the water we drink

ISSUED MAY 2015
BASED ON 2014 WATER QUALITY DATA

ANNUAL WATER QUALITY REPORT FOR:
Medford Water Commission
and the cities of:
Central Point · Eagle Point
Jacksonville · Medford · Phoenix

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

About This Report

Environmental Protection Agency (EPA) rules require that drinking water systems provide specific water quality information to their customers each year. This report includes water quality testing results for the year 2014, along with information explaining what the results mean.

We support our customers' right to know results of our water testing, though we also realize that this can be quite technical. Much of the content of this report must follow strict guidelines, but if you have additional questions, see the "water connections" section for contacts to whom further questions can be asked. This report is being provided by the Medford Water Commission, along with the cities of Central Point, Eagle Point, Jacksonville and Phoenix, each of whom receive and distribute water provided by the Commission.

Our Water Sources:

The majority of the water used within our water system comes from the Big Butte Springs, which flow from the lower slopes of Mt. McLoughlin near Butte Falls. Its quality is exceptional, requiring no treatment besides disinfection. Considered a groundwater supply, this clear, cold water is utilized year round.

When water usage more than triples during the summer months, water from the Rogue River is used in combination with the springs supply. While also high in quality, as is true of most surface water sources, it requires full treatment, which is accomplished at the Robert A. Duff Water Treatment Plant utilizing ozonation, flocculation/sedimentation, filtration and disinfection.

The Big Butte Springs drainage is within undeveloped forested areas, and the upper Rogue watershed is relatively undeveloped.

While we therefore don't face many of the water quality challenges associated with highly developed watersheds, our supplies can be impacted by farm and forest practices, natural disasters, and urban 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 for review on the DEQ website http://www.deq.state.or.us/wq/dwp/results.htm.

Doing Your Part:

As your water suppliers, it is our duty to continuously provide clean water for our communities. How carefully it is used is then up to you, the customer.

A huge amount of the water we supply is used for landscape sprinkling. Some of this increase is reasonable, but much of it exceeds the water needs of the plants, runs off, or is misdirected.

Following are five main water wasters with easy fixes:

- **Sprinkling cycles that are too long.** Split sprinkling times into short cycles separated by only about an hour. By enabling water to soak in before more is applied, you'll get deep watering without runoff.
- **Too much total watering time.** Make a copy of the ***Sample Lawn Watering Schedule*** from the MWC website for approximate run times. For even more accurate watering times based on current weather, call the Lawn Watering Infoline at 541-774-2460.
- **Sprinkling at the wrong time of day.** It's best to water between dusk and 6 am, when there is the least heat and wind, as well as less competition with other water uses.
- **Broken, blocked or misdirected sprinklers.** View all sprinkler zones running at least once a month 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.
- **Too much pressure.** Significant water is wasted when the water pressure is higher than the sprinklers are designed for. If you have sprinklers that are hissing or spraying fine mist, it's a sure sign that pressure regulation should be added.

The Medford Water Commission's website has many more ***conservation tips***. Check them out!

Water Connections

MEDFORD WATER COMMISSION (PWID: 41-00513)
Rosie Pindilli, Water Quality Administrator: 541-774-2728
Email: wtrcom@ci.medford.or.us
www.medfordwater.org
Board Meetings: 1st and 3rd Wednesday at 12:30 pm
Lausmann Annex, 200 S. Ivy St., Room 151

CITY OF CENTRAL POINT (PWID: 41-00178)
Max Woody, Public Works Operations Manager: 541-664-3321 (ext. 241)
Email: max.woody@centralpointoregon.gov
Council Meetings: 2nd and 4th Thursday at 7:00 pm
City Hall, 140 S. 3rd Street

CITY OF EAGLE POINT (PWID: 41-00267)
Gary Shipley, Public Works Supervisor: 541-826-4212 (ext. 136)
Email: garyshipley@cityofeaglepoint.org
Council Meetings: 2nd and 4th Tuesday at 7:00 pm
City Hall, 17 S. Buchanan Street

CITY OF JACKSONVILLE (PWID: 41-00405)
Jeffrey Alvis, City Administrator: 541-899-1231
Email: administrator@jacksonvilleor.us
Council Meetings: 1st and 3rd Tuesdays at 6:00 pm
Old City Hall, 215 W. Main Street

CITY OF PHOENIX (PWID: 41-00625)
Kevin Caldwell, Public Works Superintendent: 541-535-2226
Email: kevin.caldwell@phoenixoregon.gov
www.phoenixoregon.gov
Council Meetings: 1st and 3rd Monday at 6:30 pm
Public Works Office, 1000 South 'B' Street

JACKSON COUNTY HEALTH DEPARTMENT
Environmental Health: 541-774-8206

OREGON HEALTH AUTHORITY
Drinking Water Program: 1-971-673-0405
http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater

EPA SAFE DRINKING WATER HOTLINE
1-800-426-4791
www.epa.gov/safewater

2014 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	0.004	N/A	YES	Erosion of Natural Deposits
			Rogue River	0.004			

Microbiological Contaminants

Substance	MCL (Maximum Allowed)	MCLG (Ideal Goal)	Detected Level	Complies?	Typical Source
Coliform bacteria	MWC - Present in ≤ 5% of Monthly Samples; Eagle Point - Present in ≤ 1 sample per month	0% Presence	MWC - Present in 1% of Sept. samples; Eagle Point - Present in 1 May sample	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: 0.074 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:

Hundreds of tests are run on our drinking water each year to ensure that no substances are present at harmful levels. Contaminants can now be detected at truly minuscule levels due to continuously improving testing techniques. Nonetheless, most of the contaminants we test for have never been found in our water. Those we do detect are at levels well below health standards, as shown in the adjacent tables.

Testing is required according to specific schedules. During 2014, Central Point received a violation for failure to submit one quarter's disinfection by-products test results. Given that all of the other entities' test results were in normal ranges during the quarter in question, it is unlikely that there were any adverse health affects that went undetected due to this lapse, and Central Point returned to compliance the following quarter.

If you wish to view additional monitoring results, a "***Water Quality Analysis***" can be obtained at the Medford Water Commission's offices or on the Commission's website (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 each of the 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. In 2014, 1554 samples taken from 108 sampling points, of which 2 samples showed coliform bacteria. Further testing confirmed that no harmful bacteria were present.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 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).

CHLORINE RESIDUAL:

Chlorine is the only disinfectant that remains in water to provide continuous protection to customers' taps. Therefore, some chlorine is typically utilized even if another primary disinfectant is also used. 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, and residual testing is similarly low.

DISINFECTION BY-PRODUCTS:

Disinfection to inactivate harmful microbes is extremely important to protect public health. However, by-products can form from this process, some of which can be harmful if they occur at sufficient levels over a long time period. Various measures are taken to keep these by-products to a minimum while insuring that disinfection is achieved.

LEAD AND COPPER:

Because lead and copper can enter drinking water through contact with household plumbing or water system pipes, additional testing is conducted at residences considered to be at greatest risk for elevated amounts of lead and copper. Our water is not prone to high levels of these metals, but 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 flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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 form the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

TURBIDITY:

Turbidity is a measure of how clear water is. Turbidity itself does not necessarily indicate that water is unhealthy, but it can interfere with disinfection and can be an indicator of microorganisms. Turbidity measurement is not required of our spring water, though we continuously monitor it for our own review.

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	8.63	ND - 17.5	80	0	Yes	By-products of chlorination used in the water treatment process
	Central Point	7.93	ND - 29.7				
	Eagle Point	16.8	15.3 - 16.8				
	Jacksonville	4.93	ND - 19.0				
	Phoenix	ND	ND				
Haloacetic Acids (ppb)	M.W.C	6.23	ND - 19.5	60	0	Yes	By-products of chlorination used in the water treatment process
	Central Point	3.15	ND - 12.6				
	Eagle Point	16.4	15.8 - 16.4				
	Jacksonville	3.13	ND - 12.5				
	Phoenix	ND	ND				
Chlorine Residual (ppm)	M.W.C	0.55	0.33 - 0.73	4.0 (MRDL)	4.0 (MRDLG)	Yes	Treatment additive for disinfection
	Central Point	0.49	0.14 - 0.77				
	Eagle Point	0.37	0.07 - 0.51				
	Jacksonville	0.38	0.04 - 0.55				
	Phoenix	0.45	0.25-0.61				

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	1.4	2012				
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	0.843	2012				

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

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.

INFORMATION FROM THE EPA:

As water travels over the land and through the ground, it dissolves naturally occurring minerals and may pick up substances resulting from human activity or the presence of animals. This may include microbial organisms such as viruses and bacteria, inorganic substances such as minerals and salts, pesticides and herbicides, organic chemicals such as petroleum products and radioactive substances. Any substances found in water are referred to as contaminants, whether or not they are harmful.

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).

DEFINITIONS

AL (Action Level)
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

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 measure of radioactivity in a one-liter volume.

ppm / ppb (Parts Per Million / Parts per Billion)
One part per million or per billion means that one part of a particular substance is present for every million or billion parts of water. One part per million compares to one penny in $10,000, and a part per billion is equivalent to a penny in $10 million.

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