



Carolina Water Service
of North Carolina™

Wastewater Treatment and Collection Performance Annual Report

Bradfield Farms

NPDES: NC0064734
Collection System: WQCS00253

January 1, 2025 - December 31, 2025

P.O. Box 240908
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I. General Information

Service Area:

Bradfield Farms

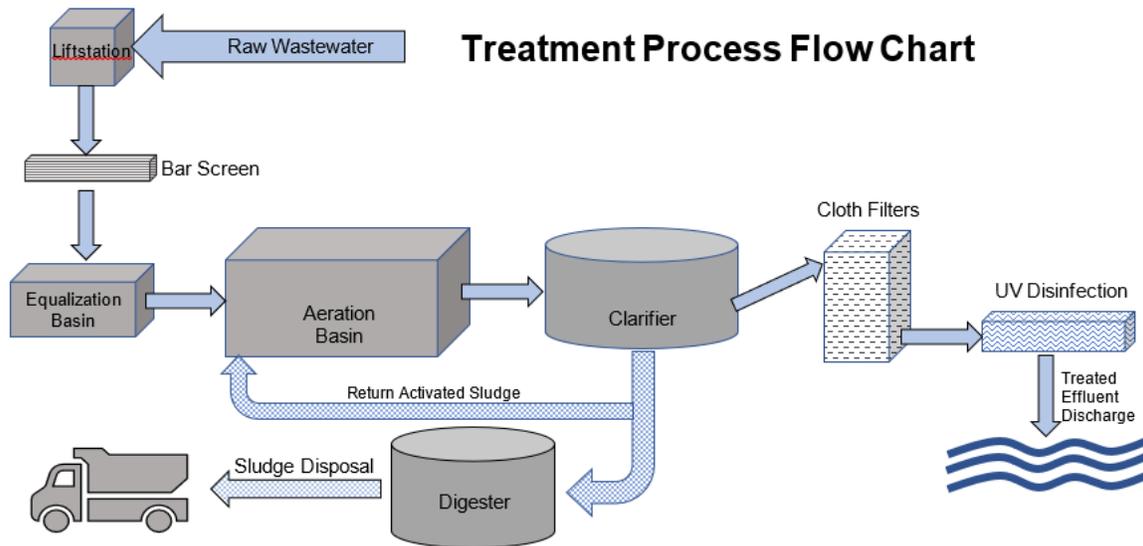
Applicable Permits:

Type	NPDES Permit Number
Wastewater Treatment Facility	NC0064734
Collection System	WQCS00253

Description of Collection and Treatment Systems:

The operation and maintenance of a wastewater collection system consisting of, at the time of permit issuance, approximately 65,853 linear feet of gravity sewer, approximately 2,223 linear feet of force main, 3 duplex pump stations, and all associated piping, valves, and appurtenances.

The operation of a 0.46 MGD wastewater treatment facility consisting of: an influent lift station, bar screen and flow splitter box; two parallel 0.23 MGD plants consisting of: aerated equalization basin, aeration basins, clarifiers, aerobic sludge digester, cloth filter membrane filters, UV disinfection, and flow meter.



1. Liftstation – Pumps all incoming wastewater to the beginning of the treatment plant
2. Bar Screen – Removes larger debris that can potentially damage equipment such as rocks and sticks.
3. Equalization Basin — Allows for a steady and consistent flow of wastewater into the aeration basin to maximize treatment.
4. Aeration Basin — Air is circulated, and bacteria removes dissolved solids, pollutants, Phosphorus and Nitrogen.
5. Clarifier — Solids are separated from the liquid and piped back to the aeration basins via the return activated sludge piping.
6. Filters – Liquid is filtered to remove any remaining fine particles.
7. Disinfection — Effluent is disinfected by ultraviolet light to inactivate pathogenic organisms.
8. Solids Handling — Treats the solids removed from the wastewater to allow safe and economical disposal.

Summary of Collection System Performance.

During 2025, we collected and treated over 106 million gallons of wastewater. There were no sanitary sewer overflows during the calendar year.

Key Performance:

- 7,932 linear feet of sewer collection system was cleaned in 2025.
- There are 3 duplex Lift Stations serving the Bradfield Farms Subdivision. Each Lift Station is checked two times a week with maintenance conducted as needed as well as emergency generator testing, wet well cleanings, and emergency/routine repairs conducted periodically.
- All duplex Lift Stations are continuously monitored using a telemetry system that will notify our staff of any issues 24/7.
- Annually, each Lift Station is inspected using our 56 Point safety checklist.
- Our staff throughout the year manually conducts manhole inspections and documents deterioration (if any) due to corrosive atmospheric conditions.
- We have instituted an infiltration and inflow (I&I) program. The purpose of the I&I program is to keep unwanted storm water from entering the collection system. Infiltration and inflow is a clear indicator that there could be broken pipes, uncovered sewer laterals, or someone illegally connected to the collection system.
- As a proactive measure, we educate our customers of our concerns of Fats, Oil, and Grease. Your help in what is put down the drain greatly prevents clogs due to grease buildups and improves our overall collection system. These grease buildups can result in SSO's.
- Our staff is continually monitoring and clearing rights of way (ROW's). These ROW's normally are in low lying creeks and wooded areas. ROW's need to be kept cleared to ensure easy access during emergency situations.

Summary of Wastewater Facility Performance:

It is our goal and standard at Carolina Water Service of North Carolina to meet 100% of our NPDES permit discharge limits. We evaluate our treatment processes daily to ensure that goal is obtained. Our permit requires us to continually monitor the effluent to determine if the treatment processes are working effectively. This monitoring consists of sampling at various point in the treatment process. These samples include: Flow measurement of how much wastewater enters and then is discharged from our plant, Biochemical Oxygen Demand (BOD), Fecal Coliform, Total Ammonia-Nitrogen, Total Nitrogen, pH, Total Phosphorus, Total Suspended Solids, Dissolved Oxygen, and Temperature.

A minimum of 997 compliance samples are conducted on an annual basis.

Our staff is committed to a standard of excellence by ensuring a safe and clean facility while maintaining regulatory compliance. No known adverse effects have been noted on the environment or receiving stream.

II. VIOLATIONS

January	No violations/deficiencies.
February	No violations/deficiencies.
March	No violations/deficiencies.
April	No violations/deficiencies.
May	No violations/deficiencies.
June	No violations/deficiencies.
July	No violations/deficiencies.
August	Exceeded Daily BOD limit
September	No violations/deficiencies.
October	No violations/deficiencies.
November	No violations/deficiencies.
December	No violations/deficiencies.

III. Notification

Customers will be notified of the availability of this report with a message on their bills and copies will be provided upon request.

IV. Certification

I hereby certify that the information contained in this report is accurate and complete to the best of my knowledge.

Signature:

Date: 3/19/2026

Name: Dana Hill

Title: Special Projects Manager