

October 3, 2024

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

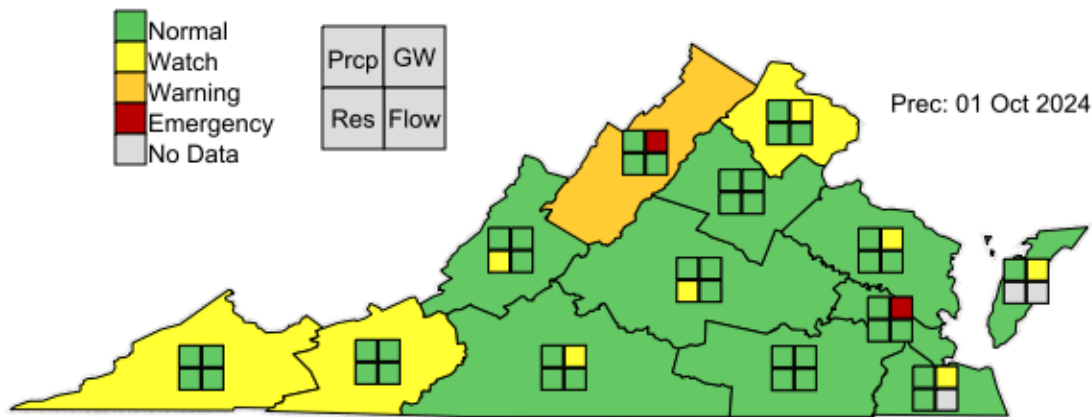
Re: Quarterly Update – October 2024

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. Drinking Water Supply and Drought Monitoring:

- a. The Rivanna Water and Sewer Authority has officially lifted the “Drought Watch” for the Albemarle and Charlottesville service area after receiving over nine inches of rain in September. Virginia’s Drought Monitoring Task Force (VDMTF) also lifted the “Drought Watch” status for our “Middle James” region. A state-wide status report from the VDMTF is provided below:

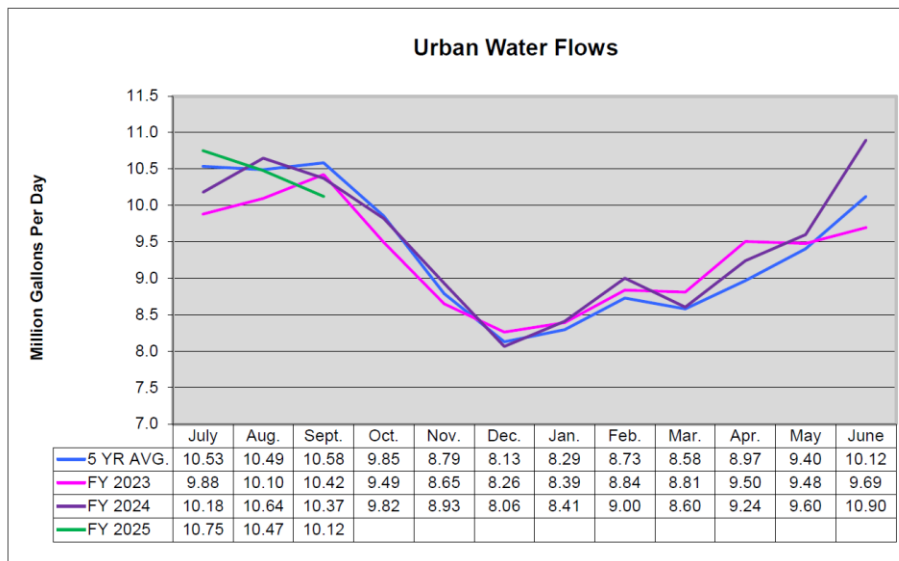


- b. As shown below, precipitation was 3.3 inches (10%) above normal from January – September 2024, and 17.2 inches (11%) below normal since January 2021.

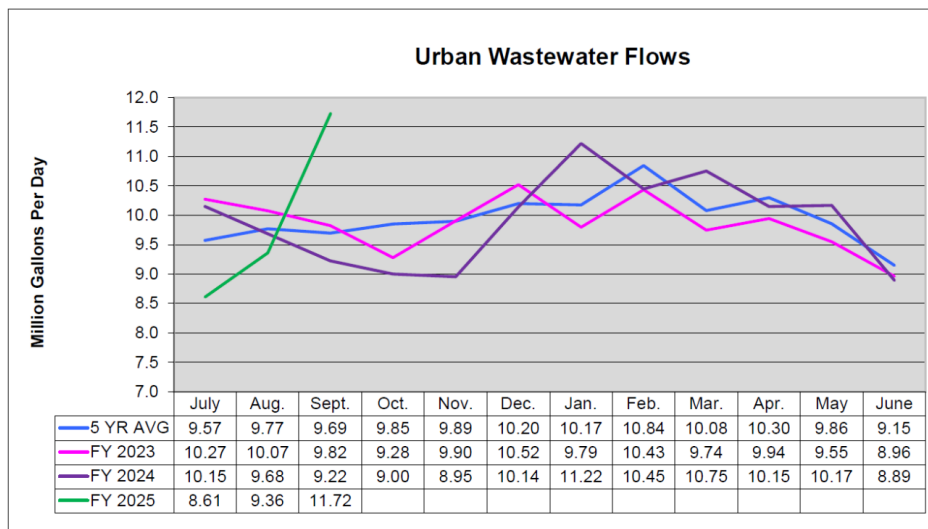
Charlottesville Precipitation					
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)	Comparison to Normal (%)
2021	Jan - Dec	33.82	41.61	-7.79	-19
2022	Jan - Dec	43.53	41.61	+1.92	+5
2023	Jan - Dec	26.95	41.61	-14.66	-35
2024	Jan - Sept	35.22	31.90	+3.32	+10

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

- c. Recent precipitation has filled our reservoirs and replenished our streams. We have a total water storage of 2.6 billion gallons in the three reservoirs (South Rivanna, Ragged Mountain, Sugar Hollow) which supply water to the Urban service area (Charlottesville and adjacent developed areas of Albemarle, not including Crozet or Scottsville). Water demand in the Urban area averaged 10.12 million gallons per day in September.
  - d. Beaver Creek Reservoir (Crozet) is 100% full with 500 million gallons of water available for use. Water demand in the Crozet area averaged 0.70 million gallons per day in September.
  - e. Totier Creek Reservoir (Scottsville) is 100% full with 155 million gallons of water available for use. Water demand in the Scottsville area averaged 57,000 gallons per day in September.
2. The production of drinking water for the Urban area averaged 10.12 million gallons per day (MGD) in September 2024 (FY 2024), which is below the five-year average for September (10.58 MGD) as shown by the following graph:



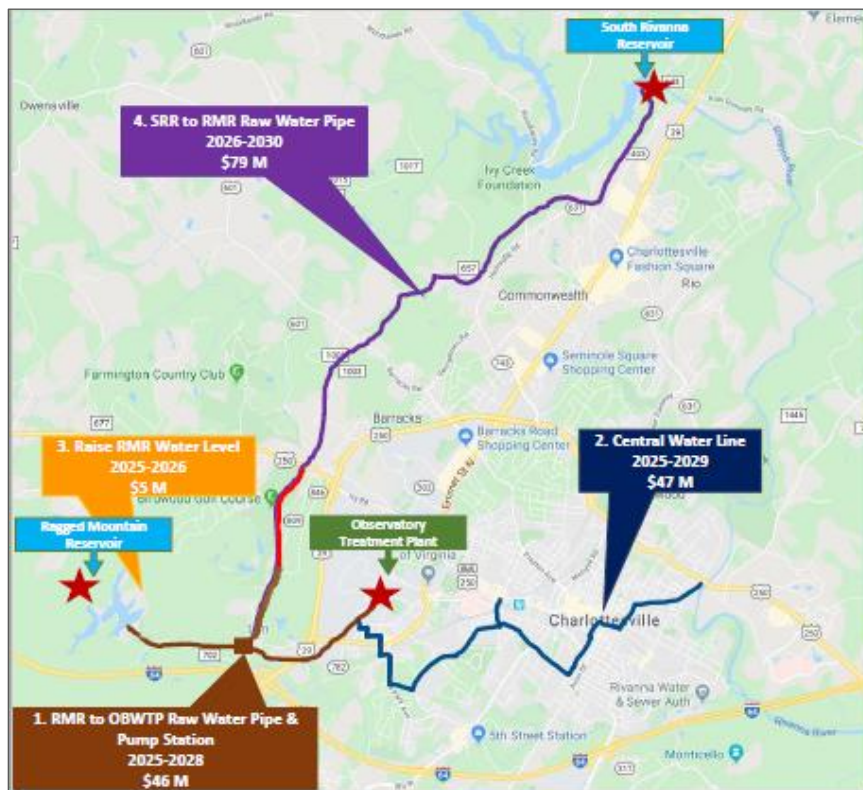
3. Urban wastewater flow for September 2024 (11.72 MGD), including flows from Crozet but not from Scottsville, was above the five-year average for September (9.69 MGD) due to the recent heavy rain events, as shown by the graph below:



4. Repairs to the Rivanna Wastewater Pump Station at Moores Creek

We anticipate pump replacement and removal of the temporary bypass pumping system to be completed by March 2025. This work will restore normal operation of the pump station which became submerged during a significant storm event in January 2024. In June 2024, an independent engineering firm completed an assessment of the submergence and determined the primary cause was a malfunction of the complex automated pump control system. We continue to coordinate with our property insurance company to recover damages totaling \$22 million.

5. 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 pumping 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: January 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 before construction begins. The full route includes Stadium Road, Piedmont Avenue, Price Avenue, Lewis Street, Jefferson Park Avenue, Cleveland Avenue, Cherry Avenue, Elliott Avenue, 6<sup>th</sup> Street SE, South Street, Avon Street, 10<sup>th</sup> Street, Little High Street, Meade Avenue, Fairway Avenue, and 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

d. Baling Facility, Ivy Solid Waste and Recycling 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: May 2025 – July 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: October 2024 – March 2026

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

f. 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

- g. 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 Moores Creek Treatment Plant.  
 Completion: April 2025 – September 2027  
 Cost: \$10 million: 52% ACSA / 48% City Utilities
- h. Moores 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: June 2025 – December 2027  
 Cost: \$25 million: 52% ACSA / 48% City Utilities
- i. 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
- 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: September 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: February 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

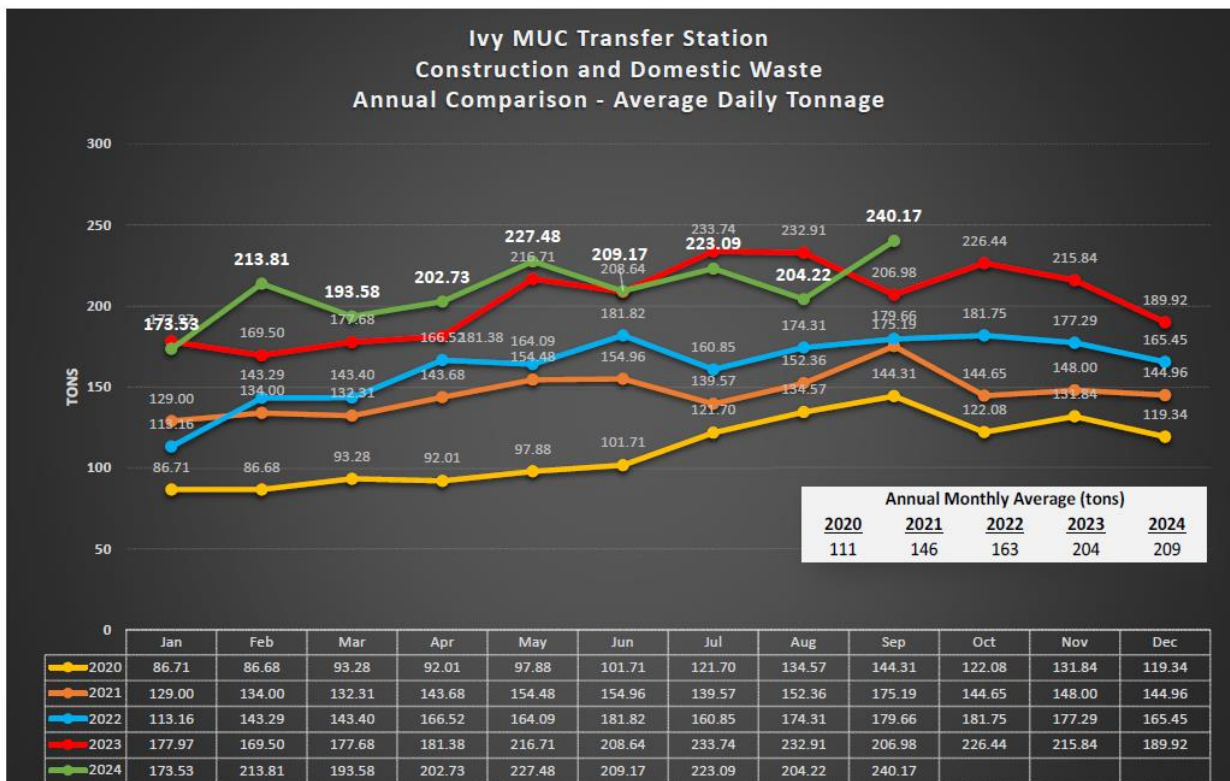
m. Upper Schenks Branch Wastewater Piping Replacement, Phase II

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

6. Average daily refuse volume at the Ivy Transfer Station has increased from 144 tons per day in September 2020 to 240 tons per day in September 2024, as shown below. Our contract hauler is driving about 15 trailer loads of refuse to Henrico County for disposal each day, Monday – Friday.



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