

# Hamilton Creek Metropolitan District

## Water Quality Report

PWSID #159063

The Hamilton Creek Metropolitan District is pleased to present you with our annual Water Quality Report. Consumer concerns for our environment, the air we breathe and the food we eat also extends to the tap water we drink. During 2003 the District completed work on the new water system. Since August 2003 the District has been providing water to residents that meets all water quality standards. This report provides information from our monitoring for the period January 1 to December 31, 2003 unless otherwise noted.

The Water Quality Report is designed to inform you about the water and services we deliver to you each day. If you have any questions about your water or the information in this report, please contact Bob Polich, Administrator of the Hamilton Creek Metropolitan District at (970) 668-5500 Extension 12. Information can also be obtained from the District web site [www.hamiltoncreek.org](http://www.hamiltoncreek.org). A Board of Directors consisting of five elected residents governs the District. The Board holds public meetings quarterly concerning the operations of the District.

### General information regarding water sources and drinking water contaminants

Nationwide 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.

Before treatment, source water contaminants may include:

**Microbial contaminants** such as viruses and bacteria that may come from sewage treatment facilities, septic systems, agricultural livestock operations, recreational activities and wildlife.

**Inorganic contaminants** such as salts and metals, which can occur naturally or result from urban storm 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 agriculture, urban stormwater runoff, and residential uses.

**Organic chemical contaminants** including synthetic and volatile organics which are produced as by-products of industrial processes and petroleum productions, and can also come from gas stations, urban stormwater runoff, and septic systems.

**Radioactive contaminants** that can occur naturally or as 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 provides the same protection for public health.

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. 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. 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.

*Esta es informacion importante. Si no la pueden leer, necesitan que alguien se la traduzcan.*

### Source of Hamilton Creek Water

Since August of 2003 the water source has been the physical Creek that the Hamilton Creek subdivision derived its name from. The switch in water source was to eliminate the high levels of fluoride in the previous well water source. The new Creek source is providing excellent water to users meeting all State and Federal Water Quality guidelines. Prior to the switch to the Creek in August 2003, the water source was two 700-foot deep wells located near Hamilton Creek at 291 Lakeview Circle. Only one well was in use at a time. The wells are located approximately 50 feet apart. The water quality was similar, but slightly different for each well.

### Water treatment

The switch to surface water required changes in the treatment and monitoring equipment. There are higher treatment standards when using surface water to protect against contaminants. The surface water is filtered using a bag filtration process. The filtration process is monitored constantly by computer equipment registering the particulate count and the turbidity. Should the turbidity reach too high of a level, the system automatically stops taking water from the Creek. Prior to being released into the distribution system, the water is chlorinated as a protection against microbial contaminants. The District plans on installing a newer treatment method referred to as microfiltration when financially feasible. The infiltration gallery in the Creek is regularly blown out with compressed air to improve the natural filtration process of the water before it is drawn into our treatment facility.

The ground water source used until August 2003 was only chlorinated prior to entering the distribution system. A characteristic of deep wells, as was utilized by the District, is minerals in the water. While these minerals are not a concern to health, they are factors in the taste of the water, build up on plumbing fixtures and color of the water. The chlorination helps mitigate some of the taste issues with the water.

## Fluoride in the Water

*The Hamilton Creek Metropolitan District water was in violation of the maximum containment level (MCL) of fluoride until the complete change over to a new water source in August 2003. This violation level was first detected in 1993 and the water had exceeded the MCL continually until the water source change. 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. Children may get mottled teeth.* The District began construction in June 2001 to access water directly from Hamilton Creek. The District first began using the new water source in May 2003 for a portion of its water requirements. Since mid-August 2003, all of the District water needs have been supplied by the Creek which has a fluoride level below detectable levels. The District will utilize the Creek as the source for all water provided to users unless high water demands or equipment problems require using ground water. When the ground water is used, it will be mixed with surface water to provide water below the maximum containment level for fluoride.

### Water Quality Data and Definitions

The Hamilton Creek Metropolitan District monitors water quality through testing on a continual basis. Most of this testing is for internal operating purposes. Specialized contract laboratories are used to test for contaminants. These laboratories report their findings to the Colorado Department of Public Health and Environment which is the agency monitoring that you are receiving safe water. This report contains testing that was done in 2003. The State permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of this data, though representative, are more than one year old. Any regulated contaminants detected in the water, even at very low levels, are listed here. The presence of contaminants does not necessarily indicate that the water poses a health risk.

#### The report makes use of the following definitions:

**BDL or Below Detectable Level.** The result is below a level that can be recorded on the testing equipment.

**MCL or Maximum Contaminant Level.** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG or Maximum Contaminant Level Goal.** The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL or Maximum Residual Disinfectant Level.** 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.

**MRDLG or Maximum Residual Disinfectant Level Goal.** 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.

**ppm or Parts per million.** One part per million corresponds to one minute in two years or a single penny in \$10,000.

**ppb or Parts per billion.** One part per billion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000.

**pCi/l or Picocuries per liter.** Picocuries per liter is a measure of the radioactivity in water.

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

### Table of Detected Contaminants

*The state 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. Some of our data, though representative, may be more than one year old.*

All data is from January 1, 2003 to December 31, 2003 unless otherwise noted

Inorganic Contaminants	Unit	MCL	MCLG	Detected Level	Sample Date	MCL Violation	Likely Source of Contamination
Fluoride	ppm	4	4	A range of 4.93 to 5.0 depending on the source well. The level from the new Creek water source is BDL.	Dec 2002 and Feb 2001	YES	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminium factories
Barium	ppm	2	2	A range from BDL to .082 depending on the water source.	Feb-01	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
<b>Lead &amp; Copper</b>							
Copper	ppm	AL=1.3	1.3	0.21	2000	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	ppb	AL=15	0	0	2000	NO	Corrosion of household plumbing systems; erosion of natural deposits
<b>Radioactive Contaminants</b>							
Beta/proton emitters	pCi/l	4	0	0	Feb-00	NO	Decay of natural and man-made deposits
Alpha emitters	pCi/l	15	0	A range of 0 to 2.3 depending on the source well.	Feb-00	NO	Erosion of natural deposits
<b>Unregulated Contaminants</b>							
Sodium	ppm	Not regulated		A range of 4.5 to 240 depending on the source.	Feb-01		
Sulfate	ppm	Not regulated		A range of 2.2 to 7.2 depending on	Feb-01		

*The state has issued our system waivers (testing not required) for dioxin, glyphosate, nitrite, cyanide, and asbestos.*