

Kelleys Island Water

Drinking Water Consumer Confidence Report For 2020

The Kelleys Island Water Treatment Plant 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. We are proud to report that the water provided by Kelleys Island Water meets or exceeds all established water quality standards.

Source Water Information

The Kelleys Island public water system uses surface water drawn from an intake 600 feet out in Lake Erie. For the purposes of source water assessments in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens with little or no warning or time to prepare. The Kelleys Island Water Treatment plant source water contains potential contaminant sources such as discharges of industrial wastewater and inadequately treated residential sewage. Runoff containing nitrates and pesticides from agricultural and landscaped areas may also impact the source waters. Recreational and commercial boating traffic poses a threat of fuel and oil spills.

Copies of the source water assessment report prepared for Kelleys Island Water are available by contacting Brandon Evans at 419.746.2555

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 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 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 Kelleys Island Water Treatment plant conducted sampling for bacteria, inorganic, synthetic organic, and volatile organic contaminants during 2020. Samples were collected for a total of approximately 68 different contaminants, most of which were not detected in the Kelleys Island Water Treatment 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. Listed below is information on those contaminants that were found in the Kelleys Island Water Treatment plant's drinking water.

Monitoring and reporting violations

The Village of Kelleys Island was in violation for failure to report water quality parameter sampling to Ohio EPA within 10 days following the end of the month in which the system received the sample results. Water quality parameter monitoring was collected in May 2020 but was not reported to Ohio EPA until June 18, 2020. Therefore, the distribution WQP data was reported late for the January – June 2020 monitoring period. Protocol has been established to ensure on time reporting in the future.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Turbidity NTU	N/A	TT	.08	.03 to .08	No	2020	Soil Runoff
Turbidity (% meeting standards)	N/A	TT	100 %	100 %	No	2020	Soil Runoff
Total Organic Carbon mg/L	N/A	TT Removal >1	1.33	.38 to 1.93	No	2020	Naturally present in the environment
Inorganic Contaminants							
Nitrate mg/L	10	10	1.53	>.5 to 1.34	No	2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Cyanide Mg/L	0	2	.003	.003	No	2020	Industrial processes and publicly owned wastewater treatment facilities
Volatile Organic Contaminants							
TTHM's ug/L (Total Trihalomethanes)	N/A	80	57.8	42.5 to 94.7	No	2020	By-product of drinking water chlorination
HAA5 ug/L (Haloacetic Acids)	N/A	60	30.65	13.4to 47.9	No	2020	By-product of drinking water chlorination
Tetrachloroethylene ug/L	0	5	.3	<.03 to 1.0	No	2020	Discharge from factories and dry cleaners
Ethylbenzene Ug/L	700	700	.8	<.08 to 1.2	No	2019	Discharge from petroleum factories change
Xylenes Mg/L	10	10	.006	0 to .0011	No	2020	Discharge from petroleum factories, discharge from chemical factories
Residual Disinfectants							
Chlorine mg/L	MRDL 4	MRDLG 4	1.24	1 to 1.45	No	2020	Water additive used to control microbes

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
Lead (ppb)	15 ppb	N/A	<5	No	2020	Corrosion of household plumbing
	0 out of 10 samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3 ppm	N/A	.124	No	2020	Corrosion of household plumbing
	0 out of 10 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

TOC values

The value reported under "Level Found " for Total Organic Carbon (TOC) is the lowest ratio between the percent of TOC actually removed to the percent of TOC required to be removed. A value of greater than (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than (1) indicates a violation of TOC removal requirements.

Turbidity

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Kelleys Island Water Treatment Plants highest recorded turbidity result for 2020 was .08 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100 %.

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 Kelleys Island Water Treatment plant 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 drinking 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>.

License to Operate (LTO) Status Information

In 2020 we had an unconditioned license to operate our water system.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of the Kelleys Island Village council which meets monthly at Town Hall. May through September meetings are held on the second Thursday at 7 PM. October through March meetings are held on the second Saturday at 10 AM. For more information on your drinking water contact Brandon Evans at 419.746.2555

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".
- 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.