



## CITY OF LINCOLNTON

### WASTEWATER TREATMENT PLANT WATER TREATMENT PLANT COLLECTION SYSTEM

#### SYSTEM PERFORMANCE ANNUAL REPORT Fiscal Year: July 1<sup>st</sup>, 2024 – June 30<sup>th</sup>, 2025

#### **I. General Information**

Facility System Name: City of Lincolnton Wastewater Treatment Plant  
City of Lincolnton Water Treatment Plant  
City of Lincolnton Collection System

Responsible Entity: City of Lincolnton, North Carolina

Person in Charge/Contact: Donald A. Burkey, Jr, (Wastewater Treatment Plant, ORC)  
Nolan Hallman, (Water Treatment Plant, ORC)  
Todd Elmore (Collections System, ORC)

Applicable Permits: NPDES Permit NC0025496 (Wastewater Treatment Plant.)  
NPDES Permit NCG590033 (Water Treatment Plant.)  
NPDES Permit WQCS00040 (Collections System.)

#### **II. Description of Treatment Process**

##### **City of Lincolnton Wastewater Treatment Plant:**

The City of Lincolnton Wastewater Treatment Plant is an Activated Sludge treatment process. The process works in three stages: preliminary treatment, primary treatment and secondary treatment. The influent wastewater from the City comes into the Main Lift Station that then pumps the wastewater up to the preliminary treatment units.

In the preliminary treatment stage, a Filter/Screening Unit removes screenings from the wastewater and the grit is taken out by a Vortex Grit Removal system. The water is then piped to the Oxidation Ditch. This starts the primary treatment (biological) phase.

In the primary treatment stage, microorganisms treat the wastewater. Our primary treatment consists of two phases, the Oxidation Ditch and Fine Bubble Aeration Basin. In the Oxidation Ditch phase, the incoming wastewater flows into the outer ring of the Orbal Ditch and is mixed with the microorganisms. Rotating discs in the Oxidation Ditch circulate the wastewater around the outer ring and into the inner ring while the microorganisms breakdown the organic materials in the wastewater.

The wastewater is then piped to the Aeration Basin. In the Aeration Basin, fine air bubbles are introduced to the incoming microorganisms and a biomass is formed. These microorganisms, called bugs, use the oxygen supplied by the fine air bubbles to survive. While passing through the Aeration Basin, the bugs consume and breakdown the remaining organic waste in the water.

After the Aeration Basin, the water enters into the secondary treatment stage. The wastewater leaving the Aeration Basin is piped into two Final Clarifiers. The water and solids (biomass) separate during this part of the treatment process. The separated solids are either returned to the Oxidation Ditch to start the process over again, or wasted to the Diffused Air Floatation unit (DAF) as sludge. The DAF unit thickens the sludge before it goes to anaerobic digesters for storage until removal from the plant. The water from the clarifier moves to the disinfection stage where liquid sodium hypochlorite is fed into the water to reduce pathogens (disease causing bacteria) to NPDES permit required levels.

Once disinfected, the water is discharged into the South Fork River. The excess sludge is contracted to and transported by Synagro to permitted farmland sites in Lincoln County, NC for land application.

#### **City of Lincolnton Water Treatment Plant Alum Basin:**

The City of Lincolnton Water Plant has a discharge permit for an alum basin. The basin discharges water into the South Fork River. The alum basin is used for the water plant's filter washes and basin cleanings. The filter washes and/or basin cleanings flow to the basin by gravity and are allowed to settle. The solids settle to the bottom and clear water remains on top. The clear water is pumped to the river and the solids are pumped to centrifuge. After drying, the alum sludge is transported to the Lincoln County Landfill for disposal.

#### **City of Lincolnton Collection System:**

The City of Lincolnton's Collection System is comprised of approximately 110 miles of gravity sewer line, 10 miles of force main (pressure line), and 19 lift stations that send wastewater to the City of Lincolnton's Wastewater Treatment Plant for treatment. The lift stations are monitored on a consistent basis by a SCADA system (24 hours a day, 7 days a week). Of the 19 lift stations, 7 of them have generators that are operated / tested weekly and maintained quarterly. A vac. truck, trailered jetting machine and rodding machine are used to clean the sewer lines. City crews maintain right of ways, check critical lines (river and creek crossings) and manholes on a regular basis. The City of Lincolnton's Collection System is classified as a CS2 system by North Carolina Department of Environmental Quality – Division of Water Resources (NCDEQ-DWR).

### **III. SUMMARY OF SYSTEM PERFORMANCE FOR FISCAL YEAR 2022 –2023**

#### **City of Lincolnton Wastewater Treatment Plant:**

##### Violations:

The Wastewater Treatment Plant did not have any reported violations for fiscal year 2024 – 2025.

The Wastewater Treatment Plant did have one reported spill (SSO) for fiscal year 2024 – 2025. The SSO occurred on June 11, 2025 where it was reported that approximately 150 gallons of untreated wastewater reached the South Fork Fiver. The spill has been corrected and reported to the State of NCDEQ-DWR. No environmental impacts of fish kills occurred with this event.

#### **City of Lincolnton Water Treatment Plant:**

The Water Treatment Plant did not have any reported violations for fiscal year 2024 – 2025.

The Water Treatment Plant did not have any reported spills for the fiscal year 2024 – 2025.

#### **City of Lincolnton Collection System:**

NCDEQ-DWR defines a sanitary sewer overflow (SSO) as a spill of untreated wastewater of 1,000 gallons or more onto the ground, OR any amount of untreated wastewater that reaches the waters of the State (i.e. streams, creeks, rivers, etc.).

The Collection System did not have any reported violations for fiscal year 2024 –2025.

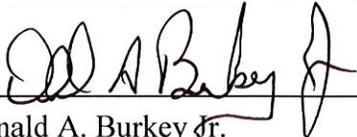
The Collection System did not have any reported spills for the fiscal year 2024 – 2025.

### **IV. Notification**

A Public Notice was listed in the Lincoln Times-News newspaper on August 6th and 13th, 2025 advising all customers that the System Performance Annual Report is available for public review at the City of Lincolnton Public Works & Utilities office at 128 Motz Avenue and online at [www.lincolntonnc.org](http://www.lincolntonnc.org)

V. Certification

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of the City of Lincolnton water and sewer system, and that those users have been notified of its availability.

  
\_\_\_\_\_  
Donald A. Burkey Jr.  
Wastewater Treatment Plant Superintendent  
City of Lincolnton

7-23-2025  
Date

  
\_\_\_\_\_  
Nolan Hallman  
Water Treatment Plant Superintendent  
City of Lincolnton

7-23-2025  
Date

  
\_\_\_\_\_  
Todd Elmore  
Water Resources Director  
City of Lincolnton

7-24-2025  
Date

**CITY OF LINCOLNTON SEWER CLEANED JULY 2024 - JUNE 2025**

<b>JULY 2024</b>	<b>6,420 FT.</b>
<b>AUGUST 2024</b>	<b>5,980 FT.</b>
<b>SEPTEMBER 2024</b>	<b>6,120 FT.</b>
<b>OCTOBER 2024</b>	<b>6,550 FT.</b>
<b>NOVEMBER 2024</b>	<b>6,670 FT.</b>
<b>DECEMBER 2024</b>	<b>6,245 FT.</b>
<b>JANUARY 2025</b>	<b>6,850 FT.</b>
<b>FEBRUARY 2025</b>	<b>6,150 FT.</b>
<b>MARCH 2025</b>	<b>6,410 FT.</b>
<b>APRIL 2025</b>	<b>6,555 FT.</b>
<b>MAY 2025</b>	<b>5,990 FT.</b>
<b>JUNE 2025</b>	<b>6,345 FT.</b>
<b>CITY CREWS TOTAL:</b>	<b>76,285 FT. (14.44 MILES)</b>

**TOTAL LIFT STATION CALLS / COMPLAINTS: 273**

**TOTAL SEWER CALLS / COMPLAINTS: 306**