

County of Louisa

Monthly Report



Louisa County Water Authority

June 2025



Background/History:

Louisa County Water Authority (LCWA) was created in 1968 by the Louisa County Board of Supervisors to engage in water and wastewater treatment in the County. The County has provided financial assistance as necessary since the Authority's inception as LCWA works to build a sufficient user and revenue base.

LCWA is comprised of several separate subsystems:

- The Northeast Creek Water Treatment Plant produces water for the Towns of Louisa and Mineral as well as surrounding areas, and utilizes conventional treatment followed by Nanofiltration. This plant uses raw water from the Northeast Creek Reservoir; treated water is delivered via a distribution system which connects end users outside of the Towns, as well as Town-managed distribution systems within the Towns.
- The Regional Wastewater Treatment Plant, which is owned by the Town of Louisa and the County and serves the same areas as the Northeast Creek Plant above. LCWA operates this system under contract.
- The Zion Crossroads water system consists of seven (8) potable production wells, and thirteen (13) monitoring wells and serves the Zion Crossroads/Ferncliff areas through a distribution system.
- The Zion Crossroads Wastewater Treatment Plant and collection system serves the same area as the Zion Crossroads Water System above.
- The Bowlers Mill raw water system is owned by the County and operated by LCWA to provide raw water to Old Dominion Electric Cooperative.
- The New Bridge System at Lake Anna provides water and wastewater services to the development area near Lake Anna on Rt. 208.

Projects, Maintenance and Action Items:

Northeast Creek Water Treatment Plant:

Decking around generator – Footers dug, concrete poured 01-04-2024	
Sludge-Vac System – VDH – ODW final inspection 08-11-2025	COMPLETE
Shower Replacement – acquiring quotes / estimates	
Continue to build critical inventory	
Replace two non-functioning heaters	
Nanofiltration Repairs	
Rebuild gravity filter beds	
Replacement of filter drains	

Louisa Regional Wastewater Treatment Plant:

Water leak	
Wet Well Fall Protection	
Implementing Optimization Study recommendations underway	
Continue to build critical inventory	
Acid bath tank for UV bulb cleaning	
Equipment - Tractor	
Auger for septic receiving station – budgetary price received – order placed	
Bearing to be replaced in rotor	
Toxicity Testing – will begin 08-10-2025 – 08-14-2025	
Vector Attraction testing – will begin 08-11-2025	

Zion Crossroads Well System:

Negotiations with Fluvanna County on a rate to purchase water – agreement drafted	
Clean and paint Zion Crossroads Water Tank – interior	

Zion Crossroads WWTP:

Paving of concrete oval in front of lab	
Retaining wall	
Replace Lilly pod aerators – quote requested	
Replace SCADA – CIP budget request approved	
Asphalt seal coat	
Security gate – FY2026	
Equipment - Truck	
UV System upgrade – in progress	
Toxicity testing	COMPLETE

Concrete pad	COMPLETE
Polymer containment	COMPLETE
Mud washed into the plant due to heavy rain in Section L of Spring Creek – staff is working to mitigate – it takes time	

Dam work – Bowlers Mill and Northeast Creek:

Bowlers Mill – quote received, contract signed, funding is available – demo work complete

New Bridge Water / Sewer System:

Shoreline Sign – being evaluated
Build critical inventory
Connect communications to NEC-WTP – in progress
Upgrade design and PER underway – 95% plans review scheduled for September 2025
Investigating a Pretreatment Program for the Tap House
Checking for a backflow preventer for the boat dock

Distribution / Collection System:

Commercial Meter Replacement – received ¾," 1," 1 ½," and 2" meters and ERTZ - ongoing
Bush-hogging rights-of-way (preparing for smoke testing) - ongoing
Smoke testing
Replacing meter setters for UVA Dialysis and McDonald's
St. Francis, Lagoon and High School pump station control panel replacement
Middle School Addition
CTE Building at the High School
Ferncliff Waterline Extension
Spring Creek Well #2 – lead and copper testing
Spring Creek Section L under construction

Miscellaneous:

Shannon Hill Business Park Utilities easements & plans review
Utility Standards - underway
Amazon
Cybersecurity
Safety Manual – rewrite / update
Safety training
Accounting Policies
Regional Water Supply Planning
American Water Infrastructure Act updates
Voltus

July 2025 Income & Expenditures:

The Authority's O & M Revenues exceeded O & M Expenditures by \$87,676 for the month of July 2025. The Authority has a positive O & M cash flow of \$87,676 for FY2026 through July 31, 2025.

Capital Expenditures exceeded Capital Revenues by \$5,691 for the month of July 2025. The Authority has a negative Capital cash flow of \$5,691 for FY2026 through July 31, 2025.

O & M and Capital Revenues together exceeded O & M and Capital Expenditures by \$81,985 for the month of July 2025. The Authority has a positive combined O & M and Capital cash flow of \$81,985 for FY2026 through July 31, 2025.

Investments – July 2025:

The Louisa County Water Authority Investments Report is a listing of the Authority's current investments. LCWA currently has two investments with the Virginia Investment Pool.

Fund Balance:

VIP Stable NAV Liquidity Pool	\$334,067
VIP 1-3 Year High Quality Bond	\$849,264
Total Reserve Fund Balance (\$739,102 of these funds are restricted and not available for use for O&M Expenditures)	\$1,183,331

Restricted funds we are obligated to have on hand: **Included in the fund balance**

Customer Deposits	\$146,459
Accumulated Regional Sewer Connection Fees (restricted) less approved expenditures	\$428,828
Other Post-Employment Benefits	\$165,639

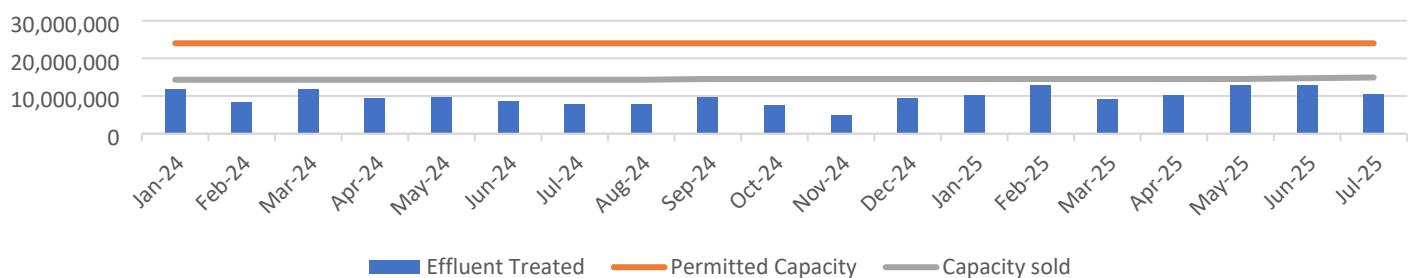
Production/Treatment Information:

Northeast Creek Water Treatment Plant Water Production (Gallons per month)



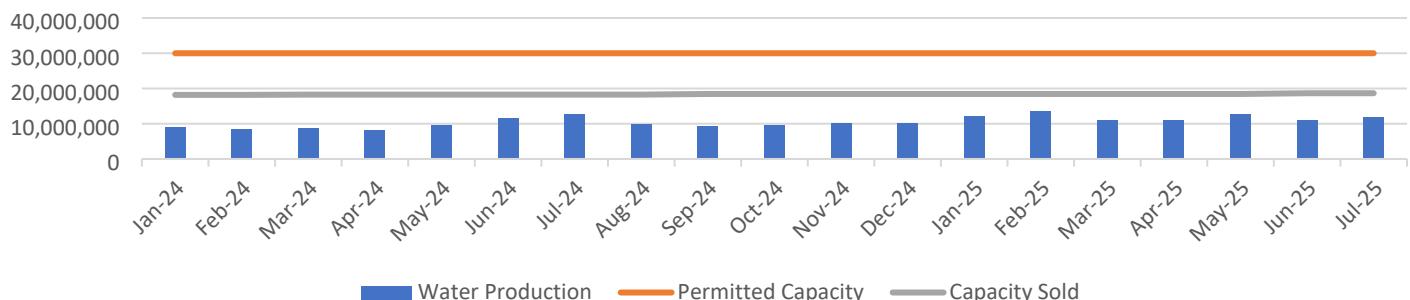
The permitted capacity sold or allocated is 62.19%. The permitted capacity is 1 million gallons per day.

Louisa Regional Wastewater Treatment Plant Effluent Treated (Gallons per month)



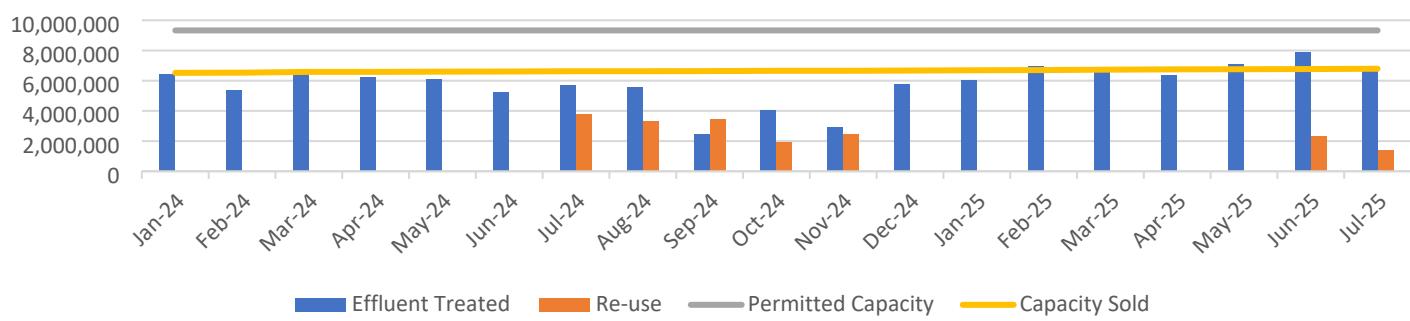
Currently treating 432,000 gallons per day. The permitted capacity is 800,000 gallons per day.

Zion Crossroads Wells Water Production (Gallons per month)



The permitted capacity sold is 42.51%. The permitted capacity is 624,800 gallons per day.

Zion Crossroads Wastewater Treatment Plant Treated Effluent / Re-Use (Gallons per month)

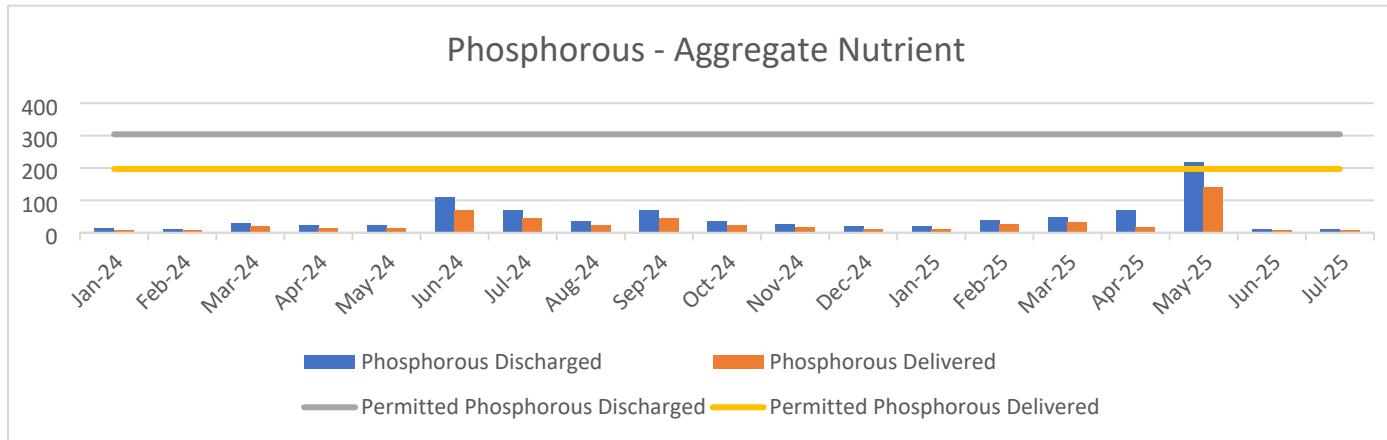
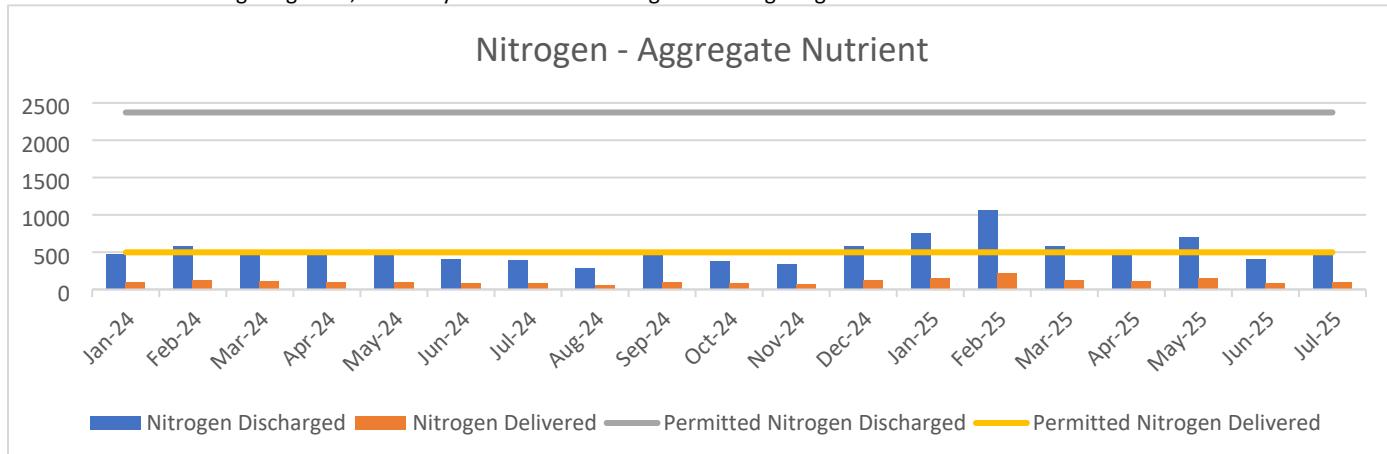


Currently treating approximately 230,000 gallons per day. The permitted capacity is 311,000 gallons per day.

Nitrogen / Phosphorous:

Nitrogen and phosphorus are assigned limits on an aggregated Countywide basis which are set by the Department of Environmental Quality. Nitrogen and phosphorous each have a discharged limit (the amount discharged into the receiving stream) and a delivered limit (a calculation on the actual discharged amount that is delivered to the Chesapeake Bay).

In each graph below the gray line designates the permitted discharge amount; the blue column designates the actual discharged amount. The yellow line designates the permitted delivered amount; the orange column designates the actual delivered amount. In simplistic terms, the gray lines and blue columns go together, and the yellow lines and orange columns go together.



Total LCWA Connections:

Year	Number of Connections
2018	50
2019	26
2020	52
2021	64
2022	44
2023	38
2024	39
2025	34*

*Through July 31, 2025.