

# County of Louisa

## Monthly Report



### Louisa County Water Authority

#### July 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             |          |
| Shower Replacement – acquiring quotes / estimates                              |          |
| Continue to build critical inventory                                           |          |
| Replace two non-functioning heaters                                            |          |
| Nanofiltration Repairs                                                         |          |
| Rebuild gravity filter beds                                                    | COMPLETE |
| Replacement of filter drains                                                   | COMPLETE |
| Interviews for an operator position                                            |          |
| Wigen Water Technology onsite week of October 20, 2025, (??)                   |          |
| Bag filters received – Paisley-Kerr to install between September 15 – 22, 2025 |          |

##### **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                                                  | COMPLETE |
| Toxicity Testing – will begin 08-10-2025 – 08-14-2025                            | COMPLETE |
| Vector Attraction testing – will begin 08-11-2025                                |          |
| WER Study – required for permit renewal – beginning September 18, 2025           |          |
| Zinc Translator Study – required for permit renewal beginning September 18, 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 - underway |  |
| Asphalt seal coat                                      |  |

|                                                                                                                         |  |
|-------------------------------------------------------------------------------------------------------------------------|--|
| Security gate – FY2026                                                                                                  |  |
| Equipment - Truck                                                                                                       |  |
| UV System upgrade – in progress                                                                                         |  |
| 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                             |  |
| Upgrades to maintain consistent compliance                                      |  |

**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                                                                          |          |
| 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                                         | COMPLETE |
| Spring Creek Section L under construction                                              |          |

**Miscellaneous:**

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

**August 2025 Income & Expenditures:**

The Authority's O & M Revenues exceeded O & M Expenditures by \$132,063 for the month of August 2025. The Authority has a positive O & M cash flow of \$219,739 for FY2026 through August 31, 2026.

Capital Expenditures exceeded Capital Revenues by 107,335 for the month of August 2025. The Authority has a negative Capital cash flow of \$113,026 for FY2026 through August 31, 2025.

O & M and Capital Revenues together exceeded O & M and Capital Expenditures by \$24,728 for the month of August 2025. The Authority has a positive combined O & M and Capital cash flow of \$106,713 for FY2026 through August 31, 2025.

**Fund Balance:**

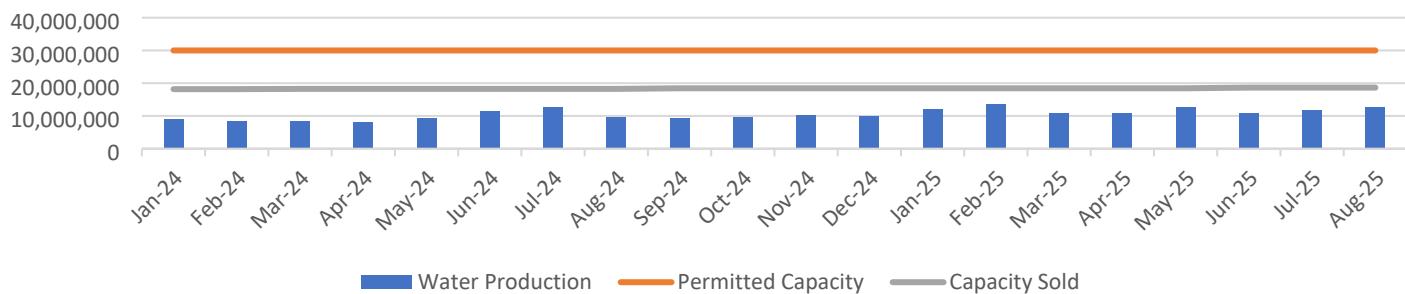
|                                                                                                                     |             |
|---------------------------------------------------------------------------------------------------------------------|-------------|
| VIP Stable NAV Liquidity Pool                                                                                       | \$335,322   |
| VIP 1-3 Year High Quality Bond                                                                                      | \$856,453   |
| Total Reserve Fund Balance (\$742,352 of these funds are restricted and not available for use for O&M Expenditures) | \$1,191,785 |

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

|                                                                                    |           |
|------------------------------------------------------------------------------------|-----------|
| Customer Deposits                                                                  | \$147,885 |
| Accumulated Regional Sewer Connection Fees (restricted) less approved expenditures | \$428,828 |
| Other Post-Employment Benefits                                                     | \$165,639 |

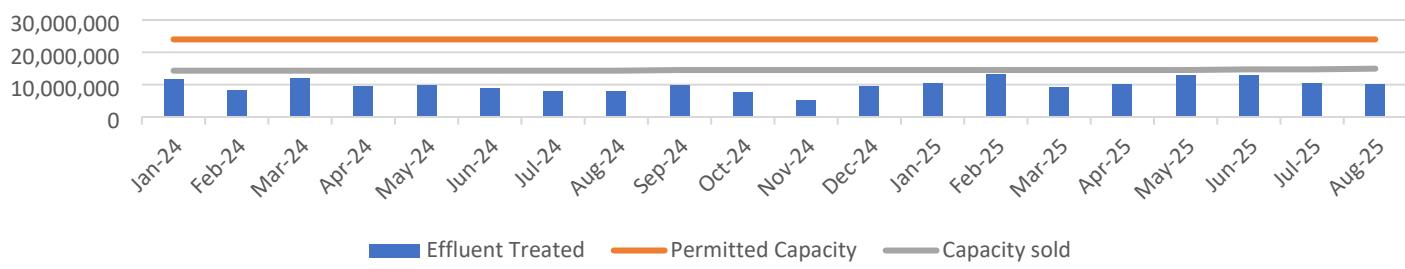
**Production/Treatment Information:**

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



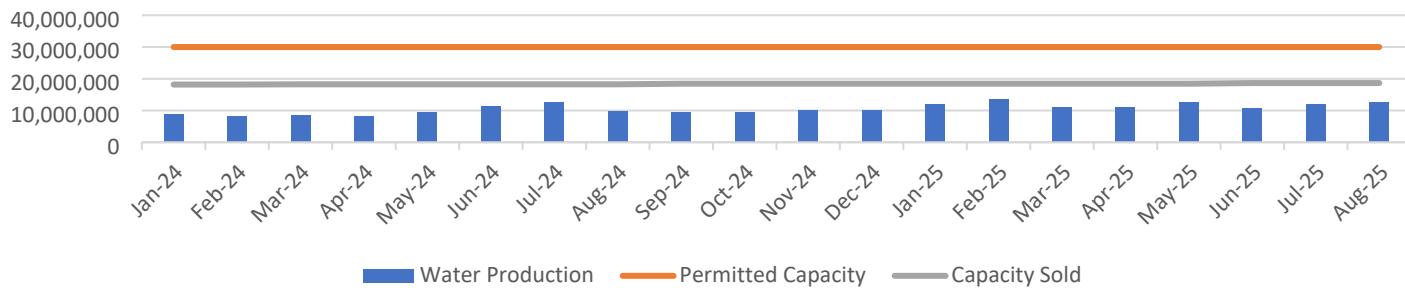
The permitted capacity sold or allocated is 62.19%. The permitted capacity is 1 million gallons per day.

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



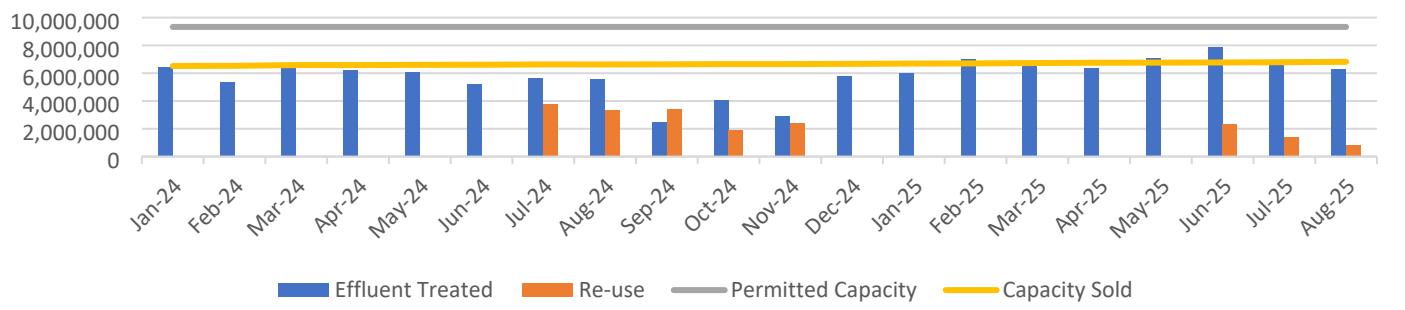
Currently treating 432,000 gallons per day. The permitted capacity is 800,000 gallons per day.

### 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)

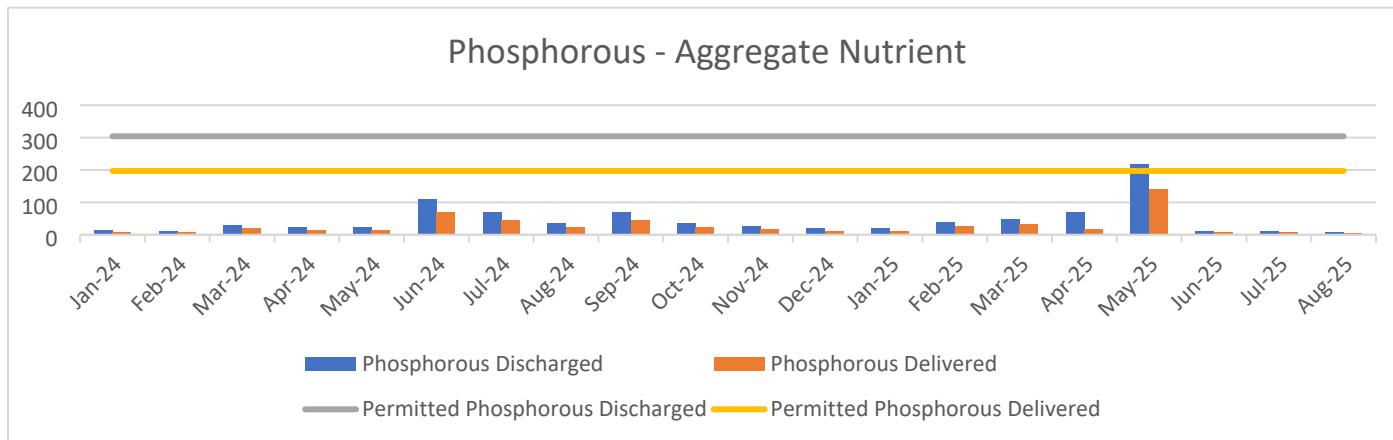
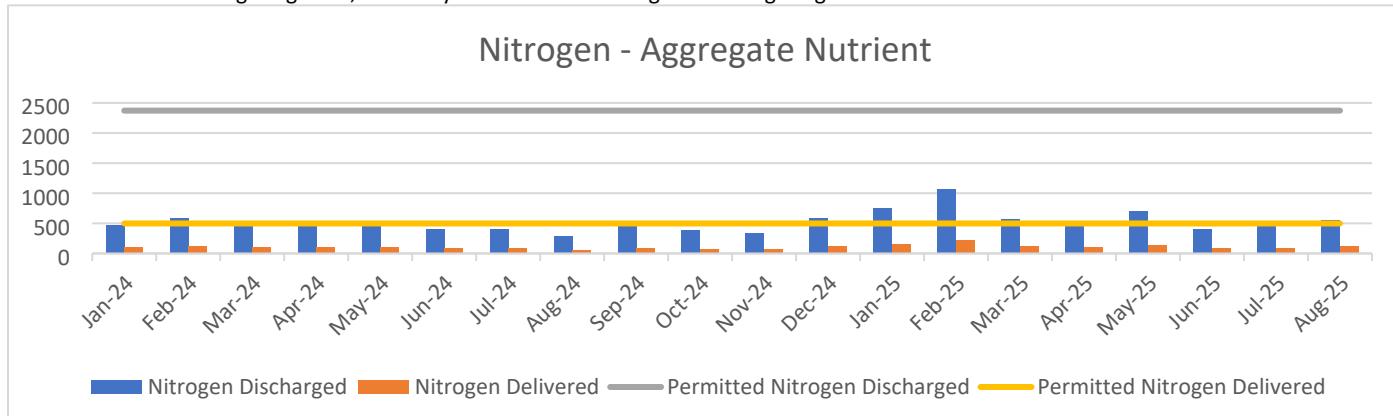


Currently treating approximately 230,000 gallons per day. The permitted capacity is 311,000 gallons per day.

#### **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 | 40                    |

\*Through August 31, 2025.