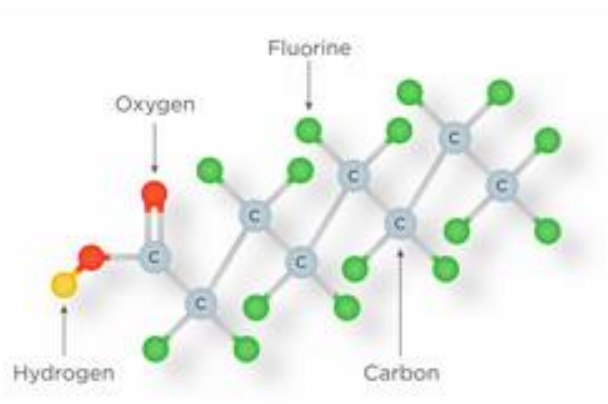
What You Need to Know About PFAS

What are PFAS and PFOS/PFOA?



PFAS, or per- and polyfluoroalkyl substances, are a group of about 15,000 man-made, persistent synthetic compounds used in a variety of industrial and consumer products. They have been used in industry to make everyday products that resist heat, oil, stains, grease, and water since the 1940's. They are extremely stable and do not breakdown in the environment.

Where are PFAS compounds commonly found?

PFAS are found in water, air, and soil around the world. Because of their unique property to resist heat, oils, stains, grease, and water, you can find these chemicals in:

- Non-stick cookware
- Shampoos, sunscreens, cosmetics, and personal care products
- Coatings on food packaging such as fast-food wrappers
- Firefighting foam
- Waterproof/water resistant clothing
- Pesticides and herbicides
- Paints, stains, varnishes, inks, and dyes

How does PFAS get into source water?

PFAS can get into our water sources in a wide variety of ways. They would include from manufacturing facilities and storm water runoff. PFAS can get into the water when products containing them are used or spilled onto the ground or into rivers, streams and any body of water.

How does PFAS affect our health?

According to the Environmental Protection Agency, scientific studies have shown that exposure to PFAS in the environment may be linked to harmful effects on humans and animals. Research is still ongoing to determine how different levels of exposure to PFAS can lead to different health effects. Current scientific studies have shown the exposure to certain levels of PFAS may lead to increased risk of some cancers, reduced ability of the body's immune system to fight infections, increased cholesterol levels, and higher risk of obesity among other risks. You can read more about this on the EPA website at: PFAS Explained | US EPA

Proposed National Drinking Water Regulations

While there are currently no federal regulatory limits for any PFAS compounds, the EPA, which is responsible for setting these limits under the federal Safe Drinking Water Act, announced a proposed National Primary Drinking Water Regulation that would regulate six PFAS compounds on March 14, 2023. The PFAS limit proposed by the EPA is four (4) parts per trillion (ppt). A final rule is anticipated to be issued by the EPA in late 2023 or early 2024.

Granular Activated Carbon (GAC) as an Effective Treatment

The Rivanna Water & Sewer Authority uses Granular Activated Carbon (GAC) filters as a part of our water treatment process at our water treatment plants. GAC filters have been shown to be effective in removing most PFAS from drinking water. GAC is made from organic materials with high carbon content. It is effective at removing PFAS and other compounds from drinking water because it is high porous and provides a large surface area which allows these compounds to stick to the GAC. For more information about GAC, use this link: https://www.rivanna.org/granular-activated-carbon/

Granular Activated Carbon Vessels at the South Rivanna Water Treatment Plant

What's Next with PFAS?

Years of research on PFAS have already taken place and we continue to learn how to mitigate any risks from PFAS. The EPA accepted public comment on the proposed new regulatory standard through May 30, 2023. Once a final rule is announced, water utilities across the country will have three years to implement standards that will comply with the standard.

Protecting and providing safe, reliable drinking water is of the utmost importance to the Rivanna Water & Sewer Authority. By using GAC to treat our water, we have already put into place a means of removing most of these PFAs contaminants.