Beaver Dam Municipal Water
Water Quality Report for year 2019

KY0920025

309 West 2nd Street
Beaver Dam, Kentucky 42320
Meetings: Beaver Dam City Hall
Meeting Dates and Time: 2nd Monday of each month 6:00 PM

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Water - Essential for Life

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

Our water source is a combination of surface water and ground water. Your water is supplied by the Ohio Co. Water District and two wells, classified as ground water, operated by Beaver Dam Municipal Water. Ohio County District draws surface water from the Green River. An analysis of Ohio County's water supply indicates that susceptibility is generally moderate. However,there are a few areas of high concern. Potential contaminant sources of concerninclude on major road andstatewide coverage of row crops. The complete plan for the District is available at their office during regular business hours. An analysis of the susceptibility to contamination of the wells operated by Beaver Dam Municipal indicates that susceptibility is generally moderate. These wells are classified as ground water. Potential contaminant sources ofconcern include roads and fuel storage. Information on both system's source water is available from Green River Area Development Office, located at 300 GRADD Way, Owensboro. Kentucky 42301. (270) 926-4433.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may 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, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities).

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

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

Some or all of these definitions may be found in this report:

Maximum Contaminant Level (MCL) - 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 (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 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.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

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, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in $10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

Treatment Technique (TT) - a required process intended to reduce the level of a contaminant in drinking water.

Information About Lead:

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. Your local public water system 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 or at http://www.epa.gov/safewater/lead.

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

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.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old. **Copies of this report are available upon request by contacting our office during business hours.** A= Ohio Co. W.D. B= Beaver Dam

Regulated Contaminant Test Results — Beaver Dam Municipal Water & Sewer

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Inorganic Contaminants								
Barium [1010] (ppm)	2	2	A= B=	0.032 0.035	0.032 to 0.032 0.035 to 0.035	Aug-2019 Aug-2017	No No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	A= B=	0.62 0.2	35 to 0.62 0.2 to 0.2	Aug-2019 Aug-2017	No No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	A= B=	1.4 0.2	1.4 to 1.4 0.2 to 0.2	Feb-2019 Aug-2019	No No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectants/Disinfection Byproducts and Precursors								
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	A=	2.26	1.14 to 3.34	2019	No	Naturally present in environment.
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.								
Chlorine (ppm)	MRDL = 4	MRDLG = 4	B=	1.38 (highest average)	0.41 to 2.07	2019	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	B=	41 (average)	0 to 73 (range of individual sites)	2019	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	B=	50 (average)	0 to 101 (range of individual sites)	2019	No	Byproduct of drinking water disinfection.
Household Plumbing Contaminants								
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	B=	0.204 (90^{th} percentile)	0.0257 to 0.398	2019	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	B=	2 (90^{th} percentile)	0 to 2	,2019	No	Corrosion of household plumbing systems

Other Constituents						
Turbidity (NTU) TT * Representative samples	**Allowable Levels**	**Source**	**Highest Single Measurement**	**Lowest Monthly %**	**Violation**	**Likely Source of Turbidity**
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% monthly samples	A=	0.1	100	No	Soil runoff

Unregulated Contaminants (UCMR 4)		**average**	**range (ppb)**	**date**
Manganese	A=	2.48	2.34 to 2.62	April-2019
HAA5	A=	64.775	44.3 to 89	July-2019
HAA6Br	A=	7.904	5.32 to 0.3	July-2019
HAA9	A=	72.513	50.8 to 99.5	July-2019

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

This report will not be sent to individual customers. It will be available at City Hall.

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

Secondary Contaminant	Maximum Allowable Level		Report Level	Range of Detection	Date of Sample
Aluminum	0.05 to 0.2 mg/l			to	
Chloride	250 mg/l			to	
Color	15 color units			to	
Copper	1.0 mg/l			to	
Corrosivity	Noncorrosive			N/A	
Fluoride	2.0 mg/l			to	
Foaming Agents	0.5 mg/l			to	
Iron	0.3 mg/l			to	
Manganese	0.05 mg/l			to	
Odor	3 threshold odor number			to	
pH	6.5 to 8.5			to	
Silver	0.1 mg/l			to	
Sulfate	250 mg/l			to	
Total Dissolved Solids	500 mg/l			to	
Zinc	5 mg/l			to	

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.