

Marcola Water District

2012 Safe Drinking Water Report

(Water Quality Test Results for 2011)

We are pleased to share this year's Annual Water Quality Report with you! This report is designed to inform you about the quality of water we deliver to you and to explain what the numbers mean. If you have any questions, please call us at (541) 746-1676.

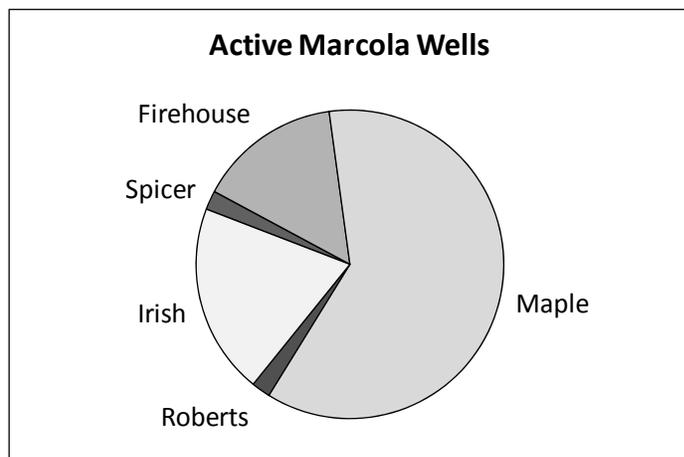
Marcola Water District relies on groundwater for our normal water supply. Water is pumped from underground and stored in two hilltop reservoirs. These reservoirs maintain pressure in the piping system as water use fluctuates throughout the day, and they provide an emergency reserve for fire protection.

Our water is currently supplied by **six wells: Firehouse, Roberts, Irish, Spicer, Maple 1 and Maple 3**. Three additional wells are not currently used due to water quality concerns: Shields, Page, and Maple 2. The graph shows the average amount supplied by each well in the last four years, compared to the total yearly supply.

No fluoride is added, but chlorine has been added to the system since 1999 to disinfect and protect the water from coliform bacteria.

We began additional treatment at Spicer and Irish Wells in 2003, to raise the pH and lower the level of dissolved copper detected at customer's faucets. (Lead and copper can leach from solder used in older plumbing.)

We sample the water at our wells and at system monitoring points on a regular basis, to look for harmful chemicals or bacteria and verify the water system is operating properly.



Three different aquifers have been recognized as supplying groundwater to Marcola's various wells, including an alluvial aquifer, a volcanic (Rhyolite/Basalt) aquifer, and a fractured sedimentary rock aquifer. A Source Water Assessment that evaluates risks to our groundwater was completed in July, 2002. Copies may be reviewed or purchased for the cost of reproduction at the Rainbow Water District offices, 1550 N. 42nd Street, Springfield.

Here is what the EPA says about drinking water contaminants:

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 water contaminants and their potential health effects can be obtained on the web at www.epa.gov/safewater or by calling EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Drinking water sources (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.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is mainly from materials and components associated with service lines and home plumbing. Rainbow Water District 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.

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.)

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 personal health care providers. EPA and CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available by calling the Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants in drinking water sources may include:

Microbial contaminants, such as viruses and bacteria, may come from wildlife or septic systems. *Radioactive contaminants* can occur naturally. *Inorganic contaminants*, such as salts and metals, can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming. *Organic chemical contaminants*, including synthetic and volatile organic chemicals, are byproducts of industrial processes, and can come from septic systems, gas stations, and urban stormwater runoff. *Pesticides and herbicides* may come from a variety of sources such as farming, urban stormwater runoff and home or business use.

MARCOLA WATER DISTRICT CONSUMER CONFIDENCE REPORT DATA

TESTING AT WELLFIELD ENTRY POINTS TO THE DISTRIBUTION SYSTEM (2011 or most recent results)

Chemical	Category	Range Detected (Year Tested)	In Compliance?	Federal Limit*	Federal Goal*	Likely Source of Contamination
Nitrate (as Nitrogen)	Regulated Inorganic	ND - 3.5 ppm (2011)	Yes	10 ppm	10 ppm	Fertilizer runoff, leaching from septic tanks, sewage, erosion of natural deposits
Arsenic	Regulated Inorganic	ND - 8.1 ppb (2010)	Yes	10 ppb	0 ppb	Erosion of natural deposits
Gross Alpha** (excluding Ra, U)	Regulated Radionuclides	3.1 pCi/L (2011)	Yes	15 pCi/L	0 pCi/L	Erosion of natural deposits
Sodium***	UNREGULATED Inorganic	7.2 - 16.3 ppm (2010)	Yes	No MCL. 20 ppm is advisory only	n/a	Fertilizer runoff, leaching from septic tanks, sewage, erosion of natural deposits

TESTING AT ROUTINE DISTRIBUTION SYSTEM LOCATIONS (2011 or most recent results)

Chemical	Contaminant Category	Range Detected (Year Tested)	In Compliance?	Federal Limit*	Federal Goal*	Likely Source of Contamination
Total Coliform Bacteria	Regulated Microbiological	0.0% (12 samples in 2011)	Yes	5% of monthly samples are positive	0	Naturally present in the environment
Chlorine	Disinfectant	0.4 - 0.6 ppm (2011) RAA = 0.48	Yes	4 ppm	4 ppm	Water additive used to control microbes
Copper	Regulated Inorganics	0.14 ppm max (2010) 0 sites over AL	Yes	Action Level = 1.3 ppm	0	Corrosion of household plumbing systems
Lead	Regulated Inorganics	ND (2010) 0 sites over AL	Yes	Action Level = 15 ppb	0	Corrosion of household plumbing systems, erosion of natural deposits
Total Trihalomethanes	Disinfection Byproducts	ND (2010)	Yes	80 ppb	0	Byproducts of the disinfection process
Total Haloacetic Acids	Disinfection Byproducts	ND (2010)	Yes	60 ppb	0	Byproducts of the disinfection process

Definitions

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

Maximum Contaminant Level (MCL) is 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) is 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) is 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.

Maximum Residual Disinfectant Level Goal (MRDLG) is 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.

One **Part Per Million (ppm)** corresponds to one penny in \$10,000 or about one minute in 2 years. Measurements in ppm indicate only one milligram of contaminant per liter of water.

One **Part Per Billion (ppb)** corresponds to one penny in \$10,000,000 or approximately one minute in 2,000 years. It takes 1,000 parts per billion to equal one part per million.

ND is Not Detected. **Picocuries Per Liter (pCi/L)** is a measurement of radioactivity, a trillion times smaller than one Curie.

Running Annual Average (RAA) is computed using monthly or quarterly results and is a value used to determine compliance.

Notes

* Federal Limits may be either the MCL or the MRDL. Federal Goals may be either the MCLG or MRDLG. Maximum contaminant levels (MCLs) are the highest levels of chemicals that the EPA has determined to be acceptable for life-long consumption. MCLs are set at very stringent levels. To understand the possible health effects described for many regulated chemicals, a person would have to drink 2 liters (about 8 glasses) of water every day at the MCL for a lifetime to have a one-in-a-million chance of having the undesirable health effects.

** Some contaminants are monitored less than once per year. Data shown are the most recent monitoring done in compliance with regulations.

*** Sodium is not a regulated contaminant, but we show the results of sodium testing for all water sources since some source water contains an amount of sodium which people with high blood pressure may wish to know about.

FAQs – Frequently Asked Questions about Marcola’s Water

Q. *Why does my bill increase in the summer?*

A. In addition to a base rate (\$26.00 per month for most customers, dependent on meter size), we charge \$0.90 for each unit of water used. (A “unit” of water is equal to 748 gallons). During the summer you may wash your car, hose off your sidewalks, fill the wading pool or water the lawn and garden. As you use more water during the warmer months, your bill goes up.

Q. *How do Marcola’s water rates compare to other utilities?*

A. Our rates are somewhere in the middle when compared with the rates of other communities in western Oregon. The rates each year depend on the cost of pumping, storing, treating and delivering water. There is no rate increase this year, but each year the Budget Committee meets in April and May and determines whether rates need to be adjusted. This may occur because of new regulations adopted by state or federal health officials that require additional lab testing and investment in new treatment technologies, or because of increases in the cost of things like gasoline and electricity that make it more expensive to perform the repairs and scheduled maintenance activities that keep the water system fully operational.

Q. *Can I track my water use? How do I know if I have a water leak?*

A. You may read your own water meter at any time during the month. Your water meter is usually in the front yard by the curb, housed in a concrete or plastic meter box with a concrete and metal lid. If you lift the metal lid and look in the box, you will see your meter, which has a display like a car odometer. Read just the black numbers on a white background, and you can keep track of how many units you are using. Remember that each unit equals 748 gallons.

On the face of most water meters, near the odometer-style numbers, will be a red triangle or black star-shaped “leak detector.” Make sure you are not using any water in the house and watch the leak detector for a few minutes. If the leak detector is spinning you are using water somewhere and might have a leak. Call the Rainbow office at 541-746-1676 and we can give you more tips on where to look and how to tell if you have a leak. Any leak on your side of the meter, between the meter and your house, is your responsibility to repair. If it appears there is a leak on the street side of the meter, please let us know so we can investigate and take care of any leaks that are our responsibility.

Q. *Can I pay my bill over the phone or internet? Where do I pay?*

A. We presently accept checks, cash and money orders. You may stop by Rainbow’s office to pay in person, or mail a payment with your payment stub. We will offer the option to pay by credit or debit card by the end of the year, but will likely charge a small convenience fee to hire a company to process transactions for us. We are located at 1550 N. 42nd Street, Springfield. (Look for the white tanks on 42nd Street, between Olympic and Marcola Road. Our driveway is adjacent to the westbound Highway 126 on-ramp.) We are open 8-5, Monday through Friday. A mail slot on the front of the building may be used for after-hours payments.

Q. *How much should I water my lawn and garden?*

A. Grass needs to have a deep root system to survive and flourish. The amount that is needed depends on the temperature and rate of evaporation. View our website for wise watering tips and to subscribe to the Green Grass Gauge weekly advisory email sponsored by the Regional Water Providers. See www.RWDonline.net/ggg.html for more information.

Q. *Where does my water come from? How is it treated?*

A. All of Marcola’s water comes from wells, with the groundwater naturally filtered as it is pumped from the ground. We add a small amount of chlorine as a disinfectant, and some soda ash to raise pH in some of the wells that have more acidic water. We do not add any fluoride. The pH of Marcola’s water typically runs from 7.2 to 7.8, depending on which wells are running.

Q. *What is a backflow device, and why do I need to get it tested?*

A. Water should flow from Marcola’s piping system to you, and never in the opposite direction. A backflow device is installed between the public and private systems to protect against reverse flow situations. The most common backflow device installation is for irrigation (sprinkler) systems. To ensure that the device is functioning properly and only allowing flow in one direction, water providers work with property owners, plumbers and licensed contractors to install and test these devices.

Q. *Is my water hard or soft?*

A. Water is referred to as “hard” if it contains high mineral content. While the mineral content varies at our different wells, most of Marcola’s water is considered “soft.” Mineral content, particularly sodium, is slightly higher during the summer months when additional wells are started up to meet seasonal demands.



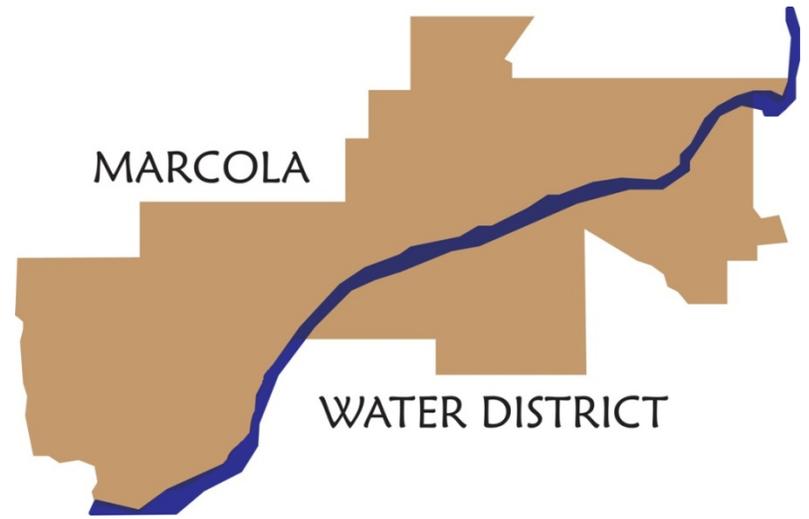
2012 Safe Drinking Water Report

At Marcola Water District, we continually strive to provide top quality water to every tap. We ask that all customers help us to protect the water sources that we share.

This report shows that **Marcola's water meets or exceeds all federal and state guidelines for water quality.** The enclosed information is provided to inform and educate you about your water and your water utility.

If you want to learn more about Marcola's water system, we invite you to attend a Board of Commissioner meeting. These are held on the third Wednesday of every month, beginning at 7:00 pm, at the Mohawk Valley Rural Fire District, 92068 Marcola Road.

Rainbow Water District is our contract water system operator. If you have questions about our water utility or this water quality report, please visit their website at www.RWDonline.net/Marcola or call Jamie Porter, Superintendent, at 541-746-1676.



Water System Fast Facts

Average flow, gallons per day: 50,000 (winter) and 125,000 (summer)
System size: 200 connections serving 500 people
Supply/Storage: 6 active wells, with 215,000 gallons stored in 2 reservoirs

Typical monthly residential bill assuming 10 units and a 3/4-inch meter:
\$26.00 base rate + \$0.90/unit (748 gallons) water usage = \$35.00

A small amount of our annual budget (about 10%) comes from property taxes. This amount is limited by state law, so the majority of the money used to fund water operations (about 90%) comes from the monthly water bills.

Marcola Water District
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www.RWDonline.net/Marcola

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