



MEMORANDUM

TO: THE HONORABLE ALBEMARLE COUNTY BOARD OF SUPERVISORS

- FROM: BILL MAWYER, EXECUTIVE DIRECTOR RIVANNA WATER & SEWER AUTHORITY RIVANNA SOLID WASTE AUTHORITY
- SUBJECT: QUARTERLY UPDATE
- DATE: OCTOBER 2020

This quarterly update is to provide general information on the drinking water, wastewater and solid waste programs managed by the Rivanna Authorities, as follows:

1. The production of drinking water for the Urban area (Charlottesville and adjacent developed areas of Albemarle) averaged 10.17 million gallons per day (mgd) in September 2020, which was slightly below the five-year average for September (10.78 mgd), as shown by the following graph:



2. Urban wastewater flow for September 2020 (10.10 mgd), including flows from Crozet, was below the five-year average for September (10.35 mgd), as shown by the following graph:



- 3. A general overview of significant current and upcoming Capital Improvement projects includes:
 - A. <u>Crozet Water Treatment Plant Improvements</u> Scope: Replace equipment which has reached end-of-service life, and increase water treatment capacity from 1 to 2 million gallons per day. Construction is underway. Completion: March 2021 Cost: \$8.5 million
 - B. <u>Crozet Flow Equalization Tank</u> Scope: Provide a one-million-gallon wastewater tank to store peak wet weather flows which infiltrate the sewer system. Completion: October 2020 – December 2021 Cost: \$4.9 million
 - C. Water Treatment Plant Improvements

Scope: Replace equipment which has reached end-of-service life at the South Rivanna and Observatory Water Treatment Plants. Increase water treatment capacity from 7.7 to 10 million gallons per day at the Observatory Water Treatment Plant. Construction is underway. Completion: 2020 - 2023

Completion:	2020 - 2023
Cost:	\$43 million

D. South Rivanna Dam - Gate Repairs

Scope: Repair original gates installed in 1966. These gates are located near the bottom of the dam, and are used to release water from the reservoir.

Completion:	December 2020
Cost:	\$900,000

- E. Sugar Hollow Dam Rubber Crest Gate Replacement and Intake Tower Repairs Scope: Replace the inflatable rubber device that sits on top of the concrete dam and regulates the normal water level in the reservoir. The gate is over 20 years old, and has reached the end of its service life. Concrete repairs will be completed on the intake tower. Completion: Fall 2021 Cost: \$1.7 million
- F. South Rivanna to Ragged Mountain Reservoir Pipeline Easements

Scope: Determine alignment and acquire easements for a pipeline and pumping station to transfer raw (untreated) water between the South Rivanna Reservoir and the Ragged Mountain Reservoir, as required by the Community Water Supply plan. In August, the Board of Directors of the Albemarle County Service Authority renewed its endorsement to complete this water supply project from 2027 - 2033. This endorsement is consistent with the project schedule in our CIP. Progress continues in our efforts to acquire the 9.5 miles of easements and agreements (with VDOT) for this 36" water line. City Council approved easements on four properties located near Ragged Mtn reservoir on September 8th. Easements have been obtained from 8 private owners, and negotiations continue with the remaining 4 private owners. We have completed our process to notify VDOT about our planned locations in the street right-of-ways. Discussions continue for remaining easements with the UVA Foundation and the County School Board. Completion: 2021 Cost: \$2.3 million

G. <u>Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and</u> <u>Raw Water Pump Station</u>

Scope: Replace two 18-inch cast iron raw water pipes, which have been in service for more than 70 and 110 years, respectively. Replace the existing Stadium Road and Royal raw water pump stations, which have exceeded their service lives or will require significant upgrades, to support the Observatory Water Treatment Plant expansion.

Completion:	2023 - 2026
Cost:	\$18 million

- H. <u>Airport Road Water Pumping Station and Piping</u>
 Scope: Provide a water pumping station and piping to improve the connectivity and reliability of the Urban Water System.
 Completion: 2021 2022
 Cost: \$5.8 million
- I. <u>Beaver Creek Dam and Pump Station Modifications</u>

Scope: Provide modifications to the dam to control the flow of water across the spillway during major storm events, as required by Virginia Dam Safety Regulations. Replace the existing raw water pumping station. Discussions are on-going with VDOT about construction of a temporary road to bypass the dam construction.

 Completion:
 2023 – 2027

 Cost:
 \$27 million

J. Upper Schenks Branch Wastewater Piping Replacement

Scope: Replace sewer piping installed in the mid 1950's in conjunction with the City's sewer upgrade program to increase system capacity. The new underground piping will be located near McIntire Road.

Completion:	TBD
Cost:	\$4 million

1. Urban Finished Water Master Plan

Scope: Identify drinking water infrastructure improvements, including distribution system piping and storage tanks, to provide capacity and pressure in the urban water system. Completion: January 2021

completion.	January 2021
Cost:	\$253,000

4. Refuse volume at the Ivy Transfer Station has increased from 30.54 tons per day in September 2018 to 144.31 tons per day in September 2020, as shown below:



Please let me know if you have any questions.

cc: RSWA Board of Directors RWSA Board of Directors