City of New Carlisle Water Division
2019 Drinking Water Consumer Confidence Report

The Consumer Confidence Report
The City of New Carlisle Water Division, in compliance with the 1996 amendments to the USEPA Safe Drinking Water Act, have 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. In 2019 we conducted over 4,000 tests for different contaminants that may occur in drinking water. The City of New Carlisle management staff and the New Carlisle Water Division are dedicated to providing clean and safe water for the residents and businesses of our community. In 2019, we had a current, unconditioned license to operate our water system.

Your Water Supply
Your drinking water originates from deep wells that penetrate various deposits of sand and gravel that fill a glacier-scoured valley, called an aquifer. The wellfield, located north and east of the Water Treatment Plant at 434 N. Main Street, is bounded on the surface by a shopping center, Main Street, and other commercial and residential areas. However, beneath the surface, the water supply encompasses a much larger area underground, extending a few miles to the north. Because aquifers such as this one are sensitive to contamination, many communities such as New Carlisle have implemented wellhead protection programs to safeguard the water source from various contaminants. You may have noticed that the New Carlisle wellfield and its water recharge zone are now posted with signs that identify the approximate water recharge area boundaries.

Susceptibility Analysis
The Aquifer that supplies drinking water to the City of New Carlisle has a high susceptibility to contamination. This determination was made because of the following reasons.

- Water quality results indicate the presence of volatile organic compounds and elevated nitrate concentrations, implying a pathway exists from the ground surface to the aquifer;
- Discontinuous clay layers are present within the aquifer, providing little to no protection from contaminant transport from the ground surface to the aquifer; and
- Potential significant contaminant sources exist within the protection area. Water quality data collected to meet public water supply requirements provide a direct measurement for the presence of contamination in drinking water. Water quality data were evaluated using the drinking water compliance database and the ambient ground water monitoring network database available at Ohio EPA. Compliance samples collected since 1993 have shown nitrate concentrations above the concentration of concern (2 mg/L) on 17 occasions in the raw and treated water, with concentrations ranging from 2.13 mg/L to 4.6 mg/L. These are below the maximum contaminant level (MCL) of 10mg/L. Compliance samples collected from 1991 through 1999 showed detectable concentrations of 1,1,1-trichloroethane on nine occasions in the raw (untreated) water samples, with concentrations ranging from 0.6 to 1.6 ug/L. These concentrations are well below the maximum contaminant level (MCL) of 200 ug/L. The City of New Carlisle has identified twenty potential contaminant sources that are located within the determined wellhead/source water protection area for the wellfield, twelve of which are located within the inner management zone, or one-year time-of travel zone. The sources include agricultural areas, septic tanks, various chemicals, above ground and underground storage tanks, a golf course, auto body shops, and roadways.

In summary, water quality results indicate that the City of New Carlisle's source of drinking water has shown the presence of volatile organic compounds above the detection limit and the presence of nitrate above the concentration of concern. Therefore, the likelihood for New Carlisle's source of drinking water to have future impacts is high and it is critical that potential contaminant sources are handled carefully with the implementation of appropriate protective strategies. The City of New Carlisle is currently working to complete their Ground Water Source Protection Program. For more information or for a copy of the report please contact Bob Hoke, Water Superintendent for the City of New Carlisle, at 937-845-3059.

What are the sources of contamination to drinking water?
The sources of drinking water for 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 before we treat it at the Water Treatment Plant 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).

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 quality
The EPA requires regular sampling to ensure drinking water safety. The New Carlisle Water Division conducted sampling for bacteria, inorganic, synthetic organic contaminants (SOC), volatile organic contaminants (VOC), nitrate, and radiological samples during 2019 and previous years. During those years, samples were collected to test for a total of 92 different contaminants, most of which were not detected in the New Carlisle 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.

Monitoring and reporting violations.
There was no monitoring violation in 2019

Lead Educational Information
The New Carlisle Water Department was required to test for lead and copper throughout the distribution system in 2018. We are pleased to report that neither the lead nor copper results exceeded the "action level". 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 New Carlisle Water Department 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.

Nitrate
The New Carlisle Water Department is required to test for Nitrate levels in Drinking Water. While our levels are low, Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly in short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask advice from your health care provider.

About Radon
The New Carlisle Water and Sewer Department monitored for radon in the finished water during 2011; one sample was collected and the radon level was 2.36 pCi/l. Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer, however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS RADON.

How do I participate in decisions concerning my drinking water?
Public participation and comment are encouraged at regular meetings of the New Carlisle City Council that meets on the first and third Mondays of each month at 7:00PM. The meetings have been recently held at the new shelter house located in Smith Park. Please call the City offices at (937) 845-9492 for exact times and meeting locations. The New Carlisle City offices are located at 331 S. Church Street, and the mailing address is City of New Carlisle, P.O. Box 419 New Carlisle, Ohio, 45344. Or at http:/www.newcarlisle.net

For more information
If you would like more information concerning your drinking water, or if you have questions concerning this report, contact:

- Robert Hoke, WTP Superintendent (937) 845-3059, or
- Harvey Simmons, WWTP Superintendent/Laboratory Manager at (937) 845-0814, or
- Howard L. Kitko, Director of Public Service at (937) 845-9492

Espanol – Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que loentienda bien (This report contains important information concerning your drinking water. Translate it, or speak with someone who may explain it to you).

Terms and abbreviations for Contaminants Table - Listed on the table below is information on those contaminants that were found in the New Carlisle drinking water. Below is a list of definitions of some terms included in this report.

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **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
- **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.
- **NA:** not applicable **ND:** not detectable at testing limit **NR:** not regulated
- **ppb:** parts per billion or micrograms per liter **ppm:** parts per million, or milligrams per liter
- **pCi/l:** PicoCuries per liter

Table of Detected Contaminants							
Contaminant	**MCLG**	**MCL**	**Level Detected**	**Range**	**Violation**	**Sample Year**	**Sources of Contamination**
Total Coliform Bacteria (TC)	0	Systems that collect fewer than 40 samples per month, 1 positive sample	1	0-1	No	2019	Naturally present in the environment February 11 – 1 sample TC Positive
Inorganic Containments:							
Barium (ppm)	2	2	.081	NA	No	2017	Discharge of drilling waste, metals, refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.304	NA	No	2017	Erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate, as nitrogen (ppm)	10	10	5.20	NA	No	2019	Erosion of natural deposits; runoff from fertilizer use; leachate from septic tanks.
Disinfection By Products:							
Total Haloacetic Acids (ppb) HAA5	N/A	60	13.5	6.0-13.5	No	2019	By-Product of drinking water chlorination (2 samples collected)
Total Trihalomethanes (ppb)	N/A	80	44.1	14.8-44.1	No	2019	By-Product of drinking water chlorination (2 samples collected)
Unregulated Compounds							
Chloroform, (ppb)	0	NR	22.5	4.9-22.5	No	2019	Unregulated contaminant; By-product of drinking water chlorination
Dibromochloromethane, (ppb)	0	NR	7.1	3.7-7.1	No	2019	Used in chemical manufacturing; By-product of drinking water chlorination
Bromodichloromethane, (ppb)	0	NR	12.1	4.7-12.1	No	2019	Unregulated contaminant; By-product of drinking water chlorination 2 SAMPLES
Bromoform, (ppb)	0	NR	2.4	1.5-2.4	No	2019	Unregulated contaminant; By-product of drinking water chlorination
Dibromoacetic Acid (ppb)	0	NR	2.8	1.4-2.8	No	2019	By-Product of drinking water chlorination
Bromochloroacetic Acid (ppb)	0	NR	4.07	1.23-4.07	No	2016	By-Product of drinking water chlorination
Dichloroacetic Acid (ppb)	0	NR	7.8	1.6-7.8	No	2019	By-Product of drinking water chlorination
Trichloroacetic Acid	0	NR	2.9	1.0-2.9	No	2019	By-Product of drinking water chlorination
Residual Disinfectants:							
Total Chlorine Residual (ppm)	MRDLG= 4	MRDL = 4	1.5	0.97-1.34	No	2019 Running Annual Average	By-product of drinking water chlorination
Contaminants (Units):	**Action Level**	**Individual Results over the AL**	**90% of test levels were less than**	**Range of Detections**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
Copper (ppm)	1.3	.064 1.1	0.35 90th Percentile	NA	No	2019	Corrosion of household plumbing systems; erosion of natural deposits.
2 out of 20 samples were found to have copper levels in excess of the lead action level of 1.3ppm							
Lead (ppb)	15	ND	0 90th Percentile	NA	No	2019	Corrosion of household plumbing systems; erosion of natural deposits.
0 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb							

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 2019 the City of New Carlisle participated in the fourth round of the Unregulated Contaminant Monitoring Rule (ICMR 4). For a copy of the results please call Bob Hoke at 937-845-3059.

Table of Unregulated Contaminants (UCMR 4)			
Contaminants (Units)	**Sample Year**	**Average Level Found**	**Range of Detections**
Manganese (ppb)	2019	0.64	0.57-0.70
Haloacetic (HAA5) (ppb)	2019	7.91	1.27-20.1
Haloacetic (HHA9) (ppb)	2019	12.31	2.96-28.82
Haloacetic (HAA6Br) (ppb)	2019	6.12	2.39-11.92