

LEETONIA PUBLIC WORKS

2017 ANNUAL DRINKING WATER REPORT

The Village of Leetonia 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.

WATER SOURCE

The Village of Leetonia started receiving all its drinking water from the City of Salem, Ohio, on August 18, 2008 which is treated surface water from Cold Run Creek, Salem East Cold Run Reservoir, Spring Valley Reservoir and three ground water wells. Our drinking water is purchased on a daily basis through a master meter located at the intersection of Butcher Road and Lisbon Canfield Road.

A Source Water Assessment Plan (SWAP) is available at our water office and online at <http://wwwapp.epa.ohio.gov/gis/swpa/OH1502011.pdf> (copy and paste in browser.) For the purpose of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from the source to the intake. Based on the information compiled for this assessment, the City of Salem's surface water source protection area is susceptible to agricultural runoff, cattle grazing with direct access to the surface waters, failing on-site septic systems, wastewater treatment plant discharges, and potential 9 spillage/seepage from oil and gas wells and commercial sites. In addition, the source water is susceptible to contamination through motor vehicle accidents or spills at sites where streams are crossed by roads. Surface water is generally much more susceptible to contamination than ground water, and the aquifer used by the City of Salem water system has a degree of protection from an overlying confining layer. Combined systems, such as Salem's, mix surface water and ground water together before distributing to the public. In these cases, for the sake of being protective, the susceptibility rating for the Salem water system is high. It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses, and other activities that are potential sources of contamination may change with time. While the source water for the City of Salem Public Water System is considered susceptible to contamination, historically, the Salem Public Water System has effectively treated this source water to meet drinking quality standards.

The Village of Leetonia, Ohio Public Water Supply meets or exceeds established "Water Qualities Standards" of the federal Safe Drinking Water Act (SDWA) requirements for "Consumer Confidence Reports" and the report contains information on the source of our water, its constituents, and the public health risks associated with the constituents if found in violation of the federal and state standards as mandated by the Safe Drinking Water Act (SDWA). Safe water is vital to our community. Please read this report carefully and if you have any questions, call the person(s) at the numbers listed below.

What are sources of contamination to drinking water?

The sources of drinking water (both tap water and bottled water) includes 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 amount 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 Environmental Protection Agency 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. USEPA/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).

Description of Water Treatment Process

Your water is treated in a “treatment train” (a series of processes applied in a sequence) that includes coagulation, flocculation, sedimentation, filtration, and disinfection. Coagulation removes dirt and other particles suspended in the source water by adding chemicals (coagulants) to form tiny sticky particles called “floc”, which attract the dirt particles. Flocculation (the formation of larger flocs from smaller flocs) is achieved using gentle, constant mixing. The heavy particles settle naturally out of the water in a sedimentation basin. The clear water then moves to the filtration process where the water passes through sand, gravel, charcoal or other filters that remove even smaller particles. A small amount of chlorine or other disinfection method is used to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water before water is stored and distributed to homes and businesses in the community.

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The **Village of Leetonia** conducted sampling for *bacteria, total chlorine, trihalomethanes, and haloacetic acids* during 2017. Samples were collected for a total of 4 different contaminants most of which were not detected in the Leetonia 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, are more than one year old.

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported below the Salem Water Plant highest recorded turbidity result for 2017 was 0.08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

Lead 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 Leetonia Water Dept. 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 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

We have a current, unconditioned license to operate our water system from OEPA. Our PWS ID number is OH 1501412.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Village Council which meets the **first and third Wednesday** every month. For more information on your drinking water contact **Butch Donnalley at 330-427-8087**.

Listed in the following table is information on those contaminants that were found in the **Leetonia/Salem** drinking water.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG or MRDL	MCL, TT or MRDL	Level Found	Range of Detections Low High		Violation	Sample Year	Typical Source of Contaminants
Bacteriological Samples taken by Leetonia Water Dept. in Leetonia Distribution System								
Total Coliform Bacteria (# of positive samples)	0	1	0	N/A		No	2017	Naturally present in the environment
Inorganic Contaminants Samples Taken at Salem Water Plant by Salem								
Fluoride	4	4	1.04	0.76	1.30	No	2017	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	1.25	<0.10	1.25	No	2017	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Barium	2	2	0.015	N/A	N/A	No	2017	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Filtration Samples taken at Salem Water Plant by Salem								
Turbidity (NTU)	N/A	TT	<0.3	N/A		No	2017	Soil runoff
100% of the turbidity samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.070. Any measurement in excess of 1 is a violation unless otherwise approved by the state.								
Total Organic Carbon [TOC] % removal)	N/A	TT	1.88	1.67	2.86	No	2017	Naturally present in the environment
The value reported under "level found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value greater than 1 indicated that the water system is in compliance with TOC removal requirements. A value less than one indicated a violation of the TOC removal requirements.								
Disinfection by-Products taken in Leetonia Distribution by Leetonia								
Total Trihalomethanes [TTHM] (ppb)	0	80	55.65	35.0	79.2	No	2017	By-product of drinking water disinfection
Haloacetic Acids[HAA5](ppb)	0	60	45.32	19.4	57.3	No	2017	By-product of drinking water disinfection
Residual Disinfectants Sample Taken in Leetonia Distribution by Leetonia								
Chlorine (ppm)	4	4	1.3	0.200	2.200	No	2017	Water additive used to control microbes
Lead and Copper taken in Leetonia Distribution by Leetonia								
Contaminants (Units)	Action Level	Individual Results over the AL	90% of test levels were less than		Violation	Year Sampled	Typical Source of Contaminants	
Lead (ppb)	15	NA	<0.010		No	2016	Corrosion of household plumbing systems, erosion of natural deposits	
0 samples out of 10 were found to have lead levels in excess of the lead action level of 15 ppb.								
Copper (ppm)	1.3	NA	0.068		No	2016	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
0 samples out of 10 were found to have copper levels in excess of the copper action level of 1.3 ppm.								

Synthetic Organic Contaminants including Pesticides and Herbicides Taken at Salem Water Plant by Salem								
Simazine	4	4	0.63	N/A	N/A	No	2017	Herbicide runoff
Radioactive Contaminants Taken at Salem Water Plant by Salem								
Gross Alpha (pCi/l)	0	15	4.29	N/A	N/A	No	2014	Erosion of natural deposits

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.

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 (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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.

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.

Removal Ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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.