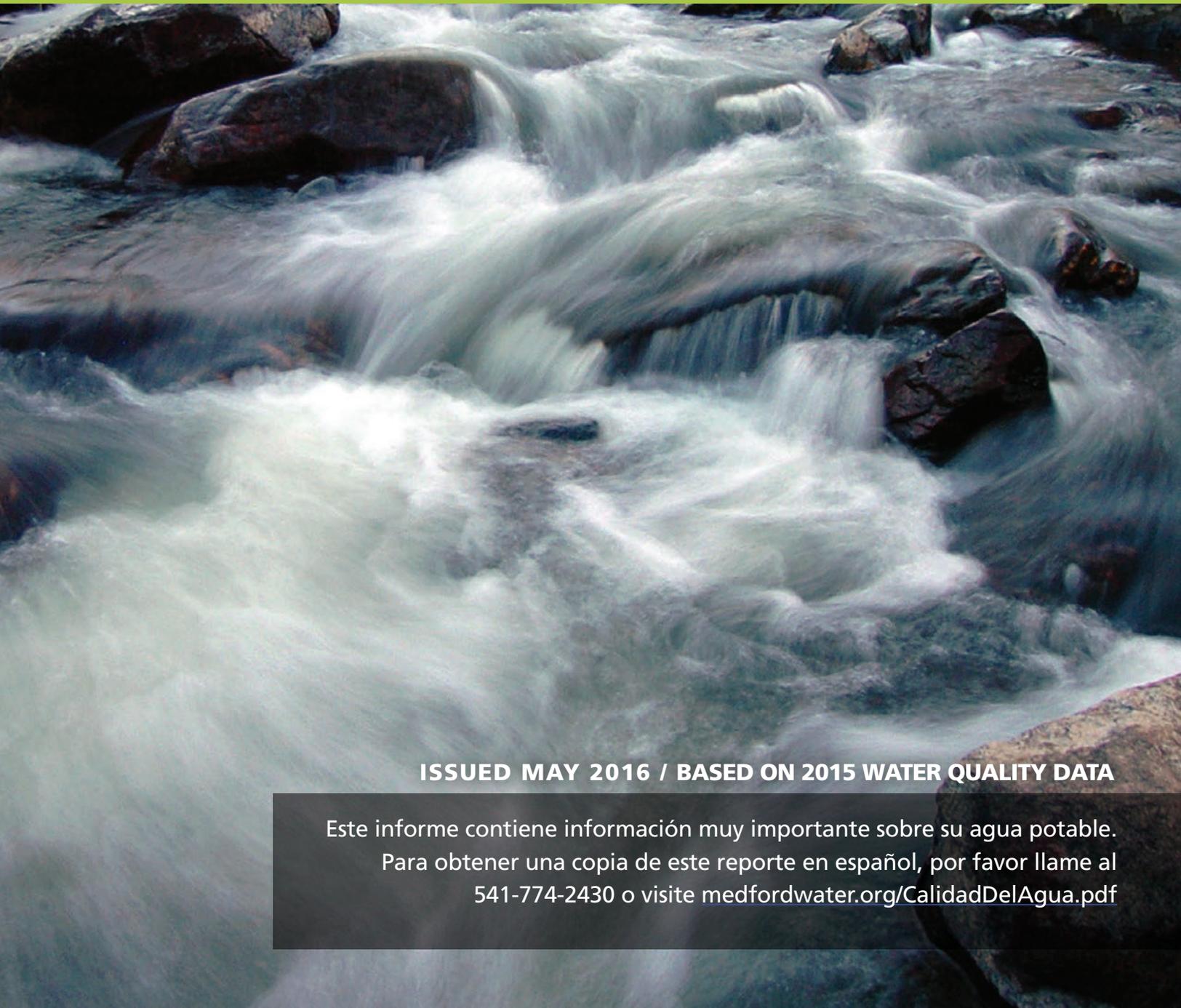


# the water we drink



ISSUED MAY 2016 / BASED ON 2015 WATER QUALITY DATA

Este informe contiene información muy importante sobre su agua potable.  
Para obtener una copia de este reporte en español, por favor llame al  
541-774-2430 o visite [medfordwater.org/CalidadDelAgua.pdf](http://medfordwater.org/CalidadDelAgua.pdf)

# FROM THE MANAGER

To Our Valued Customers,

I am pleased to share our 2015 Annual Water Quality Report with you. While this report is mandated by the federal government, the Medford Water Commission prides itself in providing high-quality drinking water and we support our customers' right to know the results of our water quality testing.

This report includes water quality testing results for the year 2015, along with information explaining what the results mean. Though some of the information is technical, the conclusion is clear: **Our water consistently meets or exceeds all state and federal standards and, more importantly, it is perfectly safe to drink.**

This report is being provided by the Medford Water Commission, along with the cities of Central Point, Eagle Point, Jacksonville and Phoenix, each of which purchase and distribute water provided by the Commission. Please take a few minutes to look through this report and learn about your water system.

If you have any questions or comments about this report, please contact the Medford Water Commission at 541-774-2728 or [water@cityofmedford.org](mailto:water@cityofmedford.org). Contact information is provided below for the other cities that purchase water from the Commission. We welcome your interest in Medford's water system.

Larry Rains  
Manager

# FREQUENTLY ASKED QUESTIONS

## about Water Quality

### **Does the Medford Water Commission add fluoride to the drinking water?**

No, we don't add fluoride to the water. Fluoride is a naturally occurring trace element in surface and groundwater. The U.S. Public Health Service considers the fluoride levels in our water sources to be lower than optimal for the prevention of tooth decay. You may want to consult with your dentist about fluoride treatment, especially for young children.

### **Is Medford's water soft or hard?**

Hard water doesn't lather well. Our water is considered soft. Its hardness ranges from 20 to 40 parts per million (ppm), or around 1.2 to 2.4 grains per gallon.

### **Why does the water sometimes seem warmer?**

During the winter months, our water comes exclusively from the Big Butte Springs and stays cold underground until it reaches customers' taps. In summer months, our supply is supplemented from the Rogue River, which can run considerably warmer and varies with outdoor temperatures. When both sources are used, the water is blended within the distribution system and customers may notice temperature variations depending on their location and time of day.



### **Medford Water Commission (PWSID: 41-00513)**

Rosie Pindilli, Water Quality Director:  
541-774-2728

Email: [rosie.pindilli@cityofmedford.org](mailto:rosie.pindilli@cityofmedford.org)  
[www.medfordwater.org](http://www.medfordwater.org)

Board Meetings: 1<sup>st</sup> and 3<sup>rd</sup> Wed. at 12:30 pm  
Lausmann Annex, 200 S. Ivy Street, Room 151

### **City of Central Point (PWSID: 41-00178)**

Max Woody, Public Works Operations  
Manager: 541-664-3321 (ext. 241)

Email: [max.woody@centralpointoregon.gov](mailto:max.woody@centralpointoregon.gov)  
[www.centralpointoregon.gov](http://www.centralpointoregon.gov)

Council Meetings: 2<sup>nd</sup> and 4<sup>th</sup> Thurs. at 7 pm  
City Hall, 140 S. Third Street

### **City of Eagle Point (PWSID: 41-00267)**

Gary Shipley, Public Works Supervisor:  
541-826-4212 (ext. 136)

Email: [garyshipley@cityofeaglepoint.org](mailto:garyshipley@cityofeaglepoint.org)  
[www.cityofeaglepoint.org](http://www.cityofeaglepoint.org)

Council Meetings: 2<sup>nd</sup> and 4<sup>th</sup> Tues. at 7 pm  
City Hall, 17 Buchanan Avenue South

### **City of Jacksonville (PWSID: 41-00405)**

Jeffrey Alvis, City Administrator:  
541-899-1231

Email: [administrator@jacksonvilleor.us](mailto:administrator@jacksonvilleor.us)  
[www.jacksonvilleor.us](http://www.jacksonvilleor.us)

Council Meetings: 1<sup>st</sup> and 3<sup>rd</sup> Tues. at 6 pm  
Old City Hall, 205 W. Main Street

### **City of Phoenix (PWSID: 41-00625)**

Theresa Syphers, Public Works:  
541-535-2226

Email: [theresa.syphers@phoenixoregon.gov](mailto:theresa.syphers@phoenixoregon.gov)  
[www.phoenixoregon.gov](http://www.phoenixoregon.gov)

Council Meetings: 1<sup>st</sup> and 3<sup>rd</sup> Mon. at 6:30 pm  
Public Works Office, 1000 South 'B' Street

### **Jackson County Health Department Environmental Public Health: 541-774-8206**

**Oregon Health Authority**  
Drinking Water Program: 1-971-673-0405  
[Public.health.oregon.gov/  
HealthyEnvironments/DrinkingWater](http://Public.health.oregon.gov/HealthyEnvironments/DrinkingWater)

**EPA Safe Drinking Water Hotline**  
1-800-426-4791  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

# WHERE DOES YOUR WATER COME FROM?

**THE BIG BUTTE SPRINGS** have been our primary water source since 1927. Considered a groundwater supply, the springs flow from the lower slopes of Mt. McLoughlin near Butte Falls, providing up to 26.4 million gallons per day. Consistently cold and clear, the springs discharge water of exceptional quality that requires no filtration or treatment other than disinfection, which is accomplished with on-site chlorination at a state-of-the-art treatment facility built in 1993. Spring flows are collected underground and never see the light of day until emerging from customers' taps.

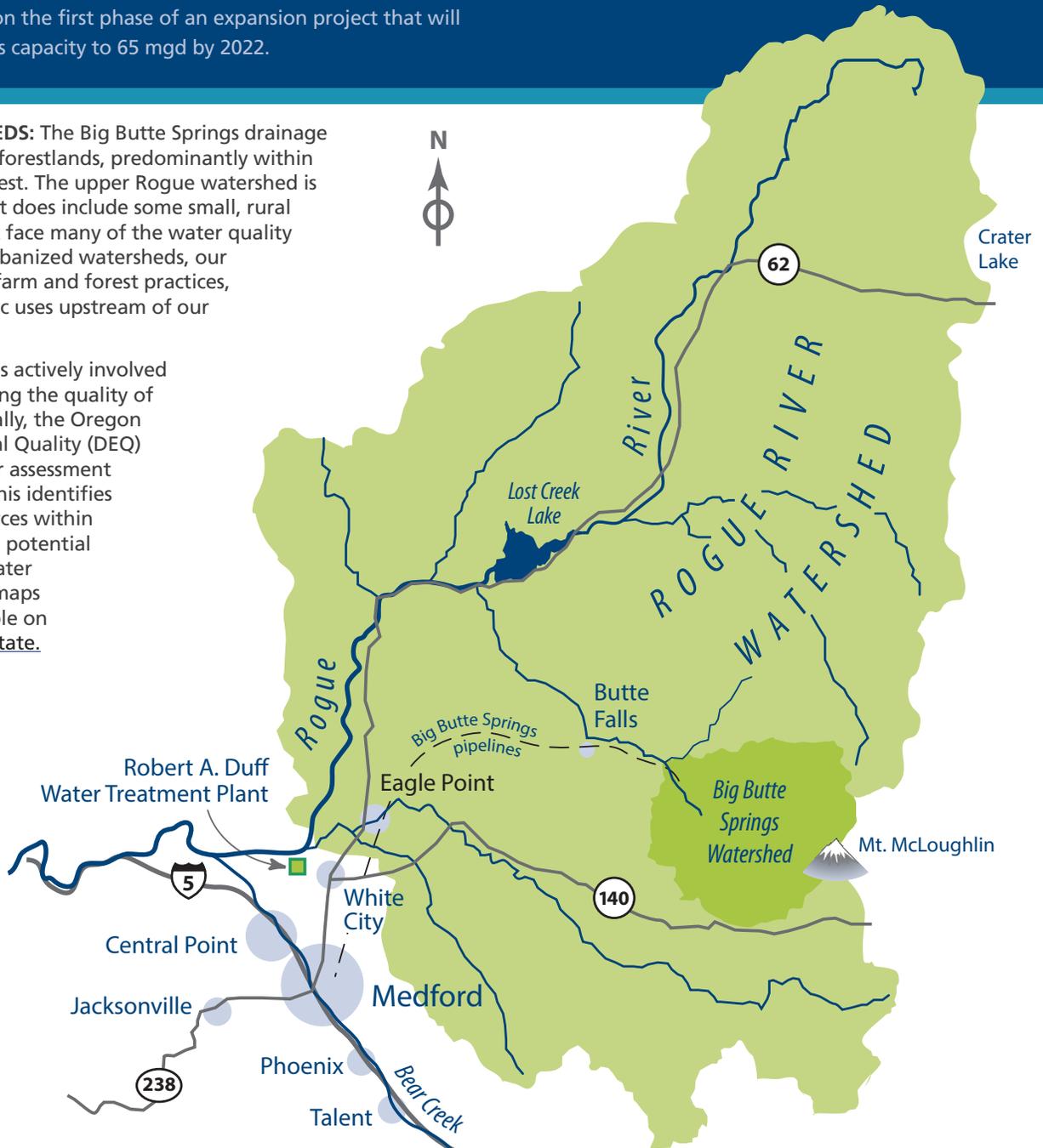
**THE ROGUE RIVER** is a surface water supply that supplements the year-round springs supply during warmer summer months, when water use more than triples. While also high in quality, the river water requires additional treatment to meet drinking water standards. Performed at the Robert A. Duff Water Treatment Plant, treatment of this surface water includes ozonation, coagulation, settling and filtration, along with chlorination. The addition of ozone in 2002 provided a dramatic reduction in occasional musty tastes and odors that can occur in the river water.

The Duff treatment plant is designed to treat up to **45 million gallons per day (mgd)**.

In 2015, construction began on the first phase of an expansion project that will increase the treatment plant's capacity to 65 mgd by 2022.

**PROTECTING OUR WATERSHEDS:** The Big Butte Springs drainage encompasses 56,000 acres of forestlands, predominantly within the Rogue River National Forest. The upper Rogue watershed is also minimally developed, but does include some small, rural communities. While we don't face many of the water quality challenges associated with urbanized watersheds, our supplies can be impacted by farm and forest practices, natural disasters and domestic uses upstream of our water sources.

Medford Water Commission is actively involved in activities aimed at preserving the quality of our water supplies. Additionally, the Oregon Department of Environmental Quality (DEQ) has developed a source water assessment for the Rogue River supply. This identifies potential contamination sources within the watershed, and ranks the potential for pollutants to enter the water supply. Summary tables and maps of this assessment are available on the DEQ website, [www.deq.state.or.us/wq/dwp/results.htm](http://www.deq.state.or.us/wq/dwp/results.htm), or upon request by calling 541-774-2728.



# 2015 Water Quality Test Results For Treated Water

## Regulated Contaminants Analyses

Substance	MCL (Maximum Allowed)	MCLG (Ideal Goal)	Source	Average Amount Detected	Range	Complies?	Typical Source
Barium (ppm)	2	2	Big Butte Springs	0.003	N/A	YES	Erosion of Natural Deposits
			Rogue River	0.005			

## Microbiological Contaminants

Substance	MCL (Maximum Allowed)	MCLG (Ideal Goal)	Detected Level	Complies?	Typical Source
Coliform bacteria	Present in ≤ 5% of Monthly Samples	0% Presence	0	YES	Naturally present in the environment
E.coli	0	0	0	YES	Human and animal fecal waste

## Other Analyses

Substance	TT (Maximum Allowed)	% of Samples Meeting Standard	Highest Measurement	Complies?	Typical Source
Turbidity	Rogue River: 95% < 0.3 NTU Big Butte Springs: N/A	100%	Rogue River: 0.072 NTU	YES	Soil erosion and stream sediments

## Unregulated Contaminants Analyses (Round 3 data from 2013-14)\*

Substance	Water Source	Average Amount Detected	Range	Complies?	Typical Source
Chromium 6 (ppb)	Big Butte Springs	0.20	0.19 - 0.20	Not Regulated	Erosion of Natural Deposits
	Rogue River	0.12	0.11 - 0.13		
Chlorate (ppb)	Big Butte Springs	37	20 - 56	Not Regulated	Byproduct of Disinfection
	Rogue River	378	150 - 610		
Strontium (ppb)	Big Butte Springs	71	68 - 73	Not Regulated	Erosion of Natural Deposits
	Rogue River	54	52 - 55		
Vanadium (ppb)	Big Butte Springs	13.0	12.0 - 13	Not Regulated	Erosion of Natural Deposits
	Rogue River	2.3	2.0 - 2.5		

\* Unregulated contaminants are monitored for the EPA to assess the prevalence and detection levels of substances being considered for future regulation.

### UNDERSTANDING THE RESULTS:

The Medford Water Commission and each of the cities participating in this report run water quality tests according to specific schedules. Hundreds of tests are run each year to ensure that no substances are present at harmful levels. Although continuously improving testing techniques allow contaminants to be detected at truly miniscule levels, most of the contaminants we test for have never been found in our water. Those that we do detect are found at levels well below health standards, as shown in the adjacent tables.

Central Point received a violation for failing to monitor for total coliform in Jan. 2015. Phoenix received a violation for failure to report one month's coliform test results in Sept. 2015. In both cases, the cities returned to compliance the following month. Given that all of the other entities' tests were within normal ranges during the periods in question, it is unlikely there were any adverse health effects that went undetected due to these lapses.

If you wish to view additional monitoring results, a Water Quality Analysis report can be obtained at the Medford Water Commission's offices, or online at [medfordwater.org](http://medfordwater.org).

**TESTING FOR MICROBES:** Unlike most contaminants, microscopic organisms can appear suddenly and cause immediate illness. Testing for bacteria is therefore done on a frequent basis by the Medford Water Commission and the other cities participating in this report. This includes looking for coliform bacteria as well as confirming that adequate chlorine is present in the water to provide ongoing disinfection. While most coliforms do not pose a health threat, they are a good indicator of whether other bacteria might be present. If found, further testing is conducted for harmful forms of bacteria.

**CHLORINE RESIDUAL:** Sodium hypochlorite is used as a disinfectant and provides continuous protection to customers' taps. Sampling throughout the distribution system confirms that the amount of chlorine present is neither too low nor too high. Our water is effectively disinfected with much less chlorine than is allowed.

**RADON TESTING:** The most common source of this colorless, odorless gas is from the soil, but a small amount of exposure can come from tap water. We conduct testing, but radon is not currently regulated. Radon is considered to be a cause of cancer.

**SPECIAL NOTICE FOR IMMUNO-COMPROMISED PERSONS:** 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 particularly be 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 (1-800-426-4791).

### WHAT THE EPA SAYS ABOUT DRINKING WATER CONTAMINANTS:

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 EPA's Safe Drinking Water Hotline (1-800-426-4791) or at [www.epa.gov/safewater](http://www.epa.gov/safewater).

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 in drinking water sources may include:

**Microbial contaminants**, such as viruses and bacteria, which may come from wildlife or septic systems

**Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming

**Pesticides and herbicides**, which may come from a variety of sources such as farming, urban stormwater runoff and home or business use

**Organic chemical contaminants**, which are byproducts of industrial processes, and can also come from gas stations, urban stormwater runoff and septic systems

**Radioactive contaminants**, which can occur naturally

In order to ensure that tap water is safe to drink, the EPA has regulations that limit the amount of certain contaminants in water provided by public water systems and require monitoring for these contaminants. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## Medford Water Commission and Cities' Disinfection and Disinfection By-Product Analyses

Substance	Entity	Average for Highest Location	Range	MCL (maximum allowed)	MCLG (ideal goal)	Complies?	Typical Source
Total Trihalomethanes (ppb)	M.W.C	10.27	ND - 22.0	80	0	YES	By-products of chlorination used in the water treatment process
	Central Point	10.99	0.58 - 27.0				
	Eagle Point	36.5	34.5 - 36.5				
	Jacksonville	5.22	0.55 - 15.0				
	Phoenix	6.3	0.5 - 11.0				
Haloacetic Acids (ppb)	M.W.C	5.20	ND - 14.9	60	0	YES	By-products of chlorination used in the water treatment process
	Central Point	8.43	ND - 23.6				
	Eagle Point	27.0	22.5 - 27.0				
	Jacksonville	3.93	ND - 15.7				
	Phoenix	2.89	ND - 5.78				
Chlorine Residual (ppm)	M.W.C	0.54	0.16 - 0.86	4.0 (MRDL)	4.0 (MRDLG)	YES	Treatment additive for disinfection
	Central Point	0.43	0.11 - 0.71				
	Eagle Point	0.37	0.04 - 0.64				
	Jacksonville	0.42	0.20 - 0.59				
	Phoenix	0.43	0.25 - 0.72				

### TERMS AND ABBREVIATIONS

Terms used in the table are explained below.

**Contaminant:** A potentially harmful physical, biological, chemical or radiological substance.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

**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.

**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.

**MRDLG (Maximum Residual Disinfectant 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.

**ND (Non-detect):** Not detected at an established minimum reporting level.

**pCi/L (Picocuries per Liter):** A measurement of radioactivity equivalent to a trillion times smaller than one curie.

**ppm (Parts Per Million):** One part per million means that one part of a particular substance is present for every million parts of water. This is the equivalent of one penny in \$10,000 or approximately one minute in two years.

**ppb (Parts Per Billion):** One part per billion corresponds to one penny in \$10,000,000 or approximately one minute in 2,000 years.

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

**Turbidity:** A measure of how clear water is, expressed in Nephelometric Turbidity Units. Turbidity does not necessarily indicate that water is unhealthy, but it can interfere with disinfection and can be an indicator of microorganisms.

## Radioactive Contaminants

Substance	MCL	MCLG	Amount Detected	Typical Source
Radon-222 (pCi/L)	Proposed: 4,000 pCi/L	Proposed: 0 pCi/L	Big Butte Springs - 155 pCi/L	Erosion of Natural Deposit

## Lead and Copper Sampling from Residential Water Taps

Substance	Entity	Amount Detected (90th percentile value)	Date of most recent test	Action Level	MCLG (ideal goal)	Complies?	Typical Source
Lead (ppb)	M.W.C	1.4	2013	90% of homes tested must have lead levels less than 15 ppb	0	YES (One (1) Jacksonville sample exceeded action level)	Corrosion of household plumbing
	Central Point	3.7	2014				
	Eagle Point	2.8	2013				
	Jacksonville	3.3	2013				
	Phoenix	0.7	2015				
Copper (ppm)	M.W.C	0.783	2013	90% of homes tested must have copper levels less than 1.3 ppm	1.3	YES (No sample exceeded action level)	Corrosion of household plumbing
	Central Point	0.352	2014				
	Eagle Point	0.230	2013				
	Jacksonville	0.573	2013				
	Phoenix	0.533	2015				

### REDUCING EXPOSURE TO LEAD AND COPPER:

As is true with most water sources, lead and copper are found only in minuscule amounts within our source waters. However, because these metals can leach into drinking water through contact with household plumbing or distribution system pipes, additional testing is conducted at residences considered to be at greatest risk. Within the homes we've sampled, lead and copper have not been detected at levels that exceed EPA rules for safe drinking water.

However, customers should be aware that lead and/or copper levels can increase when water stands in contact with lead or copper pipes, lead-based solder and brass faucets containing 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. Medford Water Commission and each of the cities are 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 running the cold water 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 (1-800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

# DID YOU KNOW?

A huge amount of the water we supply is used for landscape sprinkling. Average household water use jumps from 5,000 gallons a month in the winter to 25,000 gallons in the summer. Some of this increase is reasonable, but much of it exceeds the water needs of the plants, runs off, or is misdirected. You can save water – and money on your water bill – by making a few adjustments.

## Top six water wasters with easy fixes:

### 1 Watering every day.

Plant roots need oxygen as well as water. Allow the soil to dry out a little between sprinklings.



### 2 Sprinkling cycles that are too long.

Run sprinklers in multiple short cycles (about 5 minutes for fixed-spray sprinklers, 10 minutes for rotating models) each spaced only about an hour apart. This will enable water to soak in before more is applied, allowing for deep watering without runoff.

### 3 Too much total watering time.

Print a copy of the Sample Lawn Watering Schedule at [medfordwater.org](http://medfordwater.org) for watering times and tips. Or, for even more accurate watering times based on current weather, call our Lawn Watering Infoline at 541-774-2460.

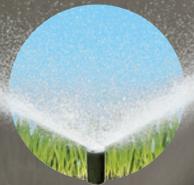


### 4 Watering at the wrong time of day.

It's best to water between dusk and 6 am, when evaporation and wind are minimal. This also helps our water system because there are fewer demands for other water uses during these hours.

### 5 Too much pressure.

Huge amounts of water are wasted when the water pressure is higher than the sprinklers are designed for. If you have sprinklers that are hissing or spraying a fine mist, it's a sure sign that a pressure regulator is needed. Add one today for years of savings.



### 6 Broken, blocked or misdirected sprinklers.

At least once a month, watch all sprinkler zones while they're running to see if any adjustments or repairs are needed. Sprinklers that are leaning, broken, too low, or out of adjustment will have distorted spray patterns. Most fixes are easy to make.

For more conservation tips, visit [medfordwater.org](http://medfordwater.org).

## WATER-WISE IS WONDERFUL

Water-wise landscapes don't need to be dry or barren. Learn more about lovely plants with low-water needs at our Water-Wise Gardening website, which features beautiful, water-efficient landscapes from the Rogue Valley. Look for the link on the Medford Water Commission's homepage, [medfordwater.org](http://medfordwater.org).

The site features hundreds of photographs of local landscapes, including special galleries of front yards and backyards, decks, walkways, patios and more. Whether your style is formal or whimsical, you'll find plenty of ideas and inspiration to increase curb appeal while also curbing water use.

Users can research plants by name, browse a list of butterfly favorites, or walk through a guided search to identify which plants are well-suited for a particular space. Save favorites to a plant list that you can print out to give your landscaper or take to a local nursery.

