Avenue, who has a site plan submission with the County, to show the needed water easement on their site plat, which we will reference in our deed of easement.

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:	\$696,000
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.

4/12/2022: A draft of the final appraisal report has been received from the Appraisal Group and has been reviewed by ACSA staff. When the final report is received we will make a revised offer to the UVAF.

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%

Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
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.

4/12/2022: The Notice of Award and the Standard Form of Agreement have been sent to Commonwealth for the preparation of necessary bonds.

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

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2023
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.

3/8/2022: Minor comments on the draft map of geotechnical bore locations have been returned to Ramboll. When the map is finalized ACSA staff will apply for a VDOT Land Use Permit (LUP) to complete these bores.

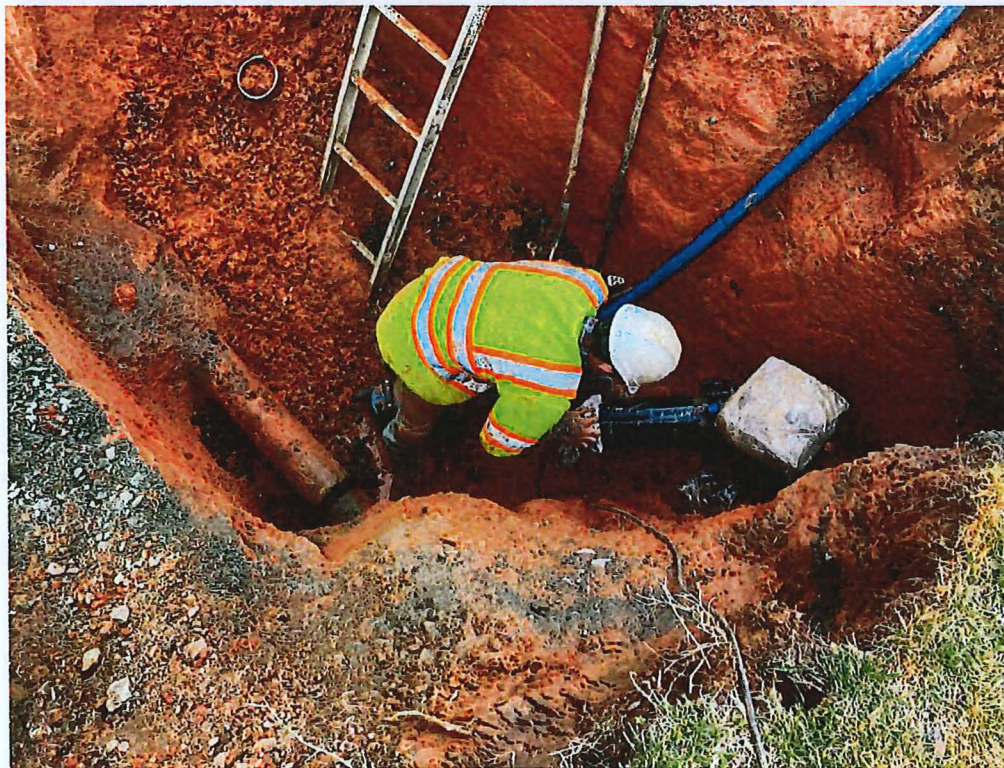
k) Hessian Hills Water Main Replacement (Account Code 1753):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Construction
Percent Complete:	90%
Contractor:	Metra Industries, Inc. (Metra)
Construction Start:	April 2021
Completion:	June 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.

4/12/2022: All of the connections to existing water mains along Georgetown Road have been completed except for the intersection at Old Forge Road. All of the connections across Barracks Road to the existing water mains in the Canterbury Hills Subdivision have been completed. The two pipes associated with the RWSA temporary pump site across Barracks Road remain to be tied in. The connections to the existing water mains on Ricky Road are scheduled to be completed the week of April 11, 2022. The date for mediation with Metra has been rescheduled for June 9, 2022.



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:	\$2,650,000
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 2022. Construction is expected to take place in FY 2025 and FY 2026.

4/12/2022: The 50% design documents have been received and they are currently under review.

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$2,728,100
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.

4/12/2022: The 50% design documents have been received and they are currently under review.

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

Consultant:	Whitman, Requardt & Associates, Inc.
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$1,043,800
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.

3/8/2022: Comments on the 50% design documents have been received from the City and RWSA concerning the connections to their utilities at the west end of Broadway Street, and these have been forwarded to WRA.

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.

3/8/2022: The Kickoff Meeting with ACSA staff and Baker was held on March 3, 2022 to discuss details of design. Field surveying is expected to begin around mid-April 2022 with notifications being mailed to affected customers by the end of March 2022.

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:	May 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.

4/12/2022: Prism has resolved their equipment issues and plan to be back in our area during the month of May to complete their work on this project.

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

Consultant:	O'Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction
Percent Complete:	24%
Contractor:	Prism Contractors & Engineers, Inc. (Prism) & Linco, Inc. (Linco)
Construction Start:	October 2021
Completion:	June 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.

3/8/2022: Prism has completed rehabilitation on 42 of 174 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:	2024
Completion:	2025
Total Budget:	\$5,793,800
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.

4/12/2022: To date 5 of 24 easements required for construction have been acquired. Baker's landscape architect and ACSA staff met with the customers at 1705 Jumpers Run to discuss shrub and tree options to replace plantings that will be disturbed by construction. ACSA staff attended the Forest Lakes HOA Board Meeting on March 23, 2022 to provide an update on the project.

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

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	90%
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.

3/8/2022: The Commonwealth of Virginia has executed the Joint Permit Application (JPA) as an affected property owner and the JPA has been submitted to the Virginia Marine Resources Council (VMRC) for processing.

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:	June 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.

4/12/2022: Prism has resolved their equipment issues and plan to be back in our area during the month of May. They have been asked to complete work on this project once they have finished the Pantops Drainage Basin Rehabilitation.

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

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	0%

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.

1/12/2022: Linco had renewed their annual contract with some adjustments to unit pricing in accordance with the specifications.

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.

3/8/2022: Work Order No. 2 has been issued to rehabilitate four manholes in separate locations (Con-Agra, Doubletree Hotel, Abington Place, Forest Lakes).

w) Oak Forest Pump Station Abandonment (Account Code 1807):

Consultant:	O'Brien & Gere Engineers, Inc. (OBG)
Project Status:	Construction
Percent Complete:	90%
Contractor:	Linco, Inc. (Linco)
Construction Start:	July 2020
Completion:	June 2022
Total Budget:	\$1,410,800
Appropriated Funds:	\$2,391,752

Project Description - This wastewater pump station was constructed 35 years ago by private development and the original equipment is wearing down. The building and wet well are also undersized and deteriorating. With the development of the Stonefield Area between Route 29 and Commonwealth Drive ACSA staff has identified a sewer main extension project that could eliminate this aging pump station and avoid an expensive upgrade.

4/12/2022: All of the gravity sewer mains have been constructed, tested, and placed in service. The demolition of the pump station and restoration work remain to finish off this project. ACSA staff is working with the owner of the new apartment building at the upper end of the bore under Commonwealth Drive to correct a drainage issue across our new pipe that will be of benefit to both parties.



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

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	10%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$2,049,715
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.

4/12/2022: The additional surveying data will not be available until the end of April 2022. ACSA staff have asked Baker to provide profiles of the gravity main option versus a partial low pressure pump system option to assist us in making a decision on how the design shall proceed.

y) **Madison Park Pump Station Upgrade (Account Code 1735):**

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
Completion:	2022
Total Budget:	\$1,125,000
Appropriated Funds:	\$393,831

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.

4/12/2022: One bid was received on March 30, 2022 from Anderson Construction (Anderson) and it was \$400,000 more than budgeted in our CIP Rate Model. ACSA staff will reach out to Anderson to see if we can negotiate some cost reductions by identifying any value engineering adjustments with assistance from WRA.

z) 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:	2022
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.

4/12/2022: Two out of five product submittals have been approved and comments on the other three have been returned to ECUC for revisions. ACSA staff is applying to DEQ for tax exemption status for ECUC on this project.

aa) 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:	2022
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.

4/12/2022: ACSA staff will be contacting the Lewis Hill HOA in the month of April 2022 to restart discussions about pipe alignment and easement acquisition.

bb) 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.

4/12/2022: VDOT has agreed to allow the water main crossing Old Ivy Road to be constructed by open cut, provided we create a Maintenance of Traffic (MOT) design by an individual who possess an advanced Work Zone Safety certification. We must also address how traffic backups on this heavily travelled road will be mitigated. ACSA staff will obtain prices for the preparation of a MOT by a third party as we complete our in-house design.

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

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	50%
Contractor:	ACSA Maintenance Department
Construction Start:	October 2021
Completion:	May 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.

4/12/2022: Continuing supply chain issues have pushed back the shipping date for the new standby generator to early May 2022. The Letter of Revision documenting the changes to the original site plan for the pump station has been submitted to the County.

dd) Exclusion Meters Replacement (Account Code 1759):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	23%
Contractor:	ACSA Maintenance Department
Construction Start:	September 2019
Completion:	2024
Total Budget:	\$1,237,500
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.

4/12/2022: All of the exclusion meters in Group Six have been replaced and ACSA Maintenance staff are working on the group of exclusion meters that customers have informed us are no longer working properly. There are currently 383 exclusion meters remaining in our system.

ee) 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.

4/12/2022: Prior to initiating the design of the replacement of a portion of the Woodbrook Sewer Pump Station force main, ACSA staff are evaluating the impact of a shorter main on the performance of the existing pumps. ACSA staff are also verifying there will be sufficient capacity in the new gravity route through the Woodbrook Subdivision due to the change in the discharge manhole location.

ff) 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:	2022
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.

4/12/2022: The RFP and bidder pre-qualification documents have been advertised and there appears to be a significant amount of interest in the project. The due date for the proposals and pre-qualification documents has been extended to May 13, 2022 at the request of some contractors because of the large amount of data required for pre-qualifying.

PCG/dmg
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Albemarle County Service Authority (ACSA)

CIP Schedule Revisions

April 2022

1. The study phase of the Energy Audit Project has been extended to July 2022.
2. The design phase of the Avon Street Maintenance Yard Project has been extended to October 2022.
3. The design phase of the Four-Story Backflow Prevention Assembly Retrofit Project has been extended to May 2022.
4. The design phase of the Scottsville Phase 4 Water Main Replacement Project has been extended to September 2022.
5. The design phase of the Ragged Mountain Phase 1 Water Main Replacement Project has been extended to May 2022.
6. The design phase of the Northfields Water Main Replacement Project has been extended to August 2022.
7. The construction phase of the Hessian Hills Water Main Replacement Project has been extended to June 2022.
8. The design phase of the Briarwood Water Main Replacement Project has been extended to August 2022.
9. The design phase of the Barracks West Water Main Replacement Project has been extended to December 2022.
10. The design phase of the Broadway Street Water Main Replacement Project has been extended to June 2022.
11. The design phase of the Raintree and Fieldbrook Water Main Replacement Project has been extended to June 2023.
12. The design phase of the Airport Trunk Sewer Upgrade Project has been extended to July 2022.
13. The construction phase of the FY 2021 Miscellaneous Sewer Rehabilitation Project has been extended to June 2022.
14. The design phase of the Bellair – Liberty Hills Sewer Project has been extended to October 2022.

15. The design phase of the Parkview Drive Water Connection has been shifted to begin October 2022.
16. The design phase of the Huntington Village Water Connection has been extended to June 2022.
17. The construction phase of the Briarwood Pump Station Generator Project has been extended to May 2022.

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Capital Improvement Program			Percent		2022	2023		2021	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
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In house construction
Engineering
Construction

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

- a. Airport Road Sheetz (Rio): Water main extension to serve a Sheetz, located at the corner of Airport Road and Route 29.
- b. Albemarle Business Campus – Block 5 (Scottsville): Water and sewer main extension to serve a storage facility and retail spaces between Old Lynchburg Road and Wahoo Way.
- c. Ashcroft Phase 2 Sections 6 & 7 (Rivanna): Water main extension to serve 14 residences. The project is located at the upper end of Summit Ridge Trail.
- d. Avon Park Phase 2 (Scottsville): Water and sewer main extension to serve 28 residential units. This project is located along the southern end of Hathaway Street.
- e. Beaver Creek – Medical Office Building (Jack Jouett): Water main extension to serve the proposed medical office building to be located on the 2246 and 2248 Ivy Road parcel.
- f. 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.
- g. Boys and Girls Club – Drivers Ed Site (Jack Jouett): Water main extension to serve a new Boys and Girls Club. The project is located south east of Jack Jouett Middle School.
- h. 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.
- i. Farmington Country Club – Phase 1 (Jack Jouett): Water main extension to provide fire protection to the future Farmington Country Club expansion. An existing cottage will be replaced with 3 new cottages, totaling 12 units. This project is located at the intersection of Farmington Drive and Tennis Road.
- j. 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.
- k. 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.
- l. Georgetown Hydraulic (Jack Jouett): Water main extension to serve a commercial office building at the intersection of Georgetown Road and Hydraulic Road.

- m. **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.
- n. **Hollymead Town Center Hotel (Rio):** Water main extension and sewer relocation to serve an 81 room hotel near the intersection of Seminole Trail and Timberwood Blvd.
- o. **Ivy Road Sidewalk Project (Jack Jouett):** Replacement of 1,000 LF of water main to facilitate the installation of a sidewalk and associated storm water infrastructure. This project is located along Ivy Road, between Still fired Lane and Colonnade Drive.
- p. **MJH Presidio Apartments (Rivanna):** Water and sewer main extensions to serve 250 multi-family residential units along Peter Jefferson Parkway across from the Martha Jefferson Hospital.
- q. **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.
- r. **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.
- s. **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.
- t. **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.
- u. **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.
- v. **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.
- w. **Stonefield Block D1 (Jack Jouett):** Water main extension to serve a 220 unit apartment building at the intersection of Inglewood Drive and Bond Street.
- x. **White Gables Major Amendment (Samuel Miller):** Water main enxtension 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.

AGENDA ITEM EXECUTIVE SUMMARY

CONSENT AGENDA

AGENDA TITLE: Standby Then and Now	AGENDA DATE: April 21, 2022
STAFF CONTACT(S)/PREPARER: Mike Lynn, Operations Manager	ACTION: Informational
	ATTACHMENTS: No

BACKGROUND: A discussion of how after-hours calls are currently handled and how the process has changed from the mid-1970s.

DISCUSSION: The ACSA Maintenance Department consists of 35 employees when fully staffed. Of those 35 positions we have 5 in our Facilities group that handle all our pump station after-hours calls. The Facilities group will assign staff to cover calls on holidays. During the rest of the year the closest staff member available will respond as necessary.

We have 27 staff members in the water and sewer maintenance section, who are required to go on call a week at a time on a rotating basis. The 27 in Maintenance are responsible for taking and responding to any after-hour requests for service. They are on-call from Friday afternoon until the following Friday morning. They are provided with the standby phone, call truck and iPad. Most of them are usually on-call twice a year. Since the schedule is done for the entire year in advance, when someone with an assigned week has an emergency or leaves the ACSA, we will seek volunteers and draw names as needed.

For holidays such as Christmas, New Year's and Thanksgiving, we will ask for 2 volunteers to be on-call and to respond if the on-call person has an event that requires additional help. These employees are rewarded with an extra day off for being available to work if needed.

It is amazing how things have changed over the last 45 years. Back in 1976, the Albemarle County Sheriff's Office took our after-hours emergency calls and paged the on-call person to call for information. The on-call person would then call the person who contacted the Sheriff's office. We knew we could respond to the page and call the customer if we were at home or at another location with a land line. If we were out on a service call or for any other reason, it was necessary to have a roll of quarters on hand to use a pay phone. No, we were not reimbursed for our quarters.

The Maintenance Department back in the 1970s only had about 12 employees that would be going on call. To help keep them from being on-call constantly, the meter readers and the construction inspectors also covered after-hours calls. As the

Maintenance Department grew, the other departments were removed from covering after hours issues.

The Facilities staff gets alarms and alerts on their cell phones through our Supervisory Control And Data Acquisition (SCADA) system. They can access and receive information, in addition to sometimes troubleshooting without going to the station(s). This is a far cry from the sewer stations having a flashing red light and an audible alarm that would hopefully alert one of the neighbors to call and report an issue. Usually by the time we were notified or responded to the station we often had a sanitary sewer overflow (SSO) to deal with and report.

We now have an answering service that takes the information on after-hour calls and will call or text the designated on-call person to handle. Some calls require a response and a visual investigation while other calls can be handled over the phone.

We had less than 4,000 connections in 1976 and now have over 20,000 connections. While the number of after-hours calls has increased overall, the number of emergency responses has decreased due to system improvements and technology. Water main breaks averaged about 40 to 45 per year from 1976 to 1977 and now we average 5 to 7 per year.


BOARD ACTION REQUESTED: None

ATTACHMENTS: No

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AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Rivanna Water & Sewer Authority (RWSA) Monthly Update	AGENDA DATE: April 21, 2022
STAFF CONTACT(S)/PREPARER: Gary O'Connell, Executive Director 	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 March 22nd RWSA Board Meeting and other communications.

RWSA Board Meeting and other Updates and Approvals at the March 22nd Board Meeting:

- Operating Budget – A preliminary budget was presented. The RWSA Budget estimates a 9.5% increase in the wholesale water rate. A public hearing is scheduled for the May meeting.
- Buck Mountain Property – Discussion of the process and legal issues for the disposition of land and leases for a small part of the RWSA Buck Mountain property. Original early 1980 purchase to construct a water reservoir, which was later determined to not be environmentally feasible.
- Northern Urban Water System – Overview presentation of the system plans. Will be presented to the ACSA Board at the April meeting, as well as Board consideration of the Cost Allocation Agreement for future water projects. These water improvements serve 100% ACSA county customers.
- Central Water Line Project – RWSA presented information about this project alignment to the Fry's Spring Neighborhood Association in March. The project route is entirely in the City. Other neighborhoods along the proposed route will be receiving similar presentations. A presentation will be made to City Council in June.

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:	56%
Completion Date:	May 2023
Base Construction Contract:	\$37,223,349.89
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 with completion of the Alum and Fluoride Chemical Storage Building, the Administration Building, and replacement of a clarifier drive. Two new filters have been completed and passed the 30-day demonstration period. Work at the Observatory Water Treatment Plant includes the foundation associated with the new Chemical Storage Building, installation of backwash pumps, expansion of the existing Filter Building and sedimentation basin improvements.

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.

• Crozet Flow Equalization Tank

Design Engineer:	Schnabel Engineering
Construction Start:	September 2020
Percent Complete:	89%
Expected Completion Date:	June 2022
Base Contract	\$4,478,216.31
Total Capital Project Budget:	\$5,400,000

Current Status:

Final construction of the tank continues with only completion of the tank done, a second round of leak testing, and painting remaining. The new pumps are set on bases but the new motors and variable speed drives are not yet complete. SCADA and control work is in progress.

History:

A 2016 update to the 2006 wastewater model was completed which evaluated the I&I (Infiltration and Inflow) reduction goals previously established and future capital project needs. Based on the results of that study, it was determined that the Crozet Interceptor

AGENDA ITEM EXECUTIVE SUMMARY

system and namely the existing Crozet Pump Stations (1 through 4) have adequate capacity to handle the 2015 peak wet weather flow from the Crozet service area during a two-year storm. However, as the projected growth in the Crozet service area occurs, peak wet weather flows in the area, under the storm conditions established in the updated model, will begin to exceed the firm capacities of the pump stations by 2025.

A flow equalization tank is under construction which would also provide a significant benefit to the maintenance of the Crozet Pumping Station system which currently lacks system storage necessary to allow adequate time to perform repairs on the pumps and the associated force mains while the system is down.

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

Contractor:	Anderson Construction
Bidding:	
Construction Start:	December 2021
Percent Complete:	5%
Completion Date:	December 2023
Base Contract:	\$8,520,312.50
Budget:	\$10,000,000

Current Status:

Contractor has acquired enough ductile iron pipe to begin work on the Kohl's site.

History:

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

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

Design Engineer:	Michael Baker International (Baker)
Project Start:	August 2018
Project Status:	Design (10%) and Easement Acquisition in Progress
Construction Start:	2025
Completion:	2028
Current Project Estimate:	\$29,375,000

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AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

Preparation of engineering plans and specifications is underway. Topographic survey work to the west of the proposed pump station is nearing completion, with further survey efforts to the east of the site soon to commence. A hydraulic evaluation of the future South Fork Rivanna Reservoir (SRR) to Ragged Mountain Reservoir (RMR) transfer system is also underway, which will further inform design of the RMR Pump Station and associated yard piping. Easement negotiations with one private owner, UVA, and the UVA Foundation continue.

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 construction, will have the capacity to treat 10 million gallons per day (mgd). The new single water line is expected to be constructed of 36-inch ductile iron and will be approximately 14,000 feet in length.

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

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

Design Engineer:	Kimley-Horn
Project Start:	June 2021
Project Status:	90% Design
Construction Start:	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 for this phase of the project. Design documents have been submitted to local regulatory authorities for review.

AGENDA ITEM EXECUTIVE SUMMARY

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:	73% NRCS Planning Process
Construction Start:	2024
Completion:	2026
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 early 2022. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion by October 2022. An application for design and construction funding from NRCS will be submitted in early 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 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 in the 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:	35% Design
Construction Start:	January 2023
Completion:	April 2024
Budget:	\$5,850,000

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AGENDA ITEM EXECUTIVE SUMMARY

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
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.

- **Urban Finished Water Infrastructure Master Plan**

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2018
Project Status:	99% complete
Completion:	February 2022
Total Capital Project Budget:	\$253,000

AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

A final draft of the Master Plan will be presented to the RWSA Board in May.

History:

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

- **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

A revised draft alignment of the sewer line being installed within easements and out of the roadway have been completed and are being shared with the City of Charlottesville and Albemarle County for review.

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

Design Engineer:	SEH
Project Start:	August 2020
Project Status:	100% (Phase 1) 55% (Phase 2)
Completion:	July 2022
Budget:	\$22,969 (Phase 1) \$98,629 (Phase 2)

Current Status:

Phase 1, analysis of existing water quality and seasonal weather data, has been completed. SEH and staff have finalized the memo for this portion of the study. Phase 2 of the study is underway and includes detailed reservoir water quality modeling performed by DiNatale Water Consultants. RWSA coordinated internally and generated a list of scenarios for DiNatale to run in a excel-based desktop model, which is currently underway. Once these runs have been completed and the technical memo has been finalized, work on a more detailed reservoir model will likely commence, which will help

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

better represent the future conditions at Ragged Mountain Reservoir based upon the known characteristics of the proposed transfer system.

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:	5% Design
Construction Start:	2024
Completion:	2029
Budget:	\$31,000,000

Current Status:

Survey and utility designation work has begun and will continue along the proposed 5-mile alignment through May 2022. A drone survey of the proposed CWL alignment has been posted on RWSA's web page. RWSA and City staff attended the Neighborhood Association meetings to present information on this project, and other presentations are planned.

History:

Route alignment determination, hydraulic modeling, and preliminary design were underway in 2017. Due to the complicated nature of RWSA finished water systems, it was decided at the August 2018 Board meeting that a more comprehensive approach was warranted, and that RWSA should complete an Urban Finished Water Master Infrastructure Plan prior to moving forward with final design and construction of a Central Water Line. The hydraulic connectivity in the Urban System is less than desired, creating operational challenges and reduced system flexibility and redundancy. In 1987, the City and ACSA developed the Southern Loop Agreement which laid out two key phases (with the first being built at the time). The 1987 Agreement and planning efforts were a starting point for this current project. Recent efforts and modeling for the Urban Finished Water Infrastructure Master Plan have determined that a central water line corridor through the

AGENDA ITEM EXECUTIVE SUMMARY

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:	98% (WA 2 & 3) 35% (WA 4)
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:

Access control system installation has been completed on all exterior doors at MCAWRRF, as well as all WTP motorized gates. The Card Access System is in use at the Administration, Engineering, and Maintenance Buildings at MCAWRRF, as well as at various process buildings across the site and at the WTP gates. The only task that remains is some door and lock hardware improvements under WA #2, which will enhance the functionality of the card access system. Card access installation at the Crozet and Scottsville WTP exterior doors under WA #3 is substantially complete. Finally, WA #4 includes security conduit at the South Rivanna and Observatory WTPs that was not included in the Improvements Project. This work began on November 2, 2021, with the majority of the work at South Rivanna WTP now complete, except for the Filter Building, which is currently ongoing heavy construction work as part of the Improvements Project. Security 101's subcontractor is transitioning to Observatory, where they'll finish the necessary work at that site, prior to completing work in the South Rivanna Filter Building.

History:

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

ACSA Board Future Policy Issues Agendas 2021-2022

Regular 3rd Thursday Monthly Meetings	May '22	June '22	July '22	Aug. '22	Sept. '22	Oct. '22	Nov. '22	Dec. '22	Jan. '23	Pending Issues
	May 19th	June 16th	July 21st	August 18th	September 15th	October 20th	November 17th	December 15th	January 19th	Water Supply Plan Project Status Reports Water Treatment Plants RWSA CIP Central Water Line Northern Water System Agreement
	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	
	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	
	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Annual Water Quality Reports (May)
	National Drinking Water Week	Public Hearing on Budget, Rates and CIP	Strategic Plan Update	Operational Presentation-ARC GIS; Satellite Imaging; Drone Use	Resolution-Imagine a Day Without Water	Operational Presentation - Training and BizLibrary	Operational Presentation - Exclusion Meter Program - Maintenance	Operational Presentation - 4 Story Backflow	Operational Presentation	Board Organizational Meeting each January
										Annual Report - January
	FY '23 Budget and Rates Workshop	Adoption of Budget, Rates, CIP and Rules and Regulations Amendments	City Works-Online Customer Request (Demo) and Work Order Process	Year-End Appropriations	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	Water Audit and Energy Audit
	Compensation Study	Amendment to the Personnel Management Plan (salary schedule and edits)	Service Recognitions for Kenny Barrow and Jay Thomas	Service Recognition for Pete Gorham	Water Audit Report		Strategic Plan Process 2023-2025 - Customer Survey	Annual Investment Report	ACSA Annual Report - 2021	Strategic Plan 2020-2022 Updates January and July New Strategic Plan Process 2023-2025
		Service Recognitions for Mike Lynn and Mark Clinedinst	AMI Video - Status on AMI Project	Investment Policy - Socially, Responsibly Investing					Strategic Plan Update 2020-2022 Final Report	Annual Water Conservation Report - January
		Water Quality Reports (Consent Agenda)							New Strategic Plan Draft 2023-2025	National Drinking Water Week-May Imagine a Day Without Water - September
									Water Supply Plan and Treatment Projects Updates	AMI Updates - Customer Portal Video
									Annual Water Conservation Report (Consent Agenda)	Federal/State Water Quality Regulations
										Emergency Preparedness - Regional Exercise
										Annual Investments Report December
										Operational Presentations
										Security Assessment - Final Update; IT Report
										ACSA Customer Communications
										Avon Satellite Operations Center Training and Biz Library
										Federal Infrastructure Grant Funds
			Executive Director Performance Review and Goals				Executive Director Mid-Year Performance Review			Data Management and Management Dashboards

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: CMMS Update Report	AGENDA DATE: April 21, 2022
STAFF CONTACT(S)/PREPARER: April Walker, Acting Manager of I.T. Justin Ray, GIS Coordinator	ACTION: Informational ATTACHMENTS: No

BACKGROUND: This report provides monthly updates on the status of the Computerized Maintenance Management System (CMMS) project.

Project Description: The Computerized Maintenance Management System (CMMS) has been a strategic goal since 2014. The need for this ACSA-wide software solution was identified due to a lack of centralized work order management and Geographic Information System (GIS) integration. The software solution will allow for the creation of work orders, a customer web portal, service requests, inventory management, asset inspections, and asset management.

4/21/22: The entire Cityworks project is now live. The customer portal went live at the beginning of April and can be accessed by the public on the ACSA website.

BOARD ACTION REQUESTED: None

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AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Advanced Metering Infrastructure (AMI) Monthly Update	AGENDA DATE: April 21, 2022
STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance	ACTION: Informational
	ATTACHMENTS: Yes

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 work closely with the selected vendor (Core & Main/Sensus) and the project management consultant (Esource). Notable accomplishments since the last update include:

- Phase II – 1,265 of 1,265-meter change-outs/retrofits have been completed as of April 8, 2022. These 1,265 upgraded meters included all meters sized 1.5"-4", those in the Scottsville area, and parts of Crozet. The ACSA team, specifically, Kenny Barrow, Terri Knight, Elizabeth Wallace, Janet Vest, Jami Roach, Brandy Dowell, and Cathy Spouse have worked closely with the installers to ensure all change-out/retrofit information was successfully integrated and accurate within the billing system.
- Installation of the remaining collection antennas are scheduled to begin the week of April 18th. These installations will enable the ACSA to communicate with our meters throughout the ACSA's service area. Locations were selected through a comprehensive propagation study to leverage ACSA/RWSA assets (mainly water tanks) and other existing structures to provide redundant coverage for most of our system.
- We continue to monitor meters that have already been deployed and have been able to notify customers that may unknowingly have a water leak or other issue. The illustration attached shows information that readily accessible to ACSA staff to analyze and assist customers. This chart shows "continuous flow" and automatically alerted our Meter Operations Supervisor, Kenny Barrow. Upon receipt of notifications like this one, Kenny or the Customer Service team, notify the customer of a potential issue. While it took several days for this customer to identify and correct their issue, the chart clearly illustrates the continuous flow and the correction to the leak/inadvertent use of water.
- Supply chain disruptions continue to impact meter manufacturers and significant improvement in delivery of outstanding meters isn't expected until at least October of 2022.

BUDGET IMPACT: Informational only.

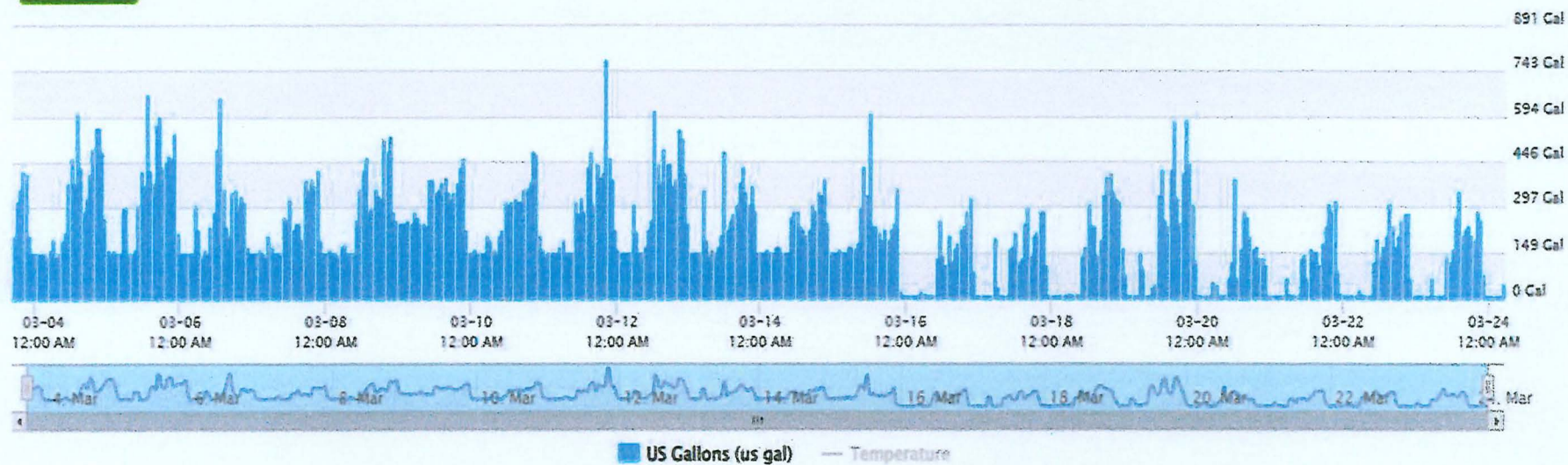
RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS: Consumption Chart from "Meter Data Management System"

Volume (Gal)

Download



AGENDA ITEM EXECUTIVE SUMMARY

<p>AGENDA TITLE: FY 2023 Capital Improvement Program</p> <p>STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Senior Civil Engineer</p>	<p>AGENDA DATE: April 21, 2022</p> <p>ACTION: <input type="checkbox"/> INFORMATION: <input checked="" type="checkbox"/></p> <p>ATTACHMENTS: YES</p>
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BACKGROUND: The Engineering Department will review the proposed FY 2023 CIP Budget using a PowerPoint presentation of maps representing most of the projects.

DISCUSSION:

- Water projects: \$4,861,550 (59%); Wastewater projects: \$3,316,500 (41%).
- 14 of the 32 projects don't contribute to the FY 2023 Rate Model because funding was incorporated into previous fiscal year Rate Models, including:
 - Risk Assessment Improvements
 - AMI Implementation
 - Four-Story Residential Backflow Prevention Assembly Retrofit
 - Jefferson Village Water Main Replacement
 - Northfields Water Main Replacement
 - Briarwood Water Main Replacement
 - Barracks West Water Main Replacement
 - Raintree and Fieldbrook Water Main Replacement
 - SCADA Phase 3 Implementation
 - Bellair – Liberty Hills Sewer Project
 - Huntington Village Water Connection
 - Sewer Pump Station Comminutors
 - Exclusion Meters Replacement
 - Pipe Saddles Replacement
- Eight of the projects do not involve water or wastewater utility work but cover operational improvements including: mitigation of risk to increase resiliency of critical water and wastewater assets; GIS and CMMS consulting services for IT system improvements; recommendations from the IT Security Assessment; analysis of a new Billing System; increased energy conservation throughout all our operations; and development of a satellite Maintenance Yard.
- Avon Street Maintenance Yard is the largest contributing project in the FY 2023 Rate Model, accounting for a total of \$3,750,000 split between water and wastewater. Grading and site work is expected to begin in FY 2023 with construction of the building and fuel facility targeted for FY 2024.

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

- There are ten water main replacement projects, one sewer upgrade project, two sewer extension projects, one sewer replacement project, and one sewer pump station upgrade project.
- Seven new projects are included in the FY 2023 Rate Model: The five non-utility projects include Data Management and Dashboarding, Billing System Analysis and Replacement, ESRI's Utility Network Implementation, Cityworks Operational Insights Implementation and Security System Upgrade for the ACSA's facilities. The two utility projects are the Townwood Water Main Replacement Project and the Northfields Phase 5 Sewer Project.
- No additional funding is anticipated for five projects (Four-Story Residential Backflow Prevention Assembly Retrofit, Jefferson Village Water Main Replacement, Huntington Village Water Connection, SCADA Phase 3 Implementation, and Sewer Pump Station Comminutors).
- Questions about proposed CIP Projects.

BUDGET IMPACT: This list of CIP Projects and their estimated costs will be incorporated into the ACSA Budget for FY 2023 and will help determine connection fees and user rates.

RECOMMENDATIONS: None.

BOARD ACTION REQUESTED: No Board action required.

ATTACHMENTS:

- Detailed memo describing each project and the estimated cost.
- Proposed FY 2023 CIP Project maps
- Map showing CIP Projects by Magisterial District.



MEMORANDUM

To: Board of Directors
From: Jeremy M. Lynn, P.E., Senior Civil Engineer
Date: April 21, 2022
Re: FY 2023 Capital Improvement Program (CIP)
cc: James M. Bowling, IV

A brief summary of the proposed CIP projects with their anticipated required funding in FY 2023 follows:

1. **Risk Assessment Improvements:** 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 such as industrial strength locks, perimeter security lighting, and access control signage have been completed. Design of Priority 1 is nearing completion and construction is anticipated in the upcoming fiscal year with the funds previously budgeted. Priority 2 will follow with funds already budgeted. There will be additional funds required in FY 2024 and FY 2027 to cover design and construction of Priorities 3 and 4. The amount shown was budgeted in FY 2019, FY 2020, and FY 2022. **(\$641,950)**
2. **Data Management and Dashboarding (New):** This project satisfies one of the recommendations from the IT Security Assessment conducted in June 2021. The first phase includes consulting services to assist staff with data gathering and classification along with a detailed needs analysis of what data staff members need to have access to for their various job responsibilities. Following this data collection phase, our consultant will design and build the appropriate dashboards. These dashboards will display relevant data in a graphical format for staff members while restricting their permissions to the raw data on the server. Additionally, dashboards will provide a way for staff to utilize business intelligence and analytics to further manipulate the data for their job duties. The amount shown will cover consulting services during the data gathering and needs analysis phase in

FY 2023. Additional funding will be required for dashboard development, which is anticipated in FY 2024. **(\$20,000)**

3. **Billing System Analysis and Replacement (New)**: This project consists of consulting services to assist with a review of current business processes and technology as well as development of a roadmap moving forward. These services will also include Request for Proposals (RFP) development, review of proposals, and contract negotiations. The consultant will assist in the procurement process and subsequently during development to ensure a stable transition for our customers and ACSA staff. The work will also include integrating with other systems, specifically the Advanced Metering Infrastructure (AMI) and Enterprise Resource Planning Systems. The amount shown is for funding to complete the assessment, develop/analyze the RFP, and contract negotiations in FY 2023. Additional funding will be required for deployment, which is anticipated in FY 2024. **(\$50,000)**
4. **ESRI Utility Network Implementation (New)**: This project consists of consulting services to develop a plan and fully implement the Utility Network in the ACSA's ArcGIS Enterprise environment. The consultant will assess the state of the ACSA's GIS and recommend changes needed for successful implementation of the Utility Network and assist with conversion. Once these changes are complete, the consultant will migrate the existing GIS database to the Utility Network, train staff on use of the technology, and provide post go-live support. The amount shown will cover consulting services in FY 2023. Additional funding for full deployment will be required, which is anticipated in FY 2024. **(\$50,000)**
5. **Cityworks Operational Insights Implementation (New)**: This project consists of consulting services to develop a plan and implement Operational Insights within the ACSA's Cityworks environment. The consultant will assess the readiness of asset management at the ACSA and determine what changes are necessary to enable implementation of the software, as well as assist in those changes. The consultant will provide industry best practices on asset management related to Cityworks. The consultant will implement Operational Insights, train staff on the use of this technology, and provide post go-live support. The amount shown will cover consulting services along with full implementation and deployment of the system in FY 2023. **(\$45,000)**
6. **Energy Audit**: A comprehensive energy audit of the Operations Center and all pump stations was recently completed that evaluated current energy consumption and analyzed utility rate structures to identify potential cost savings. Surveys were conducted of all systems, including operation and maintenance procedures to determine where energy conservation could be improved. The amount shown will begin implementation of several recommendations from the audit, including the continued efforts in transitioning to LED lighting and replacement of the existing hot water

heater at the Operations Center. Additional funding is anticipated in FY 2024 to begin installation of Vehicle Charging Stations. **(\$40,000)**

7. **Avon Street Maintenance Yard:** As part of the Operations Center Expansion Study our consultant reviewed all properties owned by the ACSA that could be utilized as we continue to grow. The Avon Street property has long been held as a future location to build additional facilities in a central location, as needed. The current Maintenance Yard at our Operations Center is becoming overcrowded with equipment and materials, causing us to locate some equipment and larger materials in the former ACSA Maintenance Yard at the Crozet Water Treatment Plant, which we lease from RWSA. 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. The amount shown will cover clearing and grading, stormwater and utilities, and site work in FY 2023. Additional funding will be required for construction of the building and fuel facility, which is anticipated in FY 2024. **(\$3,750,000)**
8. **ACSA Facilities – Security System Upgrade (New):** This project addresses recommendations outlined in the Vulnerability Assessment as well as the Security Assessment and consists of installation, configuration, and programming of a new security system. Our current network video recorders (NVRs) will be upgraded to prevent cybersecurity vulnerabilities and to be compatible with newer infrastructure in preparation of the upcoming Avon Street Maintenance Yard Project. The second phase of this project will allow for the purchase, installation, and configuration of security cameras at our pump stations and water storage tanks. The amount shown will cover implementation of these upgrades in FY 2023. **(\$158,000)**
9. **Advanced Metering Infrastructure (AMI) Implementation:** This project addresses a goal in our Strategic Plan to convert our existing metering system to an AMI System. We have completed the RFP, evaluation of potential vendors and entered a contract with Core & Main/Sensus. Two collectors (antennas) and associated hardware have been installed along with the first phase of deployment totaling approximately 500 meters. The second phase of deployment began in February 2022 and includes system-wide large meter installations along with all meters in Scottsville and one of the routes in Crozet. Full deployment is anticipated later this calendar year as meters become available. The amount shown was budgeted in FY 2018, FY 2020, and FY 2022. Additional funding is anticipated in FY 2024 to complete full deployment. **(\$7,700,000)**
10. **Four-Story Residential Backflow Prevention Assembly Retrofit:** In late 2018 ACSA staff became aware of four-story residential structures being constructed without proper backflow prevention assemblies. 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) assembly on the domestic water service line to high rise structures, defined as four (4) or more stories. The amount shown was budgeted in FY 2021 to cover the costs of the necessary retrofits. **(\$348,000)**

11. **Scottsville Phase 4 Water Main Replacement:** This project continues our systematic program to replace undersized and deteriorating asbestos-cement and cast-iron water mains throughout our distribution system. The amount shown will allow design efforts to continue along with geotechnical investigations and plat preparations in FY 2023. Construction is not anticipated to occur until FY 2025 and beyond with additional funds required. **(\$100,000)**
12. **Ragged Mountain Phase 1 Water Main Replacement:** 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. Design of this project is nearly complete, and construction is anticipated immediately following conclusion of VDOT's Morey Creek Bridge Replacement Project which is currently out for advertisement. The amount shown will allow construction to begin in FY 2023 and will carry over into FY 2024 with additional funds required. **(\$417,000)**
13. **Crozet Phase 4 Water Main Replacement:** Our Strategic Plan calls for the eventual replacement of all asbestos-cement, galvanized 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 in Crozet that have been defined to carry out these water distribution system improvements. The design is complete and easement acquisition is currently underway with funds previously appropriated. Construction of this project will be coordinated with VDOT's Lickinghole Creek Bridge Replacement Project along Crozet Avenue. Based on VDOT's current schedule, construction of the water main replacement project is anticipated to begin in late in FY 2023 with additional funding required in future years to complete this project. The amount shown will allow construction to begin in FY 2023. **(\$1,412,050)**
14. **Jefferson Village Water Main Replacement:** 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 more than 50 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. Construction of this project is expected to begin Summer 2022. The amount shown was budgeted in FY 2018, FY 2020, FY 2021, and FY 2022. **(\$2,451,000)**

- 15. Northfields Water Main Replacement:** 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 were installed in the 1960's 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. The project is currently under design with funds previously budgeted. It is anticipated that construction will be separated into phases with the first phase beginning in FY 2025. Additional funding will be required based on phasing and construction schedule. The amount shown was budgeted in FY 2020. **(\$530,000)**
- 16. Briarwood Water Main Replacement:** 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 is currently underway and will carry over into FY 2023. Construction is expected to take place in FY 2025 and FY 2026 with additional funding budgeted in those years. The amount shown was budgeted in FY 2021. **(\$220,000)**
- 17. Barracks West Water Main Replacement:** 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. Design efforts are currently underway with construction anticipated in FY 2025 and FY 2026. The amount shown was budgeted in FY 2022 for design phase services. **(\$452,500)**
- 18. Townwood Water Main Replacement (New):** 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 and have recently experienced several breaks causing water service disruptions. The amount shown will allow design phase services to begin in FY 2023 with additional design funds anticipated in FY 2024. **(\$170,000)**
- 19. Broadway Street Water Main Replacement:** This project will replace the cast 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. Design is nearing completion with funds previously appropriated. The amount shown will make it feasible for construction to take place in FY 2023. **(\$650,000)**

- 20. Raintree and Fieldbrook PVC Water Main Replacement:** 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 when the ACSA was allowing the installation of PVC water main on private development projects. The design phase is currently underway and will carry over into FY 2024 with funds previously appropriated. Construction is expected to take place in FY 2027 and FY 2028 with additional funding budgeted in those years. The amount shown was budgeted in FY 2022 for design phase services. **(\$432,300)**
- 21. SCADA Phase 3 Implementation:** The ACSA Utility System has over 40 critical assets that include water and wastewater pump stations, water storage tanks and master PRV stations. This project continues implementation of the ACSA's Supervisory Control and Data Acquisition (SCADA) System that allows ACSA employees to remotely monitor the operations of these critical assets. Using alarms, we can more quickly troubleshoot problems and prevent some failures from occurring. Phases 1 and 2 are complete and in operation. The design of Phase 3 is complete, and construction is expected to be completed in FY 2023 with funds previously appropriated. The amount shown was budgeted in FY 2022 and will be combined with funds budgeted in prior fiscal years to cover construction costs and anticipated bid and construction phase services. **(\$186,800)**
- 22. Airport Trunk Sewer Upgrade:** With the continued growth in the Holymeade Town Center area, the existing sewer collector serving the airport and the area west of Route 29 needs 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. Design is ongoing and easement acquisition is underway with funds previously budgeted. The amount shown will allow for the completion of design and cover easement compensations required for the project. It is anticipated that construction will begin in FY 2026, with additional funding required. **(\$115,000)**
- 23. Northfields Phase 5 Sewer (New):** During the design of the Northfields Water Main Replacement Project, ACSA staff identified several sections of sanitary sewer that could be installed along the roadway in coordination with the water main replacement work. These efforts will provide sanitary sewer service to existing neighborhood properties currently served by private septic fields. The amount shown will cover design of these improvements with construction coinciding with the water main replacement project efforts. **(\$70,000)**
- 24. Miscellaneous Sewer Rehabilitation:** This project continues our "find and fix" program of sanitary sewer rehabilitation to reduce I&I in our sys-

tem during the fiscal year. This work will utilize publicly bid miscellaneous sewer rehabilitation contracts that are renewable on an annual basis up to four times after the initial year long contract. It will be used to make repairs and rehabilitate problems in our system found with systematic CCTV inspection by ACSA crews and the subcontractor. **(\$400,000)**

25. Bellair – Liberty Hills Sewer: 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. Based on results from a community survey, many of the property owners are interested in connecting to public sewer if it was made available. Design is underway with funds previously appropriated. It is anticipated that construction will take place in FY 2025 and FY 2026, with additional funding required in those years. The amount shown was budgeted in FY 2021 and FY 2022 for design phase services. **(\$393,715)**

26. Madison Office Park Pump Station Upgrade: This wastewater pump station was constructed in the early 1980's 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 SCADA System. Design is complete and construction is anticipated in FY 2023. The amount shown combined with funds previously appropriated should cover construction costs anticipated for this project. **(\$425,000)**

27. Huntington Village Water Connection: 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. Design is currently underway, and construction is expected in FY 2023 with funds previously budgeted. The amount shown was budgeted in FY 2021. **(\$60,700)**

28. Sewer Pump Station Comminutors: Three wastewater pump stations (Glenmore, Georgetown Green, and Crozet) have all been experiencing higher than normal amounts of solid debris that is 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. Construction of this project is underway with funds previously budgeted. The amount shown was budgeted in FY 2019, FY 2020, and FY 2022. **(\$731,300)**

29. Biscuit Run Sewer Replacement: The ACSA's Maintenance Department recently 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 manhole is exposed. Design of this replacement work is complete, and construction is anticipated in FY 2023. The amount shown is additional money required for construction in FY 2023. **(\$206,000)**

30. Exclusion Meters Replacement: 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 for irrigation purposes. Private meters were installed behind their ACSA domestic 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 disallow exclusion meters and required all future irrigation meters be tapped separately off our water mains, to be owned and controlled by the ACSA. This project is a multi-year replacement program by our in-house CIP Crew to install dedicated, ACSA-owned irrigation meters that will eliminate all remaining exclusion meters in our system. Work will continue with funds previously budgeted. Additional funding is anticipated in future years to complete this project. The amount shown was budgeted in FY 2020 and FY 2021 for construction. **(\$527,500)**

31. Pipe Saddles Replacement: The ACSA Maintenance Department has discovered in recent years that pipe saddles used to make water service line connections to PVC water mains have been failing. Either the galvanized steel straps or the cast iron saddle bodies are deteriorating. This project is a multi-year replacement program to be undertaken with our in-house CIP Crew. The amount shown was budgeted in FY 2020 and FY 2021. **(\$100,000)**

32. Developer Participation: Each year funds are set aside to participate in oversizing utilities constructed to serve new development. The Rate Model includes \$100,000 divided equally between water and wastewater projects as a contingency to ensure the new pipes are sized to meet the ACSA's long-range needs. **(\$100,000)**

Board Action

No Board Action is required at this time.

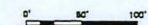
ACSA AVON SITE

1071 AVON STREET EXT
 ALBEMARLE COUNTY, VA

SCALE

KEY PLAN

SCALE



No. DATE BY Description

REVISIONS

DRAWN BY: MM

APPROVED BY: SCF

CHECKED BY: SCF

DATE: 08/28/20

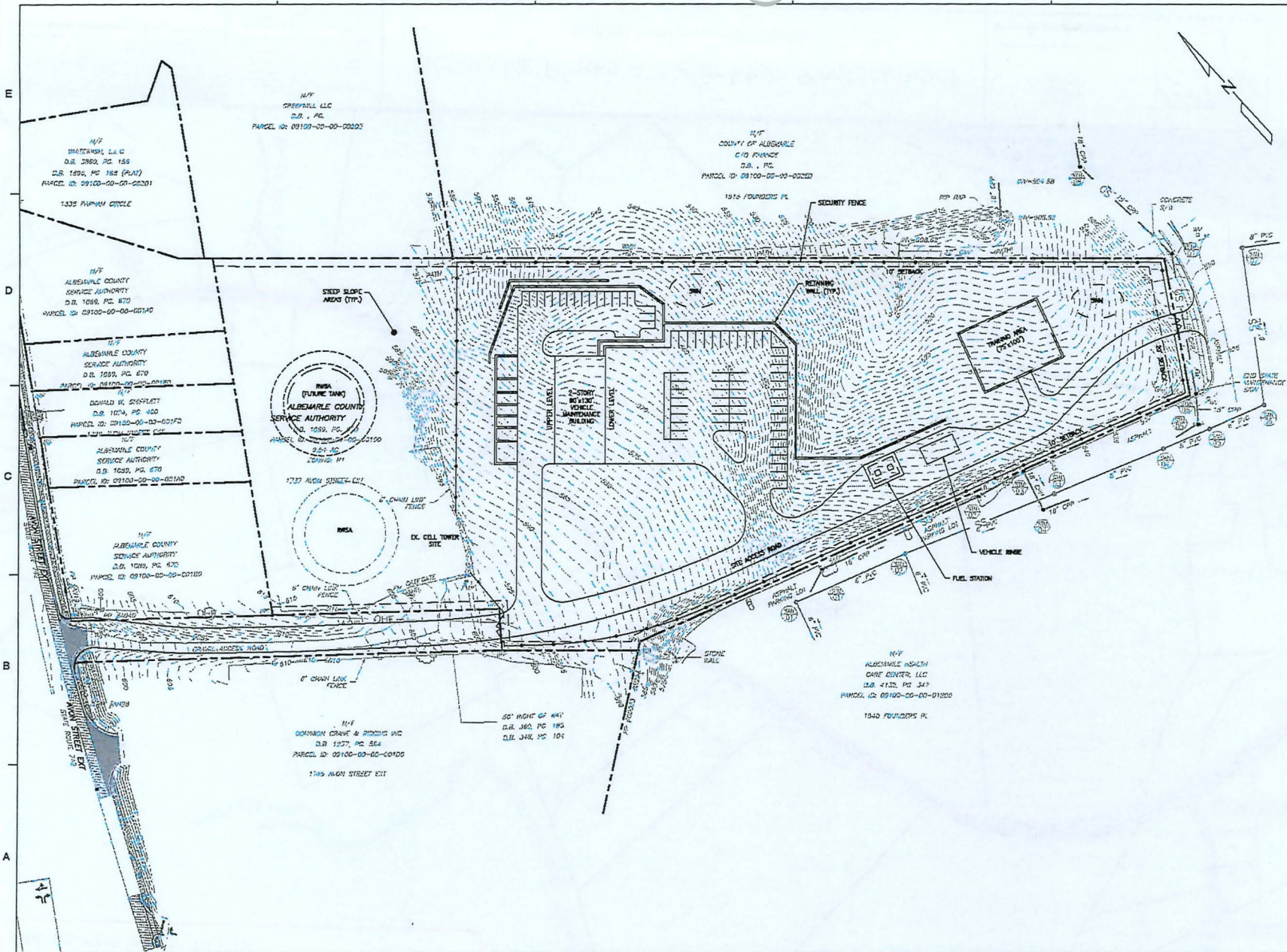
TITLE

OVERALL
 SITE PLAN

PROJECT NO. 50119298

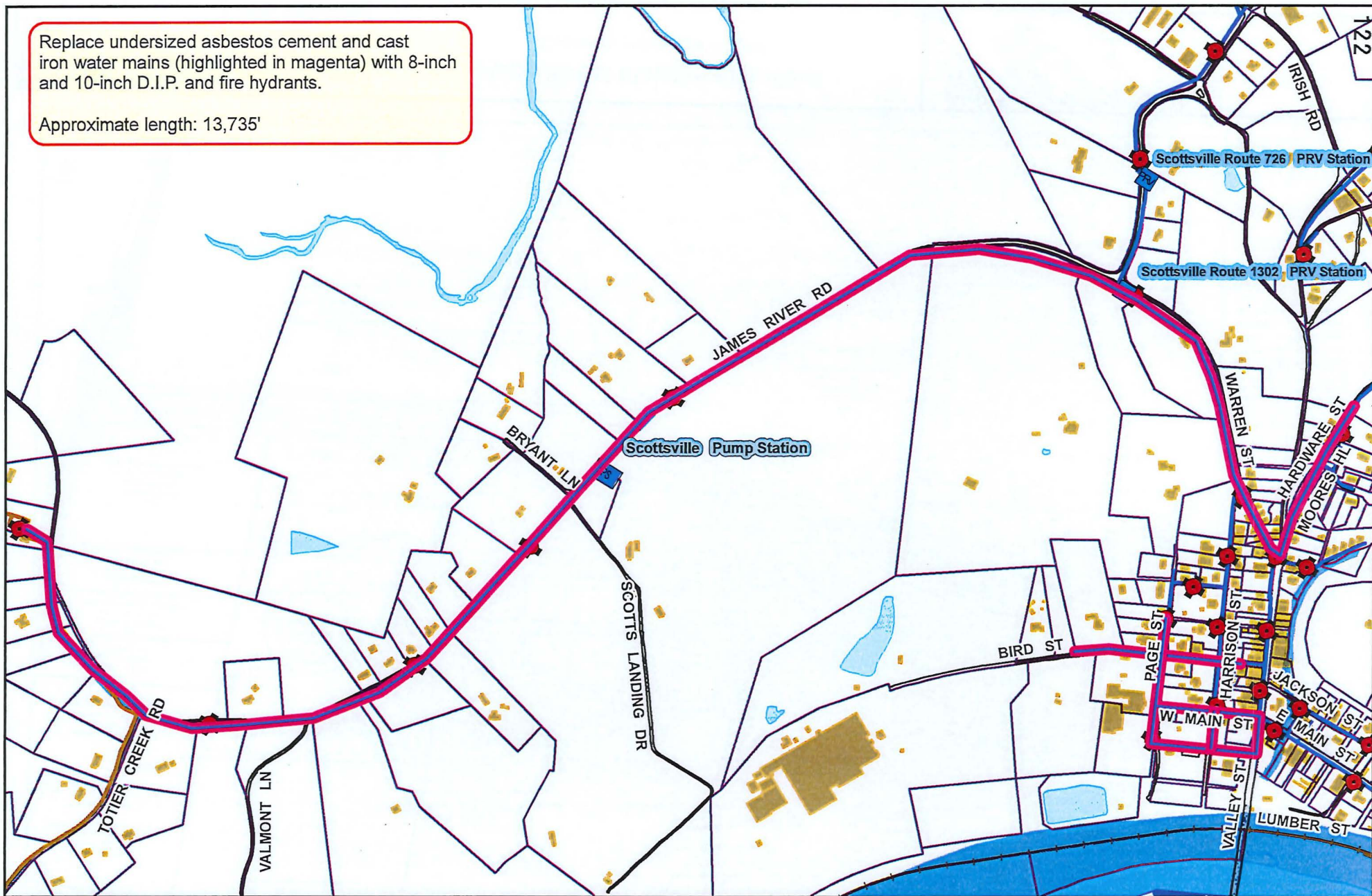
1

SHEET NO.



Replace undersized asbestos cement and cast iron water mains (highlighted in magenta) with 8-inch and 10-inch D.I.P. and fire hydrants.

Approximate length: 13,735'



Scottsville Phase 4 Water Main Replacement

Capital Improvement Project



360 180 0 180 360 Feet

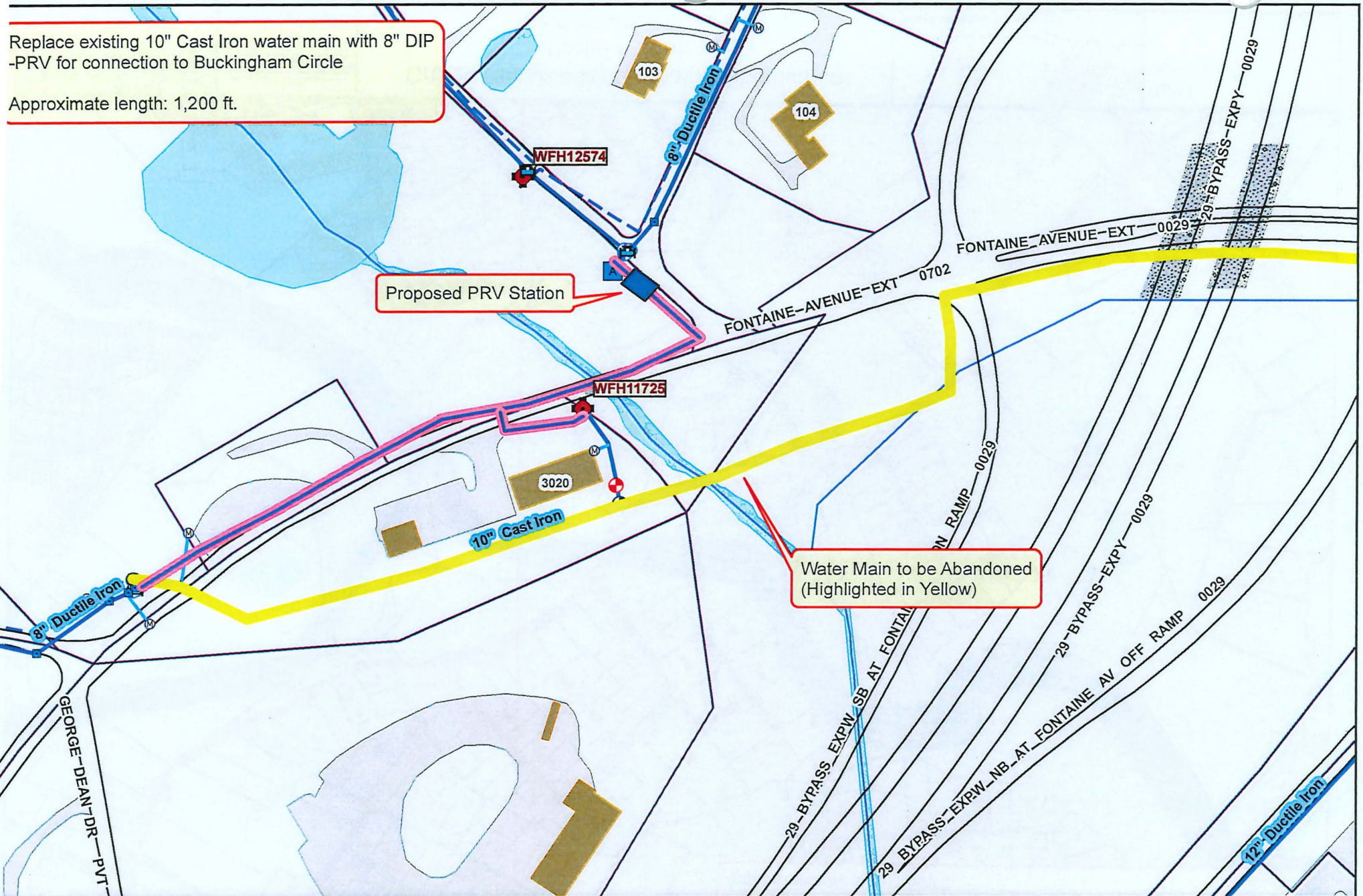


Legend

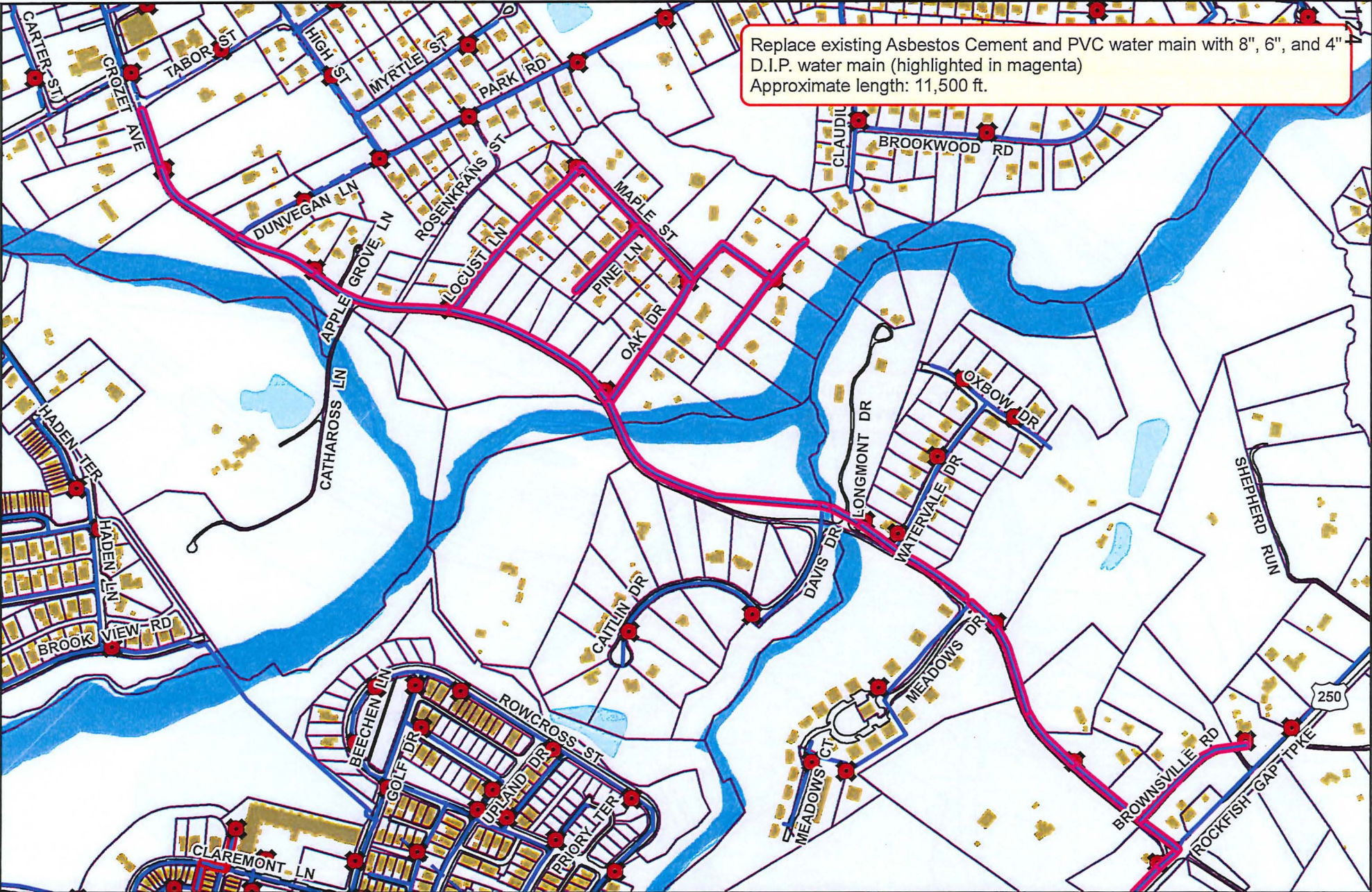
- ACSA Waterline
- Proposed Waterlines

Replace existing 10" Cast Iron water main with 8" DIP-PRV for connection to Buckingham Circle

Approximate length: 1,200 ft.



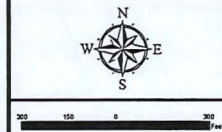
Replace existing Asbestos Cement and PVC water main with 8", 6", and 4" D.I.P. water main (highlighted in magenta)
Approximate length: 11,500 ft.



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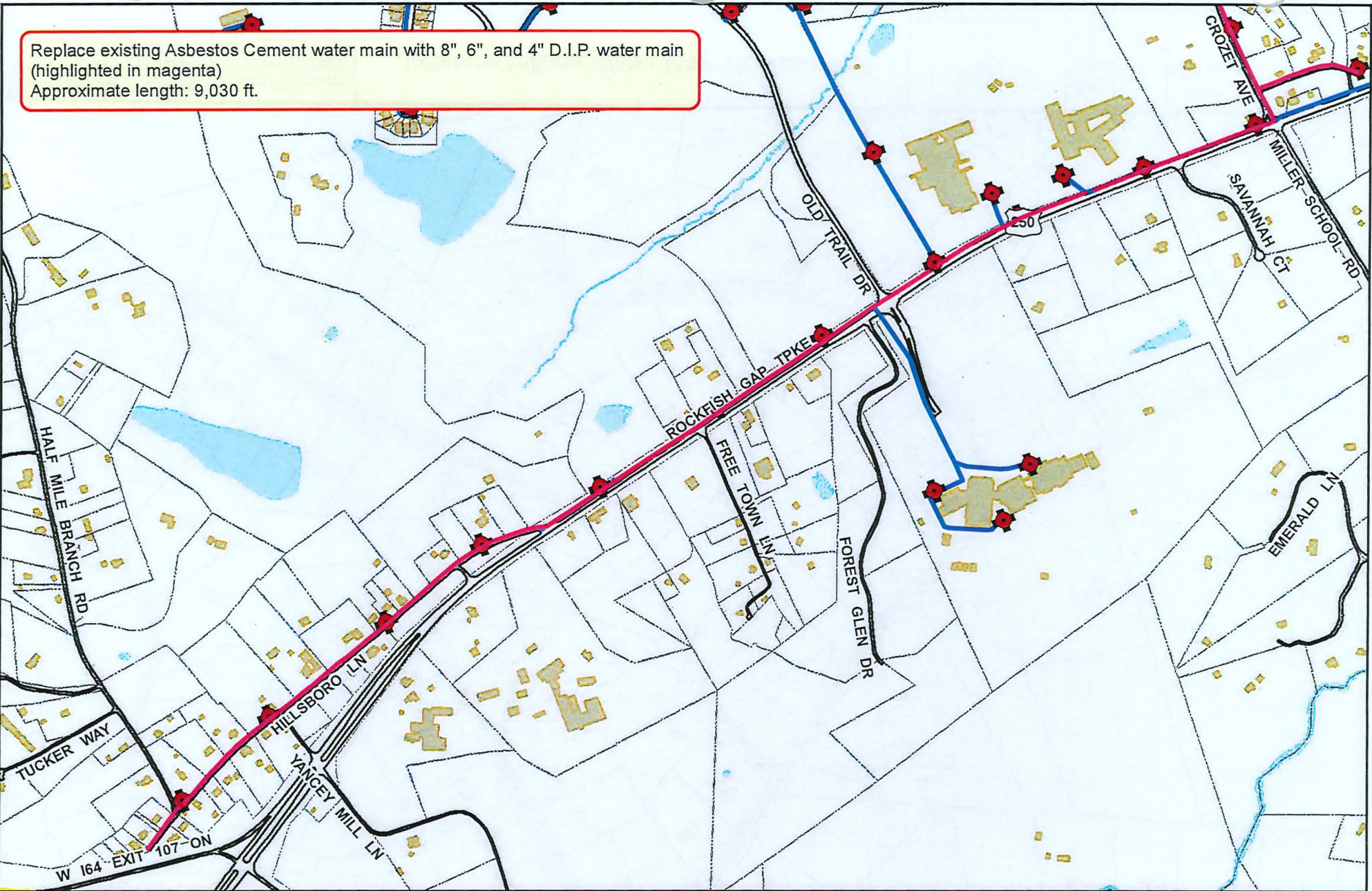
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Contact AGSA directly for specific utility locations. Aerial Imagery © 2002 Commonwealth of Virginia. Parcel Information Property of County of Albemarle.

Crozet Phase 4 Water Main Replacement Project - Map 1 Capital Improvement Project



Legend
Proposed Waterline

Replace existing Asbestos Cement water main with 8", 6", and 4" D.I.P. water main
(highlighted in magenta)
Approximate length: 9,030 ft.

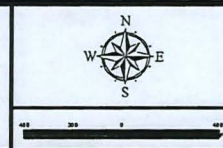


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Crozet Phase 4 Water Main Replacement Project - Map 2

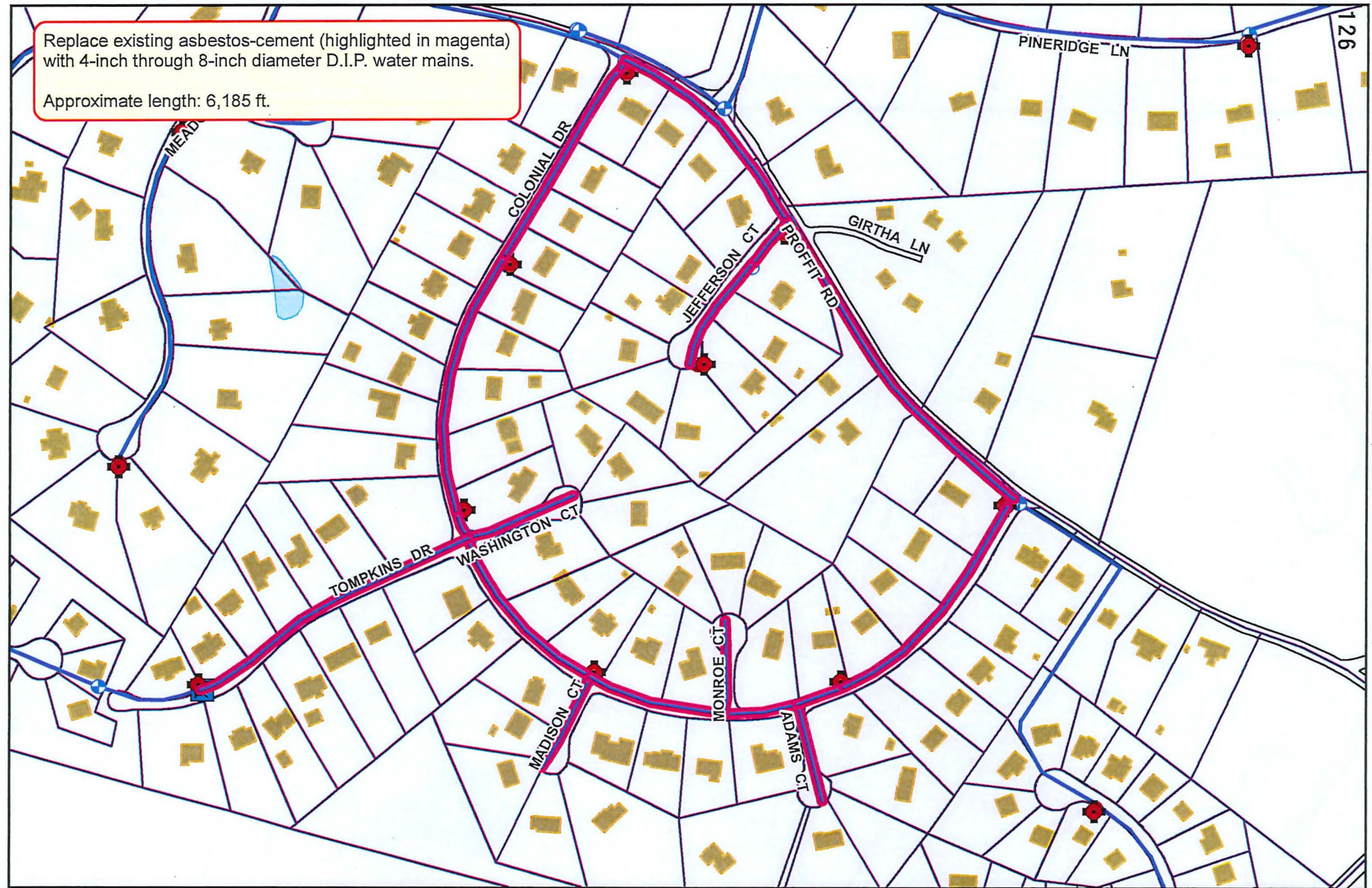
Capital Improvement Project



- Legend**
- Proposed Waterline
 - ACSA Waterline
 - Hydrant

Replace existing asbestos-cement (highlighted in magenta)
with 4-inch through 8-inch diameter D.I.P. water mains.

Approximate length: 6,185 ft.



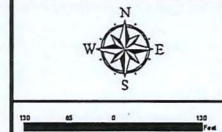
126

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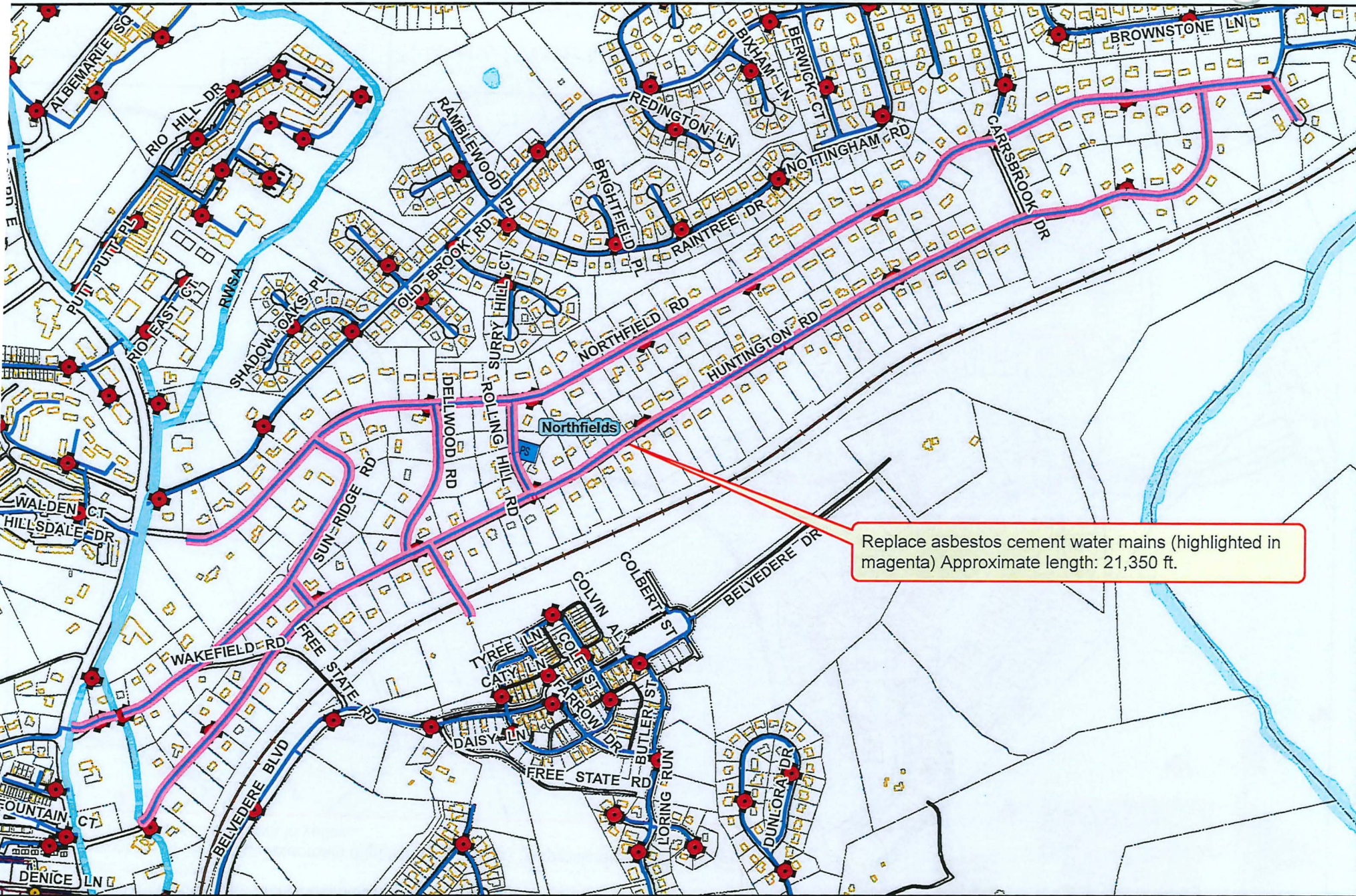
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Jefferson Village Water Main Replacement

Capital Improvement Project

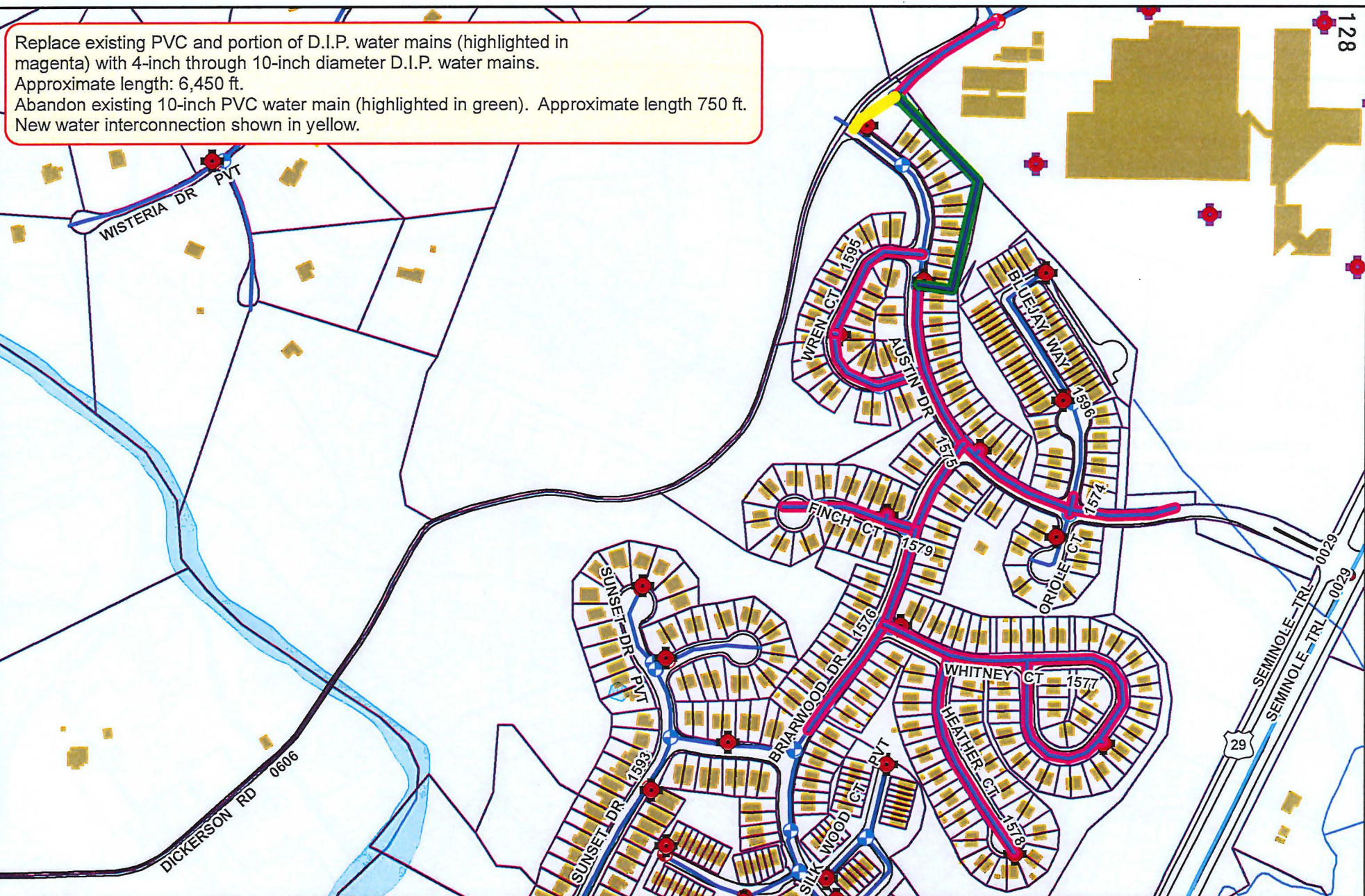


Legend
Prop. Waterline



Replace asbestos cement water mains (highlighted in magenta) Approximate length: 21,350 ft.

Replace existing PVC and portion of D.I.P. water mains (highlighted in magenta) with 4-inch through 10-inch diameter D.I.P. water mains.
 Approximate length: 6,450 ft.
 Abandon existing 10-inch PVC water main (highlighted in green). Approximate length 750 ft.
 New water interconnection shown in yellow.

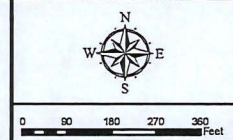


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Briarwood Water Main Replacement Project

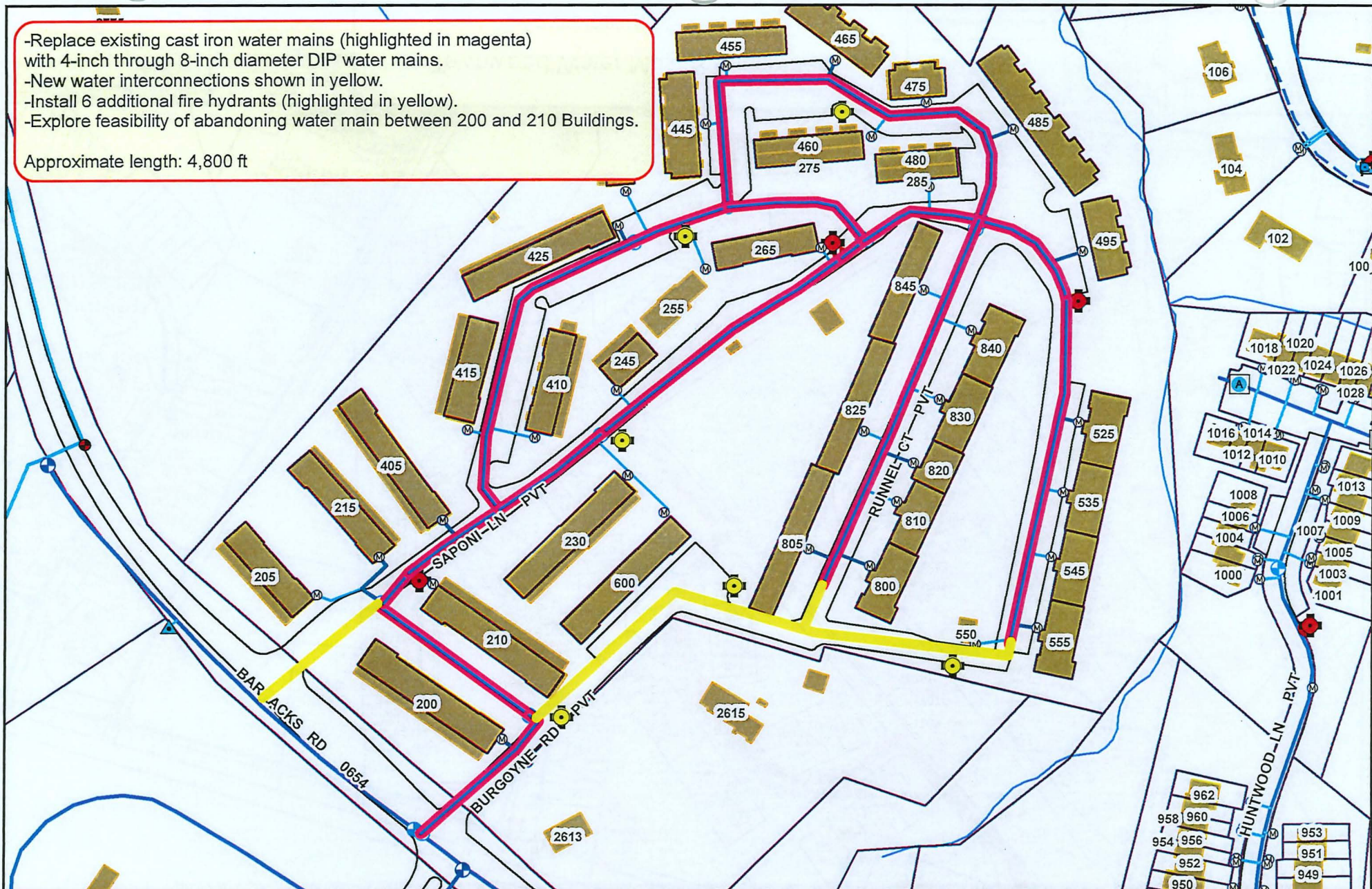
Capital Improvement Project



- Legend**
- Proposed Pipe
 - Abandoned Pipe

- Replace existing cast iron water mains (highlighted in magenta) with 4-inch through 8-inch diameter DIP water mains.
- New water interconnections shown in yellow.
- Install 6 additional fire hydrants (highlighted in yellow).
- Explore feasibility of abandoning water main between 200 and 210 Buildings.

Approximate length: 4,800 ft



**Albemarle County
Service Authority**

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Barracks West Water Main Replacement Project Capital Improvement Project



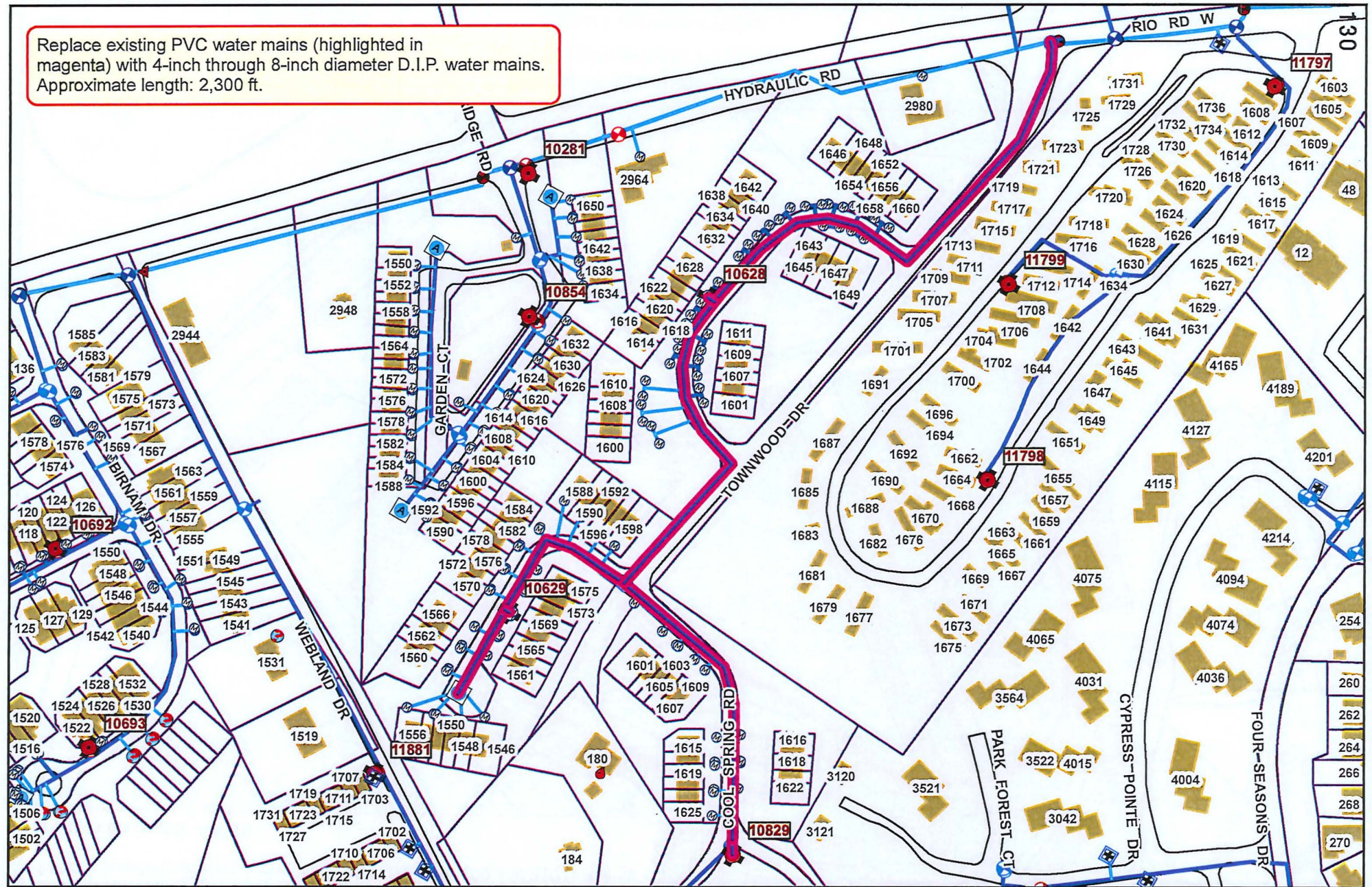
0 30 60 90 120 Feet

Legend



Prop. Water
Prop. FH

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

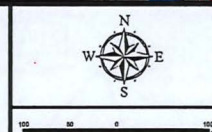


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Contact ACESA directly for specific utility locations.
Aerial Imagery © 2002 Commonwealth of Virginia
Parcel Information Property of County of Albemarle

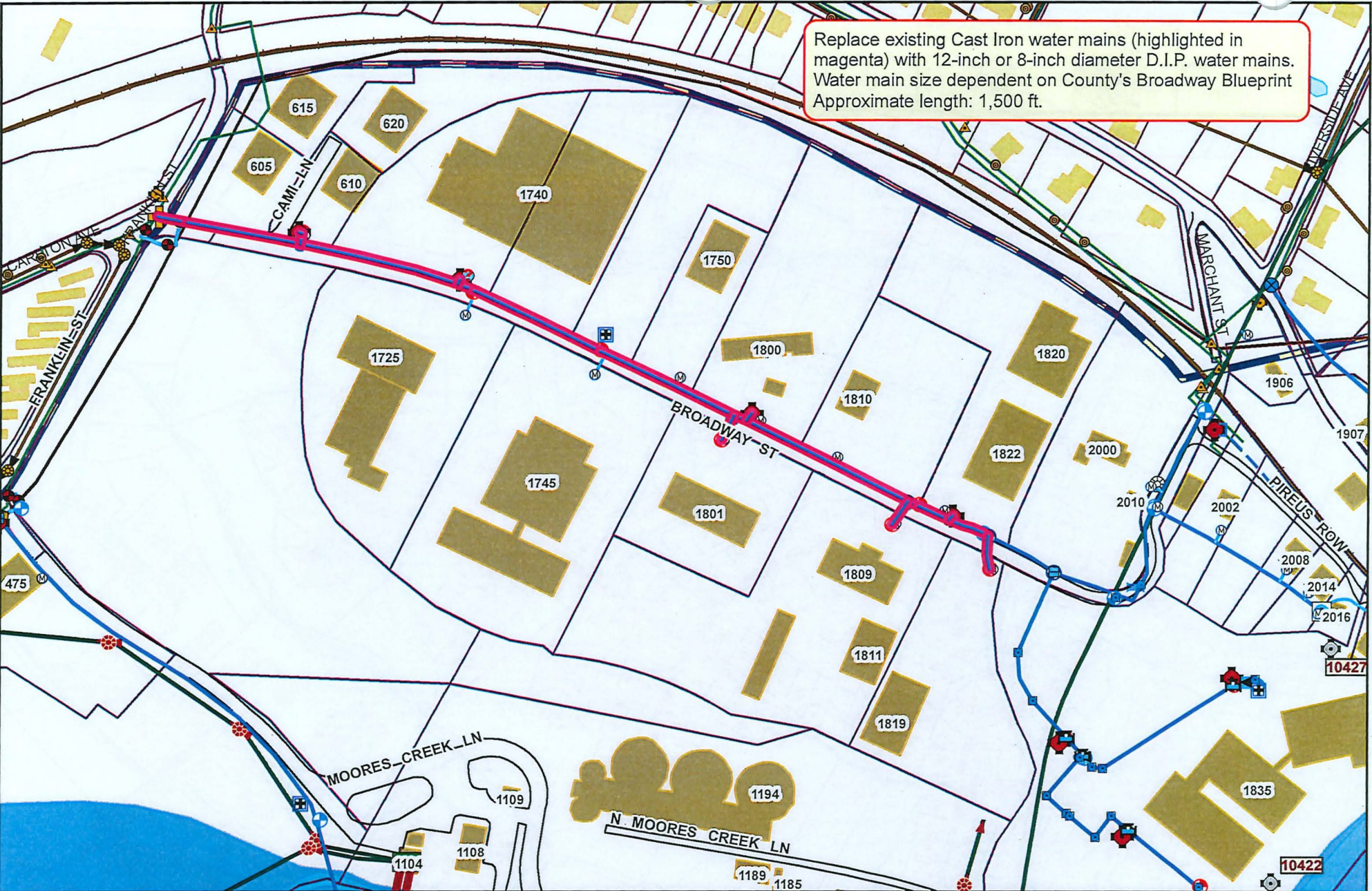
Townwood Water Main Replacement

Capital Improvement Project



Legend
— Replace Existing PVC

Replace existing Cast Iron water mains (highlighted in magenta) with 12-inch or 8-inch diameter D.I.P. water mains. Water main size dependent on County's Broadway Blueprint
Approximate length: 1,500 ft.



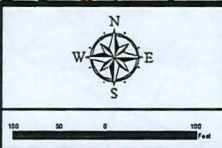
Albemarle County
Service Authority

Serving & Conserving
168 Spotsnap Road Charlottesville, VA 22911 (434) 977-4911

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Broadway Street Water Main Replacement

Capital Improvement Project

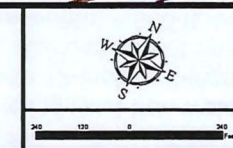


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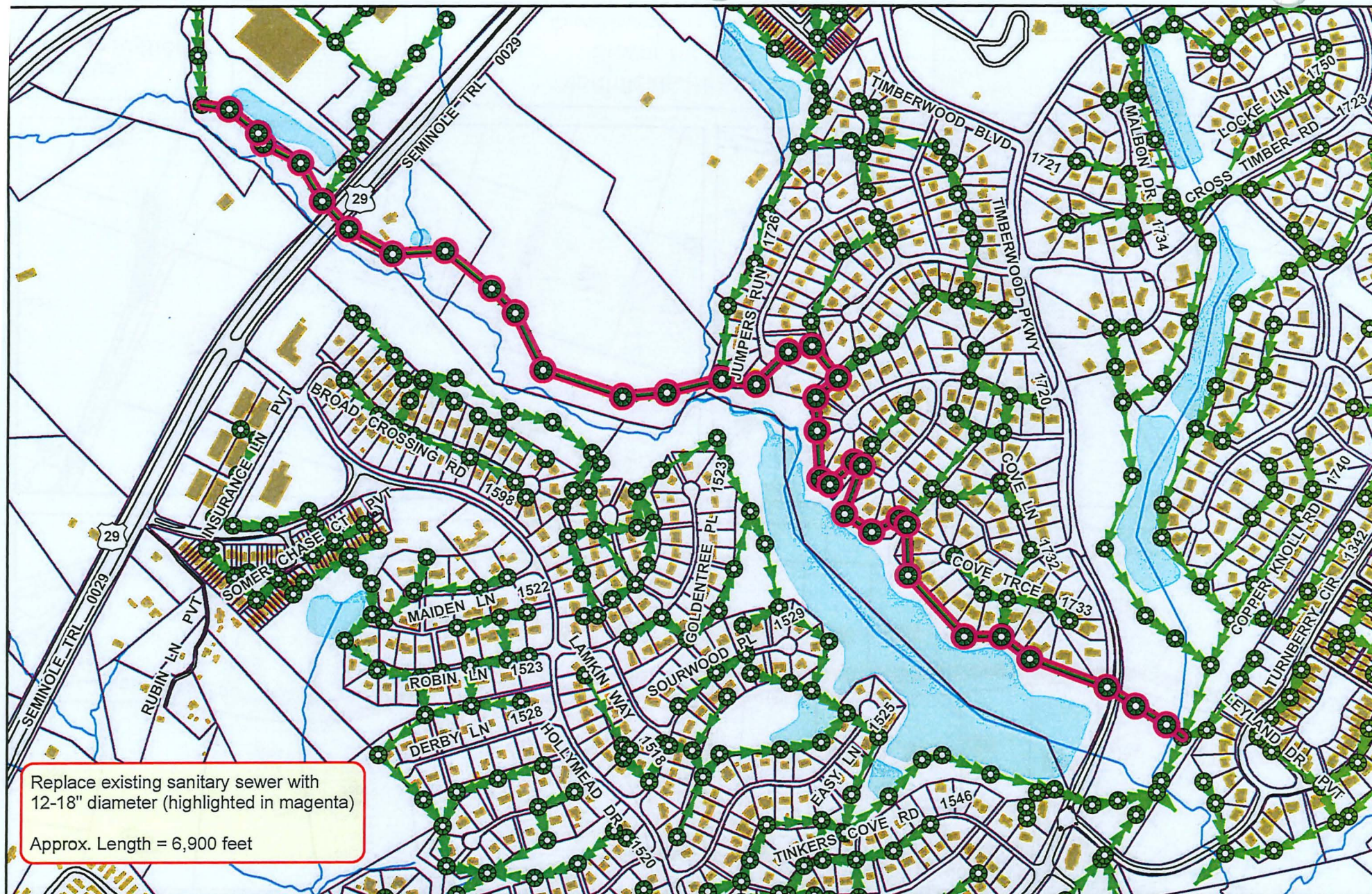
Prop. Waterline



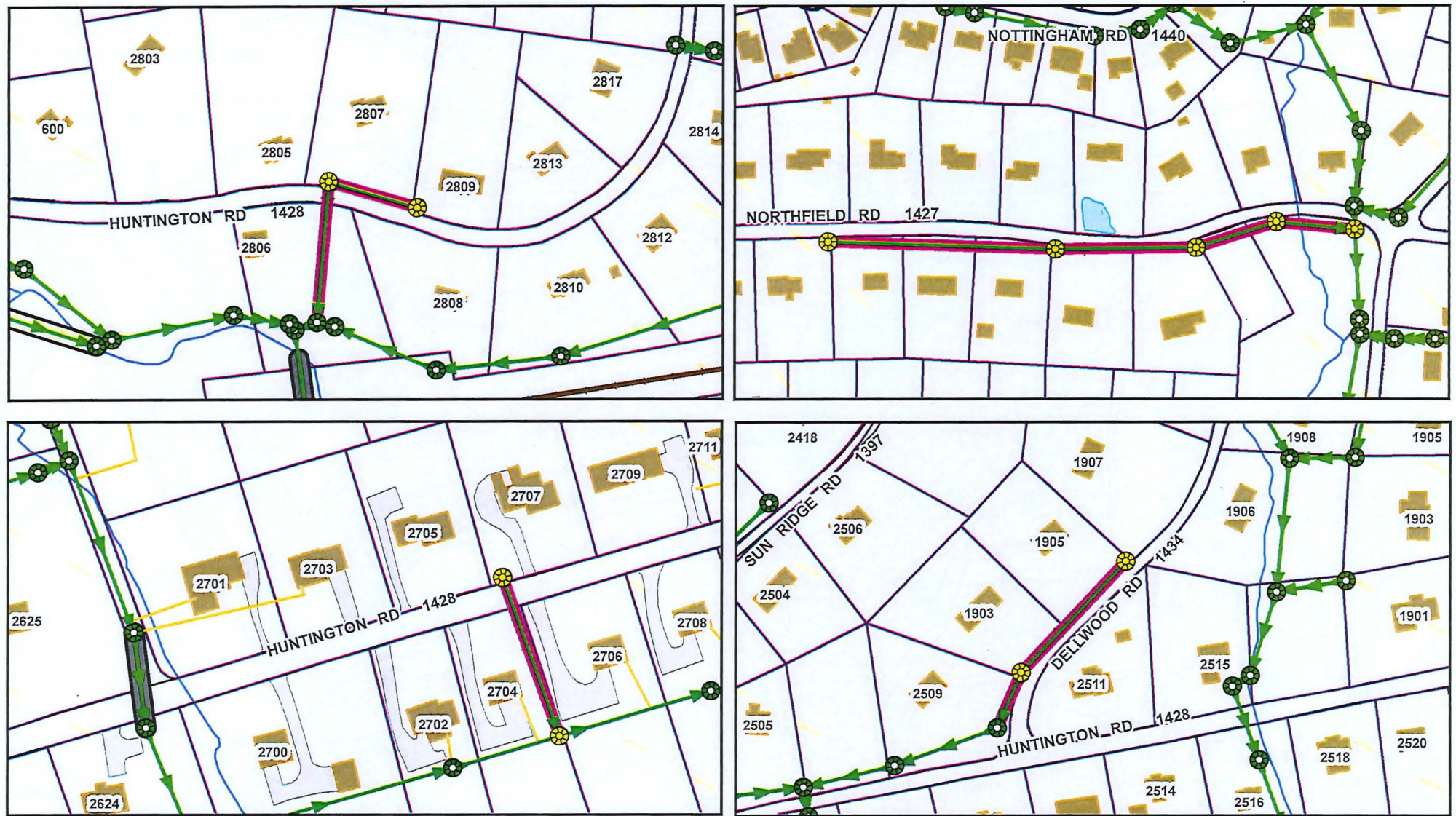
Raintree and Fieldbrook PVC Water Main Replacement Capital Improvement Project



Legend
Prop. Waterline



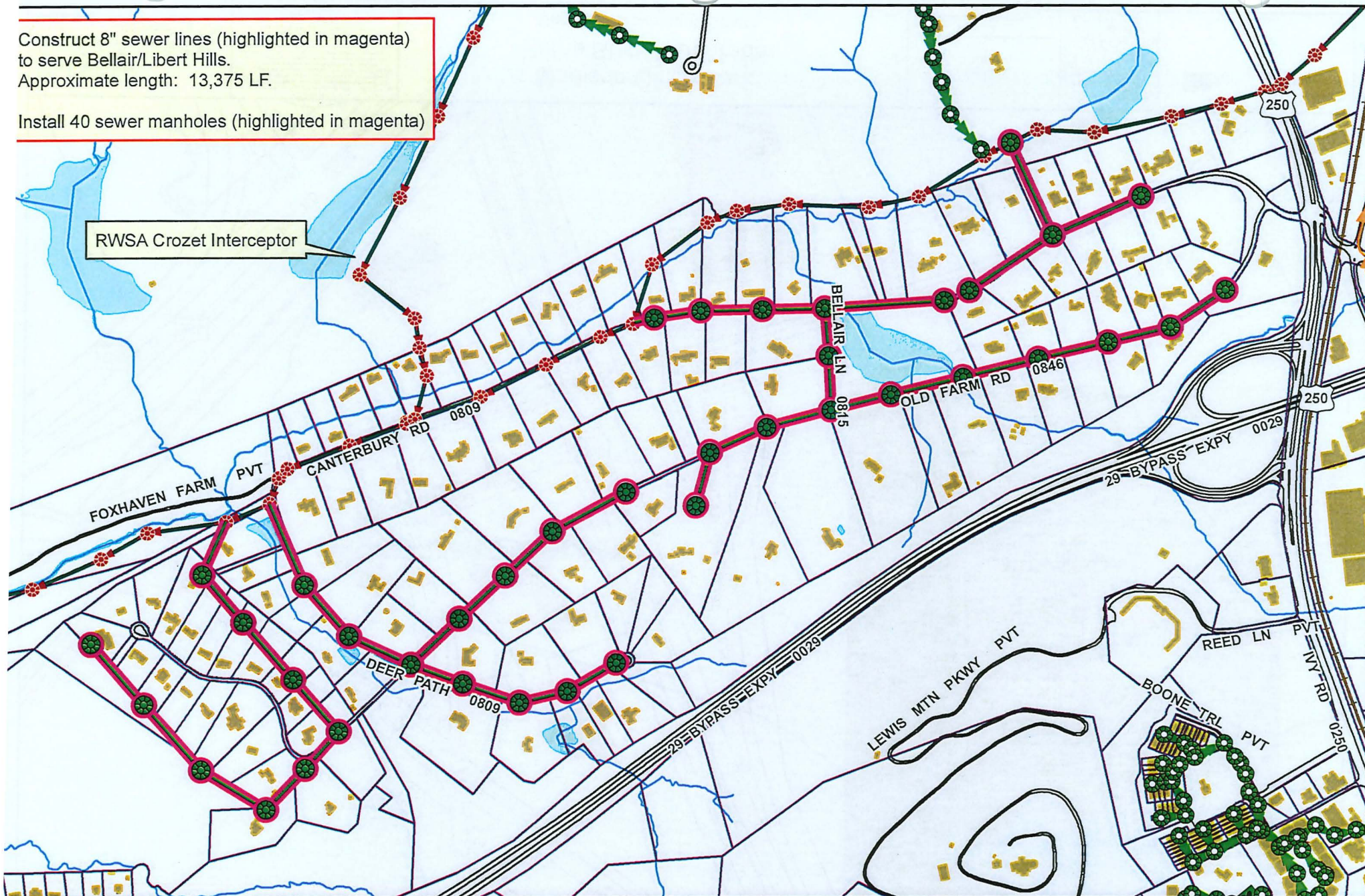
Install approximately 1,500 linear feet of sewer main.
Sewer service stubouts to be provided to 18 lots.



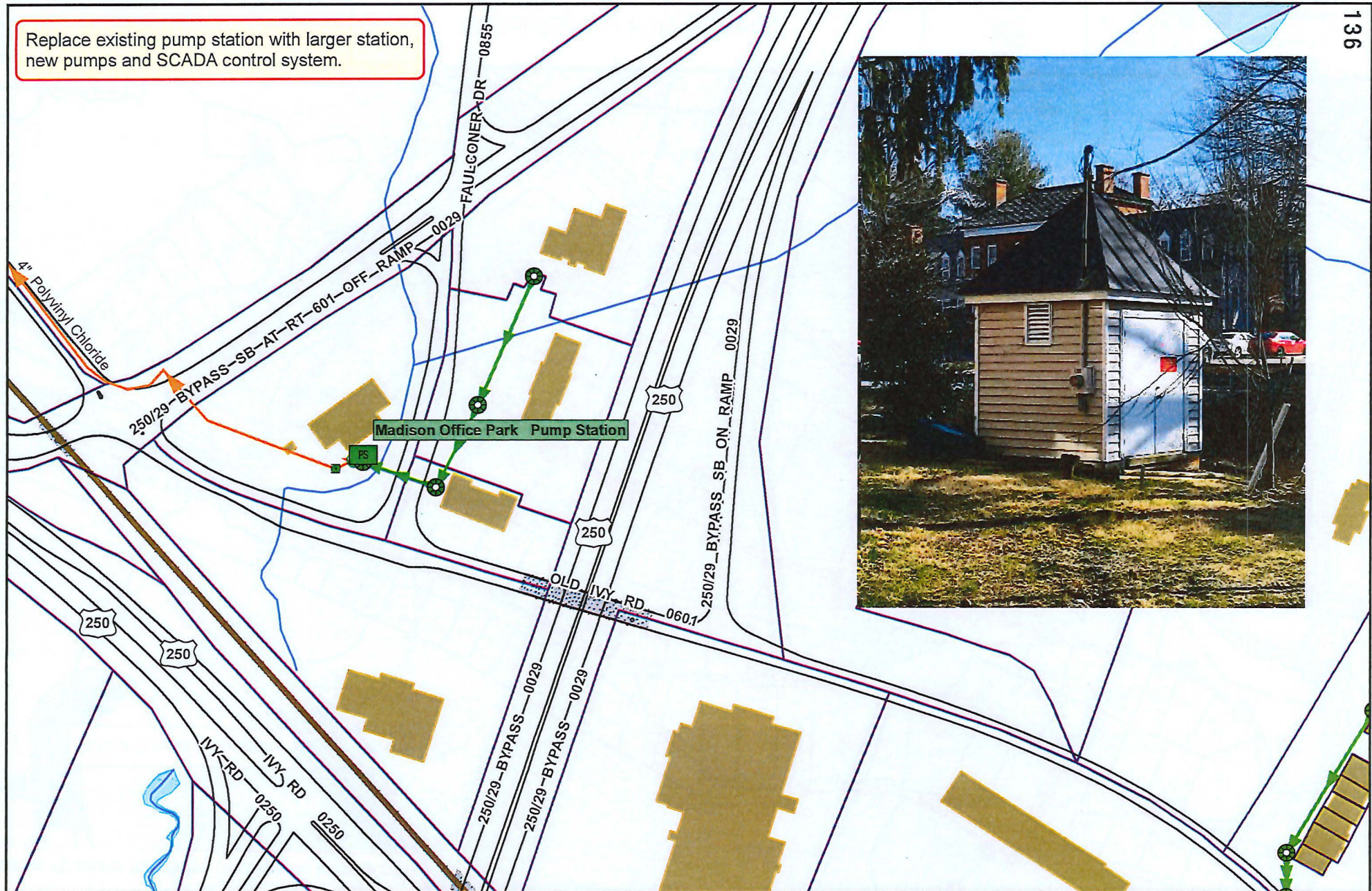
Construct 8" sewer lines (highlighted in magenta)
to serve Bellair/Libert Hills.
Approximate length: 13,375 LF.

Install 40 sewer manholes (highlighted in magenta)

RWSA Crozet Interceptor



Replace existing pump station with larger station, new pumps and SCADA control system.





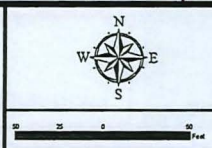
Install 8-inch DIP to provide redundant feed.
Approximate length: 100 ft.

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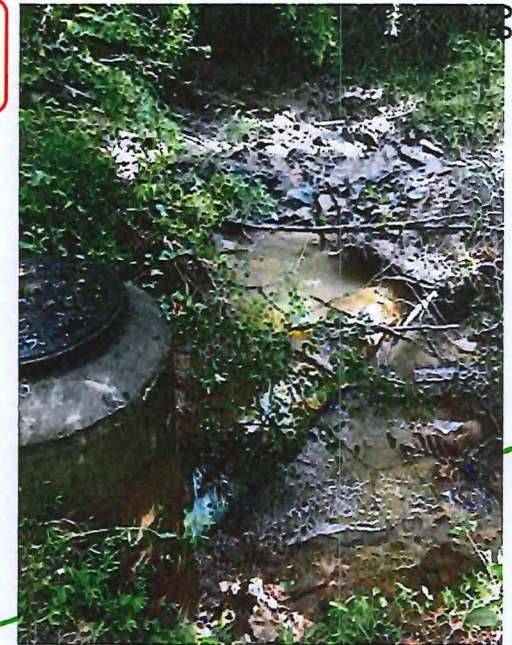
Huntington Village Water Connection

Capital Improvement Project



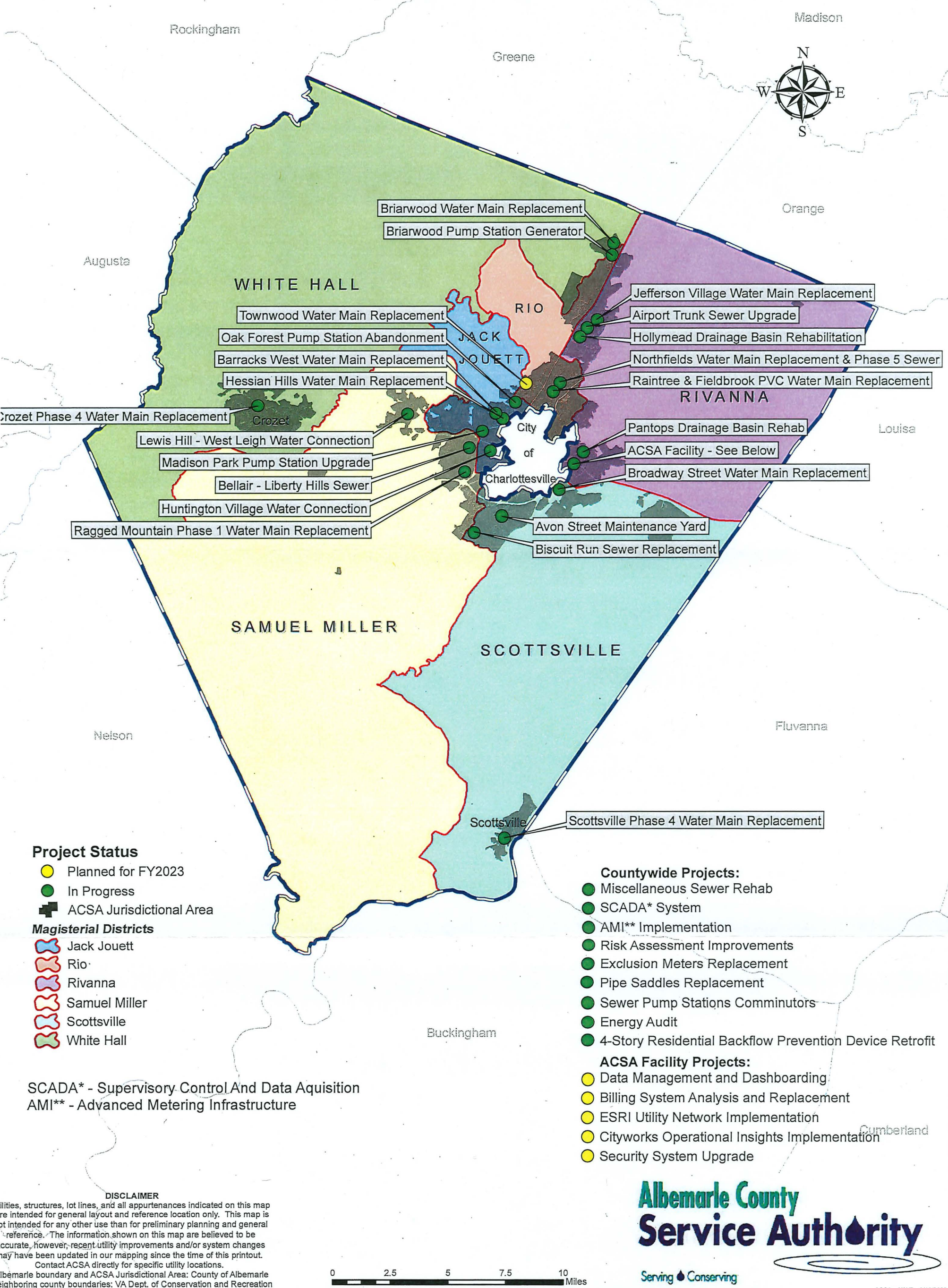
Legend
Proposed Water Main —

- Replace approximately 60-feet of exposed 24-inch PVC sewer main (highlighted in magenta) with 24-inch DIP sewer main.
- Install new manhole approximately 60-feet downstream of existing manhole (highlighted in yellow).
- Stabilize existing stream bank and rebury new DIP sewer main.



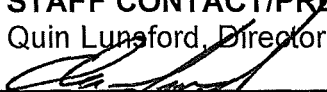
Albemarle County Service Authority

Capital Improvement Projects by District



ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Proposed Fiscal Year 2023 Budget and Rates STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance 	AGENDA DATE: April 21, 2022 ACTION: Informational ATTACHMENTS: Yes
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BACKGROUND: The Proposed Fiscal Year 2023 Budget and Rates are included below. This follows a formal rate study and five months of preparation by many throughout the ACSA. The overall operating budget is increasing 11.4% and is driven by increases in charges from the RWSA for water and wastewater treatment to the ACSA and Departmental needs. The budget schedule calls for an in-depth presentation, discussion, and Public Hearing on the Capital Improvements proposal at today's meeting. We have prepared a presentation summarizing major items in the proposed operating budget and will present today. Additionally, we have a detailed and thorough presentation and workshop scheduled for the May 19th Board meeting on the Proposed Operating Budget. The budget is considered for adoption at the June 16th Board meeting, following a Public Hearing.

Please also note the ACSA Rules and Regulations, Appendix B attachment. Following a formal rate study, we are proposing changes related to service charges, water/sewer rates, and other charges/fees. These changes will require public notice in conjunction with the budgetary process.

BOARD ACTION REQUESTED: Informational; if there are specific areas or questions you would like addressed in detail at the May Budget workshop, please let us know.

ATTACHMENTS:

1. Proposed FY 2023 Budget and Rates
2. FY 2023 Budget and Rates Overview
3. ACSA Rules and Regulations, Appendix B proposed rate changes

Fiscal Year 2023 Annual Operating and Capital Improvement Budget

July 1, 2022 to June 30, 2023

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April 21, 2022

Board of Directors
Albemarle County Service Authority
Charlottesville, Virginia

Dear Board Members:

The Albemarle County Service Authority (ACSA) mission remains serving our customers by providing safe, clean, and reliable Albemarle water for an excellent value. This has been especially important in this past year to ensure safe drinking water as the community continues to recover and move forward from the COVID-19 pandemic. We remain committed to working with our community partners as we maintain and improve our utility system in a timely, cooperative, and financially responsible manner. The proposed Fiscal Year 2023 Budget totals \$46,212,150 and reflects our continuing commitment to safe, clean, reliable Albemarle Water at a good value.

Over the past ten years, the ACSA has invested nearly \$67 million in capital improvements to ensure system reliability, redundancy, and high-quality water and sewer systems. In Fiscal Year 2023, the ACSA proposes to spend \$8,178,050 on ACSA capital improvements to further enhance safe drinking water delivery, the collection of wastewater for treatment and modernization of critical infrastructure and processes. We continue our investment in improving our water and sewer infrastructure through this proposed budget.

Our regional partner, the Rivanna Water and Sewer Authority (RWSA), is also continuing their needed investment and upgrades in the water and wastewater systems over the next five years. These projects strategically address the water supply, drinking water and wastewater treatment facilities required to meet the requirements of State and Federal regulations, as well as the reliability, capacity, and quality expectations of our community. During this five-year period, the RWSA CIP will significantly strengthen the drinking water systems with expenditures of \$155M for essential projects and include:

- Renovations and Upgrades to the South Rivanna and Observatory Water Treatment Plants
- Additional granular activated carbon water filtering facilities at the Observatory Water Treatment Plant
- Replacement of raw water piping and pumping stations from Ragged Mountain Reservoir to the Observatory Water Treatment Plant
- An additional water pumping station and piping location near Airport Road to better serve the northern portion of the ACSA water system

- Modifications to the Beaver Creek Reservoir Dam, pump station and piping.
- A major urban area water distribution pipe, the Central Water Line to enhance hydraulic connectivity and improve system flexibility and reliability

The RWSA will also work to complete significant improvements to the wastewater treatment and piping facilities to ensure our environment is protected. The five-year CIP includes \$45M for essential wastewater projects and include:

- Replacement of major electrical systems at Moores Creek
- Renovations and repairs to wastewater facilities (Moores Creek, Scottsville, Glenmore, and Crozet pump stations and piping)
- Repairs and replacement of wastewater piping and manholes

Additionally, the RWSA is upgrading its asset management, security system, and radio upgrades which are not water or wastewater specific but are budgeted in the RWSA CIP totaling \$5M.

Combined, these critical projects listed above and others throughout the system carry an expected cost over the five-year period of over \$205M, and as one of the RWSA's two customers, the ACSA is responsible for nearly 60% of RWSA's annual debt service. Charges from the RWSA make up nearly 62% of the ACSA's total operating budget, thus when these costs increase, it dramatically impacts our budget and customer rates.

The ACSA and RWSA continuously collaborate to ensure our customers are well served, and that the rate increases that we must pass along to our customers are fair, provide good value, and don't significantly fluctuate year-to-year. Staff from both the ACSA and RWSA work closely to ensure critical projects are completed in a timely and financially responsible manner.

The Fiscal Year 2023 Budget considers continued impacts from the pandemic and the need for continued investment in our water and wastewater systems. We anticipate leveraging financial reserves strategically in conjunction with a modest increase in customer rates at a time of rapid inflationary costs. This increase is explained in greater detail throughout this document and necessary as we responsibly plan for the future. We expect future capital project needs of both the ACSA and RWSA to continue and expect costs related to these projects to continue to increase.

We are pleased to present the ACSA's Proposed Operating and Capital Improvement Budget for Fiscal Year 2023 (July 1, 2022 to June 30, 2023). The FY 2023 budget continues to address long-term strategic initiatives that benefit our customers, while being especially mindful of economic restraints. After a comprehensive rate study and review of RWSA costs for water and wastewater treatment, we project an increase of \$2.4M or 10.9% for water/wastewater treatment and debt service. We will continue to invest in improving our water and sewer infrastructure through this proposed budget.

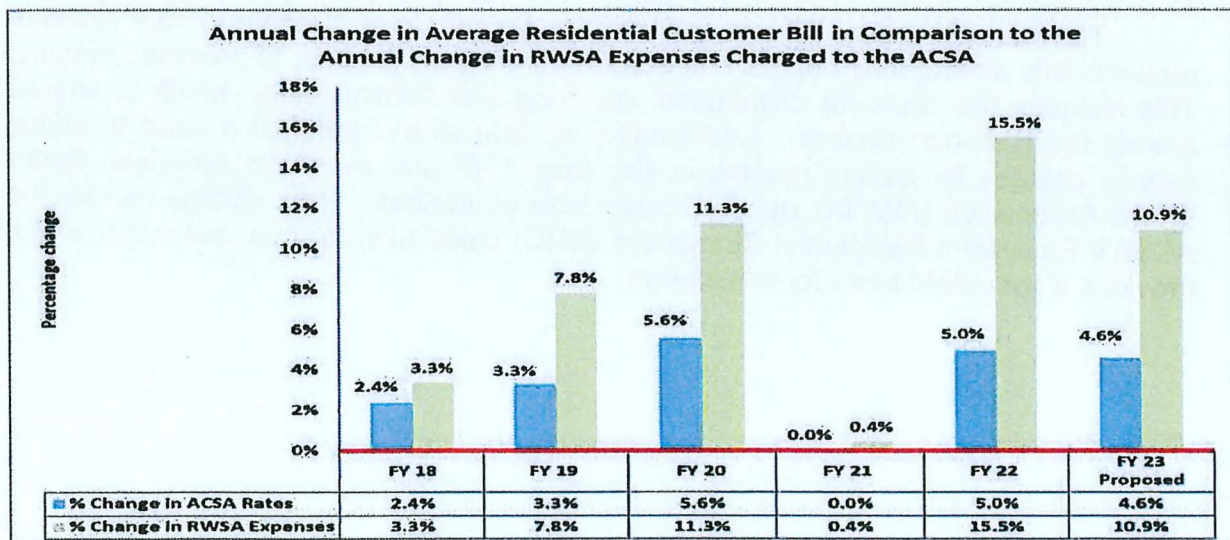
The average residential customer using 3,200 gallons, will see an increase in their water and sewer bill of 4.6% or \$2.60 per month. The proposed rates support increases in water/sewer treatment costs and other operational/capital initiatives that enable the ACSA to continue to provide safe, clean reliable service to our customers.

ACSA Water and Sewer Monthly User Rates

	FY 2022	FY 2023
Service Charge	\$ 9.00	\$ 9.45
Volume Charge - Single-Family Residential (per 1,000 gallons)		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$ 10.14
Level 3 (6,001-9,000 gallons)	\$14.13	\$ 15.19
Level 4 (over 9,000 gallons)	\$18.86	\$ 20.27
Multi-Family/Non-Residential (per 1,000 gallons)	\$ 9.09	\$ 10.14
Sewer/All Users (per 1,000 gallons)	\$ 9.94	\$ 10.24

Even with the rate increase, one penny continues to buy nearly two gallons of water, which is a very good value for the ACSA's reliable, high quality, and safe drinking water.

Four of the last five years, ACSA customers have seen changes in the monthly user rates. The ACSA did not increase rates in FY 21 as a way to limit economic impacts on our customers in the early stages of the pandemic. This budget, beginning July 1, 2022, proposes an increase of 4.6% for an average water/sewer customer. The average increase over the prior five years is 3.2%.



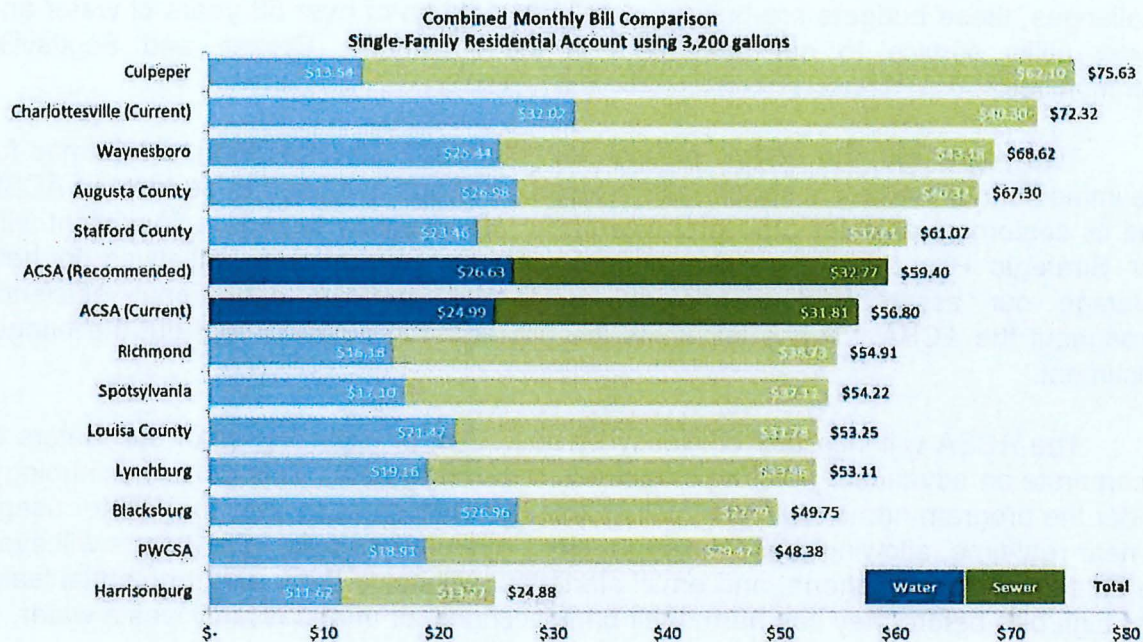
Following an extensive analysis of costs through a formal rate study, we propose that the monthly service charge be increased. The service charge for a 3/4" meter will increase to \$9.45 per month, a \$0.45 increase over the prior year. This update reflects the actual base cost of services provided.

Rate Design – Monthly Service Charges

Meter Size (inches)	Approx. # of Water Customer Accounts by Size	Current	Recommended
		FY 2022	FY 2023
3/4	20,100	\$9.00	\$9.45
1	720	\$ 17.28	\$ 23.63
1 ½	420	\$ 31.13	\$ 47.25
2	160	\$ 47.72	\$ 75.60
3	55	\$ 92.02	\$ 151.20
4	20	\$ 141.83	\$ 236.25
6	0	\$ 272.03	\$ 472.50

The service charge covers the cost to appropriately allocate ACSA revenue requirements among users of the entire system based on the cost of providing service. This includes the costs for distribution, metering and administration which is shared among the customer classes. Additionally, the rate study identified a need to adjust service charges for meters ranging in size from 1"-6" and align with American Water Works Association (AWWA) standard meter size equivalents. This change mirrors the ACSA's Equivalent Residential Connection (ERC) calculation for new connections and provides a consistent basis for this charge.

The ACSA average customer bill has been less than the statewide average and is less than the City of Charlottesville's current comparable residential bill by nearly 18%.



The Proposed ACSA Fiscal Year 2023 Operating Expenses total \$31,485,400, as compared to \$28,258,600 for the current budget year (FY 2022). This represents an increase of \$3,226,800, or 11.4% over the previous year. Our Capital Improvement Program (CIP) is proposed to be \$8,178,050, as compared to the current budget of \$11,169,265, and includes a continuation of major capital investment in our system, with an emphasis on needed water/wastewater main replacements, pump station upgrades and extension of public sewer to existing subdivisions. Additionally, the Authority has proposed a number of "non-utility" projects to address operational improvements, such as: mitigation of risk to increase resiliency of critical water and wastewater assets; Geographic Information System (GIS) and Computerized Maintenance Management System (CMMS) consulting services for Information Technology (IT) system improvements; recommendations from the IT Security Assessment; analysis of a new billing system; increased energy conservation throughout all our operations; and development of a satellite maintenance yard.

This budget also proposes that water and sewer connection charges for new development remain at the current total rate, water at \$6,650 per Equivalent Residential Connection (ERC) and sewer at \$6,820 per ERC. This is based on a formal rate model and detailed analysis, conducted in 2022, of the cost of providing new connections to the ACSA and RWSA systems, and the needed capacity to be able to serve new development. Capacity related projects create the need to re-evaluate connection charges on an annual basis to assure that growth is paying for growth.

Balancing the delivery of quality water and wastewater treatment, investing in the ACSA's water and sewer system infrastructure, improving service delivery, and providing an elevated level of service to our customers in an era of increasing inflation are some of the most important challenges facing the ACSA. To manage these challenges, these budgets are built on a solid foundation of over 58 years of water and sewer utility service to our customers in the Albemarle, Crozet, and Scottsville communities.

Two years ago, the ACSA released its 2020-2022 Strategic Plan, a roadmap for the immediate future that is specifically focused on efforts designed to benefit the ACSA and its customers as it lays the groundwork for a successful decade. Consistent with our Strategic Plan, this proposed budget includes several new initiatives to help leverage our assets and technology, which will improve operational efficiency throughout the ACSA. These initiatives are presented in detail throughout the budget document.

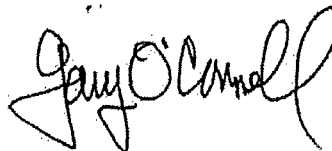
The ACSA will increase efficiency by upgrading or replacing all of our meters to incorporate an advanced metering infrastructure (AMI) system. This proven technology, under the program name MyWater, will enable our customers to view their water usage in near real-time, allowing them to keep a close eye on their bills. Customers will even be able to setup text, phone, and email alerts that will notify them about potential leaks and high bills before they can harm their bank accounts or unnecessarily waste water.

At the same time, ACSA staff will use MyWater to gain valuable information about how the water system is performing. We will be able to more rapidly identify problem areas and expedite leak detection. This will enable us to make repairs before volumes of water are wasted. We will also be able to alert customers about possible leaks on their property.

The ACSA, through its benchmarking work with the American Water Works Association (AWWA), also determined that its previous maintenance management system was not meeting the long-term needs of the utility. A new Computerized Maintenance Management System (CMMS) has been deployed and has advanced our ability to manage essential work assignments and introduce new levels of efficiency throughout our entire organization. This new system will also provide customer online service requests, allowing customers to initiate requests 24 hours a day and 7 days a week; improved inventory and asset management; and enhanced tracking of work orders and asset inspections for greater efficiency and customer response.

To everyone involved in the budget development process, we thank you. We also would like to thank the ACSA Leadership Team of Mike Lynn, Pete Gorham, April Walker, Emily Roach, and the ACSA staff for their work in developing the operating budget, and to Pete Gorham, Jeremy Lynn, Alexander Morrison and the Engineering staff for the development of the Capital Improvement Program (CIP) Budget. The proposed FY 2023 Budget allows the ACSA to meet our vision for a strong operational and financial future, while ensuring improvements to the system and a high level of service to our customers continues.

Sincerely,

A handwritten signature in black ink, appearing to read "Gary O'Connell". The signature is fluid and cursive, with the first name "Gary" and last name "O'Connell" clearly distinguishable.

Gary O'Connell
Executive Director

A handwritten signature in black ink, appearing to read "Quin Lunsford". The signature is fluid and cursive, with the first name "Quin" and last name "Lunsford" clearly distinguishable.

Quin Lunsford
Director of Finance

History:

In 1964, the Albemarle County Service Authority (ACSA) was created by action of the Albemarle County Board of Supervisors. Beginning in Crozet and growing into the Urban Areas of Albemarle County and the Town of Scottsville, the ACSA is Albemarle County's water and sewer retail provider. The ACSA celebrates its 58th year of water and sewer service to the Albemarle Community.

Employees:

Nearly 80 dedicated employees work within five different operating departments within the ACSA: Administration, Engineering, Finance, Information Technology, and Maintenance. Our employees are the backbone of the quality services that the ACSA provides to its customers.

Drinking Water Quality:

With a strong emphasis on water quality, the ACSA maintains the water system, provides ongoing system upgrades, and provides water quality testing to meet and exceed all regulatory requirements. The ACSA ensures high quality drinking water to all our customers by performing over 400,000 tests annually. Additional testing information can be found in our annual drinking water quality report at www.serviceauthority.org.

Age of Pipes:

The ACSA water system has a variety of ages, types and conditions of pipes and facilities. We have an ongoing assessment to be sure our water mains deliver reliable water service. We have been active in water main replacement and our annual capital program investment meets our replacement needs. A recent analysis indicated that 50% of our water and sewer mains are less than 25 years old, when a 60-year life can be expected.

Water Distribution System:

ACSA delivers water through 364 miles of interconnected pipes, 9 water pumping stations, 8 water storage tanks, and 3,121 fire hydrants.

Sewer Collection System:

Over 316 miles of sanitary sewer mains and 11 sewer pumping stations comprise the ACSA sewer collection systems for businesses and residences in our service area.

Cost for Gallon of Water:

ACSA water is an excellent value, with over 1.98 gallons of ACSA water costing one cent.

ACSA Service Area:

The ACSA provides service to over 81,800 residents, with over 21,400 retail accounts in six magisterial districts: Rio, Jack Jouett, Rivanna, Scottsville, Samuel Miller, and White Hall.

Financial Performance:

The ACSA's financial performance remains very strong and sustainable. With a very low level of debt, the ACSA can fund most capital projects out of the annual budgets and use of financial reserves. The ACSA's Annual Comprehensive Financial Report for the year ended June 30, 2021, from which the information within the Budget Appendices/Supplemental Section (Section VI) has been drawn, has been submitted to the Government Finance Officers Association of the United States and Canada (GFOA) for award consideration for the Certificate of Achievement for Excellence in Financial Reporting. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles (GAAP) and applicable legal requirements.

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

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the Albemarle County Service Authority, for its Annual Budget for the fiscal year beginning July 1, 2021. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device. This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award.

Customer Service:

ACSA communicates valuable customer related information through bill inserts, quarterly newsletters, the website www.serviceauthority.org, Twitter, Facebook, and Instagram. An after-hours emergency phone service receives and routes alerts staff to emergencies or other matters that require immediate attention. We can be contacted at (434) 977-4511 or www.serviceauthority.org by selecting "Service Request."

Governance:

ACSA's Board of Directors establishes policies and guides the overall strategic direction of our organization. The Board is composed of six members representing the six magisterial districts of Albemarle County. The ACSA Board members also set rates, charges, and fees, and approve the budget for the Authority. The Executive Director reports to the Board and manages the day-to-day operations and performance of the ACSA.

ACSA Financial Information:

- FY 2023 Total Op./Non-Op. Budget: \$38,034,100
- FY 2023 Capital Improvements Budget: \$8,178,050



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Albemarle County Service Authority
Virginia**

For the Fiscal Year Beginning

July 01, 2021

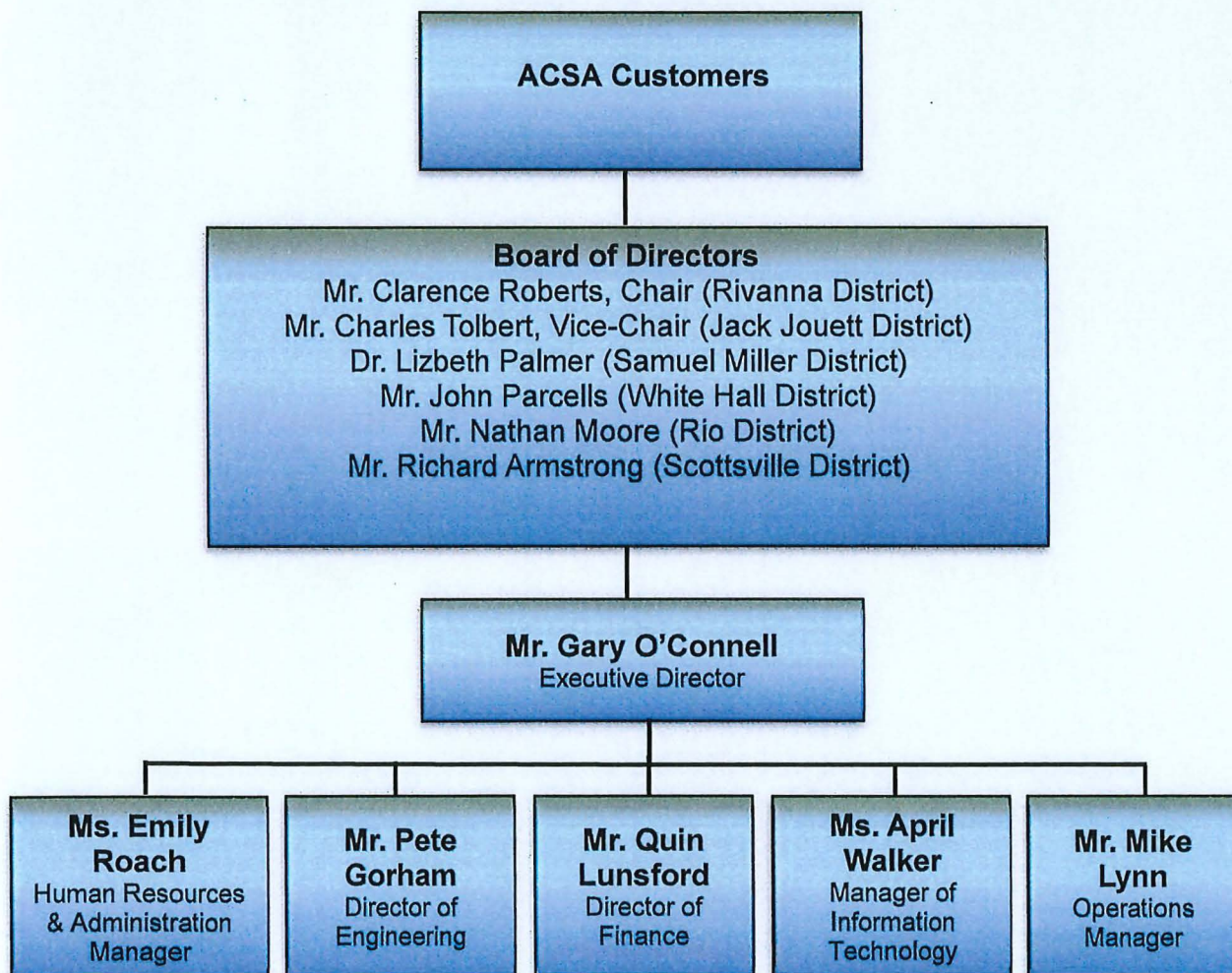
Christopher P. Morill

Executive Director

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Albemarle County Service Authority

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Strategic Goals and Strategies

Strategic Goals and Strategies

The ACSA was created by the Albemarle County (County) Board of Supervisors in 1964 with the Crozet community as its sole customer. In the 1960s, the South Rivanna Dam was constructed, and several subdivisions were developed through the County, such as Carrsbrook, Woodbrook, Westmoreland, Northfields, Berkeley, Hessian Hills, Montvue, Colthurst, Flordon and West Leigh. In the late 1960s and early 1970s, these systems were acquired by the County for the ACSA, and the County purchased water from the City of Charlottesville supply to provide all these areas with public water and eliminate their well systems. In 1972, the Rivanna Water and Sewer Authority (RWSA) was formed and became the wholesale provider of water and wastewater treatment for the City and ACSA.

The ACSA, now 58 years later, provides water distribution and wastewater collection services to 21,400+ accounts with over 363 miles of water mains and over 316 miles of sanitary sewer mains within our service area, including the urban areas of Albemarle County, and nearby communities of Scottsville and Crozet. Our customers enjoy water drawn from a protected watershed contained almost entirely within the County's borders. The ACSA is governed by a six-member Board of Directors each appointed by the Board of Supervisors of Albemarle County. We distribute treated water, and collect wastewater for treatment, while maintaining, expanding, and replacing the infrastructure within the service area.

The ACSA's three-year Strategic Plan for FY's 2020-2022 outlines the ACSA's vision, mission, and guiding principles. The plan helps chart our future as we look to our next 50 years and establishes clear strategic actions that will be taken. We believe the Strategic Plan is a true reflection of the ACSA's vision to "serve and conserve" and helps us establish goals for years to come. The ACSA is proud to provide services that positively touch the lives of all our customers, every day. We continue to strengthen the ACSA's role in water leadership in our community, and with the Strategic Plan we identify and communicate our intentions for the future.

The ACSA's Strategic Plan sets forth two major initiatives. The first initiative includes deployment of an Advanced Metering Infrastructure (AMI) system that integrates technologically advanced water meters, communications networks, and data management systems that enable enhanced two-way communication between our utility and customers. This upgrades the customer experience, supports green initiatives, adds efficiencies, and provides strategic information for utility decision making. The second major initiative implements a Computerized Maintenance Management System (CMMS) which enables scheduling, tracking, and monitoring of maintenance activities to provide cost, inventory, personnel, and reporting history. This implementation will improve the overall efficiency of utility operations and will apply the latest technologies toward streamlining operational processes. In addition to these two major initiatives, the 2020 - 2022 strategic plan will also aim to address multiple goals that will set the utility on a positive course for the future. These areas of focus under the plan include:

- **Succession Planning:** Utilities across the country are facing the impacts of an aging workforce and loss of institutional knowledge. The ACSA will continue its succession planning efforts, using mentoring and professional development initiatives to prepare the ACSA for future waves of managerial retirement.
- **Best Practice Inclusion:** The ACSA will continue learning from the most highly effective water utilities and schedule visits with these utilities to engage with leaders from other jurisdictions.
- **Emergency Response Plan:** Under the America's Water Infrastructure Act, the ACSA will complete training and checklists and our emergency preparedness to avoid water disruptions to our customers, building on our goal to be a highly reliable water provider. We will also incorporate a formal business continuity plan for operations in times of crisis, adding to system reliability.
- **Improved Data Management and Utilization:** The ACSA will explore the creation of a strategic implementation plan to best manage for upcoming data: GIS, Financial, SCADA, CMMS, AMI, and System Modeling. We will also implement an updated financial system.
- **Implementation of IT Risk Assessment:** The ACSA is taking a proactive approach to cybersecurity, implementing measures to further protect our computer/IT assets and data.
- **Facility Master Planning:** A long-term plan to ensure the ACSA can and will grow to meet the operational requirements to provide high quality customer service.

- **Water and Energy Audits:** The ACSA will incorporate utility best practices to reduce water loss using tools to identify water leaks throughout our system. The ACSA has completed water audits for our Crozet and Scottsville Water Systems and will be repeating those efforts this year to begin trending analysis. These audits will continue to be carried out on an annual basis. The ACSA has recently completed a comprehensive Energy Audit of the Operations Center and all pump stations and will begin implementing Audit recommendations in FY 2023.
- **Employee Pay Plans:** The ACSA, in addition to its succession planning, conducted a formal compensation study and is proposing "market rate" recommendations to stay competitive as an employer in our area. We will emphasize competitiveness and internal equity to keep top performers working on behalf of our customers to provide the best service possible.

Further information related to these initiatives and the entire 3-year Strategic Plan can be found on our website at <https://serviceauthority.org/wp-content/uploads/2020/01/ACSA-Strategic-Plan-2020-2022-Brochure.pdf>.



Pictured above: Ragged Mountain Reservoir

Fund Descriptions and Fund Structure

The Authority operates and reports as a single enterprise fund, meaning that all departments are included in a single accounting and reporting entity. An enterprise fund is a proprietary type fund used to account for operations that are financed and operated in a manner similar to private business enterprises. The Authority's intent is that the costs of providing goods or services to customers on a continuing basis be financed or recovered primarily through user charges. Periodic determination of revenues earned, expenses incurred, and/or changes in net position is appropriate for capital maintenance, public policy, and management control and accountability.

Basis of Accounting and Budgeting

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

Basis of Budgeting

The Authority's annual budget is based on the accrual method of accounting and is structured to reflect the same formats as the Authority's audited financial statements. Both the "basis of accounting" and the "basis of budgeting" are on an accrual basis which recognizes revenues when earned and expenses when incurred.

Financial Policies

The Authority has developed and adopted Comprehensive Financial Management Policies (Policies) to ensure that the Authority is financially capable of meeting its immediate and long-term objectives. A financial management policy that is adopted, adhered to, and regularly reviewed is recognized as the foundation of sound financial management. An effective financial management policy:

- Contributes to the Authority's ability to prepare for and insulate itself from fiscal crisis by being able to better manage stressful internal and external financial events.
- Enhances the ability to realize the most favorable rates in the event the Authority deems debt financing necessary.
- Promotes long-term financial stability by establishing clear and consistent guidelines.
- Directs attention to the total financial picture of the Authority rather than single issue areas.
- Promotes the view of linking long-term financial planning with day-to-day operations.

The adopted Policies specifically related to the budget process are as follows:

Operating Budget Policies

- The Authority will budget for all current operating expenditures to be paid for with operating revenues.
- The Authority will maintain operating reserves, as defined in the Reserve policy below, to help offset reductions in revenues related to low flow periods. This policy helps maintain the operations and maintenance functions that would otherwise have to be deferred or require sporadic rate increases, however:
- Management and staff should, not only during the preparation of the budget but in budget execution, use due care and promote cost savings and operating efficiencies at all times, especially during period of revenue shortfall.

Operating Budget Policies (cont.)

- In preparing the annual budget, the Authority will base its revenue and expenditure projections on historic performance while also taking into consideration operational needs, current trends, events, and developments in regulatory requirements, local markets, building developments and environmental activities.
- System development charges, RWSA capacity charges or other special revenues will not regularly be used to finance continuing Authority operations, but instead will be used for funding specific one-time projects, servicing capacity related debt, expansion and replacement of system infrastructure or adding to Authority reserves.

Capital Budget Policies

- The Authority will prepare and update annually for adoption a Capital Improvement Plan (CIP) that is developed for a ten-year planning period.
- The first year of the adopted ten-year CIP will become the most current capital budget for the Authority and will serve as authorization for project execution by the Board.
- The Authority will maintain all capital assets at a level adequate to protect the Authority's capital investment, meet permitted regulatory requirements, and to minimize future maintenance and replacement costs.

Reserve Policies

- The Authority has implemented "best management practices" which dictate that cash/investment reserves be accumulated to provide for contingencies and planned/unplanned major expenses. The Authority has established three types of reserves for its water and wastewater systems:
 - Operating and Maintenance Reserve (O&M): The O&M reserve serves as working capital and is important to provide funds for the potential lag between operating revenues and operating expenditures, as well as unplanned minor repairs or fluctuations in the operating budget. This type of reserve is also valuable during unusually wet years, which can result in reduced revenue due to lower than anticipated water usage. This reserve combined with the Repair, Renewal, and Replacement Reserve, Capacity and Growth Reserves, and unrestricted cash and investments are to maintain a Days Cash on Hand floor of 270 days. Water and wastewater rates will be set accordingly to replenish these reserves if cash/investment levels dip below the Days Cash on Hand floor.
 - Repair, Renewal, and Replacement Reserve (3R): The 3R reserve provides funds to pay for unexpected major repairs and planned replacement or rehabilitation of system assets. This reserve may be used to pay for capital costs to avoid or minimize the amount that would otherwise be recovered through user fees. Typically, the annual 3R reserve contribution is calculated based on the estimated useful life and replacement cost of equipment held by the Authority.
 - Capacity and Growth Reserves: The Capacity and Growth Reserves are established to fund capacity or growth-related costs or charges. These reserves are funded by the ACSA System Development Charge and the RWSA Capacity Charge.

Revenue and Expenditure Policies

- A diversified and stable revenue system will be maintained to shelter services from short-run fluctuations.
- Rate studies are to be conducted every five years to ensure that the rates will continue to support direct and indirect costs of operations, administration, maintenance, debt service, depreciation/amortization of capital assets, and system development. Annually, staff will analyze projections performed by the consultant and adjust as necessary during the budgetary and rate development process.

Revenue and Expenditure Policies (continued)

- Costs related to the expansion of system capacity (i.e., growth-related) should be funded via new/future customers who cause the need for such additional capacity through connection fees. "Growth pays for growth."
- Water and Wastewater rates and charges shall be kept as low as possible over time without sacrificing continual maintenance of infrastructure already in service.
- The Authority's operating expenditures are to be funded with on-going operating revenues to the extent possible.

Debt Policies

- The ACSA will utilize a balanced approach to capital funding utilizing debt financing. CIP planned current-year revenues (pay-as-you-go) and planned capital reserve fund transfers from ACSA reserves.
- The ACSA will analyze all sources of debt financing when it has been determined that there is a need for debt.
- When the ACSA finances capital improvements or other projects by issuing bonds or entering capital leases, it will repay the debt within a period not to exceed the expected average useful life of the project(s) and equipment being financed.
- When assessing capital project funding approaches and the issuance of debt, the ACSA will conduct a series of financial analyses to demonstrate its financial ability to incur such debt under its current rate structure, and to determine if, when and to what degree rate structures need to be adjusted in the event that the current rate structure is not able to accommodate new additional debt.
- The ACSA will review its current debt structure periodically as interest rates fluctuate and optional bond redemption dates arise for refunding or advance refunding opportunities.
- The ACSA will remain in compliance with all debt covenants as they are provided. The Authority shall maintain net revenues, excluding connection fees, such that they are equal to 1.20x of annual debt service. Regular analyses of covenants will be performed by staff in conjunction with other periodic duties.
- The Authority is not subject to legal debt limitations and has issued no debt which is overlapping with other jurisdictions during the last ten fiscal years.

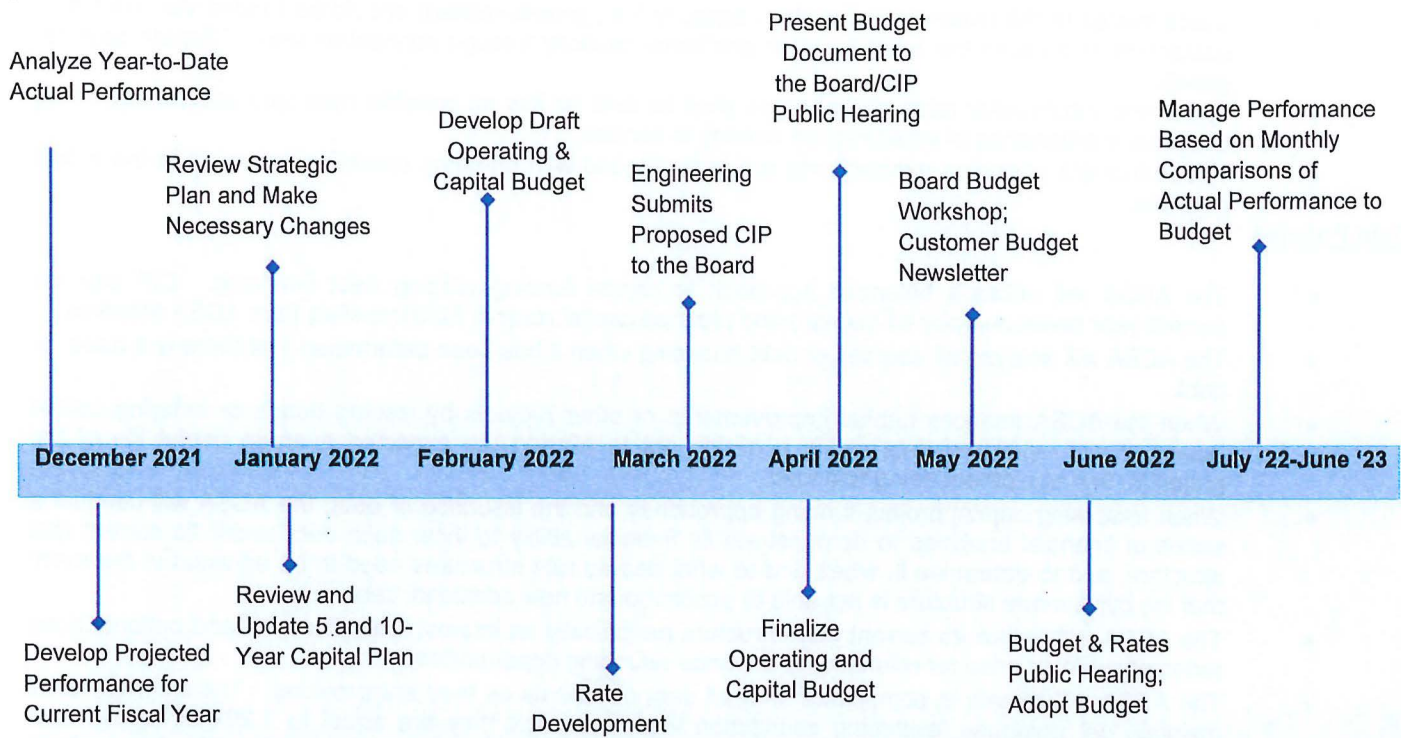
Budget Process

The Authority must adopt its budget prior to July 1st of each year. Development of the budget is influenced by the strategic plan, organization goals and objectives, external factors such as growth, development, and water consumption trends. The Board, Authority staff, and the public participate in the development of the budget. A public workshop is held to review the draft budget and receive public input prior to the public hearing to adopt the budget.

The Engineering department develops the Capital Improvement Program (CIP) budget using the strategic plan and organizational goals as well as any new development that may impact infrastructure needs. Project costs are estimated based on our asset management assumptions at the time of budget development. Any necessary adjustments are presented as amendments to the Board when those circumstances arise. Once the CIP is completed, it is presented to the Board in April of each fiscal year. The CIP budget determines the budget requirements for our 3R reserve, operating budget, and Capacity and Growth Reserves for capital projects, as well as influencing decisions regarding any existing or future debt requirements for infrastructure or projects.

During this same time, the Finance Department is developing the overall operating budget for the Authority. The team meets with each individual department to develop operating expenses using trend, usage data, and inflation factors to determine any increase/decrease in expenses. Along with this, discussions of any new personnel requirements are developed to ensure appropriate budgetary coverage. For purposes of revenue development, the team reviews historical and current year trend analysis, such as customer growth, consumption analysis, and the rate study recommendations to develop the revenue budget. Statistical information and performance metrics are also reviewed and updated.

The CIP, revenue, and expense budgets are then combined and presented to the Board in April each year. Public comment and budget workshops are held for discussion in May and amendments before the final budget is adopted in June. A timeline of our budget process is included on the next page to further illustrate the budget process at the Authority.



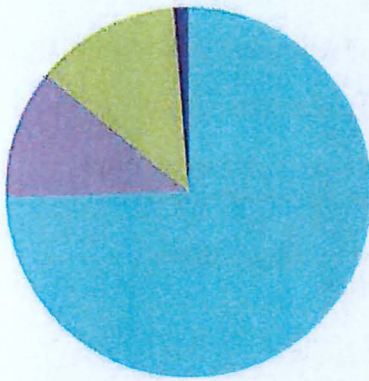
Pictured above: Beaver Creek Reservoir

Proposed Budget for Fiscal Year 2023 – Financial Summary

OVERVIEW

The ACSA's Fiscal Year 2023 Total Operating and Non-Operating Budget is \$46,212,150:

Where the Dollars Come From



Water/Sewer Charges	\$34,422,000	74.5%
Reserves	5,292,350	11.5%
System Connection Charges	5,926,800	12.8%
Other Revenues	571,000	1.2%
Total Budgeted Revenues	\$46,212,150	100.0%

WHERE THE DOLLARS GO



Operating Expenses:

- Proposed FY 2023 Operating Budget Expenses total \$31,485,400
- Approved FY 2022 Operating Budget Expenses total \$28,258,600

Purchased Water/Wastewater treatment from Rivanna Water & Sewer Authority (RWSA):

- Proposed FY 2023 totaled \$19,377,500 or 61.5% of the Operating Expense Budget
- Approved FY 2022 total \$17,607,400
- Increase of \$1,770,100

Departmental Operating Budgets:

- Proposed FY 2023 - \$12,107,900
- Approved FY 2022 - \$10,651,200
- Increase of \$1,456,700

Debt Service (Principal and Interest) Expense:

- Proposed FY 2023 - \$580,000
- Approved FY 2022 - \$795,500

Top Budget Priorities:

- Provide service and support to our customers throughout the recovery from the COVID-19 Pandemic
- High quality water delivered to our customers
- Maintain current Authority programs and services
- Meet financial obligations and financial sustainability

Top Budget Priorities (cont.):

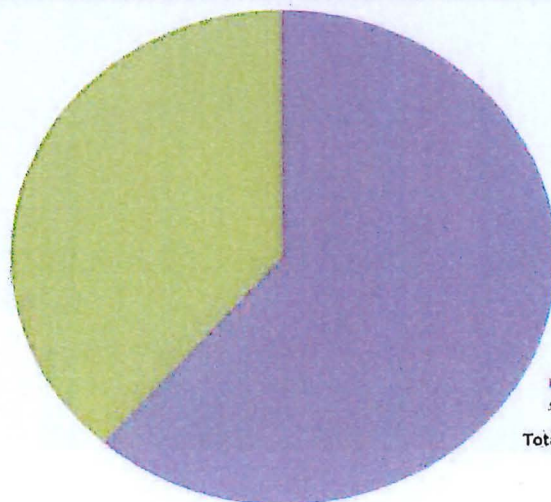
- Elevated level of customer service
- Strategic initiatives
- Investment in our infrastructure

Top Operating Initiatives:

- Continue high level of emergency response times
- Emergency planning
- Continue enhancements to water quality:
 - Regulatory compliance
 - Water system maintenance and replacement
 - Advanced water filtering process (GAC)
- Meet all wastewater standards:
 - Continue sewer system rehabilitations
 - Regulatory compliance

Other ACSA Initiatives:

- Continued implementation of the Strategic Plan
- Succession planning for employee continuity
- Advanced metering infrastructure (AMI)
- Computerized maintenance management system (CMMS) – workorder management, customer requests, asset management and inventory
- Modernizing electronic bill presentment and payment options
- New position – Information Technology Project Manager



Purchased Water/Wastewater	\$19,377,500	61.5%
ACSA Operating Expenses	\$12,107,900	38.5%
Total Operating and Non-Op. Exp.	\$31,485,400	100.0%



Water and Sewer Rates

Water and Sewer Rates – Fiscal Year 2023 Proposed:

The proposed monthly user water and sewer rate increase is driven by the following factors:

- The cost of purchased water from the RWSA is expected to increase 10.6% or \$1.32 million.
- The cost of wastewater treatment from the RWSA is expected to increase 11.3% or \$1.09 million.
- ACSA departmental budget increase of 13.7%
- Capital Improvement Program of \$8.18 million.

ACSA Water and Sewer Monthly User Rates

	FY 2022	FY 2023
Service Charge	\$ 9.00	\$ 9.45
Volume Charge - Single-Family Residential (per 1,000 gallons)		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$10.14
Level 3 (6,001-9,000 gallons)	\$14.13	\$15.19
Level 4 (over 9,000 gallons)	\$18.86	\$20.27
Multi-Family/Non-Residential	\$ 9.09	\$10.14
Sewer/All Users (per 1,000 gallons)	\$ 9.94	\$10.24

Based on usage noted below, customers will see moderate increases in their monthly bill.

Sample Monthly Combined (Water and Sewer) Bills

Combined Water and Sewer	Meter Size	Monthly Usage (gallons)	Current Bill	Recommended FY 2023 Bill	Monthly \$ Change
Single-Family					
Minimal User	3/4"	1,200	\$ 26.57	\$ 27.80	\$ 1.23
Small User	3/4"	2,500	\$ 45.60	\$ 47.68	\$ 2.08
Average User	3/4"	3,200	\$ 56.80	\$ 59.40	\$ 2.60
Large User	3/4"	6,200	\$ 115.84	\$ 121.55	\$ 5.71
Excessive User	3/4"	7,700	\$ 151.95	\$ 159.69	\$ 7.74
Multi-Family/Non-Residential					
Multi-Family	1"	33,700	\$ 658.59	\$ 710.44	\$ 51.85
Com. (Offices)	1"	6,300	\$ 137.17	\$ 152.02	\$ 14.85
Com. (Other)	3/4"	4,700	\$ 98.44	\$ 105.24	\$ 6.80
Industrial	1 1/2"	16,500	\$ 345.13	\$ 383.52	\$ 38.39
Institutional	3/4"	13,000	\$ 256.39	\$ 274.39	\$ 18.00



Water and Sewer Rates - Frequently Asked Questions FY 2023 Proposed Budget and Rates

Why does the Authority need a rate increase?

While the ACSA has been able to maintain its high level of service through the pandemic, costs associated with providing these services have increased and must be supported by sustainable rate increases. The RWSA is our single largest cost, and we anticipate an increase in charges of approximately 10.9%. This increase supports continued improvements to the quality, reliability, and efficiency of the water and wastewater system. Additionally, the ACSA's cost of doing business which include operating costs, proactive maintenance and improvements to system infrastructure have increased, especially during these inflationary times, as related to changes in supplies, services, salaries, and maintenance costs.

Why are Water and Wastewater treatment costs increasing?

The ACSA purchases treated water and distributes that water to our customers. Costs related to these purchases from the RWSA are expected to increase by more than 10%. The cost increase of purchased water is due to a variety of factors but water treatment plant expansions in the Urban and Crozet systems as well as water treatments costs related to Granular Activated Carbon (GAC) contribute to this increase. The ACSA also returns all collected wastewater to the RWSA for treatment. Costs associated with the treatment of wastewater is expected to increase by 11%. The increase in expected treatment expenses is due to a variety of factors but continued investment in infrastructure and increases in chemical and energy costs are the main driver.

How much will my bill increase?

The average ACSA customer will see a 4.6% increase in their bill or \$2.60 per month, which is comparable to the five-year average of rate changes. The five-year average increase has been 3.2%. The Authority was able to strategically utilize financial reserves to keep the proposed increase near the historical average.

Why doesn't the ACSA just cut costs rather than increase the rate?

We review spending very carefully throughout the year and during the budget process, but as a growing utility, adding 1-2% or 500 new customers annually, our costs to provide service continue to increase each year. Purchased water and wastewater treatment comprises 62% of our costs, which our customers must bear that major increasing expense.

For Small Water Users, does the ACSA have a special rate?

The ACSA has four levels of residential water rates to encourage water conservation. This is an incentive for our customers to conserve water as the greater the use the higher the rate.

How do the ACSA's water and sewer rates compare to other utilities?

On the average residential bill, ACSA rates compare favorably. We consistently have been below the state-wide average on residential water and sewer bills and are less than a comparable bill for customers within the City of Charlottesville.

Why is the ACSA spending over \$8 million this year on Capital Projects?

Many parts of the ACSA are aging with some components more than 50-60 years old. As part of our capital planning, we continue to make improvements in our system through rehabilitation and replacement. This is done to ensure you, the customer, reliable water and sewer service, to exceed water quality standards, and wastewater environmental requirements.

Who pays for growth?

The ACSA has a philosophy that "growth pays for growth." New development water and sewer systems are installed to ACSA standards and specifications by developers at their cost. To fund additional water and sewer capacity in the system, new development pays a "connection charge" per unit that equates to a single water and sewer residential connection at the proposed FY 2023 charges or \$13,470.

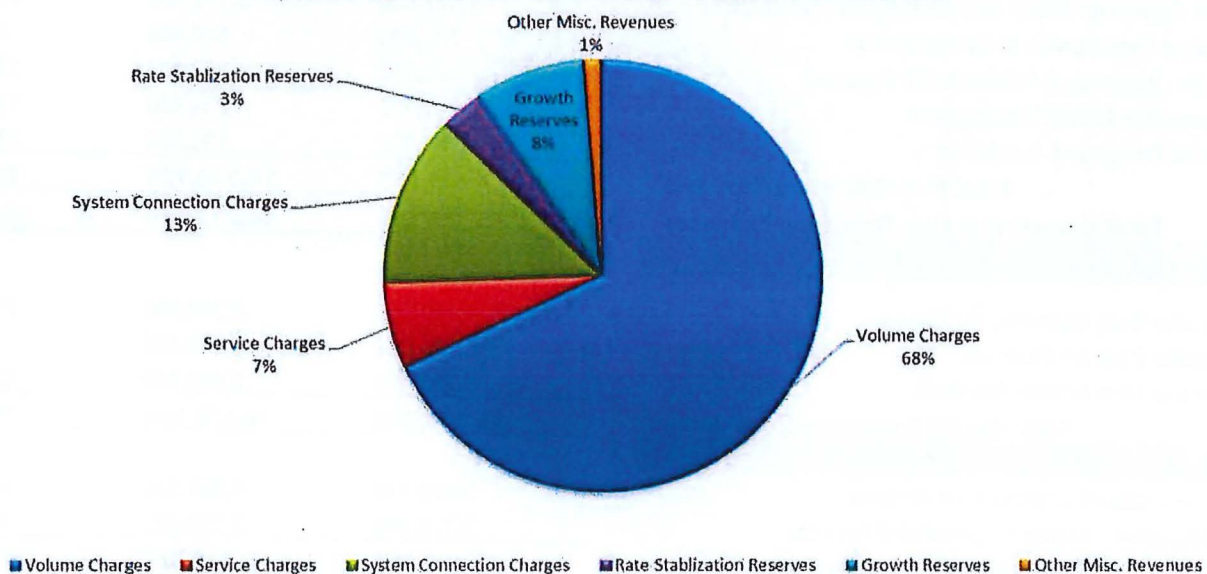
FY 2023 Revenue and Expense Summary

	FY 2022 Approved Budget	FY 2023 Proposed Budget	Proposed as % of FY 2022
OPERATING REVENUES			
Total Volume Charges	\$ 27,968,200	31,422,000	112.3%
Total Service Charges	2,610,000	3,000,000	114.9%
Rate Stabilization Reserves	5,200,912	1,476,150	28.4%
Total Operating Revenues	35,779,112	35,898,150	100.3%
NON-OPERATING REVENUES			
System Connection Charges	7,000,000	5,926,800	84.7%
Use of Growth Reserves	1,831,453	3,816,200	208.4%
Misc. Utility Charges	400,000	400,000	100.0%
Interest Income	200,000	100,000	50.0%
Build America Bond Subsidy	87,000	-	-
Inspection Fees	35,000	35,000	100.0%
Plan Review & FOG Permit Fees	20,000	20,000	100.0%
Rental Income	16,000	16,000	100.0%
Total Non-Operating Revenues	9,589,453	10,314,000	107.6%
Total Operating & Non-Operating Revenues	45,368,565	46,212,150	101.9%
OPERATING EXPENSES			
Purchase of Water/Wastewater	17,607,400	19,377,500	110.1%
Maintenance Department	4,005,600	4,509,000	112.6%
Finance Department	2,238,300	2,502,100	111.8%
Engineering Department	2,101,800	2,288,400	108.9%
Information Technology Department	1,052,100	1,521,900	144.7%
Administration Department	1,253,400	1,286,500	102.6%
Total Operating Expenses	28,258,600	31,485,400	111.4%
NON-OPERATING EXPENSES			
Transfer for Capital Expenses - CIP	11,169,265	8,178,050	73.2%
Debt Service for RWSA Growth Projects - Water/WW	4,529,000	5,172,500	114.2%
Existing Debt Service and Amortization	795,500	580,000	72.9%
Repair, Renewal, & Rehabilitation Reserves	320,000	362,000	113.1%
Planned Equipment Replacement	211,700	234,600	110.8%
Capital Equipment Acquisition	84,500	199,600	236.2%
Total Non-Operating Expenses	17,109,965	14,726,750	86.1%
Total Operating & Non-Operating Expenses	\$ 45,368,565	46,212,150	101.9%
CAPITAL IMPROVEMENTS FUNDING			
Transfer from Operating Revenues	\$ 4,185,900	4,269,800	102.0%
Transfer from 3R Reserves	5,200,912	1,476,150	28.4%
Transfer from Growth Reserves	1,782,453	2,432,100	136.4%
Total Capital Improvements Funding	11,169,265	8,178,050	73.2%
CAPITAL IMPROVEMENTS EXPENSES			
Water - Capital Improvement Projects	7,450,475	4,861,550	65.3%
Wastewater - Capital Improvement Projects	3,718,790	3,316,500	89.2%
Total Capital Improvements Expenses	\$ 11,169,265	8,178,050	73.2%

FY 2023 Budget Revenues

	FY 2022 Approved Budget	FY 2023 Proposed Budget	Proposed as % of FY 2022
OPERATING REVENUES			
Total Volume Charges	\$ 27,968,200	31,422,000	112.3%
Total Service Charges	2,610,000	3,000,000	114.9%
Rate Stabilization Reserves	5,200,912	1,476,150	28.4%
Total Operating Revenues	35,779,112	35,898,150	100.3%
NON-OPERATING REVENUES			
System Connection Charges	7,000,000	5,926,800	84.7%
Use of Growth Reserves	1,831,153	3,816,200	208.4%
Misc. Utility Charges	400,000	400,000	100.0%
Interest Income	200,000	100,000	50.0%
Build America Bond Subsidy	87,000	-	-
Inspection Fees	35,000	35,000	100.0%
Plan Review & FOG Permit Fees	20,000	20,000	100.0%
Rental Income	16,000	16,000	100.0%
Total Non-Operating Revenues	9,589,453	10,314,000	107.6%
Total Operating & Non-Operating Revenues	45,368,565	46,212,150	101.9%
CAPITAL IMPROVEMENTS FUNDING			
Transfer from Operating Revenues	\$ 4,185,900	4,269,800	102.0%
Transfer from 3R Reserves	5,200,912	1,476,150	28.4%
Transfer from Growth Reserves	1,782,453	2,432,100	136.4%
Total Capital Improvements Funding	11,169,265	8,178,050	73.2%

Operating and Non-Operating Budgeted Revenues





Revenue Highlights – FY 2023

	FY 2022	FY 2023
Total Volume Charges (monthly user rates)	\$27,968,200	\$31,422,000
Total Service Charges (cost of service)	\$2,610,000	\$3,000,000
System Connection Charges (new development fees)	\$7,000,000	\$5,926,800
Rate Stabilization/Growth Reserves	\$7,032,365	\$5,292,350
Other Revenues	\$758,000	\$571,000
Total Revenues	\$45,368,565	\$46,212,150

Total Volume Charges - \$31,422,000; water and sewer usage billed to ACSA customer monthly; proposed rate increases primarily driven by increased costs of water and wastewater treatment and departmental initiatives.

Total Service Charges - \$3,000,000; monthly service charge to reflect actual costs for meter reading, billing and customer service; the budget proposes to increase the monthly service charge from \$9.00 to \$9.45 for our average customer (service charge dependent upon meter size).

System Connection Charges - \$5,926,800; budgeted revenues are expected to decrease in FY 2023 compared to FY 2022, for new development per new ERC connections based on proposed development within the service area and engineering estimates.

ACSA System Development Charges offset the capital costs of backbone capacity in the ACSA water and sewer system mains, pumping stations, water tanks, and facilities.

RWSA Capacity Charges offset the capital costs of backbone capacity in the Rivanna Water and Sewer Authority's (wholesale water and wastewater treatment provider) water and sewer systems for which the ACSA is responsible for covering the costs per agreements.

		FY 2022	FY 2023
ACSA System Development Charge	Water	\$1,890*	\$1,890*
	Wastewater	\$2,970*	\$2,970*
RWSA Capacity Charge	Water	\$4,760*	\$4,760*
	Wastewater	\$3,850*	\$3,850*
	Total	\$13,470*	\$13,470*
*per ERC (equivalent residential connection)			



FY 2023 Changes in Net Position

		FY 2021 <u>Actual</u>	FY 2022 <u>Estimated</u>	FY 2023 <u>Proposed</u>
Beginning Net Position	\$	200,275,110	211,960,707	218,960,707
Change in Net Position		11,685,597	7,000,000	7,000,000
Ending Net Position	\$	211,960,707	218,960,707	225,960,707
Net investment in capital assets	\$	165,640,741	174,600,000	186,860,707
Restricted for debt service		272,895	260,000	260,000
Unrestricted		46,047,071	44,100,707	38,840,000
Ending Net Position	\$	211,960,707	218,960,707	225,960,707

Note: The schedule above reflects audited FY 2021 changes in net position and estimates changes for FY 2022 and FY 2023. Net position is dependent upon a variety of factors and is contingent upon contributed capital or capital assets from developers and customers. These contributions can be significant, and estimates related to the timing of the formal dedication of these assets can vary. Please see "Changes in Net Position" in the Budget Appendix for a schedule of historical audited data.

Long-range Financial Plans

The ACSA uses the following guiding principles in its evaluation of current and future financial sustainability:

- Water and sewer rates and charges shall be kept as low as possible over time. It is possible to keep rates low for a period of time by not investing sufficiently in the maintenance of the water and sewer systems, but eventually the systems will deteriorate and require substantial investments leading to the need for significant and immediate rate increases, poor service to our customers and lowered water quality. The assumption that the Authority will continually reinvest in the water and sewer systems to replace assets as they reach the end of their useful lives is built into our analysis to allow for timely and predictable rate increases.
- "Growth pays for growth" – that is, costs related to the expansion of system capacity (i.e., growth related) should be funded via new/future customers who cause the need for such additional capacity. However, if anticipated growth does not occur as expected, existing customers would have to make up the difference via higher user rates.
- The ACSA should maintain reserves to provide for contingencies and unplanned expenses and to ensure that funds are generated to allow for appropriate future system replacement.

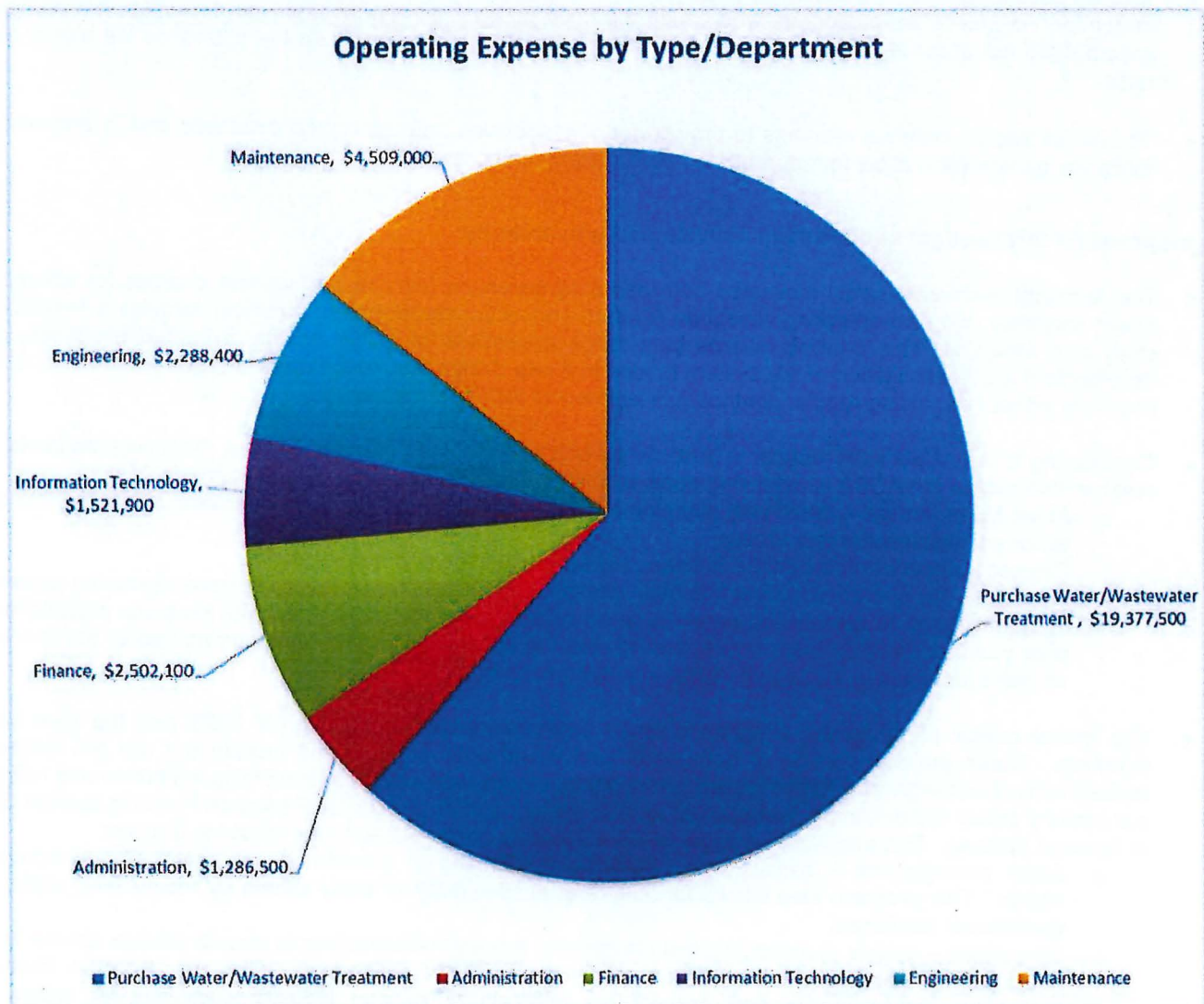
The proposed FY 2023 budget supports the above noted principles by:

- The Authority comprehensively evaluated both operating revenues (service and volume charges for water and sewer services) and non-operating revenues (system connection/development charges) through a formal rate study and analysis. This analysis utilizes long range projections of ACSA assets, expected expenses, and development and rehabilitation of the system to aide in a rate design that keeps rates/charges as low as possible over time without sacrificing regular planned reinvestment in ACSA infrastructure.
- Contributing to the ACSA's 3R reserve in accordance with our adopted Financial Policies. This contribution to the reserve also assists the ACSA in achieving goals related to three themes in the ACSA's Strategic Plan:
 - Asset Management – assist with planning for long-term sustainability of utility assets used in maintaining water and wastewater resources.
 - Finance – ensure that the ACSA is financially self-sustaining and fiscally strong.
 - Finance – The operating budget has been designed so that operating revenues cover operating expenses and contributes to established reserves when revenues exceed expenses. The reserves established in prior years and current year non-operating revenue financially support nonrecurring capital expenditures as those identified in the formal capital improvement program.
- The formal capital improvement program outlines estimated project costs for FY 2023 and the nine years following. These projects consist of both water and wastewater projects and include but are not limited to replacement of existing water mains, creating redundancy in the water system, identifying infiltration and inflow in our sanitary sewer system, implementation of an AMI system and an Enterprise Resource Planning system (ERP or financial system). This program helps the ACSA achieve its goals related to the following themes:
 - Asset management – assists with collaborative planning to provide future community infrastructure needs. This program also allows for long-term sustainability of utility assets by maintaining water and wastewater resources.
 - Operations – assists in managing and maintaining existing infrastructure to ensure reliable service to our customers by assessing, on an annual basis, current and future needs. This program also improves emergency preparedness and ensures we maintain or exceed industry standards for water and wastewater quality and operations. The program assists in the elimination of asbestos-cement pipe, continued sewer system rehabilitation, program to replace exclusion meters, and water pipe "saddle" connection replacement.

ACSA Operating Budget

The ACSA Operating Budget as proposed for next year is \$31,485,400 or a 11.4% increase. The largest single cost of the Operating Budget is purchased water and wastewater treatment from the RWSA at \$19,377,500 or 62% of the Operating Budget.

The following pages will outline in more detail the Operating Budget proposals for FY 2023. Beyond the RWSA expenses, are the projected expenses for each of the ACSA Operating Departments including Administration at \$1,286,500, Finance at \$2,502,100, Engineering at \$2,288,400, Maintenance at \$4,509,000, and Information Technology at \$1,521,900. Included with each Operating Budget is an explanation of the departmental functions and key initiatives for FY 2023:





Rivanna Water and Sewer Authority Expenses

Purchased Water and Wastewater Treatment Costs from the Rivanna Water and Sewer Authority (RWSA)

The ACSA purchases wholesale water and wastewater treatment from the RWSA. The RWSA oversees the regional water supply at area reservoirs, operates the water treatment plants, and provides water to the ACSA through large water transmission lines. The ACSA is responsible for the retail water distribution system that serves our more than 21,400 accounts.

The RWSA operates the regional wastewater treatment plants and charges the ACSA at a wholesale rate. The ACSA operates the sewer collection system for our retail sewer customers. Approximately 86% of our customers have both water and sewer service, while approximately 14% of our customers have water service only. While the RWSA charges the ACSA a "wholesale" rate for each service area, the ACSA operates with a single system-wide retail rate for our customers.

The chart below shows the RWSA charges for water and wastewater treatment, with increases in purchased water/wastewater treatment costs for next year due, in part, to an increase in RWSA operating expenses and costs associated with long deferred maintenance projects and continued enhancement in the system.

				<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Proposed</u>	<u>FY 2023 as % of FY 2022</u>
RWSA EXPENSES							
Purchase of Bulk Water				10,520,400	12,450,600	13,774,000	110.6%
Sewer Treatment Expense				8,647,700	9,685,800	10,776,000	111.3%
Subtotal:				\$ 19,168,100	\$22,136,400	\$24,550,000	110.9%
RWSA EXPENSES BY SERVICE AREA							
WATER	Rates FY 2021	Rates FY 2022	Rates FY 2023				
Urban	\$2.095/TG and \$321,303/mo.	\$2.346/TG and \$388,956/mo.	\$2.648/TG and \$420,325/mo.	\$ 7,447,579	8,890,320	9,700,072	109.1%
Crozet	\$195,010/mo.	\$242,224/mo.	\$279,641/mo.	2,340,120	2,906,688	3,355,692	115.5%
Scottsville	\$54,130/mo.	\$54,466/mo.	\$59,853/mo.	649,560	653,592	718,236	109.9%
Red Hill	\$83,141/annual	-	-	83,141	-	-	-
Total				\$ 10,520,400	12,450,600	13,774,000	110.6%
WASTEWATER							
Urban	\$2.369/TG and \$278,174/mo.	\$2.517/TG and \$301,820/mo.	\$2.662/TG and \$355,205/mo.	\$ 7,932,176	8,907,611	9,908,436	111.2%
Scottsville	\$26,536/mo.	\$28,013/mo.	\$30,419/mo.	318,432	336,156	365,028	108.6%
Stone-Robinson School	\$22,788/annual	\$30,589/annual	\$39,036/annual	22,788	30,589	39,036	127.6%
Glenmore	\$31,192/mo.	\$34,287/mo.	\$38,625/mo.	374,304	411,444	463,500	112.7%
Total				\$ 8,647,700	9,685,400	10,776,000	111.3%



Proposed FY 2023 Operating Budget - Detail

The Operating Budgets for the ACSA are divided into the five sections: Administration (which includes Human Resources), Finance, Engineering, Maintenance, and Information Technology. Purchased water and wastewater treatment is budgeted within the "Operating Budget." These expenses are recurring costs to provide water and sewer services to our customers.

The ACSA operates with a set of budget categories: Personal Services, Operating Supplies, Repair and Maintenance Supplies, Professional and Contractual Services, Repairs and Maintenance, Other Services and Charges, and Capital Outlay. Within each of these departmental budgets, detailed line items for the proposed expenditures for FY 2023 are presented.

Personal Services

- Includes salary, benefits, payroll taxes, and other related expenses
- Salaries – a 3% performance pay salary pool is proposed to recognize individual performance. These are performance-based pay increases, with individual performance evaluations for every employee. Additionally, a market rate adjustment of 10% is proposed based on findings from a formal compensation study to stay competitive within the marketplace.
- Retirement – the employer contribution to the Virginia Retirement System is a percentage of payroll based on an actuarial study; the rate for Fiscal Year 2023 has increased to 7.50% compared to 7.0% for Fiscal Years 2021/2022.
- Health Care and Benefit Dollars – the ACSA, through a contract with Albemarle County, provides a Health Care Program for our employees. The ACSA contributes on behalf of all employees. These contributions vary by employee plan type. Also included in this item are the actuarially determined costs for Other Post-Employment Benefits (OPEB).
- Worker's Compensation is a rated policy, with the cost allocated to each department for position types
- Projected overtime and standby (emergency) duty pay is budgeted here
- One new position recommended – Information Technology Project Manager

Operating Supplies

- General supplies for both field and office operations
- Gasoline, oil, and grease are the largest items in this category, and are allocated by vehicle to each departmental budget. Fuel is purchased through a long-term competitive contract.
- Safety equipment and personal protection equipment (PPE)
- Heating fuel for buildings

Repair and Maintenance Supplies

- This category consists of expenses related to field operations for material purchases such as piping, valves, hydrants, pump stations repair supplies, small tools, vault upgrades, various maintenance repair supplies, tires, batteries, CCTV, sewer odor control, hydrant replacement program, etc. This proposed budget has a replacement initiative for obsolete computers/other handheld computing devices.

Professional and Contractual Services

- Uniforms through a rental contract for field employees
- Postage – a large item, mostly utility billing related
- Building cleaning contract, and landscaping services contracts
- Legal and audit expenses
- Communication charges – landline telephone, cell phone, radio
- Strategic Plan Emergency Preparedness items – federally required Vulnerability Assessment, and development of an Emergency Response Plan
- Pump stations – grease removal by contract
- Easement clearing

Repairs and Maintenance

- Equipment and vehicle repairs of a wide variety for approximately 150 pieces of rolling stock and equipment

Other Services and Charges

- Dues and memberships in professional organizations
- Education and professional development travel
- Major expense for electricity, particularly at pump stations
- Advertising and Water Conservation Program
- Permit from State Office of Drinking Water
- Software, software maintenance, publication resources
- General liability insurance

Capital Outlays

- Office equipment and furniture
- Major machinery and equipment funded through the Repair, Replacement, and Rehabilitation Fund (3R) as well as machinery and equipment not funded through the 3R Fund (equipment new to the ACSA). These items can be noted on the "Planned Equipment Purchase Summary."



Administration Department Operating Budget FY 2023

Administration

The Administration Department operates with several major functions: organizational management under the Executive Director, administrative functions, human resource functions and Clerk for the Board of Directors.

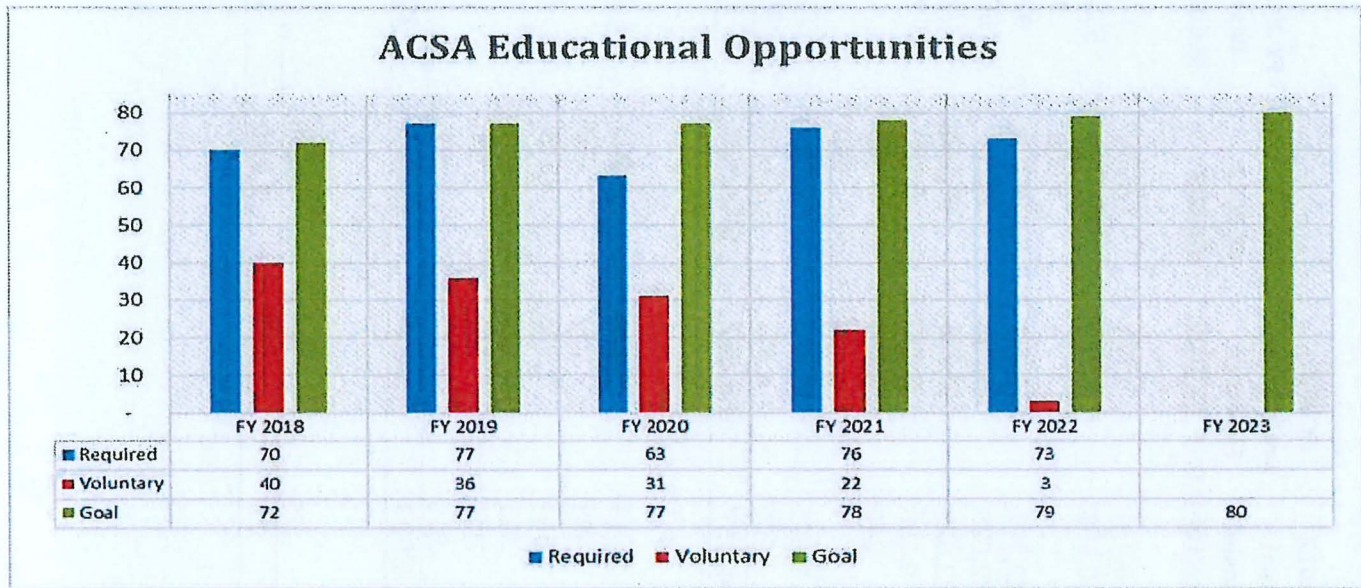
Administration/Human Resources: Provides organizational administrative support; oversees the Risk Management Program (claims, liability insurance, worker's compensation, etc.); serves as Clerk to the Board of Directors (monthly meetings, board correspondence, minutes, dissemination of board packets); provides organizational documents and database management services; leads the Water Conservation Program and initiatives (events, advertising, community relations, and partnership with the City of Charlottesville and the RWSA); administers and maintains benefit administration and employee record management; creates and distributes ACSA semi-annual customer newsletter; ensures employee/employer legal compliances (FMLA, ADA, OSHA); oversees recruitment, succession planning, new hire orientation, retirement planning, employee relations, trainings, and other human resource services. Additionally, the team provides administrative support to the Executive Director of the ACSA.

Key initiatives and changes for FY 2023:

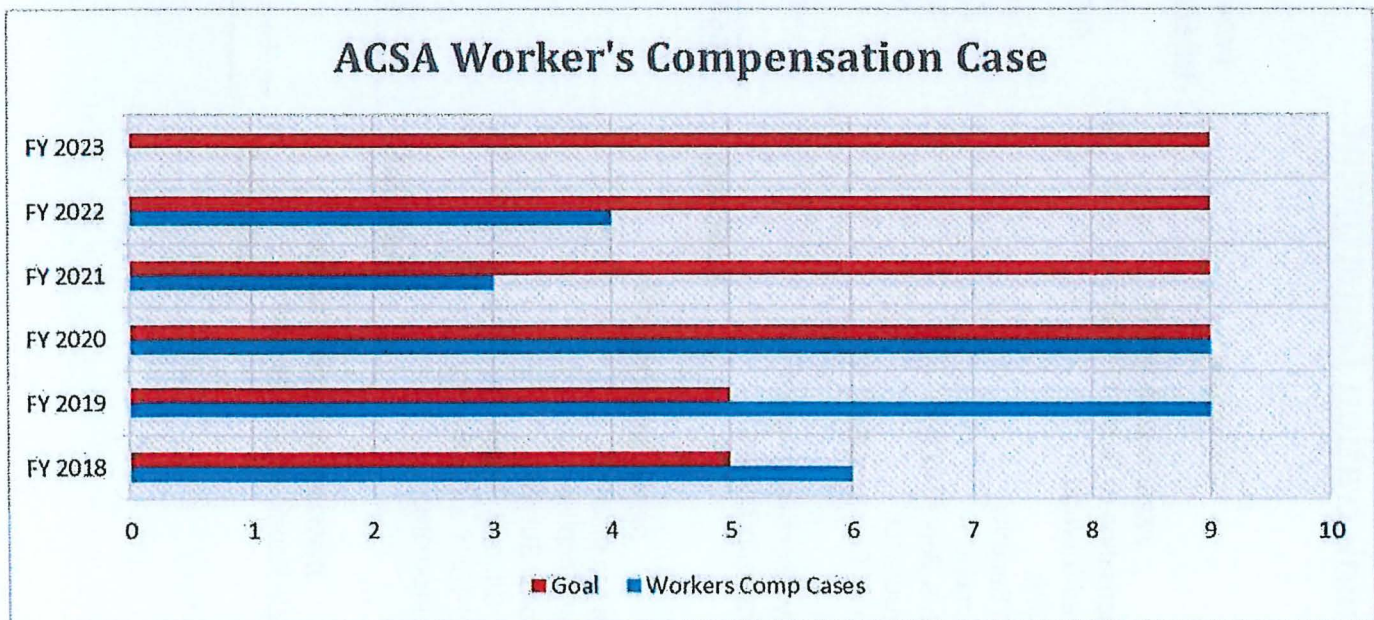
- Perform a strategic best practices review (best in class methodology to comparable utilities) which will be considered in the next strategic plan as well as current managerial improvements. Key areas to be addressed in the study include:
 - Performance and efficiency improvements
 - Succession
 - Data integration for strategic use of data for managerial decision making
 - Customer focused initiatives with benchmarking (metrics) for improved customer experiences
- Provide assistance to the Board and staff in development of a new 3-year Strategic Plan 2023-2025
- Expand customer communications through a variety of media, customer education and outreach:
 - Including a customer education program on the value and quality of water, especially considering future increased cost for major regional water projects, performed in coordination with our regional water partners (RWSA and the City of Charlottesville).
- Continue to actively promote water conservation
- Continue to provide training and professional development opportunities for ACSA Employees as part of the Authority's Succession Plan
- Continue to develop a comprehensive Human Resources and Employee Services module within the new ERP
- Continue to provide safety training and initiatives for ACSA Employees
- Support the Board of Directors in policy making
- Perform a customer and employee survey in the fall

Performance Metrics:

Staff Education and Retention – The ACSA strongly believes in retaining our qualified staff members. As such, we offer many training opportunities for employees to participate in each year. The training opportunities can be required for specific job types, such as safety training for maintenance workers or voluntary training events for all employees. The ACSA's goal is for all employees to attend training sessions offered.



Worker's Compensation Cases – The ACSA provides safety training classes each year to reduce workplace accidents. Our goal is to maintain no more than 9 worker's compensation cases each fiscal year through training management.



Administration Department

Description	FY 2022		FY 2022	FY 2022 Budget	FY 2023	FY 2023	FY 2023
	FY 2021	Actual	Anticipated		Base	Total	as % of
	Expended	Expenses To-Date(Feb)	Expenses To-EOFY 2022		Budget	Proposed	FY 2022
PERSONAL SERVICES							
Compensation of Board Members	\$ 12,646	6,474	9,711	17,000	17,000	17,000	100.0%
Salaries & Wages	465,902	330,658	495,987	473,300	535,500	535,500	113.1%
Overtime	-	-	-	3,000	3,000	3,000	100.0%
Social Security	33,632	22,247	33,371	34,300	42,400	42,400	123.6%
Retirement	87,372	32,025	48,038	32,200	55,200	55,200	171.4%
Health & Benefit Dollars	48,605	32,823	49,235	69,100	72,100	72,100	104.3%
Life Insurance	5,798	4,168	6,252	6,200	7,100	7,100	114.5%
Workers' Compensation	325	246	369	500	500	500	100.0%
Meals	-	-	-	600	600	600	100.0%
Safety Incentive Program	4,373	9,915	14,873	2,000	2,000	2,000	100.0%
Employee Incentives	9,863	5,901	8,851	35,600	35,600	35,600	100.0%
Subtotal:	668,516	444,457	666,687	673,800	771,000	771,000	114.4%
OPERATING SUPPLIES							
Office Supplies	3,695	2,119	3,179	5,900	5,900	5,900	100.0%
Copier Supplies	763	488	732	1,800	1,800	1,800	100.0%
Janitorial Supplies	2,338	1,564	2,346	4,200	4,200	4,200	100.0%
Fuel, Oil, and Grease	264	113	170	1,000	1,900	1,900	190.0%
Small Tools & Equipment	1,371	421	632	4,300	4,300	4,300	100.0%
EMS Program	1,023	818	1,227	2,500	2,500	2,500	100.0%
Subtotal:	9,454	5,523	8,286	19,700	20,600	20,600	104.6%
REPAIRS AND MAINTENANCE							
Vehicle Repair and Maintenance	20	76	114	2,100	2,100	2,100	100.0%
Subtotal:	20	76	114	2,100	2,100	2,100	100.0%

PROFESSIONAL & CONTRACTUAL SERVICES

Legal	58,985	31,475	47,213	46,900	54,000	54,000	115.1%
Consultants' Fees	69,777	66,576	99,864	180,400	60,400	60,400	33.5%
Printing and Duplicating	6,538	1,680	2,520	23,700	29,000	29,000	122.4%
Other Contractual Services	16,891	4,637	6,956	9,800	45,800	45,800	467.3%
Subtotal:	152,191	104,368	156,553	260,800	189,200	189,200	72.5%

OTHER SERVICES AND CHARGES

Insurance	52,484	45,575	68,363	58,000	64,000	64,000	110.3%
Dues and Memberships	9,990	14,492	21,738	12,000	12,000	12,000	100.0%
Books and Periodicals	38	25	38	1,500	1,500	1,500	100.0%
Education and Training	3,840	4,767	7,151	52,400	53,000	53,000	101.1%
Board Member Education and Training	-	119	179	5,000	5,000	5,000	100.0%
Travel	-	-	-	10,000	10,000	10,000	100.0%
Advertising	8,694	6,587	9,881	33,100	33,100	33,100	100.0%
Conservation	23,973	12,006	18,009	65,000	65,000	65,000	100.0%
Permits	61,092	47,709	71,564	60,000	60,000	60,000	100.0%
Subtotal:	160,111	131,280	196,923	297,000	303,600	303,600	102.2%

TOTAL ADMINISTRATION \$	990,292	685,704	1,028,563	1,253,400	1,286,500	1,286,500	102.6%
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Planned Equipment Replacement

Planned Equip. Replacement	\$	3,152	-	-	-	-	-
Total	\$	3,152	-	-	-	-	-

Finance

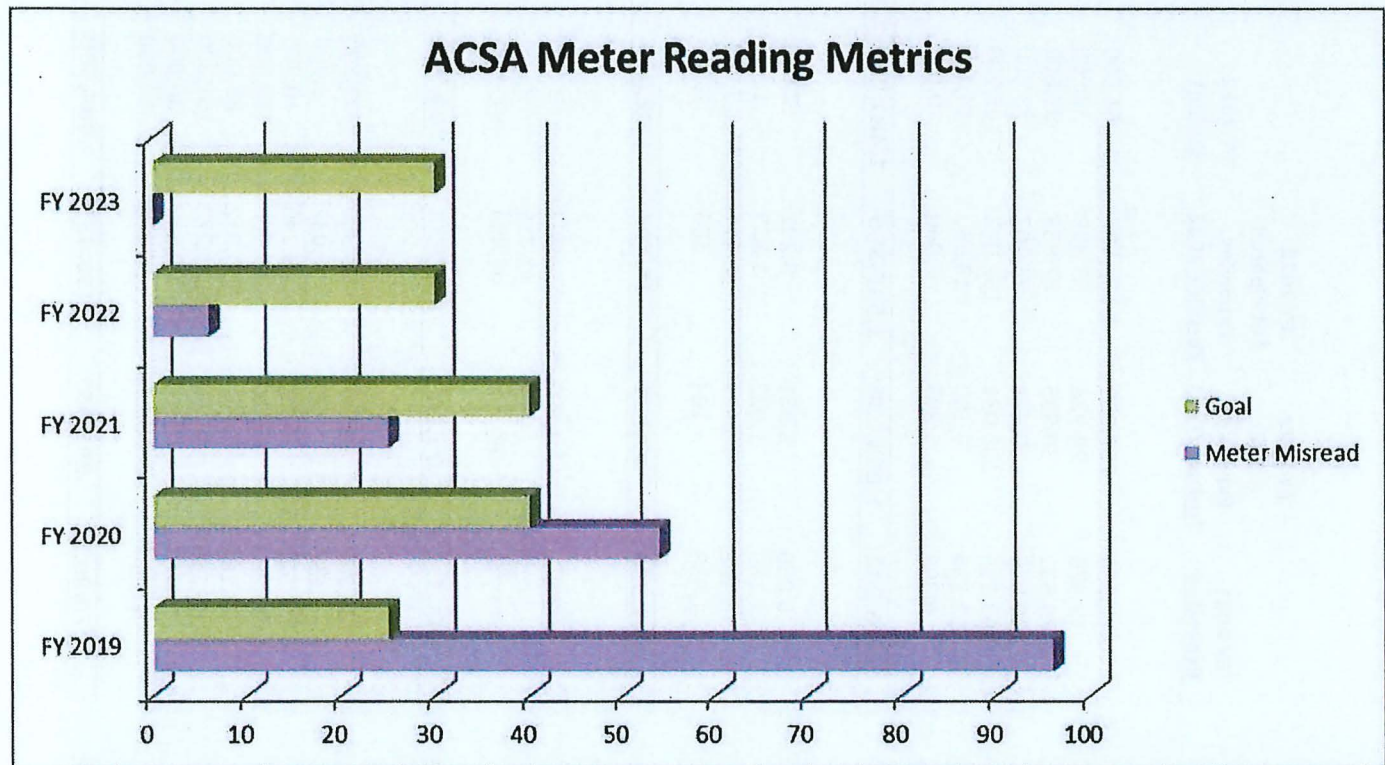
The ACSA Finance Department is responsible for all financial matters at the ACSA including accounting, financial reporting, utility billing and collection, customer service, meter reading, purchasing, budget preparation and control, auditing, debt financing, investment management, and revenue and expenditure forecasting which includes rate modeling. The development of the Annual Financial Report, interim financial statements, consumption reports, and preparation of the annual budget are coordinated by Finance.

Key initiatives and changes for FY 2023:

- Design and implementation of the current and future Budget and Rates
- Annual Comprehensive Financial Report preparation
- Focused training for staff, including AMI, CMMS, and Electronic Bill Payment and Presentment (EBPP)
- Training directed toward succession planning
- Administration and deployment of the Advanced Metering Infrastructure (AMI) system deployment and review/re-design of business processes
- Continuation of strategic investment management
- Comprehensive review and analysis of current billing system in preparation of formal procurement for replacement
- Oversight and administration of programs related to assisting customers in arrears

Performance Metrics:

Meter Reading Metrics – Annually, the ACSA reads over 256,000 meters per year. These readings contain consumption information for our customers which is then transferred to the customer service department for analysis and billing. The ACSA monitors circumstances related to misreading and has had an annual goal of less than 25-40 misreads for the Meter Operations group for the year. The slight increase noted in FY 2019 was due in large part to training of new staff during the fiscal year. Also, it is important to note that essentially all the misreads noted were identified and resolved through regular review prior to customer billing. The illustration below illustrates statistics related to this performance metric:



Finance Department

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Description	FY 2021 Expended	FY 2022 Actual Expenses To-Date(Feb)	FY 2022 Anticipated Expenses To-EOFY 2022	FY 2022 Budget	FY 2023 Base Budget	FY 2023 Total Proposed	FY 2023 as % of FY 2022
PERSONAL SERVICES							
Salaries & Wages	\$ 977,914	757,058	1,135,587	1,061,000	1,195,600	1,195,600	112.7%
Overtime Pay	13,320	24,928	37,392	32,000	30,000	30,000	93.8%
Social Security	73,531	58,555	87,833	83,600	93,800	93,800	112.2%
Retirement	130,076	50,071	75,107	73,800	93,600	93,600	126.8%
Health & Benefit Dollars	163,316	108,031	162,047	205,700	196,800	196,800	95.7%
Life Insurance	12,336	9,100	13,650	14,100	16,000	16,000	113.5%
Workers' Compensation	6,309	5,293	7,940	10,800	9,400	9,400	87.0%
Subtotal:	1,376,802	1,013,036	1,519,556	1,481,000	1,635,200	1,635,200	110.4%
OPERATING SUPPLIES							
Office Supplies	8,050	5,531	8,297	12,600	14,900	14,900	118.3%
Personal Protective Equipment	1,159	1,022	1,533	1,500	1,500	1,500	100.0%
Fuel, Oil & Grease	10,488	10,874	16,311	15,600	30,000	30,000	192.3%
Small Tools & Equipment	1,833	104	156	2,300	2,200	2,200	95.7%
Subtotal:	21,530	17,531	26,297	32,000	48,600	48,600	151.9%
REPAIR & MAINTENANCE							
Vehicle Supplies	3,315	1,842	2,763	3,000	3,500	3,500	116.7%
Hydrant Meter Program	259	8,490	12,735	2,500	3,000	3,000	120.0%
Materials - Water	139,740	60,956	91,434	199,000	172,300	172,300	86.6%
Subtotal:	143,314	71,288	106,932	204,500	178,800	178,800	87.4%
PROFESSIONAL & CONTRACTUAL SERVICES							
Audit	32,300	33,300	33,300	33,300	34,300	34,300	103.0%
Fiscal Agent	1,650	688	1,032	1,700	-	-	0.0%
Uniform Rental	7,523	6,197	9,296	10,700	10,900	10,900	101.9%
Consultants' Fees	37,363	57,312	85,968	118,500	118,500	118,500	100.0%
Service Contracts	47,101	89,941	134,912	85,000	184,000	184,000	216.5%
Postage	85,185	80,848	121,272	151,300	167,800	167,800	110.9%
Printing and Duplicating	17,264	13,675	20,513	30,000	30,400	30,400	101.3%
Other Contractual Services	41,907	16,096	24,144	54,000	28,700	28,700	53.1%
Subtotal:	270,293	298,057	430,437	484,500	574,600	574,600	118.6%

REPAIRS AND MAINTENANCE

Equipment Repair and Maintenance	5,106	1,311	1,967	8,300	9,100	9,100	109.6%
Vehicle Repair and Maintenance	1,751	2,941	4,412	3,000	3,500	3,500	116.7%

Subtotal:	6,857	4,252	6,379	11,300	12,600	12,600	111.5%
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OTHER SERVICES AND CHARGES

Rental of Equipment	1,621	1,029	1,544	1,700	14,400	14,400	847.1%
Software	83	156	234	500	500	500	100.0%
Dues and Memberships	631	580	870	900	1,300	1,300	144.4%
Books and Periodicals	309	526	789	300	700	700	233.3%
Education and Training	(213)	-	-	8,600	14,400	14,400	167.4%
Travel	-	18	27	13,000	21,000	21,000	161.5%

Subtotal:	2,431	2,309	3,464	25,000	52,300	52,300	209.2%
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TOTAL FINANCE	\$ 1,821,227	1,406,473	2,093,065	2,238,300	2,502,100	2,502,100	111.8%
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NEW EQUIPMENT ACQUISITION

New Equipment Acquisition	\$ 2,640	-	-	2,000	18,000	18,000	900.0%
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Total	\$ 2,640	-	-	2,000	18,000	18,000	900.0%
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PLANNED EQUIPMENT REPLACEMENT

Planned Equipment Replacement	\$ -	-	-	33,000	-	-	0.0%
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Total	\$ -	-	-	33,000	-	-	0.0%
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Engineering

The Engineering Department is responsible for planning, managing, and protecting our existing water and wastewater utility system, as well as the expansion of this system. We use tools such as our Geographic Information System (GIS), computer hydraulic models, and a variety of flow/pressure recording instruments to verify system capacity, and plan for necessary capital improvements. Our staff plans and manages projects in our Capital Improvement Program (CIP), plus provides oversight of private development that expands our water and wastewater networks. We utilize on-site construction inspection to ensure the quality of facilities installed for both CIP and private development projects. Engineering staff are responsible for locating our existing buried assets (such as water and sewer lines, valves, etc.) and the review of building permits, sign permits and demolition permits, to ensure our water and wastewater facilities are protected and their integrity is maintained. We operate an aggressive Backflow and Cross-Connection Prevention Program that protects the quality of water delivered to the customer. We also manage a proactive Fats, Oils and Grease (FOG) Reduction Program to minimize the buildup of these substances in the wastewater collection system that can reduce the capacity in our pipes and result in blockages, causing sanitary sewer overflows (SSO's). The Engineering Department is also tasked with monitoring changes to Federal, State and Local regulations pertaining to water quality, to comply with all the necessary requirements to ensure the high quality of the water we deliver and the service we provide.

Key initiatives for FY 2023:

Capital Improvement Budget:

- Replacement of aging, deteriorating and under-sized water mains
- Elimination of asbestos-cement, cast iron and older PVC water mains
- Continue implementation of an Advanced Metering Infrastructure System
- Rehabilitation and replacement of deteriorating sewer facilities
- Improve resiliency and reliability at several pump stations
- Complete the design and begin construction of a satellite maintenance yard on Avon St. Extended
- Implementation of recommendations from Vulnerability Assessment, increasing security of critical assets
- Begin implementing Energy Conservation Measures (ECM's) identified in the energy audit of all our facilities
- Extend public sanitary sewer service to an existing neighborhood currently served by private septic systems
- Increase wastewater capacity to accommodate continued growth in the development area
- Implement CityWorks Operational Insights to help build risk model strategies for asset management
- Conduct an analysis of existing billing system and provide transition support to a replacement product, including integration with new deployed systems and infrastructure
- Replacement and upgrade of the ACSA security system at multiple facilities
- Conduct assessment of the existing ACSA GIS and determine if a transition to the ESRI Utility Network in the ArcGIS Enterprise environment is appropriate

Capital Improvement Budget (continued):

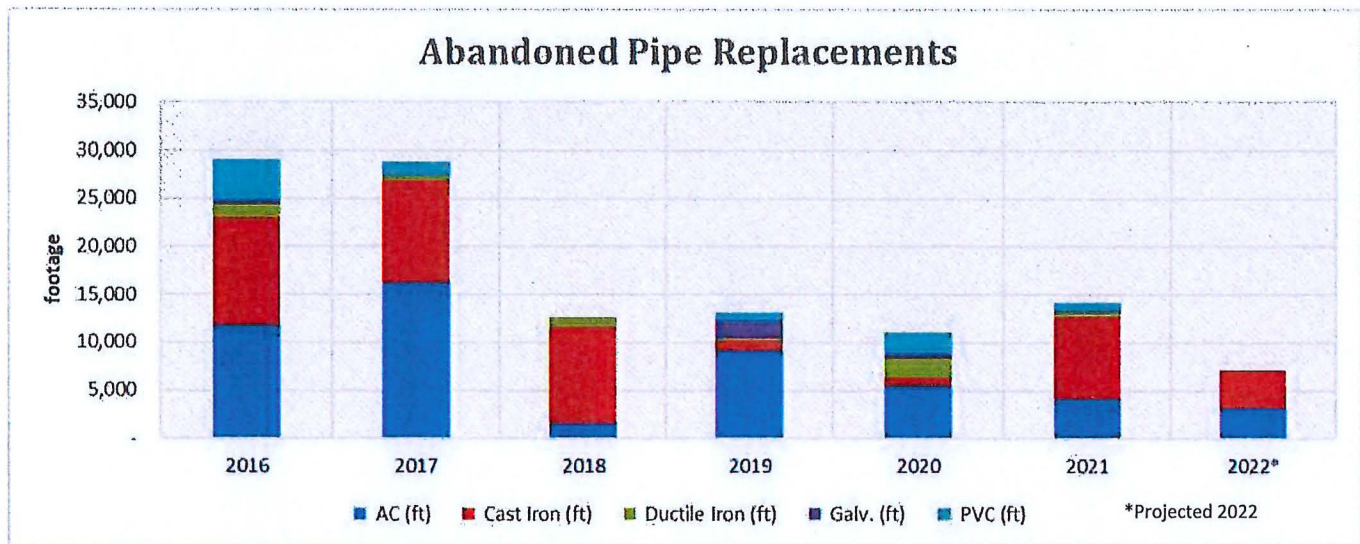
- Conduct data gathering and needs analysis in preparation of dashboarding development for data management

Operating Budget:

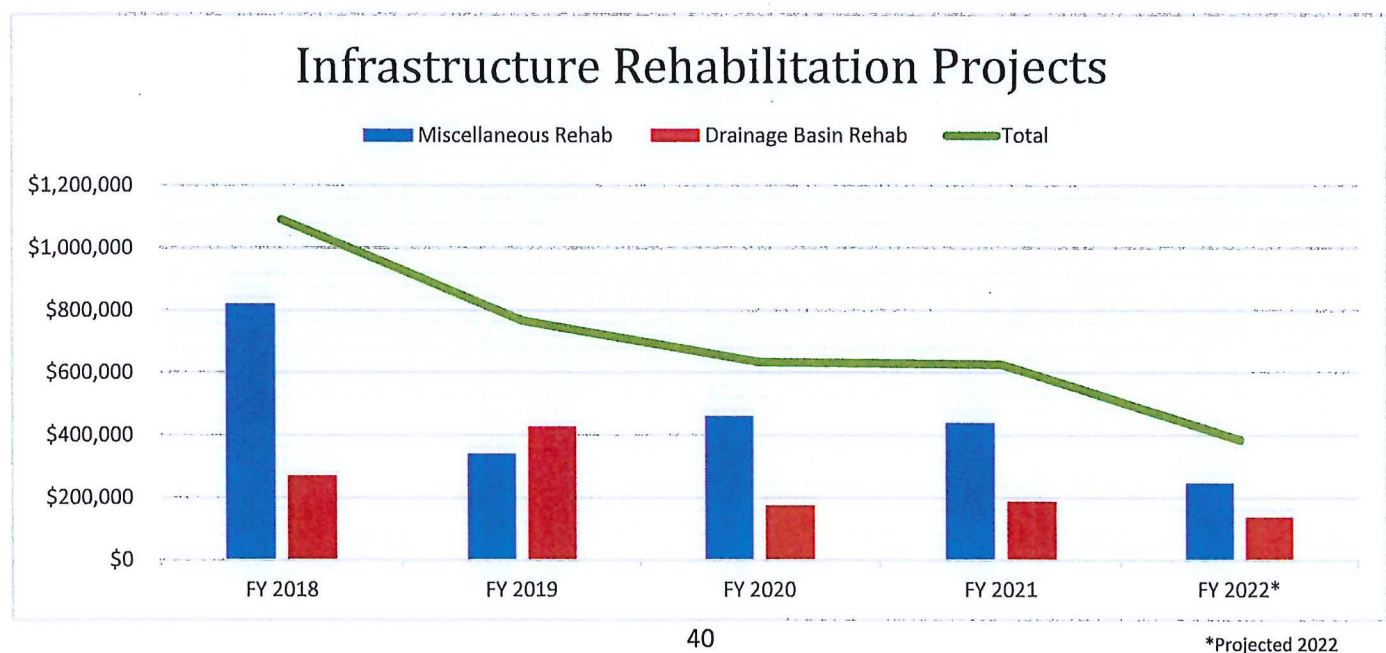
- Scheduled replacement and repair of aging equipment that supports hydraulic modeling, reduction of infiltration (groundwater) and inflow (storm water) into wastewater system, and monitoring of capacity in the wastewater system
- Training directed toward improving workforce skills and succession planning

Performance Metrics:

Pipe Replacement Program – The ACSA has a goal to replace aging, undersized, and inferior pipe within our water distribution system over a period of years to meet updated standards. The illustration below indicates the amount and type of abandoned pipe that has been replaced over recent years. Current amount of pipe requiring replacement is 246,371 linear feet.



Miscellaneous Sewer Rehabilitation – The ACSA has a goal to invest at least \$400,000 on miscellaneous sewer rehabilitation projects each fiscal year. Sometimes instances arise where funds may be redirected but our intention is to focus on rehabilitation of our system infrastructure. The graph below shows how much is used each year on the two categories of rehabilitation in relation to our goal for miscellaneous projects. FY 2022 totals have been projected through June 2022.



Engineering Department

Description	FY 2021 Expended	FY 2022 Actual Expenses To-Date(Feb)	FY 2022 Anticipated Expenses To-EOFY 2022	FY 2022 Budget	FY 2023 Base Budget	FY 2023 Total Proposed	FY 2023 as % of FY 2022
PERSONAL SERVICES							
Salaries & Wages	\$ 1,351,199	944,196	1,416,294	1,457,000	1,624,700	1,624,700	111.5%
Overtime Pay	23,923	12,454	18,681	20,000	20,000	20,000	100.0%
Social Security	103,961	71,786	107,679	112,400	126,000	126,000	112.1%
Retirement	183,375	66,375	99,563	99,400	120,500	120,500	121.2%
Health & Benefit Dollars	147,434	90,663	135,995	198,300	183,100	183,100	92.3%
Life Insurance	17,380	12,197	18,296	19,100	21,000	21,000	109.9%
Workers' Compensation	10,341	8,531	12,797	17,400	12,800	12,800	73.6%
Subtotal:	1,837,613	1,206,202	1,809,305	1,923,600	2,108,100	2,108,100	109.6%
OPERATING SUPPLIES							
Personal Protective Equipment	1,535	759	1,139	4,100	3,800	3,800	92.7%
Office Supplies	-	-	-	2,600	-	-	-
Fuel, Oil & Grease	13,582	13,150	19,725	15,700	32,900	32,900	209.6%
Small Tools & Equipment	9,914	11,205	16,808	26,700	17,800	17,800	66.7%
Subtotal:	25,031	25,114	37,672	49,100	54,500	54,500	111.0%
REPAIR & MAINTENANCE SUPPLIES							
Vehicle Supplies	2,985	2,161	3,242	4,800	4,800	4,800	100.0%
Subtotal:	2,985	2,161	3,242	4,800	4,800	4,800	100.0%
PROFESSIONAL & CONTRACTUAL SERVICES							
Labor-Outside	27,687	-	-	-	-	-	-
Uniform Rental	1,550	1,587	2,381	6,000	6,200	6,200	103.3%
Other Contractual Services	29,032	12,022	18,033	42,600	42,900	42,900	100.7%
Subtotal:	58,269	13,609	20,414	48,600	49,100	49,100	101.0%

REPAIRS AND MAINTENANCE

Equipment Repair and Maintenance	6,635	5,983	8,975	13,300	15,600	15,600	117.3%
Vehicle Repair and Maintenance	3,722	519	779	6,000	6,000	6,000	100.0%

Subtotal:	10,357	6,502	9,754	19,300	21,600	21,600	111.9%
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OTHER SERVICES AND CHARGES

Dues and Memberships	1,570	1,269	1,904	1,900	1,700	1,700	89.5%
Books and Periodicals	(28)	-	-	600	600	600	100.0%
Education and Training	3,186	9,762	14,643	31,500	23,700	23,700	75.2%
Travel	(296)	2,477	3,716	27,900	24,300	24,300	87.1%

Subtotal:	4,432	13,508	20,263	61,900	50,300	50,300	81.3%
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TOTAL ENGINEERING	\$ 1,938,687	1,267,096	1,900,650	2,107,300	2,288,400	2,288,400	108.6%
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NEW EQUIPMENT ACQUISITION

New Equipment Acquisition	\$ -	-	-	2,000	-	-	-
Total	\$ -	-	-	2,000	-	-	-

PLANNED EQUIPMENT REPLACEMENT

Planned Equip. Replacement	\$ 9,629	-	-	29,500	32,100	32,100	108.8%
Total	\$ 9,629	-	-	29,500	32,100	32,100	108.8%

Information Technology

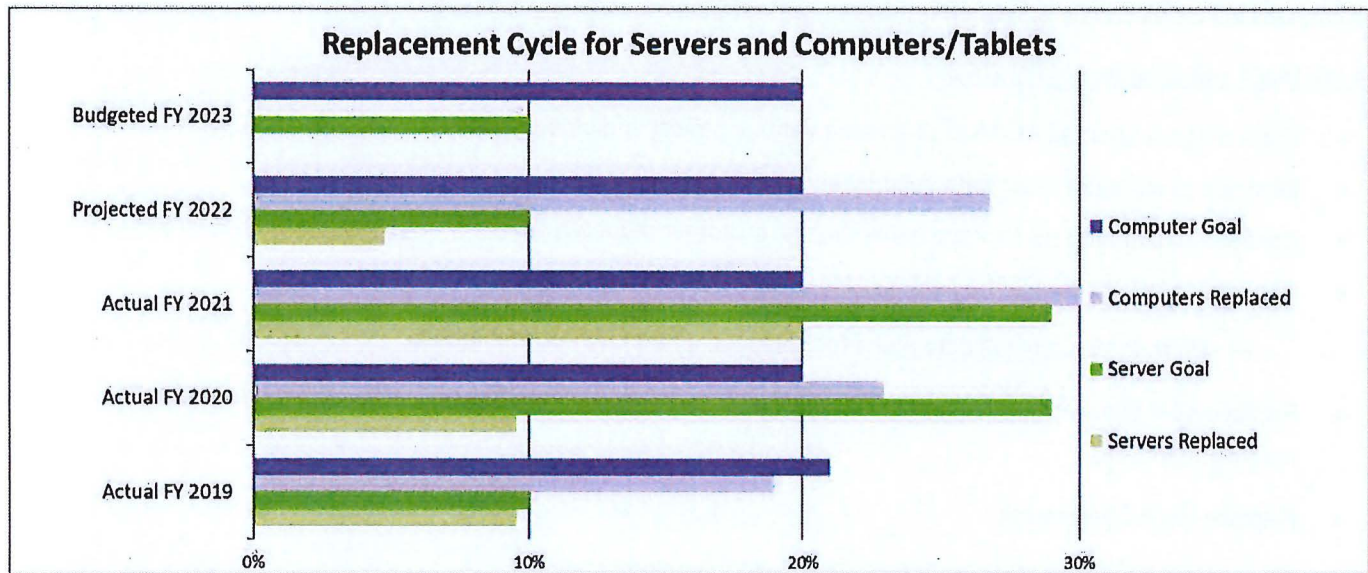
The Information Technology (IT) Department is responsible for planning, managing, and protecting our information technology infrastructure and assets. Our responsibilities encompass the implementation, management, and security of electronic communications for the organization. As operational needs change, existing methods and assets are reviewed, updated, and improved for efficiency. Network and computing environments along with application initiatives are designed and deployed to support specific departmental processes, along with the collaboration of information resources. IT is responsible for all computer related hardware, software, and technology initiatives.

Key initiatives and changes for FY 2023:

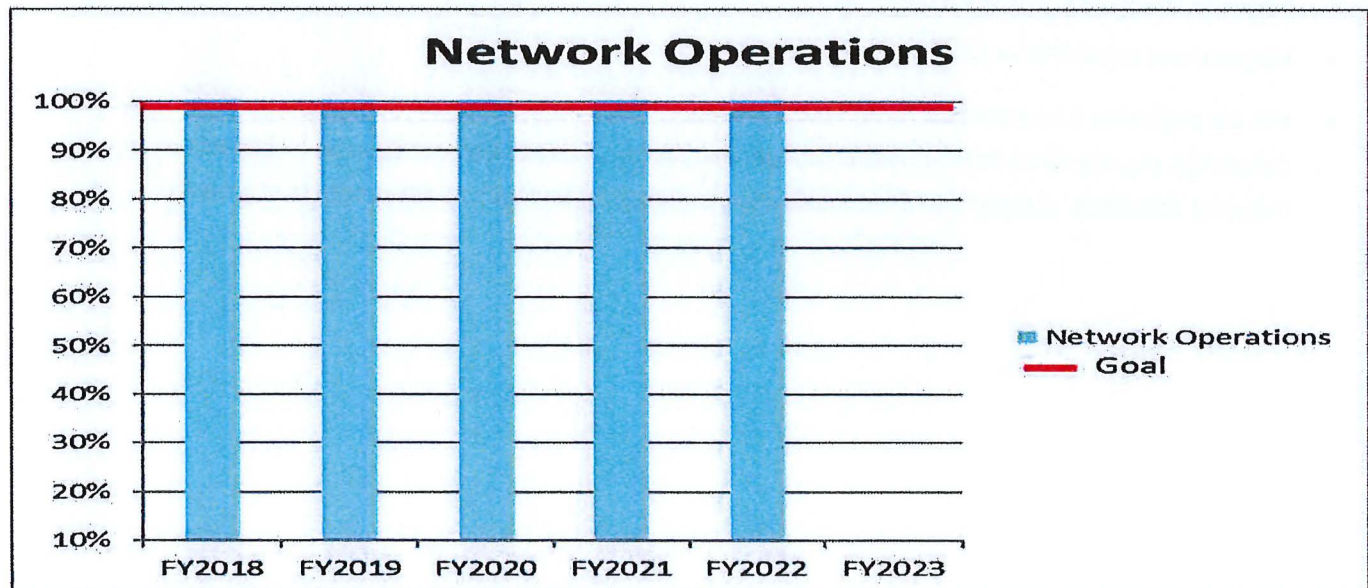
- Continue to support all ACSA staff and the various project implementations
- Continue to strengthen our data security and monitoring
- Continue to support and improve (work orders, customer requests, asset management, and inventory)
- Continue to collect data in the field utilizing cellular network for both GIS and CMMS
 - Utilizing Verizon cell data plans for hotspots, smart phones, and tablets
- Replacement of servers, PCs, and field tablets in accordance with the Strategic Plan and the formalized replacement cycle
- Replace the ACSA firewall
- Support the Advanced Metering Infrastructure (AMI) implementation
 - Utilize Verizon cell data plans for AMI Base Station communications
- Continue to maintain and upgrade our SCADA system
- Upgrade and expand the ACSA's physical security system
- We are proposing a new position for a Project Manager whose responsibilities will include the coordination and completion of projects on-time and within budget and scope. This position will oversee all aspects of projects including deadlines, assignment of responsibilities, and monitor and summarize progress of projects.

Performance Metrics:

Information Technology Hardware/Software Replacement Program – In conjunction with the ACSA's strategic plan, one of the six main themes state that "Implementing modern concepts and approaches to acquire and create resources in data distribution/acquisition, communications, and documentation." The ACSA IT Department has adopted a replacement plan for technological requirements with a goal of replacing between 20%-30% of computers each year and 10%-30% of servers:



Network Operations – The IT Department has an adopted goal of network activity being operational 99% of the workday to ensure operational efficiency and access to internal customers. The chart below illustrates network operations historically and future goals:



Information Technology

Description		FY 2021 Expended	FY 2022 Actual Expenses To-Date(Feb)	FY 2022 Anticipated Expenses To-EOFY 2022	FY 2022 Budget	FY 2023 Base Budget	Supple- mental Request #1	FY 2023 Total Proposed	FY 2023 as % of FY 2022
PERSONAL SERVICES									
Salaries & Wages	\$	371,322	250,104	375,156	458,000	587,200	90,000	677,200	147.9%
Overtime		1,233	430	645	3,000	3,000	-	3,000	100.0%
Social Security		27,363	17,781	26,672	35,300	45,200	6,900	52,100	147.6%
Retirement		48,335	16,179	24,269	31,800	48,500	6,800	55,300	173.9%
Health & Benefit Dollars		62,432	43,215	64,823	82,500	108,500	14,000	122,500	148.5%
Life Insurance		4,567	2,948	4,422	6,100	7,900	1,200	9,100	149.2%
Workers' Compensation		260	244	366	500	600	100	700	140.0%
Subtotal:		515,512	330,901	496,353	617,200	800,900	119,000	919,900	149.0%
OPERATING SUPPLIES									
Office Supplies		8,242	5,486	8,229	7,000	7,000	-	7,000	100.0%
Copier Supplies		-	205	308	400	400	-	400	100.0%
Fuel, Oil & Grease		201	67	101	1,000	1,900	-	1,900	190.0%
Small Tools & Equipment		27,910	11,933	17,900	29,200	38,000	-	38,000	130.1%
Subtotal:		36,353	17,691	26,538	37,600	47,300	-	47,300	125.8%
PROFESSIONAL & CONTRACTUAL SERVICES									
Consulting Services		-	45,012	67,518	-	-	-	-	-
Service Contracts		201,021	193,566	290,349	332,300	315,500	-	315,500	94.9%
Telephone/Communications		91,624	60,018	90,027	104,700	137,400	-	137,400	131.2%
Subtotal:		292,645	298,596	447,894	437,000	452,900	-	452,900	103.6%
REPAIRS AND MAINTENANCE									
Vehicle Repair and Maintenance		-	-	-	1,600	1,600	-	1,600	100.0%
Subtotal:		-	-	-	1,600	1,600	-	1,600	100.0%

OTHER SERVICES AND CHARGES

Software	24,440	21,348	32,022	43,687	71,200	-	71,200	163.0%
Books and Periodicals	169	-	-	300	200	-	200	66.7%
Education and Training	3,085	4,258	6,387	19,500	18,000	2,000	20,000	102.6%
Travel	-	-	-	5,500	7,700	1,100	8,800	160.0%
Subtotal:	27,694	25,606	38,409	68,987	97,100	3,100	100,200	145.2%

TOTAL INFORMATION TECHNOLOGY \$	872,204	672,794	1,009,194	1,162,387	1,399,800	122,100	1,521,900	130.9%
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NEW EQUIPMENT ACQUISITION

New Equipment Acquisition	\$ 4,260	2,595	3,893	-	18,200	7,900	26,100	-
Total	\$ 4,260	2,595	3,893	-	18,200	7,900	26,100	-

PLANNED EQUIPMENT REPLACEMENT

Planned Equipment Replacement	\$ 33,092	38,950	58,425	57,200	92,500	-	92,500	161.7%
Total	\$ 33,092	38,950	58,425	57,200	92,500	-	92,500	161.7%

Maintenance

The Maintenance Department operates its program with two primary goals. The first is upgrading and maintaining our water system so that we can provide safe and clean drinking water with minimal service disruptions at a reasonable cost. The second goal is to systematically evaluate and monitor our sewer system with our two camera vans and to perform routine flushing, rodding, and repairs to prevent potential sanitary sewer overflows. The Maintenance Department oversees a total of 20 pump stations (11 sewer and 9 water) that are critical for the operation of our system that we continuously perform preventative maintenance activities for optimum reliability. Maintenance is the ACSA's largest department, which reflects the priority that is placed on ensuring the ACSA water and sewer system is in optimum condition. Our system continues to grow every year, and the level of maintenance responsibility continues to increase.

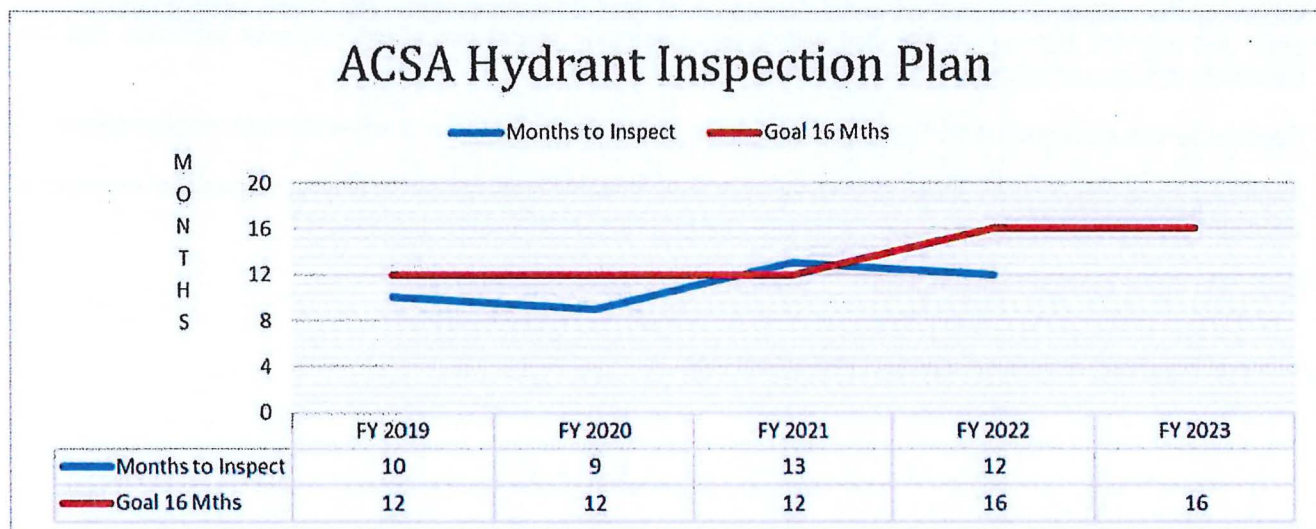
Key initiatives for FY 2023:

- Increased emphasis on training, specifically training related to emergency response, safety, and overall system knowledge for maintenance staff as well as operation of the CCTV equipment. The ACSA system continues to grow and with this training, ACSA staff will better understand critical areas and response protocols that are needed to minimize impacts during emergencies
- Replace service equipment including one crane truck, a mid-size excavator, and sewer camera with transporter
- Refinement and continuation of use CityWorks work order and inventory system to leverage additional managerial oversight
- Exclusion meter replacement program
- Vulnerability (Risk) assessment project implementation

Performance Metrics

The ACSA utilizes a variety of performance metrics to track and review progress related to strategic plan initiatives, system reliability, and performance. The metric below illustrates a key performance metric for the budget year and results from years preceding.

ACSA Hydrant Inspection Plan -- The ACSA has developed a process to better allow compliance with an AWWA standard that notes "all hydrants should be inspected regularly, at least once a year to ensure their satisfactory operation." Efficiencies in the ACSA program has allowed the ACSA to exceed this goal for three of the last five years. The number of hydrants in the system continues to grow as our system expands with 205 hydrants added over the last fiscal year. The AWWA recommends valves larger than 12" be inspected once every twelve months and those less than 12" inspected once every 24 months:



Maintenance Department

Description	FY 2021 Expended	FY 2022 Actual Expenses To-Date(Feb)	FY 2022 Anticipated Expenses To-EOFY 2022	FY 2022 Budget	FY 2023 Base Budget	FY 2023 Total Proposed	FY 2023 as % of FY 2022
PERSONAL SERVICES							
Salaries & Wages	\$ 1,680,457	1,177,302	1,765,953	1,898,000	2,172,400	2,172,400	114.5%
Overtime Pay	56,738	38,237	57,356	60,000	60,000	60,000	100.0%
Standby Pay	36,623	28,150	42,225	5,000	25,000	25,000	500.0%
Social Security	132,568	93,656	140,484	150,200	172,700	172,700	115.0%
Retirement	241,194	88,391	132,587	132,300	183,700	183,700	138.9%
Health & Benefit Dollars	288,242	173,974	260,961	386,200	385,000	385,000	99.7%
Life Insurance	22,240	15,745	23,618	25,300	28,600	28,600	113.0%
Workers' Compensation	36,590	30,060	45,090	61,300	64,600	64,600	105.4%
Meals - Overtime	130	74	111	1,200	1,200	1,200	100.0%
Subtotal:	2,494,782	1,645,589	2,468,385	2,719,500	3,093,200	3,093,200	113.7%
OPERATING SUPPLIES							
Shop Supplies	4,612	6,703	10,055	43,388	31,800	31,800	73.3%
Personal Protective Equipment	9,509	6,959	10,439	20,500	22,500	22,500	109.8%
Fuel, Oil & Grease	48,802	46,528	69,792	52,400	92,600	92,600	176.7%
Heating Fuel	2,574	2,561	3,842	8,900	9,300	9,300	104.5%
Small Tools & Equipment	47,159	24,738	37,107	97,550	114,700	114,700	117.6%
Subtotal:	112,656	87,489	131,235	222,738	270,900	270,900	121.6%
REPAIR & MAINTENANCE SUPPLIES							
Vehicle Supplies	8,290	3,020	4,530	40,000	45,000	45,000	112.5%
Materials - Water	108,899	44,815	67,223	116,700	115,500	115,500	99.0%
Materials - Hydrants	22,070	16,842	25,263	57,102	58,500	58,500	102.4%
Materials - Sewer	15,772	9,270	13,905	22,000	22,000	22,000	100.0%
Building & Grounds Supplies	16,696	13,750	20,625	25,100	21,700	21,700	86.5%
Equipment Supplies	26,510	6,031	9,047	69,800	76,000	76,000	108.9%
Water Pump Station Supplies	34,679	10,143	15,215	32,900	32,800	32,800	99.7%
Sewer Pump Station Supplies	65,237	58,340	87,510	89,300	94,100	94,100	105.4%
Subtotal:	298,153	162,211	243,318	452,902	465,600	465,600	102.8%
PROFESSIONAL & CONTRACTUAL SERVICES							
Labor - Outside Contract	66,182	27,131	40,697	159,600	153,200	153,200	96.0%
Uniform Rental	27,202	19,518	29,277	29,000	28,900	28,900	99.7%
Building & Grounds Services	104,082	65,328	97,992	135,400	163,100	163,100	120.5%
Other Contractual Services	910	1	2	13,000	13,000	13,000	100.0%
Subtotal:	198,376	111,978	167,968	337,000	358,200	358,200	106.3%

REPAIRS AND MAINTENANCE

Equipment Repair and Maintenance	12,443	26,161	39,242	72,300	74,100	74,100	102.5%
Building & Grounds Repair and Maintenance	843	153	230	13,200	20,200	20,200	153.0%
Vehicle Repair and Maintenance	40,239	9,095	13,643	34,400	37,400	37,400	108.7%
Emergency Tracking Account	-	-	-	-	-	-	-
Subtotal:	53,525	35,409	53,115	119,900	131,700	131,700	109.8%

OTHER SERVICES AND CHARGES

Rental of Equipment	6,468	-	-	10,000	10,000	10,000	100.0%
Education and Training	8,661	4,306	6,459	21,900	35,300	35,300	161.2%
Travel	132	3,248	4,872	10,200	15,200	15,200	149.0%
Electricity - Water Pump Station	42,235	21,927	32,891	46,400	47,900	47,900	103.2%
Electricity - Sewer Pump Station	28,675	21,259	31,889	33,900	34,900	34,900	102.9%
Electricity - Shop & Office	33,657	20,178	30,267	37,400	39,300	39,300	105.1%
Permits	1,080	150	225	6,700	6,800	6,800	101.5%
Subtotal:	120,908	71,068	106,603	166,500	189,400	189,400	113.8%

TOTAL MAINTENANCE \$ **3,278,400** **2,113,744** **3,170,624** **4,018,540** **4,509,000** **4,509,000** **112.2%**

NEW EQUIPMENT ACQUISITION

New Equipment Acquisition	\$ -	366	549	85,979	155,500	155,500	180.9%
Total	\$ -	366	549	85,979	155,500	155,500	180.9%

PLANNED EQUIPMENT REPLACEMENT

Planned Equipment Replacement	\$ (108,198)	-	-	92,000	110,000	110,000	119.6%
Total	\$ (108,198)	-	-	92,000	110,000	110,000	119.6%

The Authority does not anticipate the issuance of new debt as it will be using cash or reserves to fund capital projects for FY 2023 but will evaluate opportunities that may arise. The Authority is required to adhere to the rebate and reporting requirements of the federal tax code pertaining to arbitrage. The Authority remains in compliance with federal arbitrage regulations. Below is a summary of the ACSA debt service requirements along with the effect to future budget years.

Debt Type	Balance July 1, 2020	Additions	Reductions	Balance June 30, 2021	Amounts Due Within One Year
Revenue Bond	\$ 6,472,000	\$ -	\$ (506,000)	\$ 5,966,000	\$ 521,000

A single revenue bond for \$10,357,000 was issued as a Build American Bond (BAB) on November 1, 2010. Proceeds from the sale were used to (1) provide new money funding for the North Fork Regional Pump Station project and to (2) pay the cost of issuance. On July 21, 2021, the Authority refunded this bond through an issuance by the Virginia Resources Authority (VRA). The refunding resulted in a net budgetary savings of \$1,242,262 or a net present value percent savings of 9.68%.

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

Fiscal Year Ending June 30,	Principal	Interest	Total Annual Debt Service
2022	\$ 335,000	162,272	497,272
2023	375,000	203,591	578,591
2024	395,000	183,859	578,859
2025	415,000	163,103	578,103
2026	435,000	141,322	576,322
2027-2031	2,540,000	338,507	2,878,507
	\$ 4,495,000	\$ 1,192,654	\$ 5,687,654



Capital Equipment Budget FY 2023

Capital Equipment Purchases

The Authority purchases capital equipment on an ongoing basis as new or unique needs arise or during planned replacement periods. For budgeting purposes, differentiation between equipment that is being replaced and equipment that is being purchased for the first time. Please see summaries of equipment purchased below:

Equipment – Newly acquired - \$199,600

Finance – Finance has identified the need for a large meter field tester. This equipment will allow testing to be performed by staff in the field to verify accuracy of large meters. (Budget Impact: \$18,000).

Information Technology – Information Technology has identified the need for additional IT equipment to be used by multiple departments throughout the Authority. This equipment includes additional iPad (3), Trimble Unit (1), cell phone (1), computer (1), and a desk for the GIS Technician (1) (Budget Impact: \$26,100).

Maintenance – Maintenance has identified the need for one (1) mid-size excavator, one (1) sewer cleaning inspection camera (Nozzcam), and one (1) Cues sewer camera with transporter. (Budget Impact: \$80,000, \$19,000, and \$56,500 respectively).

Equipment- Replacement - \$234,600

Engineering – Scheduled replacement of one (1) fleet vehicle. (Budget Impact: \$32,100).

Information Technology – Replacement of two (2) servers, fifteen (15) computers, twelve (12) iPads, SCADA PLCs, and firewall replacement in FY 2023 in accordance with the ACSA's regularly scheduled change-out policy. (Budget impact: \$10,000; \$34,500; \$24,000, \$14,000, and \$10,000, respectively).

Maintenance – Scheduled replacement of one (1) crane truck (Budget impact: \$110,000).

Capital Equipment Purchases

Description	FY 2023 Proposed Budget
<i>NEW EQUIPMENT ACQUISITION</i>	
Finance	\$ 18,000
Information Technology	26,100
Maintenance	155,500
Total:	\$ <u>199,600</u>

<i>PLANNED EQUIPMENT REPLACEMENT</i>	
Engineering	\$ 32,100
Information Technology	92,500
Maintenance	110,000
Total:	\$ <u>234,600</u>



Capital Improvement Program — FY 2023 Capital Budget

The following is a summary of the estimated project costs to be undertaken in FY 2023:

Water Projects:	\$ 4,861,550
Wastewater Projects:	\$ 3,316,500
Total:	\$ 8,178,050

Overall, approximately 45% of the funds to be expended this fiscal year are anticipated to go towards the Avon Street Maintenance Yard Project. On the water side, approximately 57% of these funds will be used to replace aging and undersized pipelines. On the wastewater side, over 35% of the funds will address upgrades or rehabilitation of the existing collection system to reduce infiltration and inflow (I/I). Of the total \$8,178,050 budgeted, existing projects account for \$7,615,050, while new projects are estimated at \$563,000.

The new projects include several programs identified by the IT and Finance Departments, as well as a water main replacement and an extension of public sewer in an existing neighborhood. The Maintenance Department will continue to construct some of the CIP Projects. A summary of the proposed CIP projects with their anticipated required funding in FY 2023 follows:

Risk Assessment Improvements: 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 such as industrial strength locks, perimeter security lighting, and access control signage have been completed. Design of Priority 1 improvements is nearing completion and construction is anticipated in the upcoming fiscal year with the funds previously budgeted. Priority 2 will follow with funds already budgeted. There will be additional funds required in FY 2024 and FY 2027 to cover design and construction of Priorities 3 and 4. **FY 2023 Budget - \$0 (FY 2019, FY 2020, and FY 2022 Budgets - \$641,950)**

Data Management and Dashboarding (New): This project satisfies one of the recommendations from the IT Security Assessment conducted in June 2021. The first phase includes consulting services to assist staff with data gathering and classification along with a detailed needs analysis of what data staff members need to have access to for their various job responsibilities. Following this data collection phase, our consultant will design and build the appropriate dashboards. These dashboards will display relevant data in a graphical format for staff members while restricting their permissions to the raw data on the server. Additionally, dashboards will provide a way for staff to utilize business intelligence and analytics to further manipulate the data for their job duties. The amount budgeted will cover consulting services during the data gathering and needs analysis phase in FY 2023 with additional funding for dashboard development anticipated in FY 2024. These funds are divided equally between water and wastewater projects. **FY 2023 Budget - \$20,000**

Billing System Analysis and Replacement (New): This project consists of consulting services to assist with a review of current business processes and technology as well as development of a roadmap moving forward. These services will also include Request for Proposals (RFP) development, review of proposals, and contract negotiations. The consultant will assist in the procurement process and subsequently during development to ensure a stable transition for our customers and ACSA staff. The work will also include integrating with other systems, specifically the Advanced Metering Infrastructure and Enterprise Resource Planning Systems. The amount budgeted is for funding to complete the assessment, develop/analyze the RFP, and contract negotiations with additional funds anticipated in FY 2024. These funds are divided equally between water and wastewater projects. **FY 2023 Budget - \$50,000**

ESRI Utility Network Implementation (New): This project consists of consulting services to develop a plan and fully implement the Utility Network in the ACSA's ArcGIS Enterprise environment. The consultant will assess the state of the ACSA's GIS and recommend changes needed for successful implementation of the Utility Network and assist with this conversion. Once these changes are complete, the consultant will migrate the existing GIS database to the Utility Network, train staff on use of the technology, and provide post go-live support. The amount budgeted in FY 2023 will cover consulting services. Additional funding for full deployment is anticipated in FY 2024. These funds are divided equally between water and wastewater projects. **FY 2023 Budget - \$50,000**

CityWorks Operational Insights Implementation (New): This project consists of consulting services to develop a plan and implement Operational Insights within the ACSA's CityWorks environment. The consultant will assess the readiness of asset management at the ACSA and determine what changes are necessary to enable the implementation of the software, as well as assist in those changes. The consultant will provide industry best practices on asset management related to CityWorks. The consultant will implement Operational Insights, train staff on the use of this technology, and provide post go-live support. The amount budgeted will cover consulting services along with full implementation and deployment of the system in FY 2023. These funds are divided equally between water and wastewater projects. **FY 2023 Budget - \$45,000**

Energy Audit: A comprehensive energy audit of the Operations Center and all pump stations was recently completed that evaluated current energy consumption and analyzed utility rate structures to identify potential cost savings. Surveys were conducted on all systems, including operation and maintenance procedures to determine where energy conservation could be improved. The amount budgeted will begin implementation of several recommendations from the audit, including the continued efforts in transitioning to LED lighting and replacement of the existing hot water heater at the Operations Center. Additional funding is anticipated in FY 2024 to begin installation of Vehicle Charging Stations at the Operations Center. These funds are divided equally between water and wastewater projects. **FY 2023 Budget - \$40,000 (FY 2020 Budget - \$300,000)**

Avon Street Maintenance Yard: As part of the Operations Center Expansion Study our consultant reviewed all properties owned by the ACSA that could be utilized as we continue to grow. The Avon Street property has long been held as a future location to build additional facilities in a central location, as needed. The current Maintenance Yard at our Operations Center is becoming overcrowded with equipment and materials, causing us to locate some equipment and larger materials in the former ACSA Maintenance Yard at the Crozet Water Treatment Plant, which we lease from RWSA. 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. The amount budgeted is to cover clearing and grading, stormwater and utilities, and site work of this site in FY 2023. These funds are divided equally between water and wastewater projects. Additional funding will be required for construction of the building and fuel facility, which is anticipated in FY 2024. **FY 2023 Budget - \$3,750,000 (FY 2020, FY 2021, and FY 2022 Budgets - \$640,000)**

ACSA Facilities – Security System Upgrade (New): This project addresses recommendations outlined in the Vulnerability Assessment as well as the Security Assessment and consists of installation, configuration, and programming of a new security system. Our current network video recorders (NVRs) will be upgraded to prevent cybersecurity vulnerabilities and to be compatible with newer infrastructure in preparation of the upcoming Avon Street Maintenance Yard Project. The second phase of this project will allow for the purchase, installation, and configuration of security cameras at our pump stations and water storage tanks. The amount budgeted is for implementation of these upgrades in FY 2023. These funds are divided proportionally between water and wastewater projects. **FY 2023 Budget - \$158,000**

Advanced Metering Infrastructure (AMI) Implementation: This project addresses a goal in our Strategic Plan to convert our existing metering system to an AMI System. We have completed the RFP, evaluation of potential vendors and entered a contract with Core & Main/Sensus. Two collectors (antennas) and associated hardware have been installed along with the first phase of deployment totaling approximately 500 meters. The second phase of deployment began in February 2022 and includes system-wide large meter installations along with all meters in Scottsville and one of the routes in Crozet. Full deployment is anticipated later this calendar year as meters are available. The amount previously budgeted will cover a large portion of full deployment with additional funds anticipated in FY 2024. These funds are divided equally between water and wastewater projects. **FY 2023 - \$0 (FY 2018, FY 2020 and FY 2022 Budgets- \$7,700,000)**

Four-Story Residential Backflow Prevention Device Retrofit: 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's 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) device on the domestic water service line to high rise structures, defined as four (4) or more stories. Data acquisition and design of bid documents is nearly complete and retrofit activities are expected to begin in FY 2023 with funds previously budgeted. **FY 2023 Budget - \$0 (FY 2021 Budget - \$348,000)**

Scottsville Phase 4 Water Main Replacement: This project continues our systematic program to replace undersized and deteriorating asbestos-cement and cast-iron water mains throughout our water systems. The amount budgeted will allow for continued design efforts along with geotechnical investigations and plat preparation in FY 2023. Construction is not anticipated to occur until FY 2025 and beyond with additional funds required. **FY 2023 Budget - \$100,000 (FY 2018 and FY 2020 Budgets - \$404,900)**

Ragged Mountain Phase 1 Water Main Replacement: This project will replace the oldest active water main remaining in our system, which was part of the water main that served customers along Reservoir Road. This cast iron pipe is over 90 years old and is severely tuberculated, which greatly reduces the flow capacity in this section. Design of this project is nearly complete, and construction is anticipated immediately following completion of VDOT's Morey Creek Bridge Replacement Project which is currently out for advertisement. The amount budgeted will allow construction to begin later in FY 2023 and will carry over into FY 2024 with additional funds required. **FY 2023 Budget - \$417,000 (FY 2020 Budget - \$117,400)**

Crozet Phase 4 Water Main Replacement: Our Strategic Plan calls for the eventual replacement of all asbestos-cement, galvanized 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 in Crozet that have been defined to carry out these water distribution system improvements. The design is complete and easement acquisition is currently underway with funds previously appropriated. Construction of this project will be coordinated with VDOT's Lickinghole Creek Bridge Replacement Project along Crozet Avenue. Based on VDOT's current schedule, construction of the water main replacement project is anticipated to begin in late in FY 2023 with additional funding required in future years to complete this project. **FY 2023 Budget - \$1,412,050 (FY 2019 and FY 2020 Budgets - \$535,300)**

Jefferson Village Water Main Replacement: 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 more than 50 years old and have reached the end of their useful life. As a former well system that was later connected to public water, many of the mains are also undersized. Bids were recently opened, and construction is anticipated to begin Spring 2022 with funds previously budgeted. **FY 2023 Budget - \$0 (FY 2018, FY 2020, FY 2021, and FY 2022 Budgets - \$2,451,000)**

Northfields Water Main Replacement: 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 were installed in the 1960's and have reached the end of their useful life. As a former well system that was later connected to public water, most of the mains are also undersized. The project is currently under design with funds previously budgeted. It is anticipated that construction could be separated into phases with construction starting on the first phase beginning in FY 2025. Additional funding will be required based on phasing and construction schedule. **FY 2023 Budget - \$0 (FY 2020 Budget - \$530,000)**

Briarwood Water Main Replacement: 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 is currently underway with funds previously appropriated. Construction is expected to take place in FY 2025 and FY 2026 with additional funding budgeted in those years. **FY 2023 Budget - \$0 (FY 2021 Budget - \$220,000)**

Barracks West Water Main Replacement: 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. The design phase is currently underway with funds previously appropriated. Construction of this project is anticipated in FY 2025 and FY 2026 with additional funding required. **FY 2023 Budget - \$0 (FY 2022 Budget - \$452,500)**

Townwood Water Main Replacement (New): 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 and have recently experienced several breaks causing water service disruptions. The amount budgeted will allow design to begin later in FY 2023 and will carry over into FY 2024 with additional funds required. **FY 2023 Budget - \$170,000**

Broadway Street Water Main Replacement: This project will replace the cast 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. Design is nearing completion with funds previously appropriated. The amount budgeted will make it feasible for construction to take place in FY 2023. **FY 2023 Budget - \$650,000 (FY 2021 Budget - \$142,800)**

Raintree and Fieldbrook PVC Water Main Replacement: 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. The design phase is currently underway and will carry over into FY 2024 with funds previously appropriated. Construction is expected to take place in FY 2027 and FY 2028 with additional funding budgeted in those years. **FY 2023 Budget - \$0 (FY 2022 Budget - \$432,300)**

SCADA Phase 3 Implementation: The ACSA Utility System has over 40 critical assets that include water and wastewater pump stations, water storage tanks and master PRV stations. This project continues implementation of the ACSA's Supervisory Control and Data Acquisition (SCADA) System that allows ACSA employees to remotely monitor the operations of these critical assets. Using alarms, we can more quickly troubleshoot problems and prevent some failures from occurring. Phases 1 and 2 are complete and in operation. The design of Phase 3 is complete, and construction is expected to be completed in FY 2023 with funds previously appropriated. **FY 2023 Budget - \$0 (FY 2010-2022 Budgets - \$2,740,800)**

Airport Trunk Sewer Upgrade: With the continued growth in the Hollymead Town Center area, the existing sewer collector serving the airport and the area west of Route 29 needs 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. Design is ongoing and easement acquisition is underway with funds previously budgeted. The amount budgeted will allow for the completion of design and cover easement compensations required for the project. It is anticipated that construction will begin in FY 2026, with additional funding required. **FY 2023 Budget - \$115,000 (FY 2021 Budget - \$368,800)**

Northfields Phase 5 Sewer (New): During the design of the Northfields Water Main Replacement Project, ACSA staff identified several sections of sanitary sewer that could be installed along the roadway in coordination with the water main replacement work. These efforts will provide sanitary sewer service to existing neighborhood properties currently served by private septic fields. The amount budgeted will cover design of these improvements and construction will coincide with the water main replacement project efforts anticipated in FY 2025 with additional funds required. **FY 2023 Budget - \$70,000**

Miscellaneous Sewer Rehabilitation: This project continues our "find and fix" program of sanitary sewer rehabilitation to reduce I&I in our system during the fiscal year. This work will utilize publicly bid miscellaneous sewer rehabilitation contracts that are renewable on an annual basis up to four times after the initial year long contract. It will be used to make repairs and rehabilitate problems in our system found with systematic CCTV inspection by ACSA crews and the subcontractor. **FY 2023 Budget - \$400,000**

Bellair – Liberty Hills Sewer: 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. Based on results from a community survey, a majority of the property owners are interested in connecting to public sewer if it was made available. Design is underway with funds previously appropriated. It is anticipated that construction will take place in FY 2025 and FY 2026, with additional funding required in those years. **FY 2023 Budget - \$0 (FY 2021 and FY 2022 Budgets - \$393,715)**

Madison Office Park Pump Station Upgrade: This wastewater pump station was constructed in the early 1980's 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 SCADA System. Design is complete and construction is anticipated in FY 2023. The amount budgeted combined with funds previously appropriated should cover construction costs anticipated for this project. **FY 2023 Budget - \$425,000 (FY 2015, FY 2017, FY 2018, FY 2020, FY 2021, and FY 2022 Budgets - \$1,125,000)**

Huntington Village Water Connection: 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. Design is currently underway, and construction is expected to be completed in FY 2023 with funds previously budgeted. **FY 2023 Budget - \$0 (FY 2021 Budget - \$60,700)**

Sewer Pump Station Comminutors: Three wastewater pump stations (Glenmore, Georgetown Green, and Crozet) have all been experiencing higher than normal amounts of solid debris that is 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. Construction of this project is underway with funds previously appropriated. **FY 2023 Budget - \$0 (FY 2019, FY 2020 and FY 2022 Budgets - \$731,300)**

Biscuit Run Sewer Replacement: The ACSA's Maintenance Department recently 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. Design of this replacement work is complete, and construction is anticipated in FY 2023. The amount budgeted combined with funds previously budgeted is to cover the construction costs anticipated for this project. **FY 2023 Budget - \$206,000 (FY 2022 Budget - \$206,000)**

Exclusion Meters Replacement: 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 for irrigation purposes. Private meters were installed behind their ACSA domestic 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 disallow exclusion meters and required all future irrigation meters be tapped separately off our water mains, to be owned and controlled by the ACSA. This project is a multi-year replacement program by our in-house CIP Crew to install dedicated, ACSA-owned irrigation meters that will eliminate all remaining exclusion meters in our system. Work will continue with funds previously budgeted. Additional funding is anticipated in future years to complete this project. **FY 2023 Budget - \$0 (FY 2020 and FY 2021 Budgets - \$527,500)**

Pipe Saddles Replacement: The ACSA Maintenance Department has discovered in recent years that pipe saddles used to make water service line connections to PVC water mains have been failing. Either the galvanized steel straps or the cast iron saddle bodies are deteriorating. This project is a multi-year replacement program to be undertaken with our in-house CIP Crew. Work will be performed with funds previously budgeted. Additional funding is anticipated in future years to complete this project. **FY 2023 Budget - \$0 (FY 2020 and FY 2021 Budgets - \$100,000)**

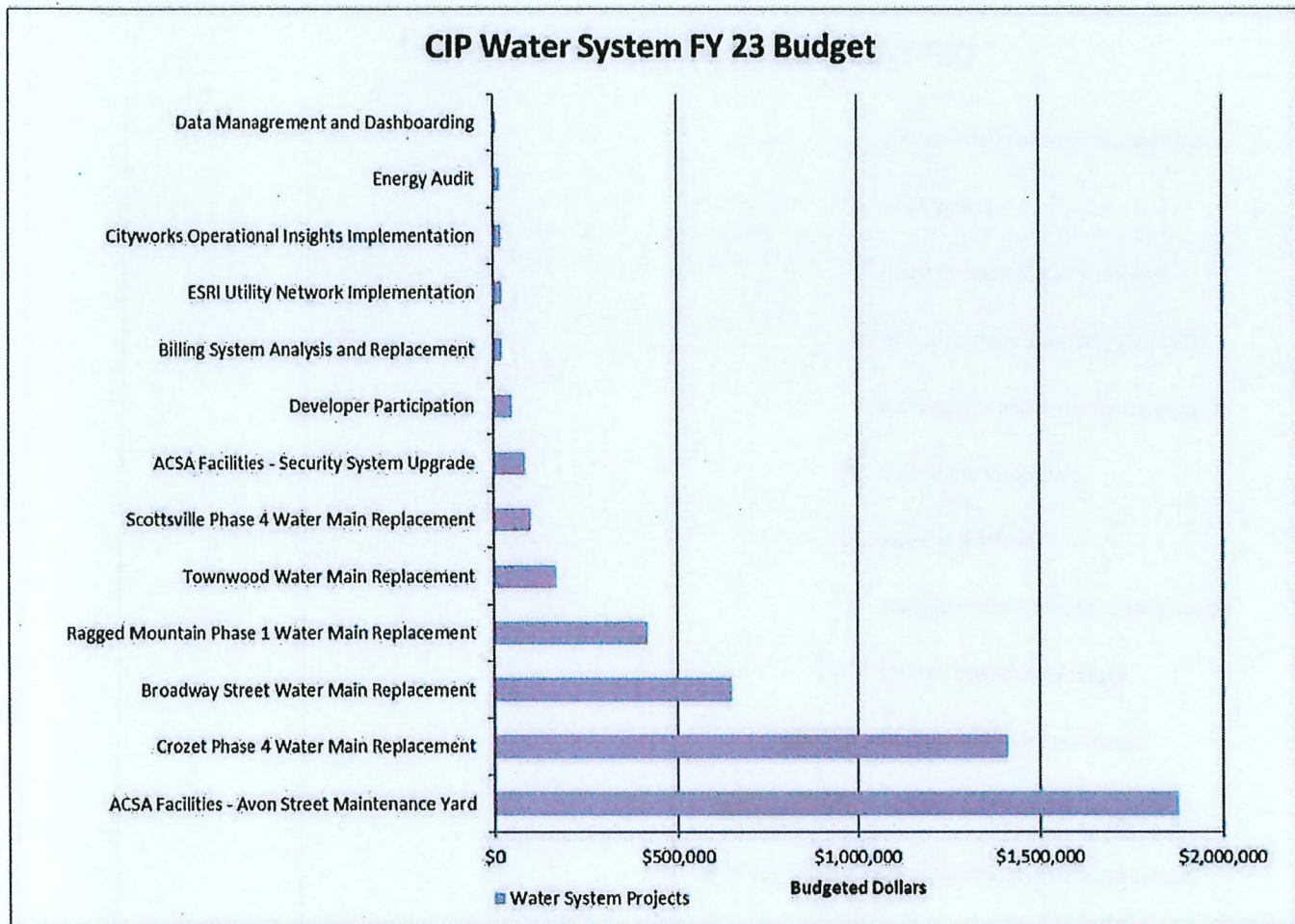
Developer Participation: Each year funds are set aside to participate in oversizing utilities constructed to serve new development. The Rate Model includes \$100,000 divided equally between water and wastewater projects as a contingency to ensure the new pipes are sized to meet the ACSA's long-range needs. **FY 2023 Budget - \$100,000**

Albemarle County Service Authority Water & Sewer Rate Model
CAPITAL IMPROVEMENT PROJECTS

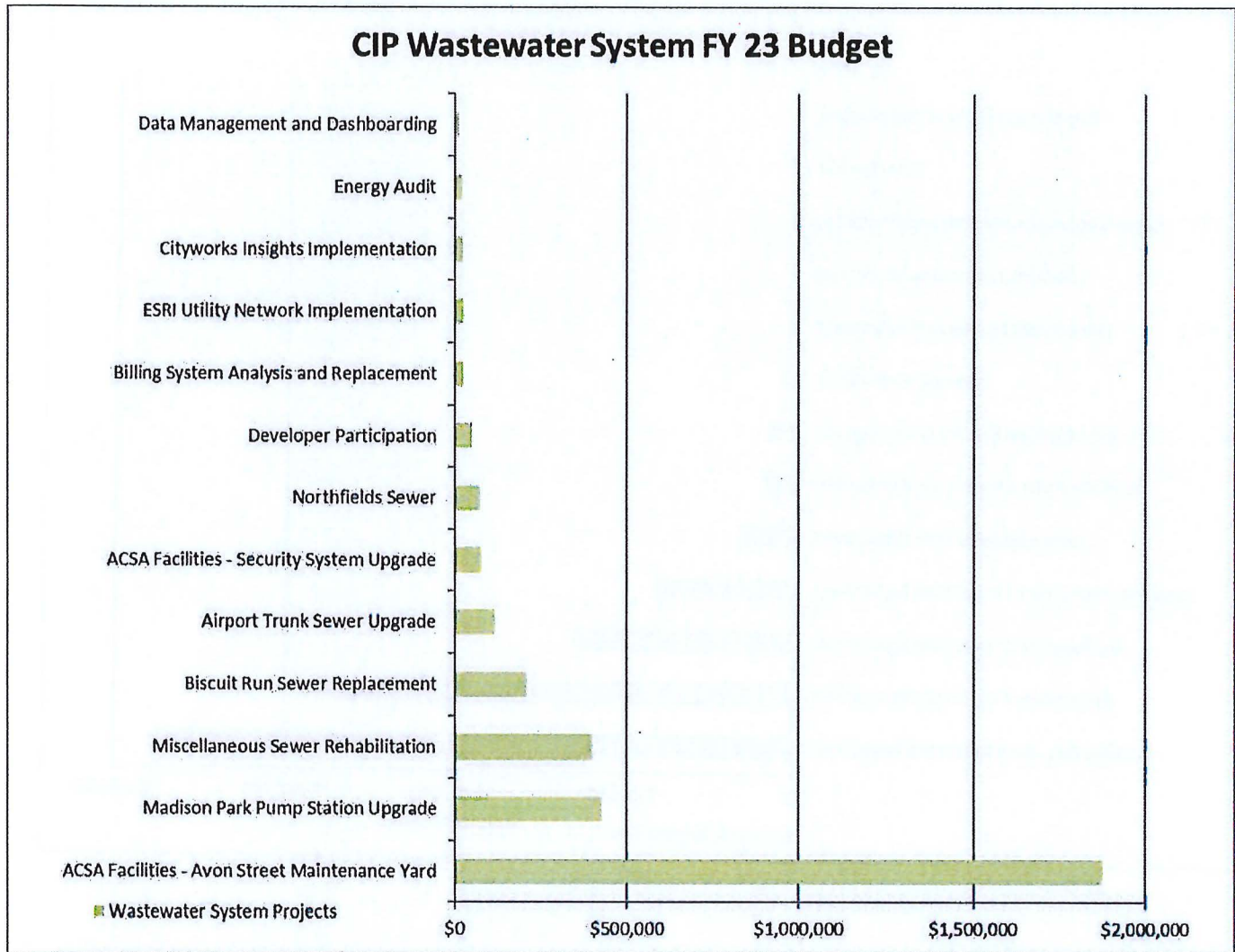
Water System	Percent Growth	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	10- Year Total Forecast
Risk Assessment Improvements	0%	\$ 79,900	\$ -	\$ 47,500			\$ 324,500						\$ 372,000
Data Management and Dashboarding	100%		\$ 10,000	\$ 10,000									\$ 20,000
Billing System Analysis and Replacement	100%		\$ 25,000	\$ 25,000									\$ 50,000
ESRI Utility Network Implementation	100%		\$ 25,000	\$ 75,000									\$ 100,000
Cityworks Operational Insights Implementation	100%		\$ 22,500										\$ 22,500
Energy Audit	0%	\$ -	\$ 20,000	\$ 25,000									\$ 45,000
ACSA Facilities - Avon Street Maintenance Yard	100%	\$ 30,000	\$ 1,875,000	\$ 2,375,000									\$ 4,250,000
ACSA Facilities - Security System Upgrade	100%		\$ 85,000										\$ 85,000
AMT Implementation	80%	\$ 2,500,000	\$ -	\$ 250,000									\$ 250,000
Four-Story Residential Backflow Prevention Retrofit	0%	\$ -	\$ -										\$ -
Scottsville Phase 4 Water Main Replacement	0%	\$ -	\$ 100,000		\$ 2,250,000	\$ 2,250,000							\$ 4,600,000
Stony Point Water Main Replacement	0%	\$ -	\$ -	\$ 213,000									\$ 213,000
Ragged Mountain Phase 1 Water Main Replacement	0%	\$ -	\$ 417,000	\$ 417,000									\$ 834,000
Crozet Phase 4 Water Main Replacement	0%	\$ -	\$ 1,412,050	\$ 2,824,100	\$ 1,412,050								\$ 5,648,200
Crozet Phase 5 Water Main Replacement	0%							\$ 201,600	\$ 201,600		\$ 1,805,100	\$ 1,805,100	\$ 4,013,400
Jefferson Village Water Main Replacement	0%	\$ 262,300	\$ -										\$ -
Rt 785 Water Main Replacement	0%					\$ 40,100		\$ 215,500					\$ 255,600
Carrsbrook Water Main Replacement	0%							\$ 627,700		\$ 2,144,500	\$ 2,144,500		\$ 4,916,700
Northfields Water Main Replacement	0%	\$ -	\$ -		\$ 1,900,000	\$ 2,850,000	\$ 2,850,000						\$ 7,600,000
Wakefield Water Main Replacement	0%						\$ 110,000		\$ 517,300				\$ 627,300
Huntington Village Water Connection	0%	\$ -	\$ -										\$ -
Hessian Hills Water Main Replacement	0%	\$ 3,456,675											\$ -
Old Forge Water Main Replacement	0%					\$ 195,000		\$ 685,500	\$ 228,500				\$ 1,109,000
Airport Acres Water System	100%								\$ 163,000		\$ 612,000		\$ 775,000
Parkview Drive Water Connection	0%	\$ -	\$ -										\$ -
Lewis Hill - West Leigh Water Connection	0%												\$ -
Exclusion Meters Replacement	0%	\$ -	\$ -	\$ 107,500	\$ 107,500								\$ 215,000
Pipe Saddles Replacement	0%	\$ -	\$ -	\$ 50,000									\$ 50,000
Glenorchy - Viewmont Court Water Extension	100%										\$ 166,300		\$ 166,300
Ashcroft Water Main Replacement	0%						\$ 427,900		\$ 1,192,200	\$ 794,800			\$ 2,414,900
Briarwood Water Main Replacement	0%	\$ -	\$ -		\$ 1,105,000	\$ 1,105,000							\$ 2,210,000
Barracks West Water Main Replacement	0%	\$ 452,500	\$ -		\$ 1,466,250	\$ 1,466,250							\$ 2,932,500
Riverrun Water Main Replacement	0%						\$ 257,100		\$ 1,640,100				\$ 1,897,200
Townwood Water Main Replacement	0%		\$ 170,000	\$ 170,000			\$ 550,000	\$ 550,000					\$ 1,440,000
North Pines Water Main Replacement	0%								\$ 358,900			\$ 1,719,700	\$ 2,078,600
Lewis Hill Water Main Replacement	0%							\$ 360,400			\$ 1,790,500		\$ 2,150,900
Ivy Oaks Water Main Replacement	0%							\$ 288,200		\$ 1,305,300			\$ 1,593,500
Broadway Street Water Main Replacement	0%	\$ -	\$ 650,000										\$ 650,000
Hollymead Phase 2 Water Main Replacement	0%								\$ 204,100		\$ 1,477,000		\$ 1,681,100
Pantops - Rivanna River Crossing Water Main Replacement	0%							\$ 67,300		\$ 392,700			\$ 460,000
Canterbury Hills Phase 2 Water Main Replacement	0%									\$ 586,700		\$ 3,809,500	\$ 4,396,200
Mosby Mountain Pressure Zone - Additional Storage	50%					\$ 105,000		\$ 1,400,000					\$ 1,505,000
Branchlands PVC Water Main Replacement	0%							\$ 354,000		\$ 2,213,100			\$ 2,567,100
Raintree and Fieldbrook PVC Water Main Replacement	0%	\$ 432,300	\$ -				\$ 2,757,500	\$ 2,757,500					\$ 5,515,000
SCADA Phase 3 Implementation	0%	\$ 186,800	\$ -										\$ -
Developer Participation	100%	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
Total Water Capital Projects		\$ 7,450,475	\$ 4,861,550	\$ 6,639,100	\$ 8,290,800	\$ 8,061,350	\$ 7,327,000	\$ 7,557,700	\$ 4,555,700	\$ 7,487,100	\$ 8,045,400	\$ 7,384,300	\$ 70,210,000

Wastewater System	Percent Growth	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 Forecast	2032 Forecast	10- Year Total Forecast
Risk Assessment Improvements	0%	\$ 37,100	\$ -	\$ 30,000			\$ 20,000						\$ 50,000
Data Management and Dashboarding	100%		\$ 10,000	\$ 10,000									\$ 20,000
Billing System Analysis and Replacement	100%		\$ 25,000	\$ 25,000									\$ 50,000
ESRI Utility Network Implementation	100%		\$ 25,000	\$ 75,000									\$ 100,000
Cityworks Insights Implementation	100%		\$ 22,500										\$ 22,500
Energy Audit	0%	\$ -	\$ 20,000	\$ 25,000									\$ 45,000
ACSA Facilities - Avon Street Maintenance Yard	100%	\$ 30,000	\$ 1,875,000	\$ 2,375,000									\$ 4,250,000
ACSA Facilities - Security System Upgrade	100%		\$ 73,000										\$ 73,000
AMI Implementation	80%	\$ 2,500,000	\$ -	\$ 250,000									\$ 250,000
Airport Trunk Sewer Upgrade	100%	\$ -	\$ 115,000			\$ 1,356,250	\$ 2,712,500	\$ 1,356,250					\$ 5,540,000
Northfields Sewer	100%		\$ 70,000					\$ 578,000		\$ 918,000		\$ 918,000	\$ 2,484,000
Buckingham Circle Sewer	100%						\$ 365,000	\$ 365,000					\$ 730,000
Madison Park Pump Station Upgrade	50%	\$ 123,875	\$ 425,000										\$ 425,000
Carrsbrook Collection System	100%						\$ 550,000	\$ 550,000		\$ 1,326,500	\$ 1,326,500		\$ 3,753,000
Hessian Hills Sewer Phase III	100%						\$ 124,200						\$ 124,200
Miscellaneous Sewer Rehabilitation	0%	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 4,000,000
Ednam Forest Sewer	100%					\$ 265,000	\$ 265,000		\$ 3,800,000				\$ 4,330,000
Brookwood Road Sewer Extension	100%								\$ 21,000				\$ 21,000
Buck Road Sewer Extension	100%								\$ 40,000				\$ 40,000
Park Road Sewer Extension	100%								\$ 80,400				\$ 80,400
Airport Acres Sewer	100%								\$ 461,200			\$ 1,007,000	\$ 1,468,200
Airport Acres Offsite Sewer	100%								\$ 140,000		\$ 460,000		\$ 600,000
Bellair - Liberty Hills Sewer	100%	\$ 80,515	\$ -		\$ 1,550,000	\$ 1,550,000							\$ 3,100,000
Sewer Pump Station Communitors	0%	\$ 291,300	\$ -										\$ -
Biscuit Run Sewer Replacement	0%	\$ 206,000	\$ 206,000										\$ 206,000
Developer Participation	100%	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 500,000
Total Wastewater Capital Projects		\$ 3,718,790	\$ 3,316,500	\$ 3,240,000	\$ 2,000,000	\$ 3,621,250	\$ 4,486,700	\$ 3,299,250	\$ 4,992,600	\$ 2,694,500	\$ 2,236,500	\$ 2,375,000	\$ 32,262,300
TOTAL CAPITAL IMPROVEMENT PROJECTS		\$ 11,169,265	\$ 8,178,050	\$ 9,879,100	\$ 10,290,800	\$ 11,682,600	\$ 11,813,700	\$ 10,856,950	\$ 9,548,300	\$ 10,181,600	\$ 10,281,900	\$ 9,759,300	\$ 102,472,300

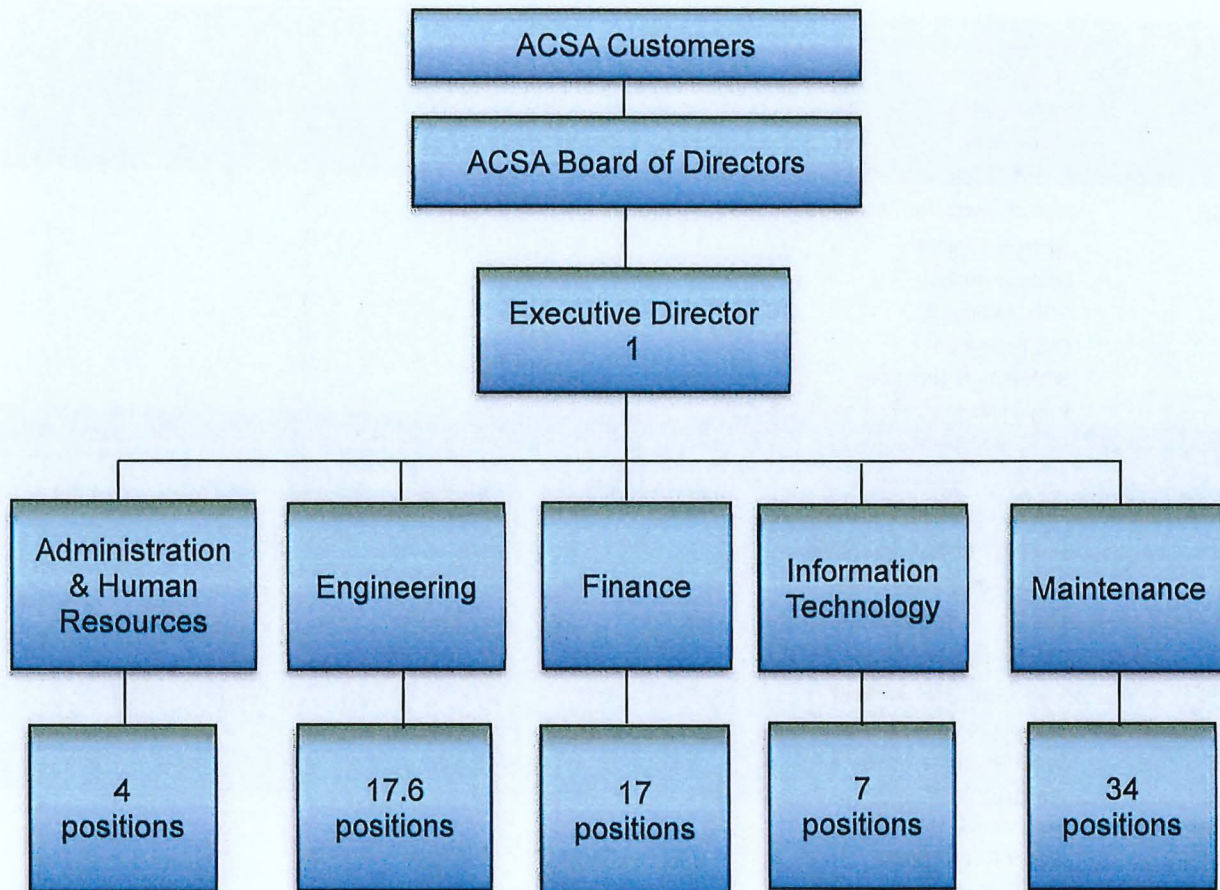
The following is an illustration of estimated water system project costs to be undertaken in FY 2023:



The following is an illustration of estimated wastewater system project costs to be undertaken in FY 2023:



ACSA Organizational & Personnel Chart Proposed FY 2023



Note: One new position proposed in Fiscal Year 2023, see detail within the Information Technology summary.

ACSA Departmental Staffing – FY 2023

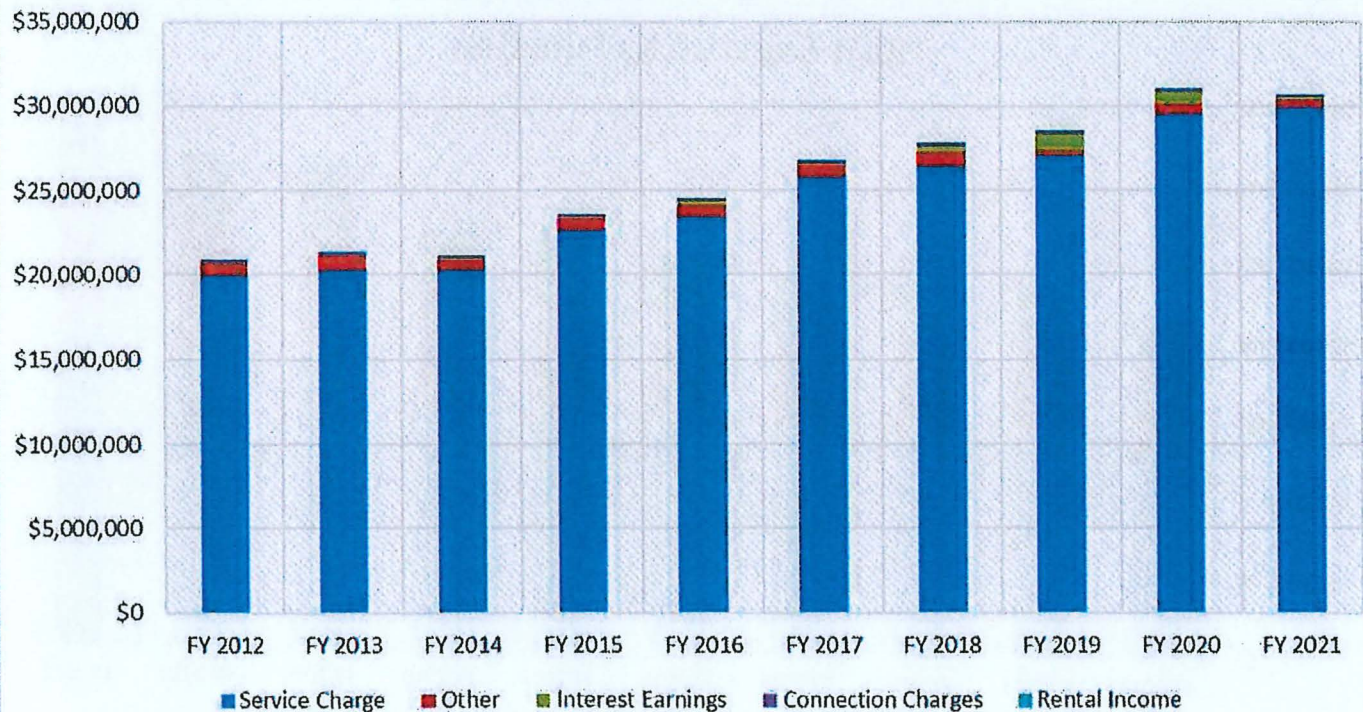
		FY 2021 Positions	FY 2022 Positions	FY 2023 Proposed Positions
ADMINISTRATION	Executive Director	1	1	1
	Human Resources & Admin. Mgr.	1	1	1
	Administrative Office Assoc.	1	1	1
	Executive Assistant	1	1	1
	Human Resources Tech.	1	1	1
INFO. TECH.	Mgr. of Information Technology	1	1	1
	Systems Engineer	1	1	1
	Systems Analyst	1	1	1
	GIS Coordinator	1	1	1
	GIS Technician	1	1	1
	SCADA/LAN Technician	1	1	1
	Project Manager (Proposed)	-	-	1
FINANCE	Director of Finance	1	1	1
	Accounting Supervisor	1	1	1
	Meter Operations Supervisor	1	1	1
	Customer Service Supervisor	1	1	1
	Sr. Customer Service Rep.	1	1	1
	Sr. Meter Technician	1	1	1
	Procurement and Fin. Specialist	1	1	1
	Payroll and Rev. Specialist	1	1	1
	Accounting Clerk	1	1	1
	Customer Service Rep. I/II	4	4	4
	Meter Technician I/II	4	4	4
ENGINEERING	Director of Engineering	1	1	1
	Senior Civil Engineer	2	2	2
	Civil Engineer	1	1	1
	Modeling Engineer	1	1	1
	Env. Compliance Specialist	1	1	1
	Reg. Compliance Specialist	1	1	1
	Construction Inspector	5	5	5
	Sr. Utility Location Tech.	1	1	1
	Utility Location Tech.	2	2	2
	Engineering Tech.	1	1	1
	Hydraulic Modeling Tech.	1	1	1
	P.T. Engineering Intern	0.6	0.6	0.6
MAINTENANCE	Operations Manager	1	1	1
	Operations Supervisor	2	2	2
	Facilities Supervisor	1	1	1
	Facilities Maintenance Tech.	1	1	1
	Electrician/Pump Technician	1	1	1
	Electrical Pump Apprentice	1	1	1
	CCTV Technician	2	2	2
	Crew Leader I/II	5	5	5
	Utility Worker I/II/III	19	19	19
	Executive Assistant	1	1	1
TOTAL		79.6	79.6	80.6

Revenue by Source

Fiscal Year	Service Charges	Connection Charges	Rental Income	Interest Earnings	Other	Total
2012	19,932,215	94,442	32,294	68,431	699,885	20,827,267
2013	20,312,821	102,275	43,656	19,745	836,157	21,314,654
2014	20,254,140	92,788	33,810	110,135	621,330	21,112,203
2015	22,641,543	96,992	33,437	102,469	680,717	23,555,158
2016	23,460,681	117,728	27,645	215,035	675,878	24,496,967
2017	25,786,007	138,553	17,213	59,576	738,948	26,740,297
2018	26,453,332	140,451	16,603	348,572	843,004	27,801,962
2019	27,053,948	135,007	16,603	946,599	364,584	28,516,741
2020	29,502,041	147,876	16,603	733,385	639,080	31,038,985
2021	29,883,684	141,043	15,539	82,900	532,947	30,656,113

Source: ACSA Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021.

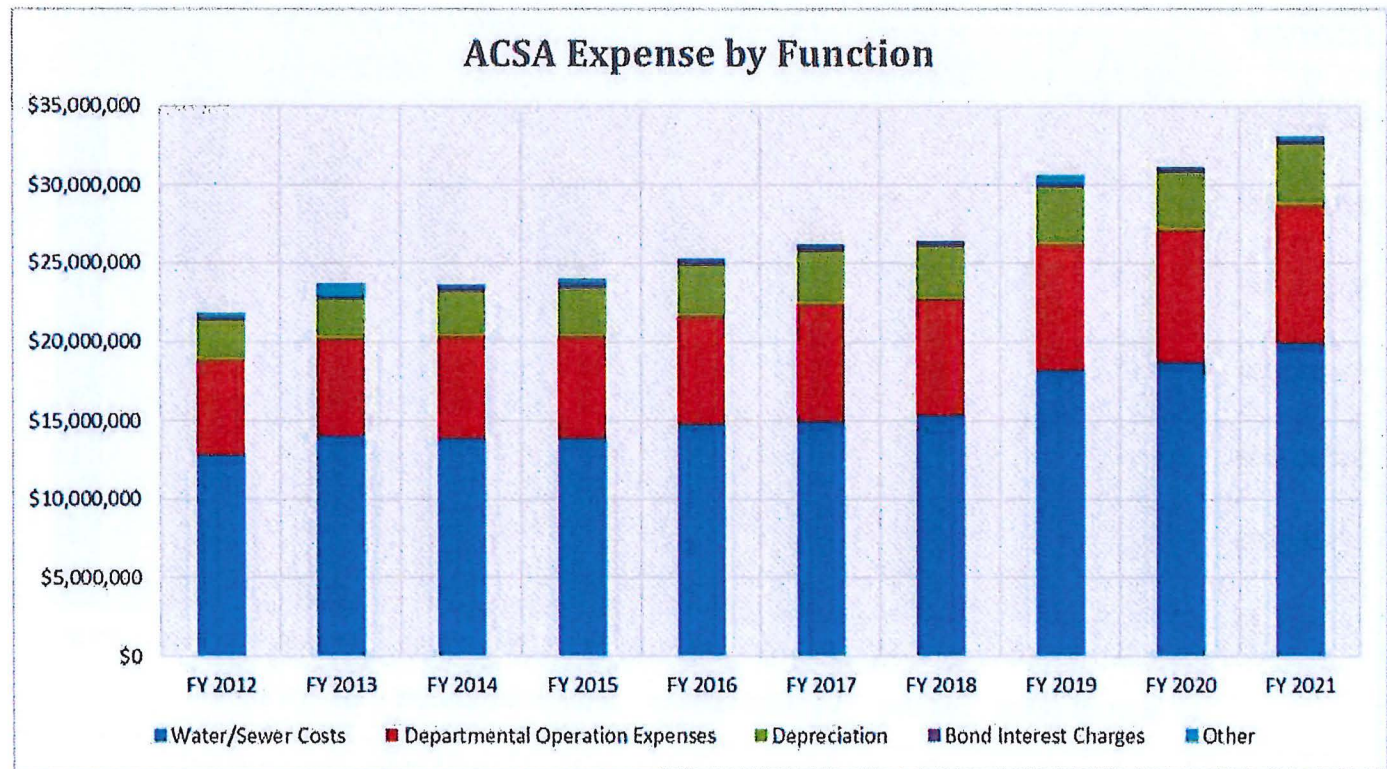
ACSA Revenue by Source



Expense by Function

Fiscal Year	Water/Sewer Costs	Departmental Operating Expenses	Bond Interest Charges	Depreciation	Other	Total
2012	12,824,548	5,979,395	275,791	2,501,718	201,333	21,782,785
2013	14,027,324	6,150,195	152,232	2,556,232	825,500	23,711,483
2014	13,849,536	6,524,651	360,711	2,819,633	2,032	23,556,563
2015	13,901,732	6,433,114	414,813	3,026,916	193,203	23,969,778
2016	14,795,643	6,843,659	395,056	3,158,144	22,163	25,214,665
2017	14,928,569	7,501,581	374,726	3,302,779	4,761	26,112,416
2018	15,289,280	7,404,479	353,776	3,336,765	55,201	26,439,501
2019	18,154,657	8,076,009	332,183	3,625,254	438,731	30,626,834
2020	18,694,581	8,441,727	309,946	3,669,899	7,553	31,123,706
2021	19,858,509	8,845,385	287,044	3,898,244	161,972	33,051,154

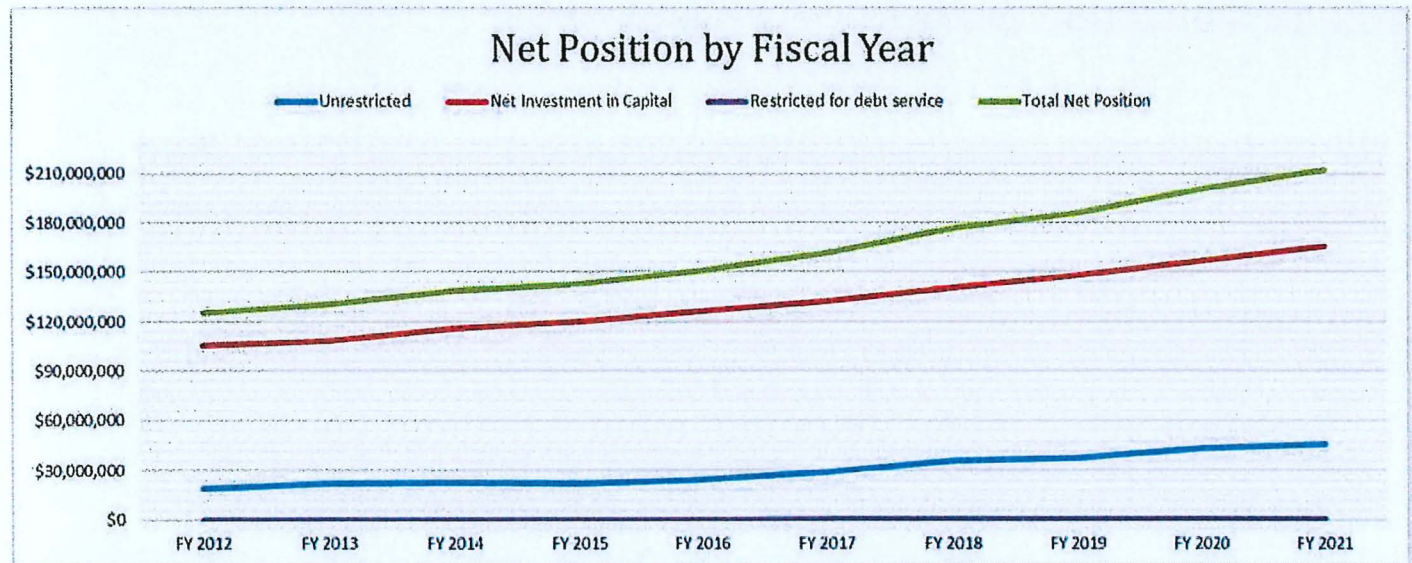
Source: ACSA Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021.



Changes in Net Position

Fiscal Year	Beginning Net Position	Net Investment in Capital Assets	Restricted for debt service	Unrestricted	Ending Net Position	Change in Net Position
2012	115,809,721	105,620,650	218,724	19,210,751	125,050,125	9,240,404
2013	125,050,125	108,233,265	223,963	21,876,992	130,334,220	5,284,095
2014	130,334,220	115,617,250	229,688	22,782,549	138,629,487	8,295,267
2015*	135,919,461	119,714,145	234,890	22,276,215	142,225,250	6,305,789
2016*	142,225,250	126,311,674	240,591	24,423,916	150,976,181	8,750,931
2017	150,976,181	131,997,020	247,015	29,077,339	161,321,374	10,345,193
2018*	159,966,301	140,238,885	255,835	36,007,519	176,502,239	16,535,938
2019	176,502,239	148,180,254	264,343	37,580,516	186,025,113	9,522,874
2020	186,025,113	156,610,823	269,790	43,394,497	200,275,110	14,249,997
2021	200,275,110	165,640,741	272,895	46,047,071	211,960,707	11,685,597

Source: ACSA records, * -- Beginning net position restated, in accordance with GASB Statements/other.



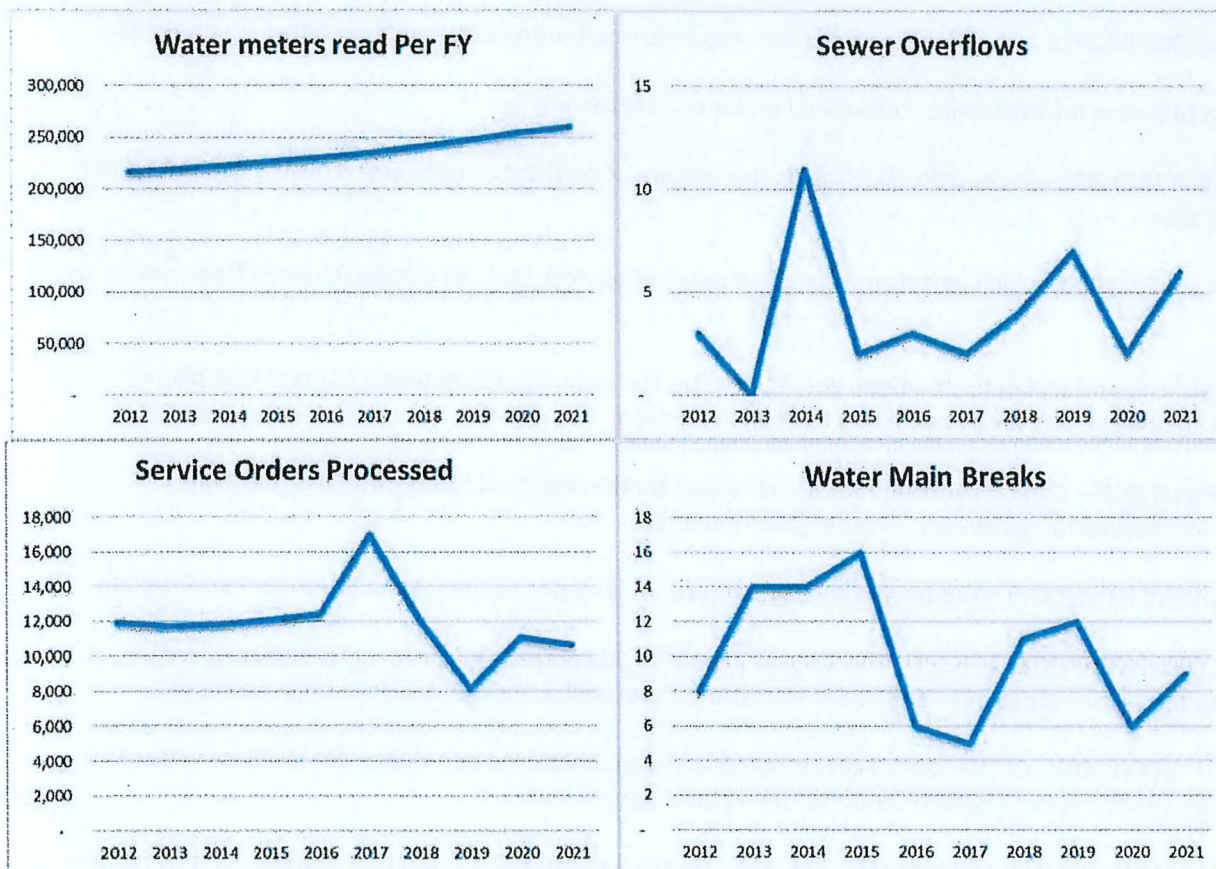
County Demographic and Economic Statistics

Calendar Year	Population	Personal Income (\$)	Per Capita Income (\$)	Per Capita Income as a Percent of U.S. Average	School Enrollment	Unemployment Rate (%)
2011	98,970	7,014,795,000	49,137	122	13,222	5.1
2012	102,251	7,609,998,000	52,687	124	13,122	5.2
2013	103,000	8,350,340,000	56,979	129	13,263	5.4
2014	104,489	8,420,079,000	56,851	128	13,677	4.7
2015	105,703	8,795,194,000	58,603	127	13,737	3.7
2016	106,878	9,182,721,000	60,294	125	13,792	3.5
2017	107,702	9,375,633,000	60,964	124	13,910	3.3
2018	108,718	10,531,351,000	67,630	131	14,013	2.7
2019	109,330	11,702,008,000	74,613	137	14,435	2.5
2020	112,395	12,160,701,000	77,657	138	13,532	5.4

Source: ACSA Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021.

For the Year Ended June 30, 2021

Year Created	1964
Size of Service Area:	
Miles of water lines	363.79
Miles of sewer lines	316.06
Fire hydrants	3,023
Water pumping stations	9
Sewer Pumping stations	11
Water storage tanks	8



Source: ACSA Annual Comprehensive Financial Report for the fiscal year ended June 30, 2021.



Selected Glossary of Terms and Acronyms

ACCRUAL BASIS OF ACCOUNTING – A basis of accounting under which increases and decreases in economic resources are recognized as soon as the underlying event or transaction occurs. Revenues are recognized when earned and expenses are recognized when incurred, regardless of the timing of related cash flows.

ALBEMARLE COUNTY SERVICE AUTHORITY – ACSA – Established in 1964 to provide water and wastewater to residents in the County of Albemarle Virginia.

ANNUAL COMPREHENSIVE FINANCIAL REPORT – A set of financial statements that comply with the accounting requirements promulgated by the Governmental Accounting Standards Board.

AMERICAN WATER WORKS ASSOCIATION – AWWA – Established in 1881, AWWA is the largest nonprofit, scientific and educational association dedicated to managing and treating water. AWWA develops standards that represent a consensus of the water industry.

AMERICAN WITH DISABILITIES ACT – ADA – government regulations regarding discrimination based on disabilities.

AMI – Advanced Metering Infrastructure – enhanced meter reading technology.

ASBESTOS CEMENT (AC) PIPE – A concrete pipe made of a mixture of Portland cement and asbestos fiber and highly resistant to corrosion.

AUTHORITY – A public agency which performs a specified range of services that are usually financed from fees or service charges.

BUDGET – A specific financial plan for the fiscal year that states the expenditures required to meet that plan of operations and identifies the revenue necessary to finance the plan.

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

CAPITAL IMPROVEMENT BUDGET – The budgetary expenditures as it relates to the Capital Improvement Program.

CAPITAL IMPROVEMENT PROGRAM (CIP) – The 10-year plan of capital projects which includes replacement or improvement to the service area water and sewer infrastructure as well as A.C.S.A. facilities improvements.

CLOSED CIRCUIT TELEVISION – CCTV – closed circuit television equipment used to monitor the inside of water and wastewater lines with the system infrastructure to detect blockages or leaks.

COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM – CMMS – A software system that maintains a computer database of information about an organizations maintenance operation, inventory, workorders, asset management, and customer requests.

ENTERPRISE FUND – An enterprise fund is a proprietary type fund used to account for operations that are financed and operated in a manner similar to private business enterprises. The Authority's intent is that the costs of providing goods or services to customers on a continuing basis be financed or recovered primarily through user charges.

EQUIVALENT RESIDENTIAL CONNECTION – ERC – costs associated with a new development connection.

FAMILY MEDICAL AND LEAVE ACT – FMLA – government regulatory agency regarding employee leave related to health issues.

FISCAL YEAR – FY -- A 12-month period designated as the operating year for accounting and budgetary purposes. The Authority's fiscal year runs from July 1 through June 30.

GENERALLY ACCEPTED ACCOUNTING PRINCIPLES – GAAP – accounting guidelines used to report financial information in a relevant and reliable manner.

GEOGRAPHIC INFORMATION SYSTEM – GIS – information system used to geographically locate areas within the ACSA service area.

GOVERNMENT FINANCE OFFICERS ASSOCIATION – GFOA – association that represents public finance officials throughout the United States and Canada. The GFOA's mission is to promote excellence in state and local government financial management.

GRANULAR ACTIVATED CARBON – GAC—An advanced water filtration system to provide fresh, clean water to residents.

HEATING, VENTILATION, AIR CONDITIONING – HVAC – system designed to provide heat, air and appropriate ventilation within the ACSA operating facilities.

INFORMATION TECHNOLOGY – IT – a department within the organization responsible for all technological operating aspects of the Albemarle County Service Authority.

LONG-TERM DEBT – Debt with a maturity of more than one year after the date of issuance.

NET POSITION – The difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, less accumulated depreciation, less any outstanding debt related to the acquisition, construction, or improvement of those assets. Net position is reported as restricted when there are limitations imposed on its use either through the enabling legislation adopted by the Authority or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION – OSHA – government regulatory agency regarding health and safety issues in the workplace.

OPERATING AND MAINTENANCE RESERVES – O&M RESERVES – serves as working capital to cover the time delay between operating revenues and expenditures.

OPERATING BUDGET – A financial plan for future operations based on estimated revenues and expenditures for a specific period.

OPERATING EXPENDITURES – Expenses which are directly related to the organization's primary activities.

OPERATING REVENUES – Revenues directly related to the Authority’s primary service activities and derived from user charges for services.

OTHER POST-EMPLOYMENT BENEFITS – OPEB – Refers to benefits, other than pensions, that ACSA employees receive as part of his/her retirement benefits.

POLYVINYL CHLORIDE – PVC – a synthetic resin used to make piping that is used in the ACSA water and wastewater infrastructure.

PROPERTY, PLANT, AND EQUIPMENT – a category that defines fixed assets of the Albemarle County Service Authority.

PUMP STATION – Structure containing pumps, controls, valves, piping and electrical equipment for pumping water or wastewater from one place to another. In the water industry, a pump is used to pump water from the source to the customer or to a storage tank, a sewer pump station is used to pump sewage from a wet well or manhole to another manhole at a higher elevation.

REPAIR, REPLACEMENT, AND REHABILITATION FUND – 3R – a fund established to support the unexpected repair, replace and rehabilitation of ACSA water system infrastructure.

RESERVE – Cash and investments accumulated to provide for contingencies and planned/unplanned major expenses.

RIVANNA WATER AND SEWER AUTHORITY – RWSA – wholesale provider of water and wastewater treatment for the Albemarle County Service Authority.

SANITARY SEWER OVERFLOWS – SSO – overflows of the sewer system caused by the buildup of products within the wastewater pipes.

SUPERVISORY CONTROL AND DATA ACQUISITION – SCADA – A control system that uses computers, networked data communications and graphical user interfaces for high-level process supervisory management but uses other peripheral devices such as programmable logic controllers to interface to the pump stations, water tanks, or pressure reducing valves instruments.

T.G. – Rate used to define water per Thousand Gallons.

A

align

Values

We align ourselves with our core values of honesty, trust, integrity, mutual respect, open communication, and employee empowerment.

C

commit

Community

We commit to provide responsive customer service, to collaborate fully with our community partners, and to promote conservation and environmental stewardship.

S

trive

Internal Focus

We strive for professional excellence by maintaining consistent and fair policies across the organization, and encouraging and recognizing pride and dedication to ensure a healthy working environment.

A

spire

Future

We aspire to practice strategic foresight and fiscal responsibility while embracing innovation.



Vision

*Serve and conserve today,
sustain for tomorrow, and
protect our resources forever.*

Mission

*With pride and dedication, we
serve our customers by providing
clean safe water, exemplary
wastewater services, and fire
protection infrastructure.
Together with our community
partners we maintain and
improve our utility system in a
timely, cooperative, and
financially responsible manner.*



Fiscal Year 2023 Annual Operating and Capital Improvement Budget

July 1, 2022 to June 30, 2023

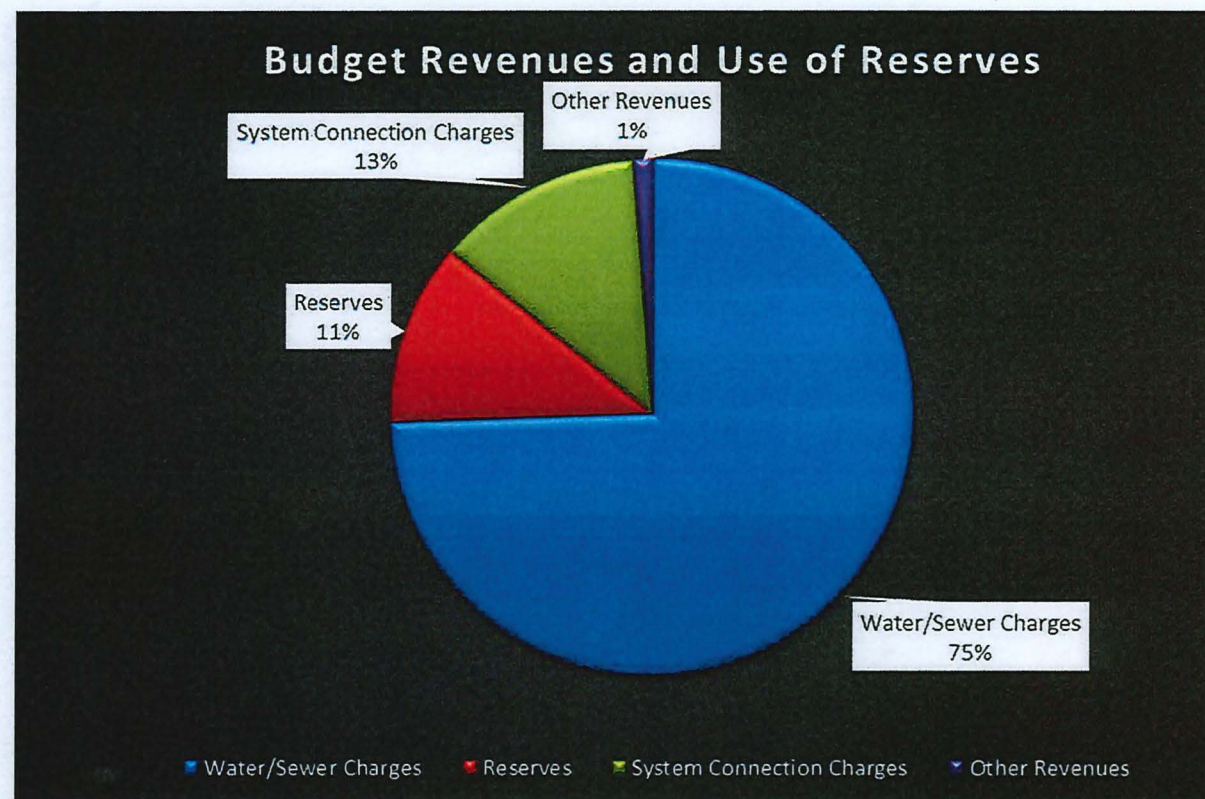


Proposed Fiscal Year 2023 Budget and Rate Overview

Agenda

- Operating Budget Overview
- Proposed Rates
- Capital Improvement Program (CIP)
- May 19th – Budget Workshop - Areas of Focus
- Next Steps

Budgeted Revenues and Use of Reserves



Budgeted Expenses and Capital Costs

Purchase of Water/Wastewater Treatment and Debt Service for RWSA
Growth Projects \$24,550,000

Capital Improvement Program \$8,178,050

Maintenance
Department
\$4,509,000

Finance
Department
\$2,502,100

Engineering
Department
\$2,288,400

Information
Technology
\$1,521,900

Administration
Department
\$1,286,500

Other
Expenses
\$796,200

Bond
Debt
Service
\$580,0...

Proposed FY 23 – Water and Sewer Rates

	FY 2022	FY 2023
Service Charge	\$ 9.00	\$ 9.45
Volume Charge - Single-Family Residential (per 1,000 gallons)		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$10.14
Level 3 (6,001-9,000 gallons)	\$14.13	\$15.19
Level 4 (over 9,000 gallons)	\$18.86	\$20.27
Multi-Family/Non-Residential	\$ 9.09	\$10.14
Sewer/All Users (per 1,000 gallons)	\$ 9.94	\$10.24

CIP Program

Project Type	Proposed Cost
Water Projects	\$ 4,861,550
Wastewater Projects	3,316,500
Total	\$ 8,178,050

Budget Workshop – May 19, 2022 Board Meeting

- Areas of Focus include:
 - Revenue and Expense Expectations
 - Proposed Rate Changes
 - Recommended Rates
 - Based on formal Rate Study
 - Sample Bills & Comparisons
 - Comprehensive evaluation of charges from the Rivanna Water and Sewer Authority for:
 - Increases in rates/charges for Water/Wastewater Treatment
 - RWSA Capital Program and increases in debt service allocated to ACSA
 - Strategic use of ACSA reserves
 - ACSA Departmental Initiatives

Next Steps

- Budget and Rate Workshop – May 19, 2022
- 2nd Budget and Rate Workshop/Public Hearing – June 16, 2022
- Budget Adoption – June 16, 2022
- Rate Adoption – June 16, 2022, effective July 1, 2022

ALBEMARLE COUNTY SERVICE AUTHORITY WATER AND SEWER RATE SCHEDULE

Effective July 1, 2022

Section 2-01. General

3. Additional sets of the *General Water and Sewer Construction Specifications* may be supplied by the Authority to any recipient of the one free set at a cost of \$10.00 per set.

Section 7-08. Temporary Water Service

A. Temporary Water Service

Initial Fee ~~\$25.00~~ \$50.00
Each 30-Day Extension ~~\$25.00~~ \$50.00

B. Meter Size Deposit

~~5/8~~ 3/4" & 1" ~~\$150.00~~ \$300.00
1 1/2" ~~\$250.00~~ \$400.00
2" ~~\$350.00~~ \$500.00

Section 7-09. Temporary Use of Fire Hydrants [Revised 10/1/16]

B. 1" hydrant meter - ~~\$550.00~~ (~~\$60.00~~ non-refundable)
1 1/2" hydrant meter - ~~\$800.00~~ (~~\$80.00~~ non-refundable)
3" hydrant meter - \$2,000 (~~\$100.00~~ non-refundable)

D. A usage fee of ~~\$20.00~~ \$25.00 per month will be charged for hydrant use through the hydrant meter. Failure to submit a meter reading will result in a \$50.00 non-refundable fee.

Section 8 Cross-Connection and Backflow Prevention; Section 8-21. Violation Charges

Item #	Charge	Violation
1	\$1,000	Failure to correct an identified cross-connection – high hazard
2	\$500	Failure to correct an identified cross-connection – low to moderate hazard
3	\$1,000	Failure to install an approved backflow prevention device <u>assembly</u> – high hazard
4	\$500	Failure to install an approved backflow prevention device <u>assembly</u> – low to moderate hazard
5	\$1,000	Removal or by-pass of a required backflow prevention device <u>assembly</u> – high hazard
6	\$500	Removal or by-pass of a required backflow prevention device <u>assembly</u> – low to moderate hazard
7	\$250	Failure to provide a passing test report for a backflow prevention device <u>assembly</u> – high hazard
8	\$100	Failure to provide a passing test report for a backflow prevention device <u>assembly</u> – low to moderate hazard

Section 10-03. Meter Testing Charge

5/8 3/4" - 1"	\$100.00 200.00
1 1/2" - 2"	\$150.00 250.00
3" - larger	\$ Actual Cost+25%

Section 11-05 Deposits For Temporary Meters

<u>Meter Size</u>	<u>Deposit</u>
5/8 3/4" & 1"	\$150.00 300.00
1 1/2"	\$250.00 400.00
2"	\$350.00 500.00

Section 11-06. Deposits For Fire Hydrant Meters

<u>Meter Size</u>	<u>Deposit</u>
1"	\$550 600 (\$60-100 non-refundable)
1 1/2"	\$800-950 (\$80-150 non-refundable)
3"	\$2,000 (\$100-200 non-refundable)

Section 12-02. Water and Sewer Rates**VOLUME CHARGES**

In addition to the fixed monthly service charge (Section 12-03), a volume charge based upon monthly metered water use will be assessed as follows:

Water**Metered Consumption****Residential and All Irrigation Water Rates:**

Level 1 (0-3,000 gallons per month)	\$ 4.70 5.05 per thousand gallons
Level 2 (3,001-6,000 gallons per month)	\$ 9.43 10.14 per thousand gallons
Level 3 (6,001-9,000 gallons per month)	\$ 14.13 15.19 per thousand gallons
Level 4 (over 9,000 gallons per month)	\$ 18.86 20.27 per thousand gallons

Non-Residential and Multi-Family Residential Water Rate (except irrigation water):
\$ ~~9.09~~10.14 per thousand gallons

For customers having both a primary and auxiliary meter, the four rate levels will be applied to the sum of the consumption on both meters, not to each individual meter.

Wastewater

Metered Consumption	\$ 9.94 10.24 per thousand gallons
---------------------	---

Section 12-03. MONTHLY SERVICE CHARGE

The fixed monthly service charge will be assessed based on meter size as follows:

<u>Meter Size</u>	<u>Service Charge</u>
<u>5/8 3/4"</u>	<u>\$9,009.45</u>
1"	<u>\$47,2823.63</u>
1 1/2"	<u>\$31,4347.25</u>
2"	<u>\$47,7275.60</u>
3"	<u>\$92,02151.20</u>
4"	<u>\$141,83236.25</u>
6"	<u>\$272,03472.50</u>

Section 12-04. CONNECTION CHARGES

Payment for the applicable connection charges will be accepted only after the issuance of a building permit.

Service Connection (Tap) Charge - To defray the cost of installation of a service connection from the water and/or wastewater main in the public right-of-way to the curb or property line and/or the installation of meters, all new services will be charged according to the following schedule:

(a) Water

Primary Meters

<u>5/8 3/4"</u> meter and connection	<u>\$1,0261.116</u>
1" meter and connection	<u>\$1,0941.182</u>
Over 1" meter and connection	Actual Cost
<u>5/8 3/4"</u> meter only	<u>\$ 484200</u>
1" meter only	<u>\$ 277300</u>
Over 1" meter only	Actual Cost

Auxiliary Meters

Actual Cost

(b) Wastewater

All Taps

Actual Cost

Section 12-05. System Development Charge

In order to defray, in part, the cost to the ACSA of providing major transmission/distribution mains, collection lines, pumping stations and storage facilities necessary to provide water and wastewater service to new customers in the ACSA system. This charge shall be assessed on the basis of equivalent residential connections (ERC):

Water	\$1,890 per ERC
Wastewater	\$2,970 per ERC*

*Except certain Glenmore parcels as defined by Glenmore WWTP Agreement dated June 15, 1995

Section 12-06. RWSA Capacity Charge

All new water and sewer connections to the ACSA systems shall be assessed a charge to defray, in part, the cost of providing capacity for a new customer in the RWSA system. This charge shall be

assessed on the basis of equivalent residential connections (ERC):

Water	\$4,760 per ERC
Wastewater	\$3,850 per ERC*

*Except certain Glenmore parcels as define by Glenmore WWTP Agreement dated June 15, 1995

Section 12-05/06. System Development/RWSA Capacity Charge ERC Calculation

Connection Charges for metered services larger than 5/83/4" shall be equated to equivalent residential connections (ERC) according to the following ratios:

<u>5/83/4"</u> meter	=	1 ERC	3" meter	=	16 ERCs
1" meter	=	2.5 ERCs	4" meter	=	25 ERCs
1 1/2" meter	=	5 ERCs	6" meter	=	50 ERCs
2" meter	=	8 ERCs			

System Development and RWSA Capacity Fees for multi-family, hotel, hospital, assisted living facility, nursing care facility, master-metered single-family units, or master-metered mobile home parks shall be charged the higher of a fee based upon meter size or the calculation of the number of units multiplied by the following factors:

Multi-family	1 unit	=	0.50	ERC
Hotels	1 room	=	0.50	ERC
Mobile Home Park	1 mobile home	=	1.00	ERC
Hospitals	1 bed	=	1.00	ERC
Assisted Living Facility	1 bed	=	0.40	ERC
Nursing Care Facility	1 bed	=	0.75	ERC
Master-Metered Single-Family	1 unit	=	1.00	ERC

For large or unusual new connections where, high demand may be anticipated, the Authority reserves the right to calculate system development and capacity fees based on engineering data specific to that customer rather than using the ERC factors above.

Section 12-07. Connection Fees for Irrigation Meters

A. Auxiliary Meters	Actual cost of installation
B. Primary Meters	All applicable connection fees as noted in Appendix B, section 12-04 and 12-09

Section 12-08. Line Tapping Fee:

Where the ACSA provides water main taps to accommodate line extensions, fire sprinkler systems and similar uses, a tapping fee will be assessed to the customer in accordance with the following schedule:

TAPPING

<u>MACHINE</u>	<u>TAP SIZE</u>	<u>LINE SIZE</u>	<u>PRICE</u>
E-4	3/4" - 1"	1 1/4" - 3"	\$140.00 170.00
B-100	3/4" - 1"	4" - 24"	\$140.00 170.00
A-2	1 1/2" - 2"	6" - 24"	\$240.00 250.00

CL-12 4" – 12" 4" – 24" ~~\$84.00~~100/inch
INSTALLATION OF TAPPING SLEEVES AND TAPPING VALVES

All water mains shall be uncovered and cleaned by the customer, who shall install tapping sleeves and valves. The excavation shall be prepared in accordance with all applicable safety regulations. Return trip charges resulting from the customer failing to properly prepare the trench and pipe for the tapping/inserting operation will be billed to the customer. These additional costs shall include labor, equipment, and overhead costs..

Section 12-10. NFRPS Special Rate District Fees

All sewer connections to the wastewater collection system within the North Fork Regional Pump Station Special Rate District shall be charged the following additional fee effective October 18, 2012:

North Zone	\$2,275.00 per ERC
South Zone	\$1,389.00 per ERC

Refer to Appendix C for a list of Tax Map Parcels within the North Fork Regional Pump Station Special Rate District and the North Fork Regional Pump Station Special Rate District Map.

Section 13. Miscellaneous Charges

13.02. Account Charge	\$8.00 <u>12.00</u> per each new account
13-03. Delinquent Cut Off/On Fee	\$26.00 <u>35.00</u> /trip during normal work hours
13-04. Reconnection Fee	\$72.00 <u>80.00</u> after work hours & weekends
5/83/4" - 1 1/2" meter	\$26.00 <u>35.00</u>
2" - 4" meter	\$33.00 <u>50.00</u>
Larger than 4" meter	Actual Cost
work 13-05. Special Service Fee	\$26.00 <u>35.00</u> /trip during normal hours
	\$72.00 <u>80.00</u> after work hours & weekends
13-06. Meter Size Change Fee All Meters	Actual Cost
13-07. Exceptional Payment Processing Fee	\$35.00 (Payable by Cash only)
13-08. Testing Fee	Actual Cost
13-09. Delinquent Payment Penalty	10% On Outstanding balance
Late Payment Charge	1 1/2% per month
13-10. Meter Re-read Fee	\$26.00 <u>35.00</u>

	13-11. Construction Plan Review Charge	\$49.00 <u>60.00</u> /hour	
	As-built Plan Review	\$49.00 <u>60.00</u> /hour	Engineer
	Review		
	Review	\$34.00 <u>40.00</u> /hour	Inspector
13-12. Construction Inspection Fees:			
	Water and/or Sewer lines greater than 400 linear feet	\$78.94 /linear foot	
	Water and/or Sewer lines less than 400 linear feet	Actual Cost	
	Re-inspection Fee of New Water/Sewer Lines	\$34.00 <u>40.00</u> /hour	
	Inspection of New Pumping Stations	Actual Cost	
	13-13. Failure to Report Hydrant Meter Reading	\$50.00	
	13-14. Irrigation System Application Processing Fees:		
	a. Plan Review and Meter Sizing	\$25.00 <u>30.00</u>	
	b. Cost Estimate preparation	\$125.00	
	13-15. Meter Tampering Fee	\$250.00 <u>300.00</u>	

VOLUME CHARGES DURING EMERGENCY WATER RESTRICTIONS

(As set forth in Section 16)

Water

Beginning with the first billing cycle following adoption of Emergency Water Restrictions, in addition to the fixed monthly service charge, a volume charge based upon monthly metered water use will be assessed as follows:

Single-Family Residential	Per 1,000 gallons
Level 1 (0-3,000 gallons per month)	Normal Rate x 1.25
Level 2 (3,001-6,000 gallons per month)	Normal Rate x 1.50
Level 3 (6,001-9,000 gallons per month)	Normal Rate x 2.00
Level 4 (over 9,000 gallons per month)	Normal Rate x 2.00
Non-Single Family Residential	Per 1,000 gallons
All usage	Normal Rate x 1.50

16-06. PENALTIES.

First offense \$ 500.00

Second offense \$1,000.00

In addition to the penalty charge, the ACSA may terminate of water service for the duration of the emergency.

Section 18. Carwash Certification Program

18-04. FEES.

CCP Application Fee \$100.00

CCP Annual Renewal Fee \$100.00

18-05. INSPECTION.

CCP Re-application Fee \$100.00

Section 19. Fats, Oils, and Grease (FOG)

19-22. COSTS AND CHARGES.

Item #	Cost/Charge	Description/Infraction
1	\$250 300/3 years	FOG Waste Discharge Permit
2	\$1,000/month *	NOV- failure of an FSE to install or repair grease control device
3	\$1,000/month *	NOV- repeated failure of an FSE to properly maintain grease control device, and repeated excessive FOG discharge from an FSE
4	\$500	NOV - failure of an FSE to keep grease control maintenance records on site and available to the ACSA
5	\$500	NOV- falsification by an FSE of grease control device maintenance records
6	\$500/month *	NOV- failure of an FSE to submit a FOG Waste Discharge Permit application or pay a permit fee
7	Assessed amount	An FSE whose operations allow grease accumulation - all costs to clean and repair the ACSA facilities
8	Assessed amount	An FSE whose operations allow grease accumulation that results in a sanitary sewer overflow - all costs to clean and repair the ACSA facilities
9	Assessed amount	An FSE whose operations allow grease accumulation that results in a sanitary sewer overflow- all fines levied by the state or federal government
10	Up to \$10,000/occurrence	Commercial waste hauler or individual – illegal discharge of grease wastes to the ACSA system

*Until the violation is corrected to the satisfaction of the ACSA.

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

AGENDA TITLE: Budget and Rate
Public Hearing Scheduling - June 16,
2022

STAFF CONTACT(S)/PREPARER:
Quin Lunsford, Director of Finance

AGENDA DATE: April 21, 2022

ACTION: ☒

ATTACHMENTS: Yes

BACKGROUND: State law requires a formal, advertised Public Hearing on the Budget and Rates.

RECOMMENDATION: The Board needs to formally schedule the Public Hearing for the June 16, 2022, Board meeting at 9:00 a.m. at the ACSA Office at 168 Spotnap Road, Charlottesville, VA 22911 and online via Zoom to meet the advertising requirements.

BOARD ACTION REQUESTED: Adopt a resolution that sets June 16, 2022, as the date for a Public Hearing on the proposed Budget, and the preliminary schedule fixing and classifying such rates, fees, and charges for the Albemarle County Service Authority for Fiscal Year 2023, and authorizing the advertising of the Public Hearing.

ATTACHMENTS:

Resolution Scheduling Budget and Rates Public Hearing
Proposed Water and Sewer Rate Schedule for FY 2023

**RESOLUTION SCHEDULING BUDGET AND RATES
PUBLIC HEARING- JUNE 16, 2022**

BE IT HEREBY RESOLVED that the Board of Directors of the Albemarle County Service Authority sets forth the Preliminary schedule or schedules fixing and classifying such rates, fees, and charges for Fiscal Year (FY) 2023 as attached hereto, and further approves the scheduling and advertising of the Preliminary schedule or schedules for a June 16, 2022 Public Hearing on said FY 2023 budget, rates, fees, and charges.

Certified to be a true copy of a Resolution adopted by the Albemarle County Service Authority Board of Directors at a regularly scheduled meeting on April 21, 2022 by a vote of __ to __.

Gary B. O'Connell, Secretary-Treasurer

**THE ALBEMARLE COUNTY SERVICE AUTHORITY
PUBLIC HEARING ON PROPOSED BUDGET AND
WATER/WASTEWATER RATE CHANGES FOR FY 2023**

The Albemarle County Service Authority will hold a public hearing on Thursday, June 16, 2022, at 9:00 a.m. at the ACSA Office at 168 Spotnap Road, Charlottesville, Virginia 22911 and via Zoom, please visit www.serviceauthority.org for additional information. The public hearing will address the Proposed FY 2023 Budget and the following changes to the water and wastewater rates and other charges/fees:

Water	<u>FY 2022</u>	<u>Proposed FY 2023</u>
Service Charge by Meter Size		
3/4"	\$ 9.00	\$ 9.45
1"	\$ 17.28	\$ 23.63
1 1/2"	\$ 31.13	\$ 47.25
2"	\$ 47.72	\$ 75.60
3"	\$ 92.02	\$ 151.20
4"	\$ 141.83	\$ 236.25
6"	\$ 272.03	\$ 472.50
Volume Charge - Single-Family Residential (per 1,000 gallons)		
Level 1 (0-3,000 gallons)	\$ 4.70	\$ 5.05
Level 2 (3,001-6,000 gallons)	\$ 9.43	\$ 10.14
Level 3 (6,001-9,000 gallons)	\$ 14.13	\$ 15.19
Level 4 (over 9,000 gallons)	\$ 18.86	\$ 20.27
Multi-Family/Non-Residential	\$ 9.09	\$ 10.14
Wastewater		
Sewer/All Users (per 1,000 gallons)	\$ 9.94	\$ 10.24
Temporary Water Service		
Initial Fee	\$ 25.00	\$ 50.00
Each 30-Day Extension	\$ 25.00	\$ 50.00
Meter Size – 3/4" & 1" – Deposit	\$ 150.00	\$ 300.00
Meter Size -1 1/2" – Deposit	\$ 250.00	\$ 400.00
Meter Size – 2" – Deposit	\$ 350.00	\$ 500.00
Temporary Use of Fire Hydrants- Deposit		
1" hydrant meter/non-refundable portion	\$ 550.00/\$ 60.00	\$ 600.00/\$ 100.00
1 1/2" hydrant meter/non-refundable portion	\$ 800.00/\$ 80.00	\$ 950.00/\$ 150.00
3" hydrant meter/non-refundable portion	\$ 2,000.00/\$ 100.00	No Chg./ \$ 200.00
Monthly usage fee	\$ 20.00/ month	\$ 25.00/ month
Meter Testing Charge		
3/4" – 1" Meter	\$ 100.00	\$ 200.00
1 1/2" – 2" Meter	\$ 150.00	\$ 250.00

Service Connection (Tap) Charge

	<u>FY 2022</u>	<u>Proposed FY 2023</u>
3/4" meter and connection	\$ 1,026.00	\$ 1,116.00
1" meter and connection	\$ 1,091.00	\$ 1,182.00
3/4" meter only	\$ 184.00	\$ 200.00
1" meter only	\$ 277.00	\$ 300.00

Line Tapping Fees

Machine – E-4, line size 1 1/4" – 3"	\$ 140.00	\$ 170.00
Machine – B100, line size 4" – 24"	\$ 140.00	\$ 170.00
Machine – A-2, line size 6" – 24"	\$ 210.00	\$ 250.00
Machine – CL-12, line size 4"-24"	\$ 84.00/inch	\$ 100.00/inch

Miscellaneous Charges

Account Charge	\$ 8.00	\$ 12.00
Delinquent Cut off/On-Fee	\$ 26.00	\$ 35.00
Reconnection Fee – After work hrs./weekends	\$ 72.00	\$ 80.00
Reconnection Fee 3/4" – 1 1/2" meter	\$ 26.00	\$ 35.00
Reconnection Fee 2"-4" meter	\$ 33.00	\$ 50.00
Special Service Fee – trip during normal work hrs.	\$ 26.00	\$ 35.00
Special Service Fee – trip after work hrs./weekend	\$ 72.00	\$ 80.00
Meter Re-read Fee	\$ 26.00	\$ 35.00
Construction Plan Review Charge	\$ 49.00	\$ 60.00
As-built Plan Review – Engineer	\$ 49.00	\$ 60.00
As-built Plan Review – Inspector	\$ 34.00	\$ 40.00
Irrigation System Plan Review and Meter Sizing	\$ 25.00	\$ 30.00
Meter Tampering Fee	\$ 250.00	\$ 300.00

Construction Inspection Fees:

Water and/or Sewer lines greater than 400 linear feet	\$ 0.78/linear foot	\$ 0.94/linear foot
Re-inspection Fee of New Water/Sewer Lines	\$ 34.00/hour	\$ 40.00/hour

Fats, Oils, and Grease (FOG)

FOG Waste Discharge Permit	\$ 250.00/ 3 years	\$ 300.00/ 3-years
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All other charges remain unchanged.

Further information may be obtained from the ACSA website at www.serviceauthority.org or the office of the Executive Director, or by calling the ACSA office at (434) 977-4511 ext.3.

Gary B. O'Connell
Executive Director

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Northern Area Drinking Water Projects Agreement	AGENDA DATE: April 21, 2022
STAFF CONTACT(S)/PREPARER: Gary O'Connell, Executive Director	ACTION: Yes
	ATTACHMENTS: Yes

BACKGROUND: This is a tri-party water system agreement for the ACSA, City of Charlottesville, and RWSA. The agreement is exclusively for projects in the Northern System that solely serves ACSA customers. RWSA owns and operates the supply/treatment for this area. This agreement focuses on the Northern Water system now served by the North Rivanna Water Treatment Plant (NRWTP), north of Airport Road to Piney Mountain (see map).

There are three projects planned in the near future:

1. Airport Road Pump Station
 - Under construction
 - \$10 million project
 - 100% water service to ACSA customers
2. South Rivanna River Crossing
 - Connects South Rivanna WTP to Northern area
 - Provides redundancy
 - Serves ACSA customers 100%
3. North Rivanna River Crossing
 - Second redundant pipe
 - Serves 100% ACSA
4. Future Tank Location – Some small emergency benefit to the City (10%), but in general benefits ACSA customers (90%).
5. Decommission the NRWTP – Shared expense, since original plant was a shared expense.

RWSA "Master Agreement" provides that there be a cost allocation in place for the projects; in this case service is almost 100% to ACSA customers. The larger, long-term plan is shown in the attached chart with future projects that affect the Urban Water area, including the Northern area.

The long-term goal to “hydraulically connect” the North to Urban system and abandon the NFRWP (North Rivanna Water Treatment Plant).

RWSA future projects affecting the ACSA Northern Water System and customers:

- 2021-23 Observatory and South Fork Rivanna Water Treatment Plants Improvement and increased capacity at Observatory - \$43 million;
- 2022-23 Airport Pump Station - \$10 million;
- 2023-24 South Fork Rivanna River Crossing - \$5.9 million;
- 2028-31 North Fork Rivanna River Crossing - \$5.7 million;
- 2023-29 Central Water Line – connects Observatory Water Treatment Plant to Urban system (north and east ACSA service areas, plus the central urban area);
- 2023-28 Ragged Mountain Reservoir to Observatory Water Treatment Plant (Raw Water - Supply) Pipe & Pump Station - \$30 million;
- 2025-26 North Fork Rivanna Water Treatment Plant Decommission - \$2.5 million. Plan is to take out of service this water plant and demolish; river during dry periods does not have sufficient supply to serve the future growth planned in the north area; the water service will come from the Urban Area Water Treatment Plants of Observatory and South Rivanna;
- 2027-33 South Fork Rivanna River to Ragged Mountain Reservoir (Raw Water – Supply) Pipeline - \$80 million;
- After 2028 and beyond - Based on the water demand of the Northern water system, a future pump and tank installation at the Airport Road Pump Station site may be needed.

BOARD ACTION REQUESTED: Authorize the Executive Director to sign the Northern Area Drinking Water Projects Agreement, on behalf of the ACSA, for project cost allocation purposes.

ATTACHMENTS:

1. Northern Area Water Improvements Plan
2. RWSA Cover Memorandum and agreement
3. Northern Area Drinking Water Projects Agreement
4. Maps of Current Northern and Urban Area water systems

Northern Area Water Improvements Plan



	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
IMPROVEMENTS REQUIRES FOR NRWTP DECOMMISSIONING		ARPS CONSTRUCTION		\$10M									
IMPROVEMENTS FOR ARPS / NORTH RIVANNA ZONE RELIABILITY			2 ND SFR RIVER CROSSING		\$5.9M				2 ND NFR RIVER CROSSING			\$5.7M	
IMPROVEMENTS FOR URBAN ZONE RELIABILITY		OBWTP / SRWTP IMPROVEMENTS	CENTRAL WATER LINE							\$43M & \$31M			
IMPROVEMENTS FOR LONG-TERM SYSTEM RELIABILITY			RMR TO OBWTP PIPE & RWPS						\$30M				
								SFRR TO RMR TRANSFER SYSTEM				\$80M	
ANTICIPATED NRWTP DECOMMISSIONING					NRWTP DECOMMISSIONING	\$2.5M							
DEMAND DRIVEN IMPROVEMENTS*								ADDITIONAL PUMPING AND TANK STORAGE					\$5M



MEMORANDUM

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

FROM: BILL MAWYER, EXECUTIVE DIRECTOR

**SUBJECT: APPROVAL OF THE NORTHERN AREA DRINKING WATER
PROJECTS AGREEMENT**

DATE: APRIL 26, 2022

This memo is to request approval of the attached Agreement between the Charlottesville Department of Utilities (City), Albemarle County Service Authority (ACSA) and the Rivanna Water & Sewer Authority (RWSA). This Agreement will establish cost allocations for four new drinking water Capital Improvement Plan (CIP) projects, and all future water CIP projects to be constructed north of the South Fork Rivanna River by the RWSA. The Agreement also confirms the cost allocation for the North Rivanna Water Treatment Plant Decommissioning Project previously allocated among the City and ACSA pursuant to paragraph 4 of the "South Rivanna Water Treatment Plant Agreement" of 2003. The Director of the City Department of Utilities, ACSA Executive Director, and I have collaborated and coordinated with our attorneys since early 2021 to establish this cost allocation Agreement.

Background:

An allocation of all costs for site acquisition, design and construction has been agreed upon for four drinking water infrastructure projects, as well as all future water infrastructure projects, planned in the northern area of the County, as follows:

1. The Airport Road Water Pump Station and Piping Project, which will provide redundancy and reliability to the portion of the Urban Area Water System located north of Towncenter Drive within the County. RWSA shall allocate 100% of the debt service charges for this project to the ACSA.
2. The South Rivanna River Crossing Project, which will provide a water main under the South Fork Rivanna River as a second redundant pipe to connect the South Rivanna Water Treatment Plant to the portions of the Urban Area Water System located north of the South Fork Rivanna River in the northern area of the County. RWSA shall allocate 100% of the debt service charges for this project to the ACSA.
3. The North Rivanna River Crossing Project, which will provide a water main under the North Fork Rivanna River as a second redundant pipe to connect the portions of the Urban Area Water System located north and south of the North Fork Rivanna River. RWSA shall allocate 100% of the debt service charges for this project to the ACSA.

4. The Water Storage Tank Project for the Airport Road Water Pump Station, which will provide an estimated one million gallons of finished water storage. This tank will be constructed when demand conditions require water storage to support the Airport area and the overall Urban Area Water System, including the City of Charlottesville. RWSA shall allocate 10% the debt service charges for this project to the City, and 90% to the ACSA.

The Agreement also specifies that RWSA shall allocate 100% of the debt service charges for all future capacity and non-capacity water facilities located north of the South Fork Rivanna River to the ACSA, and confirms that RWSA shall allocate 48% of the debt service charges to the City and 52% to ACSA for the North Rivanna Water Treatment Plant Decommissioning Project, originally constructed in 1974.

Board Action Requested:

Approve the Northern Area Drinking Water Projects Agreement, to become effective upon obtaining signatures from the City, ACSA, and the RWSA.

Attached: Northern Area Drinking Water Projects Agreement (2022)

Prepared by:
 Valerie W. Long, Esq., VSB # 42968
 Williams Mullen
 321 E. Main Street,
 Suite 400
 Charlottesville, VA 22902

NORTHERN AREA DRINKING WATER PROJECTS AGREEMENT

THIS NORTHERN AREA DRINKING WATER PROJECTS AGREEMENT (this "Agreement") is made as of _____, 2022, by and between the **CITY OF CHARLOTTESVILLE, VIRGINIA**, a municipal corporation (the "City"), the **ALBEMARLE COUNTY SERVICE AUTHORITY**, a public body politic and corporate (the "ACSA"), and the **RIVANNA WATER AND SEWER AUTHORITY**, a public body politic and corporate (the "RWSA").

WITNESSETH:

- A. RWSA was formed in 1972 by a joint resolution of Albemarle County (the "County") and the City for the purpose of acquiring, financing, constructing, and maintaining facilities to supply drinking water to both communities under terms set out in the "Four Party Agreement" dated June 12, 1973 among the City, the County, ACSA, and RWSA (the "Four Party Agreement").
- B. RWSA owns and/or operates facilities for the supply of raw water and treatment of potable water pursuant to the terms of the Four Party Agreement and several supplementary agreements thereto.
- C. Paragraph 7.2 of the Four Party Agreement directed RWSA to establish an urban area which shall include all of the City and designated portions of the County, and further provided that the boundaries of the urban area may be changed from time to time (the "Urban Area"). RWSA owns and operates three water treatment plants that

serve the Urban Area, which are the Observatory Water Treatment Plant, the South Rivanna Water Treatment Plant, and the North Rivanna Water Treatment Plant (collectively, the "Urban Area Water System Plants") (sometimes referred to as the "Urban Water System Plants"). RWSA operates three reservoirs that serve the Urban Area, which are the South Rivanna Reservoir, the Ragged Mountain Reservoir, and the Sugar Hollow Reservoir (collectively, the "Urban Area Reservoirs," and, collectively with the Urban Area Water System Plants and all dams, pipelines, pumping stations, storage tanks, and other equipment, facilities, and appurtenances related to each, the "Urban Area Water System").

- D. The Urban Area currently consists of all of the City and designated portions of the County that are served by public water that has been treated at one of the three Urban Area Water System Plants. Other areas within the County that are served by public water that is not treated at one of the Urban Area Water System Plants (such as areas in Crozet, Red Hill, and Scottsville, each of which is served by a water treatment plant owned and operated by RWSA) are not part of the Urban Area as that term is referred to in Section 7.2 of the Four Party Agreement, and as that term is used in this Agreement.
- E. Pursuant to Article IV of the Four Party Agreement, which provides that RWSA shall also undertake the provision of such additional facilities as may be agreed upon from time to time by the City, ACSA, and RWSA (collectively, the "Parties"), the Parties have agreed upon an allocation of costs for construction of four new drinking water infrastructure projects, all planned within the northern area of the County, which four projects are identified and described as follows:

1. The Airport Road Water Pump Station and Piping Project, which will provide redundancy and reliability to the portion of the Urban Area Water System located north of Towncenter Drive within the County (the "Airport Road Water Pump Station and Piping Project").

2. The South Rivanna River Crossing Project, which will provide a water main under the South Fork Rivanna River as a second redundant pipe to connect the South Rivanna Water Treatment Plant to the portion of the Urban Area Water System located north of the South Fork Rivanna River in the northern area of the County (the "South Rivanna River Crossing Project").

3. The North Rivanna River Crossing Project, which will provide a water main under the North Fork Rivanna River as a second redundant pipe to connect the portions of the Urban Area Water System located north and south of the North Fork Rivanna River (the "North Rivanna River Crossing Project").

4. The Water Storage Tank Project for the Airport Road Water Pump Station, which tank will provide an estimated one million gallons of finished water storage, and will be constructed when demand conditions require water storage to support the Airport area and the overall Urban Area Water System, including the City of Charlottesville (the "Airport Road Water Storage Tank").

F. The four facilities listed in paragraph E herein, along with all future capacity and non-capacity water facilities located north of the South Fork Rivanna River (except as expressly provided to the contrary herein), are collectively referred to as the "Northern Area Drinking Water Projects."

- G. The City and the ACSA have reached an agreement concerning the sharing of costs for design and construction of, and for the acquisition of property and/or easements necessary for the Northern Area Drinking Water Projects, on the terms and conditions contained herein.

NOW, THEREFORE, for and in consideration of the premises, and other good and valuable consideration, the receipt of all which is hereby expressly acknowledged, the City, ACSA and RWSA hereby agree as follows:

AGREEMENT

1. Pursuant to Article IV of the Four Party Agreement, the City and ACSA agree to and hereby direct RWSA, and RWSA hereby agrees, to proceed with the design and construction of, and the acquisition of property and/or easements for, the Northern Area Drinking Water Projects.
2. RWSA shall allocate the debt service charges for the Airport Road Water Pump Station and Piping Project as follows: 100% to ACSA.
3. RWSA shall allocate the debt service charges for the South Rivanna River Crossing Project as follows: 100% to ACSA.
4. RWSA shall allocate the debt service charges for the North Rivanna River Crossing Project as follows: 100% to ACSA.
5. RWSA shall allocate the debt service charges for the Airport Road Water Storage Tank Project as follows: 10% to the City, and 90% to ACSA.

6. Except as expressly provided in paragraph 7 herein, RWSA shall allocate the debt service charges for all future capacity and non-capacity water facilities located north of the South Fork Rivanna River as follows: 100% to ACSA.
7. The costs for a project known as the North Rivanna Water Treatment Plant Decommissioning, which will demolish and remove the existing North Rivanna Water Treatment Plant constructed in 1974, and transfer service requirements thereof to the two other water treatment plants comprising the Urban Area Water System Plants (the South Rivanna and Observatory Water Treatment Plants) (the "North Rivanna Water Treatment Plant Decommissioning Project") have previously been allocated among the City and ACSA pursuant to paragraph 4 of that certain untitled Agreement between the parties dated December 1, 2003, commonly referred to as the "South Rivanna Water Treatment Plant Agreement of 2003" (the "2003 Agreement"), which 2003 Agreement provides in paragraph 4 thereof that as a non-capacity related project of the Urban Area Water System, that RWSA shall allocate 48% of the debt service charges of the project to the City, and 52% to ACSA. Although the North Rivanna Water Treatment Plant Decommissioning Project has not yet commenced as of the date of this Agreement, the provisions of paragraph 6 of this Agreement shall not apply to that project. Instead, the terms of paragraph 4 of the 2003 Agreement shall continue to apply to the cost allocations for the North Rivanna Water Treatment Plant Decommissioning Project, such that RWSA shall allocate 48% of the debt service charges to the project to the City, and 52% to ACSA.

8. In the event any one or more of the terms or provisions contained in this Agreement should be held invalid or unenforceable in any respect, the validity and enforceability of the remaining terms and provisions will not in any way be affected or impaired. Any invalid or unenforceable term or provision will be deemed to be void and of no force and effect only to the minimum extent necessary to cause such term or provision to become valid and enforceable, and the balance of this Agreement will be fully enforceable.
9. This Agreement shall be binding upon, inure to the benefit of, and be enforceable by the Parties and their respective successors and assigns.

IN WITNESS WHEREOF, the duly authorized officers of the City, the ACSA, and RWSA have executed this Agreement as of the date written above.

[SIGNATURE PAGES IMMEDIATELY FOLLOW]

[SIGNATURE PAGE 1 of 3 OF
NORTHERN AREA WATER PROJECTS AGREEMENT]

CITY OF CHARLOTTESVILLE, VIRGINIA

By: _____
Michael C. Rogers, Interim City Manager

COMMONWEALTH OF VIRGINIA
CITY OF CHARLOTTESVILLE, to wit:

The foregoing instrument was acknowledged by me this _____ day of _____,
2022, Michael C. Rogers, as Interim City Manager of the City of Charlottesville, Virginia.

Notary Public

Registration No.: _____

My Commission expires: _____

APPROVED AS TO FORM:

Lisa Robertson, City Attorney

*[SIGNATURE PAGE 2 OF 3 OF
NORTHERN AREA WATER PROJECTS AGREEMENT]*

ALBEMARLE COUNTY SERVICE AUTHORITY

By: _____
Gary B. O'Connell, Executive Director

COMMONWEALTH OF VIRGINIA
COUNTY OF ALBEMARLE, to wit:

The foregoing instrument was acknowledged by me this _____ day of _____,
2022, by Gary B. O'Connell as Executive Director of the Albemarle County Service
Authority.

Notary Public

Registration No.: _____

My Commission expires: _____

[SIGNATURE PAGE 3 OF 3 OF
NORTHERN AREA WATER PROJECTS AGREEMENT]

RIVANNA WATER AND SEWER AUTHORITY

By: _____
William I. Mawyer, Jr. P.E., Executive Director

COMMONWEALTH OF VIRGINIA
CITY OF CHARLOTTESVILLE, to wit:

The foregoing instrument was acknowledged by me this ____ day of _____,
2022, by William I. Mawyer, Jr. P.E. as Executive Director of the Rivanna Water and
Sewer Authority.

Notary Public

Registration No.: _____

My Commission expires: _____

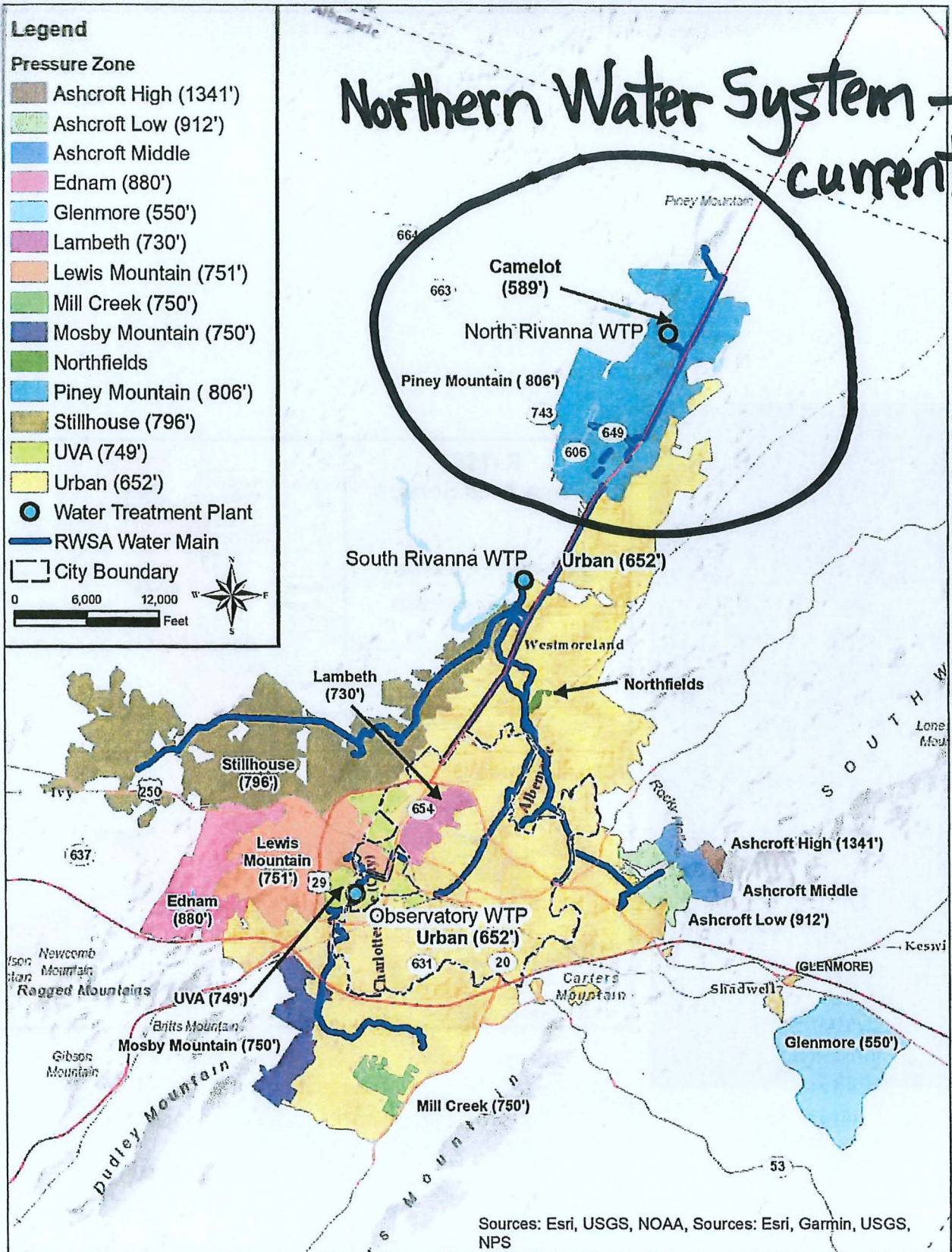


Figure 1: Urban Finished Water System Pressure Zone Map

Urban Water Treatment System

S. Rivanna WTP	12 MGD
Observatory WTP	7.7 MGD
N. Rivanna WTP	2 MGD
	<hr/> 21.7 MGD

