Consumer Confidence Report (CCR)

2011 Water Quality Report
CITY OF WASILLA
PWSID#AK224646

Introduction

This is an annual report on the water quality of tap water delivered to City of Wasilla customers. This report's sole purpose is to increase consumer knowledge of drinking water quality, sources, susceptibility, treatment, and drinking water supply management. It also increases awareness of consumers to potential health risks, so they may make informed decisions to reduce those risks, including taking steps towards protecting their water supply.

What is a Consumer Confidence Report?

In 1996, Congress amended the Safe Drinking Water Act. It added a provision requiring that all community water systems deliver to their customers a brief annual water quality report.

Is my water safe?

Absolutely! No one is concerned more about the potability of your water than COW/Utilities Department. Last year, as in years past, your tap water met all U.S. Environmental Protection Agency (EPA) and State Drinking Water Health standards. Local Water vigilantly safeguards its water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. As a consumer you are encouraged to flush your line 15-30 seconds from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Why are there contaminants in my drinking water?

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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 animal or from human activity: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharge, oil and gas production, mining, or farming; pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; 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; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems.
Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

City of Wasilla Water System Information

Wasilla water system is owned and operated by City of Wasilla, Public Works Department, Water Division. The water is pumped from deep aquifers at seven separate locations, Our main well is the Spruce well capable of producing 1070 gallons per minute, Bumpus Well 1 & 2 are capable of producing 600 gallons per minute, East Susitna Well which produces 300 gallons per minute, With five stand-by wells; Spruce stand-by Well, Honor Garden Well, Mission Hills, Ranch Well 1 & 2 capable of producing an additional 650 gallons per minute. Water is supplied through four atmospheric storage tanks providing pressure throughout the distribution system. For those customers east of Creekside Plaza down to Machetanz Elementary School pressure is maintained by the Richmond Hills Booster Station.

Monitoring and Reporting

We use only EPA-approved laboratory methods to analyze your drinking water. Our trained personnel take water samples from the distribution system and residents' taps. Samples are then delivered to an accredited laboratory where a full spectrum of water quality analyses is performed. We collected over 500 samples in 2010, which were analyzed for roughly 100 different contaminants. Of these 100 contaminants, we only detected 17 contaminants and found none at a level higher than the EPA Maximum Contaminant Level (MCL). Results for those chemicals detected are located on the next page. We did receive one violation for a missed sample period for the East Susitna Well

Waivers and/or non-detects

There are many regulations pertaining to sampling and monitoring of our water system. Since we have a waiver for Synthetic Organic Contaminants, Other Organic Contaminants and Asbestos, we were not required to test for them during the time period covered by this report.

Source Water Assessment and its availability

Source water assessment for the East Susitna Well was completed on February 22, 2011. Source water assessment reports may be found on the City of Wasilla Web Page http://www.cityofwasilla.com, U.S. Environmental Protection Agency web site at http://www.epa.gov/safewater, and Division of Environmental Health Drinking Water Program at http://map.dec.state.ak.us/eh/dww/index.jsp

Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or State requires us to monitor for certain contaminants less than once per year because the concentrations of the contaminants do not change frequently.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Range		Sample	Violation	Typical Source
				Low	High	Date		
Disinfections & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)								
TTHMs [Total Trihalomethanes}(ppb)	N A	80	23.6	0.0	23.6	2011	No	By-product of drinking water disinfection
Haloacetic Acids (HAA5) (ppb)	N A	60	12.1	0.0	12.1	2011	No	By-product of drinking water chlorination
Chlorine (as Cl2) (ppm)	4	4	0.7	0.1	0.7	2011	No	Water additive used to control microbes
Inorganic Contaminates								
Barium (ppm)	2	2	0.0111	0.00326	0.0111	2010	No	Discharge of drilling wastes: Discharge from metal refineries; Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	1.2	N D	1.2	2011	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Antimony (ppb)	6	6	0.207	N D	0.207	2010	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition
Arsenic (ppb)	0	10	7.1	1.09	7.1	2010	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste
Beryllium (ppb)	4	4	0.2	N D	0.2	2010	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries
Chromium (ppb)	100	100	1.28	0.212	1.28	2010	No	Discharge from steel and pulp mills; Erosion of natural deposits
Selenium (ppb)	50	50	0.634	N D	0.634	2010	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Thallium (ppb)	0.5	2	0.346	N D	0.346	2010	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories
Microbiological Contaminants								
Fecal coliform/E.coli (positive samples)	0	0	0		N A	2010	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.								
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	0.14	-0.06	0.14	2010	No	Erosion of natural deposits
Uranium (ug/L)	0	30	0.1333	N D	0.1333	2010	No	Erosion of natural deposits
Volatile Organic Contaminants								
Toluene (ppm)	1	1	0.0007	N D	0.0007	2008	No	Discharge from petroleum factories

Contaminants	MCLG	A L	Water	Date	Exceeding A L	AL	Typical Source
Inorganic Contaminants							
Lead – action level at consumer taps (ppb)	0	15	4.15	2009	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper – action level at consumer taps (ppm)	1.3	1.3	0.317	2009	0	No	Corrosion of household plumbing systems; Erosion of natural deposits

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Contaminants	State MCL	Your Water	Violation	Explanation and Comment
Gross Alpha, Excl. Radon & U	15 pCi/L	0.0 pCi/L	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation
Nickel (ug/L)	N A	1.88	No	
Iron (ug/L)	N A	0.0	No	

Undetected Contaminants

The following contaminants were monitored for, but not detected, in your water.

Contaminants	MCL or MRDLG	MCL or MRDL	Your Water	Violation	Explanation and Comment
Fluoride (ppm)	4	4	N D	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrite [measured as Nitrogen] (ppm)	1	1	N D	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Cadmium (ppb)	5	5	N D	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints
Cyanide [as Free Cn] (ppb)	200	200	N D	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories
Mercury [Inorganic] (ppb)	2	2	N D	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland

Additional Information for 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 Wasilla 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 or at http://www.epa.gov/safewater/lead . Thank You to the customers for participating in our lead copper program. 2012 is our next sample period so we will be looking forward to your participation once again.

Additional Information for Arsenic

EPA's educational statement - in federal rule:
While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs 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:
Department of Health's recommended educational statement:
Your drinking water currently meets EPA's revised drinking water standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the costs of removing arsenic from drinking water.

Unit Descriptions

ug/L : Number of micrograms of substance in one liter of water; **ppm:** parts per million, or milligrams per liter (mg/L); **ppb:** parts per billion, or micrograms per liter (µg/L); **pCi/L:** picocuries per liter (a measure of radioactivity); **positive samples/yr:** The number of positive samples taken that year; **NA:** not applicable.; **ND:** Not detected; **NR:** Monitoring not required, but recommended

Important Drinking Water Definitions

MCLG: Maximum Contaminant Level Goal: 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; **MCL**: Maximum Contaminant Level: 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; **TT:** Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water; **AL:** Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow; **Variances and Exemptions:** State or EPA permission not to meet an MCL or a treatment technique under certain conditions; **MRDLG:** Maximum residual disinfection level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants; **MRDL:** Maximum residual disinfectant level. 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**; MNR:** Monitored Not Regulated; **MPL:** State Assigned Maximum Permissible Level

Frequently Asked Questions

Why does the water sometimes look rusty?

Rusty or reddish tinted water may occur because of a sudden change in pressure due to improper flushing of a fire hydrant, etc. Iron causes the discoloration: it is not a health risk. The normal flow of water will usually clear the mains within two hours or less. Check your water by flushing a commode bowl three times every 15 to 20 minutes. If you live on or near the end of a long, main distribution line, additional flushing may be required. Galvanized iron pipes or fittings within a home or building may also cause discolored water. Running the water will clear the piping system. If the hot water is rusty, the water heater may need to be flushed.

What is a Precautionary Boil Advisory?

If a problem is detected in the system, such as a drip in pressure, a water main break, or a routine positive coliform sample, City of Wasilla puts out a Precautionary Boil Advisory and immediate testing requirements go into effect. Boil Advisory are precautionary and do NOT necessarily mean that contamination has been detected. The notice will describe and precautions you need to take such as boiling your water to kill any potential bacteria. Retesting continues until the system can reliably demonstrate that it is free of problems.

Is it okay to drink from a garden hose?

The water is safe but a garden hose is treated with special chemicals that make it flexible. Those chemicals are not good for you and neither are the bacteria that may be growing inside the hose.

Will using a home water filter make the water safer or healthier?

Most filters improve the taste, smell and appearance of water, but they don't necessarily make the water safer or healthier. Please keep in mind that filters require regular maintenance and replacement, if ignored, water quality problems may occur.

What can I do to improve the quality of my drinking water?

Running the cold water tap for 30 seconds prior to use helps to flush out metals that may leach into the water that has been sitting in the pipes overnight. Water used for consumption should always come from the cold water tap. Hot water has more potential to leach metals into the water.

How will I know if my water isn't safe to drink?

Your water supplier must notify you by newspaper, mail, radio, TV, or a hand-delivered notice if your water doesn't meet standards or if there is a waterborne disease emergency. The notice will describe any precautions you need to take, such as boiling your water.

I don't like taste/smell/appearance of my tap water? What's wrong with it?

Even when water meets standards, you may still object to its taste, smell, or appearance. Taste, smell and appearance are also known as aesthetic characteristics and do not pose health effects. Common complaints about water aesthetics include: temporary cloudiness (typically caused by air bubbles) or chlorine taste (which can be improved by letting the water stand exposed to the air).

What is backflow and how can I prevent it?

It's just what it sounds like: the water is flowing in the opposite direction from its normal flow. With the direction of the flow reversed, due to a change in pressure, backflow can allow contaminants to be pulled into the drinking water. The following tips may help to reduce the potential for backflow.

- Don't submerge hoses in buckets, pools, tubs, or sinks.
- Don't attach chemical sprayers to your garden hose without first installing a backflow prevention device such as a vacuum breaker on the spigot. This is an inexpensive device that can be purchased at any garden or hardware store and installation is as easy as attaching your garden hose to a spigot. The chemicals used on your lawn can be fatal if ingested.

How can I get involved?

We want our valued customers to be informed about their drinking water. The City of Wasilla holds its council meetings bi-monthly the schedule and agenda may be found on the cities web site or by contacting the Wasilla City Clerks office.

Conservation Tips

Did you know that the average U.S. household uses approximately 350 gallons of water per day? Luckily, there are many low-cost or no-cost ways to conserve water. Water your lawn at the least sunny times of the day. Fix toilet and faucet leaks. Take short showers – a 5 minute shower uses 4 to 5 gallons of water compared to , up to 50 gallons for a bath. Turn the faucet off while brushing your teeth and shaving; 3-5 gallons go down the drain per minute. Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

THIS REPORT IS AVAILABLE ON THE WEB:

http://www.cityofwasilla.com

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