

# City of Manitou Springs 2009 Drinking Water Consumer Confidence Report For Calendar Year 2008

Public Water System ID # CO0121450

*Esta es información importante. Si no la pueden leer, necesitan que alguien se la traduzca.*

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water.

## General Information About Drinking Water

All 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 the water poses a health risk. 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 of infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

The sources of drinking water (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 include:

- **Microbial contaminants**, such as viruses and bacteria that 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides** that 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 byproducts of industrial processes and petroleum production, and also

may come from gas stations, urban storm water runoff, and septic systems.

- **Radioactive contaminants**, that 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 Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Our Water Source

| Source             | Water Type    |
|--------------------|---------------|
| North French Creek | Surface Water |

The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment Report for our water supply. You may obtain a copy of the report by visiting [www.cdphe.state.co.us/wq/sw/swaphom.html](http://www.cdphe.state.co.us/wq/sw/swaphom.html) or by contacting Kirk Greasby at 719-685-5597.

Potential sources of contamination in our source water area come from:

- 1.Spring Run-Off
- 2.Wildland Fires
- 3.Commercial/Industrial/Transportation
- 4.Low Intensity Residential
- 5.Row Crops
- 6.Fallow
- 7.Deciduous Forest/Evergreen Forest

The Source Water Assessment Report provides a screening-level evaluation of potential contamination that **could** occur. It does not mean that the contamination **has or will** occur. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Please contact Kirk Greasby at 719-685-5597 to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Consumer

Confidence Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customers, to be informed about the services we provide and the quality water we deliver to you every day.

### Terms and Abbreviations

The following definitions will help you understand the terms and abbreviations used in this report:

- **Parts per million (ppm) or Milligrams per liter (mg/L)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (ug/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Parts per quadrillion (ppq) or Picograms per liter (picograms/L)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.
- **Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. 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 Goal (MCLG)** - The “Goal” 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 Contaminant Level (MCL)** - The “Maximum Allowed” 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 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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Running Annual Average (RAA)** - An average of monitoring results for the previous 12 calendar months.
- **Gross Alpha, Including RA, Excluding RN & U** - This is the gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222 and uranium.
- **Microscopic Particulate Analysis (MPA)** - An analysis of surface water organisms and indicators in water. This analysis can be used to determine performance of a surface water treatment plant or to determine the existence of surface water influence on a ground water well.

### Detected Contaminants

City of Manitou Springs routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2008 unless otherwise noted. The State of Colorado 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. The “Range” column in the table(s) below will show a single value for those contaminants that were sampled only once. Violations, if any, are reported in the next section of this report.

Note: Only detected contaminants appear in this report. If no tables appear in this section, that means that City of Manitou Springs did not detect any contaminants in the last round of monitoring.

| Organics and Inorganics | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source |
|-------------------------|-----------------|---------------|-------|------|-----|------|----------------|
|-------------------------|-----------------|---------------|-------|------|-----|------|----------------|

| Organics and Inorganics | Collection Date | Highest Value | Range | Unit | MCL | MCLG | Typical Source  |
|-------------------------|-----------------|---------------|-------|------|-----|------|---|
| FLUORIDE                | 10/15/2008      | 3.1           | 3.1   | ppm  | 4   | 4    | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| NITRATE                 | 10/15/2008      | 0.12          | 0.12  | ppm  | 10  | 10   | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits                               |

| Disinfection By-Products      | Date | Average | Range         | Highest RAA | Unit | MCL | MCLG | Typical Source                            |
|-------------------------------|------|---------|---------------|-------------|------|-----|------|---|
| TOTAL HALOACETIC ACIDS (HAA5) | 2008 | 24.55   | 15.6 - 33.8   | 40          | ppb  | 60  | N/A  | By-product of drinking water disinfection |
| TOTAL TRIHALOMETHANES (TTHM)  | 2008 | 21.615  | 13.92 - 32.01 | 32          | ppb  | 80  | N/A  | By-product of drinking water chlorination |

| Turbidity | Sample Date       | Level Found  | TT Requirement  | Typical Source |
|-----------|-------------------|--|---|----------------|
| TURBIDITY | Date:<br>8/7/2007 | Highest single measurement:<br><br>0.35  | Maximum 1 NTU for any single measurement                        | Soil Runoff    |
|           | Month:<br>8       | Lowest monthly percentage of samples meeting TT requirement for our technology:<br><br>99% | In any month, at least 95% of samples must be less than 0.3 NTU |                |

| Lead and Copper | Collection Date | 90 <sup>TH</sup> Percentile | Unit | AL  | Typical Source   |
|-----------------|-----------------|-----------------------------|------|-----|--|
| COPPER, FREE    | 2008 - 2010     | 0.14                        | ppm  | 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| LEAD            | 2008 - 2010     | 6.2                         | ppb  | 15  | Corrosion of household plumbing systems; Erosion of natural deposits                                   |

| Secondary Contaminants/ Other Monitoring | Collection Date | Highest Value | Range | Unit  | Secondary Standard |
|--|-----------------|---------------|-------|-------|--------------------|
| MPA WTP RAW AND FINISHED                 | 6/24/2008       | 6             | 6     | UNITS | N/A                |
| SODIUM                                   | 9/4/2008        | 6.4           | 6.4   | MG/L  | 10000              |

Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor or color) in drinking water. EPA recommends these standards but does not require water systems to comply.

### **Health Information About Water Quality**

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800)426-4791.

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

## Violations

| <b>Type</b>        | <b>Category</b>          | <b>Analyte</b> | <b>Compliance Period</b> |
|--------------------|--------------------------|----------------|--------------------------|
| SECONDARY FLUORIDE | Secondary MCL Exceedence | FLUORIDE       | 01/01/2008 - 12/31/2008  |

### Information About the Above Violation(s)

At low levels, fluoride can help prevent cavities, but children under nine years old drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration and/or pitting of their permanent teeth (dental fluorosis). This problem occurs only in developing teeth, before they erupt from the gums. Children under nine years of age should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water. Drinking water containing more than 4 mg/L of fluoride can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP."

City of Manitou Springs is required to include an explanation of the violation(s) in the above table and the steps taken to resolve the violation(s) with this report.

---

**The City of Manitou Springs Water Treatment Plant is constantly monitoring and up-grading the water system to bring you the consumer the finest water that it possible can. Fluoride is and has always been a natural occurrence in the cities raw water. The Treatment Plant monitors the levels and complies with State Regulations of Notification to the public.**