

# City of Carbondale

## Consumer Confidence Report – 2011

### Covering Calendar Year – 2010



This brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. It is important that customers be aware of the efforts that are made continually improve their water systems. **To learn more about your drinking water, please attend any of the regularly scheduled meetings which are held, first & third 7:00 PM, City Hall, 234 Main St.** For more information please contact the City Office at 785-836-7108.

Your water comes from surface water.

Your water is treated to remove several contaminants and a disinfectant is added to protect you against microbial contaminants. The Safe Drinking Water Act (SDWA) required states to develop a Source Water Assessment (SWA) for each public water supply that treats and distributes raw source water in order to identify potential contamination sources. The state has completed an assessment of our source water. For results of the assessment, please contact us or view on-line at: <http://www.kdheks.gov/nps/swap/SWreports.html>

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer under going 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 from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) included 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 sources water before we treat it include:  
**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, 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 or farming.  
**Pesticides and herbicides**, which may come from a variety of sources such as storm water run-off, agriculture, and residential users.  
**Radioactive contaminants**, which can be naturally occurring or the result of mining activity.  
**Organic contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulation, which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system tested a minimum of 4 samples per month in accordance with the Total Coliform Rule for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

#### Water Quality Data

The following tables list all of the drinking water contaminants which were detected during the 2010 calendar year. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1- December 31, 2010. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. **The bottom line is that the water that is provided to you is safe.**

#### Terms & Abbreviations

**Maximum Contaminant Level Goal (MCLG):** the "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

**Maximum Contaminant Level (MCL):** the "Maximum Allowed" 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 treatment technology.

**Secondary Maximum Contaminant Level (SMCL):** recommended level for a contaminant that is not regulated and has no MCL.

**Action Level (AL):** the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

**Treatment Technique (TT):** a required process intended to reduce levels of a contaminant in drinking water.

**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.

**Non-Detects (ND):** lab analysis indicates that the contaminant is not present.

**Parts per Million (ppm)** or milligrams per liter (mg/l)

**Parts per Billion (ppb)** or micrograms per liter (µg/l)

**Picocuries per Liter (pCi/L):** a measure of the radioactivity in water.

**Millirems per Year (mrem/yr):** measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL):** a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU):** a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

**Testing Results for: City of Carbondale**

Microbiological	Result	MCL	MCLG	Typical Source
No Detected Results were Found in the Calendar Year of 2010				

Regulated Contaminants	Collection Date	Highest Value	Range	Unit	MCL	MCLG	Typical Source
ARSENIC	1/20/2010	1.1	1.1	ppb	10	0	Erosion of natural deposits
ATRAZINE	8/30/2010	0.37	0.37	ppb	3	3	Runoff from herbicide used on row crops
BIARIUM	1/20/2010	0.081	0.081	ppm	2	2	Discharge from metal refineries
CHROMIUM	1/20/2010	2	2	ppb	100	100	Discharge from steel and pulp mills
FLUORIDE	1/20/2010	0.25	0.25	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth
NITRATE	4/1/2010	0.28	0.23 - 0.28	ppm	10	10	Runoff from fertilizer use
SELENIUM	1/20/2010	1.5	1.5	ppb	50	50	Erosion of natural deposits
TURBIDITY	1/20/2010	0.29	0.29	NTU	1		Soil runoff

Disinfection Byproducts	Monitoring Period	Highest RAA	Range	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2010	24	15 - 47	ppb	60	0	By-product of drinking water disinfection
TTHM	2010	37	18 - 75	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 <sup>th</sup> Percentile	Range	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2008 - 2010	0.17	0.028 - 2.3	ppm	1.3	1	Corrosion of household plumbing
LEAD	2008 - 2010	8.1	1.1 - 27	ppb	15	1	Corrosion of household plumbing

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. Your water system 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>.

Total Organic Carbon	Number of Samples	RAA	Removal Ratio	Required Removal Ratio
12/01/2010 - 12/31/2010	12	3	0.82	1.0 RATIO

Secondary Contaminants	Collection Date	Highest Value	Range	Unit	SMCL
ALKALINITY, TOTAL	1/20/2010	118	118	MG/L	300
CALCIUM	1/20/2010	37	37	MG/L	200
CHLORIDE	1/20/2010	15	15	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	1/20/2010	320	320	UMHO/CM	1500
HARDNESS, TOTAL (AS CAC03)	1/20/2010	120	120	MG/L	400
MAGNESIUM	1/20/2010	8	8	MG/L	150
MANGANESE	1/20/2010	0.029	0.029	MG/L	0.05
METOLACHLOR	9/8/2008	0.33	0.33	ppb	
NICKEL	1/20/2010	0.0033	0.0033	MG/L	0.1
PH	1/20/2010	7	7	PH	8.5
POTASSIUM	1/20/2010	3.7	3.7	MG/L	100
SILICA	1/20/2010	0.52	0.52	MG/L	50
SODIUM	1/20/2010	9.8	9.8	MG/L	100
SULFATE	1/20/2010	23	23	MG/L	250
TDS	1/20/2010	170	170	MG/L	500
ZINC	1/20/2010	0.059	0.059	MG/L	5

**During the 2010 calendar year, we had no violation(s) of drinking water regulations.**

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (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 getting cancer.

Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4761).