

ANNUAL DRINKING WATER QUALITY REPORT FOR 2006

CONSUMERS CONFIDENCE REPORT
FOR THE CITY OF BUCHANAN[General Information About The Buchanan Water System](#)

This report has been prepared to inform Buchanan Water customers of the quality of their drinking water. The City's drinking water has met all the State of Michigan and Environmental Protection Agency (EPA) requirements. This assessment was made by using the data that is noted in the laboratory analysis listed in this notice.

The City of Buchanan obtains its water from three (3) groundwater wells. The Michigan Department of Environmental Quality (MDEQ) performed an assessment of the source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is based on a six tier scale from "very low" to "high". The susceptibility rating for the City water was listed between "moderate to high". The ratings are determined on geologic sensitivity, water chemistry and contaminant sources.

Some individuals may be more vulnerable than the general population to certain microbial contaminants, such as *Cryptosporidium*, in drinking water. Infants, some elderly or immuno-compromised persons such as those undergoing chemotherapy for cancer: those who have undergone treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. If any of these conditions apply, you should seek advice about drinking water from your physician or health care provider.

[Contaminants Found In Untreated Water](#)

Significant sources of contamination which could impact drinking and bottled water are: industrial surface or sub-surface discharges, underground storage tanks, hazardous waste generators, nearby dumps and landfills, feedlots, agricultural and residential fertilizing, salt storage, railroad mishaps, and stream flooding. The presence of contaminants does not necessarily indicate the water poses a health risk. Additional guidelines and information about contaminants and potential health effects are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791. The City of Buchanan has an ongoing Wellhead Protection Program to protect the source water. The City has properly plugged all known abandoned municipal wells which could impact the source water supply. Ground water (also referred to as well water) is protected from many sources of contamination such as microbes like *cryptosporidium*. Sources of drinking water may come from rivers, streams, lakes, ponds, reservoirs, springs, and groundwater. As stormwater travels over the ground surface or from a body of water (lake, pond, etc) it percolates through the soils and enters into the groundwater supply. Source water can become contaminated by substance from the surface resulting in human or animal activities. As water moves through the soil, it dissolves naturally-occurring minerals and in some cases radioactive materials.

Contaminants include anything found in water other than pure water itself. Most contaminants are naturally occurring in all water supplies and are not harmful at low concentrations. Examples of contaminants that might be expected to be in source water (untreated water) may include:

- 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 salt and metals which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and liquid gas production, mining or farming.
- Pesticides and herbicides which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- 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 stormwater runoff, and

septic systems.

- Radioactive contaminants which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure that your tap water is safe to drink, EPA has regulations which limit the amount of certain contaminants in water provided by public water systems. The EPA regulations establish limits for contamination in bottled water which must provide the same protection for public health.

The City of Buchanan tests for over 200 parameters regulated by the EPA and the State of Michigan. Included in these tests were metals, volatile organics, pesticides, herbicides, synthetic organic carbons and cyanide. The city monitors for these contaminants on an annual basis.

Distribution System

The City pumps water from the ground by three wells all in one water zone. Chlorine is added to the water to prevent the growth of harmful water born bacteria. Fluoride is also added to help reduce dental cavities in children. The City of Buchanan owns and operates the well field, water towers and all the water mains within the City corporation limits. The City's Public Service Director, Mr. Joe Vander Meulen can be reached at 269-695-1159, or at 302 North Redbud Trail. The city water services operational department is located at 608 South Clark street; Contact is Mr. Mark Bachman 269-695-0257. For emergencies after daytime business hours, please contact the City police department at 269-695-5120.

The City supplies water to several Township areas outside of the City Corporation limits. The City maintains these lines through semi annual flushing, fixing minor repairs, conducting meter reading and the billing / receipts cycles. Each Township having water mains in their jurisdictional area are responsible for the ownership and major replacements / repairs of the distribution system. Buchanan Township owns the water booster station on Rynearson Road that provides an increase in water pressure to southeast Buchanan Township water customers.

WATER QUALITY DATA

The table below lists the regulated and unregulated contaminants detected in the City of Buchanan drinking water during the 2006 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted the data indicated in this table is from testing done January 1 to December 31, 2006. The State allows 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. All of the data is representative of the water quality but some are more than one year old.

Regulated at the Point of Entry (Well)

| Regulated Contaminant | MCL | MCLG | Level Detected | Sample Date | Violation Yes/No | Source of Contamination |
|-----------------------|-----|------|----------------|-------------|------------------|--|
| Barium (ppm) | 2 | 2 | 0.06 | 9/14/2005 | NO | Erosion of natural deposits, metal refiners |
| Nitrate (ppm) | 10 | 10 | 2.5 | 4/19/2006 | NO | Erosion of natural deposits, fertilizers, septic |
| Fluoride (ppm) | 4 | 4 | 1.2 | 4/19/2006 | NO | Erosion of natural deposits, water additive |

Un-Regulated at Customer's Tap

| Special Monitoring and Unregulated Contaminant ** | Average Level Det | Sample Date | Violation Yes/No | Source of Contamination |
|---|-------------------|-------------|------------------|-----------------------------|
| Sodium (ppm) | 7 | 4/19/2006 | NO | Erosion of natural deposits |

Regulated at Customer's Tap

| Contaminant Subject To All | Action Level | 90% of samples This Level | Sample Date | # of samples Above AI | Source of Contamination |
|----------------------------|--------------|---------------------------|-------------|-----------------------|--------------------------------------|
| Copper (ppm) distribution | 1300 ppb | 186 ppb | 9/20/2005 | 0 | Corrosion of Household Piping System |
| Lead (ppb) distribution | 15 ppb | 9 ppb | 9/20/2005 | 0 | Corrosion of Household Piping System |

| Contaminant | Req. Sampling Frequency | Number Of Samples Taken | When All Samples Should Have Been Taken | Violations | Date Additional Samples Will Be Taken |
|-------------------------|-------------------------|---|---|------------|---------------------------------------|
| Total Coliform Bacteria | 6 samples per month | 6 per month | 1/1/06 to 12/31/06 | No | 2006 |
| Chlorine Residuals | 6 samples per month | Annual Max 1.33; Annual Min 0.06, Montly Mean Avg 0.425 | | No | |
| Trihalomethanes ** | 1 per 36 months | 1 | 1/10/04 to 12/31/04 | No | 2007 |

DEFINITIONS

| | |
|-----------------|---|
| Action Level | The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow |
| MCL | Maximum Contaminant Level (MCL) - is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology. |
| MCLG | Maximum Contaminant Level Goal (MCLG) - is 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. |
| ppb | Parts per Billion |
| ppm | Parts per Million |
| 90th Percentile | 90 percent of the samples were below the number listed. |
| N/A | Not Applicable |
| * | These arsenic values are effective January 23, 2006. Until then the MCL is 50 ppb and there is no MCLG |
| ** | Trihalomethanes laboratory result of August 2004 was 0.0151 ppm. No violations |
| ND | Non Detectable |

Infrastructure Improvements

Several water works improvements are being proposed to start in 2007. Some of the improvements include the electrical supply system and controls system for the existing wells; well house structure improvements; upgrades to the

chemical feed equipment; installation of a standby electrical generator; construction of a new bulk fill station; and the replacement of fire hydrants and distribution system shut off valves that do not work.

A bond to pay for the improvements will be sold in order to make the necessary city water improvements. An increase in user rates were implemented in 2006 in order to pay for the proposed capital improvements.

Information

For more information, please contact Joe Vander Meulen, Assistant City Manger/Public Services Director, at 269-695-1159, or mail comments to the City Hall, 302 North Redbud Trail, Buchanan, 49107. Information was prepared by the City of Buchanan.