



NORTH TABLE MOUNTAIN WATER AND SANITATION DISTRICT

14806 WEST 52ND AVENUE, GOLDEN, COLORADO 80403-1228

## **2013 Annual Drinking Water Quality Report for North Table Mountain Water District**

### **PWSID Number: CO0130105**

[www.ntmwater.org](http://www.ntmwater.org)

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. **We are pleased to report that our drinking water is safe and meets all Federal and State requirements.** Our water source is surface water that comes from Ralston Reservoir. If you have any questions about this report or concerning your water utility, please contact **Bart Sperry at (303) 279-2854.**

We want our valued customers to be informed about their water utility. If you want to learn more, please call the above contact about the utility or any scheduled public meetings. **North Table Mountain Board of Directors meetings are open to the public and are held every second and fourth Tuesday of the month at the District office at 6:00 pm.**

North Table Mountain Water routinely monitors for constituents in your drinking water according to Federal and State laws. This report shows the results of our monitoring for the period of January 1, 2012 to December 31, 2012, unless otherwise noted. All drinking water, including bottled drinking water, may be reasonably 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 their 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 or at <http://water.epa.gov/drink/contaminants>.**

The Colorado Department of Public Health and Environment has provided the District with a Source Water Assessment report. This report is simply an indication of potential future risks associated with the source water supply and is designed to safeguard water resources from contamination. The results are NOT a reflection of the current quality of the untreated source water, nor are they a reflection of the quality of the treated drinking water that is supplied to District residents. This report is for source water used by North Table Mountain, Arvada, and Denver. Interested individuals should call the above contact, or view the report at: [www.cdphe.state.co.us/wq/sw/swaphom.html](http://www.cdphe.state.co.us/wq/sw/swaphom.html). Potential sources of contamination in our source water area come from: EPA abandoned contaminated sites, EPA hazardous waste generators, EPA chemical inventory/storage sites, permitted wastewater discharge sites, aboveground, underground and leaking storage tank sites, solid waste sites, existing/abandoned mine sites and other facilities, low intensity residential, commercial/industrial/transportation, urban recreational grasses, quarries/strip mines/gravel pits, row crops, fallow, pasture/hay, forests, septic systems, and road miles.

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.

Compound	Sample Date	MCLG	MCL	Highest Level Found	Range	Violation	Source of Contamination
Turbidity	10/11/12	NA	TT	0.15	NA	No	Soil runoff
Total Coliform Bacteria	10 per month	0	Presence of Coliform Bacteria in one of the Monthly Samples	Absent in 100% of Samples Taken	NA	No	Naturally present in the environment
Maximum Residual Disinfectant Level	2012	4 ppm	4 ppm	RAA 0.9 ppm	0.3-1.4	No	Water additive used to control microbes
Total Organic Carbon	2012	NA	2 ppm	HRAA 1.62ppm LRAA 1.31 ppm	1.18-1.42 ppm	No	Naturally present in the environment
TTHM	2012	NA	80 ppb	HRAA 48ppb	22.9-47.9 ppb	No	Byproduct of drinking water disinfection
HAA	2012	NA	60 ppb	HRAA 39ppb	20.7-41.6 ppb	No	Byproduct of drinking water disinfection
Barium	4/26/12	2 ppm	2 ppm	0.02 ppm	0.016 – 0.020 ppm	No	Discharge of drilling waste, discharge from metal refineries, erosion from natural deposits
Nitrate	1/26/12	10 ppm	10 ppm	0.047	0.033 – 0.047 ppm	No	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Nitrate-Nitrite	2012	1 ppm	1 ppm	ND	NA	No	
Sodium	1/26/12	NA	NA	14.5 ppm	11.7 – 14.5 ppm	No	Naturally present in the environment
Sulfate	4/26/12	500 ppm	250 ppm SMCL	25.0	18.3 – 25.0 ppm	No	Naturally present in the environment
Fluoride	4/26/12	4.0 ppm	4.0 ppm	0.29 ppm	0 – 0.29 ppm	No	Erosion of natural deposits
Gross Alpha excl. Radon & Uranium	1/10/12	0	15 pCi/L	0.4 pCi/L	0.2 – 0.4 pCi/L	No	Erosion of natural deposits
Combined Radium	2011	0	5 pCi/L	2 pCi/L	2 – 2 pCi/L	No	
Uranium	2012	0	30 ppb	ND	NA	No	
Lead	2011	0 ppb	15 ppb Action Level	11 ppb	7.4 ppb 90 <sup>th</sup> percentile	No	Corrosion of household plumbing systems
Copper	2011	0 ppm	1.3 ppm Action Level	0.12 ppm	0.048 ppm 90 <sup>th</sup> percentile	No	Corrosion of household plumbing systems

**Turbidity** - Turbidity measurements indicate the clarity of the water. High levels of turbidity may interfere with disinfection. Samples must be less than or equal to 0.3 NTU in at least 95% of monthly samples. One hundred percent of the NTM samples taken were less than 0.3 NTU.

**Total Coliform Bacteria** - Presence of coliform bacteria is an indicator of pathogens (disease causing bacteria). One hundred percent of the NTM samples taken were absent (no coliform bacteria present).

**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. MRDL compliance is determined on a District-wide basis by calculating a running annual average of all sample times at all sample points.

**Total Organic Carbon (TOC)** - This constituent has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects. TOC compliance is determined by calculating a running annual average of all samples taken from the Water Treatment Plant's finished water, clearwell. The required removal ratio is 1.0.

**Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs)** - Total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include TTHMs and HAAs. Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of cancer. TTHM and HAA compliance is determined on a District-wide basis by calculating a running annual average of all sample times at all sample points within the distribution system.

**Lead and Copper** - NTM samples for lead and copper every three years. The listed results are from the 2011 monitoring program. The State permits monitoring for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Samples were taken at 20 customers' homes. If the 90th percentile exceeds action level, additional requirements would be triggered.

**Inorganic and Organic Chemical Contaminants and Radionuclides** - These contaminants are metals, salts, and other non-carbon based compounds, and synthetic and volatile organic compounds. All other regulated and unregulated contaminants were **not detected** in samples.

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. The Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health. In this report you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided brief definitions.

- ppb - parts per billion or Micrograms per liter - corresponds to one penny in \$10,000,000 or one minute in 2,000 years.
- ppm - parts per million or Milligrams per liter - corresponds to one penny in \$10,000 or one minute in two years.
- ND - Not Detected - laboratory analysis indicates that the constituent is not present.
- MCL - Maximum Contaminant Level - 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.
- RAA - Running Annual Average
- HRAA - Highest Running Annual Average
- LRAA - Lowest Running Annual Average
- SMCL - Secondary Maximum Contaminant Level is a recommended contaminant level and not enforceable.
- MCLG - Maximum Contaminant Level Goal - The "goal" is the highest level of a contaminant in drinking water, below which there is no known or expected risk to health. MCLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- NTU - Nephelometric Turbidity Unit, measurement of the clarity of water.
- pCi/L - Picocuries per liter is a measure of radioactivity in water.
- Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow.
- TT - Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
- MRDLG - Maximum Residual Disinfectant Level Goal - 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.

**Additional Drinking Water Results and Ranges for 2012**

Inorganic Compound	Range	Average
Aluminum	0.069-0.202 ppm	0.132 ppm
Alkalinity (as CaCO3)	24-36 ppm	30 ppm
Conductivity	118.1-172.3 u ohm/cm	141.3 u ohm/cm
Hardness (as CaCO3)	26-41 ppm or 1.5-2.4 grains/gal	33 ppm or 1.9 grains/gal
Iron	<0.02-0.04 ppm	0.02 ppm
pH	7.7-8.2 Units	8.0 Units

The American Water Works Association (AWWA) has set the following classifications for water hardness:

Soft	0-60	ppm
Moderately Hard	61-120	ppm
Hard	121-180	ppm
Very Hard	Over 180	ppm

Based on the above classification the water in the District is considered soft.

North Table Mountain is subject to water quality compliance criteria concerning treatment optimization and the use of chlorine as a disinfectant. Some customers may have a Point Of Entry device (POE) such as a water softener or a dechlorination device, or a Point Of Use device (POU) such as a filter for the faucet installed. These devices are used as a taste or a health benefit to the customer who is sensitive to chlorine or other constituents. Please remember that these devices all have some type of filter and require regular maintenance. A dirty filter does nothing for taste or health.

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 stormwater runoff, and septic systems.
- **Radioactive contaminants**, that can be naturally occurring or be the result of oil and gas production and mining activities.

Chemicals which were tested for, but not detected include: [antimony, arsenic, beryllium, cadmium, chromium, mercury, nickel, selenium, thallium, uranium, and all synthetic organic chemicals](#). The state has issued our system waivers for asbestos, cyanide, dioxin, glyphosate, and nitrite, due to non-detection or extremely low concentrations.

The EPA has established a new drinking water standard for arsenic because of special concerns that the former standard may not have been stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations. Arsenic levels above the new standard of 10 ppb warrant public concern. [Arsenic is at less than detectable levels in NTM samples](#).

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask for advice from your health care provider. For North Table Mountain Water nitrate/nitrite levels, refer to the Inorganic Chemical Contaminant table. [Levels of nitrate/nitrite in the District are low](#).

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. North Table Mountain Water 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 at 1-800-426-4791**, or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead). For North Table Mountain Water lead levels, refer to the Lead and Copper table. [Levels of lead in the District are low](#).

Cryptosporidium is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. [North Table Mountain Water has tested for crypto in both raw and treated water and has never detected it in either](#). The organism is in many of Colorado's rivers and streams and comes from animal waste in the watershed. Crypto is eliminated by an effective treatment combination including filtration, sedimentation, and disinfection. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants are available from the Safe Drinking Water Hotline above. Please call our office at 303-279-2854 if you have questions.