



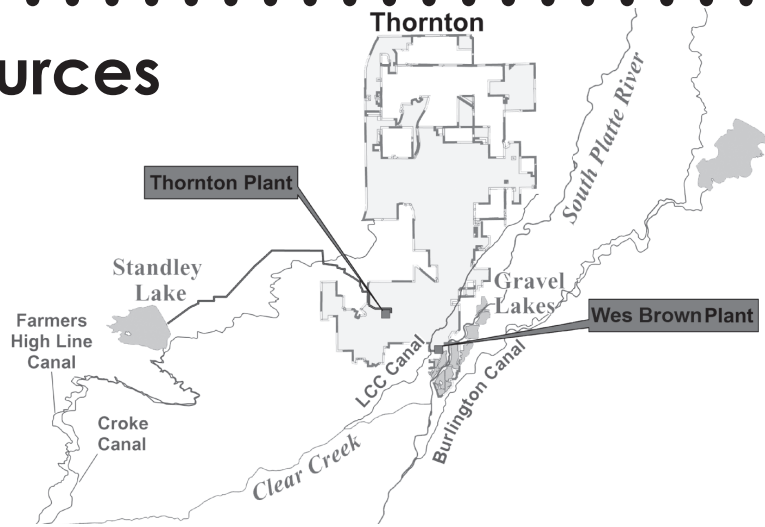
2010 Water Quality Report

The City of Thornton is pleased to provide you with the 2010 Water Quality Report. The purpose of this report is to inform water customers about important health information and the water quality test results conducted in 2009. Federal law requires that this report contain information about regulated contaminants found in drinking water. The table contained in this report compares the allowable concentration of regulated contaminants to those found in Thornton water. It is important to note that contaminants detected in Thornton water were within safe levels. Thornton is proud of its ability to consistently deliver water of outstanding quality to its customers.

Thornton's Water Sources

Thornton's source water originates as snow melt in the mountains of the South Platte River Basin. Water is diverted from the South Platte River and Clear Creek and routed to several reservoirs, including Standley Lake, for storage and eventual treatment at the water treatment plants.

These reservoirs are routinely tested for water quality.



SWAP: Source Water Assessment and Protection Report

The Colorado Department of Public Health and Environment conducted a Source Water Assessment of Thornton's water sources in 2002. The report identifies potential contaminant sources such as gasoline storage tanks, wastewater plant discharges, mine drainages and others. These sites do not necessarily pose a threat but were identified only as potential sources of contamination. This assessment report is available to the public at www.cdphe.state.co.us/wq/sw/sw/wswapreports.html. Click on Adams County and then click on 101150 City of Thornton.

- **Health Information** All drinking water, including bottled water, may reasonably be 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 and infants can be particularly at risk. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects call the EPA Safe Drinking Water Hotline at 1-800-426-4791.
- The sources of drinking water (both tap water and bottled water) such as rivers, lakes and streams, contain naturally occurring minerals including radioactive material that is not completely removed at the water treatment plant and can pose a human health risk if present at a concentration above the safe levels set by the EPA. 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.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Thornton Water

Contaminant Detected	MCL	MCLG	Range of Detection (min - max)	Units	Likely Sources of Contaminants
Metals					
Barium	2000	2000	16 - 40	ppb	Drilling wastes, metal refineries, erosion of natural deposits
Chromium	100	100	1 - 2	ppb	Erosion of natural deposits
Lead	AL ≤15 90% of samples < 15	0	0.5 - 15 no samples >15	ppb	Household plumbing, battery manufacturing, erosion of natural deposits
Copper	AL ≤1,300 90% of samples < 1,300	1,300	60 - 430 no samples >1,300	ppb	Household plumbing, wood preservatives, erosion of natural deposits
Disinfectant					
Chlorine	4	4	<0.02 - 2.9	ppm	Added in the water treatment process
Inorganic Chemicals					
Fluoride	4	4	0.6 - 0.9	ppm	Erosion of natural deposits
Nitrate	10	10	0.1 - 0.6	ppm	Fertilizer, septic tanks, sewer plant discharges, naturally occurring deposits
Organic Chemicals					
Total Organic Carbon	Removal Ratio RAA ≥ 1	n/a	RAA = 1	n/a	Naturally occurring in plants and the environment, sewer treatment plant discharges
Haloacetic Acids	RAA = 60	0	4 - 19 RAA = 15	ppb	Produced as a byproduct of chlorination at the water treatment plant
Trihalomethanes	RAA = 80	0	15 - 45 RAA = 27	ppb	Produced as a byproduct of chlorination at the water treatment plant
2,4-D (herbicide)	70	70	0.2 - 0.2	ppb	Herbicide application
Radioactive Material					
Alpha Radioactivity	15	0	3 - 3	pCi/L	Erosion of natural deposits
Microorganisms					
Coliform Bacteria	95% of samples free of coliform bacteria	0	99.94% free of coliform 1 positive in 1570 samples	%	Human and animal waste, stormwater run-off, sewer plant discharges
Turbidity					
Turbidity	< 0.3 NTU in 95% samples No sample above 1.0 NTU	0 0	>99% samples below 0.3 NTU 2 samples > 0.3; None >1.0	NTU	Particles and sediment present in natural water sources and stormwater run-off

There were no violations of state or federal drinking water standards in 2009.

Definitions

Maximum Contaminant Level (MCL) =

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 water treatment technology available.

Maximum Contaminant Level Goal (MCLG) = 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.

Removal Ratio: A value of one or greater indicates that the required amount of TOC is being removed.

Action Level (AL) = The concentration of a contaminant, which if exceeded, triggers treatment or other requirements a water system must follow.

n/a = not applicable

NTU = Nephelometric Turbidity Units, used in the measurement of clarity

pCi/L = PicoCuries per Liter, a picoCurie is one ten thousandth the energy emitted from one gram of radium

ppm = Parts per Million, a unit used to express concentration of an element or compound in a liquid. One part per million is equivalent to one day in 2,740 years.

ppb = Parts per Billion, a unit used to express the concentration of an element or compound in a liquid. One part per billion is equivalent to one second in 32 years.

RAA = Running Annual Average, the average of the last 12 months.

Hardness of Thornton Water

Water hardness is a measure of calcium and magnesium salts. These salts are naturally occurring and are dissolved into water as it moves down rivers and streams and comes into contact with soil and minerals. Hardness is not removed by conventional water treatment processes. Water softening, reverse osmosis, or distillation is required to remove hardness.

Water below 50 ppm (3 grains per gallon) can be considered soft and typically does not need to be softened for normal uses. Water above 350 ppm (19 grains per gallon) is considered hard water and may need to be softened to remove certain aesthetic effects such as spotting on dishes. Thornton's tap water ranged from 108 ppm to 236 ppm (6 to 12 grains per gallon) in 2009. Hardness of water is not regulated by state or federal drinking water standards.

Water Sample Collection

The Water Quality staff collects samples at over 30 sites within the service area each week to test water quality. To find out about recent test results in your area, call the Water Quality Information Line at 303-255-7770.

For Water Quality Information

- Go to www.cityofthornton.net and click on the City Services icon, or call 303-255-7771.
- Talk to your City Council representative at Ward Meetings, the schedule can be found at www.cityofthornton.net, under the Community Calendar.
- Contact Vic Lucero at vic.lucero@cityofthornton.net or call 303-255-7771.
- For Water Billing inquiries call 303-538-7370.



City of Thornton