PUBLIC NOTIFICATION:

The City of West Burlington Water Supply Has Levels of PFOA Above Drinking Water Advisories

West Burlington water supply obtains all its water from Burlington Municipal Waterworks. The city has been notified that the Burlington Municipal Waterworks system recently exceeded an EPA drinking water interim health advisory. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what is being done to correct this situation.

Drinking water is routinely monitored for the presence of contaminants. On October 10, 2022, Burlington Municipal Waterworks received test results that exceeded the EPA drinking water lifetime health advisory for the following PFAS compound(s):

PFAS Compound	Burlington Municipal Waterworks Result (ppt)	Health Advisory Level (ppt)
PFOA	4.9	0.004 (interim)

What is a drinking water health advisory?
A health advisory provides information on a contaminant that can cause adverse human health effects and is known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory. They provide technical information to drinking water system operators and federal, state, tribal, and local officials on the health effects, analytical methods, and treatment technologies associated with drinking water contaminants. This health effects information includes the concentrations of such drinking water contaminants (the health advisory "levels" or "values") at which adverse health effects are not anticipated to occur over specific exposure durations, such as one day, ten days, or a lifetime.

EPA's health advisory levels offer information that may be used to protect people from adverse health effects resulting from exposure throughout their lives to contaminants in drinking water.

What should I do?

- If you are concerned about levels of PFAS in your drinking water, contact your doctor or health care professional.
- Consider actions that may reduce your exposure, including installing a home or point-of-use filter, if possible. The lower the levels of PFAS, the lower the risk.
- Steps are being taken by EPA to further understand concerns and potentially regulate PFAS at the national level.
- Boiling, freezing, or letting water stand does not reduce PFAS levels.
- **Currently, EPA is not recommending bottled water. EPA notes that the U.S. Food and Drug Administration has not established standards for PFAS in bottled water**.
- Consider any resources and recommendations from your state.
- Review EPA's website: https://www.epa.gov/pfas/meaningful-and-achievable-steps- you-cantake-reduce-your-risk

What is PFAS?
PFAS is a group of manufactured chemicals used since the 1940s. PFAS are (or have been) found in various consumer products and as an ingredient in firefighting foam. PFAS manufacturing and processing facilities, airports, and military installations are some contributors to the release of PFAS into the air, soil, and water. Because of their widespread use, most people have been exposed to PFAS, and there is evidence that exposure to certain PFAS may lead to adverse health effects.

What are the health effects of exposure to PFAS?
Exposure to PFAS may result in a wide range of adverse health outcomes, including:

- developmental effects including to fetuses after exposure during pregnancy or postnatal development (e.g., low birth weight, accelerated puberty, skeletal variations, development of the immune system);
- cancer (e.g., testicular, kidney);
- liver effects (e.g., cellular lesions);
- immune effects (e.g., decreased antibody response to vaccination, decreased immune response immunity);
- thyroid effects and other effects (e.g., cholesterol changes).

What happened? What is being done?
Burlington Municipal Waterworks received notice of a PFOA Health Advisory Exceedance on October 10th, 2022 from the Iowa Department of Natural Resources. To help lower this PFOA level, the well with the highest PFOA has been taken offline. Water from wells only makes up approximately 15% of the water treated, whereas 85% comes from the Mississippi River.

Burlington Municipal Waterworks is conducting further testing and is working with its engineering firm to find a treatment solution as more information becomes available from the Iowa Department of Natural Resources and the Environmental Protection Agency.

Burlington Municipal Waterworks tap water meets all federal and state standards for drinking water safety, and customers may continue drinking the tap water. The only required action of the Burlington Municipal Waterworks in response to the PFOA test results was notifying their consecutive systems, such as West Burlington, to release public notification and continue a quarterly water testing/monitoring program. The EPA does not recommend that consumers stop using tap water.

Contact Burlington Municipal Waterworks at 319-754-6501 or Burlington Municipal Waterworks PO Box 786 Burlington, Iowa 52601 for more information.

> *Please share this information with everyone who drinks this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice publicly or distributing copies by hand or mail.*

This notice is being sent to you by the City of West Burlington PWSID#: 2985002.
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MORE ABOUT PFAS

The recently established Health Advisory levels announced by the US EPA apply to four specific PFAS compounds. Because these chemicals have been used in various consumer products, most people have been exposed to them. Researchers have found PFOA and PFOS in the blood of nearly all the people they tested.

PFAS, or perfluoroalkyl substances, are human-made chemicals used for over 70 years in products resistant to heat and repel water and oil. PFAS compounds have been extensively used for non-stick coatings, stain-resistant carpeting, water-repelling clothing and fabrics, paper packaging for food, metal plating operations, and aqueous fire-fighting foam. Emerging scientific data indicates that PFAS can pose a health risk in high enough concentrations.

During production and use, PFAS can migrate into the soil, water, and air, remaining in the environment over time as they do not break down easily.

In 2006, eight major companies voluntarily agreed to begin to phase out their global production of PFOA and PFOA-related chemicals. As the production of the chemicals dropped, research studies show that the levels of PFOA and PFOS found in blood have decreased. However, they continue to be used in some specialized applications.

The US EPA Health Advisory includes the following statements.
"Drinking water health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to drinking water system operators, as well as federal, state, Tribal, and local officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination."

"EPA's lifetime health advisories identify levels to protect all people, including sensitive populations and life stages, from adverse health effects resulting from a lifetime of exposure to these PFAS in drinking water. They also take into account other potential sources of exposure to these PFAS beyond drinking water (for example, food, air, consumer products, etc.), which provides an additional layer of protection."

The analytical test methods required are exceedingly sensitive. That fact, coupled with the wide range of PFAS uses over the past 70-plus years, means detecting PFAS compounds is nearly certain when sampling ambient rivers and streams. Only since 2021 has the US EPA approved test methods to allow detection at these parts per trillion levels. **There are no analytical test methods capable of detecting PFAS at the parts per quadrillion levels in the new Health Advisories for PFOA and PFOS.** When sampling for PFAS compounds, some of the steps that must be taken to avoid contaminating the sample include:

- A requirement that the sampling staff cannot have eaten at a fast-food restaurant in the last 24 hours. Otherwise, they might have traces of PFAS on their hands from the food wrappers.
- Only certain brands of plastic baggies can be used to wrap the sample bottles because some brands contain PFAS and will contaminate the samples.

Conceptualizing these low concentrations can be a mind-boggling proposition. Consider it this way. Trying to find a concentration of 2.2 parts per trillion, such as the PFOA level found in tap water, is analogous to downloading a Netflix movie and trying to fast-forward through it to find an image that lasts for just a single second, except the movie you are searching through is more than 14,800 years long!

The Health Advisory for PFOA, at 4-parts per *quadrillion*, translates to a single second out of 8,140,000 years!

To put these new Health Advisory levels in perspective, they can be compared against other, more familiar, contaminants. The HA level for PFOA is 500,000 times lower than the Maximum Contaminant Level for mercury, 2,500,000 times lower than the Maximum Contaminant Level for Arsenic, and 25,000,000 times lower than the Maximum Contaminant Level for chromium.

PFAS compounds have been extensively used for over 70 years in applications such as non-stick coatings, stain-resistant carpeting, water-repelling clothing and fabrics, paper packaging for food, metal plating operations, and aqueous fire-fighting foam. Emerging scientific data indicates that PFAS can pose a health risk in high enough concentrations.

Other Iowa communities with PFAS at various levels in their water include Ames, Dubuque, Camanche, Cedar Rapids, Central City, Davenport, Des Moines, Muscatine, Sioux City, Tama, and West Des Moines.