

County of Louisa

Monthly Report



Louisa County Water Authority

March 2025



Background/History:

Louisa County Water Authority was created in 1968 by the Louisa County Board of Supervisors as a separate legal entity from the County. The Authority is engaged in water and wastewater treatment in Louisa County as requested by the Board of Supervisors. From the beginning there has been an understanding between the Authority and the County that because the County has tasked the Authority with the creation and operation of water and wastewater treatment systems, which for some years could not operate fiscally in the black, some form of County subsidization would be required.

The Northeast Creek Water Treatment Plant currently produces approximately 350,000 – 400,000 gpd, peaking at 520,000 gpd. The treatment process is conventional treatment followed by Nanofiltration.

The Regional Wastewater Treatment Plant and collection system has too few customers to this day and cannot operate without operational funding from the County and Town of Louisa. Louisa County Water Authority is a party to a contract to operate the Regional WWTP. The LRWWTP treats approximately 465,000 gpd.

The Zion Crossroads water system consists of seven (7) potable production wells and thirteen (13) monitoring wells. The well system produces approximately 265,000 gpd. Spring Creek Well #1 is now online. Spring Creek Well #2 will be online as soon as the Virginia Department of Health – Office of Drinking Water inspection, engineering inspection and communication issue is resolved.

The Zion Crossroads Wastewater Treatment Plant and collection system was at first subsidized directly by the County but as more customers were connected the Authority was allowed to keep a portion of the connection fees and did not request O&M funding. During a difficult regulatory period, the Authority was no longer able to meet the Zion Sewer Expenses; to compensate, the Authority was authorized to keep connection fees charged for new connections beginning July 1, 2011. The ZCWWTP treats approximately 250,000 gpd.

The Bowlers Mill raw water system is the exception in that it was built at no cost to the County and operates on a contract with Old Dominion Electric Coop.

The New Bridge System at Lake Anna was taken over on May 1, 2023. Many upgrades have been undertaken to stabilize the wastewater treatment process and improve the potable water quality.

Projects, Maintenance and Action Items:

Northeast Creek Water Treatment Plant: Permitted capacity sold or allocated 61.49%. Permitted to 1MGD.

Decking around generator – Footers dug, concrete poured 01-04-2024	
Sludge-Vac System – bids received, Notice to Proceed awarded – mobilization week of 11/11/2024, Plant shut down to half capacity beginning January 2025 – working on punch list items – completion anticipated in the next 30 – 60 days	
Shower Replacement – acquiring quotes / estimates	
Hiring Trainee	
Continue to build critical inventory	
Drain and Backwash Valves to be replaced during Sludge-Vac System upgrades	
Replace two non-functioning heaters	

Louisa Regional Wastewater Treatment Plant: Treating 292,000 gallons per day. Permitted for 800,000 gpd.

Water leak	
Wet Well Fall Protection	
Changing cloth disc filters – one complete	
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	
Bearing to be replaced in rotor	
Belt press repairs	

Septage receiving station repairs	
Toxicity testing	

Zion Crossroads Well System: Permitted capacity sold as of 02/28/2025 42.30%. Permitted capacity 624,800 gpd.

Negotiations with Fluvanna County on a rate to purchase water – agreement drafted	
Bringing Spring Creek Well #1 & #2 online – meter received September 18, 2024	
Clean and paint Zion Crossroads Water Tank – interior	

Zion Crossroads Wastewater Treatment Plant: Treating approximately 215,000 gallons per day. Permitted for 311,000 gpd (72.15% permitted capacity.)

Crossing Pointe Pump Station – Punch List items – flow meters and hour meter	
Paving of concrete oval in front of lab	
Retaining wall	
Upgrade Aqua Aerobic software – ordered - expected in May 2025	
Replace Lilly pod aerators – quote requested	
Replace SCADA – CIP budget request submitted	
Asphalt seal coat	
Security gate – FY2026	
Equipment - Truck	
Drains can't be completely closed – working to resolve – quote requested	COMPLETE
Reuse system back online in May	
Grit blowers repaired	COMPLETE
UV Mod repaired	COMPLETE
UV System upgrade	
Toxicity testing	
HACH maintenance scheduled	
Annual calibration	
Concrete pad	
Polymer containment	

Dam work – Bowlers Mill and Northeast Creek:

Bowlers Mill – waiting on a quote for replacing valve stem	
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New Bridge Water / Sewer System: Water approximately 8,000 gpd. Wastewater 8,600 gpd.

Well #1 – bringing online - well pump / motor in, some piping work needs to be completed	
Shoreline Sign – being evaluated	
Build critical inventory	
Connect communications to NEC-WTP	
Upgrade design and PER underway	

Distribution / Collection System:

Commercial Meter Replacement – received ¼," 1," 1 ½," and 2" meters and ERTZ - ongoing	
Bush-hogging rights-of-way (preparing for smoke testing) - ongoing	
Smoke testing	
Replace the Town of Louisa meters – materials received – inline valves to be installed before meters can be replaced – began the week of 12/02/2024 will be completed week of March 10, 2025	COMPLETE
Replacing meter setters for UVA Dialysis and McDonald's	
Equipment – Skid Steer, Trailer, Trucks, Mowers - ordered	
St. Francis, Lagoon and High School pump station control panel replacement	
Middle School Addition	
Hydrant repairs and replacements	
CTE Building at the High School	

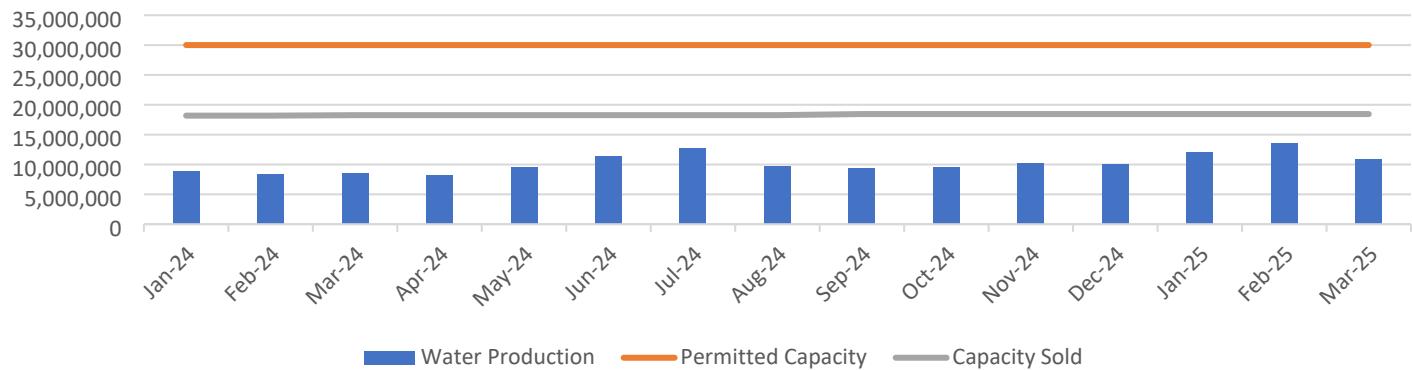
Miscellaneous:

Shannon Hill Business Park Utilities easements & plans review	
Utility Standards - underway	
Zion Crossroads Sewer Capacity Study – added change order to look at organic loading and hydraulic capacity	
Budgets	
Fishing Permits	
Amazon	
Cybersecurity	
Safety Manual – rewrite / update	

Open enrollment	
Safety training	
Generator services for all facilities	

Production/Treatment Information:

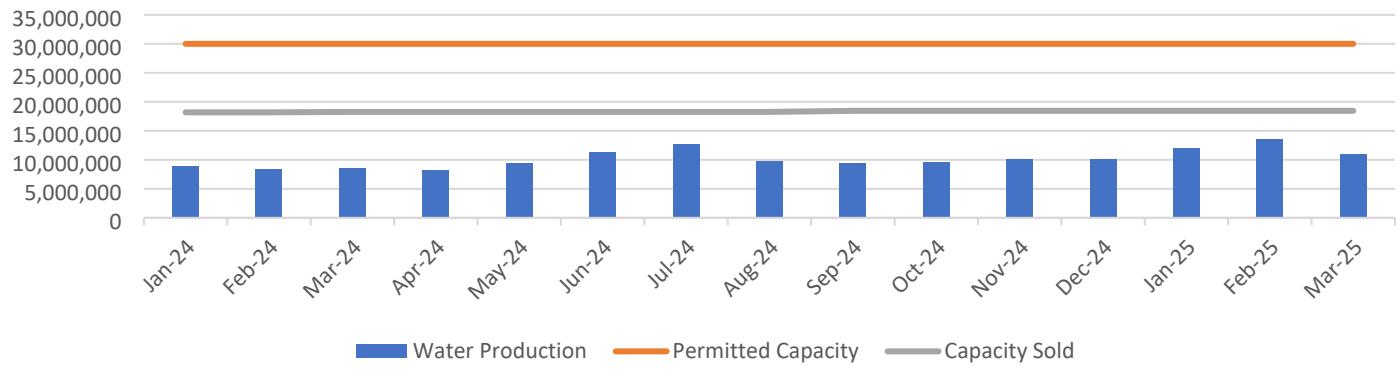
Northeast Creek Water Treatment Plant
Water Production (Gallons per month)



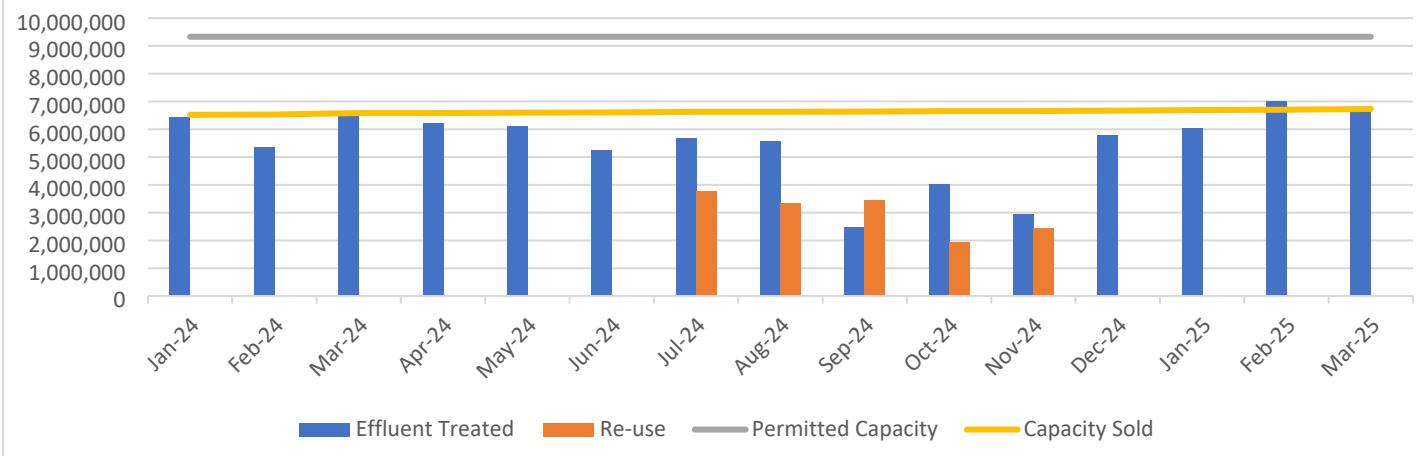
Louisa Regional Wastewater Treatment Plant
Effluent Treated (Gallons per month)



Zion Crossroads Wells
Water Production (Gallons per month)



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



One exceedance for March 2025 at New Bridge Wastewater Treatment Plant for Ammonia (NH3). Permit limits are 30 mg/L, we violated with a 30.7 mg/L. Staff believe this was a residual effect of the large amount of grease that entered the system. It has taken a long time to clear the grease out.

March 2025 Income & Expenditures

The Authority's O & M Revenues exceed O & M Expenditures by \$3,062 for the month of March 2025. The Authority has a positive O & M cash flow of \$112,864 for FY2025 through March 31, 2025.

Capital Expenditures exceeded Capital Revenues by \$36,357 for the month of March 2025. The Authority has a positive Capital cash flow of \$46,062 for FY2025 through March 31, 2025.

O & M and Capital Expenditures together exceeded O & M and Capital Revenues by \$33,295 for the month of March 2025. The Authority has a positive combined O & M and Capital cash flow of \$158,926 for FY2025 through March 31, 2025.

Investments – March 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	\$329,165
VIP 1-3 Year High Quality Bond	\$839,864
Total Reserve Fund Balance	\$1,169,029

Restricted funds: **Included in the fund balance**

Customer Deposits	\$142,395
Accumulated Regional Sewer Connection Fees (restricted) less approved expenditures	\$236,534
Other Post-Employment Benefits	\$165,639