

2013 Consumer Confidence Report

Water System Name: Weaverville CSD

Report Date: June 19, 2014

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows results of our monitoring from January 1 to December 31, 2013. In some cases, limited 2014 results may also be presented. We're pleased to report that our drinking water is safe and meets all federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact Wes Scribner, General Manager at (530) 623-5051. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Board Meetings. They are typically held on the last Wednesday of every month at 5:15 P.M. in the District office, 716 Main Street, Weaverville.

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below, which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below, which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

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

Running Annual Average (RAA): running annual average of the most recent four quarters of sample results.

Variations and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

N/A: not applicable

ND: not detectable at laboratory testing limit

NTU: Nephelometric Turbidity Unit, measurement of the turbidity (cloudiness) of water.

ppm: parts per million or milligrams per liter (mg/L).

1 part per million corresponds to one minute in two years or a single penny in \$10,000.

ppb: parts per billion or micrograms per liter (ug/L).

1 part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

µS/cm: microsiemens per cm, units of specific conductance or electrical conductivity (i.e. ions in water)

Type of water sources in use: Three surface water sources

Name & location of sources: East Weaver & West Weaver Creeks in Weaverville; Trinity River in Douglas City

Drinking Water Source Assessment information: Source water assessments were performed on all three water sources in January 2003. These sources are considered most vulnerable to the following activities although no contaminants were detected: *East Weaver Creek – surface water source, no contaminants detected.*

West Weaver Creek – Recent mining operation – historic, no contaminants detected.

Trinity River – Automobile - Gas stations, no contaminants detected

A copy of the complete assessment may be viewed at the California Department of Public Health, Division of Drinking Water, 364 Knollcrest Drive, Suite 101, Redding CA 96002, by calling (530)-224-3265.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, and springs. 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 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, that 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 that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants* that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - COLIFORM BACTERIA SAMPLING RESULTS DISTRIBUTION SYSTEM (FINISHED) WATER SAMPLES					
Microbiological Contaminants samples collected in 2009	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

**TABLE 2 - LEAD AND COPPER SAMPLING RESULTS
DISTRIBUTION SYSTEM (FINISHED) WATER SAMPLES**

Lead and Copper Samples collected in: July 2013	No. of samples collected	90 th percentile level detected	No. sites exceeding AL	Action Level	PHG	Typical Source of Contaminant
Lead (ppb)	20	7.1	1**	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppb)	20	398	0	1,300	170	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

** Suspected invalid sample. Home owner given option of a resample.

**TABLE 3 – SODIUM AND HARDNESS SAMPLING RESULTS
SOURCE (RAW) WATER SAMPLES**

Chemical or Constituent samples collected in 2009	East Weaver	West Weaver	Trinity River	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2.55	2.79	5.02	none	none	Generally found in ground & surface water
Hardness (ppm)	32	66	80	none	none	Generally found in ground & surface water

**TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD
DISTRIBUTION SYSTEM (FINISHED) WATER SAMPLES**

Chemical or Constituent samples collected in 2013	East Weaver	West Weaver	Trinity River	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Total Trihalomethanes (ppb) [Annual Average reported]	22.8	20.7	11.3	80	N/A	Byproduct of drinking water chlorination
Haloacetic Acids (ppb) [Annual Average reported]	36.4	32.0	6.1	60	N/A	Byproduct of drinking water disinfection
Highest single Turbidity measurement for entire year measured every 4 hrs(NTU)	0.26	0.09	0.13	0.3 NTU (95% of samples)	N/A	Soil runoff
Residual Chlorine (ppm)	0.40 to 1.40			4	4	Drinking water disinfectant added for treatment
Gross alpha pci/L 2008	0.20	0.5	0.3	15	(0)	Erosion of natural deposits

**TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD
SOURCE (RAW) WATER SAMPLES**

Chemical or Constituent	East Weaver	West Weaver	Trinity River	MCL	Recommended MCL	Typical Source of Contaminant
Sample collected:	2005	2005	2009			
Chloride (ppm) 05	0.38	0.7	6.3	500	250	Runoff/leaching from natural deposits
Copper (ppm)	ND	ND	0.177	1.0	N/A	Erosion of natural deposits; leaching from wood preservatives
Specific Conductance (µS/cm)	78	143	185	1,600	900	Substances that form ions when in water
Sulfate (ppm)	1.7	5.4	8.7	500	250	Runoff/leaching from natural deposits
Total Dissolved Solids (ppm)	65	84	117	1,000	500	Runoff/leaching from natural deposits
PH	7.69	7.89	7.56	6.5- 8.5	6.5-8.5	Natural Waters

Additional General Information on Drinking Water

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. More information about contaminants and potential health effects can be obtained by calling the USEPA’s Safe Drinking Water Hotline (1-800-426-4791).

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. USEPA/Centers for Disease Control (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 (1-800-426-4791).

Summary Information for Elevated Results

Finished water turbidities are measured every 4 hours from each of the three treatment plants. On very few occasions, elevated turbidities were measured in samples from the East Weaver and West Weaver plants. However, the performance standard of ≤ 0.3 NTU (in at least 95% of measurements taken each month) has always been met. A summary of these standards and our monitoring is presented in Table 6 below.

TABLE 6 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES	
Treatment Technique ^(a) (Type of filtration technology used)	East Weaver Plant: direct filtration West Weaver Plant: in-line filtration Trinity River Plant: alternative filtration (Roberts Pacer II filters)
Turbidity Performance Standards ^(b) (that must be met through the water treatment process)	<u>Turbidity of the filtered water must:</u> Be less than or equal to 0.3 NTU in 95% of measurements in a month. Not exceed 1 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard 0.3 NTU	East Weaver Plant: 100% West Plant: 100% Trinity River Plant: 100%
Highest single turbidity measurement during the year	0.26 NTU in East Weaver Plant
Number of violations of any surface water treatment requirements	None.

- (a) A required process intended to reduce the level of a contaminant in drinking water.
- (b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Additional Information

In efforts to reduce the amount of disinfection byproducts, the District ran a trial of post chlorinating with liquid chlorine at the East Weaver Treatment Plant through the winter months. The results were favorable but not definitive. Operations have switched back to historical chlorine gas injection for the high production months. A plan of continuing the trial during the 2014-2015 winter months is likely.

Please call our office if you have questions (530-623-5051). All the employees of Weaverville CSD are dedicated to providing top quality water to every customer. We ask that all our customers help us protect our water sources. Our water is the heart of our community, our way of life and our children’s future.