



City Of Mt. Pleasant **ANNUAL DRINKING WATER QUALITY REPORT**

We are very pleased to present our Annual Water Quality Report for the Mt. Pleasant water supply system. Each year a similar report is prepared for all City water customers to provide water quality information. We want to keep all of our customers informed about the excellent water and services we have delivered over the past year. Our goal is to provide a safe and dependable supply of drinking water.

If you have any questions about this report or concerning your water utility, please contact Malcolm Fox at (989) 779-5430. We want our valued customers to be informed about their water utility. If you want to learn more about the operation of your City government, please attend any of our regularly scheduled City Commission meetings. They are held at 6:30 p.m. on the second and fourth Mondays of every month at City Hall.

WE ARE PLEASED TO REPORT THAT OUR DRINKING WATER MEETS ALL FEDERAL AND STATE REQUIREMENTS. For those people with special health issues and concerns, the following paragraph contains EPA water use guidelines which may be applicable to you.

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 infections. 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 at 1-800-426-4791.

Our water source is groundwater, drawn from seven (7) groundwater wells and a Ranney™ Collector well. The groundwater wells are located south and southwest of Mt. Pleasant and range from 120' to 465' deep. The Ranney™ Collector is located southwest of Mt. Pleasant adjacent to the Chippewa River. Water from the wells and the Collector is pumped to the Water Treatment Plant where it is softened, filtered, disinfected and sent to the distribution system for use by our customers.

The State performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tier scale from "very-low" to "very-high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The susceptibility of our groundwater wells ranges from very low to moderate. The susceptibility of the Ranney Collector to potential contamination is high. While there are no identifiable sources of contamination present, we are making efforts to protect our sources by implementing a wellhead protection program. If you would like to know more about the report please contact the Water Department.

The Mt. Pleasant Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The Test Results Table on the following page shows the results of our monitoring for the period of January 1st to December 31st, 2011. Drinking water, including bottled water, may be reasonably 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791.

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 :

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 run-off, 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 agriculture, urban storm water run-off, 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 storm water run-off, and septic systems. 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, the 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.

Presented below you will find many terms and abbreviations that might not be familiar to you. To help you better understand these terms, we've provided the following definitions:

Non-Detects (ND) - Laboratory analysis indicates that the constituent is not present.

NA - Not applicable.

Parts per million (ppm) or Milligrams per liter (mg/l) - A measure of the concentration of an element in water. One part per million is equivalent to one minute in two years, or one inch in sixteen miles.

Parts per billion (ppb) or Micrograms per liter - A measure of the concentration of an element in water. One part per billion is equivalent to one minute in 2,000 years, or one inch in sixteen thousand miles.

Nephelometric Turbidity Unit (NTU) - Turbidity is a measure of the clarity of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal - The "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.

Maximum Residual Disinfectant Level or 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 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.

Unregulated contaminants are those for which the EPA has not established drinking water standards. The City of Mt. Pleasant is monitoring for additional contaminants under the EPA's Unregulated Contaminant Monitoring Regulation (UCMR). The information collected under the UCMR will help the EPA determine future drinking water regulations. The results of the monitoring are available upon request.

Test results are from 2011 unless otherwise noted.

| TEST RESULTS TABLE | | | | | | |
|---|---------------|------------------|------------------|-----------------|--------------|--|
| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCL-Max Allowed | MCLG Goal | Likely Source of Contamination |
| Regulated Physical Substances | | | | | | |
| 1. Turbidity lowest % samples meeting treatment limits (where 100% indicates full compliance) max = | No | 100% 0.07 | NTU | TT | n/a | Soil runoff |
| Regulated Inorganic Substances | | | | | | |
| 2. Copper * 90 th % = # exceeding AL = | No | 0 0 | ppm | AL=1.3 | 1.3 | Corrosion of household plumbing systems |
| 3. Fluoride range = maximum = | No | 0.4 – 0.7 0.7 | ppm | 4 | 4 | Water additive which promotes strong teeth |
| 4. Lead * 90 th % = # exceeding AL = | No | 1 0 | ppb | AL=15 | 0 | Corrosion of household plumbing systems |
| 5. Chlorine range = Running Ave = | No | 0.4 – 1.0 0.5 | ppm | MRDL = 4 | MRDLG = 4 | Water additive used to control microbes |
| 6. Arsenic ** | No | 2 | ppb | 10 | 0 | Erosion of natural deposits |
| 7. Barium ** | No | 10 | ppb | 2000 | 2000 | Erosion of natural deposits |
| 8. Selenium ** | No | 8 | ppb | 50 | 50 | Erosion of natural deposits |
| Regulated Volatile Organic Contaminants (monitored in the distribution system) | | | | | | |
| 9. TTHM [Total trihalomethanes] range = Running Ave = | No | 52-98 75 | ppb | 80 | 0 | By-product of drinking water chlorination |
| 10. HAA5 (Haloacetic Acids5) range = Running Ave = | No | 4-19 12 | ppb | 60 | n/a | By-product of drinking water chlorination |
| Detected Unregulated Contaminants (monitored at the Water Treatment Plant tap) | | | | | | |
| 11. Sodium range = average = | n/a | n/a 115 | Mg/L | n/a | n/a | Erosion of natural deposits. |

* Results are from 2009 ** Results are from 2006

As you can see by the test results table, our system had no MCL violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCLs are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two (2) liters of water everyday, which is approximately eight (8) - 8 ounce glasses of water, at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect. We constantly monitor the water supply for various constituents. Tests were performed for an additional 130 chemicals, where no detectable concentrations were found.

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 Mt. Pleasant 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 or at <http://www.epa.gov/safewater/lead>.

Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced. Testing of our water shows no elevated levels of lead present.

Fluoridation is performed at the Water Treatment Plant for dental health purposes. The Center for Disease Control (CDC) has the following advice for parents of infants;

"The proper amount of fluoride from infancy through old age helps prevent and control tooth decay. Recent evidence suggests that mixing powdered or liquid infant formula concentrate with fluoridated water on a regular basis may increase the chance of a child developing the faint white markings of very mild or mild enamel fluorosis...

...Parents should follow the advice of the formula manufacturer and their child's doctor for the type of water appropriate for the formula they are using. Parents and caregivers of infants fed primarily with formula from concentrate who are concerned about the effect that mixing their infant's formula with fluoridated water may have in developing enamel fluorosis can lessen this exposure by mixing formula with low fluoride water most or all of the time." *

We, at the Mt. Pleasant Water Department, work hard to provide top quality water to every tap and our motto "*Good Water Every Day!*" reflects this focus. We ask that all our customers help us protect our water resources.

Please call our office at 779-5430 if you have any questions or visit our web site at www.mt-pleasant.org.

*http://www.cdc.gov/fluoridation/safety/infant_formula.htm