

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. On November 19, 2007, Renton City Council adopted three water use efficiency goals that had been developed through a public forum held on November 9, 2007. 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In 2010, 2.463 billion gallons of water were withdrawn from all water supply sources, while metered consumption was 2.115 billion gallons. This difference reflects a 14% distribution system loss (DSL) for 2010 or a 16.7% rolling average over the past three years. This is still short of our goal of 10%, but an improvement over 2009's 17% DSL. The DSL includes "real losses" such as leaking and broken pipes and "apparent losses" due to factors such as meter inaccuracies, data billing errors, tampering of meters and hydrants, and the flushing and cleaning of mains and reservoirs.

This three-year DSL decline is evidence that our Water Control Action Plan is working as the city continues to take necessary steps to reduce all water losses. In 2010 we:

- Conducted an acoustic leak detection survey to pinpoint leaks on an estimated 24 miles of water mains and repaired eight water mains.
- Investigated 784 possible leak reports and repaired meter leaks.
- Systematically replaced old, rusty and leaky water pipes to maintain water quality and provide adequate flow for fire protection.
- Continued evaluating the implementation of an automatic meter reading (AMR) system. This system will allow for quick detection and customer notification of leaks on the customer side of the city water meter. This project will commence in the fall of 2011.

2 Limit the peak day water demand to 16.5 million gallons per day or less through 2015.

On July 29, 2010, the city's water supply sources produced a total peak day water demand of 12.8 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 decreased in 2010 (compared to 2009 usage) by 4.8%. This exceeds the WUE goal of 0.5%. However, the 2010 summer growing season (May through September) was much cooler and wetter than 2009. The 2010 growing season experienced 12% fewer growing degree days (GDD) and 57% more precipitation than the 2009.*

The WashWise program provided financial rebates to 354 residential water customers who had purchased water saving clothes washers. This represents 2.86 million gallons of water saved.

**Degree Day: 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.*

Water Wisely this Summer
Estimate your water needs and create schedules for automatic watering systems.
Get email updates for local irrigation needs at www.iwms.org.

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. 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 microbial contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.



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

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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 (7:00 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 (7:00 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

ECRWSS RESIDENTIAL CUSTOMER

**2011
Drinking Water
Quality Report**
rentonwa.gov

City of
Renton

Renton's Water

During 2010, 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 the south Renton; and from the Maplewood wellfield, located in the Maplewood Golf Course. In 2010, our combined water sources produced 2.46 billion gallons of water.

In 2010 the downtown wells supplied 62% of the city's water; Springbrook Springs produced 17%; and the Maplewood Wells contributed 21%. 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 that possibly can enter our source water. Chlorine also protects the 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 added to prevent tooth decay and, in the areas of Renton Hill, West Hill and the Highlands, ortho-polyphosphates are added to reduce the internal corrosion of the old cast iron water mains that are found in these neighborhoods.

Water from the Maplewood wells is also very clean but because of 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.

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.

Rebates of \$50 or \$100 are available for the purchase of qualified WashWise washing machines. Save water and energy!

Water Future

The City of Renton anticipates needing additional water to meet its peak (summer) demand within the next two years. Total annual supply capacity will be reached around 2028. These conclusions are based on a projected water demand forecast study of future growth within the city's water utility service area. To meet this future growth, the city has been working on a plan to secure adequate water supply for the next 50 years.



The Water Utility staff has evaluated and performed cost-benefit analyses on several water supply options. It was determined that the best and most economical option for the city, would be to renew its existing contract with Seattle Public Utilities (SPU) with a new 50-year partial requirements water supply contract. Under this new contract, SPU will provide the city with a reliable and sufficient source of water to meet the city's long-term needs. Some key features of this contract include:

- No limit on quantity of water purchased by the city.
- Full participation in SPU's regional water conservation program.
- Additional water system interties allowed when needed.
- Reasonable wholesale water rates.
- No SPU facilities charges for new connections.
- City's representation on SPU operating board for decision making.

Renton water utility customers will not notice any change in their water service; however, there will be noticeable changes in water conservation opportunities. The 19 purveyors that purchase wholesale water from SPU form a group called the Saving Water Partnership (SWP). The SWP sets regional water conservation goals that benefit not only the cities that it serves, but salmon, wildlife and the environment.

The SWP conservation programs will allow the city to offer conservation rebates and incentives to all sectors of customers, including single and multifamily, commercial and industrial, government and new construction as well as existing.

Renton's participation in the SWP conservation programs will begin in 2012. Meanwhile, check out the Saving Water website, www.savingwater.org to find helpful information on gardening and saving water indoors and outdoors, and look into Renton's water conservation future!

The results of our 2010 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	Highest Amount (Range)	Possible Source
Fluoride (see note 1)	2010	4 ppm	4 ppm	1.1 ppm (0.4 - 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	2010	10 ppm	10 ppm	2.2 ppm (0.3 - 2.2 ppm)	Fertilizer runoff; Leaching from septic tanks; erosion of natural deposits
Copper	2010	AL=1.3 ppm	AL=1.3 ppm	0.1 ppm (0 - 0.1 ppm)	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

WaterSense

WaterSense is an EPA-sponsored partnership program that seeks to protect the future of our nation's water supply by promoting water efficiency and enhancing the market for water-efficient products, programs, and practices. WaterSense makes it easy to find and select water-efficient products that:

- Perform as well or better than their less efficient counterparts.
- Are 20 percent more water efficient than average products in that category.
- Realize water savings on a national level.
- Provide measurable water savings results.
- Achieve water efficiency through several technology options.
- Are effectively differentiated by the WaterSense label.
- Are independently certified.

Ready in Renton

It seems every day a new disaster appears in the headlines. Renton also has its disaster possibilities, both natural and man-made. One of the most basic human needs for sustaining life is water.

The standard advice of the Red Cross and FEMA is that you should have at least a three-day supply of a minimum of one gallon of water per person per day. One gallon will supply water for drinking and food preparation. The Department of Defense further suggests a second gallon per person per day for bathing, hygiene and washing dishes.

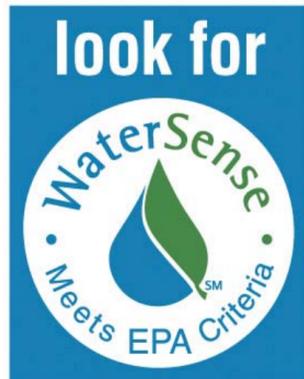
Buy bottled water and replace according to expiration date on bottles. If you choose to bottle your own water supply, store water in food grade water storage containers or you can reuse plastic soft-drink bottles. Do not use plastic jugs or cartons that have had milk or juice in them as they cannot be adequately cleaned to prevent bacteria growth. Also, avoid glass as it can break in a disaster. Store the water in a cool place that will hopefully be safe from disaster and discard and replace the stored water every two to six months.

Emergency Water Sources

If you have not stored water or enough water, the water in water heaters, toilet tanks (not the bowls), ice cubes, and water beds may be purified and used. (Note: do not use bleach to purify water in a water bed. Use a manufacturer provided purifier that will not harm the plastic material of the bed.) To use the water in your house pipes, let air into the plumbing by turning on a faucet in your house at the highest level. A small amount of water will trickle out. Then obtain water from the lowest faucet in the house.

These types of emergency water must be purified by one of the methods below.

- Boiling: Boiling is the safest method of purifying water. Bring water to a rolling boil for 10 minutes. To improve taste, pour from one clean container to another several times.
- Purification Tablets: Available at any sporting goods or drug store. Follow directions on the package. Usually one tablet is enough for one quart of water. Double the dose for cloudy water.
- Bleach Purification: Liquid household bleach can also be used if the label states sodium hypochlorite as the only active ingredient and there is no perfume added. Add bleach at the rate of eight (8) drops per gallon if the water is clear; 16 drops if the water is cloudy. Stir and let stand for 30 minutes. If the water does not taste and smell of chlorine after 30 minutes, add another dose and let stand another 15 minutes.



SAMPLING POINTS IN THE WATER DISTRIBUTION SYSTEM

Detected Substance	Year	MCL or MRDL	MCLG or MRDLG	Highest or Average amount (Range)	Possible Source
Coliform Bacteria (see note 3)	2010	5% of samples positive/month	0%	1.0% (0 -1.0%)	Naturally present in the environment
Chlorine	2010	4 ppm	4 ppm	Average 0.82 ppm (0.21 - 1.58 ppm)	Additive to control microbes
Total Trihalomethanes	2010	80 ppb	Not established	Average 9.95 ppb (4.9 - 20.7 ppb)	Disinfection by-product
Haloacetic Acids	2010	60 ppb	Not established	Average 0.77 ppb (0 - 3.0 ppb)	Disinfection by-product

RESIDENTIAL WATER TAPS

Detected Substance	Year	Action Level	Ideal Goal	90th Percentile Value and Range	Possible Source
Copper (see note 4)	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 4)	2010	15 ppb	15 ppb	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 2010 Renton attempted to maintain fluoride levels in the range of 0.8 to 1.3 ppm, which was the level adopted by the Washington State Department of Health. In 2011 Renton will attempt 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. Retesting is required when coliform tests are positive. Follow up samples were negative.
4. 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.

The Facts

- Amount of water produced in Renton on an average day in 2010 was 6.75 million gallons.
- The highest water demand day in 2010 occurred on July 25, when 12.83 million of gallons was produced.
- The lowest water demand day in 2010 occurred on March 21 when 3.67 million of gallons of water was produced.

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 on Renton's website, www.rentonwa.gov/government.

A New Perspective on Water Conservation

Renton's water conservation program began with the passage of the Water Use Efficiency Act of 1989. Since this time, Renton's average single family residential consumption has declined from 211 gallons per day (gpd) (during the period 1990 to 1997) to 182 gpd (during the period 2004 to 2010) Because Renton has been in the relatively unique position of having its entire water supply produced from its own wells, water conservation has been focused close to home. Water, however, is intrinsically not a local issue. Renton's wells are ultimately interconnected with the Cedar River and in turn with all its tributaries and Puget Sound. The water cycle operates on a global scale. With the signing of the long-term water supply contract with Seattle Public Utility, Renton's conservation awareness moves to the 'big picture'. As you work to incorporate the following "Top Ten Ways to Conserve Water"* into your life, remember clean, drinkable water is the resource most vital to life.

1 Low-Flow Shower Head: Install a low-flow shower head (less than one gallon per minute (gpm)) to help you conserve water. According to the U.S. Environmental Protection Agency, some consumers can save over \$2,000 a year by installing WaterSense labeled showerheads.

2 Brushing Your Teeth: One simple way you can save water every day is by turning off the water as you brush your teeth.

3 Efficient Dishwashing: As with brushing your teeth, you can conserve water if you turn off the faucet between dishes or while you are scrubbing. You should also avoid rinsing dishes before placing them in the dishwasher. Run the load only after you have filled the dishwasher.

4 Pitcher in the Fridge: Nothing is more satisfying on a hot summer day than an ice-cold glass of water. Rather than running the faucet until the water gets cold, keep a pitcher of water in your refrigerator so that refreshing water is always available.

5 Place Mulch Around Your Plants: To cut down on watering, place a layer of mulch around your garden plants to help prevent moisture loss and reduce the need to water your plants every day. As an added benefit, the mulch will keep down weed growth.

6 Keep Your Grass Higher: As with your garden, if you keep your lawn at a higher level, you will reduce the amount of water you use for sprinkling. Taller grass is a healthier option for your lawn because it will be better able to retain moisture.

7 Plant Native Plants: You can conserve even more water by planting native plants. Native plants are better adapted to your climatic conditions and will not require as much watering as non-native plants.

8 Wait for Full Loads to Wash Clothes: Only run your washer when you have a full load of clothes to make maximum use of your water. If possible, use only cold water for washing and you will save the energy needed to heat the water too.

9 Fix the Leaks: Fix any faucet leaks to prevent excessive water loss. Likewise, make sure your toilet is running properly and not running when not in use. A faucet that is dripping just one drip per second will waste about four gallons of water in just one day, which would amount to 1,400 gallons in a year.

10 Replace Old Washing Machines: According to the EPA, you can save up to 50 percent more water by upgrading your old washing machine to an Energy Star® labeled model. You will also save energy costs by using a more energy-efficient machine.

* from: www.livestrong.com

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 that 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 1/2 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 1/2 of a dissolved aspirin tablet in a full bathtub of water (approximately 50 gallons)



Fluoride in the Drinking Water

On January 7, 2011, the U.S. Department of Health and Human Services (HHS) and the U.S. Environmental Protection Agency (EPA) announced a proposed recommended level of fluoride in drinking water of 0.7 parts per million (ppm).

This recommendation is based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects. These scientific assessments will also guide EPA in making a determination of whether to lower the maximum amount of fluoride allowed in drinking water, which is set to prevent adverse health effects.

In November 1985, Renton residents voted to fluoridate their drinking water and fluoridation began in February 1987. The Centers for Disease Control and Prevention (CDC), has hailed the fluoridation of drinking water as one of the 10 great public health achievements of the 20th century. However, Americans are getting fluoride from a variety of sources that did not exist in the 1940s, when community water fluoridation first got underway. When final levels are determined Renton will comply with them. In the interim, Renton will be reducing the fluoride in the water supply to 0.8 ppm, the lower end of Washington State Department of Health acceptable range of 0.8 to 1.3 ppm.

For more information on fluoride visit the CDC website: <http://www.cdc.gov/fluoridation/index.htm>

