



RIVANNA SOLID WASTE AUTHORITY
RIVANNA WATER & SEWER AUTHORITY

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January 3, 2023

The Honorable Albemarle County Board of Supervisors
401 McIntire Road
Charlottesville, VA 22902

Re: Quarterly Update – January 2023

Supervisors:

This quarterly update is to provide general information on the drinking water supply and treatment, wastewater collection and treatment, and solid waste disposal and recycling programs managed by the Rivanna Authorities for the benefit of the Albemarle/Charlottesville community, as follows:

1. Drinking Water Supply as of January 3, 2023:

Urban reservoirs (Sugar Hollow, South Rivanna, Ragged Mountain) are collectively 100% full. The Sugar Hollow Reservoir to Ragged Mountain Reservoir Transfer Line was opened on November 9, 2022 and closed on December 6, 2022. Our most essential urban reservoir, South Rivanna, is 100% full and overflowing.

Observatory WTP Renovation:

No drinking water will be produced at the Observatory WTP from December 5 – March 15, 2023, to complete the renovation and treatment capacity increase from 7.7 to 10 mgd. The South Rivanna and North Rivanna WTPs will serve the Urban Water System (City and adjacent areas of the County) during this period.

2. Drinking Water Supply and Drought Monitoring, as of January 2, 2023:

A. U.S. Drought Monitoring Report:

- No drought phases have been initiated

B. VDEQ Drought Status Report:

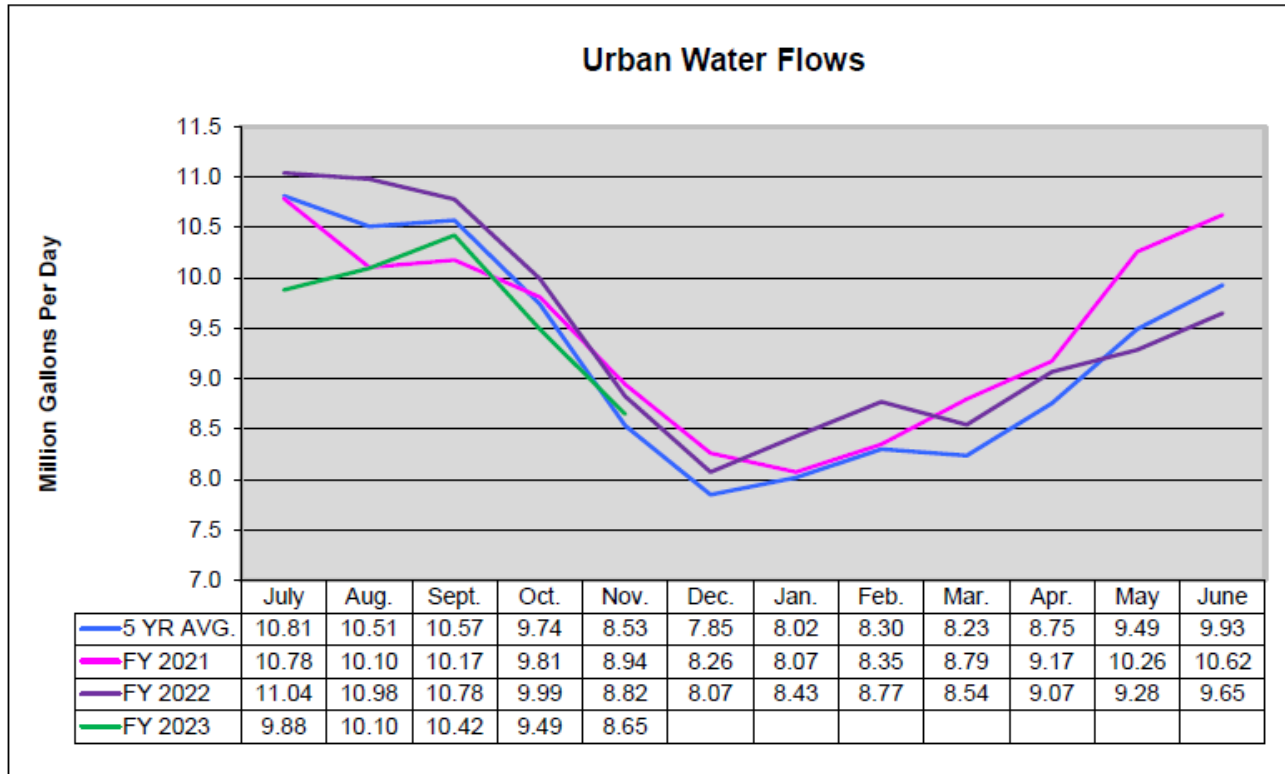
- Our region is in a “watch” status for Groundwater levels
- Most recent Drought Monitoring Taskforce (DMTF) Report October 28, 2022

Precipitation

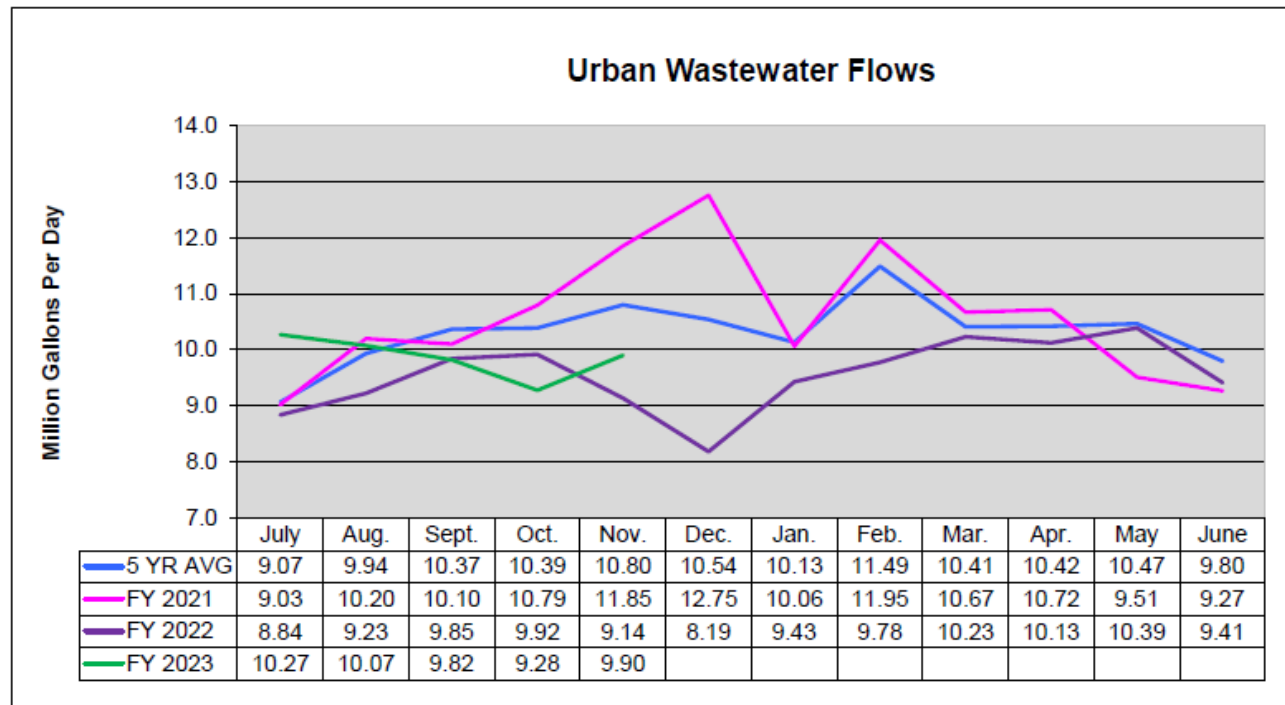
Charlottesville Precipitation				
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)
2021	Total: Jan - Dec	33.82	41.61	-7.79
2022	Total: Jan - Dec	43.53	41.61	+1.92

Source: National Weather Service, National Climatic Data Center.

3. The production of drinking water for the Urban area (Charlottesville and adjacent developed areas of Albemarle, not including Crozet) averaged 8.7 million gallons per day (MGD) in November 2022 (FY 2023), which was above the five-year average for November (8.5 MGD), as shown by the following graph:



4. Urban wastewater flow for November 2022 (9.9 MGD), including flows from Crozet, was below the five-year average for November (10.8 MGD), as shown by the following graph:



5. A general overview of significant current and future drinking water, wastewater and solid waste Capital Improvement Projects is provided below. Costs for the water and wastewater projects are typically shared between the Charlottesville Department of Utilities (48%) and the Albemarle County Service Authority (52%).

A. Water Treatment Plant Renovations

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.

Completion: May 2020 - May 2023

Cost: \$43 million

B. Airport Road Water Pumping Station and Piping

Scope: Provide a drinking water pumping station and piping to improve reliability in the northern area of the Urban Water System.

Completion: January 2022 - December 2023

Cost: \$10 million: 100% ACSA

C. Electrical System Replacement, Moores Creek Wastewater Treatment Facility

Scope: Replace major electrical cabling and equipment installed around 1980 which have reached the end of their service lives.

Completion: May 2022 – June 2024

Cost: \$5 million

D. Southern Area Convenience Center

Construction is underway for a recycling and bagged residential refuse collection center to be constructed in the Keene area of southern Albemarle County. Construction completion has been delayed due to inclement weather and coordination of appropriate County permits.

Completion: March 2023 – May 2023

Cost: \$1.6 million: 100% Albemarle County

E. Red Hill Water Treatment Plant Upgrade

Scope: Expand the building to provide additional treatment and laboratory spaces.

Completion: February – December 2023

Cost: \$400,000: *100% ARPA funds from Albemarle County

F. South Rivanna River Crossing

Scope: Install a second treated water pipe (24”) under the river using trenchless technology to provide a redundant water supply to serve the northern area of the Urban Water System.

Completion: March 2023 – April 2024

Cost: \$6 million: 100% ACSA

G. Beaver Creek Dam Spillway, Pump Station and Piping Modifications

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 pumping station and piping which convey untreated water to the Crozet Water Treatment Plant. Construction of a temporary road to maintain traffic on Browns Gap Turnpike during construction of the spillway is included in the project.

Completion: 2024 – 2027

Cost: \$31 million: 100% ACSA

Federal funding (55%) will be requested

H. Urban Area “Central Water Line”

Scope: Piping improvements to more efficiently convey drinking water and generally strengthen the Urban Area Drinking Water System for the benefit of the City and the County. This five-mile-long piping project will extend from the Stadium Road area to the Long Street / E. High Street bridge and generally follow a route which includes: Stadium Road, Piedmont Avenue, Price Avenue, Lewis Street, Jefferson Park Avenue, Cleveland Avenue, Cherry Avenue, Elliott Avenue, 6th Street SE, Avon Street, 10th Street NE, E. Jefferson Street, 11th Street NE, E. High Street, and a connection near Roosevelt Brown Boulevard. Detailed engineering design is underway.

Completion: 2024 - 2028

Cost: \$41 M

I. Recycling Baling Facility, Ivy Material Utilization Center

Scope: Replace the existing recycling materials baling facility which is located on leased property and has exceeded its service life. A new facility is essential to have an effective recycling program. The new facility will include equipment to compress cardboard, mixed paper and plastic products into separate bales before shipment to a receiving vendor. The preliminary plan is for this facility to be located at the IMUC.

Completion: 2024 - 2025

Cost: \$6.5 million

J. Water Pipe and Pump Stations Replacement, Ragged Mountain Reservoir to Observatory Water Treatment Plant

Scope: Replace water pipes and two pump stations which convey untreated water and have reached the end of their service lives, or will require significant upgrades, to adequately support the increased treatment capacity of the upgraded Observatory Water Treatment Plant.

Completion: 2025 - 2028

Cost: \$30 million

K. Upper Schenks Branch Wastewater Piping Replacement, Phase II

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 piping will be located along McIntire Road between the McIntire Recycling Center and Preston Avenue.

Completion: TBD

Cost: \$5 million: 100% City

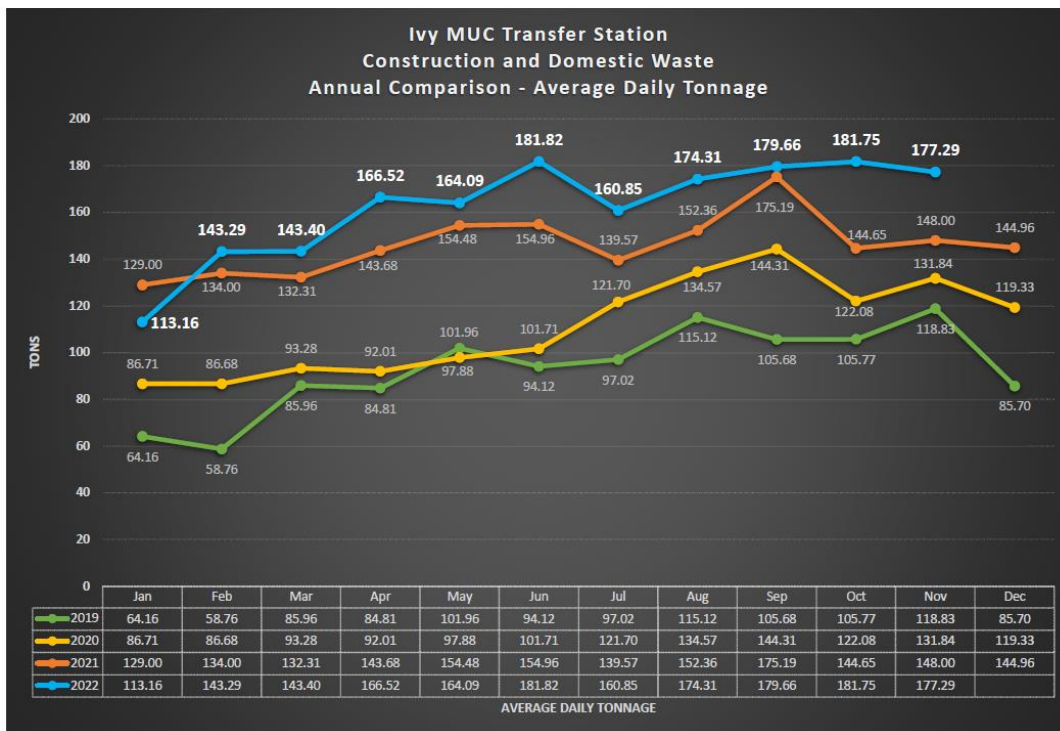
L. South Rivanna Reservoir to Ragged Mountain Reservoir Pipe

Scope: Acquire easements and construct a pipe to transfer untreated water between the South Rivanna and Ragged Mountain reservoirs, as required by the Community Water Supply plan completed in 2012. A short section of piping will be constructed from Birdwood to Old Garth Road in 2023 – 2024.

Completion: 2027 - 2033

Cost: \$80 million: 80% ACSA / 20% City

6. By increasing the number of days/week the Transfer Station is open, and by lowering the disposal fee from \$66/ton to \$52/ton, average daily refuse volume at the Ivy Transfer Station has increased from 119 tons per day in November 2019 to 177 tons per day in November 2022, as shown below:



Fall Amnesty Days

The Ivy MUC held successful eWaste, Household Hazardous Waste (HHW), and Bulky Waste Days this fall, collecting over 36,000 pounds of waste as follows:

			Albemarle	Charlottesville
eWaste	Saturday	9/17/2022		
		Customers	224	66
HHW	Friday	9/23/2022		
		Customers	240	128
	Saturday	9/24/2022		
		Customers	250	81
Bulky Waste:	Furniture/Mattresses	- Pounds Collected	20,940	4,920
	Saturday	10/1/2022		
	Appliances	- Pounds Collected	8,610	2,290
		- Freon units Collected	117	39
		Saturday	10/8/2022	
	Tires	Participating Vehicles	93	18
	Saturday	10/15/2022		

Please let me know if you have any questions.

Sincerely,

William I. Mawyer, Jr., P.E.
Executive Director

cc: RSWA Board of Directors
RSWA Board of Directors