

About Your Drinking Water

The EPA requires regular sampling to ensure water safety. The City of Nelsonville Water Treatment Plant conducted sampling for bacteria, inorganic, radiological, synthetic organic, and volatile organic contaminants. The Ohio EPA requires monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data, though accurate, is more than one year old.

Disinfectants and Disinfection By-Products	Detection Date	Highest Level of Detection	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids	2015	15.3	6.7-22.6	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes	2015	83.3	24.3-122.0	No goal for the total	80	ppb	Y	By-product of drinking water chlorination.
Inorganic Compounds	Collection Date	Highest Level of Detection	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	2015	0.94	0.32-1.09	4	4	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2015	0.49	n/a	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	2011	0.06	n/a	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Selenium	2011	8.2	n/a	50	50	ppb	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

The EPA requires additional sampling after the potable water is purchased from the City of Nelsonville. Listed below is information on those contaminants that were found in The Buchtel Water District drinking water. The Buchtel Water District samples chlorine levels on a daily basis to ensure drinking water safety. We are also required to sample one bacterial sample monthly with results in 2015 being safe.

Disinfectants and Disinfection By-Products	Detection Date	Highest Level of Detection	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids	2015	20.9	14.4-20.9	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes	2015	86.7	77.6-86.7	No goal for the total	80	ppb	Y	By-product of drinking water chlorination.
Lead and Copper	Collection Date	90 th Percentile	# of Samples Over AL	MCLG	Action Level (AL)	Units	Violation	Likely Source of Contamination
Copper	2013	0.629	0	1.3	1.3	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2013	0.005	0	0	15	ppm	N	Corrosion of household plumbing systems; Erosion of natural deposits.
Inorganic Contaminants	Collection Date	Level	# of Samples	MCLG	MCL	Range of Detection	Violation	Likely Source of Contamination
Total Chlorine Residual	2015	0.6	12	4MRDLG	4MRDL	0.5-0.7	N	Drinking water chlorination.

Definitions of Terms:

Maximum Contaminant Level or 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.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

Action Level Goal or 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.

Maximum Contaminant Level Goal or 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.

Source Water:

The Buchtel Water District purchases its potable water from The City of Nelsonville Water Treatment Plant. Nelsonville currently has three water wells located along the Hocking River providing an adequate source of water to be treated. The treatment plant is designed for 1.41 million gallons per day. Their present average daily flow is 734,000 gallons.

The Ohio EPA recently completed a study of Nelsonville's source of drinking water, to identify potential contaminant sources and provide guidance on protecting the drinking water source. According to this study, the aquifer that supplies water to the Nelsonville Water System has a high susceptibility to contamination. This determination is based on the following:

- Lack of a protective layer of clay overlying the aquifer;
- Shallow depth (less than 20 feet below ground surface) of the aquifer;
- Presence of significant potential contaminant sources in the protection area;
- The presence of man-made contaminants in treated water.

This susceptibility means that under currently existing conditions, the likelihood that the aquifer may become contaminated is relatively high. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers can do to help protect the aquifer is available by calling 740.753.1314.

Did You Know...?

Water makes up about **70%** of a human's body weight.

In one year, the average American residence uses over **100,000** gallons.

By the time you feel thirsty, your body has lost more than **1%** of its total water.

About **6,800** gallons of water is required to grow a day's food for a family of **4**.

Approximately **80%** of your brain tissue is made of water, which is about the same percentage of water found in a living tree.

Approximately **400 billion** gallons of water are used in the United States per day.

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