

City of Boardman 2014 Water Quality Report

The Boardman Public Works Department is pleased to provide you with this summary of 2014 drinking water quality information. We wish to keep you informed about the quality and services delivered to you over the past year. Our goal is, and has always been, to provide you a safe and dependable supply of drinking water. The City obtains water from a Horizontal Collector Well, which draws water from a shallow aquifer adjacent to, and under the Columbia River. As water from the aquifer is withdrawn the water from the river recharges the aquifer through what is termed as "induced infiltration". The Collector is located on the banks of the Columbia River north of the water distribution pumping facility on E. Marine Dr. A second collector, which is now in operation is located just west of Sailboard Beach. The second collector was part of the water system expansion project. Also as part of the expansion project was an on-site sodium hypochlorite generation system for disinfection. This system is cost effective and less hazardous than the one ton chlorine cylinders that were being used. As the federal and state rules and regulations become increasingly more stringent, the City is looking to meet or exceed these criteria at affordable costs.

We are pleased to report that our drinking water is safe and meets or exceeds state and federal water quality guidelines. Sodium Hypochlorite is added to the water for disinfection. There is no other treatment at this time. This report shows our water quality and defines what it means.

HEALTH INFORMATION

The Public Works Department routinely monitors for contaminants 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, 2013, or in some cases 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 at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general public. 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 more 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 at 1-800-426-4791.

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 Boardman source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from septic systems, livestock, wild animals or human recreation.
- 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 occur naturally and as a result of human activity up river.

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 (MCL's) 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 of water, at the MCL level, every day 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 assist you in better understanding these terms, the following definitions are offered:

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 \$10,000.00.

Parts per billion (ppb) or Micrograms per liter (Micrograms/L) - one part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.00.

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 \$10,000,000,000.00.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of 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. MCL's are set as close to MCLG's 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. MCLG's allow for a margin of safety.

Million Fibers per Liter (MFL) – This measurement is used to address Asbestos fibers of greater than 10 microns in size that may come from deterioration of asbestos cement pipe.

µmhos/cm – Is a measurement for conductivity in drinking water. The EPA limit is proposed for 700 µmhos/cm

Maximum Residual Disinfectant Level (MRDL) – The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) – The level of a drinking water disinfectant below which there is no know or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectant to control microbial contaminants.

RESULTS OF MONITORING OF LEAD & COPPER SAMPLING AT RESIDENTIAL WATER TAPS:

PARAMETER	90th PERCENTILE VALUES	No. of SITES EXCEEDING ACTION LEVELS	ACTION LEVEL (AL)	MCLG	POTENTIAL SOURCES of CONTAMINANT
Lead	0.0030 ppm	0	15 ppm	0	Corrosion of household plumbing; erosion of natural deposits
Copper	0.2520 ppm	0	1.3 ppm	1.3 ppm	

These parameters were sampled in 2012, in accordance with state and federal regulations

RESULTS OF MONITORING FOR REGULATED CONTAMINANTS

The items listed below were the only contaminants detected in Boardman's water during the last monitoring period. Note that all parameters listed meet or surpass state and federal drinking water standards. **Not listed in the table below are 9 inorganic compounds, 21 volatile organic compounds and 32 synthetic organic compounds for which samplings showed NOT DETECTED.**

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive :						
Gross Alpha	N	ND	PCi /l	6	15	Erosion of natural deposits
Combined radium	N	ND	PCi/l	0	5	Erosion of natural deposits
Inorganic:						
Arsenic	N	ND	ppb	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	0.0450	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	N	0.0010	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	N	0.4000	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as (nitrogen)	N	.787	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Disinfectant Byproducts:						
Total (TTHM)	N	0.0311	ppm	0	80	By-product of drinking water chlorination
Total (HAA5)	N	0.00580	ppm	0	60	

These results are from 2011 - 2013 sampling In accordance with state and federal regulations.

While your drinking water meets EPA's standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in the excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Nitrate in drinking water at levels above 10ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

ADDITIONAL WATER QUALITY SAMPLING INFORMATION

Unregulated Contaminants

Although some contaminants are not yet regulated, they may be of interest to some of our customers. The following table shows results from the last sampling of some of the unregulated elements tested for.

PARAMETER	MEASURED LEVEL	PROPOSED EPA LIMIT
Sodium	31 ppm	NA

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 Boardman drinking water is routinely sampled for Total Coliform. Total Coliform bacteria are naturally present in the environment. Their presence is an indicator that other, potentially harmful bacteria may be present. The City performed 52 routine microbiological samples throughout the distribution system in 2014, and had no positive samples detected.

Daily Monitoring

The following table is a list of the high and low values for sampling performed daily at the water distribution facility prior to the water entering the distribution system. The values listed in the tables are the range that was seen during each month of the calendar year 2014

Month	NTU (Turbidity) High / Low	Free Chlorine (ppm) High / Low	Total Chlorine (ppm) High / Low	pH High / Low	Hardness grains/gal High & Low	Alkalinity grains/gal High & Low	Temperature C High / Low
Jan 14	0.047/0.049	0.7/ 0.6	0.7 / 0.6	9.2/7.8	7/6	3/3	16/13
Feb 14	0.048/0.055	0.6/ 0.5	0.6 / 0.5	8.2/7.6	7/5	3/3	13/12
Mar 14	0.049/0.053	0.7/ 0.4	0.7/ 0.3	8.3/ 8.2	7/5	3/3	16/13
Apr 14	0.051/0.060	0.7/ 0.5	0.7/ 0.5	8.5/8.3	6/5	3/3	16/14
May 14	0.055/0.061	0.7/ 0.5	0.7/ 0.5	8.6/ 8.5	6/5	3/3	18/16
Jun 14	0.060/0.072	0.7/ 0.5	0.7 / 0.5	8.9/8.6	6/5	3/3	21/18
Jul 14	0.063/0.071	0.7/ 0.5	0.7/ 0.5	8.9/7.9	8/5	3/3	22/20
Aug 14	0.067/0.074	0.7/ 0.5	0.7/ 0.5	8.3/8.0	6/6	3/3	22/21
Sep 14	0.071/0.075	0.7/ 0.6	0.7/ 0.6	8.2/8.0	6/6	3/3	20/21
Oct 14	0.075/0.082	0.7/ 0.6	0.8/ 0.7	8.2/7.8	6/6	3/3	20/18
Nov 14	0.080/0.085	0.8/ 0.5	0.8/ 0.5	8.3/8.0	6/6	3/3	18/14
Dec 14	0.087/0.081	0.8/ 0.4	0.8/ 0.5	8.1/8.0	6/6	3/3	15/14

* This information compiled from 2014 daily operator logs.

COMMONLY ASKED QUESTIONS:

Is Boardman's water hard or soft?

Boardman's water is classified as moderately hard.

Does Boardman add fluoride to the water?

Boardman does not add fluoride to the water at this time.

IF YOU WOULD LIKE MORE INFORMATION:

If you have any questions about this report or the City of Boardman Water system, please contact Kevin Kennedy at Boardman City Hall, 541-481-9252. We want our valued customers to be informed about their water supply and water utility. If you want to learn more or take a more active role in regards to your drinking water supply please let us know.

Si no entienden el ingles, por favor comuniquese con Kevin Kennedy con un traductor para que el agua informe estara explicado a usted.