



July 3, 2024

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

Re: Quarterly Update – July 2024

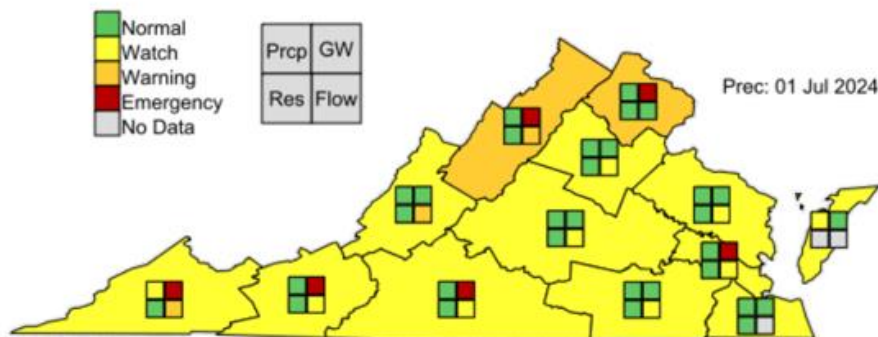
Supervisors:

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

1. Drought Monitoring as of July 1, 2024:

- a. An official “Drought Watch” was declared by the Board of Directors of the Rivanna Water and Sewer Authority for all public drinking water customers of the Albemarle County Service Authority and the City of Charlottesville on June 25, 2024. A “Drought Watch” declaration is intended to increase public awareness that the climatic conditions and decreasing stream flows in our area indicate there is concern for an impending drought.

Virginia’s Drought Monitoring Task Force recently assigned a drought “Watch” or “Warning” status for the entire state.



- b. As shown below, precipitation was 4.1 inches (22%) below normal from January – June 2024, and 26 inches (18%) below normal since January 2021.

Charlottesville Precipitation					
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)	Comparison to Normal (%)
2021	Jan - Dec	33.82	41.61	-7.79	-19
2022	Jan - Dec	43.53	41.61	+1.92	+5
2023	Jan – Dec	26.95	41.61	-15.98	-35
2024	Jan - June	16.78	20.88	-4.1	-21.7

Source: National Weather Service, National Climatic Data Center, Climate Summary for Charlottesville, Charlottesville Albemarle Airport station

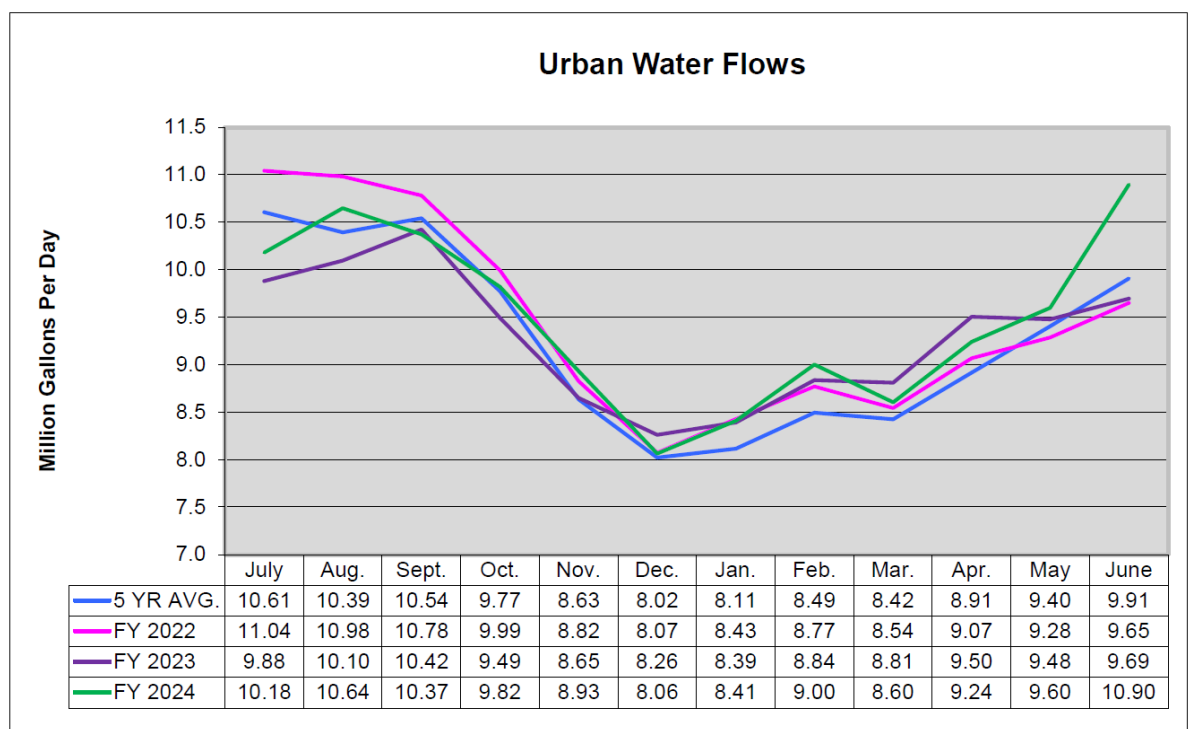
2. Drinking Water Supply as July 1, 2024:

- Our Urban reservoirs (Sugar Hollow, South Rivanna, Ragged Mountain) are 98% full with a total water storage of 2.6 billion gallons. Water demand in the Urban area averaged 10.9 million gallons per day in June.
- Beaver Creek Reservoir (Crozet) is 98% full with 500 million gallons of water stored. Water demand in the Crozet area averaged 0.74 million gallons per day in June.
- Totier Creek Reservoir (Scottsville) is 100% full with 155 million gallons of water stored. Water demand in the Scottsville area averaged 50,000 gallons per day in June.

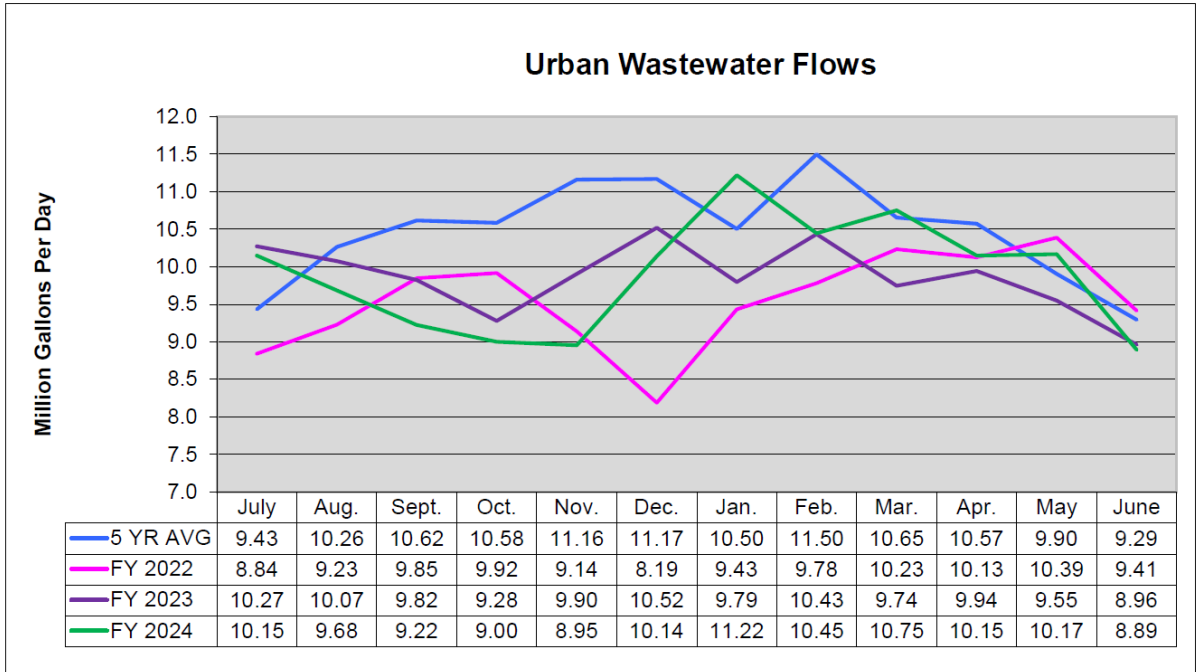
3. Repairs to the Rivanna Pump Station at Moores Creek

During a significant storm event in January 2024, pumps in our largest wastewater pumping station were submerged and disabled by high wastewater flows. A temporary “bypass” pumping system was constructed to convey wastewater around the out-of-service pumping station and into our permanent wastewater treatment facilities. In June, an independent engineering firm completed an assessment of the submergence and determined the primary cause of the event was a malfunction of the complex automated pump control system. This causation assessment and a claim for damages totaling \$22 million are under discussion with our property insurance company. Restoration of the pump station is underway and scheduled for completion by March 2025.

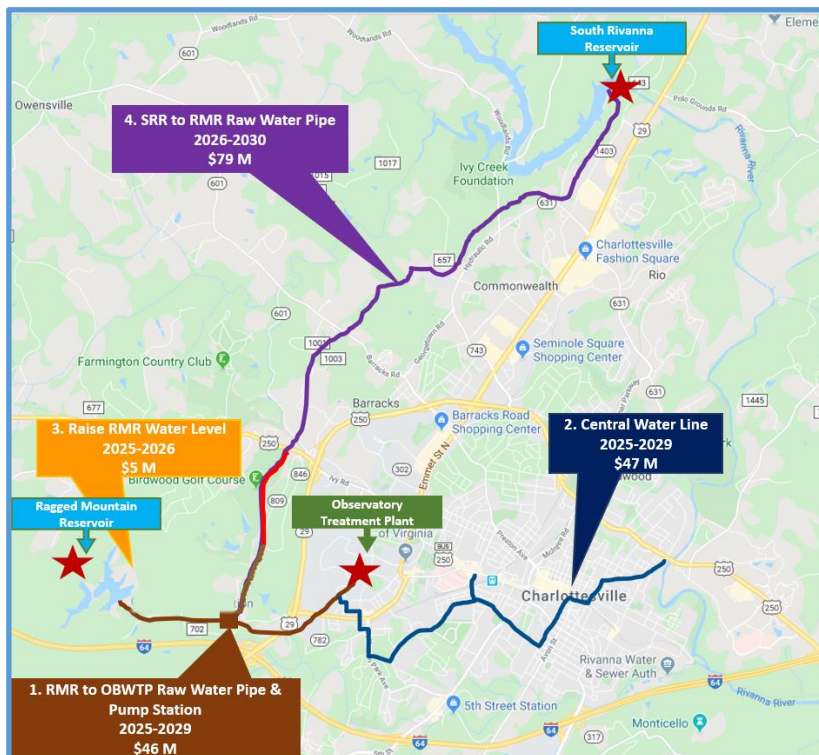
- The production of drinking water for the Urban area (Charlottesville and adjacent developed areas of Albemarle, not including Crozet or Scottsville) averaged 10.9 million gallons per day (MGD) in June 2024 (FY 2024), which was significantly above the five-year average for June (9.9 MGD) due to the abnormally hot and dry weather, as shown by the following graph:



5. Urban wastewater flow for June 2024 (8.9 MGD), including flows from Crozet but not from Scottsville, was below the five-year average for June (9.3 MGD) due to the abnormally hot and dry weather, as shown by the graph below:



6. A general overview of significant current and future drinking water, wastewater and solid waste Capital Improvement Projects is provided below. Cost allocations between the Charlottesville Department of Utilities (non-general Utility funds) and the Albemarle County Service Authority (ACSA), are identified for each project. Many of these projects are part of the community's Water Supply Plan established in 2012 to increase the capacity of our drinking water reservoirs and infrastructure, as shown by the map below.



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

Scope: Replace 4 miles of 36" ductile iron water pipe and pump stations which convey untreated water from the Ragged Mtn Reservoir to the Observatory WTP. These facilities have reached the end of their service lives and require replacement to reliably provide water to the upgraded Observatory WTP.

Completion: January 2025 – June 2029

Cost: \$46 million: 52% ACSA / 48% City Utilities

b. South Rivanna River Crossing

Scope: Provide a second pipe (24" diameter; 2900 feet long) using trenchless technology to convey treated drinking water under the river. The second pipe will provide a redundant water supply and increase capacity to serve the northern area of the Urban Water System.

Completion: April 2025 – January 2027

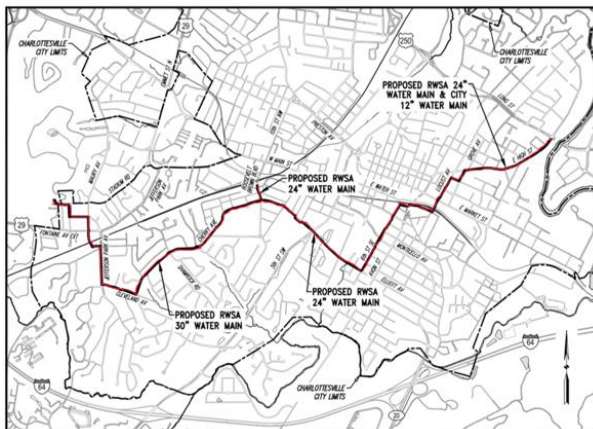
Cost: \$7 million: 100% ACSA

c. Urban Area "Central Water Line"

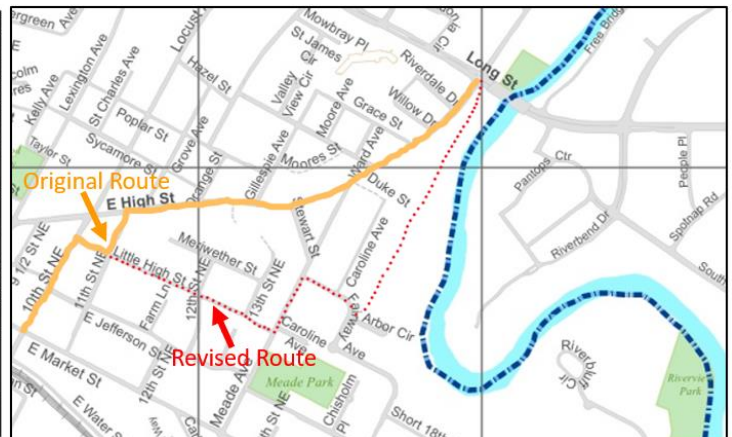
Scope: Provide large diameter piping (24" and 36" ductile iron) to strengthen and more efficiently distribute drinking water for the benefit of City and County residents and businesses. This five-mile-long piping project with two railroad crossings will extend from the Stadium Road area to the Long Street / E. High Street bridge. The eastern end of the route was recently revised due to underground conflicts in E. High Street. Information meetings will be scheduled with neighborhoods along the revised route. The full route includes Stadium Road, Piedmont Avenue, Price Avenue, Lewis Street, Jefferson Park Avenue, Cleveland Avenue, Cherry Avenue, Elliott Avenue, 6th Street SE, South Street, Avon Street, 10th Street, Little High Street, Meade Avenue, Fairway Avenue, and City property near the river, to E. High Street near the Long Street bridge.

Completion: May 2025 – March 2029

Cost: \$47 million: 52% ACSA / 48% City Utilities



Full CWL Original Route



d. 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.

Completion: January 2025 – April 2026

Cost: \$6.4 million: 70% Albemarle County / 30% City

e. Red Hill Water Treatment Plant Upgrade

Scope: Provide additional space to house water treatment equipment including a granular activated carbon filter.

Completion: September 2024 – March 2026

Cost: \$2 million: 100% ACSA, with partial grant from County

f. Moore's Creek Administration Building Renovation and Addition

Scope: Renovate the existing administration building constructed in the 1980's, including improvements to the Laboratory and Information Technology spaces. The project will also include a building addition to provide spaces for a community education area, staff currently housed in temporary trailers, as well as future staffing.

Completion: April 2025 – December 2027

Cost: \$25 million: 52% ACSA / 48% City Utilities

g. Crozet Water Treatment Plant GAC Expansion

Scope: Provide additional facilities and equipment to increase the water treatment capacity of the granular activated carbon filters from 1 to 2 million gallons per day.

Completion: August 2025 – March 2027

Budget: \$6.5 million: 100% ACSA with VDH grant

h. Moore's Creek Structural and Concrete Rehabilitation

Scope: Complete repairs to concrete basins and wastewater treatment facilities constructed in the late 1970's.

Completion: February 2025 – May 2027

Cost: \$11 million: 52% ACSA / 48% City Utilities

i. Crozet Wastewater Pump Stations Rehabilitation

Scope: Replace pumps, valves, and electrical gear in four pump stations constructed in the 1980's which convey wastewater from Crozet to the Moore's Creek Treatment Plant.

Completion: April 2025 - December 2026

Cost: \$10 million: 52% ACSA / 48% City Utilities

j. Ragged Mtn Reservoir Water Level Increase

Scope: This project will include clearing of vegetation around the reservoir and minor modifications to the intake tower as necessary to increase the normal pool elevation 12 feet and add 700 million gallons to the reservoir.

Completion: October 2025 - September 2026

Cost: \$5 million: 80% ACSA / 20% City Utilities

k. South Rivanna Reservoir to Ragged Mountain Reservoir Pipe and Pump Station

Scope: Construct a 6.5 mile long, large diameter pipe (36”) and pump station to transfer untreated water between the South Rivanna and Ragged Mtn Reservoirs, as required by the community’s drinking water supply plan. Complete intake tower modifications and perimeter clearing at the Ragged Mtn Reservoir, as well as a new raw water intake and pump station at the South Rivanna Reservoir. This infrastructure will increase the water storage capacity of the Ragged Mtn Reservoir from 1.4 to 2.1 billion gallons.

Completion: January 2026 – December 2030

Cost: \$79 million: 80% ACSA / 20% City Utilities

l. Beaver Creek Dam, Pump Station and Piping Improvements

Scope: Replace the spillway, which protects the reservoir dam, along with the water pump station and piping which conveys untreated water to the Crozet Water Treatment Plant.

Completion: May 2026 – January 2030

Cost: \$47 million: 100% ACSA with partial federal NRCS grant

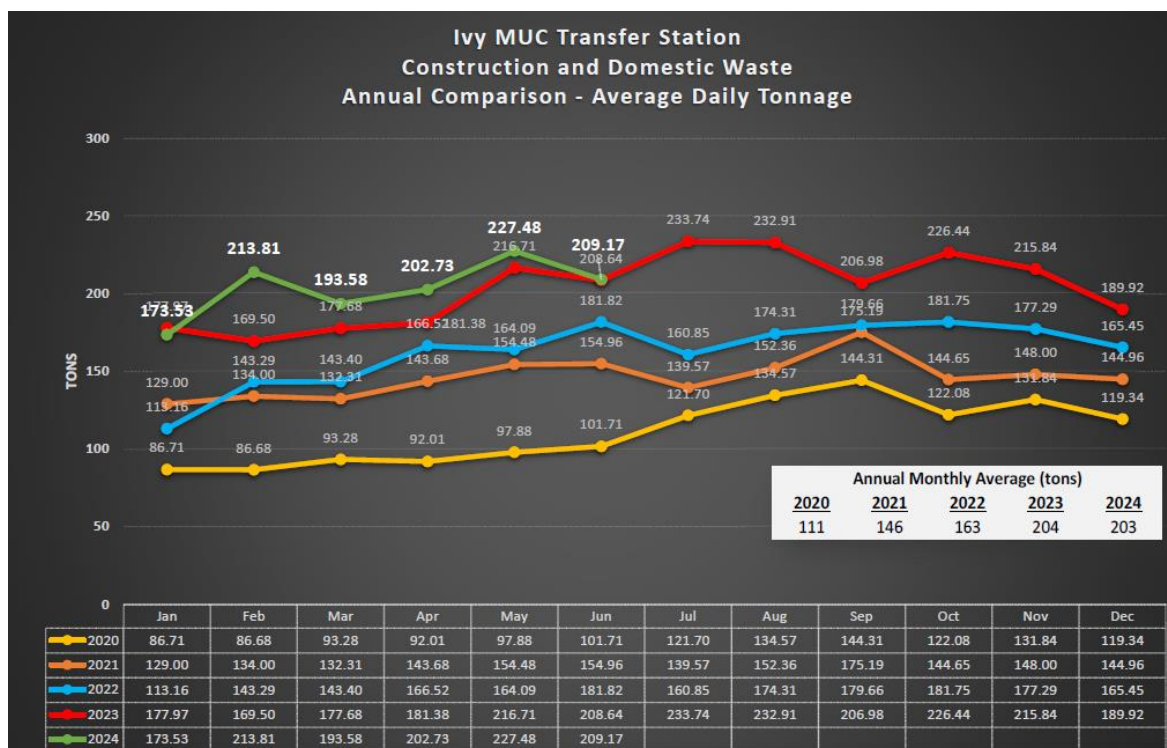
m. Upper Schenks Branch Wastewater Piping Replacement, Phase II

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: \$5.5 million: 100% City Utilities

7. Average daily refuse volume at the Ivy Transfer Station has increased from 102 tons per day in June 2020 to 209 tons per day in June 2024, as shown below. Our contract hauler is driving about 15 trailer loads of refuse to Henrico County for disposal each day, Monday – Friday. A planning study to review future expansion alternatives for the refuse transfer program is underway.



8. Spring Refuse Special Collection Days

Spring 2024 Special Collection Days at the Ivy MUC were successful with the following customers participating in the events.

			<u>Albemarle</u>	<u>Charlottesville</u>
<u>eWaste</u>	Saturday	4/20/2024		
	Customers		287	76

			<u>Albemarle</u>	<u>Charlottesville</u>
<u>HHW</u>	Friday	4/26/2024		
	Customers		324	113
	Saturday	4/27/2024		
	Customers		279	86

<u>Bulky Waste:</u>	Furniture/Mattresses	- Pounds Collected	17,640	6,200
	Saturday	5/4/2024		
	Appliances	- Pounds Collected	17,100	5,100
		- Freon units Collected	120	33
	Saturday	5/11/2024		
	Tires	Participating Vehicles	145	16
	Saturday	5/18/2024		

9. Fall Refuse Special Collection Days

The Ivy MUC will be the site for Fall 2024 eWaste, Household Hazardous Waste, and Special Collection free disposal days on the following dates:

eWaste	Saturday	9/14/2024
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www.rivanna.org/ewaste

HHW	Friday	9/20/2024
	Saturday	9/21/2024

www.rivanna.org/hhw

Bulky Waste:	Furniture/Mattresses	
	Saturday	9/28/2024
	Appliances	
	Saturday	10/5/2024
	Tires	
	Saturday	10/12/2024

www.rivanna.org/hhw

Please let me know if you have any questions.

Sincerely,



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

cc: RSWA Board of Directors
RWSA Board of Directors