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THE TOWN OF JEFFERSON
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This is the **Annual Performance Report** for 2023 for the Town of Jefferson Wastewater Treatment Plant and its outlying sanitary sewer collection system, permits NC0021709 and WQCS00220 respectively. Our mission statement for managing our water resources facilities is expressed in three areas.

- To surpass all North Carolina DEQ and US EPA Clean Water Standards
- To operate in the most cost-conscious manner possible for our customers
- To protect and enhance the public health of the New River Basin

COLLECTION SYSTEM PERFORMANCE is critical to our river basin. The Town of Jefferson maintains about 18 miles of sanitary sewers and five pump stations. Town Water Resources and Maintenance personnel make efforts to locate and eliminate sources of inflow and infiltration that allow surface water and rainfall to enter the collection system. These methods include jetting of sewer mains, video inspection by cameras traveling into the main lines, and smoke testing of main trunk lines.

In October, 2023 Water Resources and Maintenance personnel were able to perform smoke testing on a majority of the Sanitary Sewer Mains. A number of I/I sources were found. Some of the actions taken to mitigate these issues were repairs to manhole chimneys and frames, replacement of faulty manhole lids, plugging abandoned private service lines, and removal of privately owned gutter downspouts from the sewer collection system. Customers are reminded that the Sewer Use Ordinance forbids the connection of any household gutters or storm drains to the Collection System.

The Town of Jefferson completed a project in 2022 to provide telemetry communication from our water and wastewater facilities, allowing operators access to real-time information via hand-held devices regarding the function of wells, water treatment plant components, stored water volumes, and all sewer lift stations. This feature reduces required on-site visits and alerts operators to any conditions that might lead to overflows. In 2023 the influent pumps at the wastewater treatment plant were added to this program.

The Town requests its customers refrain from placing cooking grease and oil into their drains. **Please find the attachment regarding proper disposal of FATS, OILS, & GREASE (FOG)** in your home to prevent blockage of sanitary sewer service lines and mains. We also request our customers refrain from flushing disposable wipes into the sewers. These products often lead to the blockage of sewer mains, mechanical issues at lift stations, and the failure of raw sewage pumps. The preferable means of disposing of wipes is to place them in household garbage/trash receptacles.

In 2023 Town engineers and water resources personnel visited each manhole in the collection system to evaluate/prioritize repairs, clear rights of way, and to gather GPS information to upgrade the system's GIS mapping. In the near future we hope to incorporate some of this information to perform flow studies that will identify areas of largest inflow/infiltration into the collection system.

Wastewater Plant Performance was satisfactory. The average daily flow was 0.229 million gallons per day which is about 38% of the plant's permitted capacity. The Jefferson WWTP discharges into Naked Creek which flows into a section of the New River that is designated by North Carolina Division of Water Quality as Outstanding Resource Waters. As a result, the Town's discharge permit contains limits that are stricter than many other permittees in North Carolina. The tables below compare average measurements of the plant's discharge quality to the permit limit for each parameter.

April through October, 2023

PARAMETER	OUR DISCHARGE, mg/L	PERMIT LIMIT, mg/L
Biochemical Oxygen Demand	4.0	5.0
Total Suspended Solids	0.1	20.0
Ammonia Nitrogen	0.2	2.0
Fecal coliform	33.	200 organisms/100 ml.

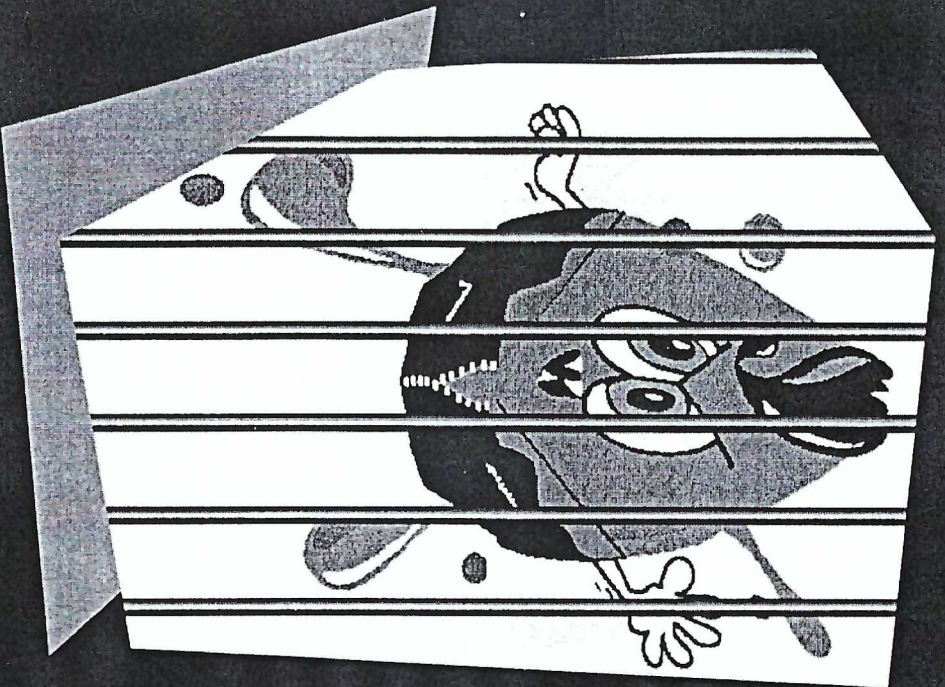
November through March, 2023

PARAMETER	OUR DISCHARGE, mg/L	PERMIT LIMIT, mg/L
Biochemical Oxygen Demand	2.5	10.0
Total Suspended Solids	0.1	20.0
Ammonia Nitrogen	0.3	4.0
Fecal coliform	33.	200 organisms/100 ml.

Additional required sampling of the wastewater plant effluent includes numerous metals, nutrients such as nitrogen and phosphorus, and various volatile organic compounds. A significant part of the wastewater plant's annual budget is directed toward satisfying the analytical requirements of our discharge permit.

Please direct any questions regarding water quality issues to Tim Church at (336) 246-2165. Thank you for your cooperation as the Town of Jefferson Water Resources continues to protect and enhance the waters of the New River Basin.

Don't Feed



The Grease Goblin!

DO

- ✓ Put oil and grease in collection containers
- ✓ Remove oil and grease from kitchen utensils, equipment, and food preparation areas with scrapers/towels/brooms
- ✓ Keep grease out of wash water
- ✓ Place food scraps in collection containers

DO NOT

- ⊘ Pour oil and grease down drains
- ⊘ Wash fryers/griddles, pots/pans, and plates with water until oil and grease are removed
- ⊘ Use hot water to rinse grease off surfaces
- ⊘ Put food scraps down drains

Help keep this guy out of your drains and

in the hands of the proper authorities!



N.C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF PEST PREVENTION AND ENVIRONMENTAL ASSISTANCE