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City of Ashland, Oregon
2010 Annual Water Quality Report

Nature provides us with water through rain and snowmelt. Since 1929, Ashland's protected watershed has collected water that is free of herbicides and pesticides.

The City of Ashland treats the collected water with methods that exceed state and federal drinking water standards. **You** benefit.

The City's programs and technologies help make Ashland's drinking water among the safest in the world. This report is intended to provide current, factual information about your drinking water.

Nature



City of Ashland

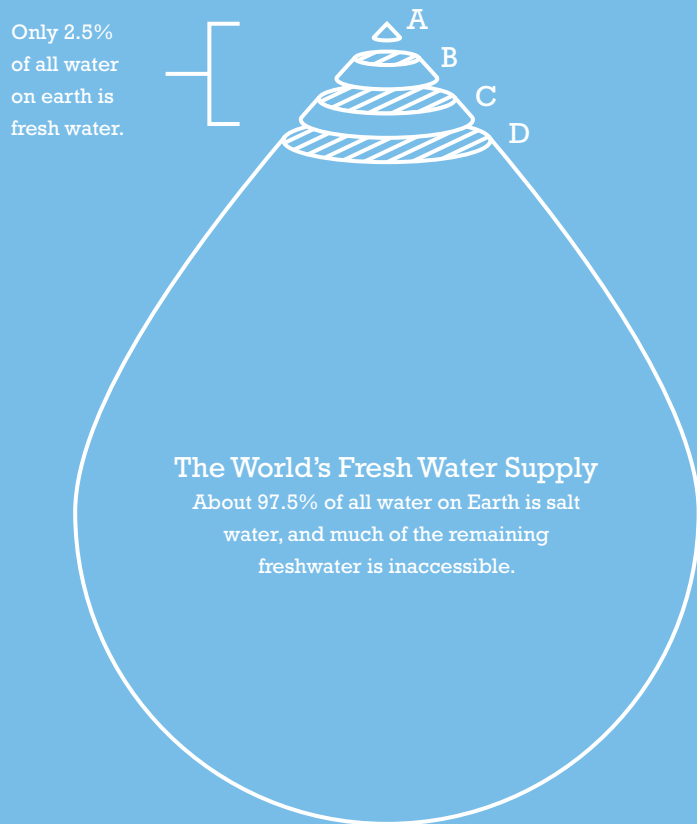


You



This publication conforms to a federal regulation requiring water utilities to provide information annually.

EVERY DROP COUNTS. We're very fortunate to have clean drinking water that meets or is better than state and federal standards. Remember that water is the single most important element in our lives, and that it's a limited resource. Use only what you need and look for ways to conserve.





- A. Only 1% of the earth's freshwater is available for human use.
- B. Most of the earth's freshwater that isn't locked up in icecaps lies too deep underground to be accessible or exists as moisture in soil.
- C. 70% of the earth's freshwater is frozen in Arctic and Antarctic icecaps.
- D. About 97.5% of all water on Earth is salt water.

Sources: FAO, 2009.

Our programs and technologies help make Ashland's drinking water among the safest in the world.

DRINK WITH CONFIDENCE FROM YOUR TAP. In the United States, and indeed in Ashland, our municipal water is perfectly safe and drinkable. It's some of the cleanest water in the world. Because of this, needlessly spending money on bottled water with lower standards only contributes to landfills with billions of pounds of oil based plastics.

	VS	
<input checked="" type="checkbox"/>	tested for e. coli	<input type="checkbox"/>
<input checked="" type="checkbox"/>	required to provide source	<input type="checkbox"/>
<input checked="" type="checkbox"/>	required to produce monthly reports	<input type="checkbox"/>
<input type="checkbox"/>	can still be distributed when tap water standards are not met	<input checked="" type="checkbox"/>

A Complicated Business

This report describes Ashland’s drinking water sources, treatment process, quality, and programs that protect the high quality of our water supply. This publication conforms to a federal regulation requiring water utilities to provide this information annually. We supported the passage of this regulation and believe the information provides a valuable service to our consumers. In this report we attempt to balance pertinent facts against the sheer volume of information available.

What You Need to Know

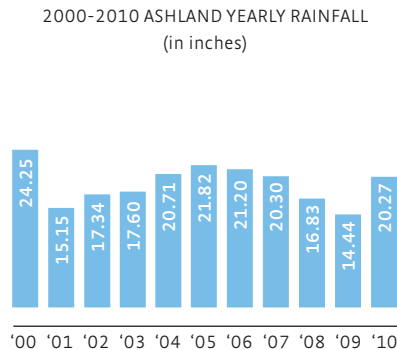
Safe drinking water is an essential resource for our citizens. The bottom line is this: We have no water quality violations and our water quality meets or is better than state and federal standards.

The details of the information summarized in this report are also submitted formally and routinely to the Oregon Health Authority’s Drinking Water Program as well as to the United States Environmental Protection Agency. Both agencies monitor our compliance with the many regulatory standards and testing protocols required to assure safe drinking water.

Water Reporting Violations

There were no reporting violations.

The average snowfall on Mt. Ashland is 263 inches with an average maximum depth of 120 inches. This is based on daily records kept by Mt. Ashland starting in 1983. In drought years such as 2001 and 2009, water can also be taken from the Talent Irrigation District (T.I.D.) canals, which are fed by Howard Prairie Reservoir and Hyatt Lake (see page 6).



State & federal agencies monitor water quality.

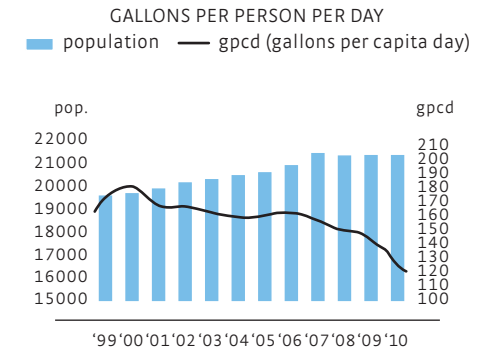
In order to ensure that tap water is safe to drink, the United States Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled 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 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).

Other than the air we breathe, water is the single most important element in our lives—and is a limited resource. Remember to use only the water you need and keep looking for new ways to conserve water in and around your home. The City of Ashland has numerous water conservation programs. **Call 541-552-2062 for more information.**

Reeder Reservoir is small in comparison to summer water demands. Our city was cautious in recent drought years and has continued the conservation trend. Call Water Conservation at 541-552-2062 to learn how you can help.



INFORMATION AND INPUT OPPORTUNITIES

City Council meetings
541-488-6002
1st and 3rd Tuesdays at 7:00 pm

Budget Committee
541-488-6002
Usually in April and May each year

Talent Irrigation District
Board Meetings
541-535-1529

Forest Land Commission
541-552-2066
www.ashland.or.us

CONTACT INFORMATION AND RESOURCES

Greg Hunter
Water Plant
Supervisor
541-488-5345

Terry Ellis
Public Works
Superintendent
541-488-5353

Mike Faught
Public Works
Director
541-488-5587

Robbin Pearce
Water Conserva-
tion Analyst
541-552-2062

Oregon Health
Authority
971-673-0405

EPA Safe Drinking
Hotline
800-426-4791

Jackson County
Health
Department
541-774-8206
TTY Number
(hearing impaired)
800-735-2900
Spanish
800-735-3896

Water Collection

Water collected in Reeder reservoir is piped to the treatment plant.

Water Treatment

Aluminum sulfate, chlorine, and polymers are added to the water. These coagulating chemicals "stick" to impurities and harmful micro organisms. The particles attached to these chemicals are given time to grow by mixing in contact basins. This treated water then flows into filtration tanks that remove the chemicals, particles and harmful organisms.

Water Distribution

Clean water fills 2.2 million gallon Crowson reservoir, with overflows going to Granite reservoir. Water is pumped to Alsing and Fallon reservoirs at the east and west ends of town. From these four reservoirs, water enters the system that feeds Ashland's fire hydrants, homes and businesses.

Talent Irrigation District Water (T.I.D.)

During times of drought or water short years, the City supplements Reeder Reservoir with T.I.D. water. The source is Howard Prairie and Hyatt lakes. In 2010 we pumped 0 gallons.

The Source of Water

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 source water include:

Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

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.

Microbial contaminants, such as viruses and bacteria, which may come from untreated sewage, septic systems, agricultural livestock operations, and wildlife.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

Coliforms are a group of bacteria commonly found in the environment. Its presence in drinking water is used as an indicator of contamination by disease causing microorganisms. No coliforms were found in any water samples in 2010.

Glossary

Maximum contaminant level goal (MCLG). The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum contaminant level (MCL). 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.

Non-detectable (ND). Not detected at an established minimum reporting level.

Action level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.

Treatment technique (TT). A required process intended to reduce the level of contaminant in drinking water.

(ppm) Parts per million

(ppb) Parts per billion

Water Quality Analysis Results

The US Environmental Protection Agency requires that water systems report annually on contaminants that have been detected in their water supplies. The City of Ashland monitors for over 100 contaminants, including coliform bacteria, micro organisms, herbicides, organics, inorganics, and pesticides. We collect samples from the watershed, plant, distribution system, and at customers' taps. Ashland's water supplies meet or surpass federal and state drinking water standards.

Lead, Copper, and Nitrates

Variable	90th PERCENTILE VALUES	# OF SAMPLES EXCEEDING ACTION LEVELS	ACTION LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT
Copper	0.4020 ppm	0 of 31 samples collected.	Exceeds Action Level if more than 10% of homes tested have copper levels greater than 1.3 ppm	1.3 ppm. Treatment Technique required	Corrosion of plumbing systems
Lead	0.0021 ppm	0 of 31 samples collected.	Exceeds Action Level if 10% of homes tested have lead levels greater than 0.015 ppm	None	Corrosion of plumbing systems

Test was conducted in 2008—next due this year. 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 plumbing. Ashland 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 www.epa.gov/safewater/lead.

Inorganics Test was conducted in 2004—next due in 2013.

Variable	UNITS	ASHLAND'S DETECTED LEVEL	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT
Barium	Parts per million	0.0051	2	2	Erosion of natural deposits
Nitrates	Parts per million	None	10.0	None	Naturally present in the environment. Also from septic tanks, fertilizers.

Control of Disinfection By-Products Total Organic Carbon (TOC)

Variable	UNITS	ASHLAND'S DETECTED LEVEL	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT
TOC Raw	Parts per million (ppm)	Average: 2.5 Range: 1.3-4.4	Treatment technique	None	Naturally present in the environment
TOC Finished	Parts per million (ppm)	Average: 1.1 Range: 0.3-1.7	Treatment technique	None	Naturally present in the environment

No health effects, however, TOC provides a medium for the formation of Disinfection By-Products (DBP) which may lead to adverse health effects as described under TTHM's and HAA's. Reference chart at top of page 11.

Turbidity

Variable	UNITS	MAXIMUM AMOUNT DETECTED	ASHLAND'S DETECTED LEVEL	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT
Turbidity	NTU	0.08	Average 0.02 Range 0.01- 0.12 100% of the samples within limits	0.30	N/A	Soil erosion and stream sediments

Turbidity is measured in NTUs (nephelometric turbidity units: a measure of the clarity of water.) Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Secondary Testing

Variable	UNITS	ASHLAND'S DETECTED LEVEL	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT
Sodium	Parts per million	15.1	No limit	N/A	Erosion of natural deposits and treatment additive for disinfection

Some people who drink water containing asbestos in excess of 7.0 MFL over many years may have an increase of developing intestinal polyps. Asbestos is tested every 9 years. The next test is due in 2012.

Disinfection and Disinfection By-Products (DBP)

Variable	UNITS	ASHLAND'S DETECTED LEVEL	MAXIMUM CONTAMINANT LEVEL	MAXIMUM CONTAMINANT LEVEL GOAL	SOURCE OF CONTAMINANT	
Chlorine Residual	Parts per million (ppm)	Average: 0.28 Range: 0.02-0.79	4.0	N/A	Treatment additive for disinfection	
Total Trihalomethanes	Parts per million (ppm)	Average: 0.046 Range: 0.024-0.075	0.080	N/A	By-products of chlorination used in water treatment	DBP
Haloacetic Acids	Parts per million (ppm)	Average: 0.048 Range: 0.013-0.096*	0.060	N/A	By-products of chlorination used in water treatment	DBP

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

*Currently the State of Oregon Health Authority calculates Haloacetic Acids and Total Trihalo-methanes using a running annual average calculation. This is an average of sample results collected quarterly (4 times per year). Usually all of our samples are below the Maximum Contaminate Level (MCL). Seven samples collected in early 2010 exceeded the Haloacetic MCL of 60 parts per billion. Because of averaging of sample results, these samples did not constitute a violation of drinking water standards. Water treatment staff, assisted by a private engineering firm, made changes to the treatment processes to correct the problem. All samples collected since May 2010 are well under the MCL.

More facts about Ashland's water...

Ashland water is very soft. It ranges from 30 to 50 ppm of calcium. Ashland's water has an average pH of 7.2—which is essentially neutral. Ashland does not add fluoride to the water. Parents of young children may want to consult with their dentist about the need for fluoride treatments to prevent tooth decay.

