



CITY OF LENOIR, NORTH CAROLINA



**ANNUAL PERFORMANCE REPORT
of the
WASTEWATER COLLECTION SYSTEM
and the
WASTEWATER TREATMENT FACILITIES**

(This report has been produced to make available information concerning the performance of the City of Lenoir wastewater collection system and treatment facilities during the fiscal year beginning on July 1, 2019 and ending on June 30, 2020)

WASTEWATER COLLECTION SYSTEM

(Collection System Performance)

I. General Information

Facility Name: City of Lenoir Wastewater Collection System
Responsible Entity: City of Lenoir
Person in Charge: Richard Williams, ORC
Applicable Permits: WQCS00035

The City of Lenoir wastewater collection system consists of approximately 209 miles of sewer line and 16 pump stations. A radio signal monitoring and control system has been installed in the pump stations. This system notifies personnel of any pump station problems that may occur.

Eleven spills from the collection system reached surface waters during the fiscal year. In accordance with state regulations, the spills were reported to the North Carolina Department of Environmental Quality - Division of Water Quality - Asheville Regional Office. Pertinent information concerning the spills follows:

1. 08/11/18 Inflow and infiltration due to a 2.9 inch rain event caused a spill of 841 gallons off of Pennton Avenue. The rain event ended and the system recovered.
2. 08/11/18 Inflow and infiltration due to a 2.9 inch rain event caused a spill of 701 gallons off of Powell Road. The rain event ended and the system recovered.
3. 10/11/18 Inflow and infiltration due to a 3.25 inch rain event caused a spill of 11,615 gallons off of Pennton Avenue. The rain event ended and the system recovered.
4. 10/11/18 Inflow and infiltration due to a 3.25 inch rain event caused a spill of 6,659 gallons off of Powell Road. The rain ended and the system recovered.
5. 11/15/18 Inflow and infiltration due to a 3.87 inch rain event caused a spill of 7,466 gallons off of Pennton Avenue. The rain event ended and the system recovered.
6. 04/06/18 Inflow and infiltration due to a 3.87 inch rain event caused a spill of 2,664 gallons off of Powell Road. The rain ended and the system recovered.
7. 12/21/18 Inflow and infiltration due to a 2.0 inch rain event caused a spill of 748 gallons off of Pennton Avenue. The rain event ended and the system recovered.
8. 12/21/18 Inflow and infiltration due to a 2.0 inch rain event caused a spill of 781 gallons off of Powell Road. The rain event ended and the system recovered.
9. 12/28/18 Inflow and infiltration due to a 3.0 inch rain event caused a spill of 18,021 gallons off of Pennton Avenue. The rain event ended and the overflow stopped.
10. 06/09/19 Inflow and infiltration due to a 5.0 inch rain event (local flooding) caused a spill of 6,452 gallons off of Pennton Avenue. The rain event ended and the overflow stopped.
11. 06/09/19 Inflow and infiltration due to a 5.0 inch rain event (8.76 Inches total over 72 hours) that caused extensive flooding and caused a spill of 1,610 gallons off of Hickman Avenue in Hudson NC. The rain event ended and the overflow stopped.

WASTEWATER TREATMENT FACILITIES

(Lower Creek Wastewater Treatment Plant Performance)

II. General Information

<u>Facility Name:</u>	Lower Creek Wastewater Treatment Plant
<u>Responsible Entity:</u>	City of Lenoir
<u>Person in Charge:</u>	Elisa Triplett, Superintendent Donnie Hawkins, ORC/Asst. Supt.
<u>Applicable Permits:</u>	NPDES Permit #: NC0023981 Class A Residuals Permit #: WQ0010059

The Lower Creek Wastewater Treatment Plant is monitored for the following parameters: pH, Residual Chlorine, Fecal Coliform, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Ammonia as N (all have permit limits); Temperature, Conductivity, Dissolved Oxygen, Total Nitrogen, Total Phosphorous; Total Cyanide, eleven metals (Cadmium has permit limit), and Chronic Bioassay.

In addition, an extensive Priority Pollutant Analysis is conducted during most years, which includes a full range of organic compounds, expanded metals and various other parameters.

Total influent flow for the period of July 1, 2019 to June 30, 2020 was 835,216,000 gallons. The average flow during this period was 2.29 MGD.

For the period of July 1, 2018 to June 30, 2019, there were zero (0) permit condition violations and one (1) permit violation of effluent limits.

Permit limit for TSS is 30 mg/l monthly and 45 mg/l weekly. The week of May 17-23 2020 the plant experienced a weekly TSS average of 202 mg/l and a monthly average of 61.5 mg/l .

The annual removal efficiencies (from July 1, 2018 to June 30, 2019) for the plant are listed below:

BOD: 97.47 %

TSS: 92.51 %

Ammonia as N: 100.0 %

No "Class A" bio-solids" were produced during the period of July 1, 2019 to June 30, 2020. The lime stabilization process has been halted awaiting a new process project which should be completed by December 2020. All sludge has been dewatered using the belt press and has been hauled to the Foothills landfill. 10.12 MG of sludge was dewatered July 1, 2019 to June 30, 2020 which at an average of 1.6% solids is equivalent to 719 dry tons. These totals include sludge from the Lower Creek WWTP, the Gunpowder Creek WWTP and the City of Lenoir Water Plant.

There were no wastewater spills within the plant during the period.

WASTEWATER TREATMENT FACILITIES

(Gunpowder Creek Wastewater Treatment Plant Performance)

III. General Information

<u>Facility Name:</u> Treatment Plant	Gunpowder Creek Wastewater
<u>Responsible Entity:</u>	City of Lenoir
<u>Person in Charge:</u>	Elisa Triplett, Superintendent Donnie Hawkins, ORC/Asst. Supt.
<u>Applicable Permit:</u>	NPDES Permit #: NC0023736

The Gunpowder Creek Wastewater Treatment Plant is monitored for the following parameters: pH, Residual Chlorine, Fecal Coliform, Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), Ammonia as N (all have permit limits); Temperature, Conductivity, Dissolved Oxygen, Total Nitrogen, Total Phosphorous; Total Cyanide (has permit limit), eleven metals (Cadmium has permit limit) and Chronic Bioassay.

In addition, an extensive Priority Pollutant Analysis is conducted during most years, which includes a full range of organic compounds, expanded metals and various other parameters.

Total influent flow for the period of July 1, 2019 to June 30, 2020 was 478,079,000 gallons. The average flow during this period was 1.31 MGD.

For the period of July 1, 2019 to June 30, 2020, there were zero (0) permit condition violation and zero (0) permit violations of effluent limits.

The annual removal efficiencies (July 1, 2019 to June 30, 2020) for the plant are listed below:

BOD: 97.32 %	TSS: 96.12 %	Ammonia as N: 100.0%
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IV. Summary

During the 2019-2020 fiscal year the City of Lenoir Wastewater System treated 1,580,912,474 gallons of wastewater with reportable spills totaling only 57,558 gallons.

V. Notification

Copies of this report have been placed in public buildings throughout the Lenoir and Hudson area including: Lenoir and Hudson Municipal Buildings, the Caldwell County Libraries, the Caldwell County Chamber of Commerce and the Caldwell County Offices and is also available on the city web site at www.cityoflenoir.com. Notification of availability of this report has also been made through the local press.

VI. 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 named system and that those users have been notified of its availability.

Richard Williams
ORC – Wastewater Collection
System

Date

Donnie Hawkins
ORC – Wastewater Treatment

Date

Contact Persons:

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