

2017

CITY OF RENTON

Water Quality Report

THIS REPORT IS WRITTEN AND DISTRIBUTED in compliance with the Federal Safe Drinking Water Act, which requires water utilities to provide annual “consumer confidence” reports to their customers. You will find in this report: where our drinking water comes from; what minerals or chemicals it contains; how it compares to stringent water quality standards; what Renton is doing to protect our water supply, as well as what we are doing to wisely use and conserve our regional water supply. Hopefully this report will help you better understand your drinking water. We assure you that providing high quality and safe drinking water is one of Renton’s highest priorities.

This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

Warbixintan waxay wadataa macluumaad muhiim ah ee la xiriira biyaha aad cabtid. Cid ha kuu tarjunto ama la hadi cid fahmaysa.

Karkari biyaha inta aadan isticmaalin.



Where Does Renton's Drinking Water Come From?

WHO DO I CALL?

Questions about this report:

Call Water Utility Engineering
425-430-7210

Water discoloration, taste or odor:

Call Water Quality at
425-430-7400 (7 a.m.–3:30 p.m.)

Or 425-430-7500 after hours or weekends

Report water pressure problems, water leak in the street or at a meter:

Call Water Maintenance at
425-430-7400 (7 a.m.–3:30p.m.)
or 425-430-7500 after hours or weekends

Moving and need to arrange a change of water service, or for general billing questions:

Call Utility Billing at
425-430-6852

EMERGENCIES: CALL 9-1-1



LET US KNOW WHAT YOU THINK!

Go online to savingwater.org and take our water conservation survey and enter to win a free home water and energy saving kit!

DURING THE YEAR 2016, Renton obtained its drinking water from four sources: five downtown wells, located in Liberty and Cedar River Parks, which draw water from the Cedar Valley Aquifer; Springbrook Springs, small springs located in south Renton; and from the Maplewood wellfield, located in the Maplewood Golf Course.

The fourth water source is the agreement to buy water from Seattle Public Utilities (SPU), which gets its supply from the Cedar and Tolt rivers. This source became available January 2012. During 2016, SPU provided approximately 32.2 million gallons of water that was used by the Renton Boeing plant. The SPU water is primarily a backup supply to be used mostly during summer peak use periods. In 2016, our combined water sources produced 2.55 billion gallons of water.

More information on the SPU source can be found on the Seattle Public Utilities website.

The water pumped from the downtown wells and Springbrook Springs sources is very clean and needs minimal treatment. Chlorine is added to destroy bacteria, parasites and viruses that could possibly enter our source water. Chlorine also

protects water in the distribution system in case there is a contamination event like a water main break or backflow incident. Sodium hydroxide is added to slightly raise the water's pH to help prevent the corrosion of household plumbing. In the areas of Renton Hill, Talbot Hill and West Hill, ortho polyphosphates are added to reduce the internal corrosion of old cast iron water mains that are found in these neighborhoods. Fluoride is also added to prevent tooth decay. The downtown wells produced 56.6% of our water in 2016. Springbrook Springs produced 21.3% of Renton's water in 2016.

2016 Renton per capita daily water consumption: 54.1 gallons

Water from the Maplewood wells is also very clean, but because of its naturally occurring minerals, it must first be treated before it is pumped into the distribution system. The treatment process consists of the removal of manganese, hydrogen sulfide, and ammonia from the source water. Chlorine is added to protect the water in the distribution system and fluoride is added to prevent tooth decay. The Maplewood wellfield's three wells produced 22.1% of our water in 2016.

Info from the Department of Health and EPA

TO ENSURE THAT TAP WATER IS SAFE TO DRINK, the Department of Health and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.

The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Frequently Asked Questions

Is our water hard or soft?

Renton’s water falls within the slightly hard range with about 3.0 grains per gallon of hardness. A water’s hardness is dependent upon the levels of two naturally occurring soluble minerals—calcium and magnesium. This means that dishwashing and clothes washing require relatively less soap than in other areas where the water is hard. Renton’s slightly hard water would be classified as containing 17.1 – 60 mg/L of magnesium and calcium.

WATER HARDNESS SCALE

Grains/Gal	mg/L & ppm	Classification
Less than 1	Less than 17.1	Soft
1–3.5	17.1–60	Slightly Hard
3.5–7	60–120	Moderately Hard
7–10	120–180	Hard
Over 10	Over 180	Very Hard



Does the City add fluoride to the water?

Yes. In 1985, the citizens of Renton voted to have fluoride added to the city’s drinking water. Fluoride levels were adjusted in 2016 to meet the Washington State Department of Health’s new recommended level of 0.7 ppm. More information on fluoride can be found on the [Center for Disease Control and Prevention](#) (CDC) website.

Can I use tap water in my aquarium?

Chlorine, Cl, is used to treat drinking water and is toxic to fish. Chlorine will dissipate if you let the water sit for a day or two. Use a water conditioner that removes chlorine to be on the safe side. Aquarium water conditioners are available at your pet store. Once the water has been “conditioned,” it is safe to use. Renton tap water is within the generally recommended aquarium water limits for nitrates, nitrites, fluoride and sodium. More information can be found [here](#).

What does Renton do to prevent lead in our water?

Renton does two things to prevent the corrosion from not only lead, but other metals such as copper and iron. First it adjusts the pH of the water to prevent the corrosion of household plumbing—the major possible source of lead in our water. Second, in areas of the city with cast iron water mains (Renton Hill, the Highlands and West Hill) ortho polyphosphates are added to prevent corrosion. To make sure this treatment is working, water is periodically tested at residential taps. This testing is in compliance with the Lead and Copper Rule. For more information, visit the [Washington State Department of Health](#) website.

THE EPA WANTS YOU TO KNOW

OUR DRINKING WATER comes from wells and springs. As our water travels through the ground to the wells, it can dissolve naturally occurring minerals as well as substances from human activity. 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.

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 microbial contaminants as well as 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**.



A one-gallon bottle of water purchased at the store costs the same as 388 gallons of Renton tap water—which is delivered with no bottles requiring disposal

Conservation is Good for Salmon and People



Want to Get Involved?

THE CITY OF RENTON WELCOMES YOUR INTEREST IN ITS WATER SYSTEM.

The Renton City Council is the city's decision-making body. The council meets on the first four Mondays of each month at 7 p.m. in the Council Chambers on the seventh floor of Renton City Hall.

The Utilities Committee oversees water utility issues. They meet the 2nd and 4th Thursdays at 3:30 p.m. in the 7th Floor Council Conference Room of Renton City Hall. The members of the Utilities Committee for 2017 are:

Chair: Ryan McIrvine

Vice-Chair: Ruth Pérez

Member: Randy Corman

Call the City Clerk's office at 425-430-6510 for meeting or agenda information or check the [city council calendar](#)

What You Need to Know About 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.

The City of Renton Water Utility 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 at 800-426-4791 or on the [United States Environmental Protection Agency](#) website.

Homes built before 1986 are more likely to have lead pipes, fixtures and solder.

The most common problem is with brass or chrome-plated brass faucets and fixtures that can leach lead into the water, especially hot water. Until three years ago, the legal limit for "lead-free" pipes was up to 8% lead. As of January 1, 2014, all newly installed water faucets, fixtures, pipes and fittings must meet new lead-free requirements, which reduces the amount of lead allowed to 0.25%. But that does not apply to existing fixtures, like those found in many older homes.

You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

Using a professional car wash saves water and protects the environment

In 2003, the Washington State Legislature passed the Municipal Water Law, to address the increasing demand on the state's water resources. The law established that all municipal water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help them meet future demand. The Water Use Efficiency Rule is part of this law and requires municipal water suppliers to report their goals and progress each year.

Water Use Efficiency Rule Update

RENTON SIGNED an agreement to buy water from Seattle Public Utilities in January 2012. As part of this agreement, the City of Renton joined the Saving Water Partnership (SWP). The Saving Water Partnership—which is made up of Renton and 18 water utility partners—has set a six-year conservation goal: reduce per capita use from current levels so that the SWP's total average annual retail water use is less than 105 mgd from 2013 through 2018 despite forecasted population growth. In 2016, the SWP met the goal using 94.4 mgd despite a hot summer.

2016 Highlights of the Regional Conservation Program

- » The SWP expanded youth education in 2016, conducting 39 classroom presentations in Renton for nearly 1,000 K-12 grade students. Topics included water efficiency, the water cycle, the salmon life cycle, water-wise gardening, the water supply system and Fix That Leak!. The program is a big hit among teachers and students.
- » The SWP provided rebates for Premium toilets for residential and commercial customers. These fixtures use 1.1 gallons of water per flush (or less), at least 20% less water than a regular WaterSense fixture.
- » The Single Family Toilet Rebate Program upgraded 27 toilets to Premium Toilet models.
- » The Multifamily Toilet Replacement Program upgraded nearly 570 toilets to Premium models.
- » The SWP completed financial incentive projects to upgrade water-using equipment in 40 businesses in 2016. A large hotel replaced 115 toilets with Premium models.
- » The SWP presented Savvy Gardener classes throughout the region. These classes were designed to inspire attendees to create and maintain healthy water-efficient landscapes.

Water Consumption and Losses

Renton's total water supply for 2016 was 2,551,342,000 gallons. Our distribution system losses (DSL), as calculated

and reported in the 2016 Water Use Efficiency (WUE) report to the State Department of Health, is our 3-year rolling average, which is 12.1%. Our distribution system leakage (DSL) for the calendar year 2016 was 11.6% or 300,935,335 gallons.

The DSL percentage is calculated: $DSL = ((TP - AC) / (TP)) \times 100$, where TP=total production and AC=authorized consumption. Our DSL losses reflects the amount of water (and potential revenue) that has been lost due to water theft, water main breaks, meter inaccuracies, etc.

Renton updated its "Water Loss Control Action Plan" in 2013, which is Appendix P of the 2012 Water System Plan. The city has a proactive and ongoing leak detection program.

Water Loss Control Action Plan

Since the three-year (2014-2016) annual average of the city's distribution system leakage exceeds 10%, we are required by state regulations to develop and implement a water loss control action plan.

The city is taking the following actions to identify and reduce water loss in the distribution system:

- » Continue the annual replacement of aging and leaky water mains at an average rate of 4,000 feet of pipe per

year as part of the capital improvement program.

- » Design and construct the replacement of two old reservoirs in the Renton Highlands that were built circa 1942 with a new 6.3 million gallon reservoir by 2020.
 - » Conduct leakage testing on old underground concrete water reservoirs and perform repairs of leaky joints on concrete floor and walls.
 - » Integrate advanced metering infrastructure (AMI) technology to detect leaks in distribution piping.
- » Continue to assess data accuracy, data collection methods, and errors.

Showering and bathing are the largest indoor uses (27%) of water domestically

Water Usage Data Now Available Online

Individual account water consumption history and usage data is available to all water service customers online. For all meters, year-to-year comparisons of monthly consumption can be viewed side-by-side. Access to this information is available by entering the meter serial number printed on your utility statement. Visit the city [water utilities usage](#) web page.

CITY OF RENTON 2016 WATER QUALITY DATA FOR THE 2017 CONSUMER CONFIDENCE REPORT

Downtown Wells, Springbrook Springs, and Maplewood Wellfield, sampled at the source after treatment

Detected Substance	Year Sampled	MCL	MCLG	Highest Amount (Range)	Possible Sources
Fluoride (see note 1)	2016	4 ppm	4 ppm	1.00 ppm (0.2 -1.0 ppm)	Water additive to prevent tooth decay
Sodium (see note 2)	2016	Not established	Not established	10 ppm	Erosion of natural deposits; water treatment
Nitrate	2016	10 ppm	10 ppm	2.2 ppm (0.4 – 2.2 ppm)	Fertilizer runoff; leaching from septic tanks; erosion of natural deposits
Lead	2016	15 ppb AL	0 ppb	0.001 ppb (ND-0.001 ppb)	Erosion of natural deposits; leaching from wood preservatives
Copper	2016	AL = 1.3 ppm	1.3 ppm	0.02 ppm (ND – 0.02 ppm)	Erosion of natural deposits; leaching from wood preservatives
Total Trihalomethanes	2016	80 ppb	Not Established	4.1 ppb (ND – 4.1 ppb)	Disinfection by-products

Sampling Points in the Water Distribution System

Detected Substance	Year	MCL or MRDL	MCLG or MRDLG	Average Amount (Range)	Possible Sources
Coliform Bacteria	2016	5% of samples positive per month	0%	0% (no samples positive)	Naturally present in the environment
Chlorine	2016	4 ppm (MRDL)	4 ppm (MRDLG)	0.90 ppm (0.20 – 1.35 ppm)	Additive to control microbes
Total Trihalomethanes	2016	80 ppb	Not established	14.45 ppb (10.0 – 18.9 ppb)	Disinfection by-products
Haloacetic Acids	2016	60 ppb	Not established	3.25 ppb (1.2 - 5.3 ppb)	Disinfection by-products

Residential Water Taps

Detected Substance	Year	90th Percentile	Action Levels	90th Percentile Value and Range	Possible Sources
Copper (see note 3)	2016	1.3 ppm	1.3 ppm	0.31 ppm (0.04 – 0.45 ppm)	Corrosion of plumbing systems; erosion of natural deposits
Lead (see note 3)	2016	15 ppb	0	1 ppb (ND – 2 ppb)	Corrosion of plumbing systems; erosion of natural deposits

NOTES

- Beginning in April 2016, the city lowered the fluoride level in the water system to 0.7 ppm with an operating tolerance of 0.5 ppm to 0.9 ppm to comply with the Washington State Board of Health's adoption and update of WAC 246-290-460, which established a new fluoride optimization level of 0.7 ppm effective May 9, 2016.
- The EPA recommends 20 ppm as a level of concern for people on a sodium-restricted diet. Renton adds sodium hydroxide to prevent corrosion of plumbing. Sodium hypochlorite is added to water from the Maplewood wells for disinfection and to remove naturally-occurring ammonia.
- Forty-one samples were tested for copper and lead. All of the samples tested had levels far below the action levels for both copper and lead.

SEATTLE PUBLIC UTILITIES 2016 WATER QUALITY MONITORING RESULTS

Since 2012, the city has purchased water from Seattle Public Utilities (SPU) to serve the Renton Boeing plant. Results of the 2016 water quality monitoring requirements performed by SPU for the Cedar and Tolt supplies are shown on the following table.

		EPA's Allowable Limits		Levels in Cedar Water		Levels in Tolt Water		
Detected Compounds	Units	MCLG	MCL	Average	Range	Average	Range	Typical Sources
RAW WATER								
Total Organic Carbon	ppm	NA	TT	0.8	0.3 to 2.1	1.4	1.2 to 1.7	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	0.3	ND to 2	ND	ND	Naturally present in the environment
FINISHED WATER								
Turbidity	NTU	NA	TT	0.3	0.2 to 2.3	0.07	0.01 to 0.2	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	0.5	0.4 to 0.6	Erosion of natural deposits
Barium	ppb	2000	2000	1.6	1.5 to 1.8	1.3	1.0 to 1.6	Erosion of natural deposits
Bromate	ppb	0	10	ND	ND	0.1	ND – 1	By-product of drinking water disinfection
Chromium	ppb	100	100	0.27	0.25 to 0.33	0.2	ND to 0.24	Erosion of natural deposits
Fluoride	ppm	4	4	0.7	0.6 to 0.9	0.7	0.6 to 0.9	Water additive, which promotes strong teeth
Nitrate	ppm	10	10	0.02	(one sample)	0.09	(one sample)	Erosion of natural deposits

* *Cryptosporidium* was not detected in any samples from the Tolt supply (12 samples). It was detected in 2 of 12 samples from the Cedar supply.

DEFINITIONS

AL: *Action Level* – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which 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.

NA: Not Applicable

ND: *Not Detected*

NTU: *Nephelometric Turbidity Unit* - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2016 is 5 NTU, and for the Tolt supply it was 0.3 NTU for at least 95% of the samples in a month. One-hundred percent of the samples from the Tolt in 2016 were below 0.3 NTU.

ppb (*parts per billion*): One part per billion is equivalent to ¼ of a dissolved aspirin tablet in 1000 full bathtubs of water (approximately 50,000 gallons of water).

ppm (*parts per million*): One part per million is equivalent to ¼ of a dissolved aspirin tablet in a full bathtub of water (approximately 50 gallons of water).

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

1 ppm = 1000 ppb

RENTON WATER UTILITY FACTOIDS

Total Number of Metered Connections
18,037

Number of Water Supply Sources in Operation in 2016

9 WELLS, 1 SPRING AND SEATTLE PUBLIC UTILITIES

Amount of Water Produced from all Sources in 2016

2,551,342,000 GALLONS

Amount of Water Produced on Average Day

6,970,880 GALLONS

Amount of Water Produced on High Demand Day (July 29, 2016)

12,751,000 GALLONS

Amount of Water Produced on Low Demand Day (Jan 18, 2016)

4,701,000 GALLONS

Total Miles of Water Main in Service

311 MILES

REBATE ROUNDUP!



Commercial, Industrial & Institutional

Residential

TOILETS

\$100 rebate towards a Premium 1.1 gpf (or less) toilet

SPRINKLER SYSTEM UPGRADES

Irrigation Timer
(one acre of irrigated area or less)

- » \$100 rebate for one WaterSense certified irrigation timer

Irrigation Utility Billing Analysis
(one+ acre of irrigated area)

Billing, Consumption and ROI Analysis

Landscape Rebate
(one+ acre of irrigated area)

- » Up to 50% of the cost for irrigation upgrades that save water. Upgrades include irrigation technologies such as sprinkler heads, rain sensors, scheduling devices, controllers, etc. that improve the water efficiency of an existing irrigation system.

Apartment and Condominium Owners

MULTIFAMILY TOILET REPLACEMENT

\$100 rebate per toilet towards 1.1 gpf or less Premium toilets

SPRINKLER SYSTEM UPGRADES

Irrigation Timer
(one+ acre of irrigated area)

- » \$100 rebate for one WaterSense certified irrigation timer

Irrigation Utility Billing Analysis
(one+ acre of irrigated area)

Billing, Consumption and ROI Analysis

Landscape Rebate
(one+ acre of irrigated area)

- » Up to 50% of the cost for irrigation upgrades that save water. Upgrades include irrigation technologies such as sprinkler heads, rain sensors, scheduling devices, controllers, etc. that improve the water efficiency of an existing irrigation system.

FLUSH VALVE TOILETS AND URINALS

\$100 per fixture for replacing older flush valve toilets and urinals with high efficiency toilets (HET) and WaterSense approved urinals

TANK TOILET

Get a \$100 rebate towards replacing old toilets with WaterSense labeled or Premium 1.1 gpf or less

REFRIGERATION

Up to 50% of the installed cost for water saving projects to replace:

- » Single-pass air conditioning
- » Single-pass refrigeration
- » Oil coolers on Carrier Chillers
- » Once-through process cooling including air compressors or other non-recirculating flows
- » Any other non-recirculating water-cooled equipment

KITCHEN EQUIPMENT

Rebates for steamers, dishwashers and ice machines

- » Up to \$750 to install Energy Star food steamers
- » Up to \$1,500 to install Energy Star dishwashers
- » Up to \$300 to install top tier CEE-rated commercial ice makers

MEDICAL EQUIPMENT

Rebates up to 50% for upgrading:

- » Steam sterilizers/ autoclaves
- » Medical air and vacuum systems
- » Other medical equipment

COMMERCIAL LAUNDRY

\$300 rebates for efficient coinop machines (Tier3) or up to 50% of large system improvements

SPRINKLER SYSTEM UPGRADES

Irrigation Timer (one acre of irrigated area or less)

- » Commercial, industrial, and institutional customers with less than one acre of irrigated area may be eligible to receive a \$100 rebate for one WaterSense certified irrigation timer

OTHER TECHNOLOGIES

Receive up to 50% of the installed cost for watersaving projects. Commercial rain water harvesting efforts are not eligible for incentives at this time.

More Information and Applications:
[Saving Water Partnership](#)

This [2017 Water Quality Report](#) is easily accessible on the City of Renton website.

Previous years can be found [here](#).

