



PCJWSA ANNUAL WATER QUALITY REPORT

March 2003

Volume 3, Issue 1

CALENDAR YEAR 2002 REPORT

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As you will see in the following pages, our drinking water is safe and meets Federal and State requirements. We have attempted to make this report as straight forward, easy to read and understandable as possible while still complying with Federal requirements for this report. The water quality test results in the following tables reflect the latest data available from testing performed in February 2002. At this time, regulations require PCJWSA to monitor for most of these contaminants once every 4 years. PCJWSA will be conducting a new round of testing in the Spring of 2006.

PCJWSA tests 2 water samples each month for total coliform. Annually, we test for lead/copper and nitrates. Nitrates were not detected in our water. Asbestos, which also was not detected in our water, is tested once every nine years. In June of 2000 we tested our

water for the presence of radioactive constituents as required by Federal Regulations. There were no detectable amounts of radioactivity in the drinking water.

PCJWSA draws its water from two separate well fields that we refer to as the "dune wells" and the "spit wells". So named because the "dune wells" are at the base of a large sand dune north of our office on Cape Kiwanda Drive, and "spit wells" because they are on the Nestucca State Spit at the end of Sunset Drive. "Spit" refers to a peninsula.

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 groundwater. PCJWSA is currently in the process of researching additional wa-

ter sources; both surface and groundwater.

During a power outage, PCJWSA has an emergency generator that can be connected to either of these two sites to ensure that water continues to flow to your tap and to the reservoirs.

If you have additional 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 Kiwanda 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.

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:

Doug Olson – Chair

Dick Carter – Vice Chair

George Baumgardner – Secretary

Doug Kellow —Director

Robert Rissel—Director



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.

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.

Pacific City Joint Water-Sanitary Authority is pleased to report that your drinking water meets or exceeds all standards set for quality and safety.

As you will see from the tables on the following pages, PCJWSA tests for a lot of different constituents in your drinking water. Almost 80 in all. 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.

During 2002, 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 Level of 1.3 PPM. In addition, no homes tested exceeded the Action Level for lead, which is set at 15.0 PPB. PCJWSA is in

compliance with the lead and copper rule for the calendar year 2002.

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

From February 2002

WATER QUALITY TEST RESULTS

except as noted

Contaminant	Violation Y/N	Level Detected	Unit Measure	MCLG	MCL	Likely Source(s) of Contamination
Inorganic Contaminants						
Antimony	N	<.005	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic	N	10	ppb	n/a	50	Erosion of natural deposits: runoff from orchards; runoff from glass and electronics production wastes
Barium	N	<0.1	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium	N	<0.20	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace and defense industries
Cadmium	N	<2.0	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium	N	<10	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide	N	<20	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	N	<0.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic)	N	<1.0	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nitrate	N	<.1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits

<i>Contaminant</i>	<i>Violation Y/N</i>	<i>Level Detected</i>	<i>Unit Measure</i>	<i>MCLG</i>	<i>MCL</i>	<i>Likely Source(s) of Contamination</i>
<i>Nitrite</i>	<i>N</i>	<i><0.01</i>	<i>ppm</i>	<i>1</i>	<i>1</i>	<i>Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits</i>
<i>Selenium</i>	<i>N</i>	<i><2.0</i>	<i>ppb</i>	<i>50</i>	<i>50</i>	<i>Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines</i>
<i>Thallium</i>	<i>N</i>	<i><1.0</i>	<i>ppb</i>	<i>0.5</i>	<i>2</i>	<i>Leaching from ore-processing sites; discharge from electronics, glass and drug factories</i>

VOLATILE ORGANIC CONTAMINANTS

<i>Benzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from factories; leaching from gas storage tanks and landfills</i>
<i>Carbon Tetrachloride</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from chemical plants and other industrial activities</i>
<i>Mono-Chlorobenzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>100</i>	<i>100</i>	<i>Discharge from chemical and agricultural chemical factories</i>
<i>o-Dichlorobenzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>600</i>	<i>600</i>	<i>Discharge from industrial chemical factories</i>
<i>p-Dichlorobenzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>75</i>	<i>75</i>	<i>Discharge from industrial chemical factories</i>
<i>1,2 - Dichloroethane</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from industrial chemical factories</i>
<i>1,1 - Dichloroethylene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>7</i>	<i>7</i>	<i>Discharge from industrial chemical factories</i>
<i>cis-1,2 - Dichloroethylene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>70</i>	<i>70</i>	<i>Discharge from industrial chemical factories</i>
<i>trans - 1,2 - Dichloroethylene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>100</i>	<i>100</i>	<i>Discharge from industrial chemical factories</i>
<i>Dichloromethane</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from pharmaceutical and chemical factories</i>
<i>1,2 - Dichloropropane</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from industrial chemical factories</i>
<i>Ethylbenzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>700</i>	<i>700</i>	<i>Discharge from petroleum refineries</i>
<i>Styrene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>100</i>	<i>100</i>	<i>Discharge from rubber and plastic factories; leaching from landfills</i>
<i>Tetrachloro-ethylene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Leaching from PVC pipes; discharge from factories and dry cleaners</i>
<i>1,2,4 - Trichlorobenzene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>70</i>	<i>70</i>	<i>Discharge from textile-finishing factories</i>
<i>1,1,1, - Trichloroethane</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>200</i>	<i>200</i>	<i>Discharge from metal degreasing sites and other factories</i>
<i>1,1,2 - Trichloroethane</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>3</i>	<i>5</i>	<i>Discharge from metal degreasing sites and other factories</i>

	<i>Violation</i>	<i>Level</i>	<i>Unit</i>			<i>Likely Source(s) of Contamination</i>
<i>Contaminant</i>	<i>Y/N</i>	<i>Detected</i>	<i>Measure</i>	<i>MCLG</i>	<i>MCL</i>	
<i>Trichloroethylene</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>5</i>	<i>Discharge from metal degreasing and other factories</i>
<i>Toluene</i>	<i>N</i>	<i><0.005</i>	<i>ppm</i>	<i>1</i>	<i>1</i>	<i>Discharge from petroleum factories</i>
<i>Vinyl Chloride</i>	<i>N</i>	<i><0.5</i>	<i>ppb</i>	<i>0</i>	<i>2</i>	<i>Leaching from PVC Piping; discharge from plastics factories</i>
<i>Xylenes</i>	<i>N</i>	<i><0.0005</i>	<i>ppm</i>	<i>10</i>	<i>10</i>	<i>Discharge from petroleum factories discharge from chemical factories</i>

LEAD AND COPPER TESTING							<i>2002</i>
<i>Substance</i>	<i>Units</i>	<i>Goal</i>	<i>Action Level(AL)</i>	<i>90th Percentile</i>	<i>Homes Exceeding Action Level</i>	<i>Complies ?</i>	<i>Source of Contaminant</i>
<i>Copper</i>	<i>ppm</i>	<i>1.3</i>	<i>1.3</i>	<i>0.435</i>	<i>0</i>	<i>Y</i>	<i>Corrosion of household plumbing</i>
<i>Lead</i>	<i>ppb</i>	<i>0</i>	<i>15</i>	<i>2</i>	<i>0</i>	<i>Y</i>	<i>Corrosion of household plumbing</i>

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. As you can see by the table above, no homes exceeded the action levels during testing performed in 2002. Our next testing is scheduled for summer of 2003.

Lead. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficiencies in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

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.

Sodium— EPA does not have a MCL for sodium in drinking water, but EPA does issue a recommended level of 20 PPM. The analysis for sodium at the Dune Wells showed levels at 24.7 PPM and at the Spit Wells, 31.5 PPM. 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 2.1 PPM. Spit Wells—1.9 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.

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