

Emerging Contaminant Update

At the July 21, 2023, Village Council meeting, JP McCann, Public Services Director, gave an update on emerging contaminants in local water systems. Mr. McCann has been attending NC Department of Environmental Quality (NCDEQ) workshops locally for the last two years regarding this topic and shared information about the Environmental Protection Agency's policy proposals and the latest on the Village's response to emerging contaminants.

EPA's Response - Mr. McCann reported that the EPA is proposing a National Primary Drinking Water Regulation (NPDWR) to establish legally enforceable levels, called Maximum Contaminant Levels (MCLs) for six Per-and Polyfluorinated Substances (PFAS) in drinking water. The EPA is also proposing health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these six PFAS. These MCLGs are the maximum level of contaminant in drinking water where there are no known or anticipated negative health effects allowing for a margin of safety.


The proposed MCLG and MCL (enforceable levels) can be viewed below.

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)		

The Hazard Index is a tool used to evaluate potential health risks from exposure to chemical mixtures.

*ppt = parts per trillion (also expressed as ng/L)

 **United States Environmental Protection Agency**Office of Water

Village's Response – The State approached the Village about testing the island's drinking water and tests were performed this past spring 2023 of the Royal James well. The results are shown below. The numbers on the left are the test results of the water coming straight from the well, the numbers on the right are the test results of the water coming from the tap at the time of the testing (this would be water from all sources that the Village's water system was pulling from at the time of testing). All results received from this testing would fall below EPA's proposed enforceable levels.

Compound	Bald Head Island (RoyalJames Well) (Utilities tap)		Proposed MCLG	Proposed MCL (enforceable levels)
PFOA	14.3, 19.2 & 23.1	1.28, 2.27	zero	4.0 ppt (also expressed ng/l)
PFOS	3.03, 2.7, & NT	2.13, 3.56	zero	4.0 ppt (also expressed ng/l)
PFNA	1.07, 1.08 & 2.22	NT		
PFHxS	3.31, 4.12 & 5.28	1.77, 2.35	1.0 (unitless) Hazard Index	1.0 (unitless) Hazard Index
PFBS	11.4, 13.2 & 17.8	1.42, 2.8		VBHI Hazard Index .3474
HFPO-DA (commonly referred to as GenX Chemicals)	7.15, 8.43, 9.17	.677, .849		

Mr. McCann emphasized that this is a snapshot in time, the results can change. This is because the Village pulls from different wells over time and adds Brunswick County treated water at various amounts during peak usage periods. He explained that as more testing is performed the Village will get a better understanding of what sources impact the results. The frequency of testing required for local water systems is likely to come out of the EPA's guidance. The current proposed levels are also a snapshot and are subject to change. Mr. McCann indicated that the proposed levels have gone from 140 ppt and 70 ppt to the current proposed levels of 4.0 ppt and 1.0 Hazard Index (unitless).

The Village is performing additional testing this week that will concentrate on water from the wells closest to the river and intake water coming from Brunswick County and then a tap result. The Village is also being proactive by putting in pre-filters and is seeking to modify them to include additional filters such as GAC (granular activated carbon) filtration.

The Village will provide updates as more test results are received and as the EPA's regulations become final.

View all the EPA slides [HERE](#).