

DRINKING WATER QUALITY REPORT 2003

Keeping Our Water Safe, Clean and Flowing.

The City of Renton is fortunate to have a reliable and adequate supply of high quality water. However, we must never, especially in these uncertain times, take our good fortune for granted.

Customers' concerns over the security of public water supplies have increased significantly since the events of September 11, 2001. As required by the Public Health Security and Bioterrorism Response Act of 2002, the City is conducting a vulnerability assessment of our water system. The goal is to assess potential threats critical to our water supply and facilities, identify the consequences of these threats and recommend safeguards or measures to protect the City's water system. As part of this program, the City has installed additional security systems at our wells and water facilities. Another vital part of the security system is the eyes and ears of our citizens. We depend on you to report

**"Providing
High Quality
And Safe
Drinking Water
To Our Customers
Is Renton's Highest
Priority."**



continued from page 1

any suspicious activities that you may see at our water facilities to the Renton police department by calling 911.

Being prepared is nothing new for Renton's Water Utility. The engineering, water maintenance and water quality teams are routinely taking care of the daily details like maintaining pH to preparing for the big disastrous events like earthquakes, terrorist attacks or floods.

We have been working to protect our drinking water since 1988 when we petitioned the Environmental Protection Agency (EPA) to have our aquifer declared a "Sole Source Aquifer." This designation protects our groundwater resource by requiring EPA review of any proposed projects within our Aquifer Protection Area (areas within the City

limits beneath which groundwater moves toward the downtown drinking water wells, aka APA) that are receiving federal financial assistance.

The aquifer was further secured when in 1992 the Renton City Council passed an Aquifer Protection Ordinance that regulates the use, storage, production and disposal of hazardous materials within the area known as the Aquifer Protection Area. This has grown into an ongoing annual permit process. Along with making sure our aquifer water source is secure, the City has taken steps to prepare for a possible water supply shortage or emergency by acquiring and developing the Maplewood Golf Course Wellfield for use as a backup water supply.



Renton gateway at Grady Way and Oakesdale

Corrosion Control

In 1998-99, the City constructed and began operating Corrosion Control Treatment Facilities. The treatment process consists of raising our water's pH to 7.3, which reduces the leaching of lead and copper from household plumbing.

Backup Water Supplies

In case of a water emergency, Renton has several connections and agreements, known as interties, with surrounding water systems that could be utilized to get water for use in our system. In addition to the Maplewood Wells backup supply, we also have a backup emergency well in the Downtown well field.

Backup Power Supply

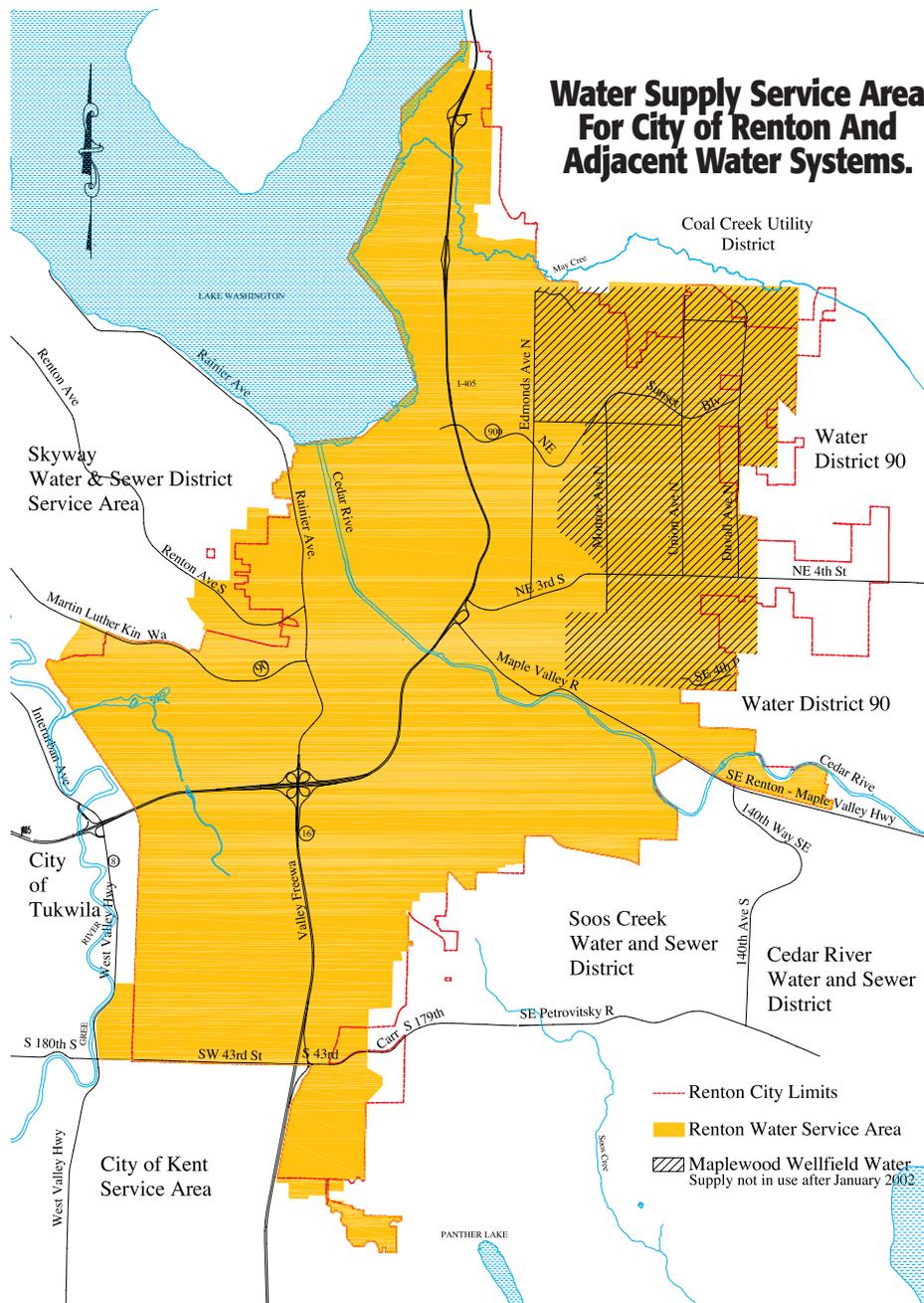
The City has a trailer-mounted 500-kilowatt electrical generator set that can provide power to any of the water well houses or booster pump stations in the case of an isolated power outage.

Cross-Connection Control

A cross-connection is a physical connection between a potable water line and a plumbing fixture that contains non-potable materials. To prevent cross-contamination, backflow prevention assemblies are required to be installed and tested on an annual basis to make sure they are functioning properly.

Regular Monitoring and Maintenance

The Water Distribution Maintenance team routinely monitors and maintains 9 reservoirs, 2 water treatment facilities, 8 wells, 18 pump stations, 289 miles of water mains, 3,193 fire hydrants and 14,583 water meters. Sampling and analysis for over 120 compounds are also made on a routine basis to ensure the quality of our drinking water.



Working Together

Threats to our drinking water aren't always big or disastrous events that the City can anticipate or fix. The daily actions of the citizens of Renton may have the biggest impact on our drinking water. Ultimately, maintaining our supply of high quality water requires a partnership between the Water Utility and Renton citizens. What is your role in this partnership? You can contribute to the continued health and safety of our water supply by learning and practicing some fairly simple habits.

There are a lot of chemicals that we use everyday in our homes, gardens and garages that not only could harm our aquifer and the environment, but could also damage your or your family members' eyes, skin or lungs. Make sure you read the label. Look for the words Danger, Warning or Caution on the product label. If you see these words, look for less toxic alternatives. Need help? Call the Hazards Line at 206-296-4692 or visit the Local Hazardous Waste Management Program website at <http://www.metrokc.gov/hazwaste/house/index.htm>

By working together, we can make sure that our aquifer provides clean and adequate water for our community for a long time to come.

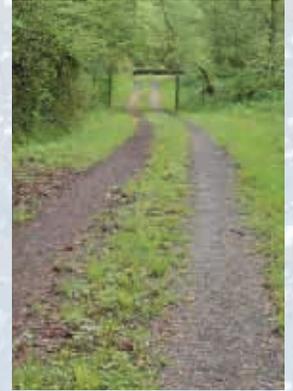


View from Renton Hill

Where Does Renton's Drinking Water Come From?

In 2002, Renton drew its drinking water from three sources: five downtown wells which draw water from the Cedar Valley Aquifer; Springbrook Springs, a small springs located at the southern city limits; and two wells which draw from the Maplewood Aquifer source. In 2002, our combined water sources produced 2.64 billion gallons of water.

The downtown wells are our primary source of water. In 2002, these wells produced approximately 85 percent of Renton's water, while approximately



fourteen percent of Renton's drinking water was supplied by Springbrook Springs.

The water pumped from these sources is very clean and needs minimal treatment. We add chlorine to destroy bacteria and viruses and to make sure it stays clean on

its 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 reduce corrosion of iron water pipes.

The Maplewood Wells, which tap into the deep Maplewood aquifer, were utilized only briefly in January 2002. The Maplewood Wells facility was then shut down while new treatment facilities are being designed and constructed. It will remain in stand-by mode until the completion of the construction in 2004.



Pump station



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 Contaminant 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

Renton Meets Or Exceeds All Water Quality Standards

The results of our 2002 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 monitor for over 120 compounds to make sure our drinking water is safe. The ones listed in these tables are the only ones that were detected.

As you can see, the water from the Downtown wells, Springbrook Springs and the Maplewood wells all meet or exceed federal and state drinking water quality standards.

2002 WATER

YEAR 2002 WATER QUALITY DATA FOR DOWNTOWN WELLS AND 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.	28.4 ppb (11.6 – 28.4 ppb)	By-product of drinking water chlorination.
Regulated at the Groundwater Source after Treatment				
Fluoride	4 ppm (see note 2)	4 ppm (see note 2)	1.3 ppm (0.8 - 1.3 ppm)	Water additive which promotes strong teeth.
Nitrate	10 ppm	10 ppm	2.4 ppm	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Sulfate	No primary MCL, Secondary MCL = 250 ppm	No MCLG established	14 ppm (sampled 3/21/2001)	Erosion of natural deposits.
Sodium	No MCL established (see note 3)	No MCLG established (see note 3)	6.9 ppm (sampled 3/21/2001)	Erosion of natural deposits
Radon	No MCL established (see note 4).	No MCLG established.	305 pCi/L (165 –305 pCi/L., Sampled 11/08/2000)	Decay of natural deposits
Coliform Bacteria	5% of samples positive	0%	1.6% of samples positive.(0% - 1.6%)	Naturally present in environment.

The City of Renton's water met or exceeded state and federal standards for drinking water quality during the 2002 calendar year. This report is written and distributed in compliance with the federal Safe Drinking Water Act, which requires water utilities to describe where our drinking water comes from; what contaminants it contains; how it compares to stringent water quality standards; and what we are doing to protect our water supply.



Groundwater level monitoring

LEAD AND COPPER MONITORING

Although neither lead nor copper has been detected in our water sources, our water is naturally corrosive. This can cause lead and/or copper present in your home plumbing to leach into your water and be present at your tap. To reduce the household plumbing corrosion potential, we treat our water with sodium hydroxide to raise its pH. Testing for lead and copper at household taps allows us to make sure that our Corrosion Control Treatment is working. The results of these tests are in the following table.



QUALITY DATA

YEAR 2002 WATER QUALITY DATA FOR MAPLEWOOD WELLS

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.	54.2 ppb	By-product of drinking water chlorination.
Regulated at the Groundwater Source after Treatment				
Fluoride	4 ppm (see note 2)	4 ppm (see note 2)	1.3 ppm (0.8 - 1.3 ppm)	Water additive which promotes strong teeth.
Sodium	No MCL established (see note 3)	No MCLG established (see note 3)	14 ppm (sampled 03/21/2001)	Erosion of natural deposits.
Manganese	No primary MCL, Secondary MCL = 50 ppb	No MCLG established	89 ppb (sampled 3/21/2001)	Erosion of natural deposits
Radon	No MCL established (see note 4).	No MCLG established	190 pCi/L (Sampled 11/08/2000)	Decay of natural deposits

YEAR 2002 LEAD AND COPPER SAMPLING AT RESIDENTIAL WATER TAPS

Detected Compound	Action Level	Ideal Goal	90th Percentile Value	Possible Sources of Detected Compound
Lead	15 ppb	0 ppb	3 ppb (see note 1)	Corrosion of household plumbing systems.
Copper	1.3 ppm	1.3 ppm	0.9 ppm (see note 1)	Corrosion of household plumbing systems.

TABLE NOTES

- Sixty-four (64) samples were tested. Ninety (90) percent of the samples tested had levels at or below this value (10 percent of the samples tested had levels above this value).
- The primary MCL and MCLG for fluoride is 4 ppm. The secondary MCL for fluoride is 2 ppm.
- 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.
- The USEPA has proposed regulating radon beginning in 2005. The proposed MCL is 300 pCi/L.



Water Quality

IN THE NEWS

ARSENIC

You may have been reading or hearing a lot lately about the EPA and Washington State Department of Health's new rule on arsenic. Arsenic is a naturally occurring element in rocks, soils, and the waters in contact with them. Recognized as a toxic element for centuries, arsenic today is also a human health concern as it can contribute to skin, bladder, and other cancers. The EPA has tightened the amount allowable in drinking water from 50 parts per billion (ppb) to 10 ppb in order to lessen people's long-term exposure and reduce the risk of adverse health effects. Although the rule will not go into effect until January 2004, we thought you might like to know that Renton's drinking water is well below the new lower standard. In fact, our highest measurement was less than one-fifth of the standard.

"Renton's drinking water is well below the new lower EPA standard."

DISINFECTION BYPRODUCTS

There has been concern in recent years over disinfection by-products. These are compounds produced by the reaction of any chemical disinfectant with organic matter in the water. Trihalomethanes (THMs) are a group of four chemicals that are formed when chlorine, or other disinfectants used to control microbial contaminants in drinking water, react with naturally occurring organic and inorganic matter in our water.

The good news for Renton water customers is that because THMs form through the partial oxidation of organic material, they are not a major concern for the treatment of groundwater because of the naturally low organic matter content in groundwater.



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 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 RISK INFORMATION

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).

Safe Drinking Water Hotline 1-800-426-4791

2002 Water Facts



In 2002, Renton's wells produced an average of 7.2 million gallons of water per day.



The highest water demand day in 2002 occurred on June 24, when 12.5 million gallons of water were produced.



The lowest water demand day in 2002 occurred on November 29, when 3.9 million gallons of water were produced.



The total water produced by Renton Water Utility from all sources for 2002 was 2.64 billion gallons.

Project Updates

- The Maplewood wells treatment improvements design is complete. Construction of facilities is scheduled to begin in October 2003.



Emergency well house

- Emergency supply well house and pump station in Downtown well field is complete and operational.

- Large piping installation in Liberty Park for increased chlorine contact time of Downtown well water is complete and operational.



Piping installation in Liberty Park

- Rolling Hills and Highlands elevated reservoirs repair and seismic upgrade is complete.



Seismic stabilization struts for Rolling Hills Reservoir

- Improvements of water mains for North Highland, Williams Avenue South, and Morris Avenue South are underway.

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 one part 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.

Why does my water sometimes smell or taste like chlorine?

Renton's water is very clean when 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 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.

Is bottled water safer than tap water and do I need a home water treatment device?

Not necessarily. The safety of bottled water depends on the source of water and the treatment it receives. Bottled water is regulated by the Food and Drug Administration, which has less rigorous testing and purity standards than tap water, which is regulated by the U.S. Environmental Protection Agency.

The use of bottled water or a home water treatment device is a personal choice, which may be based on taste preferences. If you use a treatment device, be sure to select a unit approved by the National Sanitation Foundation (NSF) and also be sure to properly maintain the device to avoid water quality problems.

**ECRWSS
Postal Customer**

Planning/Building/Public Works
City of Renton
1055 South Grady Way
Renton, WA 98055



PRSRST STD
U.S. POSTAGE
PAID
RENTON, WA
PERMIT NO. 137

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. 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 Engineering
at 425-430-7287

Questions about water taste, discoloration 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.

Please Recycle this Report. ♻️ This report printed on paper with recycled content.