

Pacific City Joint Water-Sanitary Authority (PCJWSA)

2020 Annual

Water Quality Report



Drinking Water Quality Data

www.pcjwsa.com

To our valued customers,

I am pleased to present the 2020 Water Quality Report (also known as the Consumer Confidence Report) for your review. The report contains essential information about your drinking water, including where it comes from, treatment techniques, and what, if any contaminants it may contain. The Environmental Protection Agency (EPA) mandates many sections of the report; however, PCJWSA has developed a more comprehensive report that we hope you will find informative.

We are fortunate to have two separate high-quality water resources with sufficient capacity to meet all of our water demands. Our Horn Creek surface water treatment plant utilizes state of the art microfiltration technology to purify our drinking water.

In 2020, 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, reliable drinking water to your tap and we pride ourselves on providing excellent customer service. For more information regarding your drinking water, please contact me at 503-965-6636 or visit us at www.pcjwsa.com.

Sincerely,

Michelle Hughes
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 first Tuesday of every month at 5:00 PM and the public is always welcome to participate!

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. 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).

Where does my water come from?

The supply of PCJWSA's water comes from two separate sources. The primary source of our drinking water 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 micro-filtration technology. PCJWSA also relies on six groundwater wells that serve as a backup to the Horn Creek Water treatment plant. Both sources can meet the water demands of our community.

Source water assessment and its availability

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 and a copy is available on file at our office at 34005 Cape Kiwanda Drive in Pacific City. Several potential high and moderate-risk contamination sources were identified within the groundwater protection area.

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. To ensure that tap water is safe to drink, EPA prescribes regulations that limit the number 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 protections for public health.

Description of Water Treatment Process

Your surface water is treated using a Pall Advanced Separation Systems micro-filtration membrane system. Filtration removes particles suspended in the source water. Particles typically include clays and silts, natural organic matter, iron and manganese, and microorganisms. Groundwater sources rely on natural infiltration to remove particles from the water over time as it enters the aquifer. All PCJWSA water is disinfected. Disinfection involves the addition of chlorine or other disinfectants to kill bacteria and other microorganisms (viruses, cysts, etc.) that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.



Horn Creek Treatment Equipment

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.
- Dispose of chemicals properly; take used motor oil to a recycling center.

Monitoring and reporting of compliance data violations

PCJWSA had two violations in 2020. Two late violations on the same day due to samples taken from the wrong location and having to be retaken.

Additional Information for Lead

PCJWSA is in compliance with the lead and copper rule and is currently on a reduced monitoring schedule. Lead and copper sampling is not required until the summer of 2021. 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 are available from the Safe Drinking Water Hotline or at: <http://www.epa.gov/safewater/lead>.

Backflow or Cross Connection Control Survey

Water suppliers are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the public water system. PCJWSA conducts Cross Connection Control surveys to determine whether any cross-connections exist at a home or business. If a potential cross-connection is identified, customers will be immediately notified of any necessary plumbing modifications that may be needed.

Asbestos Sampling

PCJWSA was not required to monitor for asbestos in 2020 but one distribution system sample was taken for informational purposes. The sample concentration was 1.41 MFL which is below the EPA maximum contaminant level of 7 MFL.

2020 Water Quality Data

To ensure that tap water is safe to drink, EPA prescribes regulations that 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 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. 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 on the last page of this report.



Operator Lab – Horn Creek WTP

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2020 Water Quality – Dune and South (Spit) Wells

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Nitrate (ppm) Spit Wells	10	10	ND	0	0	2020	No	Runoff from fertilizer use; Erosion of Natural Deposits
Nitrate (ppm) Dune Wells	10	10	.57	.46	.57	2020	No	Runoff from fertilizer use; Erosion of Natural Deposits

2020 Water Quality - Horn Creek Water Treatment Plant

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Inorganic Contaminants								
Nitrate [measured as Nitrogen] (ppm)	10	10	.709	NA	.709	2020	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Microbiological Contaminants								
Turbidity (NTU)	NA	1.0	100	.015	.034	2020	No	Soil runoff; Erosion of natural deposits
100% of the samples were below the TT limit of 1 (a value less than 95% constitutes a TT violation). Any measurement exceeding 5 NTU is a violation unless otherwise approved by the state.								

2020 Water Quality - Distribution System

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	48	36	66	2020	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	54	33	54	2020	No	By-product of drinking water disinfection
Free Chlorine (ppm)	4.0	4.0	.32-1.82	.32	1.82	2020	No	Disinfectant to control microbial contaminants
Total Coliform (Each)	0	1 Positive Per Month	absent	0	0	2020	No	Naturally present in the environment
E. Coliform Bacteria	0	See definitions	absent	0	0	2020	No	Human and animal fecal waste
Copper (ppm)	1.3	AL=1.3	90 th percentile	ND	.10	2018**	No	Corrosion of household plumbing systems
Lead (ppb)	0	AL=15	90 th percentile*	ND	.002	2018**	No	Corrosion of household plumbing systems

*1 Lead sample exceeded the 90th percentile.

**Lead and Copper sampling was not required in 2020 so data is from the most recent monitoring.

Undetected Contaminants

The following contaminants were monitored for, but not detected (ND), in your water.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane (ppb)	3	5	ND	No	Discharge from industrial chemical factories
1,2-Dichloroethane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
1,2-Dichloropropane (ppb)	0	5	ND	No	Discharge from industrial chemical factories
Benzene (ppb)	0	5	ND	No	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon Tetrachloride (ppb)	0	5	ND	No	Discharge from chemical plants and other industrial activities
Chlorobenzene (monochlorobenzene) (ppb)	100	100	ND	No	Discharge from chemical and agricultural chemical factories
Dichloromethane (ppb)	0	5	ND	No	Discharge from pharmaceutical and chemical factories
Ethylbenzene (ppb)	700	700	ND	No	Discharge from petroleum refineries
Styrene (ppb)	100	100	ND	No	Discharge from rubber and plastic factories; Leaching from landfills
Tetrachloroethylene (ppb)	0	5	ND	No	Discharge from factories and dry cleaners
Toluene (ppm)	1	1	ND	No	Discharge from petroleum factories
Vinyl Chloride (ppb)	0	2	ND	No	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	10	ND	No	Discharge from petroleum factories; Discharge from chemical factories
cis-1,2-Dichloroethylene (ppb)	70	70	ND	No	Discharge from industrial chemical factories
p-Dichlorobenzene (ppb)	75	75	ND	No	Discharge from industrial chemical factories

Units of Measurement and Definitions

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
E. coli MCLG	Routine and repeat samples are total coliform-positive and either E. coli-positive or the water supplier fails to collect repeat samples following E. coli-positive routine samples or system fails to analyze total coliform-positive repeat sample for E. coli

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 health risk. 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.
MFL	Million fibers per liter (asbestos), > 10 micrometers in length
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 health risk. 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 disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

For more information please contact:

Contact Name: Michelle Hughes, Authority Manager
 Address: 34005 Cape Kiwanda Drive, Pacific City, OR 97135
 Phone: 503-965-6636