



# WATER QUALITY INFORMATION

## ANNUAL WATER QUALITY REPORT



- Message From General Manager
- Water Supply & Treatment
- Value of Water
- Water Quality Table

## DEAR CUSTOMER:



At United Water Idaho, our goal is to provide you with water that meets or surpasses all the standards for safe drinking water. These health and safety standards are established by the United States Environmental Protection Agency (EPA) and the Idaho Department of Environmental Quality (ID DEQ). Our local team of water professionals works hard to provide you and your family with top quality water and unsurpassed customer service 24 hours a day, 365 days a year.

To ensure the safety of your water, we monitor before, during and after the treatment process. All of our sources of supply (84 wells and surface water from the Boise River) are monitored and tested regularly. We also sample and test water directly from the distribution system on a continual basis. Test results are on file with the ID DEQ, the agency that monitors and regulates drinking water quality in Idaho.

This Water Quality Report provides important information about your drinking water. Federal and state laws require that we mail each customer this report (also known as a Consumer Confidence Report) every year. It shows how your drinking water measured up to stringent government standards during 2009.

Please take a moment to review this information about your drinking water. If you have any questions or would like

additional information, please call the United Water Idaho customer service department at 362.7304, visit our website at [www.unitedwater.com/idaho](http://www.unitedwater.com/idaho), or call the EPA Safe Drinking Water Hotline at 800.426.4791. If you have specific questions about water as it relates to your health, we suggest you contact your health care provider.

United Water Idaho is pleased to provide its customers a new billing option. Our Budget Billing program will allow you to choose to pay your bill in 12 equal monthly payments, instead of the current six bi-monthly bills. This new option provides you with a predictable monthly payment that helps you manage your household budget.

To be eligible to sign up for this free program, you must be a residential customer who has lived at the same address for at least 12 consecutive months. Call our Customer Service team at 362-7304 to sign up for Budget Billing or to see if you qualify.

Thank you for being a United Water Idaho customer. We appreciate your business and value the trust you place in us each and every day.

Sincerely,

Greg Wyatt  
Vice President and General Manager

## UNITED WATER IN THE COMMUNITY

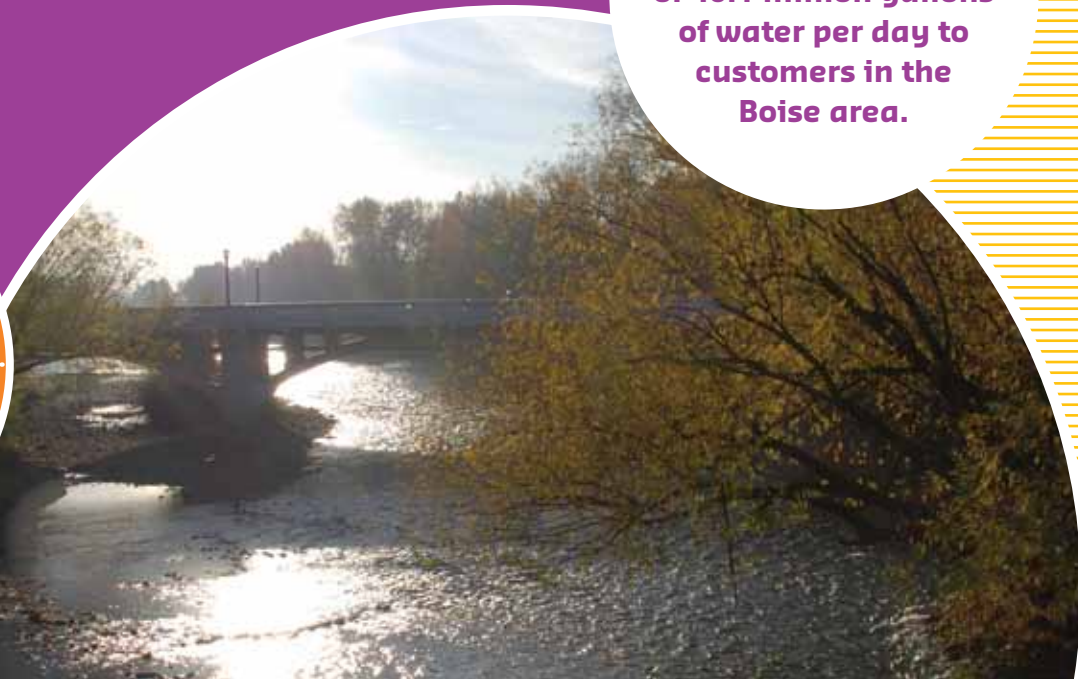
United Water Idaho is proud to be part of Boise. Our employees support numerous community organizations and events, including The Idaho Green Expo, The Boise WaterShed Education Center, Race for the Cure, Boise RiverSweep, ReLeaf Boise, Tend the Foothills and Rake Up Boise.

United Water Idaho provides an average of 40.1 million gallons of water per day to customers in the Boise area.

UNITED WATER  
IDAHO

**FACT**

EMPLOYEES:  
**96**



# VALUE OF WATER



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LESS THAN 1 CENT

At less than one penny per gallon, tap water is safe, convenient and an exceptional value.

## BOISE'S SOURCE OF SUPPLY

At United Water Idaho, we take great pride in our ability to provide you with drinking water that meets or surpasses all federal and state regulatory standards. We use a combination of surface and ground water. Approximately 71 percent of your water is supplied from 84 wells located throughout the Boise area. The remaining 29 percent of your water comes from two surface water treatment plants (Marden Water Treatment Plant and Columbia Water Treatment Plant), which both treat water from the Boise River.

## TREATMENT PRACTICES

Groundwater from our wells is treated with small amounts of chlorine to protect against potentially hazardous microorganisms that can get into the water. We strive to maintain an average chlorine residual between 0.2 and 0.8 parts per million (ppm) throughout the distribution system. We also add very low doses of polyphosphate at 17 of our wells to isolate iron and manganese and keep your water clear. We also pump surface water from the Boise River for treatment at two plants. The Marden Water Treatment Plant is a conventional filtration plant that has an innovative upflow clarification process for pretreatment. The treatment process continues with dual-media filtration to remove particulate matter. The Columbia Water Treatment Plant is a membrane plant that does not require pretreatment and uses microfiltration to remove particulate matter. Both plant processes are followed by disinfection with chlorine to destroy any harmful bacteria. In addition, we adjust the pH at both plants to reduce the corrosivity of the water and decrease the possibility of dissolving metals from household plumbing.



**"We take great pride in our ability to provide you with drinking water that meets or surpasses all state and federal standards."**

# SOURCE WATER ASSESSMENT

Under the Safe Drinking Water Act Amendments of 1996, all states were required by the EPA to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. The assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the watershed and aquifer characteristics. The ID DEQ completed its final source water assessment of the United Water Idaho system in 2003. You may request a summary of the assessment by calling the ID DEQ at 373.0550.



**UNITED WATER IDAHO**  
**FACT**  
 MILES OF MAINS:  
**1,180.2**

Over the past couple of years, United Water Idaho has tested for Cryptosporidium in the raw, untreated water from the Boise River. The majority of samples we tested were absent of any Cryptosporidium. The most ever detected was one Cryptosporidium

cyst in the raw river water. We have never detected any Cryptosporidium in the treated water that goes to your tap.

## ABOUT EPA STANDARDS

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. 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 EPA Safe Drinking Water Hotline at 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 animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.



- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

UNITED WATER  
IDAHO

**FACT**

POPULATION SERVED:  
**140,000**



## HEALTH NOTES

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 at 800.426.4791.

## 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. United Water 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 second to 2 minutes before using water for drinking and 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 at 800-426-4791 or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

## ARSENIC

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.

## CRYPTOSPORIDIUM

Cryptosporidium is a parasite that can live in the intestines of humans and animals and is prevalent in surface waters. Ingesting cryptosporidium can cause an illness called Cryptosporidiosis, which produces symptoms of severe intestinal distress. United Water Idaho started testing for Cryptosporidium in our source

water (the Boise River) and treated water when the Marden Water Treatment Plant opened in 1994. We have found very low levels of Cryptosporidium in the Boise River, but have never detected any in the treated water that goes to your tap.

## NITRATE

Nitrate in drinking water at levels above 10 parts per million (ppm) 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.

## TURBIDITY

Turbidity is a measurement relating to the cloudiness of water. Turbidity can be associated with soil erosion and stream sediments. Surface water is continually monitored for this

parameter since it is closely correlated to the effectiveness of treatment practices.

## DRINKING WATER QUALITY TABLE

The water quality table shows how the quality of your drinking water in 2009 compared to the standards set by the EPA and the ID DEQ. The tables in this report list minimum and maximum values for substances detected in our sources of supply. These ranges were determined using test results from 2005 through 2009; the most recent testing performed in accordance with all regulations. Each of the regulated contaminants compares to a Maximum Contaminant Level (MCL) and a Maximum

Contaminant Level Goal (MCLG) established by the EPA and the State of Idaho. We tested for more than 80 substances in the water and detected only those indicated in the Drinking Water Quality Table. Some of the information is technical in nature so we have provided you with definitions at the bottom of page 7 to help you better understand the information contained in this report.

### PRIMARY STANDARDS DIRECTLY RELATED TO THE SAFETY OF DRINKING WATER. WE TEST FOR 82 SUBSTANCES IN THIS CATEGORY AND DETECTED THESE:

Inorganic Chemicals	MCLG	MCL	Highest Result	Range of Results	Violation	Likely Source
Arsenic ppb (2008)	NA	10	7	ND - 7	No	Erosion of natural deposits
Barium ppm (2007)	2	2	0.13	ND - 0.13	No	Erosion of natural deposits
Cadmium ppb (2007)	5	5	1	ND - 1	No	Erosion of natural deposits
Chromium ppb	100	100	9	ND - 10	No	Erosion of natural deposits
Fluoride ppm (2008)	4	4	1.3	0.2 - 1.3	No	Erosion of natural deposits
Nitrate as nitrogen ppm	10	10	6	ND - 6	No	Runoff from fertilizer use
Selenium ppb (2008)	50	50	5	ND - 5	No	Erosion of natural deposits
	MCLG	AL	90th Percentile	Samples > AL	Violation	Likely Source
Copper ppm	1.3	1.3	0.54	0	No	Corrosion of household plumbing
Lead ppb	0	15	ND	0	No	Corrosion of household plumbing
Microbiologicals	MCLG	MCL	Highest Result	Range of Results	Violation	Likely Source
Total Coliforms (% positive in monthly samples)	0	<5% positive samples/month	0.76%	0% - 0.76%	No	Naturally present in the environment
Turbidity, ≤0.3 NTU	NA	TT**	100%	NA	No	Soil runoff
Turbidity, ≤1 NTU	NA	TT***	0.16	0.02 - 0.16	No	Soil runoff
Turbidity is the measure of clarity of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.						
**Treatment Technique requires at least 95% of monthly samples to be less than or equal to 0.3 NTU.						
***Treatment Technique requires no single measurement greater than 1 NTU.						
Radionuclides	MCLG	MCL	Highest Result	Range of Results	Violation	Likely Source
Alpha emitters pCi/L	0	15	14.8	-9.1 - 14.8	No	Erosion of natural deposits
Beta/positron emitters pCi/L (2005)	0	50	11	ND - 11	No	Decay of natural and man-made deposits
Radium 226 + 228 pCi/L (2008)	0	5	5	-8.2 - 5	No	Erosion of natural deposits
Uranium ppb	0	30	23	ND - 23	No	Erosion of natural deposits
Organic Chemicals	MCLG	MCL	Highest Annual Average	Range of Results	Violation	Likely Source
Atrazine ppb	3	3	.12	ND - 0.21	No	Runoff from herbicide used on rights of way
Phthalate ppb	0	6	1.4	ND - 1.6	No	Discharge from rubber and chemical factories
Tetrachloroethylene ppb	0	5	1.9	ND - 2.6	No	Discharge from factories and dry cleaners
Disinfection By-products	MCLG	MCL	Highest Annual Average	Range of Results	Violation	Likely Source
Total Trihalomethanes ppb	NA	80	18.0	ND - 72.2	No	Disinfection by-product
Total Haloacetic Acids ppb	NA	60	11.4	ND - 38	No	Disinfection by-product
Total Organic Carbon Removal <sup>+</sup>	NA	TT	1.0	NA	No	Naturally present in the environment
<sup>+</sup> Finished water Total Organic Carbon is less than 2.0 ppm; therefore no removal is required.						
+ Maximum levels are site specific.						
Disinfection Residuals	MRDLG	MRDL	Highest Annual Average	Range of Results	Violation	Likely Source
Chlorine Residual ppm	4	4	0.78	0.2 - 1.5	No	Disinfection by-product

## SECONDARY STANDARDS RELATED TO THE AESTHETIC QUALITY OF DRINKING WATER

	Guideline	Highest* Result	Range of Results	System+ Average	Violation	Likely Source
Alkalinity (ppm)	NA	247	38 - 247	126	No	Naturally occurring
Aluminum (ppb)	50 - 200	480	ND - 480	100	No	Naturally occurring
Calcium (ppm)	NA	78	4 - 78	34	No	Naturally occurring
Chloride (ppm)	250	32	ND - 32	9	No	Naturally occurring
Corrosivity	Non-corrosive	Non-corrosive	Non-corrosive	Non-corrosive	No	Treatment technique
Hardness (ppm)	250	325	14 - 325	108	No	Naturally occurring
Iron (ppb)	300	990^	ND - 990	70	No	Naturally occurring
Magnesium (ppm)	NA	16	ND - 16	6	No	Naturally occurring
Manganese (ppb)	50	430^	ND - 430	40	No	Naturally occurring
pH units	6.5 - 8.5	8.7	6.5 - 8.7	7.3	No	Naturally occurring
Sodium (ppm)	50	70	6 - 70	30	No	Naturally occurring
Sulfate (ppm)	250	105	2 - 105	39	No	Naturally occurring
Total Dissolved Solids (ppm)	500	630	24 - 630	192	No	Naturally occurring
Zinc (ppm)	5	0.05	ND - 0.05	0.004	No	Naturally occurring

\*Highest results are based upon the highest single sample . Health effects are determined by the average of all samples during monitoring period.

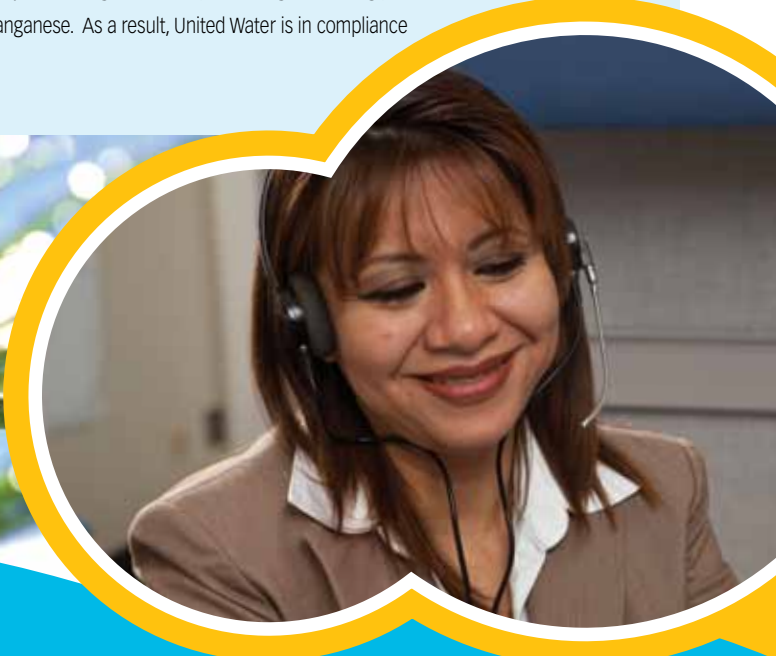
^The ID DEQ permits sequestering treatment to reduce the aesthetic effects of iron and manganese. As a result, United Water is in compliance with the guideline.

+Average of all sources of supply used in United Water Idaho system.

UNITED WATER  
IDAHO

FACT

NUMBER OF WELLS:  
**84**



## DEFINITIONS

**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 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 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 a disinfectant allowed in drinking water. There is convincing evidence that addition of 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 known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectant to control microbial contamination.

**NA:** Not applicable.

**ND:** Not detected.

**NTU:** Nephelometric Turbidity Unit.

**Parts Per Billion (ppb):** The equivalent of one second in 32 years.

**Parts Per Million (ppm):** The equivalent of one second in 12 days.

**Picocuries Per Liter (pCi/L):** The equivalent of one second in 32 million years.

**Primary Standards:** Federal drinking water regulations for substances that are health related. Water suppliers must meet all primary drinking water standards.

**Secondary Standards:** Federal drinking water measurements for substances that do not have an impact on health. These reflect aesthetic qualities such as taste, odor and appearance. Secondary standards are recommendations, not mandates.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**>:** This means "greater than."

**≤:** This means "less than or equal to."



**United Water Idaho**

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[www.unitedwater.com/idaho](http://www.unitedwater.com/idaho)



**THIS REPORT  
CONTAINS IMPORTANT  
INFORMATION ABOUT  
YOUR DRINKING WATER.**

PWSID # 4010016

In keeping with our commitment to the environment, this newsletter was printed on recycled paper.

**REGISTER** FOR eBilling

By choosing paperless eBilling you will help protect and preserve our natural resources. Your eBill will be sent directly to your email inbox. It has the added benefit of allowing you to pay the bill directly from your bank account free of charge. To register for eBilling visit [unitedwater.com/idaho](http://unitedwater.com/idaho) or call the customer service number listed on your bill.

**WATER  
QUALITY  
INFORMATION**

