

The City of Kannapolis Wastewater Collections System Annual Report Fiscal Year July 2023 - June 2024

Why Do We Publish This Report?

On July 21, 1999, North Carolina Governor James Hunt signed a law, House Bill 1160, requiring annual reports from municipalities that operate wastewater collection and treatment systems.

The annual reports inform system users of specific items such as the number of wastewater overflows, violations of permit conditions or environmental regulations. It also requires we report the impact of any such violations on the environment and corrective measures taken to minimize recurrences.

We have decided to inform you, the system user, not only of the required facts but of the stake each user has in this function and what you can do to help ensure its reliability.

The Treatment Process

The City of Kannapolis discharges its wastewater to the Water and Sewer Authority of Cabarrus County's (WSACC's) Rocky River Regional Wastewater Treatment Plant located in southern Cabarrus County.

The plant (NPDES Permit # NC0036269) has a treatment capacity of 26.5-million gallons per day (MGD) and uses a pure-oxygen activated sludge secondary treatment system that processes both domestic and industrial wastewater from both in-plant and off-site sources.

The solids processing operation relies on a combination of proven and cost effective technology available for the solids handling process.



The Wastewater Collection System

The City of Kannapolis's Wastewater Collection System was installed from the mid-1900's to the present. The system consists of approximately 336 miles of sewer pipelines and fifteen wastewater lift stations. The City of Kannapolis Public Works Department performs the operation and maintenance of the collection system that serves approximately 20,000 customers.

During our reporting year, our crews provided maintenance service to the system and its customers with professionalism and efficiency:



The Maintenance crew cleans the City's sewer system to limit the number of wastewater back-ups and overflows. A wastewater response crew responds to all calls related to potential blockages, customer back-ups and overflows within the collection system.



The Closed-Circuit TV Inspection crew uses a wheel-driven camera that records the interior of wastewater pipes to identify defects, obstructions, check effectiveness of the cleaning operations and inspects all new collection system extensions before the City accepts them for operation and maintenance.



The Pump Station crew maintains the City's fifteen wastewater lift stations. The crew performed 780 routine inspections and responded to 330 alarms at the lift stations this year.



The City's maintenance crew clears the wastewater collections system's outfalls within rights-of-way and performs semi-annual inspections of the system.



The City also has three crews that install new service connections, performs minor system expansions and provides repairs to existing wastewater infrastructure.

Contract services are utilized for the installation of any major wastewater collection system expansions, the replacement of aging deteriorating infrastructure, infrastructure inspections, and some routine outfall maintenance.

The City of Kannapolis' Engineering Staff assists collection crews by providing additional technical support to operations and periodic updates to system maps and construction drawings.

The City of Kannapolis has several construction projects underway to further enhance the level of service and quality of life to our citizens. In addition, we continually perform proactive maintenance to the collection system to prevent wastewater overflows.



The following maintenance was completed:

Manholes raised & upgraded:	18
Repairs to laterals:	29
Sewer main repairs:	4
Lateral blockages, unblocked & rodded:	523
Closed-circuit camera inspection (linear feet):	16,925
Cleanouts installed:	24
Sewer mains cleaned (linear feet):	273,866
Cleanout caps installed:	34

Collection System Overflows

The City of Kannapolis investigated approximately 721 possible municipal and private wastewater related back-ups and overflows during the fiscal year. The nineteen incidents listed below resulted in a spill or overflow of wastewater to the surface waters and were reported to the State. All locations were hydraulically cleaned up and down stream, debris was removed (if any) and were video inspected. The affected areas were flushed with fresh water, treated with lime, seeded, and straw was spread.

Incidents that were reported to the State: July 2022 - June 2023

7/24/2023: 8/14/2023: 8/19/2023 8/21/2023 8/30/2023 8/31/2023 9/28/2023 12/5/2023 1/05/2024 1/08/2024 1/15/2024 3/16/2024 3/16/2024 4/19/2024 5/02/2024 6/17/2024 6/27/2024	912 Mcknight St. 2618 Millard Fuller Way Dakota St. Outfall line 2407 Forrest Brook 5130 Northwest Drive 5130 Northwest Drive 703 Mooresville Rd. 1016 Dakota St. 1025 Kanas St. 307 Cadillac Ave. 269 Esther Circle 400 East 23rd St. 609 Grant Ave. 1012 Dakota St. 1529 Cripple Creek 1009 Sprucewood Ave. 1626 Eastwood Drive 1901 Concord Lake Rd. 1108 Moss Ave	Blockage from roots Blockage from FOG Blockage from FOG Lift Station Failure Blockage from roots Blockage from debris Paving operations Blockage from roots Blockage from roots Struck by crew Heavy Rains Erosion damage Blockage from FOG Blockage from debris Blockage from roots Private line failure Blockage from roots Force main failure Blockage from roots	(45Gallons) (175 Gallons) (6000 Gallons) (300 Gallons) (450 Gallons) (1020 Gallons) (60 Gallons) (85 Gallons) (300 Gallons) (600 Gallons) (5760 Gallons) (5760 Gallons) (600 Gallons) (400 Gallons) (400 Gallons) (450 Gallons) (450 Gallons) (4133 Gallons) (600 Gallons)
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TO PREVENT WASTEWATER OVERFLOWS

- NEVER put oils, liquid or solid greases, fatty meat, or other food scraps down a drain - even if you use a motorized garbage disposal.
- NEVER put down a drain feminine products, cotton swabs, matchsticks, convenience wipes such as baby, hygienic, cleaning and disinfectant, as well as toilet bowl scrubbers and paper towels even if labeled as "disposable or flushable".
- NEVER use hot water to melt grease so it will go down the drain easier.
- NEVER flush any of the items listed above down a toilet.
- **ALWAYS** keep grease out of wash water by wiping dishes with a disposable towel before washing.
- ALWAYS remove solidified grease from kitchen utensils, equipment, wares and food preparation areas with scrapers or paper towels. Dispose of scrapings and towels in trash cans.
- ALWAYS allow hot liquid grease to solidify and then dispose of properly.
- ALWAYS place all food scraps in trash collection containers.
- ALWAYS recycle restaurant grease by using contract rendering services and have grease traps cleaned and serviced frequently.
- REPORT trucks discharging liquids or other substances into open municipal sewer manholes.
- **REPORT** acts of vandalism on manholes, sewer lines, lift stations, hydrants and other structures.
- REPORT illegal dumping of toxic, corrosive, or flammable substances into manholes, drains, or toilets.

REPORT SUCH INCIDENTS TO:

City of Kannapolis Customer Service (704) 920-4444

PUBLISHED BY:

The City of Kannapolis
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1401 Bethpage Road
Kannapolis, NC 28081

Phone: (704) 920-4444 Fax: (704) 920-4244

Alex Anderson
Director of Water Resources

Copies of this report are available at the following locations:

Customer Service Center Kannapolis City Hall 401 Laureate Way Kannapolis, NC 28081

This report may also be viewed on the City's website at:

www.kannapolisnc.gov



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.

Alex Anderson

Alex Anderson, Director of Water Resources

Date: July 22, 2024