

2018

CITY OF RENTON

# WATER QUALITY REPORT



# RENTON'S WATER SOURCE

**DURING THE YEAR IN 2017**, Renton obtained its drinking water from four sources: six downtown wells, located in Liberty and Cedar River Parks, which draw water from the Cedar Valley Aquifer; Springbrook Springs, a small spring located in south Renton; and from the Maplewood wellfield, located at 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 in January 2012. During 2017, SPU provided approximately 42 million gallons of water that was used by the Renton Boeing plant. The SPU water is primarily a backup supply for use mainly during summer peak use periods. In 2017, our combined water sources produced 2.61 billion gallons of water.

More information is available on the [SPU](#) website.

The water pumped from the downtown wells and Springbrook Springs 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 pH of the water to help prevent the corrosion of household plumbing, and ortho polyphosphates are added to reduce the internal corrosion of old cast iron water mains that are found in the neighborhoods of Renton Hill, Talbot Hill, and West Hill. Fluoride is added to prevent tooth decay. The downtown wellfield produced 62.8% of our water in 2017. Springbrook Springs produced 15.2% of Renton's water in 2017.

Water from the Maplewood wells is also very clean, but because of 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 produced 22% of our water in 2017.

## CURRENT PROJECTS



**KENNYDALE RESERVOIR**



**HIGHLANDS RESERVOIR**

Construction of the new Kennydale reservoir is scheduled to begin spring 2019. This 1.3 million-gallon facility will be built behind the new Kennydale Fire Station 15 and is anticipated to be completed in July 2021.

The City of Renton is also moving forward with the final design and construction of a new 6.3 million-gallon reservoir at the existing Renton Highlands site. Construction will begin in late 2019 and will take about two years to complete. Both reservoirs will increase water supply reliability and storage capacity for fire protection and household uses.

# FREQUENTLY ASKED QUESTIONS

## 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.

## How do I know how much water I use?

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 in our [online form](#).

## 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.



## Is our water hard or soft?

Renton's water falls within the slightly hard range with about 2.9 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.

## How can I get involved?

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 seventh floor Council Conference Room of Renton City Hall. The members of the Utilities Committee for 2018 are:

- Chair: Carol Ann Witschi
- Vice-Chair: Ryan McIrvine
- Member: Randy Corman

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

## WHO DO I CALL?

### Questions about this report:

Water Utility Engineering at 425-430-7287

### Water discoloration, taste, or odor:

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

### To report water pressure problems, water leak in the street, or at a meter:

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

Moving and need to arrange a change of water service or for general billing questions: Utility Billing at 425-430-6852

**EMERGENCIES: CALL 911**



**A RUNNING TOILET CAN  
WASTE UP TO 200 GALLONS  
OF WATER PER DAY!**

# WATER AND YOUR HEALTH

## LEAD AND YOUR HEALTH

**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 two minutes before using water for drinking or cooking.

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.

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 [online](#).

Homes built before 1986 are more likely to have lead pipes, fixtures, and solder. The most common problem is brass or chrome-plated brass faucets and fixtures that can leach lead into the water, especially hot water. Until four 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 these requirements do not apply to existing fixtures, such as those found in many older homes.

### RENTON WATER UTILITY FACTS

Total metered connections  
**18,051**

Number of water supply sources in operation in 2017  
**9 WELLS, 1 SPRING, AND SEATTLE PUBLIC UTILITIES**

Water produced from all sources in 2017  
**2,611,122,633 GALLONS**

Water produced on average day  
**7,153,761 GALLONS**

Water produced on high demand day (August 6, 2017)  
**13,098,000 GALLONS**

Water produced on low demand day (February 15, 2017)  
**3,785,000 GALLONS**

Total miles of water main in service  
**313 MILES**

## RENTON'S LEAD PREVENTION

**RENTON WORKS TO PREVENT** the corrosion of 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, Highlands, and West Hill) ortho poly-phosphates 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. More information is available on the [Washington State Department of Health](#) website.

## A MESSAGE FROM THE EPA



**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. Environmental Protection Agency (EPA) and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 800-426-4791.

**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.

## WATER CONSERVATION CHECKLIST

### INDOOR:

- Scrape, do not rinse, dishes before using a dishwasher.
- Turn off the tap while brushing your teeth or shaving.
- Choose five-minute showers instead of baths.
- Always run full laundry and dish loads.
- Use the garbage disposal sparingly. Compost instead!
- Thaw frozen food in the fridge, not by running water.
- Replace worn washers and gaskets in faucets and showerheads. Replace damaged toilet flappers.
- Use efficient showerheads, faucets, toilets, aerators, washing machines, and dishwashers. Look for WaterSense or Energy Star labels.
- Learn to fix leaks with videos at [savingwater.org](http://savingwater.org)

### OUTDOOR:

- Avoid evaporation. Water in the morning and late at night.
- Inspect your irrigation system for leaks.
- Water plants deeply, but less frequently. This encourages deep roots!
- Put a thick layer of mulch around your plants.
- Select plant varieties that require little water.
- Let low-use lawn areas go brown and dormant. Water once a month. They will bounce back in fall!
- Check the soil before watering. Use a finger or trowel to see if the soil is damp a few inches down. Water if dry.
- Keep an eye out for unusually damp or green patches in your yard. These could be a sign of an underground leak.

FOR TIPS, HOW-TO VIDEOS, AND MORE WAYS TO CONSERVE WATER VISIT: [SAVINGWATER.ORG](http://SAVINGWATER.ORG)

## KEEP OUR SALMON SWIMMING!

**MAY AND JUNE SIGNAL** the start of summer, and peak water use season—the time when rain stops and people use more water in their yards and gardens. It is especially important to conserve water in summer and fall when stream flows are lowest. Your actions can save money on your water bill and protect salmon and their freshwater habitat. If you want to see salmon in the streams, look for the Salmon SEEs on campaign this fall. Get the latest on when and where the fish will be. Thank you for using water wisely!

### HOW CAN YOU HELP THE SALMON?

**OIL AND CHEMICALS:** Never dump oil or other chemicals down storm drains. Make sure these pollutants are not leaking onto driveways or other paved surfaces to avoid them being washed into waterways.

**PRESSURE WASHING:** Pressure wash with water alone or with an organic recipe if needed; keep paint flakes, grease, and other pollutants from washing into storm drains, ditches, or waterways.

**CAR WASHING:** Use automatic car washes that recycle water and properly dispose of detergents. Salmon do not like soap!

**SWEEP PAVED AREAS:** Sweep sidewalks and driveways instead of hosing. Put sweepings in the garbage to prevent pollutants and debris from entering streams.



# 2017 RENTON WATER QUALITY RESULTS

## 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 <sup>1</sup> (ppm)	2017	4	4	0.85 (0.5-0.85)	Water additive to prevent tooth decay
Nitrate (ppm)	2017	10	10	2.2 (0.3-2.2)	Fertilizer runoff; leaching from septic tanks; erosion of natural deposits
Total Trihalomethanes (ppb)	2017	80	Not established	4.9 (ND-4.9)	Disinfection by-products
Lead (ppb)	2016 <sup>2</sup>	15*	0	ND (one sample)	Erosion of natural deposits; leaching from wood preservatives
Copper (ppm)	2016 <sup>2</sup>	1.3*	1.3	0.02 (one sample)	Erosion of natural deposits; leaching from wood preservatives
Sodium <sup>3</sup> (ppm)	2016 <sup>2</sup>	Not established	Not established	10 (one sample)	Erosion of natural deposits; water treatment

\*Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the Lead & Copper Rule

## Sampling Points in the Water Distribution System

Detected Substance	Year Sampled	MCL or MRDL	MCLG or MRDLG	Average Amount (Range)	Possible Sources
Total Coliform Bacteria (%)	2017	5% of samples positive per month	0%	0% (no samples positive)	Naturally present in the environment
Chlorine (ppm)	2017	4 (MRDL)	4 (MRDLG)	0.87 (0.22-1.30)	Additive to control microbes
Total Trihalomethanes** (ppb)	2017	80	Not established	13.1 (5.3-20.8)	Disinfection by-products
Haloacetic Acids** (ppb)	2017	60	Not established	6.9 (ND-6.9)	Disinfection by-products

\*\* In 2016, Renton qualified for reduced monitoring for total trihalomethanes and haloacetic acids. Sampling occurs at two sites once a year.

## Residential Water Taps

Detected Substance	Year Sampled	90th Percentile	Action Levels	90th Percentile (Range)	Possible Sources
Copper <sup>4</sup> (ppm)	2016 <sup>2</sup>	1.3	1.3	0.31 (0.04-0.45)	Corrosion of plumbing systems; erosion of natural deposits
Lead <sup>4</sup> (ppb)	2016 <sup>2</sup>	15	0	1 (ND-2)	Corrosion of plumbing systems; erosion of natural deposits

1. 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.
2. The water quality information presented is from the most recent testing within the last five years.
3. 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.
4. There were 41 samples tested for copper and lead. All of the samples tested had levels far below the action levels for both copper and lead.

## 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.

**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 2017 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 2017 were below 0.3 NTU.

**ppb:** *1 part per billion* = 1 ug/L = 1 microgram per liter. 1 ppm = 1000 ppb.

**ppm:** *1 part per million* = 1 mg/L = 1 milligram per liter. 1 ppm = 1000 ppb.

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

# 2017 SEATTLE PUBLIC UTILITIES WATER QUALITY RESULTS

Since 2012, the city has purchased water from Seattle Public Utilities (SPU) to serve the Renton Boeing plant. Results of the 2017 water quality monitoring requirements performed by SPU for the Cedar River and Tolt River sources are shown below.

Detected Substance	EPA's Allowable Limits		Levels in Cedar Water		Levels in Tolt Water		Possible Sources
	MCL	MCLG	Average	Range	Average	Range	
<b>RAW WATER</b>							
Total Organic Carbon (ppm)	TT	NA	0.8	0.3-1.5	1.2	1.1-1.3	Naturally present in the environment
<b>FINISHED WATER</b>							
Turbidity (NTU)	TT	NA	0.3	0.2-2.5	0.04	0.01-0.2	Soil runoff
Arsenic (ppb)	10	0	0.5	0.4-0.6	0.4	0.3-0.5	Erosion of natural deposits
Barium (ppb)	2000	2000	1.7	1.4-1.9	1.4	1.1-1.7	Erosion of natural deposits
Bromate (ppb)	10	0	0.04	ND-1	0.25	ND-2	By-product of drinking water disinfection
Chromium (ppb)	100	100	0.27	0.25-0.33	0.2	ND-0.24	Erosion of natural deposits
Fluoride (ppm)	4	4	0.7	0.3-0.9	0.7	0.6-0.8	Water additive, which promotes strong teeth

**Note:** *Cryptosporidium* was not detected in any samples from the Cedar or Tolt supplies (3 samples each).

## WATER USE EFFICIENCY RULE UPDATE

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.

**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 SWP is made up of Renton and 18 water utility partners that have 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. For 2017, the SWP met the goal, using 96.6 mgd.

### 2017 Regional Conservation Program Highlights

- In 2017, the SWP youth education program conducted 500 in-classroom presentations to nearly 12,000 K-12 students. Topics included water efficiency, the water cycle, the salmon life cycle, water-wise gardening, Fix That Leak!, and the water supply system. The program was a big hit among teachers and students.
- The SWP continued the sprinkler timer rebate program. Approximately 220 customers replaced inefficient sprinkler timers with new WaterSense labeled timers.
- 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 700 toilets to Premium Toilet models and the Multifamily Toilet Replacement Program upgraded nearly 3,190 toilets to Premium models.
- The SWP presented 13 Savvy Gardener classes at four locations in spring and fall 2017 with 365 attendees. These classes were designed to inspire the creation and maintenance of healthy, water-efficient landscapes.

### Water Consumption and Losses

Renton's total water produced and purchased in 2017 was 2,653,512,496 gallons. Our distribution system leakages (DSL) as calculated and reported in the 2017 Water Use Efficiency (WUE) report to the State Department of Health are a 3-year rolling average, which is 11.6%. Our DSL for the 2017 calendar year was 10.5%, or 279,663,728 gallons, which is a 1.1% reduction from 2016. Our DSL reflects the amount of water (and potential revenue) that has been lost due to water theft, water main breaks, meter inaccuracies, and other causes.

### Water Loss Control Action Plan

Since the three-year (2015-2017) annual average of the city's distribution system leakage exceeds 10%, we are required by the state to develop and implement an action plan. The city is taking the following actions, among others, to identify and reduce water loss in the distribution system:

- Continue the annual replacement of aging and leaky water mains.
- Conduct leak testing on old underground water reservoirs and repair leaky joints on concrete floor and walls.
- Continue using Advanced Metering Infrastructure (AMI) technology to detect leaks.

# SAVE MONEY WITH REBATES!



## RESIDENTIAL

### TOILETS

- \$100 rebate towards Premium 1.1 gpf or less toilets (maximum 2 toilets).

### SPRINKLER SYSTEM UPGRADES

#### Sprinkler Timer

- \$100 rebate for one WaterSense labeled sprinkler timer.

#### Irrigation Utility Billing Analysis (one+ acre)

- Billing, consumption, and ROI analysis.

#### Landscape Rebate (one+ acre)

- 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.

## APARTMENTS AND CONDOMINIUMS

### TOILETS

- \$100 rebate towards Premium 1.1 gpf or less toilets.

### SPRINKLER SYSTEM UPGRADES

#### Sprinkler Timer

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#### Irrigation Utility Billing Analysis (one+ acre)

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#### Landscape Rebate (one+ acre)

- 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.

**INFORMATION ABOUT APPLICATIONS AND COMMERCIAL REBATES, VISIT: [savingwater.org/rebates](http://savingwater.org/rebates)**

**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; and 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.

**WATER QUALITY REPORTS  
CAN BE FOUND ONLINE AT:**

[rentonwa.gov/waterquality](http://rentonwa.gov/waterquality)

**TELL US WHAT YOU THINK  
ABOUT USING WATER WISELY!**

Go to [savingwater.org](http://savingwater.org) and take the survey and enter to win a free home water and energy saving kit!

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 hadl cid fahmaysa.

Karkari biyaha inta aadan isticmaalin.

