

Utilities Department

PFAS Background and Update

A Proactive Approach

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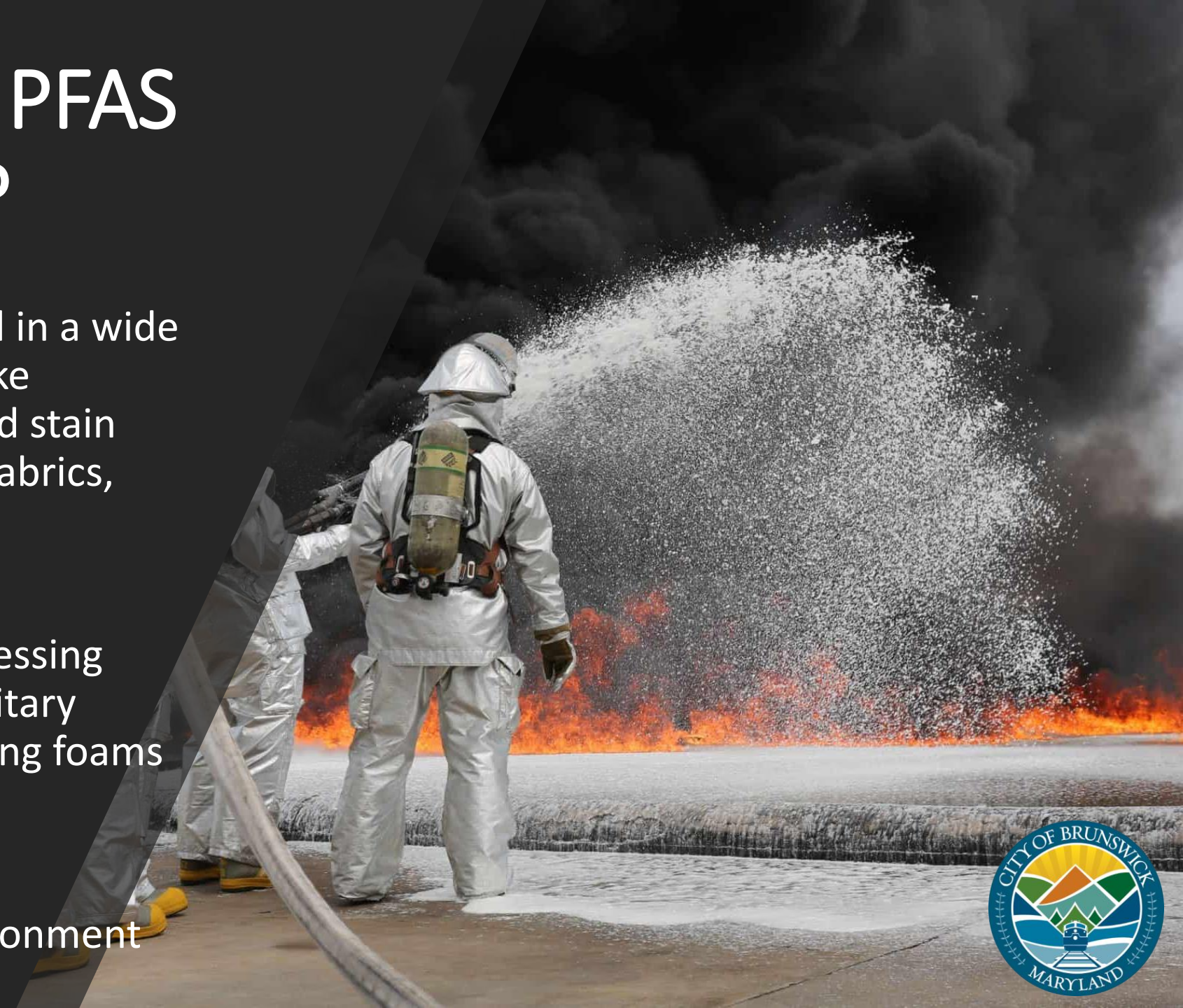
What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of manmade chemicals that have been in use since the 1940s
- Due to their strong carbon-fluorine bonds, many PFAS can be very persistent in the environment with degradation periods of years, decades, or longer under natural conditions
- Fire resistant and repels oil, stains, grease in water
- The most studied PFAS are Perfluorooctanoic Acid (**PFOA**), Perfluorooctane Sulfonate (**PFOS**), Hexafluoropropylene – HFPO (**GenX Chemicals**) and perfluorobutane sulfonic acid (**PFBS**)



Where are PFAS found?

- PFAS are (or have been) found in a wide array of consumer products like cookware, food packaging, and stain and water repellants used in fabrics, carpets and outerwear
- PFAS manufacturing and processing facilities, and airports and military installations that use firefighting foams which contain PFAS
- PFAS is also found in the environment



How can this impact people?

- Because of their widespread use and environmental persistence, most people have been exposed to PFAS chemicals
- Some PFAS chemicals can accumulate and can stay in the human body for long periods of time
- There is evidence that exposure to certain PFAS may lead to adverse health effects





A Proactive Approach

Participated in EPA & MDE PFAS assessments

Sampling for PFAS in drinking water

Incorporating PFAS removal technologies in future upgrade

Water Treatment Plant Operator PFAS Education – Maryland Rural Water PFAS Training

Testing wastewater biosolids for PFAS

Staying informed about upcoming regulations

PFAS Regulations

- No Enforceable Federal or State Maximum Contaminant Levels for PFAS
- Updated 2022 EPA interim health advisories levels
- EPA health advisories are non-enforceable

Chemical	Health Advisory (ppt)
PFOA	0.004 (Interim)
PFOS	0.02 (Interim)
GenX Chemicals	10 (Final)
PFBS	2,000 (Final)

Brunswick Water System PFAS Test Results

ANALYTE	HEALTH ADVISORY	Minimum reporting level	Brunswick WTP results	Yourtee Springs Results	Goal	Treatment
PFOA	0.004 PPT	4 PPT	<0.002 PPT	TBD	0.00	Membrane Filtration
PFOS	0.02 PPT	4 PPT	0.00229 PPT	TBD	0.00	Membrane Filtration
HFPO-DA	10 PPT	5 PPT	<0.002 PPT	TBD	0.00	Membrane Filtration
PFBS	2000 PPT	3 PPT	<0.002 PPT	TBD	0.00	Membrane Filtration