



# Consumer Confidence Report

## Water Quality Report for 2016

Published & Distributed May 1, 2017

Este informe contiene información muy importante sobre el agua que usted bebe.  
Tradúzcala ó habla con alguien que lo entienda bien

**Introduction:** The City of Buchanan has developed and distributed this water quality report as part of our continued effort to provide our water customers with educational information regarding your drinking water supply. This report also demonstrates that your drinking water supply is safe by meeting or exceeding all water quality standards as listed in the Safe Drinking Water Act (SDWA). The United States Environmental Protection Agency (USEPA) and the Michigan Department of Environmental Quality (MDEQ) continually monitor all drinking water utilities to maintain compliance with SDWA regulations. As required by Consumer Confidence Report (CCR) regulations of the recently amended SDWA, a water quality report will be distributed to all water customers by July 1 of each year. During the past year The City of Buchanan Water Department has taken hundreds of water samples in order to determine the presence of any biological, inorganic, volatile organic or synthetic organic contaminants. We want our valued customers to be informed about their water quality and safety. If you have any questions or comments regarding this report or our water supply system, please contact: JT Adkerson, City of Buchanan Public Services Director at: (269) 695-3844. Our City Commission meets the second and fourth Monday of each month at 7 p.m. at the Buchanan City Hall This report is available on the City website at: <http://www.cityofbuchanan.com/waterreport>.

**Drinking Water Information:** Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about these contaminants and potential health effects can be obtained by calling USEPA's Safe Drinking Water Hot line (800) 426-4791. Some people may be more vulnerable to contaminants in drinking water than general population. Immunocompromised 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800) 426-4791. In order to ensure that tap water is safe to drink, the USEPA sets regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulates limits for contaminants in bottled water, which must provide the same protection for public health. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the surface of the land or through the ground, it may dissolve minerals or radioactive materials and pick up substances or contaminants resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

**Sourcewater Contaminants:** **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife. **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. **Pesticides and herbicides**, which may come from a variety of sources such as agricultural uses, urban storm water runoff and residential uses. **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, in addition to coming from gas stations, urban storm water runoff, and septic tanks/systems. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

### Definitions and Abbreviations

**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 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 amount of a contaminant present in drinking water that would trigger action on the part of the water system.

**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.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Highest Level Detected:** This column usually represents the highest result measured. For Disinfectant By-Products, it is the highest running annual average.

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

**ppb:** Parts per billion or 1 pound of a substance present in 1,000,000,000 pounds of water.

**nd:** Not detectable within testing limits.

**n/a:** Not applicable

**pCi/L:** Picocuries per liter when measuring radioactivity.

**Source Water Location:** The City of Buchanan relies on groundwater for its drinking water supply. The City owns and operates four (4) wells located within the incorporated area of the community. The groundwater supply is a complex system composed of pumps, electronic instruments and other appurtenances. Routine maintenance is performed on all equipment to ensure the reliability of the groundwater supply when it's needed, either in an emergency, or as part of seasonal supply. The municipal drinking water utilizes chlorine for disinfection and fluoride is then added to reduce tooth decay, the drinking water is then pumped to the water tower for public use.

**Source Water Assessment Program and Susceptibility to Contamination:** The MDEQ provided us with a SWAP Report for our water supply. This assessment determines the susceptibility or relative potential of contamination to our drinking water wells. The susceptibility rating for the City of Buchanan water source was listed as “moderate to high”. The ratings are determined on geologic sensitivity, water chemistry and potential contaminant sources located in the areas surrounding the groundwater wells. The SWAP Report provides a screening-level evaluation of potential contamination that **could** occur. It **does not** mean that the contamination **has or will** occur. This information is used to evaluate current water treatment capabilities and prepare for future contamination threats. This report helps us ensure that quality finished water is delivered to your homes. If you would like a copy of the Source Water Assessment to review, they are available at Buchanan City Hall, 302 Redbud Trail North.

**Water Quality Data Table:** The City of Buchanan routinely monitors for contaminants in your drinking water according to Federal and State laws. The table below lists the drinking water contaminants that we detected during the calendar year of this report unless otherwise noted. The State of Michigan requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

**The following tables indicate that The City of Buchanan had no water quality violations in 2016. We have learned through monitoring and testing that some constituents have been detected but are not a health risk. We are proud that our drinking water meets or exceeds all Federal and State requirements. This report is intended to show our water quality and what it means.**

2016 Water Quality Detected Contaminants for the City of Buchanan

City of Buchanan Disinfectant By-Products							
Contaminant (Units)	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Sample Date	Typical Source of Contaminant
Haloacetic Acids (HAA5) (ppb)	n/a	60	1	n/a	No	2016	By-product of drinking water chlorination.
Total Trihalomethanes (TTHMs) (ppb)	n/a	80	10.8	n/a	No	2016	By-product of drinking water chlorination.
Chlorine (ppm)	MRDLG=4	MRDL=4	1.87	0.206-1.050*	No	2015	Water additive used to control microbes.

\*Highest and Lowest Monthly Averages

City of Buchanan Routine Lead / Copper Testing							
Contaminant (units)	MCLG	AL	90 <sup>th</sup> Percentile Reporting	Range of Detections	Violation	Sample Date	Typical Source of Contamination
Lead (ppb)	0	15	3	ND-3	No	2014	Eroded from customer's plumbing
Copper (ppb)	1300	1300	330	ND-580	No	2014	Eroded from customer's plumbing

## 2015 Water Quality Detected Contaminants for the City of Buchanan

Contaminant (Units)	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Sample Date	Typical Source of Contaminant
<b>City of Buchanan Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.05	n/a	No	2015	Erosion of natural deposits.
Nitrate (as Nitrogen) (ppm)	10	10	ND	n/a	No	2016	Runoff from fertilizer use. Leaching from septic tanks, sewage. Erosion of natural deposits.
<b>City of Buchanan No n-regulated Contaminants</b>							
Sulfate (ppm)	n/a	n/a	ND	n/a	No	2016	Erosion of natural occurring deposits.
Sodium (ppm)	n/a	n/a	8	n/a	No	2016	Erosion of natural occurring deposits.
<b>City of Buchanan Regulated Contaminants</b>							
Fluoride (ppm)	4	4	.83	n/a	No	2016	Water additive which promotes strong teeth including erosion of natural occurring deposits
<b>City of Buchanan Radioactive Contaminants</b>							
Combined Radium 226/228 (pCi/L)	0	5	3.1	n/a	No	2013	Decay of natural and man-made deposits.
Gross Alpha excluding radon and uranium (pCi/L)	0	15	ND	n/a	No	2014	Decay of natural and man-made deposits.

### City of Buchanan Water Quality Table Educational Footnotes

**Fluoride:** Fluoride is added to the water supply to help promote strong teeth. The MDEQ recommends an optimal fluoride level of .7 ppm.

**Sodium:** There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

Lead is not present in City drinking water when it leaves our water treatment plants and underground pipes. Water can leach lead from brass or chromed-plated brass faucets and fixtures in the home.

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 Buchanan 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, test 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>.

**Non-regulated Contaminants -** A maximum contaminant level (MCL) for other contaminants have not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring other contaminants is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.