

CITY OF PENDLETON

2008 Water Quality Report

City of Pendleton Water Department is pleased to provide you with this summary of 2008 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 2008.

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 1st to December 31st, 2008, 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	1.00 NTU	0.02 NTU	1.00 NTU	5.0 NTU	NA	YES	Soil runoff, algae
Inorganics:							
Arsenic	3.2 ppb	ND	3.2 ppb	10 ppb	0	YES	Erosion of natural deposits
Barium	0.02 ppm	ND	0.02 ppm	2 ppm	2 ppm	YES	Erosion of natural deposits
Fluoride	0.7 ppm	0.2 ppm	0.7 ppm	4 ppm	4 ppm	YES	Erosion of natural deposits
Nitrate	3.0 ppm	ND	3.0 ppm	10 ppm	10 ppm	YES	Erosion of natural deposits; animal waste; fertilizer; sewage; septic tanks
Radionuclides: (last sampled in 2003)							
Gross Alpha	1.77 pCi/L	ND	1.77 pCi/L	15 pCi/L	0	YES	Erosion of natural deposits
Combined Radium 226/228	1.41 pCi/L	ND	1.41 pCi/L	5 pCi/L	0	YES	Erosion of natural deposits
Combined Uranium	1.85 pCi/L	ND	1.85 pCi/L	30 pCi/L	0	YES	Erosion of natural deposits
Gross Beta	4.32 pCi/L	ND	4.32 pCi/L	50 pCi/L	0	YES	Erosion of natural deposits
Disinfection Byproducts:							
Total Trihalo-Methanes (TTHM)	25.1 ppb	10.7 ppb	31.4 ppb	80 ppb	0	YES	By-product of drinking water chlorination
Haloacetic Acid (HAA)	23.7 ppb	ND	34.0 ppb	60 ppb	0	YES	By-product of drinking water chlorination
Disinfection Residuals:							
	Mean	Minimum	Maximum	MRDL	MRDLG	Complies? (Is it OK?)	Potential Sources of Contaminant
Chlorine	0.43 ppm	0.33 ppm	0.58 ppm.	4.0 ppm	4 ppm	YES	Water additive to control microbes

RESULTS of MONITORING FOR LEAD & COPPER at RESIDENTIAL WATER TAPS

Parameter	90 th Percentile Values	No. of Sites Exceeding Action Level	Action Level (AL)	MCLG	Complies? (Is it OK?)	Potential Sources of Contaminant
Lead *	ND	0	15 ppb	0	YES	Corrosion of household plumbing; erosion of natural deposits
Copper *	0.15 ppm	0	1.3 ppm	1	YES	

*Thirty-seven sites were sampled for lead and copper in 2008. All lead samples were ND; maximum copper level measured was 0.26 ppm.

ADDITIONAL WATER QUALITY & SUPPLY INFORMATION

Microbiological Contaminants

Microbiological testing of water helps protect the public from diseases. Chlorine is added to drinking water as a disinfectant to destroy or inactivate bacteria, viruses, and protozoa. City of Pendleton drinking water is routinely sampled for both Total Coliform Bacteria and Fecal Coliform Bacteria. Total coliform bacteria are naturally present in the environment, and their presence is an indicator that other, potentially harmful bacteria may be present. The presence of fecal coliform bacteria indicates that water may be contaminated with human or animal wastes. There were 239 routine microbiological samples taken throughout the distribution system in 2008. There were no detections of either total or fecal coliforms in the samples.

Beginning in April, 2008, City monitored the Umatilla River source water monthly for *Cryptosporidium*, a parasite that can cause gastrointestinal illness. No *Cryptosporidium* organisms have been detected in the source water to date. The City's membrane filtration Water Treatment Plant will filter out any parasites if they occur in the source water.

Regulated Contaminant Monitoring

The contaminants listed in the table are the only contaminants detected in Pendleton's water during the most recent monitoring period. Monitoring was completed in 2003, 2005, and 2008. **Not listed in the table were 11 inorganic compounds, 21 volatile organic compounds, and 29 synthetic organic compounds for which we tested that were NOT detected.**

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. City of Pendleton 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Water Treatment Plant

The City's WTP continues to produce high quality drinking water for Pendleton. During the 2008 water year, the WTP provided 88% of the total water used by the City. The remaining 12% came from groundwater wells. Prior to 2003, the City derived 62% of its supply from native groundwater and about 38% from the City's old "Springs" source. Since the WTP was built, the City has been able to reverse this trend and now relies primarily on surface water, thus reducing declines in the groundwater aquifer.

Aquifer Storage and Recovery (ASR)

The City continues to store high-quality drinking water produced in its membrane filtration WTP in the basalt aquifer system beneath the City. That water is stored during the winter months when there is adequate water in the Umatilla River. The stored water is recovered during the summer months when demand is high. The process is referred to as Aquifer Storage and Recovery (ASR).

The five years of the ASR project have demonstrated aquifer recharge, storage and recovery as a viable method for Pendleton to store and recover treated water and assist with reducing native groundwater declines. During the 2008 water year, the City recharged and stored 474 million gallons in the underground aquifer.

WANT MORE INFORMATION?

We want our valued customers to be informed about their water utility. If you have any questions about this report or the City of Pendleton Water Department, please contact Karen King at Pendleton Public Works, 541-966-0249. For information on water quality and water conservation measures that can save water and save you money, visit the

City's website at <http://www.pendleton.or.us> and look under Environmental.