

“Drinking Water Infrastructure Plan for the Crozet Service Area”

a discussion with the

Crozet Community Advisory Committee

by the

Rivanna Water and Sewer Authority



Bill Mawyer, Executive Director

Jennifer Whitaker, Chief Engineer

Doug March, Senior Civil Engineer

Teri Kent, Communications Manager

Aaron Duke, Project Engineer, Hazen and Sawyer

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a collaborative effort with:

- Gary O'Connell *Albemarle County Service Authority (ACSA), Executive Director*
- Debbie Herr *ACSA, Administrative Associate*
- Elaine Echols *Senior Planner, Albemarle Co Community Development*

Rivanna Water and Sewer Authority Charter

- Created in 1973 by joint action of Albemarle County Board of Supervisors and Charlottesville City Council to acquire, finance, construct, operate, and maintain facilities to impound and treat drinking water and wastewater for the County and the City
- Under direction of a 7-member Board of Directors: 3 County, 3 City, 1 joint member



RWSA provides Wholesale Drinking Water and Wastewater Treatment for two customers

- Albemarle County Service Authority (ACSA)
- City of Charlottesville Public Utilities



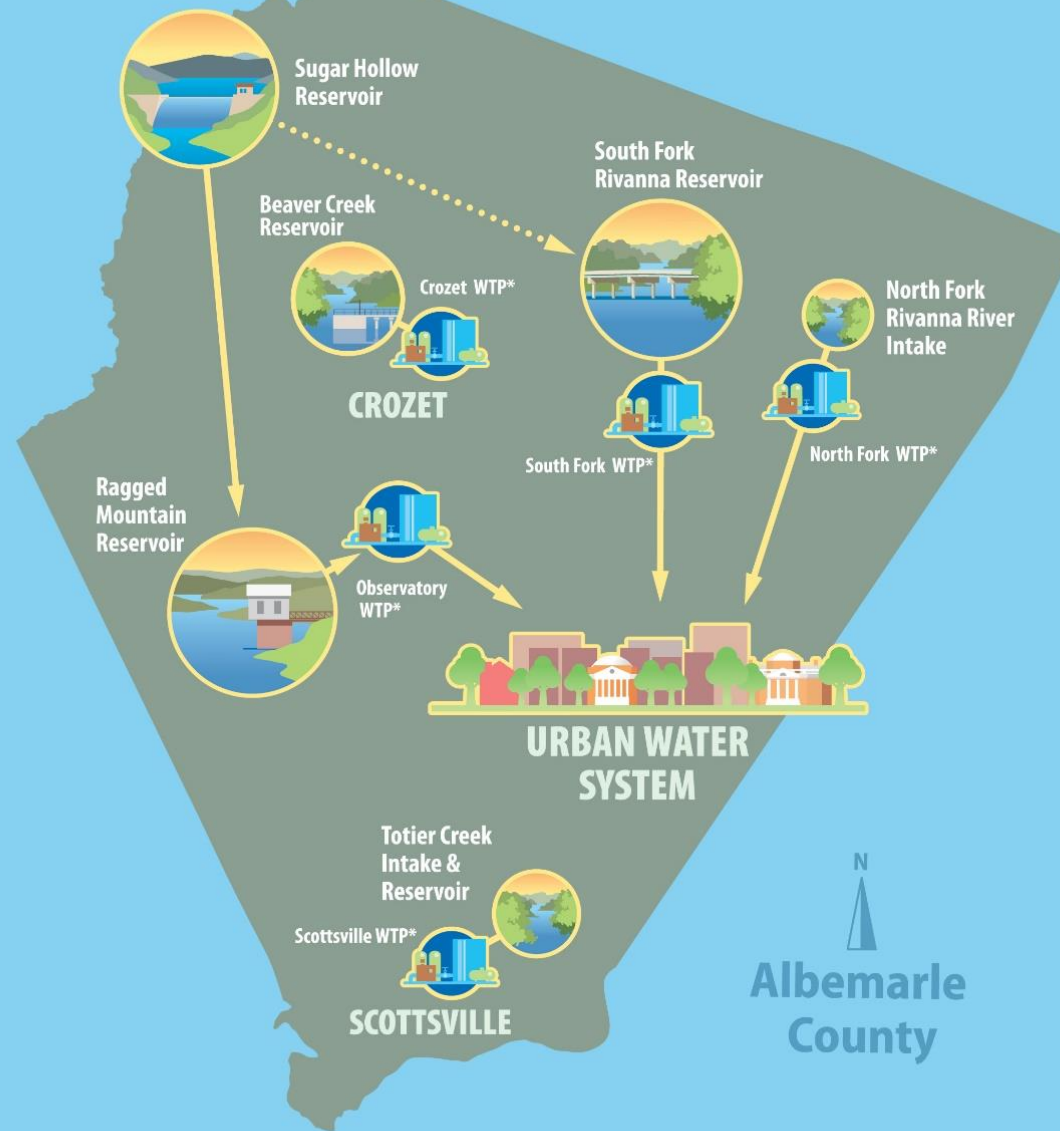
Rivanna Water and Sewer Authority

- Budget \$31 Million
- Staff 87
- Assets \$306 Million

- Water Produced 9.5 MGD
- Wastewater Treated 9.2 MGD
- Water Quality Sampling 150/per month



RWSA Water System



*WTP – Water Treatment Plant

Water Supply Reservoirs

South Fork Rivanna Reservoir



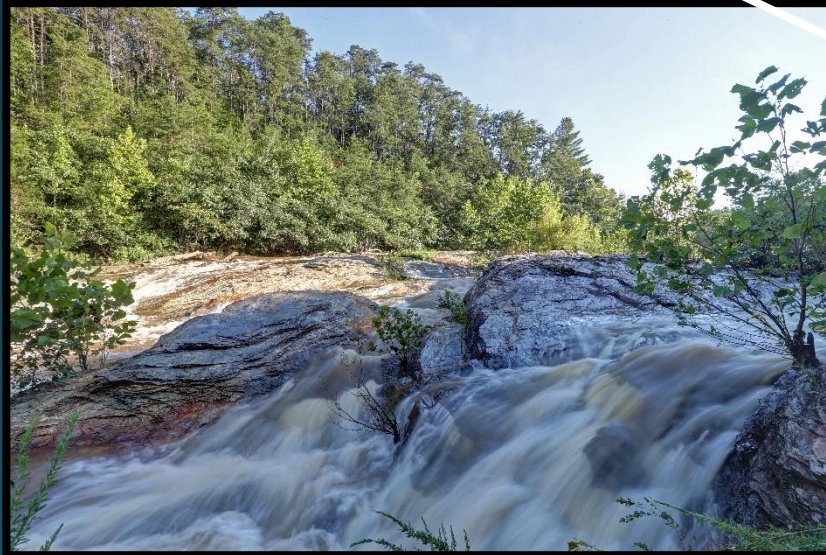
Sugar Hollow Reservoir



Ragged Mountain Reservoir



Totier Creek
(Scottsville)



Urban
Area



Beaver Creek
(Crozet)

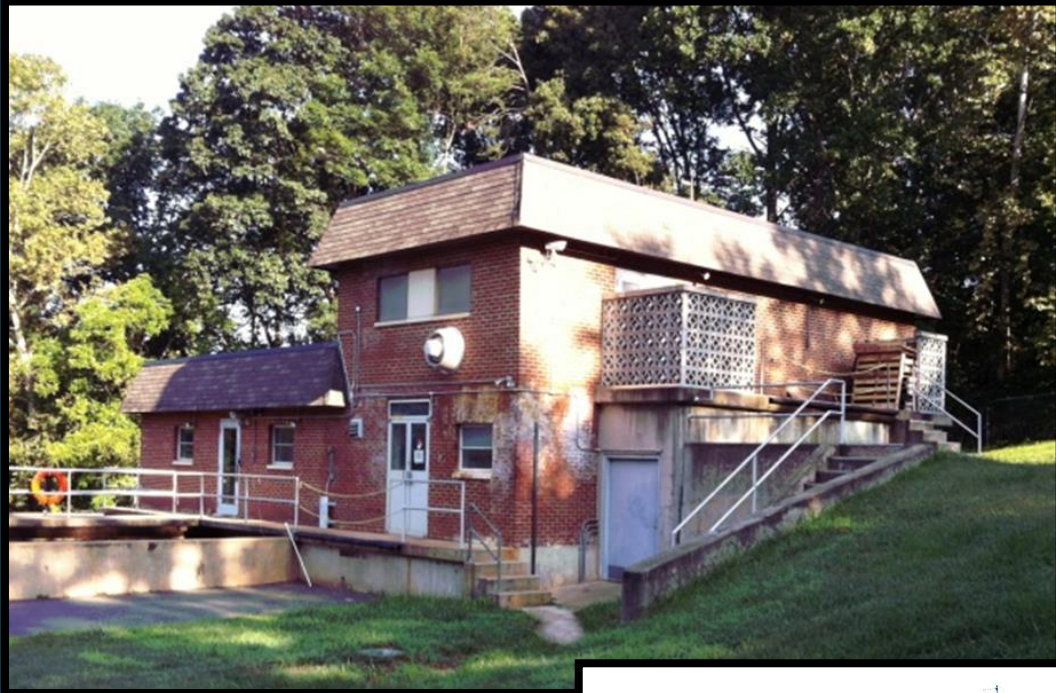
Water Treatment Plants



South Rivanna WTP



Observatory WTP



North Rivanna WTP



Crozet WTP



Scottsville WTP

Wastewater Treatment Facilities



- Moore's Creek Advanced Water Resource Recovery Facility
- Scottsville
- Glenmore
- Stone Robinson Elementary School



Crozet Facts from ACSA

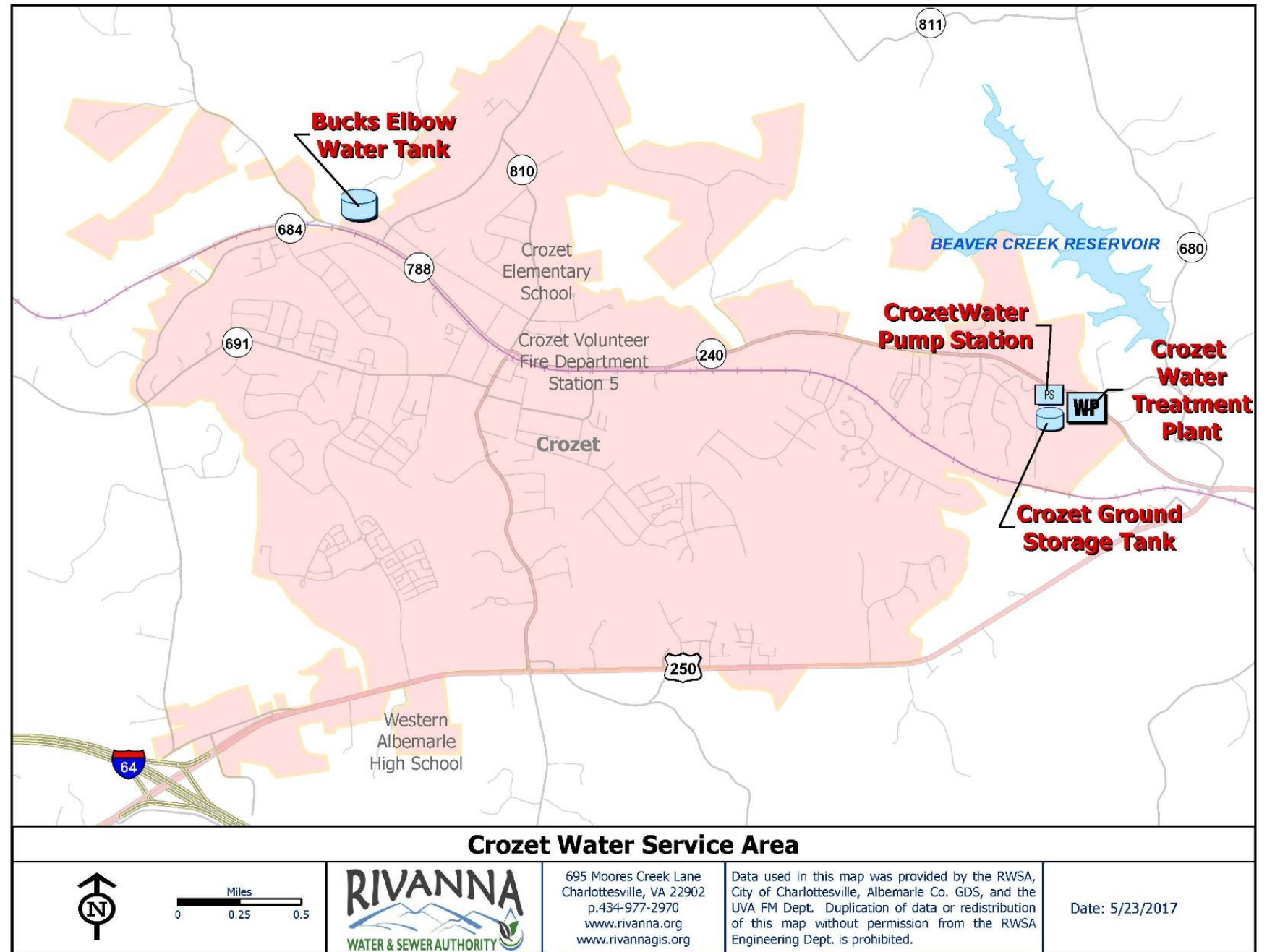
- 3,193 water customers in Crozet served by the ACSA. Most all are water and sewer accounts
- 95% of the water customers are residential
- Serving an estimated Crozet population of 8,418 in the ACSA service area
- In May 2017, the ACSA sold 13, 691,600 gallons of water to Crozet customers
- The breweries account for less than 3% of the monthly water use
- There are 59 irrigation customers in Crozet, 1.6% of the single family residential water customers
- In peak months, irrigation accounts for up to 4% of the water use
- The largest irrigation customers are the County Schools

Drinking Water Infrastructure Plan Crozet Service Area

- Purpose
- Why now
- Current Status
- Crozet Facts from ACSA
- Process
- Schedule

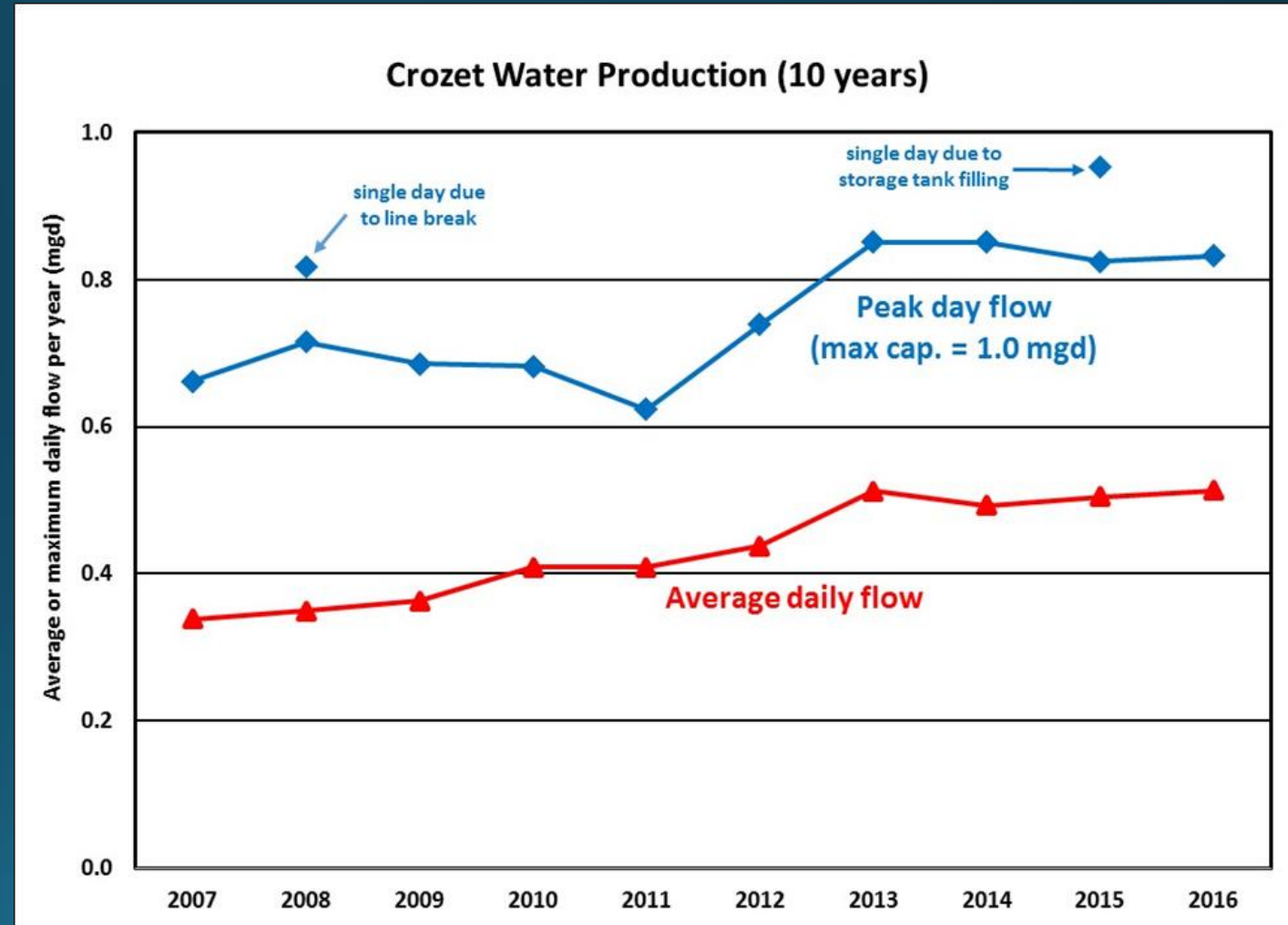
Purpose

Ensure RWSA can provide an adequate supply of drinking water to the Crozet service area for the next 50 years.



Why now?

- Peak day demands exceeding 80% of the WTP capacity have been experienced every year since 2013
- Expansion of the WTP will take about 5 years to complete
- Modifications to Beaver Creek dam auxiliary spillway are required by new State regulations (2016)
- Need to know long range capacity plans for the reservoir as design alternatives for the dam spillway modifications are considered



Current Status

- Drinking water pumping station is under construction. Capacity will be 1.5 MGD
- Preliminary design is underway to increase WTP treatment capacity from 1.0 to about 1.5 MGD.
 - This treatment capacity stays within the 1.8 MGD safe yield allowed to be withdrawn from Beaver Creek Reservoir.
- Need State DEQ approval to increase the withdrawal from Beaver Creek Reservoir to supply the increased WTP treatment capacity. Minimum in-stream flows will be established below the dam.

Process

- ✓ Hire engineer: Hazen and Sawyer Engineers
- ✓ Meet with Board of Supervisors Representative for Crozet (Ann Mallek)
- ✓ Inform stakeholder group about the purpose and the process
 - Review data, develop demand forecasts, draft water supply alternatives
 - Meet with DEQ to consider demand, safe yield, and minimum in-stream flow factors to obtain a withdrawal permit from reservoir
 - Meet with community to outline water supply alternatives
 - Present final alternatives to the RWSA Board

Schedule

Complete Drinking Water Infrastructure Plan
by December 2018

Questions?

If you have questions in the future, please contact:

- Teri Kent, RWSA Communications Manager, (434) 977-2970 ext 101
- Doug March, RWSA Senior Civil Engineer, (434) 977-2970 ext 201