

Pacific City Joint Water-Sanitary Authority (PCJWSA)

2022 Annual

Water Quality Report



Drinking Water Quality Data

From 2021

www.pcjwsa.com

To our valued customers,

I am pleased to present the 2022 Water Quality Report (also known as the Consumer Confidence Report) for your review. This report contains important information about your drinking water, including where it comes from, how it's treated, and what, if any, contaminants it contains.

The Environmental Protection Agency (EPA) mandates much of the information in this report. However, PCJWSA has developed a more comprehensive report that we hope you will find informative.

We are fortunate to have three separate high-quality water resources (including wellfields) with sufficient capacity to meet all of our community's water needs. The Horn Creek surface water treatment plant utilizes state of the art microfiltration technology to purify our drinking water.

In 2021, PCJWSA's drinking water met or surpassed all safe drinking water standards set by the Oregon Health Authority and the EPA.

PCJWSA employees work hard to deliver safe and reliable drinking water to your tap, and we pride ourselves on providing excellent customer service. For more information regarding your drinking water, please contact us at 503-965-6636 or visit our website at www.pcjwsa.com.

Sincerely,

John Wesely
PCJWSA Authority Manager



Your PCJWSA Board of Directors

Chair - Carolyn McVicker

Vice Chair - Anne Price

Secretary - Sean Carlton

Director - Cameron Gogas

Director - Tom Donohue

The PCJWSA Board Meetings are held on the second Tuesday of every month at 5:00 PM at the Kiawanda Community Center located at 34600 Cape Kiwanda Drive. The public is always welcome to attend!

Please Use Water Wisely!

Is my water safe?

Yes, PCJWSA's drinking water meets or exceeds all safe drinking water standards set by the Oregon Health Authority and the Environmental Protection Agency (EPA).

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. Environmental Protection Agency (EPA) and 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 (800-426-4791).

Where does my water come from?

The supply of PCJWSA's water comes from three separate sources. The primary source of our drinking water is surface water that comes from Horn Creek. Located just outside of the Woods community, Horn Creek is part of the Nestucca River-Frontal Pacific Ocean watershed. Water is diverted from the Creek and treated at the Horn Creek water treatment plant utilizing microfiltration technology.

PCJWSA also relies on two separate groundwater wellfields, each consisting of three individual wells, that serve as a backup to the Horn Creek water treatment plant. The north (Dune) wellfield is located on Bureau of Land Management (BLM) property adjacent to the PCJWSA office on Cape Kiwanda Drive, and the south (Spit) wellfield is located near Bob Straub State Park.

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. At low levels, these substances are generally not harmful to 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. 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).

What types of contaminants can be found in water sources?

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:

- Microbial 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 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Source Water Assessment

The 1996 Amendments to the Safe Drinking Water Act require that all States conduct Source Water Assessments for public water systems within their boundaries. The assessment identifies the Drinking Water Protection Area for surface and groundwater systems, any potential sources of pollution within the Drinking Water Protection Area, and the susceptibility or relative risk to the water from those potential contamination sources.

The purpose of the assessment is to provide water systems with the information needed to develop a strategy to protect their drinking water resource. In 2017, the Oregon Health Authority and Department of Environmental Quality updated the assessment for the PCJWSA system. Several potential contamination sources were identified within the groundwater protection area for the Dune wellfield. Soil erosion and landslide potential were identified as the biggest threats to the Horn Creek watershed. If you would like a copy of this Source Water Assessment, please contact our office at 503-965-6636.

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. PCJWSA 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>.

Description of Water Treatment Processes

Your surface water is treated using a Pall Aria microfiltration membrane system. The system consists of 40 individual modules, each containing thousands of thin, long fibers with a combined total exterior surface area of 538 square feet. Each fiber has thousands of pores of approximately 0.1 micron in diameter. The pores prevent virtually all particulate matter from passing through the membrane surface. The microscopic pore size effectively removes suspended solids, bacteria, cysts and oocysts, organics, inorganics, and other contaminants from your drinking water. Our groundwater sources rely on natural filtration to remove contaminants from the water over time as the water travels through the aquifer. Regardless of the source, All PCJWSA water is disinfected with chlorine to kill bacteria, viruses, and other potentially harmful microorganisms.



Horn Creek Microfiltration System



Horn Creek Water Quality Lab

2021 Water Quality Data

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. The Food and Drug Administration (FDA) has also established limits for contaminants in bottled water, which must provide the same protections for public health. The table below lists all of the contaminants that were detected in your drinking water during the 2021 calendar year. Although many more contaminants were tested for, only those substances listed below were found in your water. Unless otherwise noted, the data presented in this table is from testing done from January 1, 2021 to December 31, 2021. 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 you might not be familiar with. To help you better understand these terms, we have provided the definitions on the last page of this report.

North (Dune) and South (Spit) Wells

Contaminants	Last Test Date	Your Water	MCL	MCLG	Violation	Typical Source
Nitrate (as Nitrogen) - Dune Wells	Mar 2021	0.49 ppm	10 ppm	10 ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Horn Creek Water Treatment Plant

Contaminant	Last Test Date	Your Water	MCL	MCLG	Violation	Typical Source
Total Organic Carbon (TOC)	Nov 2021	Highest RAA = 0.78 ppm, Range = 0.46 ppm - 1.03 ppm	TT = 4.0 ppm	N/A	No	Naturally present in the environment
Nitrate (as Nitrogen)	Nov 2021	1.11 ppm	10 ppm	10 ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity	Dec 2021	Highest = 0.04 NTU	TT = 1.0 NTU*	N/A	No	Soil runoff

*Note: 100% of turbidity samples were below the Treatment Technique (TT) limit of 1.0 NTU.

Distribution System

Contaminant	Last Test Date	Your Water	MCL	MCLG	Violation	Typical Source
Haloacetic Acids (HAA5)	Nov 2021	Highest RAA = 44 ppb, Range = 16 ppb - 45 ppb	60 ppb	N/A	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs)	Nov 2021	Highest RAA = 44 ppb, Range = 27 ppb - 70 ppb	80 ppb	N/A	No	Byproduct of drinking water disinfection
Chlorine	Dec 2021	Average = 0.83 ppm, Range = 0.30 ppm - 1.37 ppm	MRDL = 4.0 ppm	MRDLG = 4.0 ppm	No	Water additive used to control microbes
Copper	Sep 2021	90 th Percentile = 0.54 ppm	AL = 1.3 ppm*	1.3 ppm	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead	Sep 2021	90 th Percentile = 2.20 ppb	AL = 15 ppb*	0 ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits

*Note: No samples exceeded the Action Level for Lead or Copper.

Units of Measurement and Definitions

Unit Descriptions	
Term	Definition
ppm	parts per million, or milligrams per Liter (mg/L)
ppb	parts per billion, or micrograms per Liter (µg/L)
NTU	Nephelometric Turbidity Unit: The unit of measure for turbidity. Turbidity is a measure of light scatter or absorption caused by suspended or colloidal matter in water. Turbidity is measured as an indicator of the effectiveness of filtration treatment.

Drinking Water Definitions	
Term	Definition
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.
MCLG	Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
RAA	Running Annual Average: The arithmetic average of analytical results for samples taken at all monitoring locations during the previous four calendar quarters.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfection Level Goal: The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
N/A	Not applicable.
90 th Percentile	The 90 th Percentile test result is used to determine compliance with the Action Levels for Lead and Copper. The result given is the ninth highest reading from ten total Lead and Copper samples taken.

For more information please contact:

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