



CLAREMONT
NORTH CAROLINA

City of Claremont
Annual Wastewater Quality Report
July 1, 2016 to June 30, 2017

Mission Statement: *To promote and protect the environment, health and natural resources of our customers through responsible stewardship in the treatment of wastewater returned to our streams and lakes.*

The City of Claremont is pleased to present you, our customers, with this year's Annual System Performance Report. This report is required by House Bill 1160, the Clean Water Act of 1999. The purpose of this report is to display the past year's wastewater treatment performance. The following data includes average concentrations discharged into streams and any events of permit noncompliance.

The City of Claremont owns two (2) Wastewater Treatment Facilities and one (1) Collection System in the City of Claremont. The North Wastewater Treatment Facility and the McLin Creek Wastewater Treatment Facility are staffed with State Certified Operators. These Facilities and the Collection System were designed and constructed to properly transport wastewater and then treat the wastewater to meet stringent discharge requirements. The effluent discharge from all Facilities is disinfected prior to entering the receiving streams. As this report indicates we are committed to protecting our most valuable resources, water and people.

McLIN CREEK WASTEWATER TREATMENT FACILITY

City of Claremont

NPDES Permit Number: NC0081370

McLin Creek Wastewater Treatment Facility

Operator in Responsible Charge: Ken Twardzik

J&B Road, Claremont NC 28610

Telephone Number: (828) 459-1092

The McLin Creek Wastewater Treatment Facility is a 0.300 MGD Wastewater Treatment System that accepts and treats wastewater from locations in the City of Claremont.

The Facility utilizes an Intermittent Cycle Extended Aeration System [ICEAS]. Flow enters the plant and is split into two basins. While in the basins, the influent wastewaters goes through aeration, settling and decant cycles. The effluent is then sent to three tertiary sand filters and finally chlorinated and dechlorinated before discharge into the receiving waters. The Bio-solids residuals removed as part of the treatment process are transported to the Hickory Regional Compost Facility for processing into Class A-EQ compost.

Permit Parameters	Limits			Actual Monthly Average July 1, 2015 to June 30, 2016											
	Monthly	Weekly	Daily	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17
Flow (MGD)	0.300	-		0.151	0.119	0.122	0.119	0.115	0.115	0.134	0.125	0.136	0.181	0.163	0.163
BOD Summer	8.0 mg/L	12.0 mg/L		3.7	5.4	20.8	10.8	-	-	-	-	-	5	4.3	2.3
BOD Winter	16.0 mg/L	24.0 mg/L		-	-	-	-	4.5	3.4	4.2	3.7	2.9	-	-	-
NH3 Summer	2.0 mg/L	6.0 mg/L		1.3	1.5	16.1	0.21	-	-	-	-	-	0.54	0.11	0
NH3 Winter	4.0 mg/L	12.0 mg/L		-	-	-	-	0.13	0	0.10	0	0	-	-	-
TSS (solids)	30.0 mg/L	45.0 mg/L		1.6	5.12	14.3	0	0	0.7	0.88	0	0	1.5	2.3	0.73
DO	-	-	Over 5	6.7	7.7	7.3	6.8	9.7	10.2	7.16	9.3	10.3	7.0	9.0	8.2
Fecal Coliform	200 ml	400 ml		5.0	6.1	19.9	1	1	1.3	1	1	1	5.4	1	1
Total Chlorine	-	-	28 ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

Noncompliance Violations

Date	Violation	Actual	Reason	Environmental Impact
9/16	Weekly/Monthly N-NH3	Monthly/16.1mg/L	Mechanical failure of process equipment resulting in MLSS loss.	None
9/7/16	Weekly/Monthly BOD	Weekly/56mg/L Monthly/20.8mg/L	Mechanical failure of process equipment resulting in MLSS loss	None
10/24/16	Weekly/Monthly BOD	Weekly/19mg/L Monthly/10.8mg/L	Power loss resulting in Bio mass destruction.	None

NORTH WASTEWATER TREATMENT FACILITY

City of Claremont
 North Wastewater Treatment Facility
 Centennial Boulevard, Claremont NC 28610

NPDES Permit Number: NC0032662
 Operator in Responsible Charge: Ken Twardzik
 Telephone Number: (828) 459-1092

The North Wastewater Treatment Facility is a 0.100 MGD Wastewater Treatment System that accepts and treats wastewater from locations in the City of Claremont.

The Facility is a conventional activated sludge facility, which utilizes microorganisms to treat the wastewater. The effluent is chlorinated to remove pathogenic bacteria that might be present and then dechlorinated to remove the chlorine residual before it is discharged into the receiving stream. The Bio-solids residuals removed as part of the treatment process are transported to the Hickory Regional Compost Facility for processing into Class A-EQ compost.

Permit Parameters	Limits			Actual Monthly Average July 1, 2014 to June 30, 2015											
	Monthly	Weekly	Daily	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17
Flow (MGD)	0.100	-	-	0.071	0.070	0.067	0.060	0.058	0.059	0.066	0.054	0.058	0.072	0.063	0.070
BOD	30.0 mg/L	45.0 mg/L	-	5.05	8.96	29.55	14.2	6.45	5.2	5.7	5.98	6.13	5.0	10.3	4.5
NH₃ (New limit as of Jan 1 st 2016)	6mg/L	18mg/L		0.77	1.11	2.1	0.24	1.07	1.71	1.42	0.96	0.62	0.48	0.52	1.24
TSS (solids)	30.0 mg/L	45.0 mg/L	-	5.15	13.8	76.7	22.8	13.6	7.9	7.8	8.3	6.5	4.3	8.4	2.3
Fecal Coliform	200/100 ml	400/100 ml	-	1.7	11.7	127	46.8	2.3	4.6	5.17.0	1.6	2.3	3.9	10.8	3.1
DO	-	-	Over 5	7.1	7.2	6.8	7.1	8.7	9.5		9.1	9.3	6.4	8.4	7.4
Total Chlorine	-	-	28 ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20

Noncompliance Violations

Date	Violation	Actual	Reason	Environmental Impact
9/27/16	Weekly/Monthly TSS	Weekly 138.2mg/L Monthly 76.7	High Flow	None
9/27/16	Weekly BOD	47.7mg/L	High Flow and Effluent TSS	None

CITY OF CLAREMONT COLLECTION SYSTEM

City of Claremont
City of Claremont Collection System
PO Box 446
Claremont NC, 28610

NPDES Permit Number: WQCS00221
Operator in Responsible Charge: M. Shawn Pennell, CS-4
Telephone Number: (828) 466-7255

The City of Claremont Collection System generally consists of 25.5 miles of utility lines; 23 miles of gravity sewers and 2.5 miles of pressurized or force mains. 5 Duplex pumping stations ensure that service is available to the low points in the system. The City of Claremont Collection System serves what is inside the City of Claremont's City Limits.

Reportable Collection System Failures

Date	Location	Spill	Cause
	NONE		

In the preceding tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions:

- ❖ **mg/L** – Milligrams per liter or parts per million
- ❖ **ug/L** – Micrograms per liter or parts per billion
- ❖ **DO** – Dissolved Oxygen. DO is the molecular (atmospheric) oxygen dissolved in water or wastewater.
- ❖ **BOD** – The rate at which organisms use the oxygen in wastewater while stabilizing decomposable organic matter under aerobic conditions. In decomposition, organic matter serves as food for the bacteria and energy results from its oxidation. BOD measurements are used as a measure of the organic strength of wastes in water.
- ❖ **TSS** – Total suspended residue in wastewater
- ❖ **MGD** – Million gallons per day
- ❖ **NH₃ as N** – Ammonia
- ❖ **Fecal Coliform** – Indicator organisms used to measure the effectiveness of the disinfection process
- ❖ **Summer Months** – April 1st to October 31st
- ❖ **Winter Months** – November 1st to March 31st