

# Water Quality Report 2014

- *Plus tips to keep our waters clean and systems running smoothly!*
- *Find out about the latest master plan updates!*

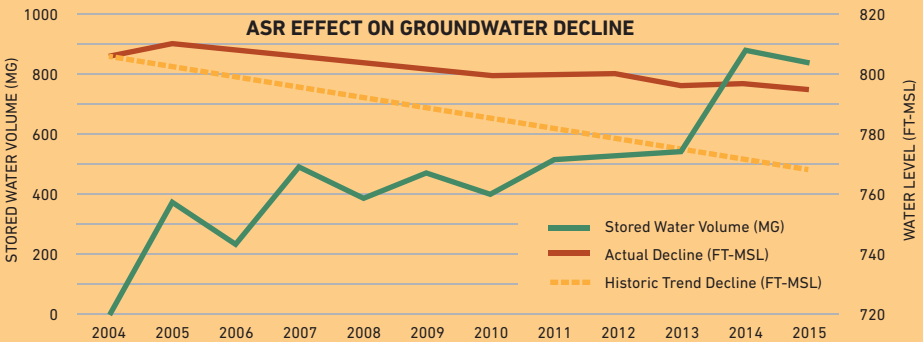
# THE CITY OF PENDLETON HAS ONE OF THE MOST DROUGHT RESISTANT WATER SYSTEMS IN THE WESTERN U.S.!

Thanks to the innovative Aquifer Storage and Recovery (ASR) program started over a decade ago, the City of Pendleton is not in a drought! In fact, we have increased water supply.

In 2014, the City had another banner ASR program year. This was the year for the greatest amount of natural groundwater to be left in the aquifer based on historic trends for its water supply before the investment in ASR. This year the City stored 842 million gallons of filtered water from the Umatilla River in the aquifer. The City recovered 768 million gallons of the stored ASR water and provided it to its customers. The remaining 74 million gallons of stored ASR water was “banked,” or left in the aquifer for future use. Since 2003, the City has been able to reverse the trend of reducing declines in the groundwater aquifer and now relies primarily on surface water. In fact, the City has “banked” or not used almost eight billion gallons of native groundwater since the Aquifer Storage and Recovery project began!



Thanks to the city's water filtration plant and Aquifer Storage and Recovery Program, **Pendleton is not in a drought!**



## MASTER PLANNING FOR A SUSTAINABLE FUTURE

To keep our community's water system thriving, healthy and sustainable for years to come, the City Council adopted new master plans for the water, sewer and stormwater utilities. As people become aware of the condition of our city streets, it's important to understand that below those streets are 107 miles of waterlines, 87 miles of sewer lines, and almost 50 miles of drainage system with 46 miles of storm lines. To maintain a viable system, we should replace about 2.5 miles of underground piping each year, but we currently lack the resources to do this. We have identified about \$4.8 million in additional needs for each year over the next 5-years to start addressing our water, sewer, and storm infrastructure needs. Some level of rate increases combined with a mixture of system development charges are under consideration. Public outreach, dialogue, and discussion will be occurring over the next 6 - 12 months in regards to future funding. As a community, we must look at how to fund our aging infrastructure to move forward to sustainability. You can view the master plans and related materials at <http://pendleton.or.us/public-works/citypendleton-water-department> under Documents & More Information at the bottom of the page.



# ALL WATER AND CONTAMINANTS THAT ENTER STORM DRAINS GO DIRECTLY INTO THE UMATILLA RIVER.

Storm drain contamination is one of the major causes of pollution in our rivers, lakes and streams. Pollution of stormwater runoff can negatively impact our environment and introduce unnecessary risk to public health and safety ultimately effecting the livability of our community. To control stormwater, the local cities and counties operate and maintain a system of underground pipes and catch basins to transport rain and snow melt into the ground, rivers and streams. This water does not get treated so we need to keep contaminates out of our storm drains.

## 3 TIPS TO KEEP STORM DRAINS CLEAN:



**Dispose of grass clippings, mulch and leaves.** Do not blow or hose them down the drain or into streets.



**Set sprinklers** to water the lawn and garden only not pavement.



**Pick up** and dispose of waste properly.



# ONLY RAIN DOWN THE DRAIN...

# THINK BEFORE YOU FLUSH



AN OVERFLOWING TOILET CAN RUIN YOUR HOME IN AN INSTANT!

Maxi pads & tampons/ applicators



Cotton swabs & hair



Dental floss & whitening strips



Kitty litter & condoms



Baby & cleaning wipes



Bandages & OTC medications



CLOG

Photo illustration © 2014 Goldstreet Design Agency, Inc.

## A TOILET IS NOT A TRASH CAN



### FLUSHABLE WIPES CLOG PIPES!

"Flushable" wipes are NOT flushable. They are THE #1 cause of sewer backups in your system.

## THE CITY OF PENDLETON PROVIDES EXCEPTIONAL WATER FOR YOU!

Once again we are proud to present our annual water quality report. This edition covers all testing completed from December 2013 through December 2014. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users. For more information about this report, or for any questions relating to your drinking water, please call the Water Superintendent at 541-966-4518 or the Regulatory Specialist at 541-966-0249.

### HEALTH INFORMATION

The Water Division routinely monitors for constituents in your drinking water according to federal and state laws. 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).

### UNREGULATED CONTAMINANT MONITORING

The Safe Drinking Water Act (SDWA) as amended in 1996 requires the EPA to establish criteria for a program to monitor unregulated contaminants in drinking water and to identify no more than 30 contaminants to be monitored every five years. The name of this EPA program is Unregulated Contaminant Monitoring Rule (UCMR). The EPA's purpose for monitoring selected unregulated contaminants is to gain nation-wide data to evaluate. The EPA will then decide whether or not to regulate these selected contaminants in the future for the protection of public health. Pendleton was randomly chosen to participate in the UCMR program. There have been three UCMR cycles to date. From the 3rd UCMR cycle which ended in 2014, the EPA has identified Strontium as one unregulated contaminant that will be regulated in the future. No MCL has been determined yet for Strontium. The 4th UCMR sampling cycle is projected to start in 2015.

The items listed in Table 1 were the only UCMR contaminants detected in Pendleton's water during the 2014 monitoring period. Levels are listed in parts per billion (ppb). The maximum level that was detected in a sample is reflected in Table 1. Nine other UCMR monitored contaminants were not detected.

**TABLE 1: RESULTS OF MONITORING FOR UNREGULATED CONTAMINANTS (UCMR)**

Chlorate	135 ppb	Perfluorononanoic Acid	.0182 ppb
Hexavalent Chromium	0.14 ppb	Perfluorooctylsulfonic Acid	.0364 ppb
Total Molybdenum	1.9 ppb	Perfluorooctanoic Acid	.0182 ppb
Total Strontium	195 ppb	Perfluoroheptanoic Acid	.0090 ppb
Total Vanadium	32.4 ppb	Perfluorohexylsulfonic Acid	.0273 ppb
		Perfluorobutanesulfonic Acid	.0818 ppb

## CHLORINE

Chlorine is added to drinking water as a disinfectant to destroy or inactivate bacteria, viruses, and protozoa. There were 243 routine microbiological samples taken throughout the distribution system in 2014. No total coliform bacteria or E. Coli bacteria were detected in 2014.

## LEAD

In 2014, the city conducted OHA-DWP mandated lead sampling at 32 residences within city limits. The MCL for Lead is .015 ppm. Twenty out of 32 residences had no detections of lead. Of the 12 residences that had lead detections, only one exceeded the MCL action level. The overall reportable 90th percentile sampling results were at .0043 ppm. All results are posted on the OHA Drinking Water Program website under the City of Pendleton Water System. (<https://yourwater.oregon.gov>)

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. 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>.

## 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 storm-water 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 storm-water 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 storm-water 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 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 (MCLG)** - The 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.

**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.





**TABLE 2: RESULTS OF MONITORING FOR REGULATED CONTAMINANTS**

PWS ID# 4100613

NOTE: The contaminants listed in the Table 2 and 3 below are the only regulated contaminants detected in Pendleton’s water during the most recent monitoring period. Monitoring was completed in 2009, 2011, 2012, 2013 & 2014. Not listed in the Table 1. were 23 volatile organic compounds, 29 synthetic organic compounds, and 9 inorganic compounds, for which we tested for but were not detected.

Parameter	Highest for Compliance	Range of Level Detected		MCL (highest safe 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

**Inorganics:**

Arsenic	1.69 ppb	ND	1.69 ppb	10 ppb	0	YES	Erosion of natural deposits
Barium	0.019 ppm	0.007 ppm	0.019ppm	2 ppm	2 ppm	YES	Erosion of natural deposits
Fluoride	0.198 ppm	ND	0.198 ppm	4 ppm	4 ppm	YES	Erosion of natural deposits
Nitrate	1.61 ppm	ND	1.61 ppm	10 ppm	10 ppm	YES	Erosion of natural deposits; animal waste; fertilizer; sewage; septic tanks
Selenium	8.20 ppb	ND	8.20 ppb	50 ppb	50 ppb	YES	Erosion of natural deposits

**Disinfection Byproducts:**

Total Trihalo-Methanes (TTHMs)	31.7 ppb	6.3 ppb	31.7 ppb	80 ppb	0	YES	By-product of drinking water chlorination
Halo Acetic Acids (HAAs)	28.5 ppb	ND	28.5 ppb	60 ppb	0	YES	By-product of drinking water chlorination

**Radionuclides:**

Gross Alpha	ND	ND	ND	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	ND	ND	ND	30 ppb	0	YES	Erosion of natural deposits
Disinfection Residuals:		Minimum	Maximum	MRDL	MRDLG	Complies? (Is it OK?)	Potential Sources of Contaminant
Chlorine Residual @ First User		0.28 ppm	0.92 ppm	4.0 ppm	4 ppm	YES	Water additive to control microbes

**TABLE 3: 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	4.50 ppb	1	15 ppb	0	YES	Corrosion of household plumbing; erosion of natural deposits
Copper	0.136 ppm	0	1.3 ppm	1	YES	



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### **WANT MORE INFORMATION?**

We want our valued customers to be informed about their water quality. If you have any questions about this report or the City of Pendleton Water Division, please contact the Regulatory Specialist at 541-966-0249. For information on water quality and water conservation measures that can save you money, visit the City's website at [www.pendleton.orus.us](http://www.pendleton.orus.us) and, using the SEARCH feature, type in "Water Conservation."



The City passed the 2014 OHA-DWP Water Sanitary Survey with four very minor discrepancies. These results and other information can be found at [yourwater.oregon.gov](http://yourwater.oregon.gov)