



*Town of Liberty, NC
Wastewater Treatment Plant
and
Collection System
2020 Annual Report*

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I. General Information

Name of Regulated Facility

Town of Liberty

The Town of Liberty is permitted through the State of North Carolina to operate a spray irrigation wastewater treatment facility and operate the wastewater collection system.

Responsible Persons

Elix T. Fike is the treatment plant operator responsible in charge (ORC).

Kevin Coble is the collection system operator responsible in charge (ORC).

Scott Kidd, Interim Town Manager is the responsible person for the Town of Liberty facilities and can be contacted at (336) 622-4276.

Permit Number

Wastewater Treatment Facility Permit Number: WQ0003090

Wastewater Collection System Permit Number: WQCS00280.

The wastewater treatment facility is a spray irrigation system located at 7178 East Highfill Avenue. The treatment process consists of a manual bar screen, a lagoon, chemical treatment, and effluent pump station. The Town is permitted for 550,000 gallons per day of sewage. The sewage enters the plant and goes through the bar screen which removes all solids. The solids are removed and disposed of by Allied Waste. The flow then proceeds to a three (3) pump influent station that pumps the sewage to the lagoon. The lagoon is a natural occurrence system that separates the remaining solids from the liquid. The solids settle to the bottom of the lagoon with the water staying to the top. After a 45 day detention time, the water is then treated with chlorine to remove all fecal coliform bacteria. The next process is to spray the effluent onto the spray fields. We maintain one hundred eighty (180) acres of spray field. The spray fields are broken down into eight (8) zones. The Town of Liberty contracts the cutting and removal of the fields for hay.

The Town of Liberty collection system consists of approximately 25 miles of sewer lines. The lines vary in size from four (4") inch to twelve (12") inch in diameter. The collection system also consists of eight (8) lift stations that carry the wastewater to the treatment facility. Operators make daily checks on the outfall lines and lift stations. The public works crew along with contracted maintenance is responsible for the mowing and clearing of the outfall lines for easy access in case of any emergencies.

II. Performance

The Town's most recent Compliance Evaluation Inspection of the Wastewater Treatment Plant was September 25, 2020. The inspection mostly reflects compliance with Permit No. WQ0003090. The inspection results are included in this report. (See attached)

All items continue to be monitored by the ORC.

It is our goal to continue to find ways to improve the operations of the Wastewater Treatment Facility and Collection System as we go forward.

Overflows at the Wastewater Treatment Plant

Date	Amount (gallon)	Cause
01/03/2020	3,600	I/I due to rainfall of 1.8" in 2 day
02/06/2020	400	I/I due to rainfall of 3.5" in 1 day
02/06/2020	200	I/I due to rainfall of 3.5" in 1 day
02/07/2020	6400	I/I due to rainfall of 3.5" in 1 day
02/06-02/17/2020	4,752,000	I/I due to rainfall of 5.5" in 7 day
05/25-5/31/2020	348,000	I/I due to rainfall of 6.4" in 14 day
06/17-06/23/2020	1,837,500	I/I due to rainfall of 3.5" in 2 day
08/17-08/21/2020	360,000	I/I due to rainfall of 2.5" in 3 day
09/11/2020	20,000	I/I due to rainfall of 2.0" in 1 day
09/17/2020	12,000	I/I due to rainfall of 3.0" in 1 day
09/18-09/22/2020	454,000	I/I due to rainfall of 3.0" in 1 day
09/25-10/06/2020	1,572,000	I/I due to rainfall of 1.5" in 2 day
10/12-10/20/2020	1,176,000	I/I due to rainfall of 2.5" in 2 day
10/29-11/24/2020	1,872,850	I/I due to rainfall of 3.5" in 2 day
11/12/2020	31,500	I/I due to rainfall of 3.5" in 2 day
11/27-12/10/2020	1,296,000	I/I due to rainfall of 2.5" in 11 day
12/15-12/29/2020	1,008,000	I/I due to rainfall of 2.7" in 8 day

***This spill spanned 12/29/2019 - 01/03/2020 - estimated gallons spilled in 2020 only at 127 gallons per minute.**

Overflows in the Collection System

Date	Amount (gallons)	Location	Cause
1/3/2020	2,700	W. Kime Ave. Lift Station Manhole #400	I/I
1/3/2020	2,700	W. Kime Ave. Manhole #401	I/I
1/3/2020	1,200	Kinro Rd Manhole #500B	I/I
1/24/2020	5,490	Kinro Rd Manhole #500B	I/I
1/24/2020	3,600	W. Kime Ave Manhole #401	I/I
1/24/2020	4,725	Johnson Lift Station Manhole #300	I/I
1/24/2020	4,005	Starmount Outfall Line Manhole #601	I/I
1/24/2020	3,000	W. Kime Ave. Lift Station Manhole #400	I/I
2/6/2020	1,680	W. Kime Ave Manhole #401	Severe Natural Condition
2/6/2020	3,000	Kinro Rd Manhole #500B	Severe Natural Condition
2/6/2020	1,680	W. Kime Ave. Lift Station Manhole #400	Severe Natural Condition
2/6/2020	14,850	Johnson Lift Station Manhole #300	Severe Natural Condition
2/6/2020	6,480	W. Kime Ave. Lift Station Manhole #400	Severe Natural Condition
2/6/2020	6,600	W. Kime Ave. Manhole #401	Severe Natural Condition
2/7/2020	2,340	Kinro Rd Manhole #500B	Severe Natural Condition
4/30/2020	2,850	W. Kime Ave. Lift Station Manhole #400	I/I
4/30/2020	2,850	W. Kime Ave. Manhole #401	I/I
4/30/2020	1,800	Johnson Lift Station Manhole #300	I/I
4/30/2020	780	Kinro Rd Manhole #500B	I/I
5/21/2020	1,800	E. Lowe Ave. Manhole #506A	I/I

5/21/2020	6,300	Kinro Rd Manhole #500B	I/I
5/21/2020	6,600	Johnson Lift Station Manhole #300	I/I
5/21/2020	4,200	W. Kime Ave. Lift Station Manhole #400	I/I
5/21/2020	4,200	W. Kime Ave. Manhole #401	I/I
6/11/2020	1,200	W. Kime Ave. Manhole #401	I/I
6/11/2020	1,200	W. Kime Ave. Lift Station Manhole #400	I/I
6/11/2020	2,400	Kinro Rd Manhole #500B	I/I
6/11/2020	6,000	Johnson Lift Station Manhole #300	I/I
8/3/2020	1,800	W. Kime Ave. Lift Station Manhole #400	I/I
8/3/2020	1,800	W. Kime Ave. Manhole #401	I/I
8/4/2020	1,200	Kinro Rd Manhole #500B	I/I
9/11/2020	900	W. Kime Ave. Manhole #400A	I/I
9/19/2020	600	S. Greensboro St.	Pipe Failure (Break)
11/12/2020	3,150	Kinro Rd Manhole #500B	I/I
11/12/2020	1,350	Johnson Lift Station Manhole #300	I/I
11/12/2020	5,400	W. Kime Ave. Lift Station Manhole #400	I/I
11/12/2020	5,400	W. Kime Ave. Manhole #400A	I/I
11/14/2020	1,095	S. Greensboro St.	Pipe Failure (Break)
12/14/2020	900	Kinro Rd Manhole #500B	Pump Station Equipment Failure
12/16/2020	807	W. Kime Ave. Lift Station Manhole #400	I/I
12/16/2020	960	W. Kime Ave. Manhole #400A	I/I
12/16/2020	975	Kinro Rd Manhole #500B	I/I

Description of Corrective Measures

See Special Order By Consent

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III. Notification

The Town of Liberty will add a notation on the next water bill about the availability of this report. The report will be at Liberty Town Hall for viewing at 239 South Fayetteville St.

The report will also be posted on the Town Website at <http://www.liberty-nc.com>, under Departments, Public Works, Wastewater Department.

IV. Certification

2020 Annual Report Certification Form

System Name: Town of Liberty

Wastewater Permit # WQ0003090

Collection Permit # WQCS00280

Report Year: 2020

Population Served: 2,665

The wastewater system operator named above hereby confirms that all provisions under the House Bill 1160 requiring the development of, distribution of, and notification of an annual report have been executed. Further, the system operator certifies the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primacy agency by their NC certified laboratory.

Certified by: Name: Scott Kidd Title: Interim Town Manager

Signature: _____

Phone #: (336) 622-4276 **Date:** March 1, 2021