



ANNUAL WATER QUALITY REPORT

Water testing performed in 2003



PWS ID#: CO0135257

Background Information

The Safe Drinking Water Act provides nationwide standards to guarantee the safety of all public water systems.

As a condition of that federal legislation, the U.S. Environmental Protection Agency (U.S. EPA) requires public water systems, such as Estes Park, to annually provide their customers with a Consumer Confidence Report. The Town of Estes Park Water Department is committed to the highest standards of service in providing our customers with water of superior quality. During 2003, as in previous years, Estes Park water met or surpassed all state and federal water quality standards. This report verifies the high quality of the water enjoyed by Estes park residents.



Community Participation and Contact Information

The Town of Estes Park encourages public interest and participation in matters concerning our community's water system. Regular Public Works Committee meetings are held on the third Thursday of every month. The public is always welcome. Specific questions or information relating to your water quality can be directed to the Town Water Department by calling Jeff Boles, Water Superintendent, at (970) 577-3608 or Tom Blaue, Water Quality Manager, at (970) 577-3619.

You can also visit the Web site for the Town of Estes Park at www.estesnet.com.



Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 (800) 426-4791.

Water Treatment Operations

Estes Park water originates from the protected environment of Rocky Mountain National Park. This native water supply is uncontaminated by introduced toxins such as industrial waste, petroleum by-products or agricultural runoff. Our treatment process is primarily an effort to eliminate naturally occurring hazards and undesirable chemical characteristics contributed by Mother Nature. The Town of Estes Park operates two water treatment facilities. The Glacier Creek Plant is situated on a tributary to the Big Thompson River, just inside Rocky Mountain National Park. This facility has a production capacity of 3 million gallons per day. The second treatment facility, Marys Lake, processes water from Grand Lake via the Adams Tunnel. The Marys Lake facility has a rated capacity of 2 million gallons per day. During periods of high demand, such as the summer tourist season, both facilities are operated simultaneously and their relative waters are blended in the distribution system. When system demand drops off, one of these facilities is usually taken off-line and provides a backup for the operating plant. The differences between the two source waters are minimal and most customers should not notice any quality change as the town alternates the source of supply. Both treatment facilities utilize conventional methods of purification and are continually upgraded to incorporate the latest technologies.



What Causes the Pink Stain on Bathroom Fixtures?

The reddish-pink color frequently noted in bathrooms on shower stalls, tubs, tile, toilets, sinks, toothbrush holders; on pets' water bowls and on humidifiers is caused by the growth of the bacterium *Serratia marcescens*. *Serratia* is commonly isolated from soil, water, plants, insects, and vertebrates (including man). The bacteria can be introduced into the house through any of the above-mentioned sources. This bacteria can thrive in any moist and warm environment. The best solution to this problem is to continually clean and dry the involved surfaces to keep them free from bacteria. Chlorine bleach can be used periodically to wipe down fixtures to eliminate the occurrence of the pink residue. *Serratia* will not survive in chlorinated drinking water.



Contamination from Cross-Connections

Cross-connections that could contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire-sprinkler systems, irrigation systems) or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination. Community water supplies are continually jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. During 2004, the Town of Estes Park is developing and implementing the Cross-Connection Program. Water customers in the system, primarily commercial accounts, will be introduced to the program when a policy is finalized.

Giardia and *Cryptosporidium* in Drinking Water

Anually the Estes Park Water Department submits water samples to an independent certified laboratory to analyze the microscopic particulate matter for the potential presence of *Giardia* and *Cryptosporidium*. While these parasites are common in the untreated water supply, neither of these has ever been detected in the town's drinking water, including the most recent testing conducted in 2003.



Sampling Results

During the past year we have taken hundreds of water samples to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The vast majority of substances we tested did not exist at detectable levels and are not listed in this report. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water. Water test schedules are established by the state and the federal government. The sampling frequency is variable from one contaminant to another. Bacterial tests, for instance, are performed several times a month, while inorganic compounds are sampled once a year. Chlorine and turbidity at the treatment plants are monitored continually. The test results indicated in this report reflect the most current analysis available.

REGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	MCL	MCLG	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Mercury [inorganic] (ppb)	2003	2	2	0.39	NA	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Nitrate (ppm)	2003	10	10	0.24	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2003	80	NA	32	NA	No	By-product of drinking water disinfection
Turbidity (NTU) ¹	2003	TT	NA	0.26	0.01-0.26	No	Soil runoff

Tap water samples were collected for lead and copper analyses from 20 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90 TH %TILE)	NO. OF HOMES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2002	1.3	1.3	0.061	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2002	15	0	4.1	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

UNREGULATED SUBSTANCES

SUBSTANCE (UNITS)	YEAR SAMPLED	AMOUNT DETECTED	RANGE (LOW-HIGH)	TYPICAL SOURCE
Bromochloromethane (ppb)	2003	2.0	NA	Disinfection by-product
Chloroform (ppb)	2003	30	NA	Disinfection by-product
Sodium (ppm)	2003	12	NA	Naturally occurring

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.

Sources of Potential Contamination

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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 can acquire naturally occurring minerals, in some cases radioactive material; and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



Table Definitions

AL (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): 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.

MCLG (Maximum Contaminant Level Goal): 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.

NA: Not applicable

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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