

**In 2021 City of Conover Wastewater Treatment System
Performance Annual Report for 2021**

January 28, 2022

I. General Information

Facility Name: City of Conover Sanitary Sewer Collection System

Contact Person: Thomas J. Miller Jr.,
Collection System Operator Responsible in Charge (ORC)
PO Box 549
Conover, NC 28613
828-464-4808

Applicable Permits: Wastewater Collection System Permit Number-
WQCS00088

ALSO

Facility Name: City of Conover, Northeast Wastewater Treatment Plant

Contact Person: Eric Williams, WWTP Operator Responsible in Charge-
Pretreatment Coordinator
PO Box 549
Conover, NC 28613
828-465-2279

Applicable Permits: National Pollutant Discharge Elimination System (NPDES)
Permit Number – NC0024252

The City of Conover views environmental protection as one of our top priorities. For this reason, the City actively participates in the collection, treatment and disposition of sewage generated within its boundaries.

Description of Collection System

The City of Conover's collection system consist of 126 miles of sewer line with six (6) sewer lift stations. The collection system transports wastewater to the City of Conover's Northeast Wastewater Treatment Plant, and a portion to the City of Newton's Clark Creek Regional Wastewater Treatment Plant.

Homes, businesses, and industries discharge their wastewater (sewage) into the sanitary sewer system. Once the wastewater is discharged into the sewer pipes it travels through the collection system until it reaches the wastewater treatment plant

Upon arrival at the treatment plant, located at 3680 Hillview Drive, all wastewater is treated and discharged in an environmentally safe manner in accordance with the National Pollutant Discharge Elimination System (NPDES) regulations.

Conover's Northeast Wastewater Treatment Plant, originally built in 1964, upgraded in 1980 and completely redesigned in 1991 currently operates according to NPDES permit NC0024252. The facility is a Sequencing Batch Reactor (SBR) activated sludge facility with tertiary sand filters, which has a permitted treatment capacity of 1.5 million gallons per day. The facility operates 24 hours per day and is staffed 8 hours per day, except on weekends. Staff visits the facility on the weekend and holidays to ensure that it is operating properly. The 2021 daily average flow is 0.764 Million Gallons per Day (MGD).

II. Performance

Yearly Performance:

During the year 2021, the wastewater collection staff visited all lift stations at a minimum of once per week. The collection staff performed schedule preventative maintenance and made all necessary repairs as needed to keep the lift stations operating at peak performance. In 2021, we have visually inspected 9,303 feet (1.76 miles) of sewer lines and cleaned 68,984 feet (13.06 miles) of sewer lines. The combined 14.82 miles of sewer lines inspected represents 11.8 % of Conover's collection system. The aerial and high priority lines are inspected 4 times per year and after major rain events. Lines that are not visible to the general public are mowed three (3) times per year in the spring and summer months.

Sanitary Sewer Overflows (SSOs):

The City of Conover wastewater collection system experienced five (5) reportable overflows and all five (5) reached the waters of North Carolina. One (1) overflow did result in a fish kill (creek chubs).

03/18/2021 1920 Conover Blvd. E, Inflow and Infiltration and pump station equipment failure was the cause. The estimated volume spill was 3,600 gallons reaching the waters of the State (McLin Creek). Reported to DWR incident# 202101056.

04/20/2021 1902 Emmanuel Church Rd, pipe failure was the cause of the spill. The estimated volume of 1500 gallons reach a tributary of McLin Creek. Reported to DWR incident # 202101208.

06/02/2021 3680 Hillview Drive NE, Sanitary sewer pit berm broke releasing sewer water. The estimated volume of 100 gallons reached a tributary of Lyle Creek. Reported to DWR incident # 20211372.

09/20/2021 121 Sigmon Drive NW, an estimated 5,000 gallons spilled into the waters of Lyle Creek. Pipe failure was the cause. It was reported to DWR incident # 202101941. A fish kill did occur at this location and has since recovered.

10/23/2021 1902 Emmanuel Church Rd., an estimated 950 gallons reached a tributary of McLin Creek. Pipe failure due to a contractor hitting the line. It was reported to DWR incident # 202102086.

Northeast Wastewater Treatment Plant Performance

NEWWTP NC0024252	Discharge 001										
	Date	Flow (mgd)	Effluent Pollutants				Toxicity	Influent Pollutants			Removal
BOD			NH3	TSS	Fecal Coliform	BOD		TSS	BOD%	TSS%	
	1/2021	0.961	1.14	0	0	1		267.4	94.5	99.6%	100%
	2/2021	1.226	3.6	0.5	0	1		253.2	118.2	98.6%	100%
	3/2021	1.093	3.75	0.5	0	1	PASS	271.6	96.4	98.6%	100%
	4/2021	0.904	2.32	0	0	1.82		288.8	118.1	99.2%	100%
	5/2021	0.714	2.08	0	0	1		298.8	105.7	99.3%	100%
	6/2021	0.632	1.21	0	0	1.48	PASS	323.6	170.7	99.6%	100%
	7/2021	0.609	0.64	0.33	0.58	1		313.9	169.7	99.7%	99.7%
	8/2021	0.665	1.24	0.91	3.73	2.36		331.4	122.1	99.6%	96.9%
	9/2021	0.581	1.64	0.79	2.97	2.30	PASS	311.2	217.4	99.5%	98.6%
	10/2021	0.602	0.18	0.96	2.25	2.01		310.2	220.3	99.9%	99.0%
	11/2021	0.584	2.25	1.19	1.92	1.94		329.8	226.7	99.3%	99.2%
	12/2021	0.593	2.7	1.62	1.78	11.3	PASS	305.8	189.6	99.1%	99.1%
	average	0.764	1.90	0.57	1.10	2.35		300.5	154.1	99.3%	99.4%
NPDES LIMIT	1.500	16/8	4.0/2.0	30	200col/100ml	Pass/Fail				85%	85%

The City of Conover received a Notice of Deficiency for an effluent pH Limit on October 5, 2021. The pH recorded was 5.9 which was just below the lower limit of 6.0. The lab found and corrected the problem that same day. No other deficiencies have been reported since then.

Questions?

Should you have any questions regarding the treatment of wastewater in your community or need to report a sewer problem, please feel free to call Conover Public Works at 828-464-4808. To report a sewer problem after 4:30 PM or on weekends call Catawba County Communications at 828-464-3112.