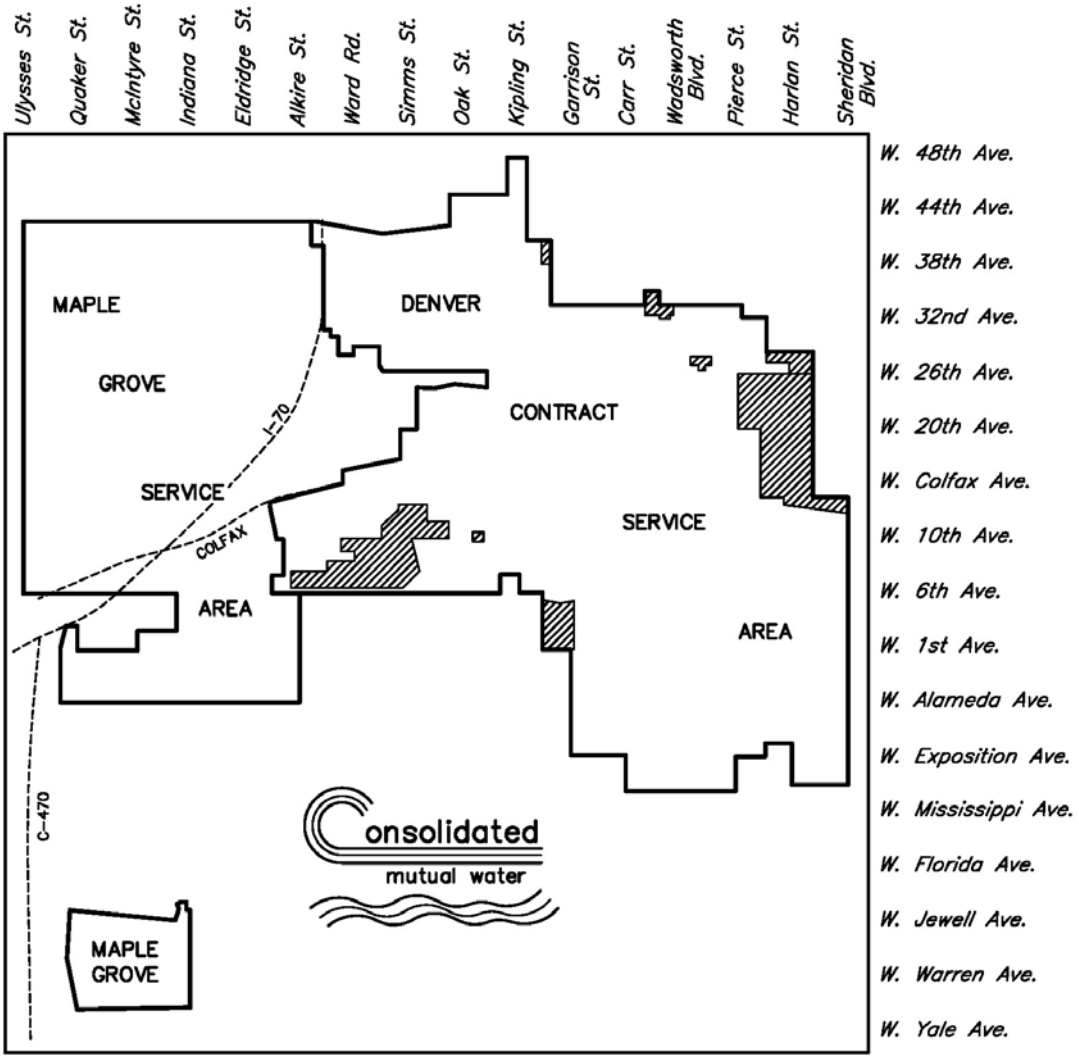
# 2015 WATER QUALITY REPORT

The Consolidated Mutual Water Company ("Company") is pleased to present its 2015 Annual Water Quality Report in accordance with the United States Environmental Protection Agency ("USEPA") National Primary Drinking Water Regulations, which requires all drinking water suppliers to provide their customers with an annual statement describing the water supply and the quality of its water. The Company's service area is provided water from two independent and separate water treatment systems. The largest section is the Denver Contract area, which is supplied from the Denver Water treatment facilities. The second area is supplied from the Company owned and operated Maple Grove Water Treatment Plant. Both systems provide high quality drinking water in accordance with **The Safe Drinking Water Act**. All treatment plants are operated with certified Class "A" operators as required by EPA regulations. A summary of water quality for each system is provided along with details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Certified laboratories in accordance with current regulations completed all reportable water analysis.

## Protection of the Water Supply

The Company is aware of potential security risks at U.S. water utilities and the possibility of future threats. The Company has completed and submitted a Federal vulnerability assessment, increased security at all Company facilities and enhanced its sampling schedules. The Company's highest priority is to maintain a quality water supply for our customers. The Colorado Department of Public Health and Environment Source Water Assessment and Protection (SWAP) program has completed a source water assessment summary for all large Colorado public water supplies which is available on their web site at (www.cdphe.state.co.us/wq/sw/swaphom.html) or by contacting Chris Jones, Water Treatment Manager, at (303) 238-0451. Please see page 15 of this report for potential sources of contamination in our source water area.

For additional information on this report contact *Denver Water at (303)628-5973, or attend the Annual Stockholders Meeting on May 12, 2016, 6:30 p.m. at 12700 West 27th Avenue. For information on contaminants and potential health effects, call the USEPA Safe Drinking Water Hotline at 1 (800) 426-4791.*



## MAPLE GROVE SERVICE AREA

*Source water: Maple Grove Water Treatment Plant receives water from two surface water sources. About 90% of the water is diverted from Clear Creek and the remainder comes from Lena Gulch. Both collection systems are generally very healthy due to the absence of industrial activity in the watershed area. Some naturally-occurring metals and radioactive materials are dissolved in the water; however, as of this date, we have experienced no violations of regulations from any of these contaminants.*

*Treatment technology: Maple Grove Treatment Plant is a full treatment facility with coagulation, flocculation, membrane filtration and disinfection. In addition, iron, manganese and organic material are reduced. Lower iron and manganese levels reduce staining of fixtures and lower organic material levels reduce the formation of Total Trihalomethanes ("TTHM's") during disinfection. The Treatment Plant features current state-of-the-art monitoring and operating equipment and all operators are certified by the State of Colorado.*

| CONTAMINANTS | MCL (1) | MCLG (2) | Unit (3) | Range of Detection (4) | Maple Grove Average | Violation | Sampling Date | Sources of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Regulated in the treatment plant effluent** | | | | | | | | |
| Barium | 2 | 2 | ppm | 0.044 | 0.044 | No | 24-11-15 | Erosion of natural deposits, drilling wastes and metal refineries |
| Fluoride | 4 | 4 | ppm | 0.45 | 0.45 | No | 24-11-15 | Erosion of natural deposits |
| Chloramine as $Cl_2$ | 4 | N/A | ppm | 1.82 - 3.07 | 2.35 | No | 6 Daily | Water additive used to control microbes |
| Chlorine Dioxide | 800 | 800 | ppb | 0.0 - 160 | 20 | No | Daily | Water additive used to control microbes |
| Mercury | 2 | 2 | ppb | 0.061 | 0.061 | No | 24-11-15 | Erosion of natural deposits, landfill runoff refineries, and factories |
| Nickel | N/A | N/A | ppm | 0.0044 | 0.0044 | No | 24-11-15 | Naturally present in the environment and metal plating |
| Nitrate as N | 10 | 0 | ppm | 0.24 | 0.24 | No | 24-11-15 | Runoff from fertilizer use, erosion of natural deposits |
| Sodium | N/A | N/A | ppm | 33.0 | 33.0 | No | 24-11-15 | Naturally present in the environment |
| Total Organic Carbon (TOC) | TT (5) | N/A | ppm | 1.67 - 3.14 | 2.24 | No | Monthly | Naturally present in the environment |
| Turbidity | TT (5) | N/A | NTU | (6) 0.10 | (7) 100% | No | 6 Daily | Soil runoff |
| **UCMR3 (Entry point to the Distribution System) (14)** | | | | | | | | |
| Chlorate | N/A | N/A | ppb | 280 - 510 | 393 | No | Quarterly | Erosion of natural deposits/drilling wastes |
| Chromium Total | 100 | 100 | ppb | nd - 0.3 | 0.13 | No | Quarterly | Erosion of natural deposits/drilling wastes |
| Chromium 6 | N/A | N/A | ppb | 0.05 - 0.16 | 0.087 | No | Quarterly | Naturally present in environment, plating, tanning and preservative |
| Molybdenum | N/A | N/A | ppb | 2.3 - 2.6 | 2.41 | No | Quarterly | Erosion of natural deposits/drilling wastes |
| Strontium | N/A | N/A | ppb | 240 - 420 | 313 | No | Quarterly | Erosion of natural deposits |
| Vanadium | N/A | N/A | ppb | 0.3 - 0.8 | 0.49 | No | Quarterly | Erosion of natural deposits |
| 1,4,Dioxane | N/A | N/A | ppb | 0.32 - 0.58 | 0.43 | No | Quarterly | Solvent or solvent stabilizer in manufacturing and processing |
| **Regulated in the distribution system** | | | | | | | | |
| Total Trihalomethanes (TTHM) | 80 | 0 | ppb | 18.9 - 37.2 | 29.2 LRAA (10) | No | Quarterly | Disinfection by-product |
| Halo Acetic Acids (HAA5) | 60 | 0 | ppb | nd - 12.3 | 9.2 LRAA (10) | No | Quarterly | Disinfection by-product |
| Chlorite | 1 | 0.8 | ppm | 0.29 - 0.75 | 0.53 | No | Daily | Disinfection by-product |
| Total Coliform Bacteria | (8) | 0 | + / - | (9) | 0 | No | Monthly | Naturally present in the environment |
| **Regulated at customers tap** | | | | | | | | |
| Copper | 1.3 (11) | 1.3 | ppm | (12) 0.20 | (13) 0 out of 30 | No | Sept. 2014 | Corrosion of household plumbing and service |
| Lead | 15 (11) | 0 | ppb | (12) 2.6 | (13) 0 out of 30 | No | Sept. 2014 | connection. |

(1) Maximum Contaminant Level ("MCL") - The highest level of a contaminant allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
(2) Maximum Contaminant Level Goal ("MCLG") - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
(3) Units of Measurement = pCi/L - Picocuries per liter is a measure of radioactivity in water. ppm = one part per million. ppb = one part per billion.
(4) Range of Detection = br - below reporting level and nd - no detect.
(5) Treatment Technique ("TT") is a required process intended to reduce the level of a contaminant in drinking water.
(6) Highest turbidity level for 2015.
(7) Monthly % of samples less than 0.1 Nephelometric Turbidity Unit (NTU).
(8) Presence of coliform bacteria in one monthly sample.
(9) 0 positive out of 355 samples.
(10) LRAA - Locational Running Annual Average.
(11) MCL / Action level at 90th percentile.
(12) 90th percentile.
(13) Number of samples exceeding AL.
(14) The 1996 amendments to the Safe Drinking Water Act require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems. UCMR3, (the third Unregulated Contaminant Monitoring Rule), provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. EPA can use this information to develop regulatory decisions. These analyses were done in 2015.

# DENVER SERVICE AREA

*Source water: Denver Water treatment plants receive surface waters from a watershed that covers over 3,100 square miles on both sides of the Continental Divide. Water is transported from the Colorado, Fraser and South Platte Rivers through the Denver Water collection system.*

*Treatment technology: Denver has three treatment plants, Foothills, Marston and Moffat. They are all full treatment plants and are maintained, evaluated and upgraded to stay abreast of advancements in technology, health science and governmental regulations.*

| CONTAMINANTS | MCL (1) | MCLG (2) | Unit (3) | Range of Detection (4) | Denver Average | Violation | Sampling Frequency | Sources of Contamination |
|---|---|---|---|---|---|---|---|---|
| **Regulated in the treatment plant effluent** | | | | | | | | |
| Aluminum | 200 SMCL (5) | N/A | ppb | br - 58 | 40 | No | Monthly | Erosion of natural deposits & treatment chemicals |
| Barium | 2 | 2 | ppm | 0.020 - 0.037 | 0.036 | No | Monthly | Erosion of natural deposits |
| Manganese | 50 SMCL | N/A | ppb | br - 41.2 | 13 | No | Monthly | Erosion of natural deposits, discharge of drilling |
| Uranium | 30 | 0 | ppb | br - 1.0 | 0.4 | No | Monthly | Erosion of natural deposits, mine drainage |
| Gross Beta | trigger = 15 | | pCi/L | br - 3 | br | No | Quarterly | Erosion of natural deposits, mine drainage |
| Fluoride | 4 | 4 | ppm | 0.05 - 1.06 | 0.77 | No | Annually | Erosion of natural deposits + water additive |
| Nitrate as N | 10 | 10 | ppm | br - 0.22 | 0.12 | No | Monthly | Erosion of natural deposits |
| Sodium | N/A | N/A | ppm | 10.2 - 17.0 | 14.6 | No | Annually | Naturally present in the environment |
| Sulfate | 250 SMCL | N/A | ppm | 20 - 67 | 49 | No | Monthly | Naturally present in the environment |
| Turbidity | TT (6) | N/A | NTU | (7) - 0.15 | (8) - 100% | No | 12 Daily | Soil runoff |
| Total Organic Carbon | 1.00 | N/A | | (9) | (9) | No | Weekly | Naturally present in the environment |
| 1,2 - Dichloroethane | 5.00 | N/A | ppb | br - 0.5 | br | No | Quarterly | Discharge from factories, treatment plants |
| **UCMR3 (Entry point to the Distribution System) (19)** | | | | | | | | |
| Chromium Total | 100 | 100 | ppb | <0.2 - 0.37 | <0.2 | No | Quarterly | Erosion of natural deposits/drilling wastes |
| Chlorodifluoromethane | N/A | N/A | ppb | <0.080 - 0.097 | <0.080 | No | Quarterly | Refrigerant, discharge from waste water |
| Hexavalent Chromium (Dissolved) | N/A | N/A | ppb | <0.03 - 0.25 | 0.06 | No | Quarterly | Byproduct of disinfection reaction of total chromium |
| Molybdenum | N/A | N/A | ppb | <1 - 15 | 6.8 | No | Quarterly | Erosion of natural deposits/drilling wastes |
| Strontium | N/A | N/A | ppb | 44 = 240 | 159 | No | Quarterly | Erosion of natural deposits |
| Vanadium | N/A | N/A | ppb | <0.2 - 0.66 | 0.3 | No | Quarterly | Erosion of natural deposits |
| **Regulated in the distribution system** | | | | | | | | |
| Total Trihalomethanes TTHM | 80 | N/A | ppb | 7 - 50 | 25 (10) | No | Monthly | By-product of drinking water disinfection |
| Halo Acetic Acids (HAA5) | 60 | N/A | ppb | 8 - 33 | 18 (10) | No | Monthly | By-product of drinking water disinfection |
| Total Coliform Bacteria | (11) | 0 | + / - | 0.23% (12) | 2 out of 5,059 (13) | No | Daily | Naturally present in the environment |
| Chloramine as Cl2 | TT | N/A | ppm | 99.96% (14) | 2 out of 5,059 (15) | No | Daily | Drinking water disinfection |
| **Regulated at customers tap** | | | | | | | | |
| Copper | 1.3 (16) | 1.3 | ppm | (17) - 0.32 | 0 out of 107 (18) | No | Mar-June 2015 | Corrosion of household plumbing |
| Lead | 15 (16) | 0 | ppb | (17) - 8 | 4 out of 107 (18) | No | Mar-June 2015 | Corrosion of household plumbing |
| Copper | 1.3 (16) | 1.3 | ppm | (17) - 0.26 | 0 out of 105 (18) | No | July-Sept 2015 | Corrosion of household plumbing |
| Lead | 15 (16) | 0 | ppb | (17) - 7 | 1 out of 105 (18) | No | July-Sept 2015 | Corrosion of household plumbing |

(1) Maximum Contaminant Level ("MCL") - The highest level of a contaminant allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

(2) Maximum Contaminant Level Goal ("MCLG") - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

(3) Units of Measurement = pCi/L - Picocuries per liter is a measure of radioactivity in water. ppm = one part per million. ppb = one part per billion.

(4) Range of Detection = br - below reporting level and nd - no detect.

(5) Secondary Maximum Contaminant Level ("SMCL") is a recommended level and is not enforceable.

(6) Treatment Technique ("TT") is a required process intended to reduce the level of a contaminant in drinking water.

(7) Highest turbidity level for 2015.

(8) Monthly % of samples less than 0.3 Nephelometric Turbidity Unit (NTU).

(9) Denver Water uses enhanced treatment to remove the required amount of natural organic mater and/or demonstrates compliance with alternative criteria.

(10) LRAA - Locational Running Annual Average.

(11) No more than 5% positive per month.

(12) Highest monthly percentage September 2015.

(13) Number of positive sample out of total number of samples taken in 2015.

(14) Lowest monthly percentage of samples meeting TT requirement of detectable (greater than or equal to 0.05 ppm) residual - November 2015

(15) Samples out of total samples taken that had a non-detectable residual. October and November of 2015

(16) Action Level ("AL") - The concentration of a contaminant which, if exceeded, triggers treatment of other requirements that a water system must follow

(17) 90th percentile.

(18) Number of samples exceeding AL.

(19) The 1996 amendments to the Safe Drinking Water Act require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems. UCMR3, (the Unregulated Contaminant Monitoring Rule), provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. EPA can use this information to develop regulatory decisions. These analyses were done in 2013.

**SPECIAL INFORMATION AVAILABLE**

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 persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. Environmental Protection Agency (EPA) and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

**Cryptosporidium and Giardia** are microscopic organisms that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. They are found in Colorado's rivers and streams. These organisms are eliminated from drinking water by an effective treatment combination including filtration, sedimentation and disinfection. The Maple Grove and Denver treatment plants have monitored for these organisms for a number of years.

**Disinfection By-Products**

Total Trihalomethanes are by-products of the disinfection process. Regulations require that they be reported to the Colorado Department of Public Health and Environment ("CDPHE") by running annual averages.

**Source Water**

As water travels over the land surface or through the ground, it dissolves naturally occurring minerals and radioactive material and may be polluted by animals or human activity. Contaminants that might be expected in untreated water include biological contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use and radioactive materials.

**Potential sources of contamination** in our source water area as defined by the CDPHE can come from these discrete sites; EPA Hazardous Waste Generators, EPA Toxic Release Inventory Site, aboveground, underground and leaking Storage Tank Sites and Existing/Abandoned Mine Sites. Contamination can also derive from these dispersed sources of land use and cover types; Commercial/ Industrial/ Transportation, High Intensity Residential, Urban Recreational Grasses, Row Crops, Fallow, Pasture/Hay, Deciduous Forest and other types such as Septic Systems and Road Miles. 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 possible future contamination threats which will help us ensure that quality finished water is delivered to your home. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

**Drinking water**, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U. S. EPA's Safe Drinking Water Hotline at 1(800) 426-4791.

**Lead, 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. The Company 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 or at *http://www.epa.gov/safewater/lead*.

## Español

El presente informe contiene información muy importante relacionada con el agua potable. Si quiere esta información en español, llame al 303-628-5986.