

City of  
**Renton**



# WATER

## City of Renton 2013 Water Quality Report

The Federal Safe Drinking Water Act requires water utilities to provide an annual “consumer confidence” report to their customers.

### In this report you will find:

- The source of your drinking water
- What minerals or chemicals it contains
- How it compares to stringent water quality standards
- What Renton is doing to protect our water supply
- Update on our Water Use Efficiency goals

[rentonwa.gov/CCR2013](http://rentonwa.gov/CCR2013)

## **2012 Water Facts**

**Total number of  
metered connections  
in Renton:  
17,422**

**Population within  
retail service area:  
62,100**

**Total population:  
93,910**

**Number of supply  
sources:  
9 wells, 1 spring**

**Water produced  
from all sources in  
operation:  
2,372,782,500  
gallons**

**Water produced on  
average day:  
6,483,012**

**Water produced on  
highest demand day  
Sept. 7, 2012:  
11,445,000 gallons**

**Water produced on  
lowest demand day  
February 11, 2012:  
4,627,000 gallons**

**Total miles of water  
main in service:  
306 miles**



## **Where Does Renton's Drinking Water Come From?**

During 2012, Renton obtained its drinking water from three sources: five downtown wells, located in Liberty and Cedar River Parks, which draw water from the Cedar Valley Aquifer; Springbrook Springs, a small springs located at the south Renton; and from the Maplewood wellfield, located in the Maplewood Golf Course. In 2012, our combined water sources produced 2.37 billion gallons of water.

Another potential water source is the agreement to buy water from Seattle Public Utilities (Cedar and Tolt rivers). This source became available January 2012. During 2012 this source provided approximately 1.6% of the City's water. The SPU water will be primarily a backup supply used mostly during summer peak use periods for some years to come.

The water pumped from the downtown wells and Springbrook Springs sources is very clean and needs minimal treatment. Chlorine is added to destroy bacteria and viruses that possibly can 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. Because the water from our downtown wells and Springbrook Springs is naturally soft, sodium hydroxide is added to help prevent the corrosion of household plumbing. Fluoride is also added to prevent tooth decay and, 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.

Water from the Maplewood wells is also very clean, but because of its naturally occurring substances, 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.

## **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 City Hall. Call the City Clerk's office at 425-430-6510 for meeting or agenda information or check the City Council calendar at Renton's website: [rentonwa.gov/government](http://rentonwa.gov/government)

## Notes From The EPA

### Health Information

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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (1-800-426-4791).



### Special Information Available

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 are available from the Safe Drinking Water Hotline (1-800-426-4791).

### Lead Info

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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 thirty seconds to two 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 (1-800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

## Who Do I Call?

### Questions about this report:

- Call Water Utility Engineering at 425-430-7287

### Water discoloration, taste or odor:

- Call Water Quality at 425-430-7400 (7 a.m. to 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:

- Call Water Maintenance at 425-430-7400 (7 a.m. to 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:

- Call Utility Billing at 425-430-6852

**Emergencies: Call 9-1-1**



### Typical Single-Family Home Water Use



The results of our 2012 water quality monitoring requirements are shown in the following tables. These data are for substances regulated by federal and state agencies. The Water Quality staff regularly monitors for over 100 substances, to make sure our drinking water is safe. The substances listed in the tables below are the only ones that were detected above the Washington Department of Health reporting levels.

**DOWNTOWN WELLS, SPRINGBROOK SPRINGS, AND MAPLEWOOD WELLFIELD  
SAMPLED AT THE SOURCE AFTER TREATMENT**

Detected Substance	Year	MCL	MCLG	Highest Amount (Range)	Possible Sources
Fluoride (see note 1)	2012	4 ppm	4 ppm	1.1 ppm (0.6 – 1.1 ppm)	Water additive to prevent tooth decay
Sodium (see note 2)	2010	Not established	Not established	20 ppm (8 – 20 ppm)	Erosion of natural deposits; Water treatment
Nitrate	2012	10 ppm	10 ppm	2.1 ppm (0.3 – 2.1 ppm)	Fertilizer runoff; Leaching from septic tanks, Erosion of natural deposits
Copper	2010	AL = 1.3 ppm	1.3 ppm	0.1 ppm (ND – 0.1 ppm)	Erosion of natural deposits; Leaching from wood preservatives
Total Trihalomethanes	2012	80 ppb	Not established	2.7 ppb (ND – 2.7)	Disinfection byproduct

**SAMPLING POINTS IN THE WATER DISTRIBUTION SYSTEM**

Detected Substance	Year	MCL or MRDL	MCLG or MRDLG	Average Amount (Range)	Possible Sources
Coliform Bacteria	2012	5% of samples positive/month (MCL)	0% (MCLG)	0% (no samples positive)	Naturally present in the environment
Chlorine	2012	4 ppm (MRDL)	4 ppm (MRDLG)	0.95 ppm (0.06- 1.77 ppm)	Additive to control microbes
Total Trihalomethanes	2012	80 ppb (MCL)	Not established	16.6 ppb (2.0 – 21.4 ppb)	Disinfection byproduct
Haloacetic Acids	2012	60 ppb (MCL)	Not established	7.2 ppb (ND – 7.7 ppb)	Disinfection byproduct

**RESIDENTIAL WATER TAPS**

Detected Substance	Year	Action Level	MCLG	90th Percentile Value and Range	Possible Sources
Copper (see note 3)	2010	1.3 ppm	1.3 ppm	0.77 ppm (0.06 – 1.00 ppm)	Corrosion of plumbing systems; Erosion of natural deposits
Lead (see note 3)	2010	15 ppb	0	2 ppb (0 – 4 ppb)	Corrosion of plumbing systems; Erosion of natural deposits

**Notes:**

1. Renton also measures fluoride levels daily in the distribution system. In 2011, Renton established the goal to maintain fluoride at a level of 0.8 ppm, which is the new level recommended by the Washington State Department of Health. Renton citizens voted to add fluoride to the drinking water in 1985.
2. 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.
3. Fifty-two (52) samples were tested for copper and lead. Ninety percent of the samples tested (47 samples) had levels at or below the value shown. Ten percent of the samples tested (5 samples) had levels above this value.



In January 2012, the City of Renton began a 50-year (2012-2062) water supply contract with Seattle Public Utilities (SPU) to provide the City of Renton with long-term water to meet the City's future needs. Total of 1.6% of the City's water was supplied by the SPU source in 2012. The results of the 2012 water quality monitoring requirements conducted for water provided by SPU from the Cedar River and Tolt River sources are shown in the following table.

SEATTLE PUBLIC UTILITIES 2012 WATER QUALITY MONITORING RESULTS								
Detected Compounds	Units	EPA's Allowable Limits		Levels in Cedar Water		Levels in Tolt Water		Typical Sources
		MCLG	MCL	Average	Range	Average	Range	
<b>RAW WATER</b>								
Total Organic Carbon	ppm	NA	TT	0.7	0.4 to 1.1	1.2	1.1 to 1.4	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	ND	ND	Naturally present in the environment
<b>FINISHED WATER</b>								
Turbidity	NTU	NA	TT	0.3	0.2 to 2.3	0.06	0.04 to 0.38	Soil runoff
Barium	ppb	2000	2000	1.8	(one sample)	1.9	(one sample)	Erosion of natural deposits
Cadmium	ppb	5	5	ND	(one sample)	0.35	(one sample)	Erosion of natural deposits
Fluoride	ppm	4	4	0.8	0.7 to 0.9	0.8	0.7 to 0.9	Water additive, which promotes strong teeth
Nitrate	ppm	10	10	0.02	(one sample)	0.13	(one sample)	Erosion of natural deposits

\* *Cryptosporidium* was not detected in any samples from the Cedar or Tolt (3 samples each supply)

## Definitions:

**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 MCLGs as feasible using the best available treatment technology.

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

**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.

**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.

**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)

**ND: Not Detected**

**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 turbidity MCL that applied to the Cedar supply in 2012 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2012 were below 0.3 NTU.

**NA: Not Applicable**



## Water Use Efficiency Rule Update for 2012

*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.*



### Goals

On November 19, 2007, Renton City Council adopted three water use efficiency goals developed at a public forum held on November 9, 2007:

1. Reduce the distribution system leakage to 10% or less by 2010.
2. Limit the peak day water demand to 16.5 million gallons per day (MGD) or less through 2015.
3. Continue reduction of the average annual domestic water use per customer connection by one-half percent per year.

These goals were to be in effect for six years, until November 2013, unless they were replaced or renewed prior to that date.

January 2012, the City of Renton joined the Saving Water Partnership (SWP), a collaboration of 19 local water utilities who provide water conservation programs in Seattle and King County. During 2012, the City participated in the Partnership's conservation programs and will formally adopt the 2013-18 SWP regional goal in 2013, which will replace our current goals.

### Efforts taken by the city to achieve the three water use efficiency goals.

1. *Reduce the distribution system leakage (DSL) to 10% or less by 2010.*  
In 2012, 2.41 billion gallons of water were produced from all water sources. The DSL for 2012 was 7.7%. This equates to a 11.2% rolling average over the past 3 years. This is still short of our goal of 10%, but an improvement over last year's 12% DSL. The DSL includes: "real losses" such as leaking and broken pipes; and "apparent losses" such as meter inaccuracies, data billing errors, tampering of meters and hydrants, and the flushing and cleaning of mains and reservoirs. We should easily reach 10% rolling average in 2013. This continued three year DSL decline confirms that our Water Control Action Plan (Appendix P of the 2012 Water System Plan) is working as the city continues to take necessary steps to reduce all water losses.
2. *Limit the peak day water demand to 16.5 million gallons per day or less through 2015.* On September 7, 2012, the city's water supply sources experienced its highest peak day water demand of 11.4 million gallons – well below the 16.5 MGD goal maximum.
3. *Continue reduction of the average annual domestic water use per customer connection by one-half (0.5%) percent per year.* The average per connection residential customer water use in 2012 (compared to 2011 usage) was approximately 1.6% decrease from 2011. This exceeds the WUE goal of 0.5% reduction. This decrease in per



connection residential water consumption was despite the fact that, during the 2012 growing season (May through September), there were 8.6% more growing degree days (GDD)\* than in 2011 and 0.07 fewer inches of rain. The greatest decrease was in the single family use.

## Saving Water Partnership Regional Efforts

The Saving Water Partnership has set a regional conservation target of 11 million gallons per day of cumulative annual average savings from 2000 through 2010 and a target of 15 MGD cumulative annual average savings from 2011 through 2030.

### Progress in Reaching Goals

In 2012, the Saving Water Partnership achieved an estimated 0.78 mgd of annual average savings. The regional WUE goal includes demand reduction from the SWP conservation program and, for 2011 and 2012, customer price response to water and consumption-based sewer rates over the combined SWP service area. Since 2000, the program has achieved an estimated 11.78 mgd of savings.

**Perspective on Savings:** Regional water consumption has decreased by 19 percent since 2000, when the Saving Water Partnership was formed. Our water consumption is as low as it was in the late 1950s, even though our population has grown by more than 80 percent since then.

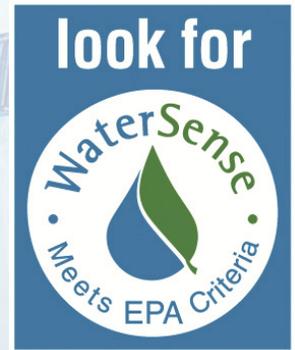
The Regional Conservation Program offers customers many ways to conserve. In all or part of 2012, rebates were available for:

- Single family residential customers: Automatic irrigation system upgrades, WaterSense toilets.
- Multifamily property owners: WaterSense toilets, Coin-op laundry, Irrigation system upgrades.
- Business customers: Commercial toilets and urinals, Commercial laundry, Food steamers, Cooling and refrigeration systems, Medical equipment, Irrigation systems, Process water improvements, Other water use technologies.

Educational messages reminded customers about actions to take that save water, for example:

- Find and fix toilet and faucet leaks – In addition to direct mail and TV ads, 5 “fix a leak” videos were translated into Chinese, Somali, Spanish and Vietnamese, and published on our web site.
- Install efficient toilets.
- Mulch garden beds to retain moisture longer.
- Plant the “Right Plant in the Right Place” for healthier gardens.
- Plant trees, shrubs and perennials in the fall so they can develop stronger roots before next year’s dry summer weather.
- Attend free Savvy Gardener classes to create and maintain healthy landscapes that are good for families and for the environment.

*\*Growing Degree Day (GDD): one degree of departure, on a single day, of the daily mean temperature from a given standard temperature; GDD is based on 50° F measured May 1- October 1. This provides a relative measure of plant water demand based on temperature.*



## Healthy Rivers, Fish, and You

Summer is the peak season for water use—the time when rainfall is considerably less frequent and people use more water in their yards and gardens. It is especially important to conserve water in summer and fall, when streams are at their lowest. Your actions can save money on your water bill and protect salmon and their freshwater habitat. Your conservation actions make a difference!



Sockeye



Coastal Cutthroat Trout



Chum



Chinook



Coho



Steelhead



Pink

### About This 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; and what Renton is doing to protect our water supply. We hope this report will help you better understand your drinking water. We would also like to assure you that providing high quality and safe drinking water is one of Renton’s highest priorities.*

This year your 2013 water quality report is easily accessible online at:

[rentonwa.gov/CCR2013](http://rentonwa.gov/CCR2013)

Or, if you would prefer, call 425-430-7287 or email [hweagraff@rentonwa.gov](mailto:hweagraff@rentonwa.gov) and we will print and mail a copy to you.



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