Brunswick County Public Utilities St. James 084

Major Facilities

Water Treatment Northwest WTP (24 MGD) 211 WTP (6 MGD)

Wastewater Treatment Northeast Regional West Brunswick Shallotte Ocean Isle Beach Sea Trail Carolina Shores

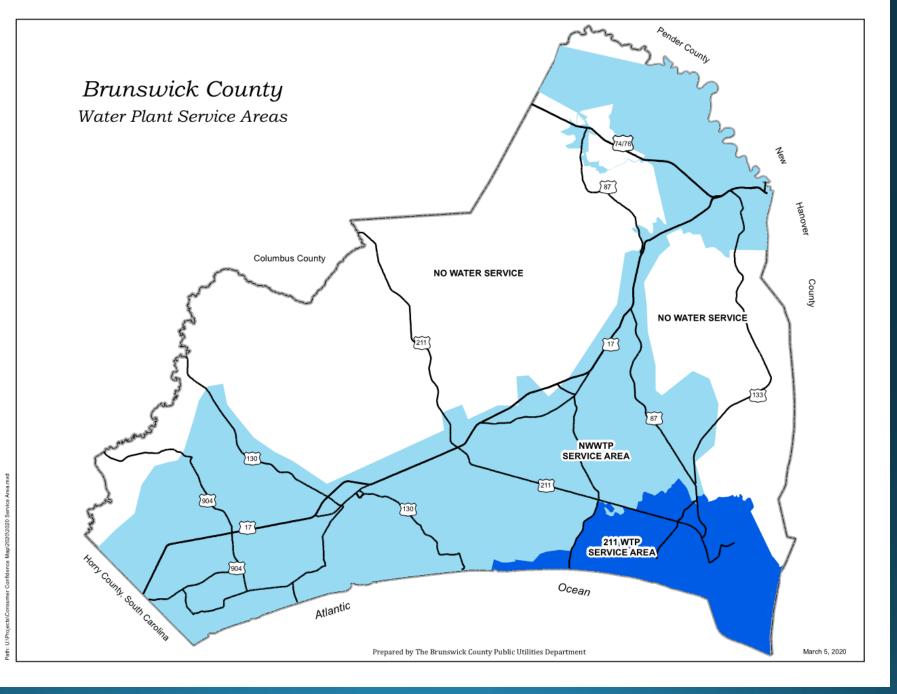


THE NAVY-BLUE AREA IS SERVED BY BOTH WTPs,

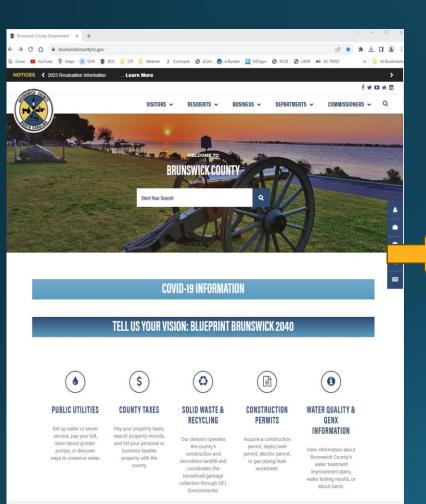
THE REST OF THE COUNTY IS SERVED BY THE NORTHWEST WTP (light blue)

Visit the County website for more information on Water Quality.

https://www.brunswickcountyn c.gov/utilities/annual-reportsfacilities-information/



BCPU Navigating the Website



Brunswickcountync.gov

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Brunswickcountync.gov/utilities/

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PUBLIC UTILITIES	GENX/PFAS INFORMATION		
ADVISORIES AND NEWS			
ANNUAL REPORTS / FACILITIES INFORMATION	FREQUENTLY ASKED QUESTIONS		
CROSS-CONNECTION & BACKFLOW PREVENTION	FREQUENTLY ASKED QUESTIONS		
DRINKING WATER WEEK	Click below to see answers to frequently asked questions about PFAS and Brunswick County's advanced low-pressure reverse osmosis water treatment project at the Northwest Water Treatment Plant.		
FATS, OILS, AND GREASE			
FREQUENTLY ASKED QUESTIONS			
GEN-X/PFAS INFORMATION	PFAS - FAQ		
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SEPTAGE WASTE DISPOSAL PROGRAM	PARTNER ORGANIZATIONS & RESOURCES		
STAFF DIRECTORY			
UTILITY BILLING			
WATER & SEWER RATES	NORTHWEST WATER TREATMENT PLANT EXPANSION & REVERSE OSMOSIS		
WATER CONSERVATION	TREATMENT UPGRADES		
	See Latest Updates		
	LINKS AND RESOURCES Follow the links below to view water test results for unregulated contaminants such as (4 Dioxane, GenX, and other PFAS, learn how to request water sampling for private wells, and sign up for updates.		
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Brunswickcountync.gov/utilities/genx-pfas/

Northwest WTP Low Pressure Reverse Osmosis Construction Update

Constructing the best and most protective barrier to PFAS



October 2022

October 2023



LPRO Feed Pumps and Skid Assembly







LPRO Training Space and Chemical Systems Construction



211 Water Treatment Plant



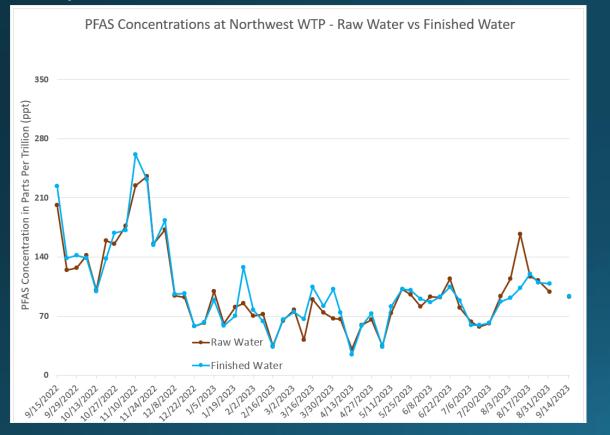
Wellhead Protection Update

- October 2nd-Contract has been established with ECS Limited Southeast
- Early November- Draft guidance for performance standards.
- Community Meetings to Follow

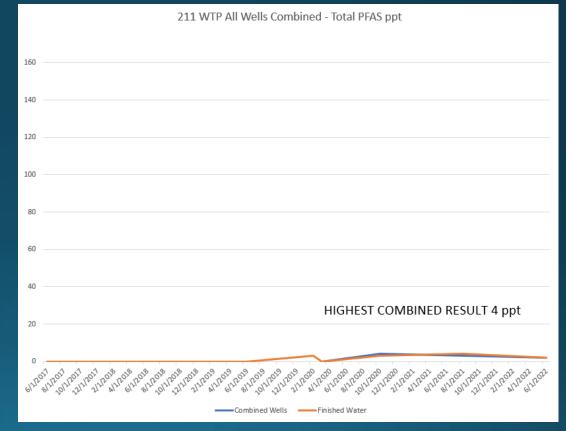
Hydrogeologic Unit	Depth to Upper Surface (feet bgs)	Estimated Thickness (feet)
Surficial Aquifer	0	52–68
Castle Hayne Confining Unit	Variable	Variable
Castle Hayne Aquifer	60	120
Peedee Confining Unit	170	30
Lower Aquifers (youngest to oldest): Peedee, Black Creek, Upper Cape Fear, and the Lower Cape Fear	Variable	Variable

PFAS Results: Latest Trends

Cape Fear River



Castle Hayne Aquifer



EPA Moves to Regulate PFAS

Proposed MCLs are much lower than previous Health Advisories

EPA's Proposed Action for the PFAS NPDWR

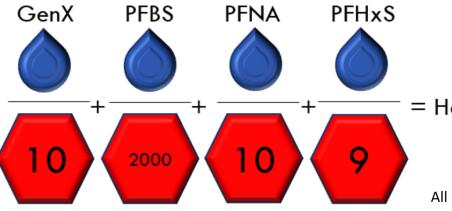
Compound	Proposed MCLG	Proposed MCL (enforceable levels)
PFOA	zero	4.0 ppt*
PFOS	zero	4.0 ppt*
PFNA		
PFHxS	1.0 (unitless)	1.0 (unitless)
PFBS	Hazard Index	Hazard Index
HFPO-DA (commonly referred to as GenX Chemicals)		

How do I calculate the HI?

The Hazard Index (HI) is used to understand health risks. For the PFAS NPDWR Proposal, the HI considers the combined toxicity of PFNA, GenX Chemicals, PFHxS, and PFBS in drinking water.

What is a Hazard Index?

The Hazard Index is made up of a sum of fractions. Each fraction compares the level of each PFAS measured in the water to the level determined not to cause health effects.



Steps:

- Step 1: Divide the measured concentration of GenX by the health-based value of 10 ppt*
- Step 2: Divide the measured concentration of PFBS by the health-based value of 2000 ppt
- Step 3: Divide the measured concentration of PFNA by the health-based value of **10 ppt**
- Step 4: Divide the measured concentration of PFHxS by the health-based value of 9.0 ppt
- Step 5: Add the ratios from steps 1, 2, 3, and 4 together
- Step 6: To determine HI compliance, repeat steps 1-5 for each sample collected in the past year and calculate the average HI for all the samples taken in the past year
- **Step 7:** If the running annual average HI greater than 1.0, it is a violation of the proposed HI MCL
- = Hazard Index

Value

All units in parts per trillion (ppt)

Planned Improvements in Your Area



Recommended Water System Improvements

Request for Proposals advertisement November 2023

Execute Design Build Agreement February 2024

Construction to Begin August 2024

Construction Completion Estimate August 2025

