CITY OF LOVELAND
2021 DRINKING WATER CONSUMER CONFIDENCE REPORT

ORIGIN OF OUR WATER – Water for the City of Loveland is pumped from the ground at the wellfield at BettyRay. The City of Loveland has a current unconditioned license to operate our water system, License number OH1300812. It is a Class II facility with four licensed operators on staff. There are three wells at that location, each of which is capable of producing 1,300 GPM (gallons per minute). Each well is approximately 85 feet deep and taps into a natural aquifer (an aquifer is an underground formation of sand, gravel and rock where water fills empty spaces). These wells are capable of producing 5,000,000 gallons of groundwater a day. The water is treated on site with chlorine and fluoride before it is pumped to consumers. The City of Loveland has emergency interconnections with the City of Cincinnati and Clermont County.

WATER QUALITY CHARACTERISTICS – The City of Loveland drinking water met all Ohio EPA standards. Although our water is tested daily, weekly, and monthly for many contaminants, some testing is required infrequently. For example, the testing frequency for many inorganic contaminants is every three years. If a contaminant was not tested for in 2021 but was detected within the past five years, the testing date would be listed in the table under the "Year Sampled" column. All testing data represents the most recent testing in accordance with regulations. Enclosed is a table of contaminants of treated water from the Water Treatment Plant. Abbreviations included in the table are defined as follows. **MCL** (maximum contaminant level) – 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. **MCLG** (maximum contaminant level goal) – 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. **AL** (action level) – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow. **ppm** – parts per million or milligrams per liter. **ppb** – parts per billion or micrograms per liter. **pCi/L** – Picocuries per liter. **MRDLG** (maximum residual disinfectant level goal) – the level of residual disinfectant below which there is no known or expected risk to health. **MRDL** (maximum residual disinfectant level) – the highest disinfectant level allowed.

SOURCES OF CONTAMINATION TO DRINKING WATER - According to the Ohio EPA, "The sources of drinking water, both tap 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, EPA 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's Safe Drinking Water Hotline (1-800-426-4791)."

HEALTH CONCERNS - According to the Ohio EPA, "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)."

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 City of Loveland 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. The City of Loveland's potable water did NOT exceed required action levels in 2021.

COMMUNITY INPUT – Loveland City Council would like to hear your comments and concerns about the City's drinking water system. Council meetings are held at 7:00 PM on the second and fourth Tuesdays of each month. The meetings are held Loveland City Hall, 120 W. Loveland Avenue. Those who wish to address Council may sign up prior to the start of each meeting and will be given the opportunity to comment.

You are also invited to contact Scott Wisby, Public Works Director at (513) 707-6115 for water quality or pressure information. For after-hours emergencies, please call the dispatcher at (513) 677-7000. To request water and sewer service or for billing inquiries, please call (513) 683-0150, Ext. 1012.

SUSCEPTIBILITY ANALYSIS - The Ohio EPA has completed a study on Loveland's drinking water source to identify potential contaminants and provide guidance on protecting the drinking water source. According to this study, the aquifer that supplies water to the City of Loveland has a high susceptibility to contamination. This determination is based on the following: 1) lack of a protective layer of clay/shale/or other low permeability material overlying the aquifer; 2) shallow depth (less than 20-30 feet below ground surface) of the aquifer; 3) and the presence of manmade contaminants in treated water. Nitrates have been detected in the treated water, an impact from land use activities, but the concentrations are well below the federal and state drinking water standard of 10 ppm. The risk of future contamination 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 Scott Wisby, Public Works Director, at (513) 707-6115.

UCMR SAMPLING – Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In February, 2020 the City of Loveland participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). The following table contains information on contaminants that were detected during UCMR4 sampling. For a copy of all results please call Bill Eubanks at 513-774-3066.

Table of Unregulated Contaminants

Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location
Haloacetic Acids (HAA5) (ppb)	2020	3.57	3.15-3.99	Distribution
Haloacetic Acids (HAA9) (ppb)	2020	9.09	8.63-9.55	Distribution
Haloacetic Acids (HAA6Br) (ppb)	2020	11.12	10.35-11.89	Distribution

CONSTRUCTION PROJECTS – In 2021 the City replaced a water main on Main St. between Riverside Dr. and Hill St., as well as along Hill St. and Chestnut St. Also in 2021, the City added 5 insert valves on existing water mains located in the Heights subdivision.

2021 PFAS SAMPLING – In 2021, our PWS was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Results from this sampling indicated PFAS were detected in our drinking water below the action level established by Ohio EPA. Follow up monitoring is being conducted. For more information about PFAS, and to view our latest results, please visit pfas.ohio.gov.

Ohio PFAS Action Levels

PFAS Compound	PFOA	PFOS	GenX	PFBS	PFHxS	PFNA
Action Level in parts per trillion (ppt)	> 70 single or combined with PFOs	> 70 single or combined with PFOA	> 700	> 140,000	> 140	> 21

Loveland only found one PFAS compound in its finished drinking water. PFOA was found in entry point samples.

Level found 14 ppt
Range of detections – N/A

2021 WATER QUALITY CONTAMINANTS – CITY OF LOVELAND								
Contaminant	Units	Range Detected	Level Found	MCL	MCLG	Violation	Year Sampled	Typical Sources of Contamination
Disinfection Byproducts								
Total Trihalomethanes	Ppb	16.6-20.7	20.7	80	0	No	2021	By-product of drinking water chlorination
Bromoform	Ppb	0.92-1.07	1.07	Unregulated	Unregulated	No	2021	By-product of drinking water chlorination
Chloroform	Ppb	5.32-7.28	7.28	Unregulated	Unregulated	No	2021	By-product of drinking water chlorination
Dibromochloro-Methane	Ppb	4.3-4.81	4.81	Unregulated	Unregulated	No	2021	By-product of drinking water chlorination
Bromodichloro-methane	Ppb	6.09-7.49	7.49	Unregulated	Unregulated	No	2021	By-product of drinking water chlorination
Haloacetic acids (HAA)	Ppb	6.67-6.73	6.73	60	0	No	2021	By-product of drinking water disinfection
Synthetic Organic Contaminants								
Alachlor	Ppb	N/A	<0.1	2	0	No	2020	Runoff from herbicide used on row crops
Atrazine	Ppb	N/A	<0.07	3	3	No	2020	Runoff from herbicide used on row crops
Simazine	Ppb	N/A	<0.05	4	4	No	2020	Herbicide Runoff
Residual Disinfectants								
Total Chlorine	Ppm	.64 – 0.89	.84	MRDL = 4	MRDLG = 4	No	2021	Water additives used to control microbes
Inorganic Contaminants								
Copper*	Ppm	N/A	.92	AL=1.3	1.3	No	2021	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
	Zero samples out of thirty were found to have a copper level in excess of the Action Level of 1.3 ppm							
Lead*	Ppb	<1-85.9	10.9	AL=15	0	No	2021	Corrosion of household plumbing systems; erosion of natural deposits
	One sample out of thirty was found to have a lead level in excess of the Action Level of 15 Ppb (85.9).							
Fluoride	Ppm	.85 – 1.28	1.09	4	4	No	2021	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	Ppm	N/A	0.92	10	10	No	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium	Ppm	N/A	0.09	2	2	No	2020	Discharge of drilling waste, discharge of metal refineries, erosion of natural deposits
Nitrite was not detected in 2021.								
Radioactive Contaminants								
Alpha Emitters	pCi/l	N/A	3	15	0	No	2020	Erosion of natural deposits
Combined Radium	PCi/l	N/A	0.90	5	0	No	2020	Erosion of natural deposits