

City of Morganton's Wastewater System Performance Report for 2021



This report is required by EPA's Clean Water Act of 1999.

The purpose of this report is to present the performance of the wastewater system for the past year:

January 1st – December 31st 2021

Catawba River Pollution Control Facility

1000 Vine Arden Rd
Morganton NC 28655

NPDES Permit: NC0026573
Capacity: 10.5 MGD

Operator in Responsible Charge: Eli Self
Receiving Stream: Catawba River

The plant is an activated sludge facility using a fine bubbler diffused aeration system powered by turbo blowers. It's treatment units consist of bar screens to remove trash and debris, flow monitoring, cyclone degritting for grit removal, primary clarification, aeration for microbiology to grow and remove wastewater BOD (biochemical oxygen demand), secondary clarification, disinfection and dechlorination before being discharged into the Catawba River. Sludge is removed with dewatering centrifuges and processed on site at the compost facility. Plant is staffed 24-7 with operators of state certified grade 1 or higher.

Wastewater Treatment Plant System Report

2021				2020		
Wastewater Treated		1.835 Billion Gallons		2.05 Billion Gallons		
Average Daily Flow		5.03 Million Gallons a Day (MGD)		5.63 MGD		
Monthly Flow		Total Gallons	Daily Average MGD		Total Gallons	Daily Average
Jan		184,451,000	5.95		168,264,000	5.43
Feb		175,344,000	6.26	*	214,434,000	7.66
Mar	*	194,453,000	6.27		157,262,000	5.07
Apr		150,872,000	5.03		139,383,000	4.65
May	*	142,349,000	4.59		172,218,000	5.56
June		133,128,000	4.44		149,413,000	4.98
July		138,075,000	4.45		124,580,000	4.02
Aug		151,760,000	4.90		178,714,000	5.76
Sep		132,480,000	4.42		177,970,000	5.93
Oct	*	160,671,000	5.18		186,483,000	6.02
Nov		135,031,000	4.50	*	205,651,000	6.86
Dec		136,384,000	4.40		179,035,000	5.78
* Non-Compliant Months				* Non-Compliant Months		

Non-Compliance Violations 2021

Month	Violation	Cause
March	Weekly BOD & TSS Monthly TSS	Excessive flow and infiltration from back to back 2" & 3" rain events
May	Weekly TSS	Rich ammonia slug upset plant during winter to summer microorganism changeover. Root cause inconclusive from collection system sampling
October	Weekly TSS	Excessive flow and infiltration from 4" rain event

Wastewater Collection System

305 E. Union St. Suite A100 Morganton NC 28655
 Permit Number: WQCS00028

Operator in Responsible Charge: Ronnie Suttles

The wastewater collection system consists of over 200 miles of piping and maintains 16 lift stations. The collection system serves most of central Burke County including the shores of Lake James, Glenn Alpine, Salem, Drexel and most of the city limits. Piping materials consists of vitrified clay, plastic, ductile iron and cement. Piping ranges from 3 inches to 54 inches in diameter.

Collection System Report

	2021	2020
New Sewer Taps	34	33
Repairs	33	27
Stoppages	55	57
Man Hole Maint.	488	996
Sewer Line Flushed	109,361 ft (20 Miles)	137,537 ft (26 Miles)
Camera Inspected	9,288 ft (1.75 Miles)	14,321 ft (2.7 miles)
Bush Hogged	78,380 ft (14.8 Miles)	45,230 ft (8.5 Miles)
Sevice Calls	177	305
Investigations/Complaints	54	118

Collection System Sewer Overflows 2021

Date	Location	Gallons	Cause
1/27/2021	311 Bost Rd	450	Bank eroded breaking pipe
2/16/2021	Henredon Outfall on Hopewell Rd.	225	Grease clog
3/26/2021	Vine Arden Junction Box	42,000	Heavy rain overwhelmed system
10/7/2021	256 N. Anderson St	960	Heavy rain overwhelmed system
10/7/2021	Vine Arden Junction Box	114,450	Heavy rain overwhelmed system

Wastewater Treatment Plant Compost Residuals

1000 Vine Arden Rd
 Morganton NC 28655

Permit Number: WQ0002127

Operator in Responsible Charge: Eli Self

Permit Type: Class A Biosolids

Located at the wastewater treatment plant, residual solids are removed from the wastewater stream and processed onsite. Operation consists mixing dewatered sludge with woodchips and stacked into beds that is fed air into pile with blowers. This process generates heat which kills harmful bacteria and further dries the material. After heating stage of several weeks, material is screened with a trommel screen to produce a finished material for distribution. Finish material is sampled every three months for various metals, fecal coliform, pH, phosphorus and other parameters to meet permit requirements. Product then can be distributed to general public as a Class A Biosolids.

Compost Residuals	2021	2020
	Dry Tons	Dry Tons
Residuals generated	1705	1154
Residuals screened	771	713
Residuals distributed	717	664

Non-Compliance Violations 2021

Month	Violation	Cause
None		

Fats, Oils and Grease Program

PO Box 3448

Operator: Tim Arney

Morganton NC 28680

The Fats, Oils and Grease program consists of inspecting each food establishment for proper grease disposal before discharging into the collection system. Each food establishment is required to complete a survey of their operation. Any inspections that fail to meet the FOG requirements are issued a citation.

Fats, Oils and Grease Program (FOG)		
	2021	2020
Food Establishments Inspected	123	78
Citations Issued	4	0
Establishment Surveys	5	15

Often it's our customers who are the first to find problems. If you see something that appears to be wrong, please call water resources 24-hour number at 828-438-5276.