

City of Clinton: Wastewater Systems
Annual Performance Report
(January 2007 through December 2007)

Norman H. Larkins Wastewater Treatment Plant and Collection System

I. General Information

Facility/System Name: City of Clinton

Responsible Entity: John F. Connet, City Manager

Person(s) in Charge/Contact: Chris Doherty, Director
Neil D. Carroll, Wastewater Superintendent
Ed Pietrolaj, Water/Sewer Line Superintendent

Applicable Permit(s): Collection System Permit WQCS00079
NPDES Permit NC0020117
Land Application Permit WQ0002890

Description of Collection System or Treatment Process:

The City of Clinton maintains approximately 87 miles of wastewater collection lines with 12 lift stations and approximately 3,252 connections. The collection system discharges to the Norman H. Larkins Wastewater Treatment Plant. This plant is permitted to treat five (5) MGD of wastewater by tertiary biological methods. The effluent is filtered, disinfected and returned to the Old Williams Mill Branch. Wasted biosolids are aerobically digested and disposed of by land application.

II. Performance: Summary of performance for reporting period

The table below shows plant performance in relationship with NPDES permitted limits.

NORMAN H. LARKINS WASTEWATER TREATMENT PLANT EFFLUENT ANALYSIS

Parameter	Summer		Winter	
	NPDES Limits	Actual Values Average	NPDES Limits	Actual Values Average
pH	6 to 9	6.79 – 7.54	6 to 9	6.67 – 7.46
Residual Chlorine	17.0 ug/L	< 10.0 ug/L	17.0 ug/L	< 10.0 mg/L
BOD ₅	5.0 mg/L	<2.0 mg/L	10.0 mg/L	2.2 mg/L
Ammonia Nitrogen	1.0 mg/L	0.192 mg/L	1.9 mg/L	0.65 mg/L
Total Suspended Residue	30.0 mg/L	2.16 mg/L	30 mg/L	3.88 mg/L
Fecal Coliform	200/100 ml	297/100 ml	200/100 ml	500/100 ml
Dissolved Oxygen	6.0 mg/L minimum	6.73 mg/L	6.0 mg/L minimum	7.78 mg/L
Cyanide	5.0 mg/L	< 5.0 mg/L	5.0 mg/L	< 5.0 mg/L
Flow	5 MGD	2.163	5 MGD	2.557

The Norman H. Larkins Wastewater Treatment Plant had the following violations for the 2007 reporting period.

January 2007

- 1/19 Exceeded the 400/100 ml weekly fecal coliform geometric mean by 187 colonies.
- 1/26 Exceeded the 400/100 ml weekly fecal coliform geometric mean by 232 colonies.
- 1/31 Exceeded the 400/100 ml weekly fecal coliform geometric mean by 35 colonies.
- 1/31 Exceeded the 200/100 ml monthly fecal coliform geometric mean by 32 colonies.

March 2007

- 3/31 Exceeded the 2.0 mg/L ammonia nitrogen average by 0.6 mg/L.

July 2007

- 7/6 Exceeded the 17 ug/L residual chlorine daily maximum by 4 ug/L

7/31 Exceeded the 200/100 ml monthly fecal coliform geometric mean by 25 colonies.

August 2007

8/31 Exceeded the 400/100 ml weekly fecal coliform geometric mean by 57 colonies.

EXPLANATION:

The fecal coliform violations were due to inhibition of the disinfection process due to industrial interference. There were no known environmental impacts from these occurrences.

The chlorine violation was due to pass through of industrial discharge through the treatment works. There were no known environmental impacts from this occurrence.

The ammonia nitrogen violation in March was due to plant operations maintenance activity during digester conversion. There were no known environmental impacts from this occurrence.

The collection system reported the following spills of wastewater during the reporting period.

February 2007

2/5 Spill of approximately 6800 gallons entered the Dollar Branch from a manhole at Stetson Street and Mathis Street due to debris in the line. There was no known environmental impact.

November 2007

11/20 Spill of approximately 6500 gallons entered the Dollar Branch from a manhole behind Kivett's Furniture on Stetson Street due to broken sewer pipe during construction of the Dollar Branch Sewer Replacement project. There was no known environmental impact.

December 2007

12/26 Spill of approximately 850 gallons entered a conveyance ditch of the Cattail Branch from a manhole at the intersection of Grove Street and Wilson Street due to debris in the line. There was no known environmental impact.

III. Notification

This report has been included on the City of Clinton internet page and published in the Sampson Independent.

IV. 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.

John F. Connet, Manager
City of Clinton

Date