



July 2023—June 2024

Wastewater System Performance Report

Cape Fear Public Utility Authority



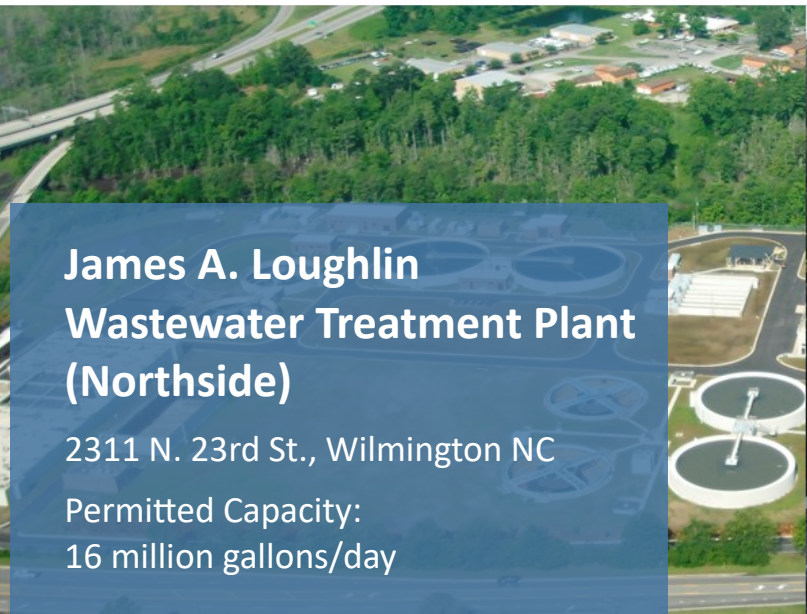
Northside WWTP NPDES NC0023965
Southside WWTP NPDES NC0023973
Collections System WQCS00012

Wastewater System Overview

Cape Fear Public Utility Authority (CFPUA) is the primary wastewater services provider for New Hanover County and the City of Wilmington, serving more than 75,000 individual homes, businesses, and other properties. CFPUA operates and maintains two wastewater treatment plants (WWTP), 158 pump stations, and over 1,100 miles of sewer mains. In Fiscal Year 2024, which spanned from July 2023 to June 2024, CFPUA collected and treated approximately 6.4 billion gallons of wastewater. CFPUA spent \$14.94 million to operate and maintain the wastewater system and invested another \$38.9 million in system growth and capital upgrades, repairs, and replacements of aging infrastructure.

Copies of this report are available at: **235 Government Center Drive** and **929 N. Front St.**

You may also access this report on our website: www.CFPUA.com



James A. Loughlin Wastewater Treatment Plant (Northside)

2311 N. 23rd St., Wilmington NC

Permitted Capacity:
16 million gallons/day



M'Kean Maffitt Wastewater Treatment Plant (Southside)

3634 River Road, Wilmington NC

Permitted Capacity:
12 million gallons/day



Biosolids Management

Beginning in 2019, CFPWA transitioned to an in-house managed wastewater residuals program. CFPWA's managed residuals program consists of dewatering, contracted hauling of dewatered residuals, and landfill disposals. Landfill disposal is expected to continue due to the presence of PFAS in the dewatered residuals. Below is the fiscal year 2024 (July 2023—June 2024) program report for Southside WWTPs, Northside WWTP, and the alum sludge processed for Sweeney Water Treatment Plant:



27,934.50 wet tons
total CFPWA production



23,527.17 wet tons/996 loads
hailed for disposal in landfill

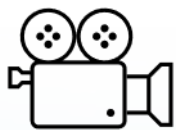


6,063.42 hours
total processing runtime

NPDES Permit Summary, July 2023—June 2024

No violations of the NPDES permit limits for both the James A. Loughlin (Northside) and M'Kean Maffitt (Southside) Wastewater Treatment Plants.

Wastewater System Maintenance Overview



19.11 miles
of gravity mains
inspected with
CCTV



1,878 Work Orders
completed for
preventative
maintenance at
pump stations



285 Work Orders
completed for
corrective
maintenance at
pump stations



127.63 miles
of gravity sewer
mains in collection
system cleaned

Did you know that preventative maintenance is considered routine, scheduled maintenance that's proactive in preventing issues before they happen, while corrective maintenance is a reactive response after equipment fails or malfunctions?

Sanitary Sewer Overflows (SSOs), July 2023—June 2024

SSO Month	Incident Start Date	Total Volume Spilled (gallons)	Volume to Surface Water (gallons)	Watershed	Location	Probable Cause	Enforcement Action
December	12/29/2023	780	780	Greenfield Lake	1099 Medical Center Dr.	Blockage due to debris in line	
January	1/13/2024	180	80	Hewlett's Creek	605 Sandfiddler Point Rd.	Equipment failure and grease	Notice of Deficiency
March	3/8/2024	440	440	Cape Fear River	194 N. 10th St.	Pipe Failure	
May	5/8/2024	380	380	Cape Fear River	965 N 2nd St.	Debris in line	Notice of Violation

** No civil penalties were given to CFPUA for the above SSO enforcements*

Cease The Grease

Fats, oils, and grease (FOG) is found in many foods and cooking products and can cause major problems for our sewer system. FOG does not break down easily and builds up in pipes, causing blockages that can lead to sanitary sewer overflows (SSOs). Proper disposal helps avoided costly sewer overflows in CFPUA and homeowner systems, higher utility costs, and harm to the environment.

Prevent backups in our system and your homes by pouring bacon and other cooking grease into a can, place a lid on top of the can and when full or solidified, dispose of in the trashcan. CFPUA retains reusable grease lids that are available at our outreach events, as well as at our main office location at 235 Government Center Drive. Get yours today to help cease the grease and protect our system!



Please remember to never flush any product other than toilet paper!

FY 2024 Highlights



NACWA Gold Peak Performance Award

Both Southside and Northside Wastewater Treatment Plant received the National Association of Clean Water Agencies (NACWA) Gold Peak Performance Award for calendar year 2023. This award recognizes NACWA member facilities with zero permit violations for the calendar year. Both facilities received this award last calendar year (CY 2022) as well.



Excellence in Management Program Gold Recognition

In May of 2023, CFPWA was one of two utilities honored with Gold Recognition from the National Association of Clean Water Agencies (NACWA) in its 2023 Excellence in Management Program, the second-highest level of recognition. This honor allows CFPWA to know where we rank among our thousands of peers in the water and wastewater industry.



Southside WWTP Receives Gold Safety Award from the NC Department of Labor

Southside WWTP received a gold award for their seventh consecutive year. With no fatalities or incidence rate at least 50 percent below the average for its particular industry group, companies can be awarded a gold or silver award. The gold award is based on the days away, restricted, transferred (DART) rate while the silver award is based only on cases with days away from work.



Collection System Projects Increase Resiliency

CFPUA has a continual commitment to undergo projects that assist in lowering strain on the collection system and treatment plants, which includes tackling inflow & infiltration (I&I) challenges. Resiliency measures taken to reduce I&I includes lining of CFPUA sewer gravity mains. The lining process prevents surface water from entering into pipes and manholes by installing a protective lining that ensures no additional inflow, but also extends the lifespan on the pipes. So far, CFPUA has successfully lined a total of 32 miles out of 163 miles gravity sewer mains.



Pump Station Elevation and Rehabilitation Projects

Being a utility in a coastal community, CFPUA has to implement and modify pump stations to remain resilient against climate-related threats such as flooding from storm related events and rising sea levels. Between July 2023 and June 2024, CFPUA has modified 5 pump stations by installing permanent generators, flood-resistance structures, and upgrading aging infrastructure. CFPUA is continually in the process of proactively installing resilient and reliable infrastructure and upgrades for a changing climate.



Southside Wastewater Treatment Plant Replacement

CFPUA is preparing to launch the biggest capital project in the organization's history: replacement and expansion of the Southside Wastewater Treatment Plant. Replacing the Southside Plant is necessary to continue meeting our community's wastewater treatment needs, accommodate future growth, and protect our local environment.

At 52 years old, much of the Southside Plant's infrastructure is nearing the end of its useful life. The project will replace the existing facility with new infrastructure and more modern treatment technology. The project also will expand Southside's treatment capacity from 12 MGD to 16 MGD. This capacity increase is needed to meet future demand as CFPUA's customer base continues to grow.

Contact Us

For more detailed information about this report, contact an Operator in Responsible Charge (ORC):

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Permit No. NC0023965

Steven Styers, ORC

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M’Kean Maffitt (Southside) WWTP

Permit No. NC0023973

Robert Daughtry, ORC

(910) 332-6637

Collections System Superintendent

Permit No. WQCS00012

Certification and Availability Statements

CFPUA certifies under penalty of law that this report is complete and accurate to the best of staff knowledge. CFPUA further certifies that this report has been made available to the users and customers of the CFPUA system and that those users have been notified of the report availability.

Notification of availability of this report is provided through printed notice on water and sewer bills and on the CFPUA website. This report was completed by CFPUA staff and is accurate to the best of their knowledge and belief.

Copies of this report are available at:

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