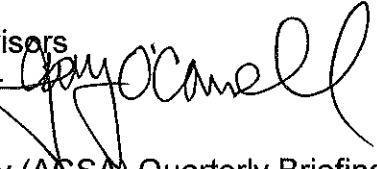


MEMORANDUM

To: Albemarle County Board of Supervisors
From: Gary O'Connell, Executive Director 
Date: December 21, 2017
Re: Albemarle County Service Authority (ACSA) Quarterly Briefing
cc: Mr. Jeff Richardson, County Executive; ACSA Board of Directors;
ACSA Lead Team

We once again appreciate the opportunity to share what is going on at your water agency, the Albemarle County Service Authority. We pride ourselves on safe, clean, reliable water, and all our employees work hard every day to keep that trust in our water. We wish you the best in this New Year.

1. **Drought Management** – As the Board is aware the Drought Water Restrictions were lifted on November 17, 2017 due to a series of rains that refilled the South Fork Rivanna Reservoir, which continues to be full. ACSA customers responded positively to needed water conservation, and we saw reductions in water use during the period of restrictions. A copy of the letter we sent our customers thanking them for their conserving is attached. It also served as a reminder of continued water conserving measures. One of our debriefs for follow-up has identified the need to have the ACSA Rules and Regulations on Water Restrictions exactly the same as the Albemarle County Code, some changes need to be made for consistency.
2. **Imagine a Day Without Water** – With the theme “Why Does Every Drop Count?”, we received 638 student art posters, nearly 50% greater participation than prior years. The timing was perfect to get students and their families focused on the value of water, and water conservation. The winners from the art contest are attached. Their artwork is on display in the lobby at the ACSA offices.
3. **Budget and Rates** – The ACSA's FY 2018 Budget and Rates will be presented to the ACSA Board at their April meeting, for a June adoption. The Capital Improvements Program (CIP) will be presented to the ACSA Board at the March meeting. A major part of the ACSA budget goes for treatment costs to the Rivanna Water and Sewer

Authority (RWSA), with over 60% of the budget/rate paying for that expense.

4. **AMI (Advanced Metering Infrastructure or Electronic Metering)** – One of our strategic plan items is to explore the various AMI technologies that are available in the water metering world. Most electronic and gas utilities, and larger water utilities, have already converted to the AMI technology. This feasibility study will evaluate our technology options and look closely at the needs of our customers. We have received six proposals for the Feasibility Study, which is under review. The ACSA Board will take up approval for the study at their March meeting. A tremendous advantage with AMI is immediate leak detection inside the customer's home or business, a tremendous water conservation and cost savings tool.
5. **Rate Study** – Over the next several months we are updating our rate model through a very detailed review of all ACSA fees and rates, including the 4 tiers of water rates and the developer new connection fees. Our rates still continue to be below the statewide average, and are 22% lower than a comparable customer bill from the City. We, as part of our strategic planning, update the rates each budget cycle and every five years conduct a detailed review of the rate model, which is what we will be doing now. The results, upon ACSA Board approval, will become part of the FY 2019 Budget and Rates next year. A formal Rate Study report will be presented to the ACSA Board at the February meeting.
6. **ACSA Capital Projects Update** – The adopted Capital Improvements Program (CIP) totals \$5.6 million in projects. Below is an update for each of our current capital projects:
 - **Water Tank Maintenance Program** - This is a comprehensive, multi-year and ongoing water storage tank maintenance and rehabilitation program for the eight tanks in the ACSA system. The goal is to have an ongoing review of our tanks to ensure they are kept in good condition to be able to serve the community. This year we inspected and cleaned Red Hill, Stony Point, Ashcroft Upper and Northfields tanks.
 - **Westmoreland Water Main Replacement** – This project replaces nearly 50-year-old water mains that have recently experienced multiple water leaks. Construction of the new water main is complete, with services having been connected. City Gas has completed construction with new gas lines to service the neighborhood. Final paving has been completed.
 - **Berkeley Water Main Replacement** – This project replaces water mains in the Berkeley subdivision that are failing and leaking. The

lines are nearly 60 years old. Work has been completed, with 100% of the water main installed. All of the customers in this area have had their services switched over to the new water mains. This is another project that has been coordinated with City Gas, and new gas mains were installed in October. Once that gas work is complete, paving will occur. Final paving has occurred.

- **Glenmore Water Tank Project** – This project is for system redundancy and emergency backup. The present line extends 4 ½ miles to Glenmore. The project is now under contract for a new water tank to serve the Village of Rivanna. We had been waiting on private development site grading that affects the new water main location and depth which is now completing. We have also designed some additional security measures into the project. Work is to begin after the first of the New Year.
- **Crozet Phase 3 Water Main Replacement** – Design work to replace older water mains in Crozet is complete and easements have been obtained. The project and paving have been completed.
- **Orchard Acres Water Main Replacement** – Older (59 years) water mains to be replaced in Crozet. Design is complete and easements have been obtained. The project contractor will begin work in early February.
- **Camelot Sewer Rehabilitation** – Sewer replacement, relining, and manhole repairs to reduce infiltration and inflow are needed for a well-functioning sanitary sewer. Work is underway.
- **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. A Phase I relocation of the maintenance offices on site has been completed. Additional parking and interior space renovations are the next step. A site development plan for Avon Street is under discussion with County Planning staff.
- **Camelot Water Main Replacement** – Replacement of nearly 50-year-old water mains that are also undersized. Design work is underway at the 50% stage, and field fire flow testing is being scheduled.
- **Scottsville Water Main Replacement** – Replacement of an aging water main along East Main Street. We are in the 90% design stage on this project, with field surveying completed. We are in the easement acquisition phase, including with the CSX railroad.
- **Barterbrook Water Main Replacement** – Replacement of aging and deteriorating water mains along Solomon Road, North Berkshire Road, and Inglewood Drive. We are at the 90% design stage on this project. Project is moving forward on easement acquisition.

- **Fontana Loop Water Connections** – New water main loops at Verona Drive and Olympia Drive will create secondary water feeds for system redundancy and emergency backup to the Fontana subdivision. Construction has been completed.
- **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. 100% design documents are complete. Project pending state review and communications link.
- **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. Design is currently underway for pump and piping replacement.
- **Glenmore Drainage Basin Sewer System Study** – We have seen wet weather issues in the Glenmore system to the point that this drainage basin has become a priority. The study is underway and approximately 90% complete.
- **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 controls). The original plan was to replace this pump station on-site. An alternative now being evaluated is to connect to a new gravity sewer main extension, with no pump station required. The connection would be to a proposed extension from the Morey Creek Interceptor to the proposed UVA development known as Ivy Mountain (the old Kluge Children's hospital site on Ivy Road).
- **Oak Forest Sewer Pump Station** – 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 are in the 50% design stage and under review.
- **AMI Feasibility** – Advanced Metering Infrastructure project feasibility to evaluate various electronic metering systems to replace our current handheld reading system. Six proposals have been received and are under review.
- **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 phase began in October.
- **Meriweather Hills Water Main Replacement** – This water main is reaching the end of its useful life and is in need of replacement. Another of the former well system lines. Design is scheduled for FY 2018.

- **Pantops Sewer Study** – Area study to reduce wet weather infiltration and inflow (I/I). Will likely lead to targeted sanitary sewer system rehabilitation.
- **Lewis Hill-West Leigh Water Connection** – The existing connection is at risk of failure, due to stream encroachment, to the point it has been taken out of service. This project will re-establish the water connection from Lewis Hill to a recent water line replacement along Sheffield Road in West Leigh.
- **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.

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:

- "Thank You" for conserving letter
- Imagine a Day Without Water – "Why does every drop count?" – Student Artwork



November 17, 2017

Dear ACSA Customer:

THANK YOU FOR CONSERVING!

We want to thank each and every one of you for your personal and business efforts to conserve water during our recent drought emergency. Through your many conserving actions, it allowed us to weather the drought until the fall rains finally arrived and filled the South Fork Rivanna Reservoir that we were most concerned about. We are continuing to fill over the fall and winter our other reservoirs in the system. You did help us make every drop count through your conservation efforts.

Now that the South Fork Rivanna Reservoir has remained full from the recent rains, we have lifted the Drought Warning water restrictions as of today. All the water restrictions have been rescinded.

We are hopeful that during the drought period you learned some new water conserving practices that you will continue, to both conserve water and save you money.

On the back of this letter are a number of water conserving measures that we would encourage you to practice; give them a try.

Sincerely,

A handwritten signature in black ink that reads "Gary O'Connell".

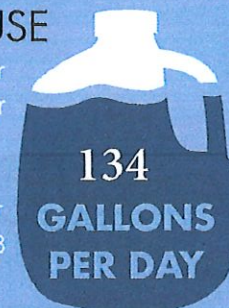
Gary O'Connell
Executive Director

WHAT DOES A 20% REDUCTION *in water use look like?*



AVERAGE DAILY USE

The average ACSA customer uses 134 gallons of water per day. Here are some easy ways to reduce water use. Find the right combination for you to reduce by 20% or 26.8 gallons a day.



INSTALL AERATORS ON
BATHROOM FAUCETS

saves

1.2 GALLONS
per person/day



WASH ONLY FULL LOADS
OF CLOTHES

saves

15-45 GALLONS
per load



TURN OFF WATER WHEN
BRUSHING TEETH OR
SHAVING

saves

10 GALLONS
per person/day



TAKE FIVE MINUTE
SHOWERS INSTEAD OF
10 MINUTE SHOWERS

saves

12.5 GALLONS
with a water efficient showerhead



FILL THE BATHTUB HALFWAY
OR LESS

saves

12 GALLONS
per person



INSTALL A WATER-EFFICIENT
SHOWER HEAD

saves

1.2 GALLONS
per minute



OR

10 GALLONS
per average 10-minute shower



FIX LEAKY TOILETS

saves

30-50 GALLONS
per day/toilet



RUN DISHWASHER WHEN
FULL INSTEAD OF HALF FULL

saves

5-15 GALLONS
per load



INSTALL A HIGH-EFFICIENCY
TOILET (1.28 GALLON/FLUSH)

saves

19 GALLONS
per person/day



For more tips on reducing water use, visit serviceauthority.org!

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Service Authority
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Imagine a Day Without Water Art Contest Winners Announced

Post Date: 11/17/2017:

The City of Charlottesville, the Albemarle County Service Authority (ACSA), and Rivanna Water & Sewer Authority (RWSA) participated in their third annual "Imagine a Day without Water," a national campaign to educate and inspire the community about the value and importance of water that encourages water conservation in our everyday lives.

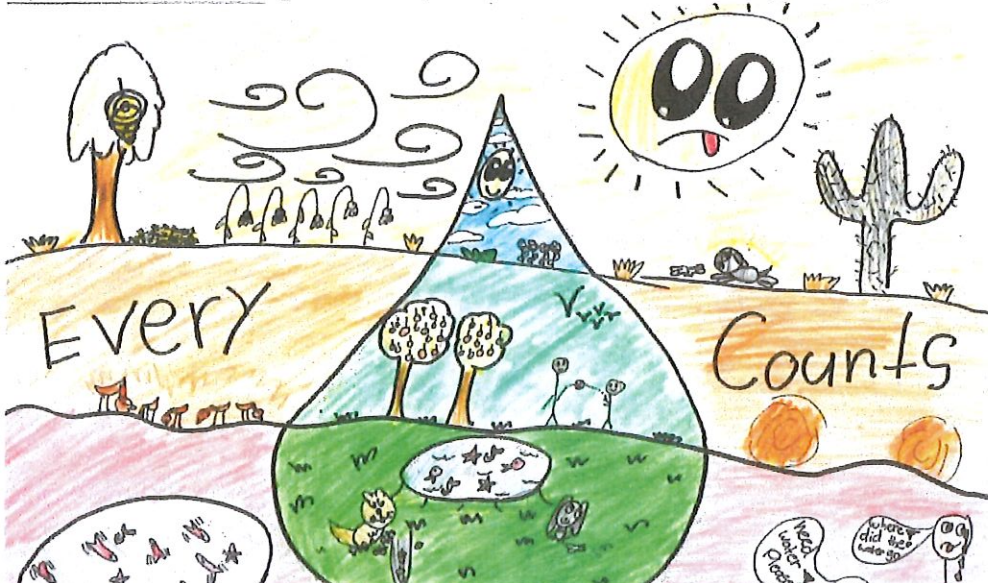
The campaign involved a public awareness event as well as an art contest where students from throughout the City and County were asked to illustrate "Why does every drop count?" Judges from the City, ACSA, and RWSA helped evaluate the artwork (over 630 entries from the Charlottesville and Albemarle County) for creativity, originality, and incorporation of the contest's challenge question. Of the 638 poster entries received, one winner was chosen from each of four grade divisions. In addition, the top 60 entries were available to the public to view online and vote for a favorite art poster; with over 580 online votes, a fan favorite was selected. All 5 winners will receive a \$200 gift card, water conservation goodie bag, and have their artwork displayed around Charlottesville.

The winners for the 2017 Imagine a Day without Water Art Contest are:

- 1st – 2nd Grade: Nathan Jordan, Johnson Elementary, Grade 1

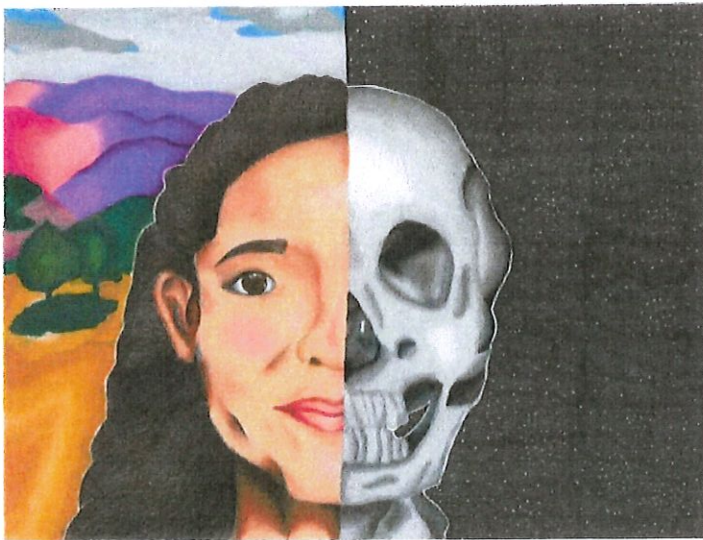


- 3rd – 4th Grade: Sophie Rubin, St. Anne's-Belfield School, Grade 4





• 7th – 8th Grade: Savannah Gale, Henley Middle School, Grade 7



• Fan Favorite: Elisabeth Shin, Brownsville Elementary, Grade 5

