

“Drought Warning” – Frequently Asked Questions 10-17-17

CITY OF CHARLOTTESVILLE

1. It rained a lot in June and July; how can we have a water shortage?

All the area reservoirs were full in early August. August was a month with little rain, and over August and September all the urban reservoirs began dropping as irrigation use continued and UVa students returned. Stream flows in the region's rivers (which fill the reservoirs) are at very low levels currently. The reservoir of most concern today, the South Fork Rivanna Reservoir, is the second largest reservoir and is the water that serves our largest water treatment plant.

2. If the South Fork Rivanna Reservoir (SFRR) was nearly full a couple of months ago, how can it be below 50% full now?

This reservoir was full on August 3 and overflowing the dam. A combination of hot weather, high water use, and very little rain have all combined to reduce the South Fork Rivanna Reservoir. It also has a legally-required daily release into the Rivanna River. The South Fork Rivanna Reservoir dropped two feet, or 15% of total capacity, during the last week of September. Between September 15-October 2, the reservoir lost 32% of capacity.

3. Why can't the Ragged Mountain Reservoir (which was recently constructed) supplement the water supply from SFRR?

Ragged Mountain is our largest reservoir and is presently over $\frac{3}{4}$ full, and continues to serve the role it was intended to play in the water supply plan. It supplies water to the Observatory Water Treatment Plant. The Observatory Plant is not able to serve the entire Urban Water System alone, and was designed to supplement the South Fork Rivanna Reservoir and Water Treatment Plant. Under normal operations the Urban System (ACSA and City of Charlottesville) is supplied by 80% production from South Fork and 20% production from Observatory. That has been recently shifted as we got into the drought to closer to 50-50%.

4. Why didn't the RWSA give us an earlier warning about the impending situation?

The month of September typically has a major storm which brings significant rain to the Albemarle area and fills the reservoirs. In fact, three hurricanes did not bring any rain last month. About mid-September the South Fork Reservoir began a faster decline and in the last week of the month alone dropped 15%. It was at that point the Rivanna Water and Sewer Authority (RWSA) declared a Drought Watch (voluntary conservation). During that week, the reservoir level continued to drop to less than half full (41%), leading the RWSA to declare a Drought Warning (mandatory restrictions).

5. I just planted new trees/shrubs/grass; can I water them?

Watering for established areas is permissible by hand, or by a non-leaking hose with an automatic (hand-held) shut off nozzle. Other exceptions may be allowed by the City following written request, so please call 434-970-3800 for additional information.

6. Can individuals really conserve enough water to make a difference in the overall situation, or is this warning primarily "for show"?

Yes, customer reduction of water use can truly make a difference. There are two reasons for the Drought Warning and mandatory restrictions:

The first is that outdoor watering in the City is significant in terms of overall water usage in summer months, and we have not had relief from that this fall.

Secondly, the Virginia Department of Environmental Quality (VaDEQ) required mandatory restrictions be in place to allow for reduced release of water into the South Fork Rivanna River below the dam.

7. How serious is the current situation? What will happen if voluntary conservation is not effective?

As of October 12th, we are in Mandatory Restrictions, essentially No Outdoor Watering.

We consider this to be an emergency, and to have the major water supply at 41% capacity is a serious concern. Through conservation, the operational changes mentioned above, and the approval by DEQ of a lesser stream release to the Rivanna River, we are hopeful to stabilize the reservoir level and slowly build it back up. The good news is that the capacity has not dropped for six days. Larger rainfall, and likely several large sustained rains, will be required to bring the reservoir back to full. That is typically what happens between now and spring.

8. How long will the Drought Warning last?

The Charlottesville-Albemarle area has been dry this summer, at least 6" to 7" less rainfall than the average year to date. It will take a series of significant wet weather events over the fall or possibly into the winter to fill the South Fork Rivanna Reservoir.

The Specific Drought Warning restrictions in detail and water conservation tips, are found on the City website: www.charlottesville.org/Drought