

# CITY OF PENDLETON

## 2011 Water Quality Report

City of Pendleton Water Department is pleased to provide you with this summary of 2011 drinking water quality information. We want to keep you informed about the water and services we have delivered to you over the past year. Our goal is and always has been, to provide you a safe and dependable supply of drinking water. There are two sources of drinking water for the City. The first source consists of 7 deep basalt wells located throughout the city and another deep basalt well located 6 miles east of the city near Mission. The second source is the Umatilla River. Beginning in December, 2003, the City began withdrawing water from the Umatilla River and filtering it through the new membrane filtration Water Treatment Plant.

We are pleased to report that our drinking water is safe and meets federal and state requirements. This report shows the City's water quality as delivered to you in 2011.

### **HEALTH INFORMATION**

The Water Department routinely monitors for constituents in your drinking water according to federal and state laws. Chlorine is added to the water for disinfection purposes and to assist with meeting federal and state requirements. The tables included in this report show the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2011, or, in some cases, the results of the most recent sampling completed in accordance with state and federal regulations.

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 indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA's) Safe Drinking Water Hotline (800-426-4791).

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/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).

### **EXPLANATION OF EXPECTED CONTAMINANTS**

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 City of Pendleton source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from septic systems, livestock, or wild animals.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, mining or farming activities.
- Pesticides and herbicides, which may come from a variety of sources such as farming, home or business use, or urban stormwater runoff.
- 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.
- Radioactive contaminants, which can occur naturally.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Maximum Contaminant Levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters (approximately 2 quarts) 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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## DEFINITIONS

In this report 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:

**Not Available (NA)** - some values are not available at this time.

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present at the detection level.

**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 (µg/l)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**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 (MCL)** - The "Maximum Allowed" 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 (MCLG)** - The "Goal" 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.

**Maximum Residual Disinfectant Level (MRDL)** - the highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - the level of a drinking water disinfectant below which there is no known or expected risk to health.

## RESULTS OF MONITORING FOR REGULATED CONTAMINANTS

The items listed below were the only contaminants detected in Pendleton's water during the most recent monitoring period.

Parameter	Highest for Compliance	Range of Level Detected		MCL (highest level allowed)	MCLG (ideal goal)	Complies? (Is it OK?)	Potential Sources of Contaminant
		Minimum	Maximum				
Turbidity	0.11 NTU	0.05 NTU	0.11 NTU	5.0 NTU	NA	YES	Soil runoff, algae
<b>Inorganics:</b>							
Arsenic	1.69 ppb	ND	1.69 ppb	10 ppb	0	YES	Erosion of natural deposits
Barium	0.05 ppm	0.01 ppm	0.05 ppm	2 ppm	2 ppm	YES	Erosion of natural deposits
Chromium	1.32 ppb	ND	1.32 ppb	100 ppb	100 ppb	YES	Erosion of natural deposits
Fluoride	0.5 ppm	0.2 ppm	0.5 ppm	4 ppm	4 ppm	YES	Erosion of natural deposits
Nitrate	4.68 ppm	ND	4.68 ppm	10 ppm	10 ppm	YES	Erosion of natural deposits; animal waste; fertilizer; sewage; septic tanks
Selenium	3.09 ppb	ND	3.09 ppb	50 ppb	50 ppb	YES	Erosion of natural deposits
<b>Radionuclides:</b> (last sampled in 2009)							
Gross Alpha	3.76 pCi/L	ND	3.76 pCi/L	15 pCi/L	0	YES	Erosion of natural deposits
Combined Radium 226/228	ND	ND	ND	5 pCi/L	0	YES	Erosion of natural deposits
Combined Uranium	4.51 ppb	0.17 ppb	4.51 ppb	30 ppb	0	YES	Erosion of natural deposits
<b>Disinfection Byproducts:</b>							
Total Trihalo-Methanes (TTHM)	25.0 ppb	10.6 ppb	28.1 ppb	80 ppb	0	YES	By-product of drinking water chlorination
Haloacetic Acid (HAA)	19.6 ppb	1.96 ppb	22.5 ppb	60 ppb	0	YES	By-product of drinking water chlorination
<b>Disinfection Residuals:</b>							
	Mean	Minimum	Maximum	MRDL	MRDLG	Complies? (Is it OK?)	Potential Sources of Contaminant
Chlorine	0.41 ppm	0.32 ppm	0.51 ppm	4.0 ppm	4 ppm	YES	Water additive to control microbes

## RESULTS of MONITORING FOR LEAD & COPPER at RESIDENTIAL WATER TAPS

Parameter	90 <sup>th</sup> Percentile Values	No. of Sites Exceeding Action Level	Action Level (AL)	MCLG	Complies? (Is it OK?)	Potential Sources of Contaminant
Lead *	2.14 ppb	1	15 ppb	0	YES	Corrosion of household plumbing; erosion of natural deposits
Copper *	0.14 ppm	0	1.3 ppm	1	YES	