
Village of West Jefferson

Consumer Confidence Report



**Ohio Environmental Protection Agency
Division of Drinking and Ground Waters**

www.epa.ohio.gov/ddagw

Village of West Jefferson
Drinking Water Consumer Confidence Report
For 2021

Introduction

The Village of West Jefferson Water Treatment Plant went through a plant upgrade beginning in 2018. These improvements included adding two additional reverse osmosis skids for a total of four, adding two sand filters for a total of four, a larger high service clear well, a new booster pump station, and a new SCADA (Supervisory Control and Data Acquisition) system.

The Village of West Jefferson has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water, and water system contacts.

Source Water Information.

The West Jefferson Water Treatment Plant, located at 199 Taylor Blair Road, receives its drinking water from 4 wells adjacent to the northeast corner of the water plant. After the water comes out of the wells, it is aerated to oxidize iron and manganese. Once oxidized, the iron, manganese, and other particulates are removed through sand filtration. The water is then softened by reverse osmosis (R.O.). This process removes hardness-causing ions (calcium and magnesium), and many other contaminants. Chlorine is then added for disinfection.

The aquifer that supplies drinking water to the Village of West Jefferson has a high susceptibility to contamination. This is due to the sensitive nature of the aquifer in which the drinking water wells are located and the existing identified potential contaminant sources. Although the production aquifer is deep, the surface deposits provide limited protection to the aquifer as seen by the elevated sodium and chloride levels detected in the Village's wells. The presence of potential contaminant sources indicates a potential for further contamination to impact the drinking water supply. Future contamination may be avoided by implementing protective measures.

The Village of West Jefferson has identified 13 potential contaminant sources that lie within the determined wellhead/source water protection area for the Wellfield, one of which is located within the inner management zone (or one year's time-of-travel zone). Some of the types of potential contaminant sources present are underground storage tanks, sanitary sewers, and septic systems.

The Village of West Jefferson currently has an unconditional license to operate its water system. A source water assessment study was completed in 2006 and a copy of the full report is available for public inspection. The report can be accessed at the Water Department located at 28 E. Main Street, or by calling the Public Service Director at 614-879-8655.

What are sources of contamination to drinking water?

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 the 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amounts of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

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 infection. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water.

The EPA requires regular sampling to ensure drinking water safety. The Village of West Jefferson conducted sampling for bacteria, chlorine, volatile organic compounds (VOC), Inorganic Compounds, and disinfection byproducts (haloacetic acids, and total trihalomethanes) during 2021. Samples were

collected for a total of 49 different contaminants, most of which were not detected in the Village of West Jefferson’s water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

Table of Detected Contaminants

Listed below is information on those contaminants that were found in the Village of West Jefferson drinking water.

The Village of West Jefferson sampled both raw and finish water for chromium hex 6 in 2020. This testing is not required by OEPA. All testing came back < 0.010 mg/l. There is no limit set for the state of Ohio at this time.

In 2020, our PWS was sampled as part of the State of Ohio’s Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled and none were detected in our finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Radioactive Contaminants							
Gross Alpha Radioactivity (pCi/L)	N/A	15	3.2 pCi/L	N/A	NO	2018	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Inorganic Contaminants							
Fluoride (ppm)	4.0 ppm	4.0 ppm	0.42 ppm	N/A	NO	2021	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories

Barium (ppm)	2 ppm	2 ppm	.0223 ppm	N/A	NO	2021	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	4	4	.0002 ppm	N/A	NO	2021	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate	10	10	.535 ppm	N/A	NO	2021	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Residual Disinfectants							
Chlorine (ppm)	4 ppm	4 ppm	0.912	0.75 to 1.14	NO	2021	Water additive used to control microbes
Disinfection Byproducts							
THM (ppb)	N/A	80 ppb	17.0 ppb	12.8 to 17.0	No	2021	Byproduct of drinking water disinfection
HAA5 (ppb)	N/A	60 ppb	2.6 ppb	0 to 2.6	NO	2021	Byproduct of drinking water disinfection

Lead and Copper						
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Copper (ppm)	1.3 ppm	NA	0.115 ppm	NO	2020	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems
	___0___ out of ___20___ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

Lead Educational Information

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. The Village of West Jefferson 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, a request can be made 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791)

Radon

The Village of West Jefferson monitored for radon in the finished water during 2018. Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS RADON.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of the Village Council that meets the 1st and 3rd Monday of each month. For more information on your drinking water contact John Mitchell at 614-879-8655.

Definitions of some terms contained within this report.

- Maximum Contaminant Level Goal (MCLG): 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 Contaminant level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- 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 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- Contact Time (CT) means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).
- Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- Cyanobacteria: Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- Cyanotoxin: Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as “algal toxin”.
- Level 1 Assessment is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment is a very detailed study of the water system to identify potential problems and

determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

- Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- The “<” symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.
- Picocuries per liter (pCi/L): A common measure of radioactivity.