Water Use Efficiency Rule Update

On November 19, 2007, the Renton City Council adopted three water use efficiency goals developed through a public forum held on November 9, 2007. New goals will be set as part of our 2012 water system plan update. Efforts taken by the city to achieve the three water use efficiency goals are:

1 Reduce the distribution system leakage (DSL) to 10% or less by 2010.
In 2009, 2,769 million gallons (MG) of water were withdrawn from all water supply sources, while metered consumption was 2,296 MG. This difference reflects a 17% distribution system loss (DSL). This is an improvement over 2008's 19% DSL, but still short of our goal. The DSL include: "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.

The city continues to take necessary steps to reduce all water losses. In 2009 we:
- Conducted an acoustic leak detection survey to pinpoint leaks on 33 miles of water mains and repaired 15 water mains.
- Investigated 236 possible leak reports and repaired 1,093 meters and leaks.
- Systematically replaced old, rust and leaking water pipes to maintain water quality and provide adequate flow for fire protection.
- Continued evaluating the implementation of an automatic meter reading (AMR) system. Such a system would allow for quick detection and customer notification of leaks on the customer side of the city water mains.

2 Limit the peak day water demand to 16.5 million gallons per day or less through 2015.
On July 29, 2009, the city's water supply sources produced a total peak day water demand of 14.8 million gallons – below the 16.5 mgpd goal maximum.

3 Continue reduction of the average annual water use per customer connection by one-half (0.5%) percent per year.
The average per connection residential customer water use increased in 2009 (compared to 2008 usage) by 1.5%. Although this is a disappointment, the summer of 2009 was unusually hot, with rainfall in June and July only a fraction of the rainfall for these months in 2008. When per connection consumption is based on cooling degree days (CDD) there was a 43% reduction; if based on growing degree days (GDD), per connection consumption reduced by 14.3% from 2008 to 2009.*

The WashWise program provided financial rebates to 372 residential water customers who had purchased water saving clothes washers. This represents 2.84 million gallons of water saved. Kitchen faucet aerators were also provided to customers who requested them. An annual water savings of approximately 3.1 million gallons was realized from the installation of 400 1.5-gpm aerators.

*Degree Day: one degree of departure, on a single day, of the daily mean temperature from a given standard temperature; here, CCD is based on 65ºF and GDD based on 50ºF measured May 1 –October 1. These provide a relative measure of human (CCD) and plant (GDD) water demand based on temperature. For more info: www.wunderground.com

Let Us Help You Save Water!

The average kitchen faucet flows at a rate of 2.2 gallons per minute (gpm)—not bad, but you can do better! With a flow aerator the flow can be reduced to 1.5 gpm while increasing the power of the water stream. In practical terms, this means you get your rinsing done quicker while using 30% less water—and if you're rinsing with hot water you save energy too. The aerator easily adjusts from spray to solid stream and swivels 360° to easily rinse those awkwardly large pans and all four corners of the sink.

Complete the coupon and bring it to the Utility Billing Office (first floor lobby) at City Hall (1055 S Grady Way) and we will give you a free kitchen sink swivel aerator.

Free Aerator
(While supplies last)

First Name _____

Last Name _____

Water Service Address

Street: _____

City: _____

look for WaterSense Meets EPA Criteria

Save water and protect the environment by choosing WaterSense labeled products. Products bearing the WaterSense label will:
- Perform as well or better than less efficient counterparts.
- Be about 20 percent more water-efficient than average products in that category.
- Provide measurable water savings results.
- Achieve water efficiency through several technology options.
- Be independently certified.

City of Renton
Public Works Department
1055 South Grady Way
Renton, WA 98057

PRESORTED STANDARD
U.S. POSTAGE PAID
RENTON, WA
PERMIT NO. 137

ECRWSS RESIDENTIAL CUSTOMER

Who Do I Call?

Questions about this report
call Water Utility Engineering 425-430-7287

Water discoloration, taste or odor
Call Water Quality at 425-430-7400 (7:00 a.m. to 3:30 p.m.)
Or call 425-430-7500 after hours or weekends

To report water pressure problems,
water leak in the street or at a meter
Call Water Quality at 425-430-7400 (7:00 a.m. to 3:30 p.m.)
Or call 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 911

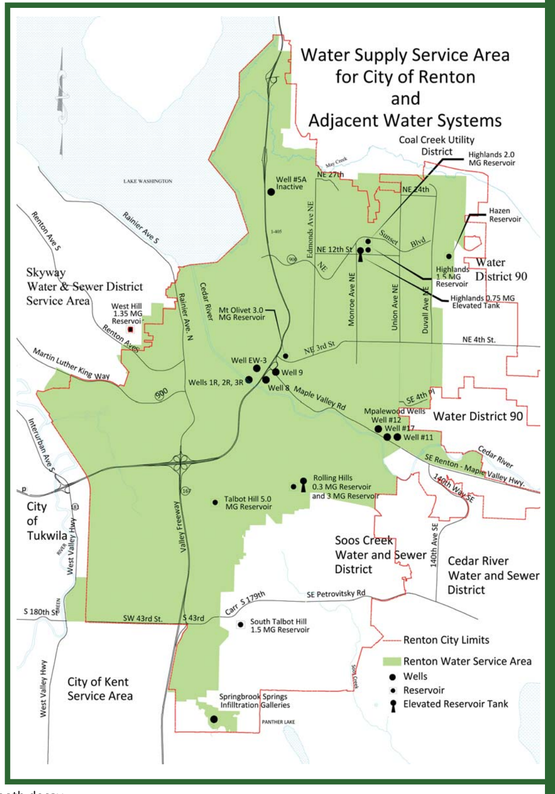
Where Does Renton's Water Come From?

During 2009, 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 in south Renton; and from the Maplewood wellfield, located at the Maplewood Golf Course. In 2009, our combined water sources produced 2.77 billion gallons of water.

In 2009 the downtown wells supplied 67% of the city's water, Springbrook Springs produced 18%, and the Maplewood wells contributed 15%. The Maplewood wells are backup wells and started production in August, 2007.

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 in case they are present. Chlorine further protects water on its way to customers. Because our water is naturally soft, sodium hydroxide is added to stop corrosion of plumbing. Fluoride is also added to prevent tooth decay. In the areas of Renton Hill, Talbot Hill, and West Hill, ortho polyphosphates are added to the water to reduce corrosion of the iron water pipes found in these neighborhoods.

Water from the Maplewood wells is also very clean, but because of its natural mineral content and pH, it must first be treated before it can be co-mingled with the water from the other sources. This treatment process consists of the removal of manganese, hydrogen sulfide, and ammonia from the raw water. Chlorine is added for secondary disinfection and fluoride 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 7:00 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 the City of Renton's website, rentonwa.gov/government.

The results of our 2009 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 WELLS
SAMPLED AT THE SOURCE AFTER TREATMENT

Detected Substance	Year	MCL	MCLG	Range	Possible Source
Fluoride (see note 1)	2007/2008	4 ppm	4 ppm	0.3-1.2 ppm	Water additive to prevent tooth decay
Sodium (see note 2)	2007/2008	Not established	Not established	5 - 32 ppm	Erosion of natural deposits; Water treatment
Nitrate	2009	10 ppm	10 ppm	0.3-2.3 ppm	Fertilizer runoff; Leaching from septic tanks; Erosion of natural deposits

SAMPLED AT THE SOURCE BEFORE TREATMENT

Detected Substance	Year	MCL	MCLG	Range	Possible Source
Radon (see note 3)	2000	Not established	Not established	165-305 pCi/L	Decay of natural deposits

SAMPLING POINTS IN THE WATER DISTRIBUTION SYSTEM

Detected Substance	Year	MCL or MRDL	MCLG or MRDLG	Average and/or Range	Possible Source
Coliform Bacteria (see note 4)	2009	5% of samples positive/month (MCL)	0% (MCLG)	0.00 - 1.5%	Naturally present in environment
Chlorine	2009	4 ppm (MRDL)	4 ppm (MRDLG)	0.83ppb 0.20 - 1.41 ppm	Additive to control microbes
Total Trihalomethanes	2009	80 ppb (MCL)	Not established	7.7 ppb 3.5 - 14.9 ppb	Disinfection by-product
Haloacetic Acids	2009	60 ppb (MCL)	Not established	1 ppb (one detection)	Disinfection by-product

RESIDENTIAL WATER TAPS

Detected Substance	Year	Action Level	Ideal Goal	90% Percentile Value and Range	Possible Source
Copper (see note 5)	2007	1.3 ppm	1.3 ppm	0.38 ppm 0.05-0.56 ppm	Corrosion of plumbing systems

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.

WATER USE IT WISELY®
wateruseitwisely.com

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).

In 2009
- Renton produced an average of 7.6 million gallons a day
- Peak demand day was July 29; production was 14.8 millon gallons
- Lowest demand day was February 26; production was 3.8 million gallons

Notes:

1. Fluoride results shown are from a required inorganic chemical analysis in 2007/2008. Renton also measures fluoride levels daily in the distribution system to ensure that added fluoride levels are maintained in the therapeutic range to prevent tooth decay (0.8 to 1.3 ppm). 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. The United States Environmental Protection Agency (EPA) has proposed regulating radon in drinking water and required initial monitoring in 2000. The proposed MCL is 300 piccocuries per liter (pCi/L). A final rule is expected soon. Radon increases the risk of stomach cancer when ingested and the risk of lung cancer when inhaled. Radon may be released into the air from tap water during showering, dishwashing, etc. Radon entering the home through tap water is usually a small source of radon in indoor air compared to the potential for radon entering the home through soil. Western Washington does not appear to have significant radon levels in the soil, although exceptions have been found. For more information visit EPA's "A Citizen's Guide to Radon" at epa.gov/radon/pubs/citguide.html or call 1-800-SOS-RADON (1-800-767-72366).

4. Retesting is required when coliform tests are positive. Follow up samples were negative.
Notice: Coliform Major Repeat Violation. The City of Renton Water System, ID 71850L, located in King County is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the month of December we did not perform required follow up monitoring for coliform bacteria in response to a positive coliform bacteria sample that was obtained during routine testing of our water supply. Therefore we cannot be sure of the quality of your drinking water during that time. The sample was obtained from a sampling station that is located at the northwest end of the water distribution system.

Coliform bacteria, which are naturally present in the environment, are used as an indicator that other, potentially-harmful, bacteria may be present in the water supply. In 2009 the City sampled for coliform bacteria 60 times or more per month. The coliforms that were found in the sample in December were a warning of a potential problem. Immediate follow up sampling would have determined if a problem existed. The City failed to perform the follow up sampling. Routine sampling the following week and weekly thereafter at the same location found no additional coliform bacteria in the water supply. At this time no action is required by the water consumer.

5. Thirty-two (32) samples were tested for copper. Ninety percent of the samples (29 samples) had levels at or below the value shown. Ten percent of the samples tested (3 samples) had levels above this value.

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 an aspirin tablet disovlved 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 an aspirin tablet disolved in a full bathtub of water (approximately 50 gallons)

pCi/L (picocuries per liter): A measure of radioactivity.

Beat the Summer Peaks!

It's summertime and the temperature is rising—and so is Renton's water consumption. Watering lawns and gardens, taking extra showers, filling the backyard pool, playing in the sprinklers, washing extra beach towels and clothes, keeping the car sparkling clean, hosing the driveway and patio: these kinds of activities are what cause Renton's water consumption to nearly double in the summer. This increased summer water consumption is called ***peak seasonal demand.***

There are also ***time-of-day peaks***. These occur when most of the City is getting up or going to bed and brushing their teeth, taking a shower, or starting the dishwasher and washing machine after dinner. These types of water use activities cause usage peaks between ***6:00 a.m. and 9:00 a.m***. and again between ***6:00 p.m. and 9:00 p.m.*** These daily peaks are normal and planned for by the water utility. However, if everyone starts watering their lawns and gardens, filling the kiddie pool and washing the car during these same time periods, the city's water infrastructure of pipes, pumps and reservoirs become strained. Peak demand is the greatest driver of costly water system expansion and,in turn, increased water rates.

We can beat both of these peaks!

Reducing the time-of-day peak demand is easy: simply shift your water consumption to outside the peak use hours of ***6:00 a.m. to 9:00 a.m.*** and ***6:00 p.m. to 9:00 p.m***.
- If you have an irrigation system or timed sprinklers, set them to run after 9:00 p.m. and before 6:00 a.m. – these are also the times when evaporation and wind are lowest.
- Start your clothes washer just before turning in for the night.
- Set your dishwasher to delay start after 9:00 p.m.

These may seem like small efforts—but when multiplied thousands of times over, it makes a big difference!

Reducing seasonal peak demands can also reduce your work!
- Take your car to a drive-thru carwash that recycles the water instead of washing it in the driveway.
- Embrace the beauty of a golden lawn— let it go dormant; water your lawn just once a month, and it will bounce back in the fall - plus you will save a lot of time, work and money.
- Make your garden a beautiful haven of relaxation by following the 5 Steps to Natural Yard Care (your.kingcounty.gov/solid-waste/naturalyardcare/index.asp)
- Keep a pitcher of water in the fridge—you won't have to run the tap to get cold water.
- Sweep driveways and patios instead of hosing them down—it's a good upper body workout!

Get creative—see how much water you can save while helping to make Renton a wonderful place to live now and far into the future!

Web Resources

Irrigation
- iwms.org/seattle_area.asp
- epa.gov/watersense/pp/irrprof.htm

Plant Selection
- greatplantpicks.org
- gardening.wsu.edu/text/nwnative.htm

Natural Yard Care
- gardenhotline.org
- rodsgarden.50megs.com/waterwise.htm
- epa.gov/epaoswer/non-hw/green/owners.htm

Ways to Save Indoors
- wateruseitwisely.com/100-ways-to-conserve/indoor tips/index
- kingcounty.gov/environment/waste-water/WaterConservation/Tips.aspx
- h2ouse.org

City of Renton
- rentonwa.gov

Rebates!

Save Water and energy! Rebates of $50, $75 and $100 are available with the purchase of qualified high efficiency WashWise washing machines.

For a limited time, Cash for Appliances Washington is offering an additional $100 rebate on selected models. That's up to $200 in rebates, plus many retailers and manufacturers are offering incentives as well. Visit cashforapplianceswa.com for more details.

CASH for APPLIANCES WASHINGTON
cashforapplicanceswa.com

WASHWISE
SAVE MONEY-SAVE WATER
washwiserebate.com

Frequently Asked Question

Is Renton's water soft or hard?
Renton's water falls within the soft range with about 3.0 grains of hardness per gallon. 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.