



2012 Annual Drinking Water Quality Report for North Table Mountain Water District

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www.ntmwater.org

We are pleased to present to you this year's Annual Drinking 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 summarizes the results of our monitoring for the period of January 1, 2011 to December 31, 2011, 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 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.cdph.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.

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.

| Turbidity | MCL | Highest Level Found | Sample Date | Violation | Source of Contamination |
|-----------------|---------------------|---------------------|-------------|-----------|-------------------------|
| Plant Clearwell | Treatment Technique | 0.09 | 9/10/11 | NO | Soil Runoff |

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).

| Total Coliform Bacteria | MCLG | MCL | Level Detected | Sample Date | Violation | Source of Contamination |
|-------------------------|------|---|---------------------------------|--------------|-----------|--------------------------------------|
| Distribution System | 0 | Presence of Coliform Bacteria in One of the Monthly Samples | Absent in 100% of Samples Taken | 10 per month | NO | Naturally Present in the Environment |

North Table Mountain is subject to water quality compliance criteria concerning treatment optimization and the use of chlorine as a disinfectant. The following three tables present chemical parameters which must be routinely monitored and regulated:

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.

| Maximum Residual Disinfectant Level | MRDLG | MRDL | Sample Date | Range | Running Annual Average | Violation | Source of Contamination |
|-------------------------------------|-------|-------|-------------|---------------|------------------------|-----------|---|
| Distribution System | 4 ppm | 4 ppm | 2011 | 0.2 - 1.5 ppm | 0.8 ppm | NO | Water Additive Used to Control Microbes |

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.

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 Organic Carbon | Sample Date | MCL | Lowest Running Annual Average | Range | Highest Running Annual Average | Violation | Source of Contamination |
|----------------------|-------------|-------|-------------------------------|-----------------|--------------------------------|-----------|--------------------------------------|
| Plant Clearwell | 2011 | 2 ppm | 1.61 ppm | 1.28 - 2.04 ppm | 1.80 ppm | NO | Naturally Present in the Environment |

Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) - 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.

| Disinfection Byproduct | MCLG | MCL | Sample Date | Range | Highest Running Annual Average | Violation | Source of Contamination |
|------------------------|------|--------|-------------|-----------------|--------------------------------|-----------|--|
| TTHMs | NA | 80 ppb | 2011 | 23.4 - 71.9 ppb | 52 ppb | NO | Byproduct of Drinking Water Chlorination |
| HAA5s | NA | 60 ppb | 2011 | 24.3 - 49.1 ppb | 43 ppb | NO | Byproduct of Drinking Water Chlorination |

Lead and Copper - NTM samples for lead and copper every three years. The following 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 the action level, additional requirements would be triggered.

| Inorganic Chemical Contaminants Measured at Consumer's Tap | MCLG | Action Level | Highest Level Found | 90th Percentile Value | Number of Samples Exceeding the Action Level | Violation | Source of Contamination |
|--|-------|--------------|---------------------|-----------------------|--|-----------|---|
| Lead | 0 ppb | 15 ppb | 11 ppb | 7.4 ppb | 0 | NO | Corrosion of Household Plumbing Systems |
| Copper | 0 ppm | 1.3 ppm | 0.12 ppm | 0.048 ppm | 0 | NO | Corrosion of Household Plumbing Systems |

The 90th percentile is the 18th highest result out of 20 samples taken.

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.

| Chemical Contaminants Measured in the Clearwell | MCLG | MCL | Highest Level Found | Sample Date | Violation | Source of Contamination |
|---|---------|----------------|---------------------|-------------|-----------|---|
| Barium | 2 ppm | 2 ppm | 0.02 ppm | 4/21/11 | NO | Discharge of Drilling Waste, Discharge from Metal Refineries; Erosion from Natural Deposits |
| Nitrate | 10 ppm | 10 ppm | 0.048 ppm | 11/7/11 | NO | Runoff from Fertilizer Use; Leaching from Septic Tanks, Sewage; Erosion of Natural Deposits |
| Sodium | NA | No Standard | 15.1 ppm | 8/31/11 | NO | Naturally Present in the Environment |
| Sulfate | 500 ppm | 250 ppm (SMCL) | 21.7 ppm | 1/27/11 | NO | Naturally Present in the Environment |
| Uranium | 0 | 30 ppb | 1.8 ppb | 2/3/11 | NO | Erosion of Natural Deposits |
| Gross Alpha excl. Radon & Uranium | 0 | 15 pCi/L | 2.1 pCi/L | 2/3/11 | NO | Erosion of Natural Deposits |

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.

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.

Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

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 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, fluoride, mercury, nickel, selenium, thallium, 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 District 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. 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.