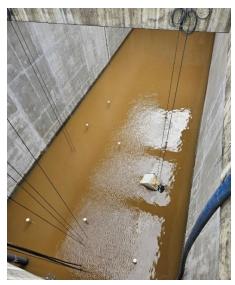
# Moores Creek Advanced Water Resource Recovery Facility Rivanna Pump Station Update 3/1/2024



The Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF) is the facility which processes the wastewater received from approximately 130,000 public wastewater customers in Charlottesville and the adjacent developed areas of Albemarle County, including Crozet.

#### What happened at the Rivanna Pump Station?

On January 9, 2024, high rain and wastewater flows may have damaged equipment in the Rivanna Pump Station causing it to malfunction, become submerged, and discontinue operations. This resulted in several wastewater overflows from manholes in and around Riverview and Darden Towe parks.



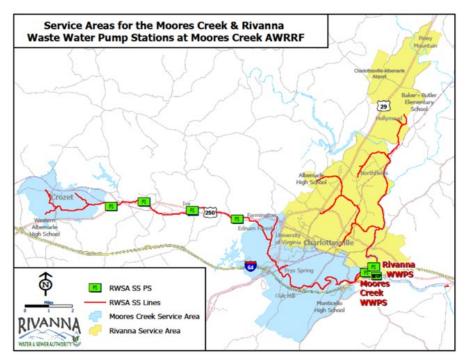
Submerged pump station wet well



Submerged pump station pump room

#### What is the Rivanna Pump Station?

The Rivanna Pump Station is located at the MCAWRRF in Charlottesville. Wastewater comes to this facility primarily through gravity driven flows from the northern parts of Charlottesville and Albemarle County each day. This facility pumps between 5 and 50 million gallons of wastewater daily. It is the largest pump station in the wastewater system and serves approximately 60% of the public utility customers in our community. The pump station lifts wastewater received at the Moores Creek plant vertically about 100 feet so that it can be treated and eventually, once treatment is completed, released into Moores Creek.



The yellow highlight area is the service area for the Rivanna Pump Station.

## What was RWSA's response?

In coordination with our contractors and the Virginia Department of Environmental Quality, the Rivanna Water & Sewer Authority's team responded immediately to continue service and minimize any impacts on the environment. A temporary pumping system was put into place to convey normal wastewater flows around the damaged Rivanna Pump Station for treatment. Unfortunately, for one 26-hour period, it was necessary to discharge untreated wastewater into Moores Creek to get the water out of the lower levels of the pump station. We coordinated this discharge with Virginia DEQ prior to the wastewater discharge, and the agency notified users down river from the discharge. Areas in the parks where the overflows occurred have been raked, cleaned, and sanitized and the manholes have been restored. There have been no overflows in the parks since January 18, 2024.

By February 14, 2024, RWSA Maintenance staff and contractors completed a 53 million gallon per day pumping and piping bypass system that will convey wastewater around the damaged pump

station to complete the normal treatment process. This system will also allow RWSA to manage higher wastewater flows that are received during storm events.





The Rivanna Maintenance team and contractors working on piping connections for the pumping bypass system.



50 million gallons per day pumping bypass system



53 million gallons per day bypass pumping system

## What is going on now with the Rivanna Pump Station?

We used a contractor, Belfor, to clean and sanitize the Interior spaces of the pump station. This work has been completed. Contractors and engineers have accessed the pump rooms and have begun testing pipes, pumps, and valves to determine the cause of the malfunction. As of now, no defects have been found. Once we understand the sequence of events that led to the failure of the Rivanna Pump Station, procedures will be established to prevent this type of situation from happening in the future. Replacement materials and equipment are being evaluated and ordered to restore the pump station. We expect the restoration work to take several months at an estimated cost of \$20 to \$25 million. We are coordinating with our property insurance company for reimbursement of restoration costs.

## **Daily Photos**

#### February 21, 2024



Cleaned pump room.

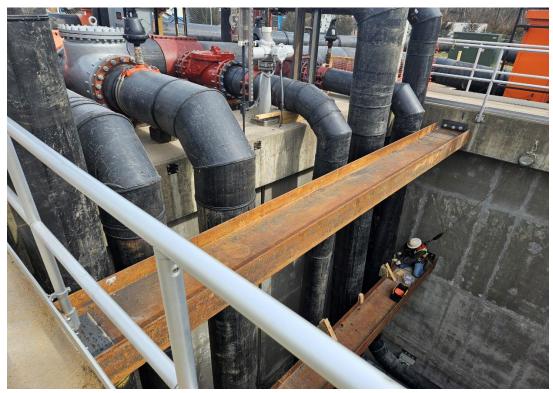
## February 20, 2024





Cleaning in the upper level of the pump room before (left) and after (right).

## February 16, 2024



53 million gallons per day bypass pumping system

## February 14, 2024



Bypass system pipes in the wet well.

# February 12, 2024



Continuing work in the wet well

## February 9, 2024



Large bypass system pipes

# February 8, 2024



Bypass system pipes

## February 5, 2024



Rivanna Pump Station

