

MEMORANDUM

To: Albemarle County Board of Supervisors
From: Gary O'Connell, Executive Director
Date: April 3, 2019
Re: Albemarle County Service Authority (ACSA) Quarterly Briefing
cc: Mr. Jeff Richardson, County Executive; ACSA Board of Directors;
ACSA Leadership Team and Managers

We do appreciate the on-going opportunity to share with the Board what is happening at our water agency, the Albemarle County Service Authority. We pride ourselves on safe, clean, reliable Albemarle water. Our employees work hard for this to happen and keep that trust in our water, and provide excellent customer service. Here are some updates from the ACSA:

1. **Budget and Rates** – The ACSA FY 2020 Budget and Rates will be presented to the ACSA Board at their April meeting for a June adoption. The ACSA Capital Improvements Program (CIP) was presented to the ACSA Board at their March meeting (see the Capital Project Report at the end that discusses new proposed projects). A major part (over 60%) of the ACSA Budget and Rates goes for treatment costs and particularly large capital projects of the Rivanna Water and Sewer Authority (RWSA), which has major projects totaling near \$250 million in their 15-year program. Yet the ACSA average residential bill is under the statewide average, and 22% less than a comparable City of Charlottesville water and sewer bill. A full budget and rate presentation will be presented to the ACSA Board at their April meeting, for a June adoption.
2. **Winter Customer Newsletter and Customer Survey** – Included with the February-March bill was a customer newsletter with winter weather water tips and pertinent ACSA information (see attached copy). We send this newsletter quarterly, and plan specific typical bill flyers during the year. Also, we sent a customer survey on ACSA services to obtain customer feedback for our new Strategic Plan. Over 1,000 customers submitted completed surveys. We are completing the analysis of them. A copy of the survey is attached.

3. **2019-2022 Strategic Plan Process** – We have completed a number of reviews and assessments to identify strategic “GAPS” to address in the future: national performance measure benchmarking to 129 utilities; peer Utility Manager Best Practices Review Panel, and Employee “Insights” Survey and recently a customer survey. This fall we focused on an Effective Utility Management (EUM) assessment strategic planning tool and additional feedback. A new three-year (2019-2022) Strategic Plan is planned for Board adoption in July 2019. The two major Strategic Plan focus areas will be implementation of AMI (advanced metering) and CMMS (computerized maintenance management system – customer service requests, work orders, inventory and asset management). Additional goal areas: continuation of succession planning; additional Best Practices Reviews; finalize Emergency Response and Business Continuity Plan with annual exercises; financial system upgrade; cyber security assessment; completion and implementation of the long-range Facility Master Plan; water audits (water conservation and water use tool) and an ACSA all facilities energy audit. Our overall goals are safe, clean, and reliable Albemarle Water.
4. **AMI (Advanced Metering Infrastructure)** – One of our strategic plan items is to explore the various AMI technologies that are available in the water metering world. Most medium and large sized water utilities have already converted to the AMI technology. The feasibility study is completed which evaluated our technology options and looked closely at the needs of our customers. This was a six-month long feasibility study process. The ACSA Board reviewed the feasibility study recommendations and has approved moving to the Request for Proposals (RFP) phase. The RFP to vendors went out last week with a due date in early May. A final Board decision is scheduled for November. A tremendous advantage with AMI is immediate leak detection inside the customer’s home or business, or water service line, a tremendous water conservation and cost savings tool.
5. **CMMS – Computerized Maintenance Management System** – This system for customer service requests, work orders, inventory and asset management is part of our Strategic Plan to improve how we manage our day to day operations and will utilize the CityWorks software program. This is one of those projects that is not so visible, but has the potential to greatly improve our operations to deliver better customer service, productivity and scheduling. We will also have a web portal/mobile app customer request in place at the completion of the project, likely 2020.
6. **ACSA Capital Projects Update** – The adopted FY 2019 Capital Improvements Program (CIP) started July 1st and is a \$6.2 million program (let us know if you would like any detailed project maps or to schedule a tour on any of the projects); a copy of the system-wide map showing CIP projects is attached. Highlights and current major projects are detailed below:

- **Glenmore Water Tank Project** – This project is for system redundancy and emergency backup. The present line extends 4 ½ miles to Glenmore. The tank is completed, with final work this spring to complete the pump station. We have also designed some additional security measures into the project. Work on the pump station began in June 2018, and is scheduled to be finished in May. Fence installation is complete.
- **Camelot Sewer Rehabilitation** – Sewer replacement, relining, and manhole repairs to reduce infiltration and inflow are needed for a well-functioning sanitary sewer. All the relining work is complete, overall project has a planned completion in May.
- **ACSA Facilities Master Plan** – Study underway to look at the short and long-term future of ACSA properties (Crozet, Avon Street, Pantops) and develop a master plan for the long-term needs of the organization as we continue to grow and add customers. Additional parking and interior space renovations underway. A conceptual site development plan for Avon Street is under discussion with the County Planning staff. A draft master plan has been submitted for review and may require a zoning amendment.
- **Camelot Water Main Replacement** – Replacement of nearly 50-year-old water mains that are also undersized and deteriorating. Design work is underway at the 90% stage. Draft easement plats have been received.
- **Scottsville Water Main Replacement** – Replacement of an aging water main along East Main Street. The project is being rebid to generate more competitive bidding interest.
- **Barterbrook Water Main Replacement** – Replacement of aging and badly deteriorating water mains along Solomon Road, North Berkshire Road, and Inglewood Drive. We have had a series of water main breaks in this area and replacement is needed. Construction is complete, and the final punch list is complete.
- **Ashcroft Water Pump Stations Improvement** – This project will upgrade two existing water pump stations, which will result in quicker refill of the storage tank and improved water quality. Contract was awarded in July, with construction completion in June 2019.
- **Peter Jefferson Place Pump Station Improvements** – This pump station is operating inefficiently, and a study was completed to determine the best solution to improve it. Project is under contract with a November 2019 completion.
- **Glenmore Drainage Basin Sewer System Rehabilitation** – We have seen wet weather issues in the Glenmore system to the point that this drainage basin has become a priority. Most manhole rehabilitations have been completed, with a small number left to finish to complete this project by May.
- **Madison Park Pump Station Upgrade** – Constructed 33 years ago, by a private development, and the original equipment is wearing down,

building undersized, and not able to install SCADA (computerized monitor). The plan is to replace this pump station on-site. Design work is at the 20% stage.

- **Oak Forest Sewer Pump Station Abandonment** – This is an aging pump station in need of rehabilitation. With the adjacent Stonefield development, we now have the opportunity to extend a sewer main and eliminate this aging pump station and avoid an expensive upgrade. We have completed design, and now acquiring easements.
- **Jefferson Village Water Main Replacement** – Replacing older (49 years) water mains made of inferior pipe product. Since originally part of a former well system, many of the mains are undersized. Design is at 50% completion. Six geotechnical borings are being scheduled.
- **Meriweather Hills Water Main Replacement** – This water main is reaching the end of its useful life and is in need of replacement. This is another of the former well system mains. Project has been bid and a contract for construction being finalized.
- **Pantops Sewer Study** – Area study to reduce wet weather infiltration and inflow (I/I). This study will likely lead to targeted sanitary sewer system rehabilitation. Flow monitoring and manhole inspections have been completed, and are completing the investigation portion of this project.
- **SCADA (computerized monitoring)** – A three phased project is nearing completion for over 40 water and wastewater facilities in the ACSA system. Another of our projects to provide emergency alerting and monitoring to assure reliable water and wastewater service. We have completed the second phase of work, with the third phase design completed to hire a contractor through a competitive negotiation process.
- **Crozet Phase IV Water Main Replacement** – Our Strategic Plan calls for the eventual replacement of all asbestos-cement 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 water mains in the Crozet Water System. This is the fourth of five phases that have been defined to carry out these improvements.
- **Hessian Hills Water Main Replacement** – 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 major deterioration, 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 plastic pipe installed in the early 1980's. Design work recently began, with project completion in 2021. Project utility locating and surveying are underway.

- **Recoating Scottsville Water Storage Tank** – As part of our program of regular water storage tank cleaning and inspections, it was determined that the Scottsville Tank was exhibiting generalized degradation of the paint coating on the interior and exterior surfaces. This tank has not been recoated since its construction approximately 25 years ago. To be proactive in extending the useful life of our tanks, we have scheduled for the Scottsville Tank to be recoated this spring.
- **Hollymead Drainage Basin SSES** – 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. This 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 Brookhill development, and an evaluation of this trunk main will provide an excellent baseline of pipe integrity in advance of the future construction activities around this sewer. About a third of the manholes have been inspected.
- **Redfields Sewer Pump Station Abandonment** – This wastewater pump station was constructed 23 years ago by private development and the parcel is too small to add an emergency standby generator. The Maintenance Department must rely on a portable pump to operate this station during power outages. With the development of Wintergreen Farm Subdivision, ACSA staff saw an opportunity for a sewer main extension that could eliminate this pump station. Now that the sewer main extension is in place the timing is perfect for abandoning this wastewater pump station. Completion anticipated at the end of 2019.
- **Vulnerability Assessment** – As part of an on-going emergency preparedness program, the ACSA is in a multi-phase effort to reduce risk and increase resilience. Projects include additional security measures, fencing and access gate enhancements, cybersecurity measures, additional tank protection, etc.

7. **Capital Projects Proposed for FY 2020:**

- **Energy Audit (New):** This project will consist of a comprehensive energy audit of the Operations Center and all pump stations (20). 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.
- **Avon Street Maintenance Yard (New):** 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.

- **Ragged Mountain Phase 1 Water Main Replacement (New):** 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.
- **Northfields Water Main Replacement (New):** 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.
- **Ednam Water Storage and Northfields Tank Recoating (New):** As part of our new program of regular water storage tank cleaning and inspections it was determined that the tanks were exhibiting generalized degradation of the paint coating on either the interior or exterior surfaces. The Ednam Tank was constructed in 1977 and was last painted in 1997. The original Northfield Tank was replaced in 2000 when the pump station was renovated. To be proactive in extending the useful life of our water tanks our consultant recommended the Ednam and Northfields Tanks be recoated.
- **Exclusion Meters Replacement (New):** 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.

- **Pipe Saddles Replacement (New):** 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 zinc-coated 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.

Let us know if you have further questions or comments. We are more than glad to meet with you about any of our projects, or facilities, or provide a tour if that would be useful.

Attachments:

- ACSA Customer Newsletter
- ACSA Customer Survey

news & updates

QUARTERLY NEWSLETTER

2019 - A Year of Progress and Promise

Dear Customer,

As 2019 lies before us as a year filled with progress and promise, the Albemarle County Service Authority (ACSA) will move ahead with forward-thinking initiatives focused on improving our services for the benefit of you, our customers over the coming months.

The focus of our work will be outlined in our new Strategic Plan, which will carry us through 2022. Developed using industry best practices, the Plan addresses the future challenges and opportunities facing the ACSA.

Two major projects will form the core of the Strategic Plan. The first is our study to upgrade what is perhaps our most essential piece of infrastructure – your water meter. To increase efficiency and interactive metering, we will upgrade or replace all of our meters to incorporate an advanced metering infrastructure (AMI).

This new technology will enable you to view your water usage in near real-time, allowing you to keep a close eye on your bill. You will even be able to set up text, phone, and email alerts that will notify you about potential leaks and high bills before they can harm your bank account.

At the same time, ACSA staff will gain valuable information about how the water system is performing. We will be able to more rapidly identify problem areas, so we can proactively target them for repair and replacement. If Board approved, the AMI Project is expected to begin in 2020.

The second project will be the implementation of a new Computerized Maintenance Management System, or CMMS. It will provide the ACSA an upgraded ability to manage essential work assignments and gain new levels of efficiency throughout our entire organization. Our goal is to have an online customer request function.

Along with this redesigned newsletter, you will find our 2019 Customer Survey. I would like to personally invite you to answer the brief, but informative, questions to help us ensure you are receiving the best customer service experience possible.

The survey is also available online at www.serviceauthority.org.

The survey will provide the ACSA with helpful, customer service-related information, including your satisfaction levels with our services; the improvements you would like to have available in the future; and how you would like us to keep you informed about our work.

Thank you for taking the time to read our newsletter and fill out our survey. We encourage you to connect with us on Facebook, Twitter, and Instagram for the latest information about your water and sewer services, including water emergencies and outages.

The ACSA employees and I look forward to continuing to provide high quality, safe and reliable water for decades to come.

Gary O'Connell, Executive Director



TOP WINTER TIPS to Protect Your Pipes!



- Tightly close doors & windows
- Insulate pipes in unheated & drafty areas
- Shut off and drain pipes leading to your outside faucets
- Close the inside valves and drain the pipes leading to your outside hose bibs
- Know where your main shutoff valve is and label it. Teach everyone how to turn it off.
- If a cold snap hits, open the cabinets to get heat on the pipes. Allow the faucet farthest from the shutoff valve to drip to keep the water moving.
- If you suspect a frozen pipe and can find it, turn up the heat and open your cabinets. Then use a hair dryer or warm, wet towels on the problem pipe. NEVER USE AN OPEN FLAME.
- Can't find the problem? Call a licensed plumber for additional help.



BEN O' HARE - 2ND GRADER, JOHNSON ELEMENTARY

"Save Water" Art Contest

The City of Charlottesville, ACSA, and Rivanna Water and Sewer Authority took part in its 4th Annual "Imagine a Day Without Water" campaign to educate and inspire the community about the value of water. We asked students to illustrate "How Do You Save Water?" Our next campaign and contest will take place in September. View more winners at www.serviceauthority.org.

Albemarle County Service Authority (ACSA) believes our customers are critical to helping us ensure they are receiving the best customer service experience possible. As the ACSA looks to the future, we want to receive your input and ask for your feedback and comments about your water and sewer services. Thank you for taking the time to complete this survey and for helping the ACSA continually improve our efforts.

Please rate your satisfaction with the following items related to your water service:

	Very Satisfied	Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied
• Safety of your drinking water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Taste of your tap water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Smell of your tap water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Clarity of your tap water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Water pressure on a typical day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Information provided by the ACSA about your water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please specify "Other": _____

If you rated "Dissatisfied" in any way, please inform us why so we can address: _____

Please rate your satisfaction with the following items related to your service:

	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied
• Your bill is easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Your water service rates are affordable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Quality of ACSA staff response to service requests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Quality of ACSA staff response to emergencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Information provided by the ACSA about water disruptions (FYI, ACSA posts emergency information on social media - Twitter, Facebook, Instagram; follow us)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Your overall quality of customer service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please specify "Other": _____

If you rated "Dissatisfied" in any way, please inform us why so we can address: _____

Have you had any contact with ACSA staff within the last two years? ☐ Yes ☐ No

If yes, who was contact with?

- ☐ ACSA Field staff, including work crews and meter readers ☐ Both
☐ ACSA Office staff, including Customer Service employees ☐ Other

Please specify "Other": _____

How was your experience working with ACSA staff (if applicable)?

Strongly Agree Agree Neutral Disagree Strongly Disagree

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> Staff was courteous | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Staff was knowledgeable | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Staff was able to resolve my issue | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How do you prefer to receive information about ACSA services (check all that apply)?

- | | |
|--|---|
| <input type="checkbox"/> Water/sewer bill (insert/message) | <input type="checkbox"/> Social Media (Twitter, Facebook, Instagram) |
| <input type="checkbox"/> Email* | <input type="checkbox"/> News Media |
| <input type="checkbox"/> Internet/website | <input type="checkbox"/> Annual Water Quality Report – Consumer Confidence Report |
| <input type="checkbox"/> Customer Newsletter | <input type="checkbox"/> Other |

Please specify "Other": _____

*If by email, please provide your email address: _____

The ACSA is developing a new Strategic Plan that will guide our overall efforts. The plan will prioritize an improved customer service experience and the use of automated meter reading technologies. Below, please describe areas you believe the ACSA should focus on for the future? _____

Please rate the importance of these potential service options:

Extremely Important Very Important Moderately Important Slightly Important Not at All Important

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> Offer water use information online | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Offer web-based/mobile phone customer service requests | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Offer water leak notifications | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Offer additional payment options | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Any additional service options you might suggest: _____

Have you contacted the ACSA with a concern in the last two years about your water or sewer services? ☐ Yes ☐ No

If yes, what was the nature of your concern?

- | | |
|--|--|
| <input type="checkbox"/> Utility bill | <input type="checkbox"/> Water service |
| <input type="checkbox"/> Sewer Service | <input type="checkbox"/> Other |

Please provide more information about your concern: _____

If you would like to share any additional comments or concerns, we invite you to share them here: _____

If you would like to be contacted by the ACSA, please provide your contact information below (this will be confidential and not shared):

Name: _____
Address: _____
Email: _____
And/or phone number: _____

Thank you for your participation and input. We greatly appreciate your time. The ACSA will publish survey results on the website in late April. Completed surveys may be returned with your utility bill, and will be entered into a drawing for a chance to win a \$100.00 gift card!