



2013 Consumer Confidence Report

April 1, 2014

PO Box 9/20 S. Bonanza
 Echo, OR 97826
 (541)376-8411 Fax 541-376-8218
 ecpl@centurytel.net

City of Echo Water System

Diane Berry, contact person

The City of Echo provides reliable drinking water for residents. This report provides information about the water YOU drink. Each public water system is required to provide its customers with a consumer confidence report on the quality of tap water by July 1 for the previous year. This document provides information on the City of Echo Water System for 2013. If you have any questions after reviewing this report, please feel free to contact us at city hall or by calling the above number.

Notes for Immuno-Compromised Individual: Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer, who are undergoing chemotherapy, someone who has undergone organ transplants, those 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). A source assessment will be available after it is completed by the State of Oregon.

Opportunities for public participation:

Residents are always welcome to attend city council meetings, which are normally **the third Thursday** of each month. Council meeting agendas are posted at city hall and the post office.

Sources of Drinking Water:

The City of Echo draws its drinking water from the deep basalt ground water wells that are 400 feet to 1320 feet deep. These are city owned and operated wells, known as wells (#3, #4, & #5). Water from these sources is pumped to the city's 350,000 gallon reservoir located on the northeast edge of the golf course. Water from Wells 4 and 5 mix in the reservoir to provide the day-to-day water supply. Well #3 is used for backup because of its lower capacity and sulfur smell. The water supply gravity flows to town. There is a booster station, which increases pressure for areas too close in elevation to the reservoir for adequate and safe gravity flow. This booster pump also supplements the pressure in the event of opened water hydrants or to fight fires.

The City of Echo routinely monitors for contaminants in your drinking water according to Federal and State laws. The table in this report will show the results of our monitoring for the period from January 1 to December 31, **2013** or in the case of semi-annual tests, the last testing date. Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses any health effects. More information about contaminants and potential health effects can be obtained by calling the

Key to Table/Definitions	
AL	Action Level-The concentration of a contaminant, which if exceeded, triggers treatment or other requirements
MCL	Maximum Contaminant Level-The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs feasible using the best available technology.
MCLG	Maximum Contaminant Level Goal-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.
MRDL	Maximum Residual Disinfectant-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.
MRDLG	Maximum Residual Disinfectant Goal-The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
ppb	Parts per billion or micrograms per liter. Equal to approximately 1 drop in a 22,000 gallon swimming pool
ppm	Parts per million or milligrams per liter (mg/l).
TT	Treatment Technique-is a required process intended to reduce the level of a contaminant in drinking water.

EPA Safe Drinking Water Hotline (800-426-4791).

WATER QUALITY MONITORING RESULTS

The table on the following page shows the results of the City's water quality analyses for drinking water when a contaminant was found. Every regulated contaminant that was detected is reported below.

Contaminant	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely sources of contaminants
Microbiological Contaminants:						
Total Coliform						
Bacteria	N	0		0	presence of coliform in 5% of monthly samples	Naturally present in environment
E.Coli	N	0		0		
The city pulled 12 routine tests for total coliform samples during 2012 and 0 tested positive for Coliform. No E. Coli Bacteria showed up in any of the tests. The city is now classified as a chlorinating system. Total Fecal Coliform--none of the samples had fecal coliform.						
Inorganic Contaminants:						
Arsenic	N	1.5	ppb	0	10	erosion of natural deposits, run off from glass & electronic production waste
Nitrate (as N)	N	ND	ppb	10,000	10,000	Runoff from fertilizer use, leaching from

septic tanks, sewage; erosion of natural deposits.

Contaminant	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely sources of contaminants
Nitrate-Nitrite	N	290	ppb	10,000	10,000	Runoff from fertilizer use, leaching from septic tanks, sewage; erosion of natural deposits
Barium	N	30.5	ppb	2000	2000	Discharge of drilling waste; discharge from metal refineries; erosion of natural deposits;
Fluoride	N	929	ppb	4000	4000	Erosion of natural deposits; is an additive which promotes strong teeth,
Selenium	N	.0558	ppb	5.0	5.0	Selenium is a metal found in natural deposits such as ores containing other elements.
Sodium	N	52.4	ppm	none established		Naturally occurring in our soils; may cause problems for heart patients or those with high blood pressure; check w/your physician;
Lead	N	0.94	ppb	15.5	15.5	Corrosion of household plumbing systems; erosion of natural deposits
Copper	N	14.9	ppb	1350	1350	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

The City's Source Water Assessment is available for review upon request at city hall. Based on the assessment the water system's susceptibility to contamination is low to moderate.

Violation History: 2013-none

Microbiological Contaminants:--Total coliforms. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

- Arsenic. Some people who drink water containing arsenic in excess of the MCL, over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer. This was the only inorganic chemical/compound found in the **2011** testing.
- Barium. Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure. Test Results above are from **2011**.
- Fluoride. Some people who drink water-containing Fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth. Test Results above are from **2011**.
- Nitrate. Infants below the age of six months who drink water-containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. The city tests for Nitrates. No nitrates were detected **in 2013**.
- Selenium. Some people who drink water containing selenium well in excess of the maximum contaminant level (MCL) for many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation. Results from **2011**.
- Lead/Copper. The city is required to report the results of the 90th percentile household tested for Lead. This test was last performed in **June 2012**. None of the households tested for lead or copper exceeded the Action Level (AL). In most of the households tested showed no Lead or Copper was detected. 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. The City of Echo 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 the 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 www.epa.gov/safewater/lead

The contaminants listed above are the ones that had detectable amounts that showed up in the most recent testing round. We test for many more contaminants, but if not shown here the test result was "Not Detected." Such tests include Radiation (Gross Alpha), Radium & Uranium; Volatile Organic Chemicals (VOCs), Synthetic Organic Chemicals (SOCs) and Inorganic Chemicals.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, the average person would have to drink 2 liters of water every day at the MCL for a lifetime to have a one-in-a million chance of having the described health effects.

Potential Contaminants: 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, 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:

- Microbiological Contaminants: such as viruses and bacteria, which 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 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 agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations urban storm water runoff and septic systems.
- Radioactive contaminants, which 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, EPA prescribes regulations which limit the amount of certain contaminants in water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Chlorine: The City of Echo did not routinely chlorinate water until June 2008. While chlorine is safe to drink, many people are sensitive to the smell & taste. Here are some things you can do: 1. Fill a pitcher or bottle with water and keep it loosely capped and after a few hours the chlorine will dissipate. 2. Keep your pitcher in the refrigerator. This will allow the chlorine to dissipate and provide a cool glass of water. 3. You can also dissipate chlorine by pouring the water back and forth between two glasses. This aeration process helps dissipate the chlorine.

Discolored water: cloudy water--usually an indication of air bubbles trapped in the water which will dissolve in a short time. The water is safe to drink. If the cloudiness settles into a white particulate in the bottom of your glass or cup, your water heater may have a faulty dip tube. Rusty water-old iron or galvanized pipes inside your home can cause brown, red or yellow discoloration and a metallic taste. While EPA considers this water still safe to drink, it may not taste good. Running your water for a short time can help clear the rust from your pipes. The rusty water can stain your laundry. If a hydrant is opened in town, this can cause the iron and manganese (naturally occurring) in your pipes to be disturbed. These chemicals tend to settle in the bottom half of the round pipe until disturbed, but when disturbed by flushing or opened hydrants they are stirred up and mix with water travelling through the pipes. Periodically draining your water heater will also remove some of the chemical build up.

Water Conservation-Outdoors

- Irrigate late at night or early in the morning to maximize the amount of water going into the soil and reduce the amount lost to evaporation or blown away in the wind.
- Soil tends to absorb water more slowly than most irrigation systems apply it, especially if you have clay soil or live on a slope. If you irrigate for short cycles you can maximize the water that soaks into your lawn and minimize run off. Runoff not only wastes water, but can contribute to pollution by carrying fertilizers and pesticides into the rivers and streams.
- Find out how much water your irrigation system or sprinkler is applying by placing straight-sided cans in your lawn. Then run the water for 15 minutes. Measure the water in each can and average it. Multiply this number by four to convert to inches per hour. Once you know the rate per hour you can run your irrigation long enough to satisfy the needs of your landscape. One inch per week is a rough average, but more water is needed in summer than spring. Plants remove more water from the soil and the evaporation rate increases as daylight hours increase along with temperatures.
- Save water by washing your car on your lawn. This not only waters your lawn, but keeps soaps out of the surface water. Be sure and keep a shut-off nozzle on your hose while washing your car.
- Don't use a hose to clean your sidewalk or driveway. Using a broom is as effective and conserves water.
- Use Xeriscape plantings to limit water demand.



Example of Xeriscape planting

Water Conservation-Indoors

- Shower for one minute less than normal and you will save about 700 gallons per month. You will not only save water, but power, as you will heat less water.
- Fix water leaks. Even a small drip from a faucet can add over 1,500 gallons per month to your water consumption. Toilets can leak hundreds of gallons per day. A faucet that drips once per second wastes 1,225 gallons per year.
- Don't use your toilet as a trash cans. Toilets are the largest indoor water consumers (about 27% of all indoor use). Modern toilets use no more than 1.6 gallons per flush and can drop the consumption to 18% of your indoor use. So if you have an old toilet, you may want to replace it. The City is pursuing a Composter program to limit flushing of household garbage and foods down toilets. Contact City Hall to inquire about this program.
- Run your dishwasher or washing machine only when you have a full load. Newer water efficient washing machines can save over 30 gallons per load.

