

# Warm Springs Water Treatment Plant Community Water System Annual Water Quality Report for 2017

## **Is my water safe?**

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

## **Do I need to take special precautions?**

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 (Environmental Protection Agency/Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## **Where does my water come from?**

The Warm Springs Water Treatment Plant water system is owned by the Confederated Tribes of the Warm Springs and is operated by the Branch of Public Utilities (BPU) of the Confederated Tribes of Warm Springs. The Warm Springs Water Treatment Plant draws surface water from the Deschutes River just upstream from Dry Creek to supply our customers with water. Raw water from the DesChutes River is drawn into the plant by gravity where treatment chemicals are then added. Some of the chemicals used are Aluminum Chlorohydrate (ACH), Activated Carbon (taste and odor), Polymer (coagulant) and Chlorine (disinfectant). Once the chemicals are added, the treated water then enters the settling basins where the coagulated particles (called floc at this point) are allowed to settle out and the clarified water is passed to the filters for the final phase of treatment before being pumped to the distribution system. Once the finished water is collected in a clear well, it is then pumped out of the plant by two 400hp motors at a rate of approximately 2,800 gallons per minute. There are 1,497 service connections that receive water from the Warm Springs Water Treatment Plant water system. There are eight tanks totaling 6.75M gallons of potable drinking water storage for distribution. The Warm Springs Water Treatment Plant water system uses chlorine gas in order to disinfect your drinking water prior to distributing it for consumption. Disinfection reduces or eliminates illnesses that can be acquired through drinking water. The chlorine gas added to your drinking water kills any microbes that may be present in source water.

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## **Source water assessment and its availability**

There has not been a source water assessment performed on this system as of 2017. Source water assessments are meant to evaluate the drinking water source and system for the threat of potential contamination.

## **Why are there contaminants in my 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: 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, which 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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## **How can I get involved?**

If you have questions about this report or about your drinking water quality, please contact Steve Courtney, Sr. at (541) 553-1472. You may also stop in to the Branch of Public Utilities offices at 2253 Rehab Street, Warm Springs, Oregon, 97761. Please be sure to read any notices delivered to your home from the Warm Springs Water Treatment Plant water system. Notices will also be posted at the Warm Springs Market and Tribal Administration Building.

## **Water Conservation Tips**

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

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- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit [www.epa.gov/watersense](http://www.epa.gov/watersense) for more information.

## Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

## Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.

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- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## **Additional Information for Lead**

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 Warm Springs Water Treatment Plant Community 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>.

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## **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not

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vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the tables.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/13/2016	1.3	1.3	0.055	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2017	0.4	0.3 - 0.4	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes
Haloacetic Acids (HAA5)	2017	52	16.7 – 51.9	No goal for the total	60	ppb	N	By-product of drinking water disinfection
Total Trihalomethanes	2017	63	13.7 – 62.9	No goal for the total	80	ppb	N	By-product of drinking water disinfection

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Fluoride	06/12/2012	0.202	0.202 - 0.202	4	1.0	ppm	N	Erosion of natural deposits; Water additive which



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water.

The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.

Not all sample results may have been used for calculating the highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

### Haloacetic Acids (HAA5)

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	01/01/2015	08/31/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

### Total Trihalomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems, and may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
Monitoring, Routine (DBP), Major	01/01/2015	08/31/2017	We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.

### Significant Deficiencies

The Warm Springs Water Treatment Plant system is not currently in compliance with EPA standards. A Sanitary Survey was conducted by Indian Health Services to inspect the Water Treatment Plant Water System on January 27, 2015. A report dated August 24, 2015 was sent to the Water Treatment Plant water system informing them of the significant deficiencies identified during the Sanitary Survey and requesting a Corrective Action Plan to outline how the Water Treatment Plant water system will fix the identified deficiencies. The following significant deficiencies have not been addressed at the time of this report:

1. Improper Turbidity Calibration

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2. Improper Instrumentation or Process Controls.
3. Improper Contact Time before First Customer.
4. Sedimentation Basin Needs Settled Solids Removed.
5. Corrosion on Tank Vent Stack Welded Area in Need or Repair.
6. Septic System has failed and Surfacing Wastewater is Flowing toward Backwash Basins and River.
7. River Intake Air Scour System Inoperative.

The Warm Springs Water Treatment Plant water system has failed to address these issues. They have not provided a Corrective Action Plan (CAP) to EPA outlining their plan to address these issues. The Water Treatment Plant water system has not provided a plan or schedule to EPA to correct these issues. We are currently working with a consultant to get the CAP turned in to EPA.

<b>Unit Descriptions</b>	
<b>Term</b>	<b>Definition</b>
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
MFL	MFL: million fibers per liter, used to measure asbestos concentration
mrem	millirems per year (a measure of radiation absorbed by the body).
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
ALG	ALG: The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.



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Unit Descriptions	
Avg	Regulatory compliance with some MCL's are based on running annual average of monthly samples
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. Coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
MCLG	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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level 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 contaminants.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

**Definitions:**

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG's allow for a margin of safety.

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

**For more information please contact:**

Travis Wells, Branch of Public Utilities General Manager at (541) 553-3246