

PCJWSA IS SERVING UP FRESHLY FILTERED HORN CREEK WATER!  
HYDRATE WITH A GLASSFUL TODAY!

# PCJWSA ANNUAL WATER QUALITY REPORT

February 2014

Volume 15, Issue 1

PLEASE REMEMBER  
TO ALWAYS USE  
WATER WISELY!

## Inside This Issue:

Definitions—Page 2  
Test Results—Page 3-4  
Wells Source Water  
Assessment—Page 5

Would you prefer to receive this publication via email in the future? If so, please contact Michelle at 503-965-6636 or mhughes@pcjwsa.com and she'll get you set up.

Your email will be kept confidential and will NOT be distributed.

The PCJWSA Board of Directors meets the first Tuesday of every month at 5:00 PM in the Authority's office located at 34005 Cape Kiwanda Dr. Pacific City, Oregon. The public is invited to attend.

Call Tony Owen at 503-965-6636 with any questions you may have.

PCJWSA Directors:

Carolyn McVicker - Chair

Anne Price - Vice Chair

Sean Lambert—Secretary

Dick Carter— Director

Doug Kellow— Director

## CALENDAR YEAR 2013 REPORT

As you will see in the following pages, your drinking water is safe and meets Federal and State requirements. We have attempted to make this report as straightforward, easy to read and understandable as possible while still complying with Federal requirements for this report. The water quality test results in the following table reflects the latest data available from testing performed in 2011, 2012 & 2013.

Horn Creek is now our primary source of drinking water and regulations require PCJWSA to monitor drinking water quality more frequently than we did with the wells. And even though the Horn Creek facility is capable of producing over 1 million gallons of water per day, the conservation of that resource is everyone's responsibility! Remember:

Conserve Water=Save\$\$,  
Waste Water=Waste \$\$

PCJWSA tests 2 water samples each month for total coliform in the dis-

tribution system. Quarterly and annually, we test for many other constituents which you can view at:

<http://170.104.63.9/inventory.php?pwsno=00609>

Asbestos, which was not detected in our water, is tested once every nine years. In 2011 and 2012, PCJWSA tested its water for the presence of radioactive constituents as required by Federal Regulations.

Since May 20, 2011, PCJWSA has been supplying a majority of your drinking water from the new Horn Creek Surface Water Treatment Plant. Test results from Horn Creek are included in this year's Annual Report.

On occasion, PCJWSA still draws drinking water from the Dune and Spit Wells. The two sites have 3 wells each, for a total of 6 wells. Each well produces water at the rate of about 100 gallons per minute. Well water is also referred to as groundwa-

ter.

During a power outage, PCJWSA has emergency generators that can be connected to both well sites to ensure that water continues to flow to your tap and to the reservoirs. The Horn Creek site has it's own, dedicated, 750 kW generator to keep the facility going at all times.

If you have questions regarding this report, please contact PCJWSA at 503-965-6636. If you know of someone who did not receive a copy of this report and would like to, please let them know that they may pick one up at our office. We will also have additional copies available at the Post Office, Library and Kiawanda Community Center.

If you have questions about this report that we cannot adequately address, we will refer you to the Safe Drinking Water Hotline at 1-800-426-4791.



## DEFINITIONS

In the following tables 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:

**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.

**Picocuries per Liter (pCi/L)** - Picocuries is the measurement of radioactivity in water.

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

**Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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.

**Maximum Contaminant Level Goal** - The "Goal"(MCLG) is 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.

**Running Annual Average (RAA)** - The average results from quarterly samples taken within the distribution system. This average is used to determine MCL compliance.

**Nephelometric Turbidity Units (NTU)** - A measurement of turbidity.

**Non-detection (ND)** - No presence of a constituent was detected.

**Haloacetic Acids (HAA5)** - A combination of chemicals that are tested for that portion of the Disinfection Byproducts Rule.

**Total Trihalomethanes (TTHM)** - A combination of chemicals that are tested for that make up of the Disinfection Byproducts Rule.

PCJWSA tests for about 100 different constituents in your drinking water. We've shown only the results for those constituents that were detected in laboratory testing. If you would like to see the full range of lab results, please contact Tony Owen at 503-965-6636.

In June 2013, PCJWSA tested water from 10 homes for lead and copper levels in the drinking water. None of the homes that were tested exceeded the Action Levels for either lead or copper. PCJWSA is in compliance with the lead and copper rule.

Infants and young children are typically more vulnerable

to lead/copper in drinking water than the general public. It is possible that lead/copper 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 or copper levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791.

Lead in drinking water is rarely the sole cause of

lead poisoning, but it can add to a person's total lead/copper exposure. All potential sources of lead/copper in the household should be identified and removed, replaced or reduced.

All 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 mean that the water poses a health risk. More information about contaminants and potential health risks can be obtained by calling the Environmental Protection

Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many 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. Through our testing and monitoring we have learned that some constituents do exist in our drinking water. However, your drinking water meets or exceeds all State and Federal requirements. Your drinking water is SAFE at the reported levels.



# PACIFIC CITY JOINT WATER-SANITARY AUTHORITY

## WATER QUALITY TEST RESULTS - WELLS

Constituent	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely Source(s) of Contamination
<b>Inorganic Contaminants</b>						
Arsenic-Spit Wells	N	3.5	ppb	n/a	10	Erosion of natural deposits
Nitrate-Dune Well	N	0.363	ppm	10	10	Erosion of natural deposits; Fertilizer runoff
<b>Volatile Organics - Unregulated</b>						
Chloroform-Spit	N	0.00108	ppm	N/A	N/A	Disinfection By-product
<b>Radionuclides</b>						
Gross Alpha-Dune	N	-3	pCi/L	0	15	Erosion of Natural Deposits
Radium226/228Dune	N	0.3	pCi/L	0	5	Erosion of Natural Deposits
Gross Alpha-Spit	N	-3	pCi/L	0	15	Erosion of Natural Deposits
Radium226/228Spit	N	0.5	pCi/L	0	5	Erosion of Natural Deposits
<b>Disinfectant Residual - Distribution System</b>						
Free Chlorine	N	0.35 - 1.67	ppm	4.0*	4.0**	Disinfectant to Control Microbial Contaminants

**\*Maximum Residual Disinfectant Level (MRDL)** - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial constituents.

**\*\*Maximum Residual Disinfectant Level Goal (MRDLG)** - The level 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 constituents.

**Sodium**— EPA does not have a MCL for sodium in drinking water, but EPA does issue a recommended level of 25 PPM. The analysis for sodium at the Dune Wells showed levels at 30.0 PPM and at the Spit Wells, 40.3 PPM. Horn Creek sodium level was 9.02 mg/l. People on low sodium diets may need to make adjustments to their diet in order to compensate for the sodium levels in their drinking water.

**Sulfate**—The MCL for sulfate is 250 PPM. Sulfate at the Dune Wells was 5.57 PPM. Spit Wells—4.66 PPM. Horn Creek-2.1 PPM.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people 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 for 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 microbiological contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

### Please See Page 4, Lead and Copper Test Results

The 90th percentile is the highest result found in 90% of the samples when they are listed in order from the lowest to the highest. EPA requires testing for lead and copper at customers' taps most likely to contain these substances based on when the house was built. The EPA determined that if the sample results exceeded the Action Level (AL), cities must take action in reducing the risk of leaching of lead and copper.

"If present, elevated levels of lead can cause serious health problems, especially for pregnant woman 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 water 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>."

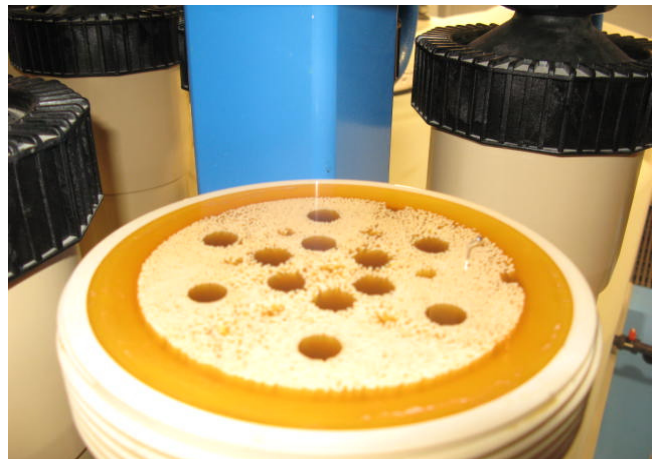
Copper. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

# PACIFIC CITY JOINT WATER-SANITARY AUTHORITY

## WATER QUALITY TEST RESULTS - HORN CREEK

Constituent	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely Source(s) of Contamination	
<b>Inorganic Constituents - Regulated</b>							
Nitrate	N	0.998	ppm	10	10	Erosion of Natural Deposits	
<b>Volatile Organic Compounds - Unregulated</b>							
Bromodichloromethane	N	0.00347	ppm	N/A	N/A	Byproduct of Drinking Water Disinfection	
Chloroform	N	0.00274	ppm	N/A	N/A	Byproduct of Drinking Water Disinfection	
Dibromomethane	N	0.00268	ppm	N/A	N/A	Byproduct of Drinking Water Disinfection	
<b>Radionuclides</b>							
Gross Alpha	N	-0.8	pCi/L	0	15	Erosion of Natural Deposits	
Radium226/228	N	0.3	pCi/L	0	5	Erosion of Natural Deposits	
<b>Disinfectant Residual - Distribution System</b>							
Free Chlorine	N	0.20-1.58	ppm	4.0*	4.0**	Disinfectant to Control Microbial Contaminants	
Total Coliform	N	Absent	Each	0	>1 Positive/Mo	Naturally present in the Environment	
*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 constituents							
**MRDLG - Maximum Residual Disinfectant Level Goal. The level 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 constituents.							
<b>Disinfection By-Products</b>							
TTHMs - Total Trihalomethanes	N	38 RAA (19.1-54.3)	ppb	N/A	60	Byproduct of Drinking Water Disinfection	
HAA5 Haloacetic Acid-5	N	34 RAA (11.7-58.9)	ppb	N/A	80	Byproduct of Drinking Water Disinfection	
<b>Finish Water Turbidity</b>							
Turbidity	N	0.016-0.268	NTU	N/A	95% < 1 NTU All < 5 NTU	Soil Runoff, Erosion of Natural Deposits	
Please see Page 3 for Lead/Copper information.							
<b>Lead and Copper Testing Jun-13</b>							
Constituent	Units	Goal	Action Level(AL)	90th Percentile	Exceeds Action Level	Complies	Source of Contaminant
Copper	ppm	1.3	1.3	0.0038	N	Y	Corrosion of household plumbing
Lead	ppb	0	15	0.127	N	Y	Corrosion of household plumbing

*Cryptosporidium* is a microbial pathogen found in surface water throughout the world. Surface water supplies are particularly vulnerable if they receive runoff or are exposed to human or animal wastes. Since wildlife inhabits the Horn Creek Watershed, PCJWSA monitors for *Cryptosporidium* and has done so since 2009. After testing 24 samples, it was demonstrated that there are low levels of *Cryptosporidium* in our source water. PCJWSA will not need to monitor for *Cryptosporidium* again until 2017. Ingestion of *Cryptosporidium* may cause *Cryptosporidiosis*, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. We encourage Immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause infection and may be spread through other means than drinking water.



Dune Wells and Spit Wells Source Water Assessment  
Does Not Apply to The Horn Creek Surface Water Treatment Plant

The following information is provided to PCJWSA customers as required by the EPA and Oregon Drinking Water Program

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 assessments consist of: 1. Identification of the Drinking Water Protection Area, which is comprised of the area at the surface that is directly above that part of the aquifer that supplies groundwater to our wells; 2. Identification of **potential** sources of pollution within the Drinking Water Protection Area and; 3. Determining the susceptibility or relative risk to the well water from those **potential** contamination sources.

The purpose of the assessment is to provide water systems with the information they need to develop a strategy to protect their drinking water resource if they choose. The Oregon Drinking Water Program and Environmental Quality have completed the assessment for the PCJWSA system, a copy of which is on file at our office located at 34005 Cape Kiwanda Dr. in Pacific City.

The following information is provided to PCJWSA customers as required by the EPA and Oregon Drinking Water Program

PCJWSA Source Water Assessment Report

The PCJWSA water system draws water from the fine sands of the Dune Sand Aquifer. Assessment results indicate the water system is highly susceptible to a contamination event inside the identified Drinking Water Protection Area. The presence of several high and moderate risk **potential** contamination sources within the Protection Area was confirmed through a **potential** contamination source inventory.

Under a, "worse-case" scenario, where it is assumed that nothing is being done to protect groundwater quality at the identified **potential** contamination sources, the assessment results indicate the water system would be highly susceptible to the identified high and moderate risk **potential** contamination sources. In addition, the assessment results indicate that, at this time, the water system is susceptible to viral contamination.

**CONSERVE WATER = SAVE \$\$**

**WASTE WATER = WASTE \$\$**

**FOR TIPS ON HOW YOU CAN CONSERVE WATER,**

**CALL THE PCJWSA OFFICE AT 503-965-6636**

**Or visit the following web sites:**

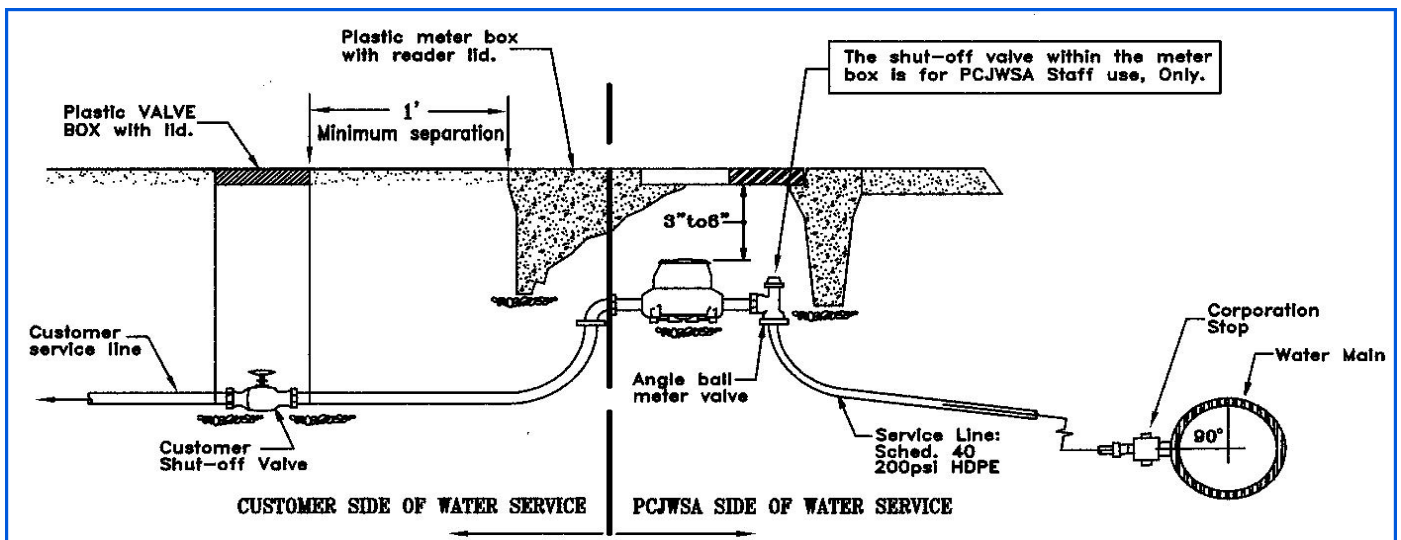
<http://www.epa.gov/watersense/>

And for kids— <http://www.epa.gov/watersense/kids/index.html>

**Complimentary low-flow water conservation kits are available at the PCJWSA office. Kits consist of: 1.5 GPM showerhead, 1.5 GPM kitchen faucet aerator and 2-1.5 GPM bathroom faucet aerators.**

Pacific City Joint Water-Sanitary  
 Authority  
 34005 Cape Kiwanda Dr.  
 PO Box 520  
 Pacific City, Oregon 97135  
 Phone : 503.965.6636  
 Fax: 503.965.6056  
 On the web at:  
 www.pcjwsa.com

THE PACIFIC CITY JOINT WATER-SANITARY AUTHORITY ANNUAL WATER QUALITY REPORT



Depicted above is a standard PCJWSA water meter installation. Everything to the right of the line separating the PCJWSA side of the meter from the customer side is owned and operated by PCJWSA. That includes the meter shut-off valve which PCJWSA typically locks in either the "open" or "closed" position depending on the situation. That valve is only to be operated by PCJWSA staff. The meter shut-off valve is not intended for customer use. PCJWSA encourages all customers to install their own shut-off valve just downstream of the meter. You can then turn your water off when ever you want. Otherwise, please call PCJWSA for assistance to shut-off the meter.