



## CITY OF GALGESBURG

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### **City of Galesburg to Begin Monitoring for PFAS in Drinking Water in Response to Recent EPA Guidance**

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Galesburg, IL (February 1, 2021) The Illinois Environmental Protection Agency (IEPA) recently tested the City of Galesburg water system for compounds known as Per- and Polyfluoroalkyl Substances (PFAS) as part of a statewide study of community water supplies. PFAS are a group of thousands of manmade substances that have been produced in the United States since the 1940s and utilized for a variety of applications ranging from water and stain-proofing to firefighting. Some PFAS have been phased out of production due to environmental and human health concerns, yet they persist in the environment and may contaminate surface and ground waters. Two of the most common compounds within this class, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), stopped being produced in the United States in the early 2000s, but these compounds may still be present in imported goods.

Neither the Illinois EPA nor the U.S. EPA have yet developed enforceable drinking water standards for PFAS. In the interim, Illinois EPA has developed health-based Draft Guidance Levels for the small number of PFAS for which there is appropriate information to do so. Draft Guidance Levels are intended to be protective of all people consuming the water over a lifetime of exposure. It is important to understand that Draft Guidance Levels are not regulatory limits for drinking water. Rather, the Draft Guidance Levels are benchmarks against which sampling results are compared to determine if additional investigation or other response action is necessary.

The Environmental Protection Agency (EPA) is evaluating PFAS and plans to regulate PFAS in the future. Currently, the EPA is gathering data in all the states in order to be able to determine a Maximum Contaminant Level (MCL) and treatment options. As part of that process, the City of Galesburg was notified in September 2020, that the Illinois EPA (IEPA) would be testing community water supplies in Illinois for the presence of PFAS. In November 2020, the State collected initial water samples at Galesburg's water treatment plant, with follow-up samples collected in December 2020.

The City of Galesburg was notified Wednesday, January 27, 2021, that the two water samples that were collected at the Water Treatment plant in November and December 2020, exceeded the proposed Draft Guidance Level (DGL) for PFOA (one subset of PFAS). In response, the City is taking immediate action to inform consumers, initiate monitoring, and evaluate options to reduce exposure levels.

The EPA samples collected in November and December tested for 18 PFAS. Of those 18, the City's results only detected four PFAS, three of which were below the draft guidance level, and one which was above the draft guidance level. The one PFAS which exceeded the draft guidance level was PFOA, Perfluorooctanoic acid, with results of 17 parts per trillion (ppt) in November and 12 ppt in December. The draft guidance level for PFOA is 2 ppt. So far, about 25% of the 1,454 community water supplies in Illinois have been tested, and of those tested thus far, 14 have exceeded the draft guidance level for at least one of the PFAS categories.

As part of the EPA Unregulated Contaminant Monitoring Rule (UCMR) The EPA identified PFAS to be studied, and in 2013 collected samples from the City as part of their initial testing. The 2013 results indicated 23 ppt of PFOS and PFOA combined; however, at that time there was not yet a draft guidance level developed in order to have a scale on which to evaluate the levels identified. Follow-up testing in 2014, indicated PFAS were not detected in the City's water supply. No further testing was conducted by the IEPA between 2014 and 2019, as PFAS are not currently a regulated contaminate.

In 2016, the EPA issued a Health Advisory for PFOA & PFOS for Drinking Water. At that time, the Health Advisory established the health advisory levels at 70 ppt for PFOA and PFOS from drinking water and stated that the health advisory level offered a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water. On January 28, 2021, the IEPA issued a new [PFAS Statewide Health Advisory](#), which provides updated health-based guidance levels.

“Water division personnel are cognizant of the developing study of PFAS and future regulation of PFAS by the EPA, as well as partnering with industry experts to ensure the City adapts to all new regulations to maintain safe drinking water for the community,” said Wayne Carl, Director of Public Works. “The recent release of draft guidance levels of PFAS by the EPA gives a goalpost to shoot for, a tool we did not have prior to the test results received in January.”

Studies indicate that exposures to high levels of PFAS over time may cause adverse health effects. The detection of levels of PFOA that exceed the draft guidance level, does not necessarily indicate a fundamental change in the water quality, but rather new testing in response to emerging research and possible future regulation of PFAS. Citizens concerned about exposure to PFAS in drinking water can minimize the risks by utilizing bottled water that has been tested for PFAS or installing filters or treatment systems certified by the American National Standards Institute (ANSI) or NSF International for the reduction of PFOA and PFOS. Boiling does not destroy PFAS, and research indicates there are not any hazards related to PFAS through bathing or showering, as PFAS is not easily absorbed into the skin.

In accordance with the IEPA recommendation, the City is informing consumers of sample results by distributing the attached letter and PFAS Fact Sheet to all City of Galesburg water customers. This week, the city will begin quarterly testing of all raw water sources and finished water for PFAS. To generate a plan and timeline to reduce exposure to PFAS, the City has contacted a consulting firm that is familiar with treatment processes that will remove PFAS from the water. A proposal will be discussed for the consultant to provide possible water treatment options that would reduce the PFAS level and include cost estimates of each option for consideration.

PFAS in drinking water is not solely a City of Galesburg or region specific concern, as water systems nation-wide can be impacted by PFAS. More information and resources regarding PFAS and the potential impacts can be found on the EPA's website at: <https://www.epa.gov/pfas>.

“At the end of the day, providing safe drinking water to our citizens, while being transparent about any potential shortcomings that have been detected is of the utmost importance to the City of Galesburg,” said Carl. “As advances are made in the study of contaminants, there will always be new information and standards to achieve. The new guidance on PFAS indicates we have work to do in order to lower our levels of PFOAs and intend to start that work immediately.”

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## City of Galesburg

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Dear Water System Customer,

The Illinois Environmental Protection Agency (Illinois EPA) recently tested our water system for compounds known as Per- and Polyfluoroalkyl Substances (PFAS) as part of a statewide investigation of community water supplies. PFAS are a group of thousands of manmade substances that have been produced in the United States since the 1940s and utilized for a variety of applications ranging from water and stain-proofing to firefighting. Some PFAS have been phased out of production due to environmental and human health concerns, yet they persist in the environment and may contaminate surface and ground waters.

Neither the Illinois EPA nor the U.S. EPA have yet developed enforceable drinking water standards for PFAS. In the interim, Illinois EPA has developed health-based Draft Guidance Levels for the small number of PFAS for which there is appropriate information to do so. There is not enough information available to scientists to develop health-based Draft Guidance Levels for most PFAS. Draft Guidance Levels are intended to be protective of all people consuming the water over a lifetime of exposure. It is important to understand that Draft Guidance Levels are not regulatory limits for drinking water. Rather, the Draft Guidance Levels are benchmarks against which sampling results are compared to determine if additional investigation or other response action is necessary.

Illinois EPA testing has determined that one or more PFAS were detected in our water system at values greater than or equal to the Illinois EPA health-based Draft Guidance Levels, as provided in the table below.

PFAS Analyte	Acronym	Draft Guidance Level	Analytical Results (ppt)	
			Sample Collected 11/10/2020	Sample Collected 12/9/2020
Perfluorobutanesulfonic acid	PFBS	0.14 mg/L (140,000 ppt)	6.3	4.9
Perfluorohexanesulfonic acid	PFHxS	0.00014 mg/L (140 ppt)	ND	ND
Perfluorononanoic acid	PFNA	0.000021 mg/L (21 ppt)	ND	ND
Perfluorooctanesulfonic acid	PFOS	0.000014 mg/L (14 ppt)	4.3	3.8
Perfluorooctanoic acid	PFOA	0.000000002 mg/L (2 ppt)	<b>17</b>	<b>12</b>
Perfluorohexanoic acid	PFHxA	0.00056 mg/L (560,000 ppt)	3.5	ND
Hexafluoropropylene oxide dimer acid	HFPO-DA	0.00000056 mg/L (560 ppt)	ND	ND

Our water may contain other PFAS at concentrations greater than or equal to the minimum reporting levels. However, neither the Illinois EPA nor the U.S. EPA currently have Draft Guidance Levels for these additional compounds.

PFAS are present in many consumer goods, including food packaging and personal care products, and scientists have found values of PFAS in blood of nearly all individuals tested. Exposure to high levels of PFAS may cause adverse health effects such as increased cholesterol levels, increased risk for thyroid disease, low infant birth weights, reduced response to vaccines, pregnancy-induced hypertension and increased risk of liver and kidney cancer as seen in studies of laboratory animals. Exposure to PFAS above the recommended Draft Guidance Levels does not guarantee that a person will get sick or an adverse health effect will occur. Draft Guidance Levels are conservative estimates. The possible health effects from PFAS are dependent on how much a person is exposed to and how long they are exposed to it. Exposure to PFAS above recommended Draft Guidance Levels for periods of time may mean that a person is at a greater risk of experiencing these adverse effects.

The City of Galesburg has taken measures to respond to the results of this testing. As a proactive measure(s) to protect our drinking water supply, the City of Galesburg is working to:

- continue to monitor PFAS values through quarterly sampling
- test and identify which water source intake/well is affected
- isolate the affected water source intake to reduce levels
- begin evaluating treatment options and developing a plan to reduce PFAS in potable water

Based on these initial results, the City of Galesburg will perform additional sampling beginning in February 2021 and will keep the community updated and informed.

Additional information regarding PFAS, the statewide PFAS investigation network, and the impact to public health can be found in the attached fact sheet as well as on the Illinois EPA PFAS webpage: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>.

The confirmed sampling results for the City of Galesburg are also available on Illinois EPA's Drinking Water Watch system at <http://water.epa.state.il.us/dww/index.jsp>.

If you have questions, please contact:

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### **What are PFAS?**

Per- and poly-fluoroalkyl substances are a group of thousands of chemicals collectively known as PFAS. Since the 1940s, PFAS have been used in manufacturing, firefighting, water- and oil-resistant products, and many consumer products such as carpet, clothing, cosmetics, and food packaging. Two of the most common compounds within this class, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), stopped being produced in the United States (U.S.) in the early 2000s, but these compounds may still be present in imported goods.

Most people are exposed to these chemicals from water, food, and consumer products. PFAS are very stable and do not break down easily in the environment. They are often referred to as “forever chemicals.”

### **What are the potential health concerns associated with PFAS exposure?**

Studies indicate that exposures to high levels of PFAS contaminated water over time may cause certain adverse health effects. Exposure to PFAS above the recommended Draft Guidance Levels does not necessarily mean that a person will get sick or an adverse health effect will occur. Research on the health effects associated with PFAS is ongoing.

Scientific studies of laboratory animals, as well as studies on human populations exposed to PFOA and PFOS over periods of time, have shown that exposure to PFOA and PFOS above certain levels may result in adverse effects such as:

- increased cholesterol levels
- changes in liver enzymes
- decreased response to vaccines in children
- increased risk of high blood pressure or pre-eclampsia in pregnant women
- small decreases in infant birth weight
- increased risk of kidney or testicular cancer

If you have specific health concerns, please consult your health care professional.

### **What should you do if PFAS have been detected in your drinking water?**

Exposure to PFAS in drinking water can be minimized by

- using bottled water that has been tested for PFAS for drinking, cooking, and preparing infant formula.
- installing filters or treatment systems certified by American National Standards Institute (ANSI) or NSF International for the reduction of PFOA and PFOS. A searchable list is available here: <http://info.nsf.org/Certified/DWTU/>.

Boiling water does not destroy PFAS.

There are no adverse effects from using your water for bathing and showering as PFAS is not easily absorbed into the skin.

## **Background**

The United States Environmental Protection Agency (U.S. EPA) evaluates the presence of emerging and unregulated contaminants in community water supplies on a national basis pursuant to the Unregulated Contaminant Monitoring Rule (UCMR). U.S. EPA uses the data collected from these sample results to establish new drinking water standards known as maximum contaminant levels or MCLs. Traditionally, U.S. EPA develops MCLs that are then adopted by the states and used to determine if additional actions are needed to respond to contaminant concerns in drinking water. U.S. EPA has started the regulatory process for listing MCLs for PFOA and PFOS.

In 2016, U.S. EPA adopted a Lifetime Health Advisory for PFOA and PFOS of 70 parts per trillion (ppt), both individually and combined when both are present. This is a non-enforceable value intended to provide guidance for evaluating unregulated drinking water contaminants.

Given the concern about these unregulated contaminants, Illinois EPA developed health-based Draft Guidance Levels for PFOA, PFOS, and five other PFAS, perfluorobutanesulfonic acid (PFBS), perfluorohexanesulfonic acid (PFHxS), perfluorononanoic acid (PFNA), Perfluorohexanoic acid (PFHxA) and Hexafluoropropylene oxide dimer acid (HFPO-DA) using the procedures from 35 Illinois Administrative Code 620. In 2020, Illinois EPA also initiated a statewide investigation of all community water systems to determine how commonly PFAS can be found in community drinking water supplies. Illinois EPA will compare the analytical results of this testing with the PFAS Draft Guidance Levels to help community water supplies evaluate future actions that may need to be taken. This data will also be used to aid in the development of future regulatory standards in Illinois.

The confirmed sampling results are available on Illinois EPA's Drinking Water Watch system at <http://water.epa.state.il.us/dww/index.jsp>.

## **Additional Information**

Illinois EPA: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

United States Environmental Protection Agency: <https://www.epa.gov/pfas>

Centers for Disease Control and Prevention: [https://www.cdc.gov/biomonitoring/PFAS\\_FactSheet.html](https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html)

Agency for Toxic Substance and Disease Registry: <https://www.atsdr.cdc.gov/pfas/index.html>