

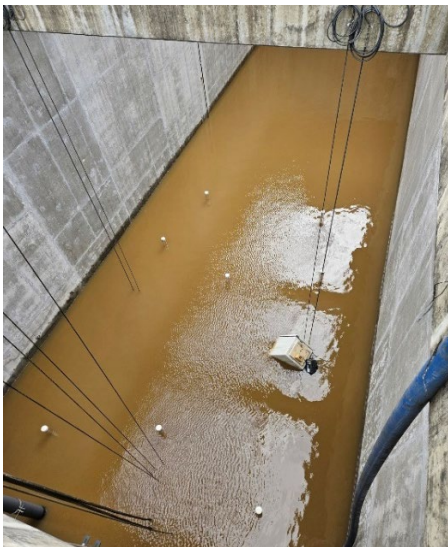
Moore's Creek Advanced Water Resource Recovery Facility Rivanna Pump Station Update 4/3/2024



The Moore's 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.



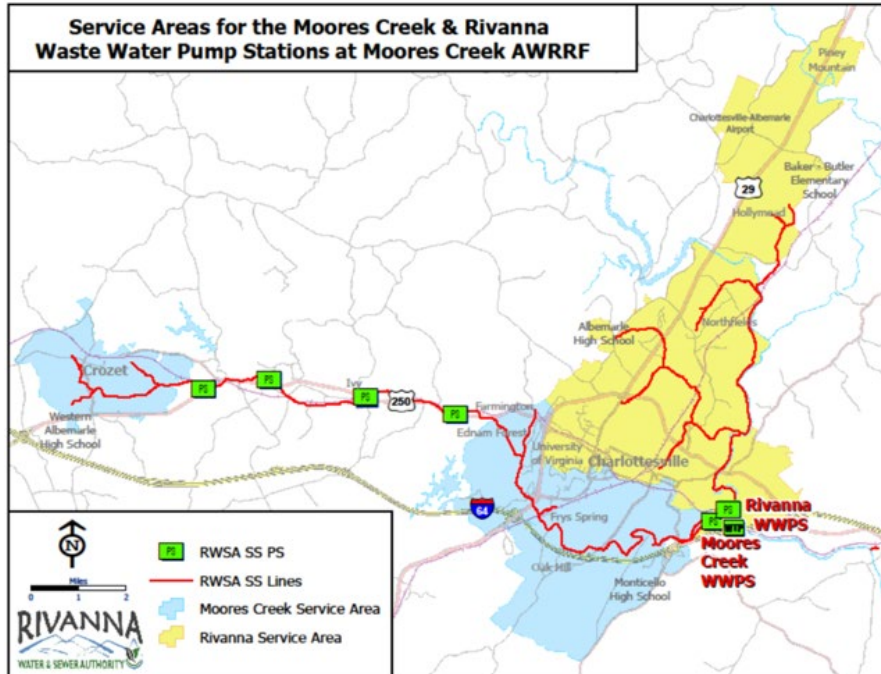
Submerged pump station wet well



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 55 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 allow RWSA to manage higher wastewater flows that are received during storm events.



55 million gallons per day pumping bypass system



55 million gallons per day bypass pumping system

What is going on now with the Rivanna Pump Station?

We have completed installation of a 55 million gallon per day bypass pumping system, removed all of the temporary pumps from generator power and tied them into normal utility power, programmed temporary controls, and converted the bypass pumps to automated operation. The temporary generators that were being used for power have been removed from site negating the need for a VDEQ temporary air quality permit and saving \$50,000 - \$75,000 per month in operating costs.

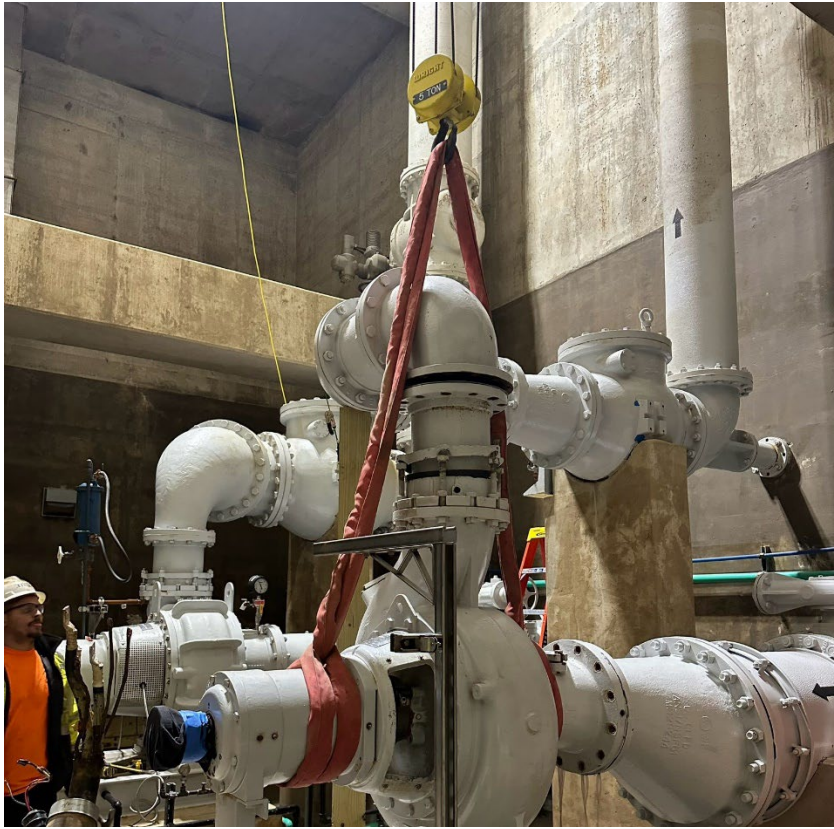
Our engineers have completed field investigations, performed a damage assessment inspection on the pump station electrical system, and coordinated the removal and inspection of equipment. Contractors drained the interior pump station piping followed by the dismantling, cleaning, packaging, and removal of all six permanent pumps and motors. The pumps and motors have been shipped to a facility in North Carolina for evaluation. The motor operated plug valves and check valves were inspected in place by manufacturer representatives.

Daily Photos

March 21, 2024



Pumps removed from pump station.



Pump rigged for removal.

February 21, 2024



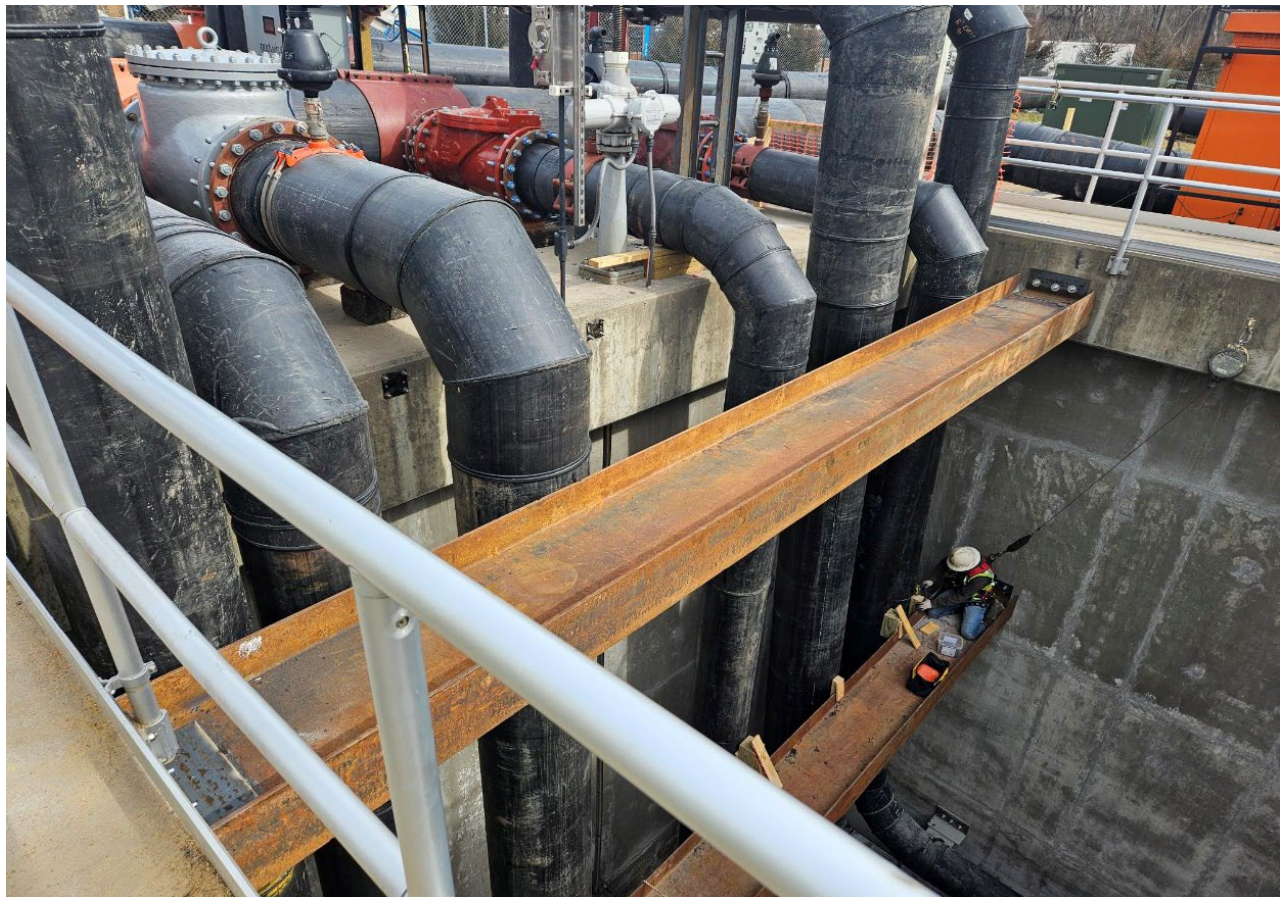
Cleaned pump room.

February 20, 2024



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

February 16, 2024



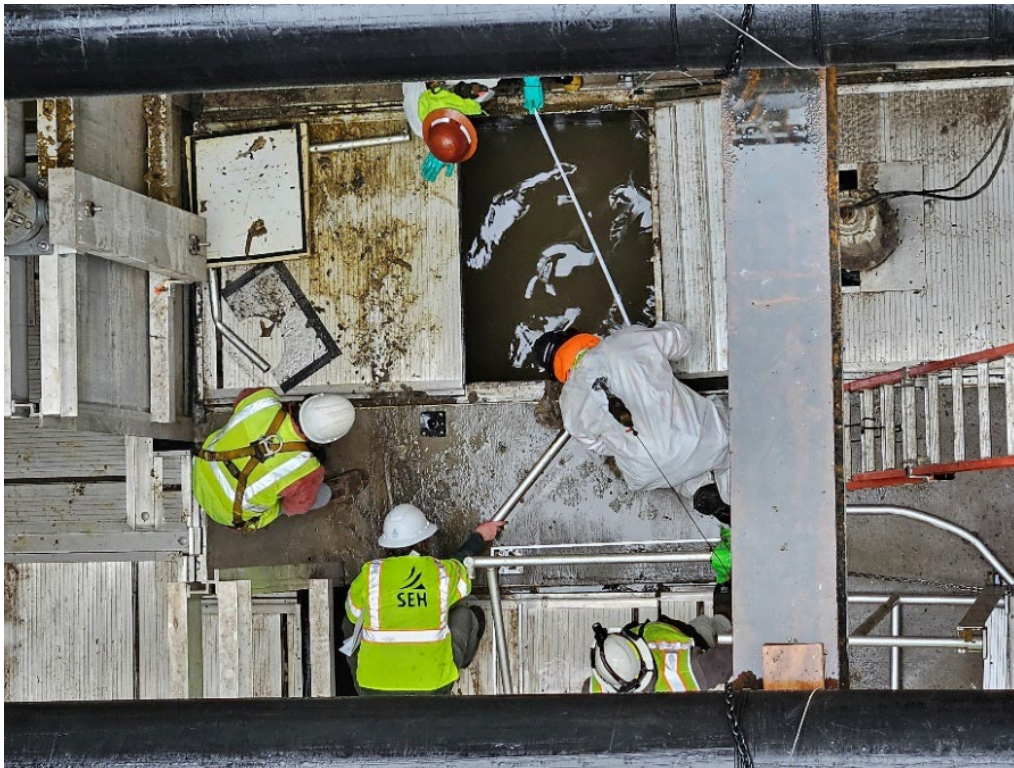
55 million gallons per day bypass pumping system

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.