CITY OF PENDLETON
2004 Water Quality Report

City of Pendleton Water Department is pleased to provide you with this summary of 2004 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 Water Treatment Plant.

We are pleased to report that our drinking water is safe and meets federal and state requirements. Chlorine is added to the water for disinfection. This report shows the City=s water quality as delivered to you in 2004.

HEALTH INFORMATION

The Water Department routinely monitors for constituents in your drinking water according to federal and state laws. The tables included in this report show the results of our monitoring for the period of January 1st to December 31st, 2004, 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:

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

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

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 AMaximum 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 AGoal@ 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	0.18 NTU	0.02 NTU	0.18 NTU	5.0 NTU	NA	Yes	Soil runoff, algae
Inorganics:							
Barium	0.02 ppm	ND	0.02 ppm	2 ppm	2 ppm	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	3.1 ppm	0.1 ppm	3.1 ppm	10 ppm	10 ppm	Yes	Erosion of natural deposits; animal waste; fertilizer; sewage; septic tanks
Radionuclides:							
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)	23.9 ppb	8.0 ppb	28.8 ppb	80 ppb	0	Yes	By-product of drinking water chlorination
Haloacetic Acid (HAA)	15.7 ppb	3.6 ppb	31.8 ppb	60 ppb	0	Yes	By-product of drinking water chlorination
Disinfectants:							
	Mean	**Minimum**	**Maximum**	**MRDL**	**MRDLG**	**Complies?**	**Potential Sources of Contaminant**
Chlorine	0.33 ppm	0.23 ppm	0.41 ppm	4.0 ppm	4 ppm	Yes	Water additive to control microbes

RESULTS of MONITORING for LEAD & COPPER at RESIDENTIAL WATER TAPS:

Parameter	90th 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 *	0.17 ppm	0	1.3 ppm	1	Yes	

*Thirty-two sites were sampled for lead and copper in 2002. Maximum lead level measured was 4 ppb; maximum copper level measured was 0.25 ppm.

ADDITIONAL WATER QUALITY SAMPLING 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 180 routine microbiological samples taken throughout the distribution system in 2004, and none of the samples indicated the presence of either total or fecal coliform bacteria.

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 2002 , 2003 and 2004. **Not listed in the table were 13 inorganic compounds, 39 volatile organic compounds, and 42 synthetic organic compounds for which we tested that were NOT detected.**

Paraquat Monitoring

In 2004, the City voluntarily participated in a national surface water monitoring study by Sygenta Crop Protection, Inc., to determine if the herbicide paraquat could be found in surface water sources. Fourteen water samples were collected in 2004 at the City=s Umatilla River Intake. No detections of paraquat were found in any of the samples at the parts per billion level. The City will continue to participate in the study in 2005.

Regulatory Requirements

In order to meet the regulatory requirements of the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, the City conducted a Vulnerability Assessment of the entire water treatment and distribution system and updated its Emergency Response Plan in 2004.

These documents were sent to the U.S. Environmental Protection Agency (U.S. EPA).

WANT MORE INFORMATION?

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. We want our valued customers to be informed about their water utility. For information on water conservation measures that can save water and save you money, contact King at 541-966-0249 or visit the

City=s website at http://www.pendleton.or.us and look under Public Notices for *Water Efficiency Facts and Tips*.

Water Supply Development Update

AQUIFER STORAGE and RECOVERY (ASR) The ASR program had a very successful first year. Through use of the water treatment plant and three ASR wells, we stored over 385 million gallons of filtered river water beneath Pendleton in early 2004 and successfully recovered the stored water later in the year. At the end of the first year of the ASR program, we observed a local rise in the groundwater level beneath Pendleton. For 2005, which has the 3rd lowest record for wintertime river flows at Pendleton since 1936, we have stored about 200 million gallons of filtered river water.

The recent upgrades to the water supply system allow us to produce up to 15 million gallons of water per day. Our typical summer peak day customer usage ranges between 11 to 13 million gallons. Our limiting factor for delivery of water to our customers is the ability to produce the water from our wells and the water treatment plant. Therefore, with our recent water supply improvements, power outages and motor failures are the main issue in supplying water to our customers, not the lack of snowfall and rainfall.

THE NEXT PHASE of improvements for the water system will focus on our aging infrastructure. The water distribution system consists of over 87 miles of water lines, 2,200 isolation valves, 9 booster pump stations, and 6 reservoirs for delivering water to our 5700 service connections. Two-thirds of the water distribution piping consists of cast iron pipe. This pipe is typically 30-years to 85-years old and is very brittle in comparison to the ductile iron pipes installed in more recent years. Several booster stations need to be upgraded with new motor control centers, pumps, and motors. We have many old isolation valves that are Aleaking,@ and we need to install more isolation valves to provide better Ashut-down@ service to our customers.

OTHER INFRASTRUCTURE ISSUES. We have many issues in the Public Works arena. For Pendleton to be a sustainable and liveable community, we will have to invest more resources in our infrastructure in the future. In addition to upgrading the water distribution system, Pendleton will need to focus on addressing other aging infrastructure issues, including:

$ Upgrading some major equipment that is over 50 years old at the Wastewater Treatment Plant;

$ Upgrading over 60 miles of sewer collection system and 4 sewer lift stations;

$ Upgrading over 20 miles of storm drain piping and over 700 catch basins; and

$ Upgrading and maintaining over 60 miles of paved streets.