Water Use Efficiency Rule Update

In 2003, the Washington State Legislature passed the Municipal Water Laws, 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, the Renton City Council adopted three water use efficiency goal, 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 2011, 2.49 billion gallons of water were produced from all water supply sources, while total authorized consumption was 2.18 billion gallons. This difference reflects a 12% distribution system loss (DSL) for 2011 or a 14.3% rolling average over the past 3 years. This is still short of our goal of 10%, but an improvement over last year's 14% 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.

This continued three-year DSL decline confirms that our Water Control Action Plan is working as the City continues to take necessary steps to reduce all water losses. In 2011 we:

- Conducted an acoustic leak detection survey to pinpoint leaks on an estimated 24 miles of water mains and repaired 10 water mains.
- Investigated 664 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.
- Began implementation of automatic meter reading (AMR) system installation. This system will allow for quick detection and customer notification of leaks on the customer side of the city water mains. Commercial meters are being changed first and then the residential meters. Complete conversion will take approximately five years.

2 *Limit the peak day water demand to 16.5 million gallons per day (mgpd) or less through 2015.*
On August 26, 2011, the city's water supply sources produced a total peak day water demand of 12.5 million gallons – below the 16.5 mgpd 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 increased in 2011 (compared to 2010 usage) by 1.2%. This exceeds the WUE goal of 0.5% reduction. However, during the 2011 growing season (May through September) there were 200 (13%) more GDD* than in 2010 and 3.8 fewer inches of rain (38% less).

The greatest increase was in the single family use. This would indicate that much of the increased use was due to irrigation. The city's joining in the Saving Water Partnership and promotion of the Savvy Gardener classes will hopefully give residents tools to reduce their outside water consumption.

The WashWise program provided financial rebates to 408 residential water customers who had purchased water saving clothes washers. These machines will save approximately 1,382,712 gallons each year they are used.

*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.

look for WaterSense Meets EPA Criteria

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).

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:
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 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 (7:00 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 911

ECRWSS RESIDENTIAL CUSTOMER

New Partnership for Renton!

In January 2012, the City of Renton joined the Saving Water Partnership (SWP). The SWP is a group of 19 local utilities who work together to provide water conservation programs. Their (our) goal and mission is, through water conservation, to help manage the impact of growth on the region's drinking water and to keep more water in our mountain rivers for salmon, wildlife, and for future generations. Conserving water is an integral part of our commitment to wise management of natural resources.

Changes for Renton. This partnership brings an array of opportunities for Renton water utility customers. Below are the 2012 rebates and incentives being offered. Details and applications can be found at savingwater.org. Start saving today! Washing machine rebates remain available through Puget Sound Energy (pse.com/savingsandenergycenter).

Rebates and Incentives

www.savingwater.org

for Residential Customers:

Sprinkler System: includes rain sensors, smart controllers, drip, sprinkler heads and more - standard and custom rebates up to 50% of project costs.

Toilet: Customers can receive a $30 rebate when they purchase a new WaterSense labeled high-efficiency toilet (HET).

for Owners/Managers of Apartments and Condos:

Multi-family Toilet: $100 per-toilet rebate for replacing old toilets with WaterSense labeled 1.28 gallon toilets in apartments or condos with four or more units.

Multi-family coin-op laundry (LaundryWise): Rebates of $100-$125 depending on the efficiency of the machine used in a common-area laundry.

Sprinkler System: rain sensors, smart controllers, drip, sprinkler heads and more - standard and custom rebates up to 50% of project costs.

for Industrial & Commercial Customers:

Commercial Flush Valve Toilets and Urinals: $100 rebate per fixture for replacing toilets and urinals with efficient models.

Tank Toilets: Rebate of $100 per fixture for replacing older tank models with WaterSense labeled toilets.

Commercial Laundry: $200 rebates for efficient coin-op machines (Tier 3) or up to 50% of large system improvements. For washers that are Tier 3 and above, see the Consortium for Energy Efficiency website. There may be an additional $200 from Puget Sound Energy.

Commercial Kitchen: Cash incentives of up to $3,000 to customers who replace inefficient commercial kitchen equipment with water-efficient commercial kitchen equipment.

Cooling and Refrigeration Systems: Rebates for up to 50% of costs for projects involving space cooling, refrigeration systems and industrial ice-makers.

Medical Equipment: Rebates up to 50% of costs for steam sterilizers, medical air and vacuum systems, x-ray processing and other medical equipment.

Process Water Improvements: Rebates for up to 50% of costs for projects involving water-cooling of industrial processes.

Sprinkler System Rebates: rain sensors, smart controllers, drip, sprinkler heads and more – standard and custom rebates up to 50% of project costs.

If you have an irrigation system, inspect it once a month - look for leaks or heads that are plugged or misdirected. Adjust the watering schedule throughout the growing season and install a rain shut-off device so you don't water in the rain!

The Irrigation Water Management Society (IWMS) has tools to help you easily manage your landscape watering by creating a watering schedule that is specific to the Seattle area and your sprinkler brand. You can also sign up to receive email watering updates. Go to **www.iwms.org** to learn how to water wisely.

The results of our 2011 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)	2011	4 ppm	4 ppm	1.3 ppm (0.3 – 1.3 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	2011	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	AL = 1.3 ppm	0.1 ppm (0 – 0.1 ppm)	Erosion of natural deposits; Leaching from wood preservatives
SAMPLING POINTS IN THE WATER DISTRIBUTION SYSTEM					
Detected Substance	**Year**	**MCL or MRDL**	**MCLG or MRDLG**	**Highest or Average (Range)**	**Possible Sources**
Coliform Bacteria	2011	5% of samples positive/month (MCL)	0% (MCLG)	0%	Naturally present in the environment
Chlorine	2011	4 ppm (MRDL)	4 ppm (MRDLG)	Average 0.90 ppm (0.15 - 1.66 ppm)	Additive to control microbes
Total Trihalomethanes	2011	80 ppb (MCL)	Not established	Average 8.1 ppb (2.8 – 21.2 ppb)	Disinfection by-product
Haloacetic Acids	2011	60 ppb (MCL)	Not established	Average 2.6 ppb (0 - 8.2 ppb)	Disinfection by-product
RESIDENTIAL WATER TAPS					
Detected Substance	**Year**	**Action Level**	**Ideal Goal**	**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	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 2011 Renton attempted 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.

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 ¼ of a dissolved aspirin tablet in 1,000 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).

Where does Renton's water come from?

During 2011, Renton obtained its drinking water from three sources: five downtown wells, located in Liberty and Cedar River Parks, that draw water from the Cedar Valley Aquifer; Springbrook Springs, a small springs located in south Renton and from the Maplewood wellfield, located in the Maplewood Golf Course. In 2011, our combined water sources produced 2.43 billion gallons of water.

In 2011 the downtown wells supplied 60% of the City's water; Springbrook Springs produced 19%; 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 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.

New Lead Info Rule

To address the issue of the corrosion of lead and copper into drinking water, the EPA issued the Lead and Copper Rule (LCR) under the authority of the Safe Drinking Water Act. It was adopted by Washington State Department of Health, Office of Drinking Water on March 30, 2012. The federal rule requires water systems to include a lead informational statement in the annual consumer confidence report.

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 water.epa.gov/drink/info/lead/index.cfm

The LCR also requires corrosion control treatment as the primary means of preventing lead and copper from contaminating drinking water. Corrosion control treatment means systems must make drinking water less corrosive to the potentially corrosive materials it comes into contact with on its way to consumers' taps. Renton treats its water with sodium hydroxide to raise its pH and make it less corrosive.

How Does Lead Get Into Your Water?
Lead enters the water through contact with your plumbing. This occurs through corrosion of: pipes, solder, fixtures and faucets (brass), and fittings. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. However, new homes are also at risk: even legally "lead-free" plumbing may contain up to 8 percent lead. The most common problem is with brass or chrome-plated brass faucets and fixtures with lead solder, from which significant amounts of lead can enter into the water, especially hot water. A number of factors are involved in the extent to which lead enters the water including the chemistry of the water (acidity and alkalinity), the amount of lead it comes into contact with, how long the water stays in the plumbing materials, and the presence of protective scales or coatings inside the plumbing materials.

Quick Tips to Reduce Your Family's Exposure to Lead
- Use cold water for drinking or cooking. Never cook or mix infant formula using hot water from the tap.
- Do not consume water that has sat in your home's plumbing for more than six hours. Run the water until you feel the temperature change before cooking, drinking, or brushing your teeth.
- Some faucet and pitcher filters can remove lead from drinking water. If you use a filter, be sure you get one that is certified to remove lead by the NSF International.
- Boiling your water will not get rid of lead.

Need More Information?
EPA Safe Drinking Water Hotline: 1-800-426-4791 or National Lead Information Center: 1-800-424-LEAD: www.epa.gov/lead.

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 Renton's website, **rentonwa.gov/government**

Put nature to work in your yard with

GreenScaping

Our yards are our outdoor homes: fun, beautiful, great spaces for relaxing. By taking care of our lawns and gardens properly, we can save money and time helping the environment. *GreenScaping* encompasses a set of landscaping practices that can improve the health and appearance of your lawn and garden while protecting natural resources as well as your free time!

By simply changing your landscape to a *GreenScape*, you can:

Save Money by eliminating unnecessary water and chemical use

Save Time by landscaping with plants that require less care

Protect the Environment by:

- Conserving water supplies.
- Using chemicals properly and only when needed to keep streams and drinking water clean.
- Reducing yard waste by recycling yard trimmings into free fertilizer and mulch for your lawn and garden while protecting and preserving natural resources.

In nature, soil recycles dead plants into nutrients for new plant growth. Plants are adapted to the water, sun and soil available in their site. Maintaining a wide variety of healthy plants, soil organisms, beneficial insects and animals can keep most pests and diseases in check. By working with nature, you can have a great-looking yard that's easier to care for, cheaper to maintain and healthier for families, pets, wildlife and the environment.

How to *Greenscape* ?

1 Build and maintain healthy soil

2 Plant right for your site

3 Practice smart watering

4 Adopt a holistic approach to pest management.

Get started!

Go to: **epa.gov/osw/conserve/rrr/greenscapes/owners.htm** for an EPA guide to help you through every step.

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.

The Facts

- Average amount of water produced in a day was 6,649,726 gallons.
- Greatest amount of water produced in a day was 12,476,000 gallons on August 26.
- Total miles of water main in service is 305 miles.

Take Back the Tap

Is bottled water safer than tap water? EPA sets standards for tap water provided by public water systems; the Food and Drug Administration sets bottled water standards based on EPA's tap water standards. Bottled water and tap water are both safe to drink if they meet these standards.

The Natural Resources Defense Council (NRC) carried out a four-year review of the bottled water industry and concluded "there is no assurance that just because water comes out of a bottle, it is any cleaner or safer than water from the tap." The NRC also determined that an estimated 25 percent of bottled water is "really just tap water in a bottle - sometimes further treated, sometimes not."

If you drink your daily recommended 8 glasses of water per day from the tap, it will cost you about 50 cents per year. If you choose to drink it from water bottles, it can cost you up to $1,400.

Want to save a lot of money? Drink tap water. For information on understanding the data in this report and choosing a water filter for your home, watch the video "Take Back the Tap Guide to Safe Tap Water" **at www.foodandwaterwatch.org/tools-and-resources/**

great plant picks
www.greatplantpicks.org