

**Annual Wastewater System Performance Report
Fiscal Year 2023-2024
Town of Clayton**



Town of Clayton, North Carolina

Annual Wastewater System Performance Report

August 2024

**Wastewater System Performance Annual Report
Fiscal Year 2023-2024
Town of Clayton**

I. General Information

Responsible Entity: Town of Clayton

Wastewater Treatment Facility Name: Sam's Branch Water Reclamation Facility (SBWRF)

ORC: David White--SBWRF
James Blalock--Collection System

NPDES Permit: NC0025453 (SBWRF)

Collection System: WQCS00110

Laboratory Certification: 348

Description of Treatment Process and Collection System: The SBWRF is comprised of an automated bar screen, grit chamber, sampling station, flow monitoring, dual oxidation ditches with biological nutrient removal, tertiary filter, ultraviolet disinfection, standby chlorination & dechlorination, sludge thickening, aerated sludge storage and reclaim water. The wastewater collection system is comprised of 27 lift stations, approximately 146.5 miles of gravity sewer and approximately 36.4 miles of force main.

II. Performance

The collection system recorded a satisfactory performance record for the twelve-month period from July 1, 2023, to June 30, 2024. The facility met the permit conditions with the following exception:

The facility reported 1 overflow between 7-1-23 and 6-30-24.

February 25, 2024, 28000 gallons. The spill was from the effluent structure (treated wastewater) due to malfunction in the back-up generator during a power failure. None of the leaked effluent entered surface waters.

The treatment facility treated 615,981,000 gallons during the period and met NPDES permit limits with the following exceptions:

During the month of October 2023, the treatment plant reported an average weekly NH₃ (Ammonia) of 5.05mg/l, this exceeded the limit of 3.0mg/l. This was attributed to failed aerators during a storm event.

During the month of February 2024, the treatment plant reported two missed Conductivity Daily grab samples, the requirement is monitor and report 5 grab samples per week. This was attributed to miscommunication between newly hired staff and management.

Clayton sent 155,304,576 gallons to Raleigh, and 443,825,970 gallons to Johnston County for treatment.

The treatment facility delivered 9,425,052 gallons of reclaimed water to Pine Hollow Golf Course.

The total system flow for the year: 1,202,766,810 gallons

Sanitary sewer overflows that release 1,000 gallons or more and/or enter surface waters must be reported to the State of North Carolina.

The collection system had 2 overflows during the period that did not meet the reporting criteria. The collection system had 1 overflow during the period that did require reporting which are listed below:

Reportable Collection System Sanitary Sewer Overflows

Date	Location	Gallons	Cause
06/10/24	269 Pansy Park (Buckhorn Branch Subdivision)	1800	Contractor left an 8" metal wing nut plug in an additional phase unsecured.

Corrective measures for the overflows included line repairs, cleaning the line(s) involved and the immediate area(s) in accordance with State guidelines, I & I Investigation. Chemical Root Control was used throughout the year on lines with roots to avoid an SSO. The system also distributed Grease Public Education materials to all residents in accordance with requirements. The Town held the contractors to more stringent requirements on projects. No environmental impacts or adverse health effects were detected.

The following improvements were made to the collection system during the twelve-month period:

1 Hamby St. sewer line replacement	\$381,578
2 New Pumps & accessories for lift stations	\$26,573
3 Chemical Root Control	\$13,483
4 Clearing/Vegetation Control at L/S and on easements	\$6,206
5 New Smoke machine for gravity I & I investigation	\$2,434
6 Tree removal from gravity line/easement	\$6,250
7 Arbors L/S Decommissioning	\$383,392
8 New cleaning heads for gravity line cleaning	\$2,130
9 Starmount L/S abandonment design	\$1,100
10 LaBonita Sewer main replacement	\$170,650
11 ECIA L/S & Design	\$620,244
12 Little Creek transmission line	\$1,131,141
13 New portable 125kw generator	\$99,223
14 New John Deere Backhoe for easements	\$151,883
15 Little Creek L/S construction, final engineering	\$2,303,200
16 New style ARV's purchased for system	\$6,636
17 Liberty & West Main L/S decommission design	\$3,000
18 Walmart decommissioning & gravity line engineering	\$81,725
19 Wastewater Collections System Master Plan & modeling	\$67,104

The cost of these improvements was approximately

\$5,457,952

No improvements were made at the treatment facility during the twelve-month period.

- The only costs were associated with maintenance due to the construction of the new plant and the existing plant will be going offline sometime at the end of 2025.

The cost of these improvements was approximately **\$ 0**

Construction for the new Sam's Branch Water Reclamation Facility has been ongoing for over a year and is now at 48% completion, with continual work being completed.

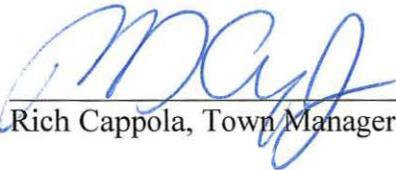
The cost of this work and design was approximately **\$67,619,308**

III. Notification

A notice of availability is published in the Johnstonian News and at www.townofclaytonnc.org. A report may be picked up from the customer service counter at Town Hall or the Operations Center at 653 NC 42 West. Customers may also call 919-553-1530 to request a copy by mail. It may also be viewed on-line at the Town's Web Site (www.townofclaytonnc.org).

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.



Rich Cappola, Town Manager

8/7/24

Date

This report has been drafted to meet the reporting requirements established in House Bill 1160 and the Clean Water Act of 1999.

MAYOR

Jody L. McLeod

TOWN MANAGER

Richard D. Cappola, Jr.

TOWN ATTORNEY

Cauley Pridgen, P.A.



MAYOR PRO TEM

Michael Sims

COUNCIL MEMBERS

Ruth Anderson

Andria Archer

Porter Casey

Gretchen Williams

August 7, 2024

System Performance Annual Report
North Carolina Division of Water Quality
1617 Mail Service Center
Raleigh, NC 27699-1617

In accordance with House Bill 1160 and the Clean Water Act of 1999, three copies of the Wastewater System Performance Annual Report for FY 2023-2024 are being sent to you for NPDES Permit # NC0025453, Laboratory Certification # 348 and Collection System Permit # WQCS 00110.

If there are any questions concerning the report or any further information is required, please contact the Operation Center at (919)553-1530.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Blalock".

James E. Blalock
Assistant Water Resources Director

MAYOR
Jody L. McLeod

TOWN MANAGER
Richard D. Cappola, Jr.

TOWN ATTORNEY
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August 7, 2024

The Johnstonian News
614 E. Market St.
Smithfield, NC 27577

ATTN: LEGAL DEPARTMENT

In accordance with NC House Bill 1160 and the Clean Water Act of 1999, the Town of Clayton makes available an annual Wastewater System Performance Report. One of the means provided to accomplish this is for a newspaper that has circulation in the service area to publish the following information:

The Town of Clayton's FY 2023-2024 Wastewater System Performance Report is now available. A copy of the report may be obtained from the Operations Center on NC 42 West. To obtain a copy by mail, please call 919-553-1530. It may also be viewed on-line at the Town's Web Site (www.townofclaytonnc.org).

Thank you for your help with this.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Blalock".

James E. Blalock
Assistant Water Resources Director

Cc: Nathanael Shelton, Communications Director