

CONTAMINANTS DETECTED IN 2006

Contaminant Detected	Maximum Contaminant Level	Maximum Contaminant Level Goal	Date of Highest Detection	Range of Detection (min.- max.)	Water purchased from Denver Water average Detection	Water purchased from Denver Water/ Range of Detection (min.-max.)	Major Sources
Inorganic Contaminants							
Antimony (ppb)	6	3	6/8/2006	0.5-0.5	ND	ND	Oil refineries, ceramics, solder, fire retardants, electronics manufacturing
Arsenic (ppb)	10	0	4/11/2006	0.5-0.7	ND	ND	Erosion of natural deposits, glass and electronics production waste
Barium (ppm)	2	2	7/10/2006	0.01-0.04	0.038	0.13-0.42	Drilling waste, metal refineries, erosion of natural deposits
Chromium (ppb)	100	100	2/6/2006	2.1-2.1	ND	ND	Discharge from steel and pulp mills, erosion of natural deposits
Copper (ppm)	90th percentile =<1.3 AL	1.3	6/19/2006	0.06-0.7 90th percentile =0.4	90th percentile = 0.34	0 samples above AL	Household plumbing, wood preservatives, erosion of natural deposits
Lead (ppb)	90th percentile=<15 AL	0	6/19/2006	0.3-14 90th percentile =4.1	90th percentile = 9	2 samples above AL	Household plumbing, erosion of natural deposits, batteries
Nickel (ppb)	No standard	No Goal	6/8/2006	2.1-4.9	ND	ND	Refineries, metal plating, chemical factories
Nitrate (ppm)	10	10	1/3/2006	0.1-3.4	0.13	0.04-0.19	Fertilizer, septic tanks, sewer plant discharges, natural deposit erosion
Nitrite (ppm)	1	1	6/8/2006	0.05-0.55	ND	ND	Fertilizer, septic tanks, sewer plant discharges, natural deposit erosion
Selenium (ppb)	50	50	2/3/2006	0.8-1.9	ND	ND	Oil refineries, mine discharges, erosion of natural deposits
Fluoride (ppm)	4	4	1/9/2006	0.5-1.0	0.90	0.08-1.25	Erosion of natural deposits
Organic Contaminants							
Carbon Tetrachloride (ppb)	5	0	4/11/2006	1.7-1.7	ND	ND	Discharge from chemical plants and other industrial activities
Microbial Contaminants							
Total Coliform Bacteria	95% of samples free of coliform	0	7/31/2006	1 of 1392 positive for total coliform >99% coliform free	0.26% of samples in Feb. positive	1 of 5,513 positive for total coliform >99% coliform free	Human and animal wastes, stormwater runoff, sewer plant discharges
Turbidity (NTU)	TT=<0.3 NTU in 95% of samples, no samples above 1.0	0	4/4/2006	0.03-0.31 One sample >0.3 95% of samples <0.3	100% of samples <0.3	0.21 highest value	Particles and sediment present in untreated water, treatment plant filter malfunction
Disinfection Byproducts							
Chloramine (ppm)	MRDL=4 RAA=4	MRDLG=4	2/27/2006	0.05-2.7 RAA=1.6	1.08	<0.05-2.06	Chlorine added in the treatment process for purposes of microbiological disinfection
Haloacetic Acids (ppb)	RAA=60	0	7/10/2006	2-35 RAA=20	17	8-30	An organic chemical produced as a byproduct of chlorine disinfection
Total Trihalomethanes (ppb)	RAA=80	0	4/15/2006	18-61 RAA= 34	27	7-50	An organic chemical produced as a byproduct of chlorine disinfection
Total Organic Carbon	Removal ratio RAA>1 TT	NA	NA	1.0-1.3 RAA=1.1	1.00 1.28 1.00	0.6-1.55 0.87-1.75 0.57-1.55	Naturally present in the environment
Radioactive Contaminants							
Alpha radiation (pCi/L)	15	0	2/3/2006 10/16/2006	4-4	ND	ND	Erosion of natural deposits, decay of natural and man-made material
Beta Radiation (pCi/L)	50	0	4/11/2006	5-10	0	0-3	Erosion of natural deposits, decay of natural and man-made material
Radium-226 and Radium- 228 (pCi/L)	5 combined 266 + 228	0 combined 226 + 228	10/16/2006	0.07-1.0	ND	ND	Erosion of natural deposits, decay of natural and man-made material
Uranium (ppb)	30	30	10/16/2006	5-5	0	0-0.5	Erosion of natural deposits, decay of natural and man-made material

This table contains terminology and abbreviations you may not be familiar with. Refer to the *Abbreviations & Definitions* section for further explanation.

Abbreviations & Definitions

AL = Action Level

The concentration of a contaminant, which if exceeded, triggers treatment or other requirements a water system must follow.

MCL = Maximum Contaminant Level

The MCL 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 water treatment technology.

MCLG = Maximum Contaminant Level Goal

The "Goal" is the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL = Maximum Residual Disinfectant Level

The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG = Maximum Residual Disinfectant Level Goal

The level of a drinking water disinfectant, at which there is no known expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

n/a = not applicable

ND = Not Detected

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 the concentration of an element or compound in a liquid. One part per million is equivalent to one second in 280 hours (11 days, 16 hours).

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

An average of monitoring results for the previous 12 calendar months.

TT = Treatment Technique

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

90th percentile = 90% of the test results are below this value.

SWAP

(Source Water Assessment and Protection) Report

The Colorado Department of Public Health and Environment has conducted a Source Water Assessment Report for Thornton's water supply. When available, you may obtain a copy of the report by visiting www.cdphe.state.co.us/wq/sw/swaphom.html or by contacting the Water Quality Administrator at 303-255-7771. The source Water Assessment Report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination will impact our water supply.

We use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination that may need to be treated. The source water assessment results provide a starting point for developing our water protection plan.

Thornton's water sources

Thornton's water comes from Clear Creek and the South Platte River. In the spring and early summer, snow melting from the mountains is carried by those streams and is diverted into reservoirs for use throughout the year.

Thornton currently has eight reservoirs used for drinking water storage. Four additional reservoirs are currently under construction to accommodate future growth.

