

MEMORANDUM

To: Albemarle County Board of Supervisors
From: Gary O'Connell, Executive Director
Date: December 18, 2015
Re: Albemarle County Service Authority (ACSA) Quarterly Briefing
cc: Mr. Tom Foley, County Executive; ACSA Board of Directors;
ACSA Lead Team

We at the ACSA again appreciate the regular opportunity to update the Board of Supervisors on our projects and issues. We look forward to presenting our quarterly report and being available for questions at your January 6, 2016 meeting:

1. **Imagine a Day Without Water** – Our student art contest received 570 posters, with some very creative artwork centered around our theme of the importance and value of water (see the winners in the attachment). This was a partnership with the City and RWSA, for a very successful November event and art contest.
2. **Budget and Rates** – Budget season has begun, and the recommendations to the ACSA Board will be presented at the April meeting. An informational flyer is planned to be sent to our customers in May on the proposed budget and rates.
3. **Private Development and the ACSA** – We review all the water and sewer plans for the new development in the County and inspect up to completion, for acceptance into the ACSA system. The current list of active projects we have under inspection is attached.
4. **New ACSA Website** – www.serviceauthority.org. Check it out!
5. **Several RWSA Projects of Interest** –
 - **Wholesale Metering**- As part of the water supply plan, we wanted to be sure the allocation for the ACSA and the City water use is more accurate. The result is the start of

construction on a metering project that will measure monthly, through 27 wholesale meters, the City and ACSA water use. As you may recall, the Water Supply Plan had a trigger, that when the City exceeded their allocated capacity (use), they would pay a surcharge as provided in the agreement. The ACSA wanted to ensure that the use is accurate and fair, and this metering project will do that.

- **Comprehensive Wastewater Study**- Another regional study to look at wastewater flows coming from the ACSA and the City. This data will be used for cost allocation purposes as spelled out in the recent Wastewater Cost Allocation agreement.
 - **Crozet Water**- The CIP for next year will include a “capacity” study to look at the need for expanding the Crozet Water Treatment Plant. As you know, a tremendous amount of growth has occurred in Crozet, and we suspect we will soon be nearing the long term capacity of the plant.
 - **Crozet Wastewater Capacity**- Again, as growth in Crozet has occurred, we need to study the capacity of the wastewater lines in Crozet.
 - **GAC**- The advanced water treatment project for GAC (granular activated carbon) has begun at the three urban water treatment plants (South Fork Rivanna, North Rivanna, and Observatory) and work will start in the spring at the Crozet and Scottsville Water Treatment Plants. The work is expected to be completed in late 2017, at which time we will have a much higher quality of water to provide to our customers.
6. **Vulnerability Assessment**- We are partnering with the City, RWSA, and UVA for a third party review of our infrastructure facilities from a perspective of potential threats (manmade and natural), and a review of our critical assets. The result will be a set of recommendations and review of the existing physical protection systems and security policies including cyber security. This is a proactive approach to identify any facility deficiencies that need correcting. We are also coordinating with the Health Department, as well as Albemarle County Police and Fire and Rescue.
7. **ACSA Capital Projects Update**:
- **Key West Water Main Replacement** – A waterline project to replace an existing line that is old and deteriorating. In addition to a new waterline, additional fire hydrants will be added to increase the level of fire protection in Key West. This contractor started the

installation of a new 12 inch water main in early April; about 2/3 of the project is complete. Twenty-six (26) new fire hydrants have been installed to date.

- **Westmoreland Water Main Replacement** – This project is to replace a 50 year old waterline that has recently experienced multiple leaks. The Westmoreland subdivision is located between the Carrsbrook and Northfields subdivisions that are also scheduled for future waterline upgrades. Project surveying has been completed. Design is nearing completion. The next step is geotechnical borings and soil corrosiveness testing. Easement acquisition work will continue.
- **Michie Tavern Water Main Replacement** – A new waterline is being designed that would connect near PVCC on Route 20. The current line is over 70 years old and badly deteriorating. A contract is being completed for construction work to begin.
- **Ivy Water Main Extension** – This is a new water main extension to serve residences and businesses in the Village of Ivy, adjacent to Route 250 West, that have had their wells contaminated by leaking underground fuel tanks. This is a DEQ funded project. The design work is at the 50% stage.
- **Berkeley Water Main Replacement** – This is another one of our waterline replacement projects for an older line, nearly 60 years old. We have completed 100% of the design. We are also coordinating with Charlottesville Gas, as the neighborhood is very interested in new gas service. Easement acquisition work is beginning.
- **Glenmore Water Tank Project** – This project is designed to add an emergency backup to the Village of Rivanna area, as there is a single 4½ mile waterline to the east to serve this area. The easements needed for the project have been completed. The final site plan has been approved, and the County as co-owner has executed the Deed of Easement. We have completed the 90% design documents. The timing of the bid is dependent on the rough grading schedule for the Rivanna Village development, so as to coordinate the two projects and not have conflicts.
- **Water Tank Maintenance** – Annual Comprehensive Program for the maintenance and rehabilitation of the eight (8) ACSA water tanks. Services include cleaning, inspection, coating evaluation and repairs. A Request for Proposals is being prepared to establish a maintenance contract.
- **Ivy Road-Flordon Water Connection** – This project, located near Ivy Nursery at Route 250, is an interconnect project to connect to the West Leigh area for water system and fire protection redundancy in emergencies. The water lines to the bridge and along Route 250 have been completed. VDOT has awarded their bridge relocation project, which constructs a portion of this new

water main connection; this bridge work has started, but has been delayed.

- **Ednam Water Pump Station Upgrade** – This project will provide an alternate source of water to West Leigh by upgrading the existing pump station and increasing pumping capacity. Design is complete and bids will be advertised in January.
- **Orchard Acres Waterline Extension** – One of our Crozet area waterline replacement projects to upgrade and replace aging waterlines. This project is at the 100% stage in the design documents. The easement acquisition stage of the project will begin in early 2016.
- **Sewer System Rehabilitations** – Work is near completion in the Ednam Sewer System. We are working with Farmington on sewer upgrades to their private system that connects into the Ednam System. The study phase of the PVCC Sewer Drainage Basin has been completed and the rehabilitation work has been underway.
- **Greenbrier Drive Sewer Replacement** – As the City's Hillsdale Drive Extension Project is being designed, we are coordinating to replace a 700 foot section of sewer. This is a future CIP project, so doing the work now in conjunction with the City project will be a significant cost savings.
- **Oak Hill Sewer (Phase 2)** – The ACSA staff continues to appreciate the work of the Albemarle Housing Office to assist in seeking CDBG grant funding for this new sewer line project to serve 20 additional properties that have failing septic systems. We have completed easements and the design has been completed. The grant application has been approved and contract documents are the next step.
- **West Leigh Waterline Replacement** – Work has been completed to replace existing waterlines on Devonshire Road, Wendover Drive, Suffolk Road and Cornwall Road. A new water line has also been installed on Croydon Road, and the work is nearly complete.
- **Sanitary Sewer Rehabilitation** – We continue our ongoing program to rehab the sewer system, lines and manholes. Relining projects include the Woodbrook area, Camelot, Ednam, PVCC and the Woolen Mills area.
- **Route 29 Solutions (VDOT Project) – Utilities** – As the Board is well aware, road work for this project is under a design-build contract for construction. The project consists of the three parts: (1) Rio Road/Route 29 Grade Change Intersection, (2) 29 North Widening, and (3) Berkmar Drive Extended. All these projects have major impacts on both ACSA and RWSA utilities. This includes utility line relocations in a number of areas. Construction of water lines on Rio and Route 29 has been completed.

- **Crozet Water Main Replacement Phase 3 (New Proposed FY 2016 CIP Project)** – This project continues our work to replace aging, undersized, and deteriorating water mains in the Crozet Water System. The proposed work will be on Jamestown Road, and a section of Park Road to Dunvegan Lane. The work proposed for next year is the design of the new water mains to provide a more reliable water distribution system.
- **Key West – Dunlora Water Connection (New Proposed FY 2016 CIP Project)** – To continue the ACSA goal of building redundancy into the water system, this project provides another major water main connection across the Rivanna River. By creating a loop with the Dunlora subdivision and the Key West subdivision, this new waterline will help fortify the water system on the east side of the Urban Ring. It also improves water quality in Key West. The design is complete, and the work will be coordinated with the ongoing Key West Water Main Replacement Project.
- **Camelot Drainage Basin Sewer Study (New Proposed FY 2016 CIP Project)** – This project continues the ACSA work to identify sewer system areas in need of rehabilitation to reduce infiltration and inflow (I/I). The study areas include the older portions of Camelot and Briarwood, as well as the Rivanna Station area. The study will be completed in FY 2016 and rehabilitation work will carry over into FY 2017.
- **Oak Forest Pump Station Abandonment (New Proposed FY 2016 CIP Project)** – This wastewater pump station was constructed 35 years ago and is deteriorating, and the original pumps are in need of replacement. With the development of the Stonefield area (and the associated sewer lines), we have identified a sewer main extension project that could eliminate this aging pump station and avoid an expensive upgrade.
- **Peter Jefferson Place Pump Station Improvements (New Proposed FY 2016 CIP Project)** – This pump station constructed 17 years ago was designed to serve a large drainage basin with the potential for dense development. To date the potential development within the drainage basin has been slow, and as a result the pumps are over-sized for the amount of flow received at the station. Due to the lower flows the pumps are not operating efficiently and this is increasing the wear and tear on the equipment. A study to evaluate options to improve the efficiency of the pumps without replacing them will be undertaken to determine the best approach.
- **Airport Sewer Collector Upgrade Evaluation (New Proposed FY 2016 CIP Project)** – The original sewer collector serving the airport and the area west of Route 29, which now includes the Hollymead Town Center and Willow Glen, was originally sized to serve the light industrial zoning designated for that area at the time of construction. As a result, the increased density specified in the

County Comprehensive Plan for the same drainage basin, at build-out, will exceed the capacity of the existing sewer main. This project will review the current zoning, the County's Places 29 Master Plan and the existing conditions of the sewer system to develop a plan for upgrading the capacity of the Airport Sewer Collector.

Thank you for your continued support, and for giving us a regular opportunity to update the Board on the ACSA activities as we work to provide high quality water and service to our 18,500 Albemarle County customers. Happy New Year 2016!

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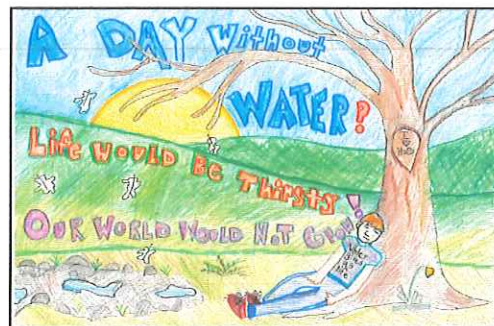
A Day Without Water

I guess mountain dew will do.

What's with the temperature?

Where's all the water?

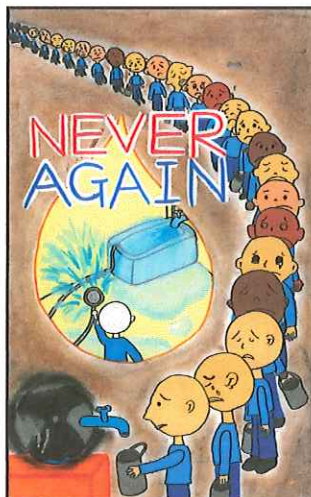
Jackson-Via Elementary, 2nd Grade



Virginia L. Murray Elementary, 3rd Grade



Paul H. Cale Elementary, 5th Grade



Jack Jouett Middle School, 7th Grade



Venable Elementary, 2nd Grade

Congratulations to the four teachers selected from the random drawing: Cristin McGarvey from Burnley-Moran, Brandy Garbaccio from Crozet, Tamara Murray from Charlottesville Day School, and Kathryn Durkee from Community Public Charter School!

Albemarle County Service Authority (ACSA)
Active Private Development Projects
December 2015

- a. 5th Street Station – Wegmans/Bent Creek Parkway (Scottsville): Water and sewer main extension to serve new commercial development. This project is located between Avon St. Ext. and 5th St., just north of I-64.
- b. 5th Street Station – Phase 2 (Scottsville): Water and sewer main extension to serve the remainder of the 5th Street Station commercial development. This project is located between Avon St. Ext. and 5th St., just north of I-64.
- c. Albemarle Health and Rehabilitation Center (Scottsville): Water and sewer main extension to serve a 120 unit nursing care facility. The project is located off Mill Creek Drive, adjacent to the Monticello Fire Station.
- d. 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.
- e. Avinity 1, Phase 2 (Scottsville): Water and sewer main extension to serve 26 residences. The project is located off Avon St. Ext. at the intersection with Avinity Drive.
- f. Avinity 1, Phase 4 (Scottsville): Water and sewer main extension to serve 26 residences. The project is located off Avon St. Ext. at the intersection with Avinity Drive.
- g. Belvedere Phase 2 (Rio): Water and sewer main extensions to serve 51 residences. This project is located between the Belvedere and Dunlora Subdivisions.
- h. Briarwood Phases 1A-1,1B-1,4 & 8 (Rio): Water and sewer main extensions to serve 165 residential units. The project is located in between the existing Briarwood and Camelot subdivisions, across from the entrance to the National Ground Intelligence Center.
- i. Cascadia, Blocks 4-7 (Rivanna): Water and sewer main extensions to serve 146 residential units. The project is located in between the existing Hyland Ridge and Fontana subdivisions, across from the entrance to Darden Towe Park.
- j. Chick-fil-A (Rivanna): Water main extension and sewer connection to serve a new restaurant at the intersection of Richmond Road and State Farm Blvd.
- k. Ednam Sewer Relocation (Samuel Miller): Sanitary sewer relocation to accommodate building expansion in Ednam, near the intersection of Dryden Lane and Worthington Drive.

- l. Estes Park (Rivanna): Water and sewer main extensions to serve 68 single family units 200 yards south of the intersection of Worth Crossing and Profit Road.
- m. **Foothill Crossing Phases 4 & 5 (White Hall)**: **Water and sewer main extensions to serve 33 single family units at the end of Park Ridge Drive.**
- n. Glenmore Section K2B (Scottsville): Water and sewer main extensions to serve 16 single-family units at the end of Carroll Creek Road.
- o. Glenmore Section K2C (Scottsville): Water and sewer main extensions to serve 26 single-family units near the intersection of Carroll Creek Road and Farrington Road.
- p. Hyland Ridge On-site Water & Sewer (Rivanna): Phase 4 (of 4) of the subdivision is currently under construction, featuring water and sewer main extensions to serve 97 new lots.
- q. Old Trail Creekside III, Phase III (White Hall): Water and sewer main extensions to serve 24 single-family units west of Welbourne and Windmere Lanes.
- r. Out of Bounds (Jack Jouett): Water and sewer main extensions to serve 56 single-family units adjacent to the Canterbury Hills Subdivision.
- s. Riverside Village (Rivanna): Water and sewer main extensions to serve 33 single-family units and 6 multi-family units off Route 20, near Darden Towe Park.
- t. Stonefield Block D2 (Jack Jouett): Water and sewer main extensions to serve a 107 unit townhome block within the Stonefield development. This site is located northwest of the intersection of Hydraulic Road and Inglewood Drive.
- u. Stonefield Blocks F & G (Jack Jouett): Water and sewer main extensions to serve Costco and 4 future commercial buildings within the Stonefield development. This site is located west of the intersection of Route 29 South and District Avenue.
- v. Westlake Hills Phase 1 (White Hall): Water and sewer main extensions to serve 47 single-family units east of the Westhall Subdivision in Crozet, Virginia.
- w. **Whittington Subdivision Phase B (Samuel Miller)**: **Water and sewer main extensions to serve 96 single-family units south of the Mosby Mountain Subdivision on Old Lynchburg Road.**