

# Annual Drinking Water Quality Consumer Confidence Report

## City of Cascade Locks

For Calendar Year 2017

### INTRODUCTION:

As part of the requirements of both the EPA and Oregon Department of Human Services, we are pleased to present this year's Annual Quality Water Report for the year ending 2017. Our constant goal is to provide a safe and dependable supply of drinking water. **Cascade Locks drinking water is considered safe, meets all Federal and Oregon State requirements. We did have one test for Bacteriological Violation during 2017, but it proved to be a false positive. The immediate succeeding retest and the testing of the surrounding 10 locations all proved to be negative.**

Because the City had previously has detected elevated levels of copper in some tests conducted during 2016, we sought and were approved for \$880,000 to install a corrosion control protocol to protect us in the future. Copper is both an indicator of corrosive water and a contaminate that may cause health problems. It is not as dangerous as lead. The City is currently in the design of the corrosion control project which process should be in place before October 2019. The water delivered to your home does not contain high levels of copper or lead. The problem is caused by the interaction of the water with the plumbing in some homes. This is particularly true when water is left in a plumbing fixture (faucet) for an extended period of time. **Flushing your faucet before consumption lowers the copper levels and brings safe water from the City's distribution pipes into your home.**

### Source:

Cascade Locks water supply comes from two wells located along the southwesterly bank of Herman Creek. The two wells draw water from the sandy gravels located 110 feet below Herman Creek. These sandy gravels are not impervious to drainage so the Well Head Area needs to be treated with respect and care.

### Treatment:

The City chlorinates its water supply at the source to eliminate bacteria that may form within the water distribution system or bacteria that may come in contact with the drinking water due to a leak. On chlorinated systems, Federal law requires minimum 0.2 parts chlorine per million parts of water and allows a maximum of 4.0 parts chlorine per million parts of water. The water delivered from our wells has a very low potential for bacteria therefore we maintain a chlorine level between 0.3 and 0.7 ppm. The chlorine residual is monitored daily to assure quality control. The water may smell of chlorine at times. This is not due to increases in the chlorination process but rather changes in organic minerals from the groundwater over which we have no control. These minerals carry the odor of the chlorine. If you are sensitive to the smell of chlorine, water from your tap may be left in an open container for approximately 1 hour to allow the chlorine to evaporate. It may be stored safely in the refrigerator. Carbon filters are another way to eliminate the chlorine odor.

### Contacts:

If you have any questions about this report or concerns about your water quality, Please contact **Public Works at Cascade Locks City Hall, Phone# 541-374-8484. If you are concerned that your home may be of an age that copper or lead may be in your plumbing, please contact us. We can assist you in analysis.** The Cascade Locks City Council meets the 2<sup>nd</sup> and 4<sup>th</sup> Mondays of the month at 7:00 PM in City Hall. These meetings are open to the Public.

### ANALYSIS /CONTAMINANTS

The City of Cascade Locks routinely monitors for contaminants in your drinking water according to Federal and State laws, which have established the maximum amount of contaminants allowed in drinking water. The table on Page 3 shows the results of the monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2017. As water travels over the land or underground, it can pick up trace amounts of substances or contaminants such as microbes, inorganic and organic

chemicals, and even radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents.

**Bottled drinking water is actually held to less rigid standards than tap water.** *The presence of any contaminants does not necessarily pose a health risk.* Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 (800-426-4791).

### Current Testing Requirements

The City of Cascade Locks is required to test for bacteriological contaminants twice each month and for nitrates annually. The Total Coliform Bacteria Rule requires water systems to meet a strict limit for coliform bacteria. 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 by newspaper, television, telephone or radio. Chlorination provides an important safeguard against bacteria. Organic, inorganic, volatile and synthetic compounds are tested at less frequent intervals. If there were any constituents in the detectable range during the last year's testing cycle, they will be listed below. Otherwise the lab tests came up with non-detectable level or testing parameters for a particular substance were completed on a previous year.

**Further Information:** If you would like to see the list of tests from this year or previous years, please contact us. If you are interested in more technical information about contaminants and potential health effects, they can be obtained through the following websites: <http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater> or <http://water.epa.gov/> or Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

(\*NOTE Per Federal Requirements, the following definitions are common terms used in Lab Reports and included for your information.)

In the table below you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

*Parts per quadrillion (ppq) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

*Picocuries per liter (pCi/L)* - Picocuries per liter is a measure of the radioactivity in water.

*Milligrams per year (mrem/yr)* - measure of radiation absorbed by the body.

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

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - (mandatory language) a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level (MCL)* - (mandatory language) The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. **MCL's (Maximum Contaminant Levels) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.**

*Maximum Contaminant Level Goal (MCLG)* - (mandatory language) The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

2017 Cascade Locks Water Analysis  
Microbiological Testing

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria	Y	Absent in All but one Sample	NA, the test proved to be a false positive.	0	Presence of Coliform bacteria in 5% of monthly samples	Naturally present in the environment

**Cascade Locks had only one Bacteria contamination detected in 2017 in all of its Water Samples.**

Latest Chemical Results - PWS ID: 00172 ---- CASCADE LOCKS, CITY OF						
Sample ID	Sample Date	Receive Date	Chemical	Source ID	Results	Current MCL UOM
<u>V7L059301-I</u>	12/19/2017	1/3/2018	ARSENIC	EP-A	ND	0.01 MG/L
<u>V7L059301-I</u>	12/19/2017	1/3/2018	NITRATE	EP-A	ND	10 MG/L
<u>V7H028316</u>	8/10/2017	8/24/2017	COPPER	DIST-A	0.61	1.3 MG/L
<u>V7H028316</u>	8/10/2017	8/24/2017	LEAD	DIST-A	0.0014	0.015 MG/L
<u>V7H028311</u>	8/9/2017	8/24/2017	COPPER	DIST-A	1.7	1.3 MG/L
<u>V7H028311</u>	8/9/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028312</u>	8/9/2017	8/24/2017	COPPER	DIST-A	1.1	1.3 MG/L
<u>V7H028312</u>	8/9/2017	8/24/2017	LEAD	DIST-A	0.0018	0.015 MG/L
<u>V7H028315</u>	8/9/2017	8/24/2017	COPPER	DIST-A	0.29	1.3 MG/L
<u>V7H028315</u>	8/9/2017	8/24/2017	LEAD	DIST-A	0.0012	0.015 MG/L
<u>V7H028301</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.77	1.3 MG/L
<u>V7H028301</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0011	0.015 MG/L
<u>V7H028302</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1	1.3 MG/L
<u>V7H028302</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0025	0.015 MG/L
<u>V7H028303</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1.3	1.3 MG/L
<u>V7H028303</u>	8/8/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028304</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.91	1.3 MG/L
<u>V7H028304</u>	8/8/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028305</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.44	1.3 MG/L
<u>V7H028305</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0015	0.015 MG/L
<u>V7H028306</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1.1	1.3 MG/L
<u>V7H028306</u>	8/8/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028307</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1.3	1.3 MG/L
<u>V7H028307</u>	8/8/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028308</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.79	1.3 MG/L
<u>V7H028308</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0017	0.015 MG/L
<u>V7H028309</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1	1.3 MG/L
<u>V7H028309</u>	8/8/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L
<u>V7H028310</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.9	1.3 MG/L
<u>V7H028310</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0015	0.015 MG/L

<u>V7H028313</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.97	1.3 MG/L
<u>V7H028313</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0016	0.015 MG/L
<u>V7H028314</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.77	1.3 MG/L
<u>V7H028314</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0032	0.015 MG/L
<u>V7H028317</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1.3	1.3 MG/L
<u>V7H028317</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.003	0.015 MG/L
<u>V7H028319</u>	8/8/2017	8/24/2017	COPPER	DIST-A	0.54	1.3 MG/L
<u>V7H028319</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.0042	0.015 MG/L
<u>V7H028320</u>	8/8/2017	8/24/2017	COPPER	DIST-A	1.3	1.3 MG/L
<u>V7H028320</u>	8/8/2017	8/24/2017	LEAD	DIST-A	0.007	0.015 MG/L
<u>V7H028318</u>	8/7/2017	8/24/2017	COPPER	DIST-A	0.44	1.3 MG/L
<u>V7H028318</u>	8/7/2017	8/24/2017	LEAD	DIST-A	ND	0.015 MG/L

### **CONCLUSIONS ON WATER QUALITY**

**In 2017 the City of Cascade Locks had one false positive read for bacteriological contaminants in the drinking water. This report includes investigative samples for Lead & Copper. Cascade Locks did have elevated levels of copper in some tests at individual residences. It is important to note that these levels are detected after water has set in the pipes for over 6 hours. The water delivered from the system has not had any violations in contaminants.**

### **WATER SYSTEM IMPROVEMENTS**

The City has completed its Water System Master Plan and obtained funding from USDA for needed improvements. We are completing the replacement of the failing water mains. Replacement of an aging reservoir will be done by October, 2018. The drilling of a new well will be completed by the end of December 2018. The Corrosion Control Treatment Process will be done by October 2019.

### **WELL CLEANING**

The City undertook a special cleaning and iron removal for Well #1 in 2016 in an attempt to lower the PH of the water supply and improve water quality thus reducing copper levels. Some areas of the community greatly benefitted from this process while other individual homes saw little change during follow up testing. During this work we also upgraded the pump in Well#1 to provide longer service and more stable flows. This has proven very beneficial to our system.

### **CROSS CONNECTION**

A very real concern to the safety of our Public Water Source is cross connection. This occurs when a contaminated source becomes hooked to the water supply. It can be as simple as a hose or faucet connection or as major as a fire hydrant or contaminated well. If the contaminated supply flows into the Public Water System, a cross connection has occurred. The other form of cross connection is when a loss of pressure occurs in the system due to a leak or fire and water is drawn back into the system through sprinklers, ponds, laundromats, medical equipment etc. These threats can be eliminated with proper piping and back-flow prevention devices. The City has a Cross Connection Program that requires annual testing of backflow devices. Please contact us for further information.

### **WATER CONSERVATION**

While the water system improvements are close to completion, it is important to recognize that the City does have a severe leakage problem and that our customers' services are also in need of maintenance between the meter and the

home. Please repair any leaks as soon as possible. Feel free to contact us if you feel there is leak we should be notified about. Water is a very valuable resource and Cascade Locks asks that you please do your part in conserving water by utilizing low volume sprinklers, water misters, and flow control devices. Please don't hesitate to inquire if you have any question on how to minimize the impact on this precious resource.

**Thank You for taking the time to read this report. The safety of our water supply, distribution and fire protection systems is vital to our community. It is our continuing goal to provide the highest possible quality of drinking water for Cascade Locks and protect our customers' and citizens' water supply both now and in the future.**

Gordon Zimmerman  
City Administrator  
July 1, 2018

**Special Notes:**

**Lead & Copper-** Lead & Copper tests were done in 2015, 2016 and 2017. Elevated Lead and Copper are typically encountered on a house by house basis and due to interior plumbing within the residence. Infants and young 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. Make it a practice to flush your tap for 30 seconds or more before drinking tap water. Additional information is available from Hood River County Health Department 541-386-1115 and the Safe Drinking Water Hotline (1-800-426-4791).

**Nitrates** in drinking water at levels above 10 ppm are a health risk for infants of less than six months of age. In sampling already completed for 2017 the City had no nitrates detected in the water supply. Non-City water users are reminded that high nitrate levels (over 10 mg/l) in drinking water can cause blue baby syndrome. If you are a non-City water user caring for an infant and have concerns on your water supply, you should seek the advice from the Hood River County Health at 541-386-1115.

**Asbestos** in drinking water is a concern if the fibers are detected within a certain filament length that would allow the particles to be inhaled during showers, etc. Disposal and repairs on asbestos pipe represent a hazard to the Utility Workers who need special training to handle these situations. **Asbestos particles were not detected in Cascade Locks water supply when last tested in 2013. No detection means we do not have to retest for 9 years. The City will abandon all asbestos water pipes with the current Water System Improvement Project.**

