



# BOISTFORT VALLEY WATER

## Public Water System #07610

### Consumer Confidence Report 2023

#### Overview

Boistfort Valley Water is 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.

Boistfort Valley Water is a community, non-profit water distribution system currently serving approximately 780 residences, 4 dairies, 4 public school systems, and 25 assorted small businesses. The distribution system consists of approximately 50 miles of pipeline serving an area of 25 square miles. The north boundary of the system extends to the 300 block of Brockway Road, Chehalis; the south boundary extends to 1230 Wildwood Road, Curtis. The service area reaches the unincorporated areas of Boistfort, Curtis, Adna, and Claquato. There are three sources of supply, two surface water treatment plants, and one well. The system contains 5 pressure zones with 7 pumping stations, and seven reservoirs with a total storage capacity of 1,300,000 gallons.

This report is based upon tests conducted in the year 2022 by Boistfort Valley Water, unless otherwise indicated. Terms used in the Water-Quality Table and in other parts of this report are defined on the last pages of this packet.

From its inception in 1968, Boistfort Valley Water has been funded by the U.S. Department of Agriculture and its various agencies. Currently the loans are administered by USDA Rural Development. An independent audit of Boistfort Valley Water's finances is conducted annually and submitted to Rural Development for review.

#### Where does my water come from?

Boistfort Valley Water operates two filtration plants on its distribution system. The Wildwood treatment plant is located in the Boistfort valley, it pulls from a surface water intake located in Little Mill Creek. The Wildwood treatment facility uses conventional filtration to produce potable water. That process can be broken down into these steps.

•**Coagulation:** This is the chemical process of rapidly mixing coagulants to the water coming into the water treatment plant (source water). Many of the particles in the source water have negative charges causing them to repel each other, much like two magnets when the negative ends are put together. Coagulation changes the negative charges to neutral.

•**Flocculation:** Coagulated water is slowly mixed causing the neutral particles to collide. When the collisions occur, the particles clump together forming floc. As the floc is formed particles in the water are trapped within the floc. The floc now looks like snowflakes suspended in the water.

•**Sedimentation:** The floc particles are heavier than water. Mixing is stopped and the water is allowed to slowly flow through the sedimentation basins. The floc settles to the bottom and is removed. The clear water is collected from the top of the sedimentation basins and sent to the filters.

•**Filtration:** Water is passed through deep filtration beds to produce water that is crystal clear. Extremely small particles are removed during this process.

•**Disinfection:** After the water has passed through the filter it is treated with chlorine to disinfect the filtered water. Disinfection kills or inactivates harmful microorganisms which can cause illnesses such as typhoid, cholera, hepatitis and giardiasis. Sometimes, water systems use chlorination for taste and odor control, iron and manganese removal, and to stop nuisance growths in wells, water pipes, storage facilities and conduits.

Chlorine is also added for its "residual" properties. Chlorine remaining in the water supply, or added after disinfection is first accomplished, is available to fight against potential contamination in water distribution and storage systems that might enter through leaks and pipe breakages. This is called "secondary disinfection."

Our second source of water comes from the Chehalis River which supplies our second water treatment plant. This plant is normally only operational when we have high usage in the summer months. This water treatment plant was just replaced with a membrane filter unit in 2018 and received approval to operate to distribution in June 2019 from Office of Drinking Water with WA State Dept of Health. Microfiltration filters remove suspended particles, bacteria, cysts and some viruses. We chlorinate post filters on this system for the same reasons as mentioned above.

Boistfort Valley Water also operates a small capacity well on its distribution system. This water contains a small amount of iron and manganese, which is treated by aeration and is then diluted and chlorinated by mixing with our surface treated water. Manganese is a mineral that naturally occurs in rocks and soil. It is frequently found in iron-bearing waters.

## **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.

- 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. Try to water in early morning or evening.
- 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

## **WATER USE EFFICIENCY ANNUAL PERFORMANCE REPORT FOR 2022**

Boistfort Valley Water meters 100% of its service connections.

This report covers the reporting period from January 1, 2022 to December 31, 2022

Total Water Produced and Purchased	90,504,926 gallons
Authorized Consumption	66,582,868 gallons
Distribution System Leakage	23,922,058 gallons
Distribution System Loss	26%
Annual Average Loss: Past 3 Years	27%

Boistfort Valley Water set a goal of reducing system leakage to 10% over a 10-year period, which began in 2021. From 2012-2013 BVW replaced approx. 7 miles of distribution main in the Boistfort Valley. The water system currently has 50 miles of water main. Most of this water line is at or has exceeded its useful life. Most of the service lines up to the meter are in need of replacement. This leaves 44 miles of water main to be replaced.

We have new water leaks pop up on a regular basis and repairs are made as quickly as possible. We do leak detection out in the distribution system as time allows. We have been able to find leaks that were not showing on the surface. The long-term solution to the water loss is the complete replacement of the distribution system.

We set another new goal to reduce per capita consumption by one percent per year over the 10- year planning period from 2021-2031.

## **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 ensuring 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 of water on the property (such as a well)
- Decorative pond
- Watering trough

### **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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

### **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.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources.
- 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.

## **Lead Information**

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. Boistfort Valley Water 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, are available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## **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/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 Water Drinking Hotline (800-426-4791).

## **Water Quality Data Table**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the number 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 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 table.

Important Drinking Water Definitions	
Term	Definition
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.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
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

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
<b>Disinfectants &amp; Disinfection By-Products</b>								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	19.61	NA	NA	7-2022	No	Chlorine is added to drinking water to kill or inactivate harmful organisms that cause various diseases. This process is called disinfection. However, chlorine is a very active substance and it reacts with naturally occurring substances to form compounds known as disinfection byproducts (DBPs). The most common DBPs formed when chlorine is used are trihalomethanes (THMs), and haloacetic acids (HAAs).
TTHMs [Total Trihalomethanes] (ppb)	NA	80	33.57	NA	NA	7-2022	No	Chlorine is added to drinking water to kill or inactivate harmful organisms that cause various diseases. This process is called disinfection. However, chlorine is a very active substance and it reacts with naturally occurring substances to form compounds known as disinfection byproducts (DBPs). The most common DBPs formed when chlorine is used are trihalomethanes (THMs), and haloacetic acids (HAAs).

Unit Descriptions	
Term	Definition
ppb	ppb: parts per billion, or micrograms per liter (fig/L)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

## **Monitoring/ Reporting Violations:**

In 2022 we received no monitoring or reporting violations.

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

Boistfort Valley Water welcomes input from its customers on ways to protect and conserve its water supplies and would be happy to help you with additional information on ways you can help protect your water sources. Additionally, BVW is required to publish an updated Consumer Confidence Report annually and welcomes any input you might offer on how to improve this report. Customers with input on water issues or this report may contact BVW staff by calling 360-748-1285, in person at the office, or by attending the regularly scheduled Board of Directors Meetings, held on the third Thursday of each month at 6:00 PM at 442 Curtis Hill Road, Chehalis. Complete copies of the above report are available upon request. This report was compiled on 5/24/2023.

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