Planning Ahead

Summertime in Renton brings warm weather, sunny skies, and a dramatic increase in water use. Water usage during the summer months of June through August, nearly doubles and most of this extra water is being used in the lawn and garden.

As low rainfall and the specter of drought loom, finding ways to conserve water in our lawn and gardens becomes imperative. Luckily, saving water usually also means saving time and money. King County Department of Natural Resources and Parks has developed a program called Five Steps of Natural Yard Care (www.metrokc.gov/dnrp/swd/naturalyardcare) that can help build a yard and garden that will require less water and less work, for not just this summer, but for every summer to come!

1. BUILD HEALTHY SOIL.

Start from the ground up by adding compost and mulch. Compost increases the soil's ability to hold water, it also provides nutrients and loosens the soil - all of which helps produce healthier plants. Mulch reduces evaporation of moisture from the soil as well as reducing weed growth and providing nutrients.

2. PLANT RIGHT FOR YOUR SITE.

Group plants by their needs for water, sun and soil. Select plants that use less water or go native. Local nurseries can provide lots of great ideas or check out the "the Plant List" at www.savingwater.org/docs/PlantList.pdf for ideas. The right plant in the right place will be healthier and better able to withstand the stresses of drought and make your watering easier.

3. PRACTICE SMART WATERING.

How to know when it's time to water: for lawns, a loss of shine or the lingering presence of footprints; vegetables and other annuals should be watered at the first sign of droop; perennials only need water if they stay droopy after it cools off in the evening; trees and shrubs usually don't need to be watered once they are fully established (2 to 4 years). Lawns and most plants do best with deep, less frequent watering. This encourages the roots to grow deeper and makes them less susceptible to drying out.

4. THINK TWICE BEFORE USING PESTICIDES.

Pesticides (weed and bug killers) often kill beneficial insects along with the target pest. Scientists have found residues of 23 pesticides in local streams. Renton's groundwater is also susceptible to pollution from chemicals percolating down from the surface. There are many strategies to avoid pesticides such as: traps, barriers, repellants, resistant plant varieties – or when absolutely necessary, use the least toxic product.

5. PRACTICE NATURAL LAWN CARE.

Lawns are often the focus of the most water, chemicals, and labor in our yards. By incorporating the preceding concepts, your lawn will be healthier, lower maintenance and safer for children, pets and the environment. The Water Conservation Coalition of Puget Sound website: www.bewatersmart.net/links.htm has many links for advice on saving water in your lawn and garden.

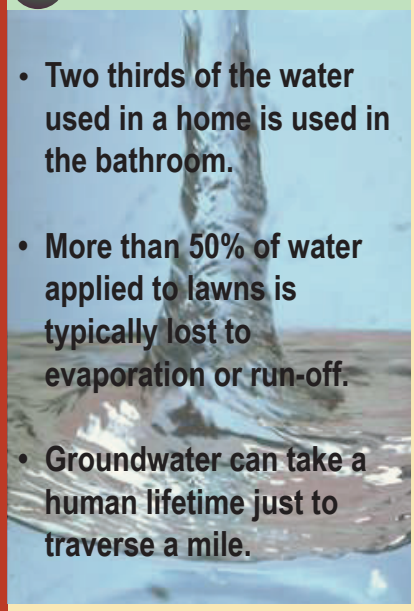
DEMO GARDENS

Visit a waterwise demonstration garden to get some ideas and inspiration for your garden. There are two in Renton: King County's Dept. of Development and Environmental Services office at 900 Oakesdale Ave. SW (www.metrokc.gov/dnrp/swd/sustainable-landscaping/index.asp) and the City of Renton's Demo Garden at 200 Mill Ave. (old City Hall). Another great garden is the Soest Garden at the Center for Urban Horticulture, 3501 NE 41st St., Seattle (www.depts.washington.edu/urbhort/html/plants/soest.htm).

About This Report

The purpose of this report is to let our customers know that the City's water met or exceeded state and federal standards for drinking water quality during the 2004 calendar year. 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.

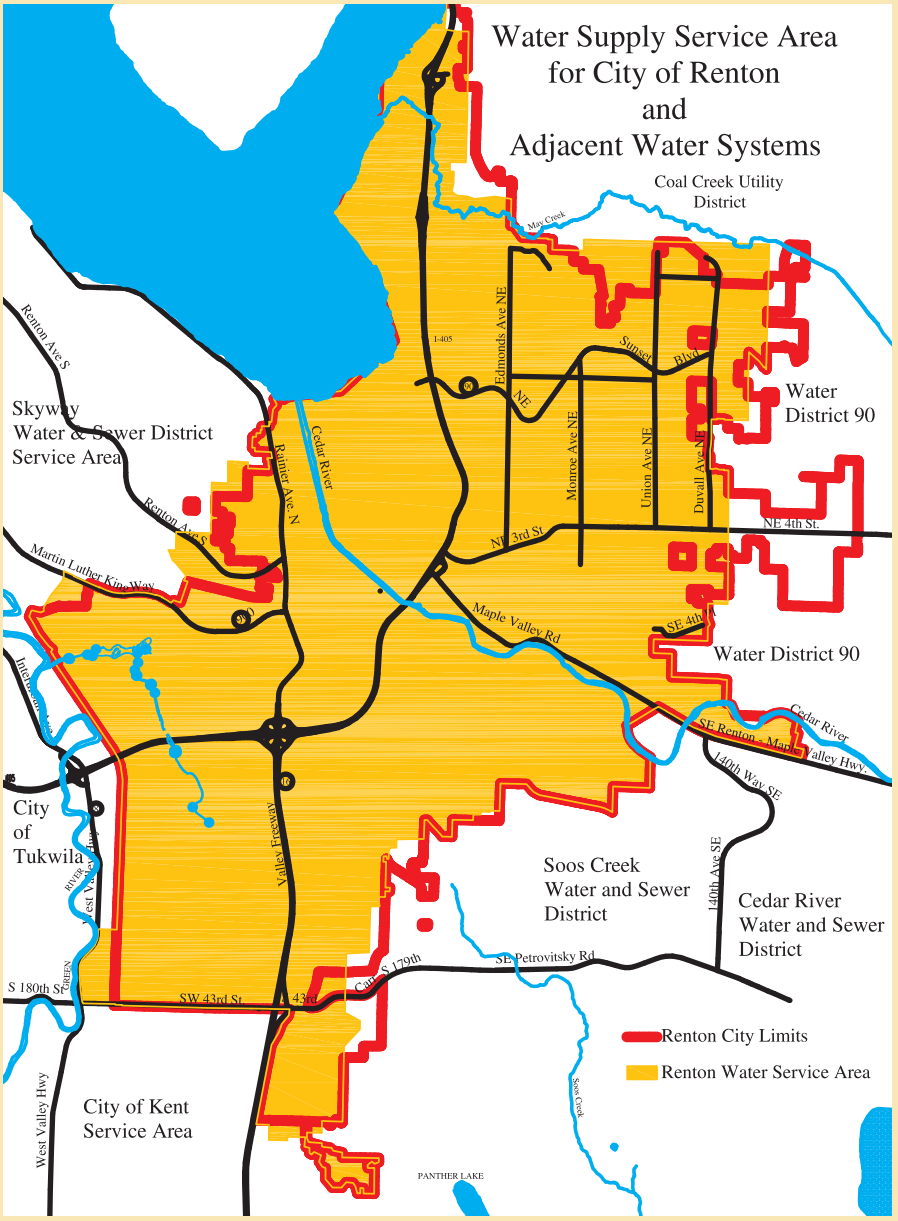
DID YOU KNOW?



- Two thirds of the water used in a home is used in the bathroom.
- More than 50% of water applied to lawns is typically lost to evaporation or run-off.
- Groundwater can take a human lifetime just to traverse a mile.

This report describes where our drinking water comes from; what minerals or chemicals it contains; how it compares to stringent water quality standards; and what we are doing to protect our water supply.

We hope that this Water Quality Report will help our customers to better understand our drinking water and to heighten their awareness of the need to protect our water resources. We would also like to assure our customers that providing high quality and safe drinking water to our customers is Renton's highest priority.



GET YOUR HANDS DIRTY

The City of Renton sponsors Natural Yard Care Workshops each Spring. The series of five workshops includes hands-on demos and presentations by specialists who review best practices, demonstrate techniques, and answer questions about natural yard care. If you are interested in joining next year's workshops or would like more info about this program, please contact Spencer Orman at 425-430-7396 or via e-mail at sorman@ci.renton.wa.us.

Where Does Renton's Drinking Water Come From?

In 2004, Renton drew its drinking water from two sources: five downtown wells which draw water from the Cedar Valley Aquifer and Springbrook Springs, a small springs located at the extreme southern city limit. In 2004, our combined water sources produced 2.79 billion gallons of water.

Road to Springbrook Springs.

The downtown wells are our primary source of water. In 2004 these wells produced approximately 88% percent of Renton's water, while approximately 12% percent of Renton's drinking water was supplied by Springbrook Springs.

The water pumped from these sources is very clean and needs minimal treatment. Chlorine, which destroys bacteria and viruses, is added to make sure the water stays clean on it's way to the customers. Because our water is naturally corrosive, 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.

The Maplewood Wells, located at the Maplewood golf course, were not utilized during 2004 while new treatment facilities are being constructed. Startup of these facilities is scheduled to begin Fall 2005.

Downtown Well House.

Keeping Your Water Safe & Moving

The City Water Quality and Water Maintenance staff regularly monitors the quality of our water supply. Field and laboratory analyses include tests for bacteria, as well as chemical and physical indicators. We test for over 100 compounds to make sure our drinking water is safe.

Water main construction.

The Water Maintenance team routinely monitors and maintains Renton's 9 reservoirs, 18 pump stations, 2 water treatment facilities, 291 miles of water mains, 3,274 fire hydrants and 15,380 water meters! In the past year, this team responded to more than 270 service leaks and repaired 26 water main breaks.

The results of our 2004 water quality monitoring are shown in the following tables.

These data are for parameters regulated by federal and state agencies. The Water Quality staff regularly monitors for over 100 compounds, 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. As you can see, the water from the Downtown Wells and Springbrook Springs meets or exceeds federal and state drinking water quality standards.

YEAR 2004 WATER QUALITY DATA FOR DOWNTOWN WELLS & SPRINGBROOK SPRINGS

Detected Compound	MCL	MCLG	Highest Amount And Range Detected	Possible Sources of Detected Compound
Regulated at the Groundwater Source Before Treatment				
Maximum Total Trihalomethane Potential	No MCL established. AL=100 ppb	No MCLG established.	39.0 ppb (17.6 -39.0 ppb)	By-product of drinking water chlorination.
Regulated at the Groundwater Source After Treatment				
Fluoride	4 ppm (see note 2)	4ppm (see note 2)	1.3 ppm (0.8 - 1.3 ppm)	Water additive which promotes strong teeth
Nitrate	10 ppm	10 ppm	2.3 ppm (0.3 - 2.3 ppm)	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits.
Sodium	No MCL established (see note 3)	No MCLG established (see note 3)	7 ppm (5 - 7 ppm) sampled 11/12/03	Erosion of natural deposits.
Radon	No MCL established (see note 4)	No MCLG established. (see note 4)	305 pCi/L (165 - 305 pCi/L, Sampled 11/08/02	Decay of natural deposits
Coliform Bacteria	5% of samples positive	0%	1.6% of samples positive. (0% - 1.6 %)	Naturally present in the environment

DEFINITIONS FOR READING WATER QUALITY TABLES

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 Contaminate 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.

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

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).

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

YEAR 2004 WATER FACTS

In 2004, Renton's wells produced an average of 7.64 million gallons of water per day.

The highest water demand day in 2004, occurred on July 24, 2004, when 14.25 million gallons of water were consumed.

The lowest water demand day in 2004, occurred on March 18, 2004, when 5.02 million gallons of water were consumed.

The total water produced by Renton Water Utility from all sources for 2004 was 2.79 billion gallons.

YEAR 2004 LEAD AND COPPER SAMPLING AT RESIDENTIAL WATER TAPS

Detected Compound	Action Level	Ideal Goal	90th Percentile Value	Posible Sources of Detected Compound
Lead	15 ppb	0 ppb	2 ppb (see note 1)	Corrosion of household plumbing systems
Copper	1.3 ppm	1.3 ppm	0.73 ppm (see note 1)	Corrosion of household plumbing systems

NOTES:

1. Sixty (60) samples were tested. Ninety (90) percent of the samples tested had levels at or below this value. Ten (10) percent of the samples tested (6-samples) had levels above this value.
2. The primary MCL and MCLG for fluoride is 4 ppm. The secondary MCL for fluoride is 2 ppm.
3. The EPA has established a recommended level of 20 ppm for sodium as a level of concern for those consumers that may be restricted for daily sodium intake in their diets.
4. The USEPA has proposed regulating radon beginning in 2005. The proposed MCL is 300 pCi/L.

The EPA requires monitoring for the presence of lead and copper with the goal to minimize human exposure to lead and copper in drinking water. Neither lead nor copper has been detected in Renton's water sources.

However, our water is naturally corrosive which could cause lead and/or copper present in your home plumbing to leach into your drinking water. To reduce its potential to corrode household plumbing, we treat our water with sodium hydroxide to raise the pH. The City then tests for lead and copper at household taps to make sure that our Corrosion Control Treatment is working.

The results of these tests are shown in the table above.

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 (800-426-4791).

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).

WATER IN THE NEWS – Drought

The biggest water news this year was Governor Gregoire's March 10 authorization to the Department of Ecology to declare a statewide drought emergency. This declaration was based on the extremely low snow pack in the mountains and record-low flows that were being seen in many rivers across the state. So how does a drought emergency affect a totally groundwater-based water source such as Renton's? The answer is not clear cut.

Like lakes and rivers, underground water can also experience low water levels during drought. Groundwater supply, or recharge, comes from precipitation that falls on the earth and percolates through to the saturated zone found below the water table; or it comes from losses or seepage of water from streams, lakes, or wetlands. Sometimes this flow is reversed and water flows from groundwater to supply surface water sources. As you can see, the supply of groundwater in an aquifer is subject to multiple influences.

Well systems usually respond much more slowly – if at all - to drought than does surface water. This is because the reduced rainfall that is recharging the aquifer takes time to travel through the ground before it reaches the wells. If it were a simple system, the drought effect on the wells would simply be delayed by this amount of travel time. However, it is not a simple system. Water is usually contributed over a wide area of varying distances and the water travels through the ground at varying speeds depending on the material. It is entirely possible that the drought effect would never reach the wells if the capacity of the underground materials were transporting water below their capacity during normal rainfall conditions.

WATER USE IT WISELY®

So, what does this mean for Renton water users? It is always a good idea to use water wisely. Follow as many of the water conservation tips for indoors and in your lawn and garden as you can. Visit the Water Conservation Coalition of Puget Sounds' website (www.bewatersmart.net) for lots of useful ideas. Meanwhile, the City will be watching our wells and piecing together the underground clues in order to keep you up to date.

Renton is a vibrant, growing City and our water supply is finite so we all need to Make Water Conservation a Habit!

Eyes on Salmon

Need an excuse to get outside and commune with Nature? Be a Salmon Watcher! The Salmon Watcher Program trains volunteers to identify and record species and numbers of spawning salmonids in streams in the Lake Washington Watershed and on Vashon Island. The data is used by policy makers and the public to protect salmon and trout species. You can train and watch right here in Renton. If you are interested in being a Salmon Watcher or would like more info, contact Raymond van der Roest at 425-430-7392, or email: rvanderroest@ci.renton.wa.us. Training classes will be forming late summer/early fall. Check out the Salmon Watcher website for more info: www.dnr.metrokc.gov/wlr/waterres/salmon/

Q & A

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 is added at a rate of 0.8 to 1.3 parts per million to help prevent tooth decay.

IS RENTON'S WATER SOFT OR HARD?

A water's hardness, is dependent upon the levels of two naturally occurring soluble minerals - calcium and magnesium. Renton's water falls within the soft range with about 3.0 grains per gallon of hardness. This means that dishwashing and clothes washing require relatively less soap than in other areas where the water is hard.

IS BOTTLED WATER SAFER THAN TAP WATER ?

Bottled water is not necessarily safer than your tap water. The 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 standards generally have less rigorous testing and purity standards than the EPA regulated tap water. Some bottled water is treated more than tap water, while some is treated less or not treated at all. Consumers who choose to purchase bottled water should carefully read its label to understand what they are buying. The use of bottled water is a personal choice, which is usually based on taste preferences.

WHY IS MY WATER SOMETIMES CLOUDY?

Cloudy water is usually caused by tiny air bubbles in the water similar to gas bubbles in carbonated beverages. These air bubbles are either from dissolved oxygen being released or trapped air in the plumbing. Usually, this cloudiness occurs in the winter, when the drinking water is cold and can hold more oxygen.

WHY DOES MY WATER SOMETIMES SMELL OR TASTE LIKE CHLORINE?

Renton's water is very clean as it comes from the ground. Chlorine is added to stop bacteria from growing in the water delivery pipelines. If you are sensitive to the smell or taste of chlorine, you can use one of the following techniques. Keep a pitcher of water in the refrigerator, the chlorine will dissipate within a few hours and you will conserve water by not having to run the tap to get a cool drink. You can speed the chlorine dissipation process up by pouring water back and forth between two pitchers. Many faucet filters will also remove chlorine taste and smell – make sure you maintain the filter, as an improperly maintained filter can actually make water less safe.

Project Update

Construction of the City's Maplewood Drinking Water Treatment Facility is nearing completion. Start up and functional testing of the new facility will begin in the Fall of 2005. The City plans to start using water from the Maplewood wells in late 2005.

The City started the development of the Maplewood well field in 1988 as a backup source of water supply to the downtown wells. Over the last 18 years, we have completed the construction of three new wells, a new booster pump station, and several miles of transmission pipeline.

Installation of filter vessels at Maplewood Facility.

The Maplewood Drinking Water Treatment Facility is the final phase of the Maplewood well field development project. The new treatment process includes the removal of manganese, hydrogen sulfide and ammonia from the raw water in order to eliminate taste and odor problems and the staining of laundry and plumbing fixtures caused by the presence of these naturally occurring compounds in the Maplewood deep aquifer.

The City will now have the flexibility to supply water from both the Maplewood wells and the downtown wells.

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 7:30 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 info at Renton's website, www.ci.renton.wa.us.

If you are interested in getting involved with our Aquifer Protection education or Groundwater Guardian Team, you can call 425-430-7287.

Who Do I call?

Questions about this report?
Call: Water Utility at 425-430-7287.

Questions about water discoloration, taste or odor problems? Call: Water Quality at 425-430-7400 (7 am to 3:30 pm) or 425-430-7500 after hours.

To report water pressure problems, a broken water main, hydrant, water leak in streets or at a meter. Call: Water Maintenance: at 425-430-7400 (7 am to 3:30 pm) or 425-430-7500 after normal working hours or on weekends.

Moving? To arrange a change of water service billing, or for general billing questions, Call: Utility Billing at 425-430-6852

Emergencies after 3:30 p.m. or on weekends, Call 911.