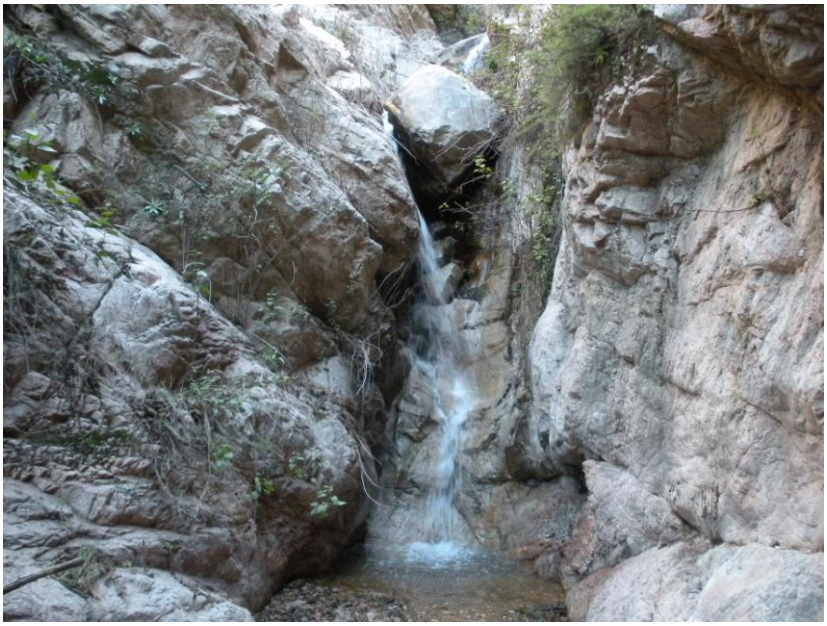
# Rubio Cañon
## Land and Water Association
***Serving our community for 126 years***

# 2011
# Water Quality Report



**West Fork of the Rubio Canyon**

## *About Rubio Cañon Land and Water Association*

Rubio Cañon Land and Water Association (RCLWA) is a mutual water company established in1886 located in the unincorporated town of Altadena, in Los Angeles County, California. For 126 years, RCLWA has supplied potable drinking water to the central and eastern portions of Altadena, north of Pasadena. The approximate population is 9,600 people served by approximately 3,140 water service connections. A five member Board of Directors governs RCLWA.

## *Our Shareholders, More than just Customers*

The mission of RCLWA is to provide shareholders within its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way. In addition to supplying high quality water, RCLWA is continuing to upgrade its infrastructure to ensure that your water will be reliably available. We are doing this by evaluating our system of pipes and replacing through improvement projects throughout the year.

## *Conserving our most precious resource*

Altadena is a semi-desert area which depends on limited supplies of imported water to supplement the local water. Conservation is always important, especially during times of sub-normal rainfall. Despite this year's rainfall total, California has not recovered from multiple consecutive years of drought. We ask that you please do your part in helping our community to continue to conserve our most precious resource. Remember, it is you that can make the greatest positive impact on our water supply by your continuous efforts to conserve water and prevent waste. For more information on how you can help conserve water and prevent water waste please visit our web site at www.rclwa.org or www.bewaterwise.com.

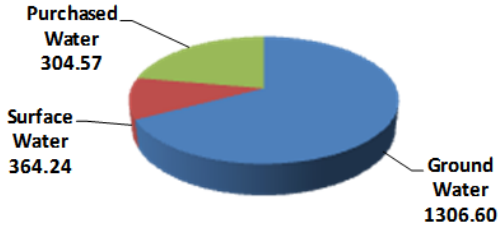
## *How much does my water cost?*

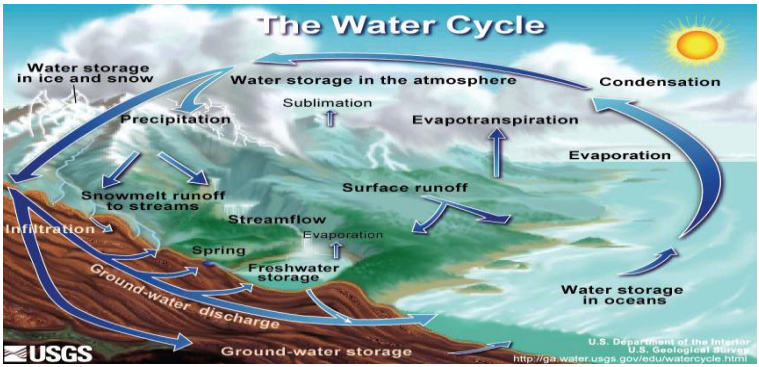
RCLWA water rates are among the lowest in the area. In 2011 RCLWA went to a 3-Tier billing rate structure. Beginning January 1, 2011 customers paid $2.10 per 100 cubic feet (748 gallons) up to 1600 cubic feet (11,968 gallons), $2.35 per 100 cubic feet (748 gallons) over 1600 to 3600 cubic feet ( 26,928 gallons), and $2.70 per 100 cubic feet over 3600 cubic feet. That comes to approximately $0.003 a gallon. In comparison, *Consumer Reports* in 2003 reported that the average cost of a one-gallon bottle of water from a supermarket is about $0.89. At that rate a typical household would spend approximately $135,807.00 a year on water compared to $457.00 purchasing local tap water.

## *Where does my water come from?*

RCLWA provides potable drinking water via groundwater wells, a conventional treatment plant and from an imported source. The imported source water is obtained from Foothill Municipal Water District, a member agency of Metropolitan Water District of Southern California. Between the months of November through April, we do not operate our wells. We import water almost exclusively during this period since purchased water is historically more readily available during the winter months. During the remaining months we operate our wells as the primary source of potable drinking water. By pumping our wells during the summer months we can save operating costs. RCLWA's treatment plant treats water that is acquired from the local foothill area. In 2011, RCLWA pumped 1306.60 acre-feet, treated 364.24 acre-feet, and imported 304.57 acre-feet of water. An acre foot of water is equal to 325,851 gallons. The recorded rainfall for 2011 was 17.66 inches.

## *Acre Feet*




## *How drinking water is treated*

- **Pre-Treatment and Disinfection: Chemical Addition**
  Disinfection chemicals such as Chlorine and Polymers are added to the water through a chemical injection mixer. These chemicals kill germs as well as improve the treatment process.

- **Coagulation & Flocculation**
  The water and chemicals are mixed rapidly to evenly distribute the chemicals on the way to the floc/sedimentation basin. The added Polymers bond to impurities in water (a process called coagulation) and form large particles called floc.

- **Sedimentation**
  As the water begins slowing down thru the sedimentation basin, Floc particles start to settle at the bottom of the basin and are then removed to a sludge basin.

- **Filtration**
  Water then flows into the filter beds where layers of anthracite (coal), sand and gravel remove any remaining impurities from the water.

## *What are some contaminants in my source water?*

- Microbial contaminants, such as viruses and bacteria, can be naturally occurring or result from urban storm water runoff, 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 storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.

- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.

- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, can come from gas stations, urban storm water runoff and septic systems.

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

## *Tap and Bottled Water*

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. In order to be certain that tap water is safe to drink, the USEPA and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

## *People with sensitive immune systems*

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. When ingested, the organism may cause nausea, diarrhea and other gastrointestinal symptoms. The organism comes from animal wastes and may be found in surface watersheds. Water purchased from Metropolitan Water District of Southern California via Foothill Municipal Water District was tested for Cryptosporidium in 2011 and it was not detected in the water. If detected, Cryptosporidium is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

Some people may be more vulnerable to constituents in the water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, persons with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk of infections. These people should seek advice from their healthcare provider about their drinking water.

The USEPA and the Centers for Disease Control have guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants, which are available through the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

## *Water Quality Monitoring*

In 2011, RCLWA conducted thousands of water quality tests for more than 100 different contaminants. We test weekly, monthly, quarterly, annually, and every three years depending on the substance. All water quality samples are pulled by specially trained and state-certified operators and analyzed by state-certified independent laboratories. The water delivered to your home or business complied with, or exceeded all State and Federal Drinking Water requirements. It is important that you know what was detected and how much of the substance was present in the water. For your information, the following tables have been compiled to show what substances were detected in RCLWA's water supplies during 2011. The State allows RCLWA to monitor some contaminants less than once per year due to the concentrations of these contaminants infrequent changes. Some data, though representative, are more than one year old.

## *2010 Monitoring Requirements Not Met*

As previously reported to you on September 30, 2011, RCLWA failed to monitor for Uranium during the first and fourth quarters of 2010. We did not complete all monitoring for Uranium as required by the California Department of Public Health (CDPH) from one of the three surface water sources. Any questions regarding the monitoring may be directed to our office by calling (626) 797-0509.

## *Cross Connection Control Program*

RCLWA's cross connection program provides a level of certainty that the water in your distribution system is protected from possible backflow of contamination sources from within commercial and/or industrial customers' premises. If you have any questions regarding any of your devices or think you have a potential cross connection, please contact RCLWA. To learn more about cross connection control and backflow prevention programs visit the Environmental Protection Agency's' website at www.epa.gov.

Well # 4

## *Water Quality Data*

***Metropolitan Water District of Southern California - Treated Surface Water***

| Chemical | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| **Radiological** | | | | | | |
| Alpha Radiation (pCi/L) | 15 | (0) | N/D | N/D – 3.0 | No | Erosion of natural deposits |
| Beta Radiation (pCi/L) | 50 | (0) | 4.0 | N/D – 6.0 | No | Decay of man-made or natural deposits |
| Uranium (pCi/L) | 20 | (0.43) | 2.0 | 1.0 – 2.0 | No | Erosion of natural deposits |
| **Inorganic Chemicals** | | | | | | |
| Aluminum (ppb) | 1000 | 600 | 110 | N/D - 240 | No | Residue from water treatment process |
| Arsenic (ppb) | 10 | 0.004 | N/D | N/D | No | Erosion of natural deposits |
| Fluoride (ppm) Treatment | 2 | 1 | 0.8 | 0.7 – 1.0 | No | Erosion of natural deposits |
| **Secondary Standards*** | | | | | | |
| Chloride (ppm) | 500* | N/A | 70 | 63 - 76 | No | Runoff or leaching from natural deposits |
| Color | 15 | N/A | 2 | 1 - 2 | No | Naturally occurring organic materials |
| Corrosivity | Non corrosive | N/A | 0.28 | 0.20 - 0.37 | No | Elemental balance in water |
| Odor Threshold | 3 | N/A | 2 | 2 | No | Naturally occurring organic materials |
| Specific Conductance (us/cm) | 1600* | N/A | 630 | 320 - 870 | No | Substances that form ions in water |
| Sulfate (ppm) | 500* | N/A | 150 | 120 - 170 | No | Runoff or leaching from natural deposits |
| Total Dissolved Solids (ppm) | 1000* | N/A | 440 | 390 - 480 | No | Runoff or leaching from natural deposits |
| * Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color). | | | | | | |
| **Unregulated Contaminants Requiring Monitoring** | | | | | | |
| Perchlorate (ppb) | 6 | 6 | N/D | N/D | No | Rocket fuel discharged to the Colorado River |
| Sodium (ppm) | Not Regulated | N/A | 69 | 62 - 76 | No | Runoff or leaching from natural deposits |
| Hardness (ppm) | Not Regulated | N/A | 170 | 60 - 250 | No | Runoff or leaching from natural deposits |

| Chemical | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| **OTHER PARAMETERS - UNREGULATED** | | | | | | |
| Chromium 6 (ppb) | N/A | N/A | 0.09 | 0.04 – 0.10 | No | Industrial waste |

# *Water Quality Data*

***Metropolitan Water District of Southern California - Treated Surface Water***

| Chemical | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| **Disinfection Byproducts** | | | | | | |
| Total Trihalomethanes (ppb) | 80 | N/A | 57 | 48 - 68 | No | Byproducts of Drinking Water Chlorination |
| Haloacetic Acids (five)(ppb) | 60 | N/A | 26 | 17 - 33 | No | Byproduct of Drinking Water Chlorination |
| Haloacetic Acids (five) System(ppb) | 60 | N/A | 18 | 8.5 - 77 | No | Byproduct of Drinking Water Chlorination |
| Total Chlorine(ppm) | 4 | 4 | 2.3 | 1.3 – 2.8 | No | Byproduct of Drinking Water Chlorination |
| Bromate | 10 | 0.1 | N/A | N/A | N/A | Byproduct of Drinking Water Chlorination |

| Turbidity - combined filter effluent | Treatment Technique | Turbidity Measurements | TT Violations | Typical Source of Contaminant |
|---|---|---|---|---|
| Highest single measurement | N/A | 0.05 | No | Soil run-off |
| Percentage less than 0.5 NTU | 95% | 100 | No | Soil run-off |

***Information Collection Rule Disinfection By-Products in Metropolitan Water District Finished water - Data Collected August 1997 - November 1998***

| Contaminant | Average Amount (ppb) | Range of Detection (ppb) | Typical Source of Contaminant |
|---|---|---|---|
| **Disinfection By-Products** | | | |
| Haloacetic Acids | 26 | 17 - 33 | Formed by the reaction with chlorine disinfectant |
| Haloacetic Acids - System | 18 | N/D - 54 | Formed by the reaction with chlorine disinfectant |
| Haloketones | 1.5 | 0.7 - 3.2 | Formed by the reaction with chlorine disinfectant |
| Chloropicrin | N/D | N/D | Formed by the reaction with chlorine disinfectant |
| Chloral Hydrate | 4.1 | 2.4 - 6.8 | Formed by the reaction with chlorine disinfectant |
| Total Organic Halides | 116 | 72 - 174 | Formed by the reaction with chlorine disinfectant |
| Cynanogen Chloride | 1.9 | N/D - 3.1 | Formed by the reaction with chlorine disinfectant |
| Total Chlorine Residual | 2.3 | 1.4 - 2.8 | Formed by the reaction with chlorine disinfectant |

**The Information Collection Rule** (ICR) is a multi-year national program administered by the U.S. Environmental Protection Agency. The primary purpose of the ICR is to gather nationwide occurrence data on chemicals which may be formed during drinking water disinfection. The results of the ICR will assist the EPA in regulating many of these disinfection by-products over the next few years.

## *Water Quality Data*

***Rubio Cañon - Ames Surface Water Treatment Plant Water Quality***

| Chemical | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| **Radiological** | | | | | | |
| RA226+RA228 (pCi/L) | 5 | (0) | N/D | N/D | No | Erosion of natural deposits |
| Uranium (pCi/L) | 20 | (5) | 15 | 0 – 20 | No | Erosion of natural deposits |
| **Inorganic Chemicals** | | | | | | |
| Aluminum (ppb) | 200 | N/A | N/D | 0 – 200 | No | Residue from Water Treatment Process |
| Arsenic (ppb) | 10 | N/A | N/D | N/D | No | Erosion of natural deposits |
| Fluoride (ppm) | 2 | 1 | 2.18 | 1.2 – 2.8 | No | Erosion of natural deposits |
| Nitrate (ppm as NO3) | 45 | 45 | 3.9 | 3.2 – 5.8 | No | Erosion of natural deposits |
| **Secondary Standards*** | | | | | | |
| Chloride (ppm) | 500* | N/A | 5.9 | 4.8 – 8.0 | No | Runoff or leaching from natural deposits |
| Zinc (ppm) | 5* | N/A | N/D | N/D | No | Runoff or leaching from natural deposits |
| Specific Conductance (us/cm) | 1600* | N/A | 350 | 300 – 375 | No | Substances that form ions in water |
| Sulfate (ppm) | 500* | N/A | 38.3 | 18 – 39 | No | Runoff or leaching of natural deposits |
| Iron (ppb) | 300* | N/A | N/D | N/D | No | Leaching from natural deposits |
| Manganese (ppb) | 50* | N/A | N/D | N/D – 3.0 | No | Leaching from natural deposits |
| Total Dissolved Solids (ppm) | 1000* | N/A | 223 | 200 – 250 | No | Runoff or leaching of natural deposits |
| ***** Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color). | | | | | | |
| **Unregulated Contaminants Required Monitoring** | | | | | | |
| Sodium (ppm) | Not regulated | N/A | 15.3 | 14 – 19 | N/A | Runoff or leaching from natural deposits |
| Hardness (ppm) | Not regulated | N/A | 150 | 140 - 170 | N/A | Runoff or leaching of natural deposits |
| **Turbidity - combined filter effluent** | | **Treatment Technique** | **Turbidity Measurements** | | **TT Violations** | **Typical Source of Contaminant** |
| Highest single measurement | | 5 NTU | 0.08 | | No | Soil run-off |
| Percentage less than 0.5 NTU | | 95% | 100 | | No | Soil run-off |

# *Water Quality Data*

***Rubio Cañon – Distribution System Water Quality***

| Contaminant | Primary MCL | Average Amount | Range of Detections | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|
| Nitrate (ppm as N03) | 45 | 12.98 | 5 - 15 | No | Fertilizers, Septic Tanks |
| Fluoride (ppm) | 2 | 1.31 | 0.50 – 2.0 | No | Naturally present in groundwater |
| Total Trihalomethanes (ppb) | 80 | 25.7 | 0 – 30 | No | Byproducts of chlorine disinfection |
| Haloacetic Acids (five) (ppb) | 60 | 15.8 | 0 – 20 | No | By products of chlorine disinfection |
| **Contaminant** | **Secondary MCL** | **Average Amount** | **Range of Detections** | **MCL Violations** | **Typical Source of Contaminant** |
| Color (color units) | 15 | 3.18 | 0 – 7.5 | No | Naturally present in groundwater |
| Odor (threshold odor number) | 3 | 1 | N/D - 1 | No | Naturally present in groundwater |

High fluoride in local surface water is blended with groundwater to reduce fluoride below the MCL. MCL compliance is determined by measuring fluoride weekly at a representative location within the distribution system.

**LEAD AND COPPER ACTION LEVEL AT RESIDENTIAL TAPS**

| Contaminant | MCL | PHG | 90th Percentile Value | Sites Exceeding MCL Number of Sites | MCL Violations | Typical Source of Contaminant |
|---|---|---|---|---|---|---|
| Copper (ppm) | 1 | 0.17 | 0.24 | 0 / 20 | No | Corrosion of household plumbing |

Every three years, 20 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2010. Next collection is scheduled for July 2013. Lead was not detected. Copper was detected in sixteen samples, none of which exceeded the Regulatory Action Level.

| Contaminant | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violation | Most Recent Sampling Date | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|
| **Radiological** | | | | | | | |
| Alpha Radiation (pCi/L) | 15 | (0) | 4.3 | 4.0 – 15.7 | No | 2010 | Erosion of natural deposits |
| Uranium (pCi/L) | 20 | (5) | 8.6 | 1.4 – 14.5 | No | 2010 | Erosion of natural deposits |

## *Water Quality Data*

***Rubio Cañon – Groundwater Quality***

| Contaminant | MCL | PHG (MCLG) | Average Amount | Range of Detection | MCL Violation | Most Recent Sampling Date | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|
| **Organic Chemicals** | | | | | | | |
| Tetrachloroethylene (PCE) (ppb) | 5 | (0) | 0.36 | N/D – 1.5 | No | 2011 | Metal Degreaser |
| MTBE (ppb) | 13 | N/A | N/D | N/D | No | 2011 | Gasoline Additive |
| **Inorganic Chemicals** | | | | | | | |
| Nitrate (ppm as NO3) | 45 | 45 | 25 | 15 – 30 | No | 2011 | Fertilizers, Septic Tanks |
| Nitrate+Nitrite (ppm as N) | 10 | N/A | 5.7 | 3.5 – 6.5 | No | 2011 | Fertilizers, Septic Tanks |
| Arsenic (ppb) | 10 | N/A | N/D | N/D | No | 2011 | Erosion of natural deposits |
| Fluoride (ppm) | 2 | 1 | 0.69 | 0.50 - 0.75 | No | 2011 | Erosion of natural deposits |
| Aluminum (ppb) | 1000 | (50) | N/D | N/D | No | 2011 | Erosion of natural deposits |
| **Secondary Standards*** | | | | | | | |
| Chloride (ppm) | 500* | N/A | 39 | 19 – 40 | No | 2011 | Erosion of natural deposits |
| Specific Conductance (us/cm) | 1600* | N/A | 525 | 490 – 610 | No | 2011 | Erosion of natural deposits |
| Sulfate (ppm) | 500* | N/A | 55 | 48 – 83 | No | 2011 | Erosion of natural deposits |
| Total Dissolved Solids (ppm) | 1000* | N/A | 355 | 320 – 410 | No | 2011 | Erosion of natural deposits |

* Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

## *Water Quality Data*

***Rubio Cañon – Groundwater Quality***

| Unregulated Contaminants Requiring Monitoring | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Contaminant** | **MCL** | **PHG (MCLG)** | **Average Amount** | **Range of Detection** | **MCL Violation** | **Most Recent Sampling Date** | **Typical Source of Contaminant** |
| Perchlorate (ppb) | 6 | 6 | N/D | 0 | No | 2011 | Rocket fuel discharged to the Arroyo Seco |
| Sodium (ppm) | Not Regulated | N/A | 37 | 0 – 40 | N/A | 2011 | Erosion of natural deposits |
| Hardness (ppm) | Not Regulated | N/A | 195 | 220 – 280 | N/A | 2011 | Erosion of natural deposits |
| Boron (ppb) | Not Regulated | N/A | 65 | 0 - 70 | N/A | 2011 | Runoff/leaching from natural deposits |
| Vanadium (ppb) | Not Regulated | N/A | 8.0 | 0 – 8.2 | N/A | 2011 | Naturally - occuring:Industrial Wastes |
| Chromium 6 - Well 7 (ppb) | Not Regulated | N/A | 2.2 | 0-2.2 | N/A | 2008 | Industrial Waste Discharge |

***Information Collection Rule Disinfection By-Products in RCLWA Finished Water - Data Collected in 2004***

| **Contaminant** | **Average Amount (ppb)** | **Range of Detection (ppb)** | **Typical Source of Contaminant** |
|---|---|---|---|
| **Disinfection By-Products** | | | |
| Monochloroacetic Acid | .17 | 0 – 1.0 | Formed by the reaction with chlorine disinfectant |
| Dichloroacetic Acid | 7.63 | 0-18.4 | Formed by the reaction with chlorine disinfectant |
| Trichloroacetic Acid | 5.77 | 0-9.9 | Formed by the reaction with chlorine disinfectant |
| Monobromoacetic Acid | N/D | N/D | Formed by the reaction with chlorine disinfectant |
| Dibromoacetic Acid | 2.24 | 0-6.8 | Formed by the reaction with chlorine disinfectant |
| Total Haloacetic Acids (HAA5) | 15.8 | 0-30 | Formed by the reaction with chlorine disinfectant |

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## *Units of Measure*

### Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L)
- Parts per billion (ppb) or micrograms per liter (ug/L)
- Parts per trillion (ppt) or nanograms per liter (ng/L)

### Think about these comparisons:

**PPM**
3 drops in
42 gal

42 gallons
(Large bathtub)

**PPB**
1 drop in
14,000 gal

14,000 gallons
(Average swimming pool)

**PPT**
1 drop in
14,000,000 gal

14,000,000 gallons
(Average lake)

- Grains per gallons (grains/gal) – A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.
- Nephelometric Turbidity Units (NTU) – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- Picocuries per liter (pCi/L) – A measurement of radioactivity in water.

## *Additional Information on Drinking Water Contaminants*

***Nitrate*** - Found in groundwater through agricultural runoff and a by-product of leaking septic systems. Specifically, a naturally occurring chemical that is left after the break down or decomposition of animal or human waste. Water quality may also be affected through ground water resources that have a high number of septic systems in the watershed. Nitrate in drinking water at levels above 45 ppm is a health risk for infants of less than six months of age as well as pregnant women, and those with certain specific enzyme deficiencies.

***Perchlorate*** - Occurs both naturally and through manufacturing. A component found in rocket fuel and can be found in airbags, fireworks, and Chilean fertilizers. Both RCLWA and Metropolitan Water District had no detection of Perchlorate in 2011.

***Chloramines*** - Chlorine has been safely used for more than 100 years for disinfection of drinking water to protect public health from diseases, which are caused by bacteria, viruses, and other disease causing organisms. Chloramine, the monochloramine form in particular, also has been used as a disinfectant since the 1930's. Chloramines are produced by combining Chlorine with Ammonia. While obviously toxic at high levels, neither poses any health concerns to humans at the levels used for drinking water disinfection. Chloramines are weaker disinfectants than Chlorine, but are more stable, thus extending disinfectant benefits throughout a water utility's distribution system. Chloramines are used for maintaining a disinfectant residual in the distribution system so that disinfected drinking water is kept safe.

***Turbidity*** - Turbidity is a cloudiness or haziness of water caused by individual particles (suspended solids) that are generally invisible to the naked eye, thus being much like smoke in air. Turbidity is generally caused by phytoplankton. Measurement of turbidity is a key test of water quality.

***Total Trihalomethanes*** - Trihalomethanes (THM) are a group of four chemicals that are formed along with other disinfection byproducts when Chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The amount of total THM's allowed in drinking water is regulated by the USEPA. THM's are measured at four locations within our system and averaged once per quarter and reported as a running annual average. USEPA has set the total THM annual average safe limit at 80ppb for drinking water.

***Haloacetic Acids*** - Haloacetic acids (HAA5) are a group of five chemicals that are formed along with other disinfection byproducts when Chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water. The amount of total HAA5's allowed in drinking water is regulated by the USEPA. HAA5's are measured at four locations within our system and averaged once per quarter and reported as a running annual average. USEPA has set the total HAA5 annual average safe limit at 60ppb for drinking water.

***Color*** - When water is not circulated regularly it can pick up color from galvanized or copper pipes causing your water to turn yellow or brown. A rusty water heater can also be a problem. To remove colored water from household pipes, run faucet for at least five minutes or until the water clears. Catch this water in a pitcher for watering plants or other non-potable purposes. RCLWA has a flushing maintenance program to remove sediment from the distribution system.

***Fluoride*** - Fluoride is a naturally occurring mineral found both in surface water (water from snowmelt, rivers, and streams) as well as groundwater. Fluoride has been added to U.S. drinking water supplies since 1945. While the MCL for Fluoride is set nationally at 4.0 PPM, the California Department of Public Health (CDPH) has set the California MCL at 2.0 PPM. Blending canyon water with pumped groundwater or imported water lower in Fluoride always reduces Fluoride below the CDPH MCL. Tests for Fluoride are conducted every week at a representative location within the distribution system.

## *Abbreviations and Definitions*

***MCL*** - Maximum Contaminant Level **-** The highest level of a contaminant that is allowed in drinking water. Primary MCL's are set as close to the PHG's or MCLG's as is economically and technologically feasible. Secondary MCL's (SMCL) are set to protect the aesthetic qualities (color, taste, and odor) of drinking water.

***MCLG*** - Maximum Contaminant Level Goal **-** The level of a contaminant in drinking water below which there are no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency (USEPA).

***PHG*** - Public Health Goal – The level of a contaminant in drinking water below which there are no known or expected risk to health. PHG's are set by the U.S. Environmental Protection Agency (USEPA).

***MRDL*** - Maximum Residual Disinfection Level **-** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

***MRDLG*** - Maximum Residual Disinfection Level Goal – The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLG's are set by the U.S. Environmental Protection Agency (USEPA).

***NL*** - Notification Level **-** Non-regulatory, health-based advisory levels established by the California Department of Public Health (CDPH) for contaminants in drinking water for which an MCL has not been established.

***N/A*** - Not applicable

***N/D*** - Not detected

***PDWS*** - Primary Drinking Water Standard – MCL's and MRDL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

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

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

## *Contact Information*

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Ames Sampling Station


**Water Facts**

- The United States uses about 346,000 million gallons of fresh water every day.
- Drinking too much water too quickly can lead to water intoxication. Water intoxication occurs when water dilutes the sodium level in the bloodstream and causes an imbalance of water in the brain.
- The United States uses nearly 80 percent of its water for irrigation and thermoelectric power.
- Low flow showerheads can save 25% more water than standard showerheads.