



Durham County **UTILITIES NEWS**



FIRST QUARTER

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➤➤➤ CAPITAL IMPROVEMENT UPDATES

Chin Page Road Lift Station

Durham County is in contract negotiations with a design/build team and working with the North Carolina Department of Environmental Quality Division of Water Infrastructure to finalize funding requirements. A revised operational timeline will be provided once contract negotiations have been completed.

Slater Road Lift Station

On November 27, 2023, the Durham County Board of County Commissioners approved \$10 million in ARPA funding for a new lift station and force main. County Utilities will be issuing a RFQ in the near future to select a design team in order to move the project forward. Current estimate is to have the lift station operational in winter of 2026.

Page Park Apartments Lift Station

The Page Park Apartments Lift Station has been identified as high priority for rehabilitation. County Utilities has identified an internal funding source and will be issuing a RFQ in the near future to move the project forward.

Triangle Wastewater Treatment Plant Phase IV

Durham County Utilities and Hazen and Sawyer had a kickoff meeting in November 2023. The kickoff meeting focused on the reclaimed water system and the UV disinfection process. County Utilities will begin collecting additional samples to gather data required for future design. This data will help in creating a more efficient and effective utility system that can better serve the needs of the community.

WASTEWATER FACT

Strange items are often found in sewer systems worldwide. In 2009, the City of Raleigh found an “alien” growth that turned out to be a colony of common tubifex worms. [See the Youtube video here](#), if you are brave enough.

WASTEWATER JOKE

What did one fly say to the other?
Is this stool taken?

➤➤➤ OPEN POSITIONS

We are hiring! Pursue your passion for water quality and pivot into a career in public utilities. All of the County's open positions can be found and applied to at [County Careers link](#). Contact us with any questions you may have. Currently Utilities is hiring:

- [Operations and Maintenance Specialist II](#)
- [Plant Maintenance Technician](#)
- [Maintenance Technician](#)



[Utilities Website](#)



919-560-9033



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2-YEAR NUTRIENT REDUCTIONS

➤➤➤ PHOSPHORUS REMOVAL

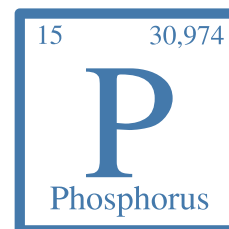
One of the most important roles of a Wastewater Treatment Plant is to reduce nutrient levels in effluent discharge. Phosphorus removal is a critical aspect of wastewater treatment as it poses a significant threat to water quality. Excessive phosphorus levels in water bodies can lead to eutrophication, which can disrupt aquatic ecosystems. Wastewater treatment plants use various techniques to remove phosphorus from effluent, such as chemical precipitation and biological processes. This ensures that treated effluent meets water quality criteria and adheres to environmental regulations. Phosphorus removal protects the quality of drinking water sources and aquatic life, preserving biodiversity and promoting ecological conservation.

➤➤➤ NITROGEN REMOVAL

Nitrogen removal is essential in wastewater treatment to prevent environmental and public health issues. Nitrogen compounds in wastewater cause pollution and can lead to the growth of harmful algae that deplete oxygen in aquatic ecosystems. Nitrifying bacteria facilitate the conversion of ammonia to nitrate, while denitrifying bacteria subsequently convert nitrate into atmospheric nitrogen gas. Nitrogen removal protects water quality, helps comply with environmental regulations, and sustains aquatic ecosystems.

➤➤➤ TWWTP

Triangle Wastewater Treatment Plant staff work hard to optimize plant efficiency and reduce effluent nutrient contents to protect Northeast Creek. The graphs on page 3 highlight the reduction in effluent phosphorus and nitrogen over the past two years of plant operation.



[Utilities Website](#)



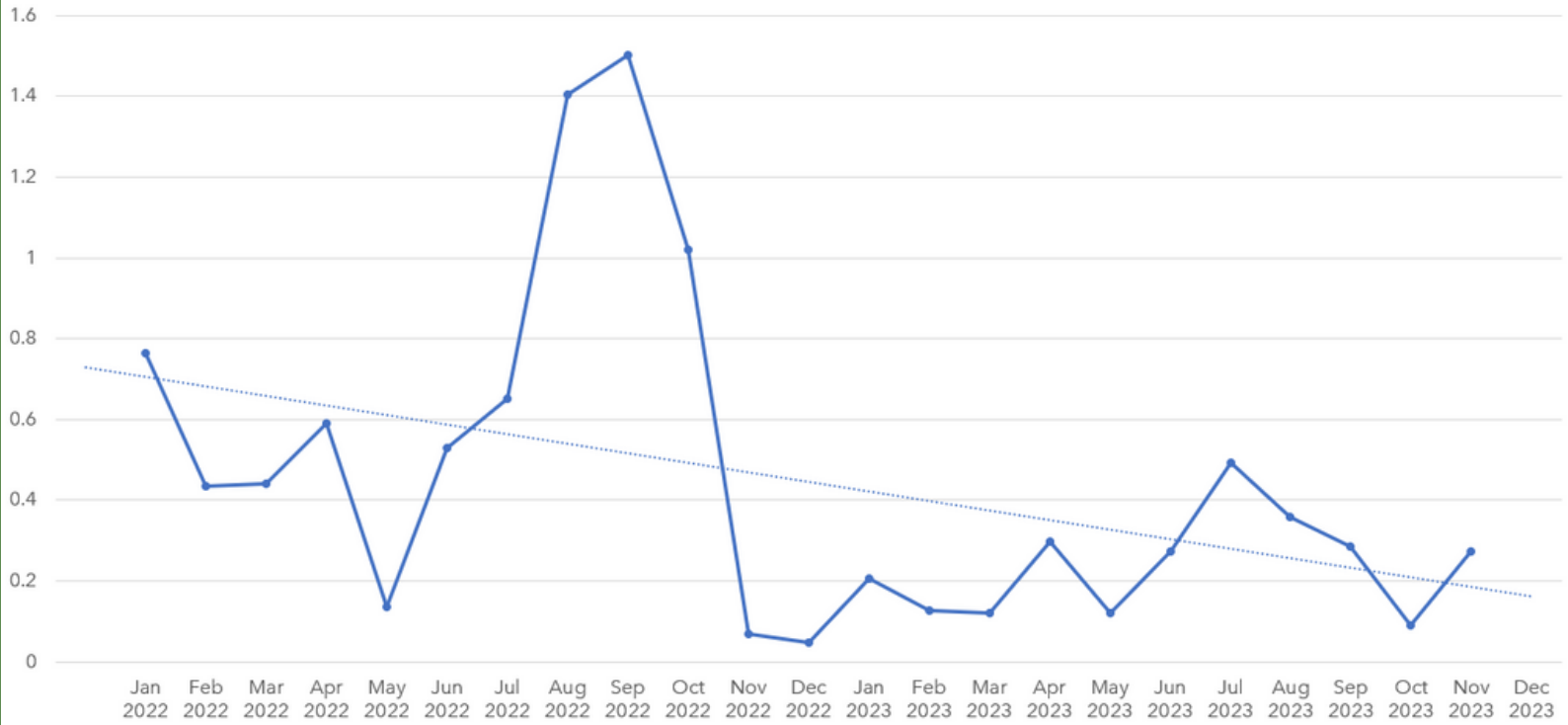
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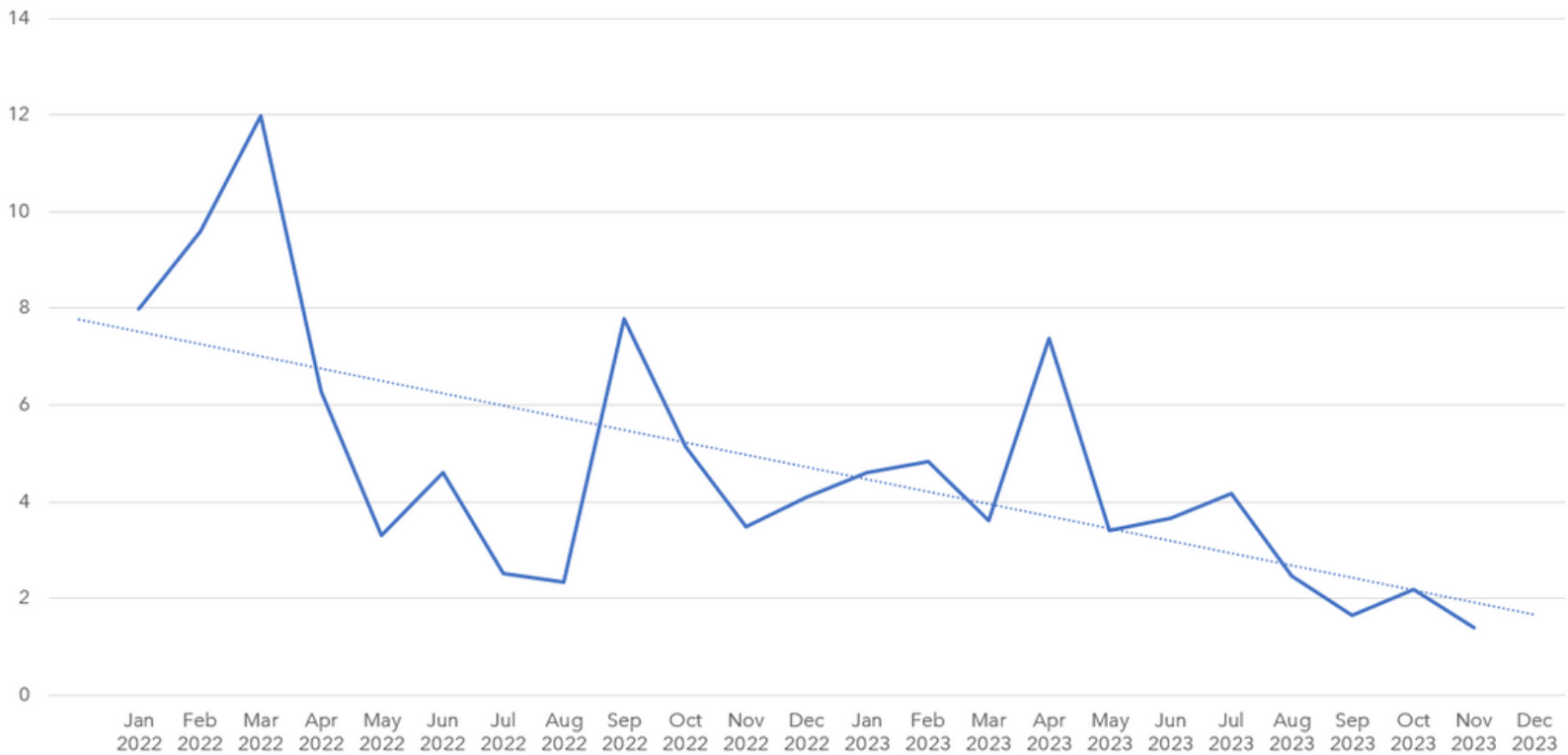
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2-YEAR NUTRIENT REDUCTION GRAPHS

Effluent Phosphorus mg/l



Effluent Nitrogen mg/l



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MEET OUR NEW STAFF



Fernando Lopez - Pretreatment Tech.

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Hannah Steele - Office Assistant

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Marc Serraneau - O&M Specialist I

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Larry Tucker - Plant Maintenance Tech.

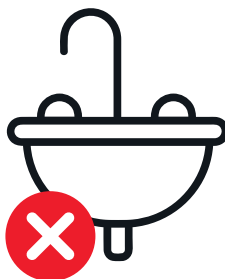
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>>> FATS, OILS, AND GREASE

Although it may seem harmless, pouring cooking oils, fats, and grease (FOG) down the drain can cause significant damage to both our plumbing and the municipal sewer system. As these substances cool, they solidify and form blockages, which can result in expensive repairs and potential environmental issues.

Here are some eco-friendly disposal tips to help protect the sewer system and the planet:

- **Collect and Recycle:** Instead of pouring used cooking oil down the drain, collect it in a sealed container and take it to a local recycling center. Many facilities accept used cooking oil for recycling into biodiesel. The City of Durham accepts cooking oil at the [Household Hazardous Waste Facility](#) from city and county residents.
- **Solidify and Dispose in the Garbage:** Allow FOG to cool and solidify before disposal. Consider reusing empty jars (pasta sauce, pickle, garlic, etc.) to collect the grease and dispose of in the garbage when filled.
- **Composting:** Small amounts of plant-based cooking oils can be composted. Ensure the oils are free from meat or dairy products, as these can attract pests.
- **Educate Your Community:** Spread awareness about the proper disposal of FOG within your community. Remember, every small action counts.



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SHARE YOUR HOLIDAY



Share Your Holiday has been helping low-income families, the elderly, and individuals with disabilities during the holiday season for the past 45 years. Social workers identify those who need support and link them with volunteer groups to provide assistance. Durham County Utilities staff was happy to share our holiday with a family in need this season!



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