

**ERWIN UTILITIES** is proud of the fine drinking water it provides. This annual water-quality report shows the source of our water, lists the results of our tests, and contains much important information about water and health. **ERWIN UTILITIES** will notify you immediately if there is any reason for concern about our water. We are happy to show you how we have exceeded the water-quality standards.

We are proud to report that the water provided by **ERWIN UTILITIES** meets or exceeds established water-quality standards.

We encourage public interest and participation in our community's decisions affecting drinking water. Regular meetings of the Board of Public Utilities are held on the fourth Thursday of each month at the Erwin Utilities Building at 4:30 p.m. The public is welcome. Find out more about **ERWIN UTILITIES** on the Internet at [[www.erwinutilities.com](http://www.erwinutilities.com)].

**Drinking Water Standards**

Drinking water standards are regulations that the EPA sets to control the level of contaminants in the nation's drinking water. These standards are part of the Safe Drinking Water Act's "multiple barrier" approach to drinking water protection, which includes assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water. With the involvement of the EPA, states, tribes, drinking water utilities, communities and citizens, these multiple barriers ensure that tap water in the United States and its territories is safe to drink. In most cases, the EPA delegates responsibility for implementing drinking water standards to states and tribes.

**Wellhead Protection Area**

Erwin Utilities has designated wellhead protection areas to help prevent contamination of the groundwater supply. The major aim of this program is to increase awareness of the threats of groundwater contamination and to encourage voluntary protection such as conservation measures and environmentally sound waste management. Groundwater may be contaminated by the improper use and disposal of pesticides, used oil, solvents and other contaminants. Erwin Utilities encourages the use of approved disposal sites for the

disposal of these potential contaminants. The public is requested to report any activities that may result in groundwater contamination to Erwin Utilities at (423) 743-1820.

**Water Sources**

In 2008 Erwin Utilities' Water Department distributed 660,382,000 gallons of water to our customers. Our water system is located within the Nolichucky watershed and is supplied by groundwater pumped from four separate locations, one spring and three wells. The wells are located in the Honaker Formation, which is composed of dolomite, limestone, and shale with interbedded layers of gravel. Our goal is to protect our water from contaminants, and we are working with the State to determine the vulnerability of our water sources for potential contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the water sources serving this water system. The SWAP Report assesses the susceptibility of water sources for potential contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources can be rated as reasonably susceptible, moderately susceptible, or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The Erwin Utilities Water System sources are rated as reasonably susceptible to potential contamination.

An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings, and the overall TDEC report to EPA can be viewed online at [[www.state.tn.us/environment/dws/dwassess.shtml](http://www.state.tn.us/environment/dws/dwassess.shtml)], or you may contact the water system to obtain copies of specific assessments.

**An Explanation of the Water-Quality Data Table**

The table shows the results of our water-quality analyses. Every regulated contaminant that was detected in the water is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health (MCLG), the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. The following definitions of MCL and MCLG are important.

**Maximum Contaminant Level or 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 available treatment technology.

**Maximum Contaminant Level Goal or 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.

**Water System Security**

Following the events of September 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, tanks, fire hydrants, etc. to (423) 743-1820.

**National Primary Drinking Water Regulation Compliance**

**ERWIN UTILITIES** was in compliance with National Primary Drinking Water Regulations for calendar year 2008, and the Erwin Utilities water system was presented a 2007 Water Fluoridation Quality Award by the Centers for Disease Control (CDC).

**Erwin Utilities Board:**

- Richard L. Booth.....Chairman
- Tom C. Colbaugh .....Member
- Gary W. Edwards, Sr .....Member
- B. Kevin Horton.....Member
- K. Darrell Woods.....Member
- Lee H. Brown.....General Manager

**ERWIN UTILITIES** is a member of: Tennessee Association of Utility Districts, Water Environment Federation, American Water Works Association

For more information about your drinking water and for opportunities to get involved, please contact Clay Hepburn, Interim Water Treatment Supervisor, by calling (423) 743-1835 or by writing to this address: P. O. Box 817, Erwin, TN 37650-0817.

Erwin Utilities  
P. O. Box 817  
Erwin, TN 37650-0817

*El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguien que lo entienda bien.*

## Required Additional Health Information

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

The sources of drinking water (both tap water and bottled water) include 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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

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

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

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

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, 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 at (800) 426-4791.

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. Erwin Utilities 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>.

# 2008

## Water-Quality Data Table

# 2008

### Key To Table

AL = Action Level  
MCL = Maximum Contaminant Level  
MCLG = Maximum Contaminant Level Goal  
MFL = Million fibers per liter  
MRDL = Maximum Residual Disinfectant Level  
MRDLG = Maximum Residual Disinfectant Level Goal  
NTU = Nephelometric Turbidity Units

bdl = below detection level  
pCi/L = picocuries per liter (a measure of radioactivity)  
ppm = parts per million, or milligrams per liter (mg/L)  
ppb = parts per billion, or micrograms per liter (µg/L)  
ppt = parts per trillion, or nanograms per liter  
ppq = parts per quadrillion, or picograms per liter  
TT = Treatment Technique

Contaminant	Date Tested	Unit	MCL	MCLG	Reported Level	Range	Major Sources	Violation
Copper	07/21/08	ppm	AL=1.3	1.3	*0.45	0.03-0.52	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	NO
Fluoride	1 per quarter in 2008	ppm	4	4	*1.1	1.0-1.1	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer factories	NO
Lead	07/21/08	ppb	AL=15	0	*2.8	bdl-5.5	Corrosion of household plumbing systems; Erosion of natural deposits	NO
Nitrate	08/15/08	ppm	10	10	*2.5	0.5-2.5	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Sodium	11/08/06	ppm	n/a	n/a	*4.9	1.8-4.9	n/a	NO
Turbidity	See note	NTU	TT	n/a	*0.10	0.04-2.46	Turbidity is a measure of the cloudiness of the water, measured as an indicator of the effectiveness of the filtration system.	NO
Turbidity	See note	NTU	TT	n/a	*0.03	0.01-0.19	Turbidity is a measure of the cloudiness of the water measured as an indicator of the effectiveness of the filtration system.	NO
Tetrachloroethylene	1 per quarter in 2008	ppb	5	0	*2.1	1.0-2.6	Leaching from PVC pipes; Discharge from factories and dry cleaners	NO
THMs (Total Trihalomethanes)	10 per year in 2008	ppb	80	n/a	*6.0	1.4-11.9	By-product of drinking water chlorination	NO
HAA5 (Haloacetic Acids)	10 per year in 2008	ppb	60	n/a	*1.8	bdl-4.9	By-product of drinking water chlorination	NO
Contaminant	Date Tested	Unit	MRDL	MRDLG	Detected Level	Range	Major Sources	Violation
Chlorine	10 per month in 2008	ppm	4	4	*1.8	1.4-2.3	A chemical used as a disinfectant	NO
Total Coliform	10 per month in 2008	Sample	1	0	0	0-0	Naturally present in the environment	NO

### Water-Quality Table Footnotes

- <sup>1</sup> Turbidity is monitored continuously at the water treatment plants. These columns show the results of tests on our finished water at Railroad and Elks Water Plants.  
<sup>2</sup> Turbidity is monitored continuously at the water treatment plants. These columns show the results of tests on our finished water at Birchfield and O'Brien Water Plants. The lowest monthly percentage meeting the turbidity limits for all water plants was 100%.  
<sup>3</sup> None of the 30 sites sampled had a value exceeding the lead or copper action levels.  
<sup>4</sup> 90<sup>th</sup> Percentile  
<sup>5</sup> Maximum Detected Level  
<sup>6</sup> Average Detected Level

### Explanation of Violations

**Duration:**  
**Health Effects:**  
**Action Taken:**

**There were no violations.**

### Other Monitoring for Unregulated Contaminants

ERWIN UTILITIES also tested for twenty unregulated volatile organic contaminants. One unregulated contaminant, Chloroform, was detected with an average of 0.9 ppb and range of 0.7-1.1 ppb. We also tested for radon in 2001. It is not regulated yet, but an MCL of 300 pCi/L has been proposed. The Radon level found in Erwin Utilities water range was 57 pCi/L to 306 pCi/L. Erwin Utilities tested for Cryptosporidium each month in 2008 at both Birchfield and O'Brien with no detection found. For a more detailed report, please call Erwin Utilities at (423) 743-1820.