Flora Water Works

2021 ANNUAL DRINKING WATER QUALITY REPORT

The water source for the Town of Flora is from a ground water aquifer, located in the Upper Wabash River basin and within the Tipton Till Plain. A water assessment of Flora Water Works was recently completed by the Department of Public Health, Drinking Water Section. The updated assessment report can be found on the Department of Public Health's website: www.dph.state.ct.us/BRS/Water/Source_Protection/Assessments/Assessments.htm. The assessment found that this public drinking water source has a moderate susceptibility to potential sources of contamination. Additional source water assessment information can be found at the Environmental Protection Agency's website: http://www.epa.gov/safewater/protect/swap.html.

The Town of Flora has a Source Water Assessment which is, in our case, called the Wellhead Protection Plan. It deals with Land Use and has a Potential Contamination Source Inventory, which the Town will update as needed. We have adopted Ordinance No. 2005-4 which prohibits well drilling in the Wellhead Protection Area. All information on this Plan is in the Town of Flora's office or you may contact Nick Hoffman at the town shop at 501 N. Division St. or call 574-967-3443.

Flora Water Works ***(Public Water Supply No. IN5208003)*** routinely monitors for constituents in your drinking water according to federal and state laws. The table that follows shows the results of our monitoring for the period beginning January 1 to December 31, 2021. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In the table on the following page you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or ***Milligrams per liter (mg/l)*** - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or ***Micrograms per liter (ug/l)*** - one part per billion corresponds to one minute in 2000 years or a single penny in $10,000,000.
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Millirems per year (mrem/yr) - measure of radiation absorbed by the body.
Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Action Level Goal (ALG) - the level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
Treatment Technique (TT) - a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level - the "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal - the "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum Residual Disinfectant Level (MRDL) - the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG) - the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Test Results

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Contaminant	Measurement	MCLG	MCL	Violate	Likely Source of Contamination
Inorganic Contaminants					
Barium (2020)	.08 ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (7/7/2020)	8 ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (2020)	.92 ppm	4	4	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Copper (2021)	.21 ppm	1.3	AL=1.3	No	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems
Nickel (7/15/2020)	.01 mg/l	0	0.1	No	Possible waste runoff from industry
Lead (2021)	1.6 ppb	0	AL=15	No	Corrosion of household plumbing systems; erosion of natural deposits
Nitrate (as Nitrogen) (7/14/2021)	1.0 ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage
Residual Disinfectant					
Chlorine (2020)	1 ppm	4 (MRDLG)	4 (MRDL)	No	Water additive (disinfectant) used to control microbiological organisms
Radioactive Contaminants					
Beta/photon Emitters (3/7/2017)	2 mrem/yr	0	4	No	Decay of natural and man-made deposits
Uranium (3/7/2017)	.3548 ug/l	0	30	No	Erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides - ND (7/14/2021)					
Volatile Organic Contaminants - ND (7/1/2020)				No	

Disinfection Byproducts & Precursors

Contaminant	Range Detected	MCGL	MCL	Violation	Likely Source of Contamination
Total Haloacetic Acids (2021)	9 ppb	NA	60	No	By-product of drinking water chlorination
Total Trihalomethanes (2021)	5 ppb	NA	80	No	By-product of drinking water chlorination

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Flora Water Works is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4691 or at http://www.epa.gov/safewater/lead.

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4691.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial Contaminants** – such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife
- **Inorganic Contaminants** – such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming
- **Pesticides and Herbicides** – which may come from a variety of sources such as agriculture, storm water runoff, and residential uses
- **Organic Chemicals** – including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems
- **Radioactive Materials** – which can be naturally-occurring or be the result of oil and gas production and mining activities

In order to ensure tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

- **Beta/photon emitters** – certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- **Alpha emitters** – certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
- **Barium** – some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
- **Copper** – copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
- **Cadmium** – some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
- **Fluoride** – some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.
- **Lead** – infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
- **Nitrate** – infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

  Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

  Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800) 426-4691.

Please call our office if you have questions.

According to Nick Hoffman, *"We at Flora Water Works work around the clock to provide top quality water to every tap. We ask all our customers help us protect our water sources, which are the heart of our community. Please keep watch for any strange vehicles around our water plant area and notify us in that event. Our way of life and our children's future depend on everyone being aware of their surroundings."*

WATER QUALITY REPORT

Flora Water Consumer,

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the water quality and services we deliver to you every day.

Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

I'm pleased to report that our drinking water is safe and meets federal and state requirements. We tested for VOCs and IOCs in 2020, and SOC's, Lead, and Copper in 2021. We test every day for Chlorine, and yearly for Haloacetic Acids and Trihalomethanes. I change the test results every year on this report (as needed), so please read it carefully. You may also view this report and print additional copies by visiting the town's website at www.townofflora.org.

If you have any questions about this report or concerning your water utility, please contact Nick Hoffman at 574-967-3443 or the Utilities Office at 574-967-4844. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings.

Meetings are held on the first Monday of the month at 6:00 p.m. at the Utilities Office, 4 East Main Street, Flora, Indiana 46929.

Nick Hoffman
Flora Water Works

This water quality report is being provided to you as a service required by federal and state laws.

WATER CONSERVATION TIPS

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a five minute shower uses four to five gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons per month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons per month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons per month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. It it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons per month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during to cooler part of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce your next month's bill!
- Visit www.epa.gov/watersense for more information.