

# water quality report

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Redmond's  
Drinking Water:

# An Essential Resource

*A message from Mayor Angela Birney*

Clean, reliable and safe drinking water is important to our health, our future, and our entire community. I'm proud to report that our water continues to meet or exceed the highest state and federal quality standards. We have maintained this record for more than four decades, ensuring the health and safety of you and your families for generations, and we will continue to make this a priority for the future of Redmond.

Much of our drinking water comes from our local aquifer, which is refreshed by groundwater. To keep the aquifer clean and healthy, it is critical to protect our groundwater from contamination and to ensure that the aquifer can recharge. By caring for our environment, Redmond residents, businesses and City staff have worked together to protect this essential resource and ensure a healthy community now and in the future.

This report provides a detailed look at Redmond's drinking water, where it comes from, and how we protect, treat, and monitor it. Thank you for taking the time to learn more about your drinking water and ways that you can help sustain this vital resource in our community.



– Mayor Birney



## Information about the EPA

The sources of drinking water (both tap 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 can pick up substances resulting from the presence of animal or human activity.

### SUBSTANCES AND CONTAMINANTS THAT COULD BE PRESENT IN SOURCE WATER INCLUDE:

**MICROBES** such as viruses and bacteria, which may come from septic systems, livestock, and wildlife.

**INORGANIC CHEMICALS** such as salts and metals, which may be naturally-occurring or result from urban stormwater runoff, wastewater discharges and farming.

**PESTICIDES AND HERBICIDES** from agriculture, urban stormwater runoff, and residential uses.

**ORGANIC CHEMICALS** both synthetic and volatile, which are by-products of industry and can also come from gas stations, dry cleaners, urban stormwater runoff and septic systems.

**RADIOACTIVE CONTAMINANTS**, which can be naturally-occurring or result from petroleum production or mining activities.

In order to ensure the safety of tap water, the EPA regulates the amount of contaminants allowed in public drinking water. The FDA regulates the contaminants in bottled water, which must provide a similar degree of safety.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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.

# Where does my water come from?



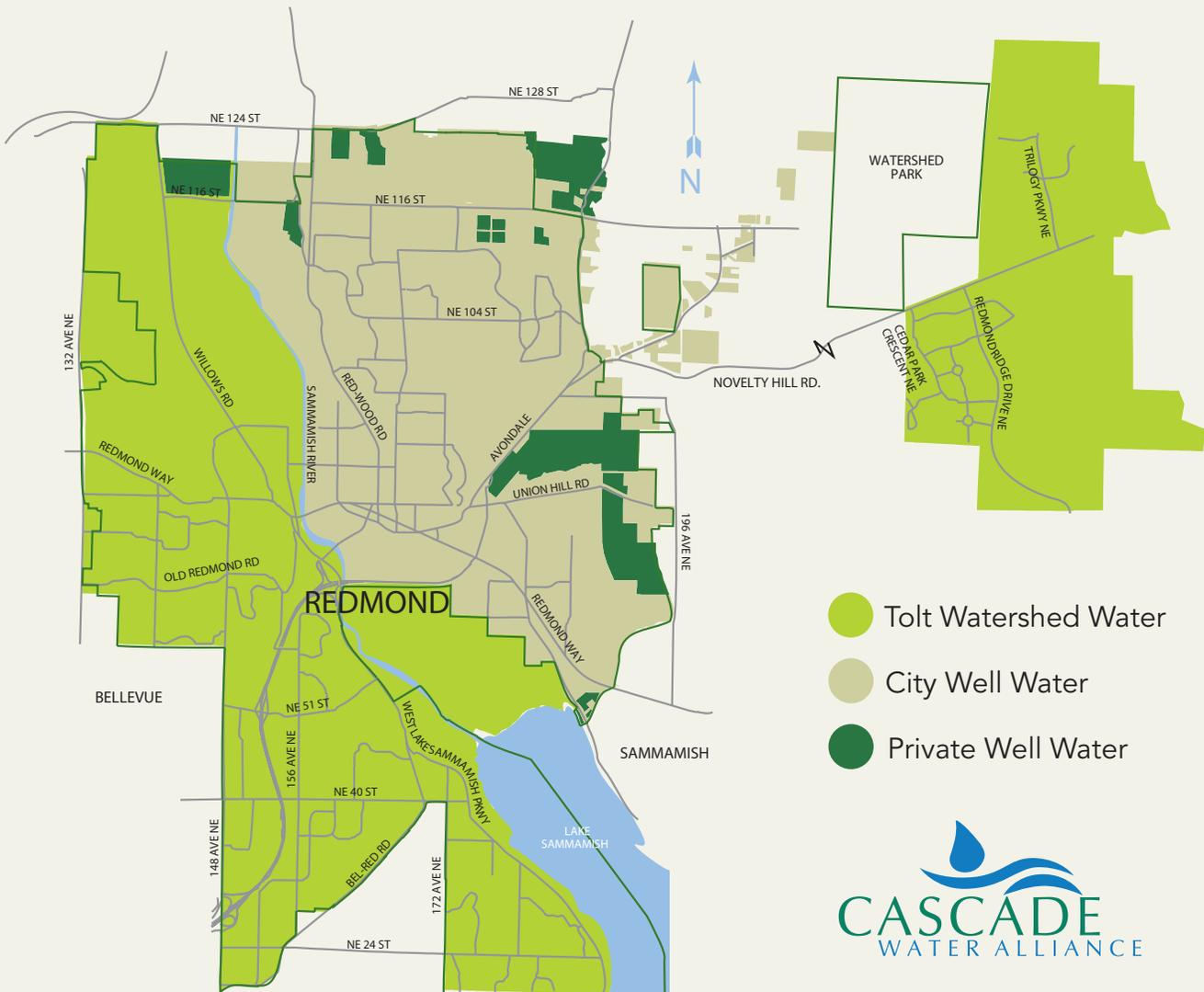
The City of Redmond has a hybrid water system. You may drink water from the Cascade Mountains or well water from an aquifer, depending on where you live.

## The Tolt Watershed

Residents on the west side of Lake Sammamish and the Sammamish River, as well as those who live in Redmond Ridge and Trilogy, are served water that comes from the Tolt Watershed in the Cascade Mountains.

## The Groundwater System

Residents east of Lake Sammamish and the Sammamish River drink well water from our aquifer. During the summer, water from the Tolt will be blended with the groundwater to help meet peak summer demand.



# The Tolt Watershed

## From the Cascades to Your Tap

The Tolt Reservoir and Watershed are located 15 miles east of Redmond in the Cascade Mountains. Rivers, streams, and snowmelt are impounded here to make up the reservoir supply. The water is filtered and treated and then travels through a supply pipeline to Redmond and other eastside water districts on its way to Seattle. The City of Seattle owns the watershed and pipeline. Redmond, as a member of the Cascade Water Alliance, buys this water, and both Seattle and Redmond monitor and test it to maintain quality.

### WATERSHED PROTECTION

The Tolt Watershed covers nearly 14,000 acres and is closed to public access. Seattle's aggressive watershed protection plan safeguards the water supply from degradation

and human intrusion. However, according to the State Department of Health, all surface waters in Washington State are given a contamination susceptibility rating of "high," whether or not contaminants have been detected. Contamination that might occur would most likely be from soil erosion or animal activity.

### TREATMENT

Water treatment of the Tolt supply consists of filtration, ozonation, chlorine disinfection, and fluoridation. Calcium oxide and CO2 are added to help reduce the water's natural corrosive effect on plumbing. Filtration removes organic material and makes the water cleaner and clearer. Ozone kills tough potential pathogens like giardia and cryptosporidium.

## 2019 Water Quality Data - Tolt System (Seattle Supply)

		EPA's Allowable Limits		Levels in Tolt Water (in Redmond)		
Detected Compounds	Units	MCLG	MCL	Average	Range	Typical Sources
Total Organic Carbon (Raw)	ppm	NA	TT	1.3	1.1 - 1.5	Naturally present in the environment
<b>Finished Water</b>						
Turbidity	NTU	NA	TT	0.03	0.01 to 0.17	Soil Runoff
Arsenic	ppb	0	10	0.4	0.3 to 0.4	Erosion of natural deposits
Barium	ppb	2000	2000	1.3	1.1 to 1.5	Erosion of natural deposits
Nitrate	ppm	10	10	0.11	one sample	Erosion of natural deposits, septic systems and fertilizers
Chromium	ppb	100	100	0.2	ND to 0.24	Erosion of natural deposits
Bromate	ppb	0	10	0.2	ND to 2.0	By-product of drinking water disinfection
Fluoride	ppm	<4.0	4	0.7	0.6 to 0.8	Additive for dental health
Total Coliform	% positive	0	5%	0	0 out of 624	Naturally present in the environment
Total Trihalomethane (TTHM)	ppb	N/A	80	31.9	15.2 - 46.4	Chlorination by-products
Haolacetic Acids (HAA5)	ppb	N/A	60	27.1	15.7 - 37.8	Chlorination by-products
Chlorine	ppm	N/A	4 MRDL	0.81	0.10 - 1.42	Additive that kills germs

**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.

**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.

**MRDL** Maximum Residual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant acts as a safety net against 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.

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

**NTU** Nephelometric Turbidity Unit - Turbidity is a measure of how clear the water looks. The Tolt supply was 0.3 NTU for at least 95% of the samples in a month. For November 2018, 99.4% of the samples from the Tolt were below 0.3 NTU.

**NA** Not Applicable

**ND** Not Detected

**ppm** 1 part per million = 1 mg/L = 1 milligram per liter

**ppb** 1 part per billion = 1 ug/L = 1 microgram per liter

### Other Useful Tolt Watershed Data:

• Water Hardness = 0–60 Mg/L or 0 - 3.50 grains per gallon. This water is soft. • pH = 7.8–8.8 • Total alkalinity (CaCO3) = 18.8

A list of other contaminants that were not detected, are secondary or unregulated, is available upon request.

Water Quality for other non-regulated parameters are provided on the SPU website: [seattle.gov/util/MyServices/Water/Water\\_Quality/WaterQualityAnalyses/index.htm](http://seattle.gov/util/MyServices/Water/Water_Quality/WaterQualityAnalyses/index.htm)

# The Groundwater System

## Redmond's Renewable Resource

Beneath the Downtown, Avondale Road and SE Redmond areas lies an underground, water bearing formation called an aquifer. For 60 years, the aquifer has supplied 35-40% of Redmond's drinking water. In 2019, the City's wells pumped over one billion gallons from the aquifer. This resource is considered to have a high vulnerability to potential contamination because the aquifer is very shallow.

### GROUNDWATER PROTECTION

In 2003, Redmond established a Wellhead Protection Program to help protect our groundwater from contamination and depletion. The Wellhead Protection Program is responsible for:

- Gathering hazardous materials data and visiting businesses to help identify and eliminate sources of pollution that could contaminate groundwater.
- Reviewing development proposals to ensure that groundwater will not be adversely impacted.
- Measuring groundwater levels and collecting samples from monitoring wells throughout the City. As a result of the Wellhead Protection Program, Redmond is in compliance with the three components of the Washington State Source Water Assessment Program: Protection Area Delineation, Contaminant Source Inventory and Susceptibility Assessment. To learn more, contact Jessica Pfundt at [jnpfundt@redmond.gov](mailto:jnpfundt@redmond.gov) or call 425-556-2709.

### TREATMENT

Our groundwater is treated for safety and dental health with two common drinking water additives: sodium fluoride and chlorine. Other Useful Groundwater Data: • Hardness = 54-83 mg/L (3.1-4.8 grains per gallon) This water is moderately hard. • pH = 7.60-7.80 • Total Alkalinity (CaCO<sub>3</sub>) 60-95 A list of other contaminants that were not detected, are secondary or unregulated, is available upon request. Chlorine acts as a safety net against disease causing germs. The well water is adjusted for optimum pH. The groundwater is naturally at about 6.5 on the pH scale which is a bit low for drinking water. By using air stripping towers, some of the CO<sub>2</sub> in the water is released, thus naturally raising the pH to 7.5. Increasing the pH makes the water less corrosive to household plumbing.

### DISTRIBUTION

The City of Redmond currently maintains 330 miles of pipe 4" and larger. Redmond has 26 sample sites strategically placed throughout the distribution system for water quality sampling. The City collects 26 samples per week and have them analyzed for safety, pH, chlorine residual and temperature as part of our ongoing efforts to deliver clean and tasty water.

## 2019 Water Quality Data - GROUND WATER SYSTEM (WELL WATER)

Detected Compounds	Units	MCLG	MCL	Average	Range	Typical Sources
Total Organic Compounds (Raw)	ppm	NA	TT	ND	ND	Naturally present in the environment
<b>Finished Water</b>		0.71	0.24 - 1.27	NA	MRDL 4.0	Additive that kills germs
Fluoride	ppm	4	4	0.70	0.50 - 1.08	Additive for dental health
Chlorine	ppm	N/A	4 MRDL	0.79	0.23 - 1.40	Additive that kills germs
Total Trihalomethane (TTHM)	ppb	N/A	80	20.1	12.5 - 34.6	Chlorination by-products
Haolacetic Acids (HAA5)	ppb	N/A	60	7.3	5.9 - 8.8	Chlorination by-products
Nitrate	ppm	10	10	0.53	ND - 0.97	Erosion of natural deposits, septic systems and fertilizers

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.

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.

MRDL Maximum Residual Disinfectant Level - The highest level of a disinfectant allowed in drinking water. Addition of a disinfectant acts as a safety net against microbial contaminants.

NA Not Applicable

ND Not Detected

ppm 1 part per million = 1 mg/L = 1 milligram per liter

ppb 1 part per billion = 1 ug/L = 1 microgram per liter

1 ppm = 1000 ppb

### Other Useful Groundwater Data:

• Hardness = 54-83 mg/L (3.1-4.8 grains per gallon) This water is moderately hard. • pH = 7.60-7.80 • Total Alkalinity (CaCO<sub>3</sub>) 60-95 A list of other contaminants that were not detected, are secondary or unregulated, is available upon request.

# Keeping the lead out

Since 1983, Redmond's drinking water has been treated to minimize corrosion in household plumbing. The lead and copper mandatory testing requirement began in 1992. The rule required the City to select homes that would be most likely to have plumbing components containing lead. The expectation is to sample the same homes every 3 years for comparison.

In 2018, samples for lead and copper levels were collected again using the same selected 30 homes. Due to our increased population, we were required to add 20 additional homes for sampling, for a total of 50. Once again, Redmond's test results have demonstrated successful compliance with all state and federal requirements relating to lead and copper.

*Controlling pH is the key to reduce corrosion of plumbing. The pH in our aquifer is about 6.5. The desired pH for finished water is 7.5-7.8. Our wells are equipped with air stripping towers. They introduce high pressure air through the water. This releases trapped CO2 in the water and naturally raises the pH to the desired level with no chemical addition.*

## Lead and Copper Citywide Monitoring Program Results 2018

Parameter and Units	MCLG	90th Percentile Action Level*	2018 Results**	# of Homes Exceeding Action Level**
LEAD (Mg/L)	0	0.015 Mg/L	0.003 Mg/L	1 out of 50
COPPER (Mg/L)	1.3 Mg/L	1.3 Mg/L	0.150 Mg/L	0 out of 50

\* The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

\*\* 90th Percentile: i.e. 90 percent of the samples were less than the value shown.

## Redmond's Renewable Resource

There is no detectable lead or copper in Redmond's drinking water. However, lead is a serious contaminant and can be found in the water of some homes due to older plumbing. 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 private service lines, household plumbing and fixtures. The City of Redmond is responsible for providing high quality drinking water, but cannot control the variety of materials used in residential and commercial plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your cold water tap for 30 seconds to 2 minutes

before using the 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 Information Helpline at **800-426-4791**, or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead). You can also get information from the Redmond Water Quality Office at **425 556 2847**.

Finally, keep in mind that drinking water is only a minor contributor to overall exposure to lead. Other common sources include paint, soil and food.

# 2019 Annual Water Use

The Redmond Water Utility is pleased to provide you with its annual performance report. This report, which is required by the Washington State Department of Health (DOH) Water Use Efficiency Rule (WUE), includes information about our metering status, our distribution system leakage and progress made toward our water efficiency goals.

## Metering and Distribution Leakage Summary

The Redmond water system is fully metered. The state requires that water suppliers maintain their distribution system leakage at 10% or less for a rolling 3-year average. The state recognizes that a certain amount of leakage is expected and unavoidable. The leakage is based on the total water produced by the wells and purchased from Cascade Water, less the amount of water sold to customers and used for other system purposes like flushing and firefighting. The estimated total leakage for Redmond for 2019 was 7.0% and the rolling 3-year average is 7.0%, well within the state DOH leakage standard.

## Efficiency Performance Report

Cascade provides water efficiency programs and services on behalf of its members. In 2019, Cascade administered many distinct activities, including:

- Aerator installations at multifamily accounts
- Showerheads for both single family and multi-family accounts
- Community gardening classes
- Garden Hotline calls
- Classroom presentations on water topics
- Stream monitoring workshops
- Staff irrigation trainings
- Soil and water stewardship training events
- Free conservation items shipped from Cascade’s website

DOH is now allowing Cascade Water Alliance (Cascade) to establish a goal that includes all seven of its members, including Redmond. The water efficiency goal for years 2014 through 2019 was established by Cascade on December 19, 2013 and was to achieve a cumulative drinking water savings of 600,000 gallons per day on an annual basis and 1,000,000 gallons per day during peak season (June – September) by 2020. In 2019, Cascade achieved a savings of 142,469 gallons per day or about 24% of its six-year savings goal. Along with savings from 2014 – 2018, Cascade has achieved approximately 169% of its annual savings goal, slightly more than one million gallons per day.

On November 28, 2018 Cascade expanded its goal for years 2019 through 2022. The expanded goal states that “Cascade will dedicate the necessary resources to achieve a cumulative drinking water savings of 0.4 million gallons per day on an annual basis by December 31, 2022”. As shown in the table below, these programs and services promoted water efficiency and stewardship of our water resources resulting in approximately 20,000 customer interactions representing all Cascade members and achieved a savings of an estimated 142,469 gallons of water per day in 2019 or 35.6% of Cascade’s 2019 – 2022 WUE goal.

2019 Cascade Water Efficiency Program	
Community Engagement	Completed
Classroom Presentations/Students Reached	505/11,946
Teacher Fellows/Student Impacts	33/5,170
Community Events/Customer Interactions	16/6,500
Cascade Gardner Classes/Attendees	25/849
Garden Hotline Calls	200
Workshops of Drip Irrigation, Rain Harvesting, and Community Gardening/Attendees	6/175
Stream Monitor Workshop Series/Monitors Certified	2/58
Soil and Water Stewardship Training Events/Attendees	18/306
Savings Generating Measures (Direct Installations, Rebates, Distribution)	Completed
Residential Clothes Washers	1,311
Residential Showerheads	7,171
Multi-family Showerheads	784
Multi-family Bathroom Aerators	1,775
Multi-family Kitchen Aerators	614
Conservation Items	Completed
Event Distribution	6,585
Customer Orders from Website	300
Cascade Member Requests	1,180
Teacher Requests	3,445
Condominium Requests	1,390

# Multiple Barrier Approach

The City of Redmond safeguards the quality of water you receive by using a multiple barrier approach to maintaining safe and reliable drinking water. This preventative approach uses a series of technical and managerial barriers to prevent contamination of the drinking water from groundwater to your tap.



The Wellhead Protection Program uses monitoring wells to identify potential contaminant risks before reaching a supply well.

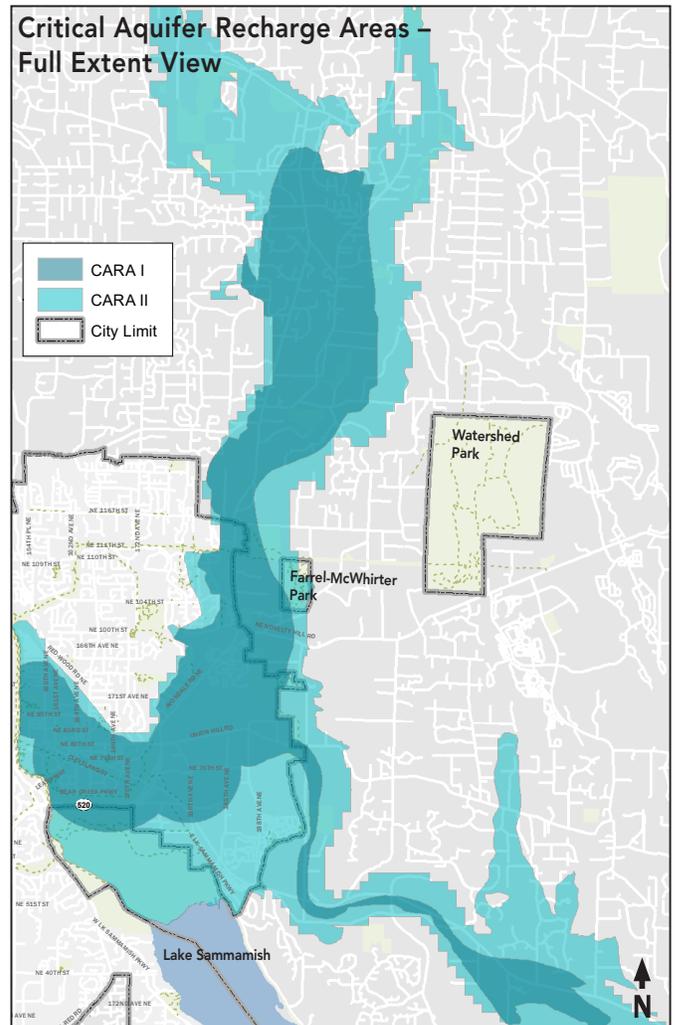
The Hydraulic Barrier ensures adequate water pressure during all normal and emergency operating conditions. The hydraulic barrier relies on adequate pumping and accounting for system elevations.

The Water Quality Barrier monitors and maintains water quality in the distribution system by properly treating, conveying and testing daily.

The Physical Barrier prevents external contamination from entering the drinking water supply system. This barrier includes proper backflow protection that physically or mechanically separates the water supply from contact with external substances by means of a strong cross connection control program.

## Critical Aquifer Recharge Areas (CARA I and CARA II)

CARA I and CARA II are areas where infiltration is important for replenishing the groundwater supply and where groundwater is vulnerable to contamination from spills. These special protection areas are based on the time it takes for groundwater to travel to a municipal supply well. Learn more about the City's Groundwater Protection Program at [www.redmond.gov/831](http://www.redmond.gov/831).



# Safeguarding our Groundwater

## It's up to all of us

The best way to protect our drinking water is to make sure pollution does not get into the environment around us, especially in the Critical Aquifer Recharge Area (CARA). Help protect Redmond's groundwater resource, visit [redmond.gov/1225/Taking-Action](http://redmond.gov/1225/Taking-Action) for more information.



### Properly maintain your vehicle

Even a small leak can have a big impact. Leaks from your vehicle can pollute groundwater and stormwater. Vehicle leaks are an indication that there is a problem. Fixing leaks not only protects the environment, but will likely extend the life of your vehicle as well.

To learn more about checking your car for leaks and steps you can take to fix it visit [www.fixcarleaks.org](http://www.fixcarleaks.org).



### Limit your use of chemicals, fertilizers, pesticides and other hazardous products

Use the least toxic products or methods available. Over application or misuse can cause these chemicals to make their way into surface water and groundwater. For more information, visit King County's website on Natural Yard Care.

Learn more at [www.hazwastehelp.org/ChemToxPesticides/yard-care.aspx](http://www.hazwastehelp.org/ChemToxPesticides/yard-care.aspx).



### Properly dispose of hazardous products

Items such as used motor oil, oil based paint, cleaning solvents, fuels, antifreeze, transmission and brake fluid, pesticides and herbicides should never be dumped on the ground or into a stormwater drain on the street. Residents and qualifying businesses are eligible for FREE hazardous waste disposal at King County Hazardous Waste facilities and traveling WasteMobile.

For more information about drop off locations, visit King County's website at [www.hazwastehelp.org](http://www.hazwastehelp.org).

### If you own or operate a business in Redmond, evaluate your hazardous materials handling process.

- Properly store products and waste, both indoors and outdoors, utilizing secondary containment (where the original container is placed in another container to catch spills and leaks).
- Be prepared for spills. Have a spill kit and spill procedures in place and train employees how to use them. For more information about how get a FREE spill kit, contact a Pollution Prevention Specialist at 425-556-2888.
- Keep lids closed on outside dumpsters and waste bins.
- Minimize use of toxic cleaning solvents, such as chlorinated solvents and other toxic chemicals.
- For additional information on hazardous materials storage and handling or environmentally safer alternatives, contact our Wellhead Protection staff at 425-556-2714.

### Be Vigilant

If spills occur, clean them up immediately. Call Redmond's 24-hour Spill Hotline at **425-556-2868** to report spills.

**wellhead**  
**protection**

# Backflow Prevention

Backflow is the undesirable reversal of the flow of water or mixtures of water and other undesirable substances from any source (such as used water, industrial fluids, gasses, or any substance other than the intended potable water) into the distribution pipes of the potable water system.

## Cross Connection Control Program

A homeowner or business owner is responsible if their water system contaminates the public water system. Your participation in the program is critical in assisting us to continue to deliver safe, reliable drinking water.

The City of Redmond, (Redmond-Municipal-Code-1310-PDF) in conjunction with the Washington State Department of Health (WAC 246-290-490), requires customers within the Redmond water jurisdiction, that have the potential to backflow water into the public system to install and maintain backflow assemblies. The most common concerns for residential customers are lawn irrigation and fire suppression systems.

A cross connection is an actual or potential pathway between our drinking water supply and a source of contamination or pollution. In our homes and businesses, water is often used to dilute, mix, cool and clean. Potable water may encounter dangerous chemicals and substances. Cross connected plumbing may put your drinking water in contact with contaminated water.

## Annual Backflow Assembly Testing

The City mails reminder letters annually to businesses and homeowners that need to have their assemblies tested. This is a mandatory and simple testing procedure for all water users that own a backflow assembly. The test is performed by any State Certified Backflow Assembly Tester. A list of local testers is also included in the letter for your convenience.

To verify your tester is certified, visit the Washington Certification Services BAT site and search by name or certification number at <https://grcc.greenriver.edu/wacertservices/bat/certification-status/>.

If you have an irrigation system, fire system or any other potential cross connection and you don't receive an annual reminder letter from the City, please contact the Cross-Connection Program at [backflowtests@redmond.gov](mailto:backflowtests@redmond.gov) or call the Program Administrator, Bobby Agnew at 425 556 2817. We are pleased to help if you think you may need a backflow assembly or need information on how to get yours tested.



# Redmond Participates in Federally Required Sampling

Redmond finalized the federally required UCMR testing in January 2019.

Results for Redmond's Unregulated Contaminants Monitoring Rule 4 (UCMR4) sampling detections are shown in the table below. We've included this section to keep you fully informed about new contaminants that may be regulated in the future. This monitoring is required by the Environmental Protection Agency (EPA) regulation for contaminants that do not have defined health-based standards. The UCMR 4 program is used by the EPA to determine the occurrence of contaminants in drinking water systems. The categories include metals, pesticides, alcohols, semi-volatiles, disinfection by-products and cyanotoxins. If you would like a detailed list of all contaminants tested for but not detected, please contact our water quality office at 425 556 2847. For more information about the program, visit the EPA's website at [www.epa.gov/dwucmr/fourthunregulated-contaminant-monitoring-rule](http://www.epa.gov/dwucmr/fourthunregulated-contaminant-monitoring-rule).

CITY OF REDMOND'S UCMR4 MONITORING RESULTS SEATTLE SUPPLY		
Analyte	Range (ppb)	Average (ppb)
Manganese	0.64 - 1.60	1.18
Dichloroacetic Acid	3.6 - 17	10.3
Trichloroacetic Acid	6.2 - 22	18
Bromochloroacetic Acid	ND - 0.82	0.52
Bromodichloroacetic Acid	0.6 - 0.93	0.78

CITY OF REDMOND'S UCMR4 MONITORING RESULTS GROUND WATER SUPPLY		
Analyte	Range (ppb)	Average (ppb)
Manganese	ND - 2.0	0.65
Dichloroacetic Acid	0.86 - 2.7	1.8
Bromochloroacetic Acid	0.47 - 1.8	1.1
Bromodichloroacetic Acid	1.0 - 1.7	1.3

ppb parts per billion  
 ND Non-detect

\*\*\*Manganese is a naturally occurring element that can be found in air, soil and water. It is an essential nutrient at low doses, chronic exposure to high doses may be harmful. The EPA advisory level is below 0.050 Mg/L.

\*\*\*Haloacetic acids are disinfection by-products (DBPs) that are formed when chlorine used to disinfect drinking water reacts with natural organic matter.

## Did you know?

- Less than 2% of the Earth's water supply is fresh water.
- Every day in the United States, we drink about 110 million gallons of water.
- The average American uses 140-170 gallons of water per day.
- If every household in America had a faucet that dripped once each second, 928 million gallons of water a day would leak away.
- There are 7.48 gallons in a cubic foot of water. Therefore, 2000 cubic feet of water is 14,960 gallons.
- You use about 5 gallons of water if you leave the water running while brushing your teeth.
- Approximately 1 million miles of pipelines and aqueducts carry water in the U.S. & Canada. That's enough pipe to circle the earth 40 times.

ppm?  
ppt?  
ppb?



## Did You Know?

Another way to define these reportable units is by equating ppm to "one drop in one million gallons," ppb to "one drop in one billion gallons", ppt to "one drop in 1 trillion gallons," and ppq to "one drop in one quadrillion gallons," which shows that these units reflect a very small amount.

## Redmond Resources

Redmond Public Works Water Quality Office: [www.redmond.gov/DrinkingWater](http://www.redmond.gov/DrinkingWater)

Water Quality Analyst: Kathy Caldwell, 425.556.2847

Redmond Wellhead Protection Program: [redmond.gov/Groundwater](http://redmond.gov/Groundwater)

Public Works line: 425-556-2701

Cross Connection Control Program: [www.redmond.gov/Backflow](http://www.redmond.gov/Backflow), [backflowtests@redmond.gov](mailto:backflowtests@redmond.gov)

Cross-Connection Specialist: Bobby Agnew, 425-556-2817

## Additional Resources

Washington Department of Health: [www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw) or 800-521-0323

Environmental Protection Agency: [www.epa.gov/safewater](http://www.epa.gov/safewater)

Safe Drinking Water Hotline: 800-426-4791

American Water Works Association: [www.drinktap.org](http://www.drinktap.org), [www.awwa.org](http://www.awwa.org)

Cascade Water Alliance: [www.cascadewater.org/](http://www.cascadewater.org/)

## Get Involved

It's your drinking water and your input is important. Attend and comment at City Council meetings on the first and third Tuesday of the month at 7:30 pm in the Council Chambers, located at 15670 NE 85th Street. Agendas for the meetings can be found on the City's website ([www.redmond.gov](http://www.redmond.gov)) or posted in the lobbies of City Hall and the Public Safety Building.

If you have questions about this report or about your drinking water, please contact Redmond's Drinking Water Quality section at [kcaldwell@redmond.gov](mailto:kcaldwell@redmond.gov).

Este informe contiene información muy importante sobre su agua de beber.

本报告含有饮用水问题的重要信息。

이 보고서에는 식수에 관한 중요한 정보가 담겨 있습니다

## Emergency Alert System

The City of Redmond has joined the enhanced regional emergency alert system, ALERT King County. This powerful system enables the public to receive important information about significant events or emergency situations. The service is free and confidential and allows you to register home and work addresses for geographic-specific alerts sent to you by phone, text, and email. For example, the system could be used to notify you on your registered cell phone if your address is affected by a drinking water emergency. To sign up, please visit [www.redmond.gov/Alert](http://www.redmond.gov/Alert).



The City of Redmond assures that no person shall, on the grounds of race, color, national origin, or gender, as provided by Title VI of the Civil Rights Act of 1964 and the Civil Rights Restoration Act of 1987, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity. For more information about Title VI, please visit [redmond.gov/TitleVI](http://redmond.gov/TitleVI).  
无歧视声明可在本市的网址 [redmond.gov/TitleVI](http://redmond.gov/TitleVI) 上查阅 | El aviso contra la discriminación está disponible en [redmond.gov/TitleVI](http://redmond.gov/TitleVI).