Construction of the 50-million gallon Beacon Hill underground reservoir. Protecting the Beacon, Myrtle, Maple Leaf and West Seattle Reservoirs cost approximately $140 million.

Seattle water: Less than a penny a gallon delivered to your tap

It's strange but true: Water is necessary to life, yet it costs very little compared with its value. Good quality water is one of the best investments a community can make—it protects us from water-borne illnesses and spares us the high cost of bottled water.

This year's Drinking Water Quality Report, a federally required document that gives you data about Seattle's water, shows that we continue to enjoy safe, high-quality water due to the investment we have made in watershed protection and treatment.

Seattle's drinking water system—one of the best in the nation—has recently been upgraded:

- We have state-of-the art water treatment facilities.
- Most of our storage reservoirs are protected with hard covers.
- Our water supply is expected to meet our needs until at least 2060.

Your water rates help us pay for these investments that will provide clean, safe, high-quality drinking water for generations to come.

Seattle Public Utilities

Seattle Public Utilities
700 Fifth Avenue, Suite 4900
P.O. Box 34018
Seattle, WA 98124-4018

Seattle water is clean, safe, and costs less than a penny a gallon. For translation services please call 206-684-3000.

El agua de Seattle es limpia, segura y cuesta menos de un centavo el galón. Para servicios de interpretación por favor llame al 206-684-3000.

Ang tubig sa Seattle ay malinis, ligtas, at nagkakahalaga ng wala pang isang sentimos ang bawat galon. Para sa serbisyo ng tagapagpaliwanag, tumawag sa 206-684-3000.

Nguồn nước của Seattle sạch, an toàn và có giá chưa tới một xu một gallon. Về dịch vụ phiên dịch xin gọi 206-684-3000.

씨애틀의 수돗물은 깨끗하고 안전하며 또한 거랠 할 너 너. 통역 서비스를 원하시면 **206-684-3000**으로 전화하세요.

西雅圖的水乾淨、安全、每加侖成本不到一分錢
如需要口譯服務，請撥電話號碼206-684-3000

Biyaha Seattle waa nadiif, waa amaan, qiimahana waa ka jaban yahay hal senti halkii galan. Wixii turjubaan afka ah ku saabsan, Fadlan la soo xariir talefoonka: 206-684-3000.

Learn more about your water at www.seattle.gov/util

Printed on 100 percent post-consumer recycled paper using soy-based inks.

You're receiving this mailed report as part of a federal reporting requirement for municipal water systems.

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SEATTLE'S WATER— A GREAT VALUE.

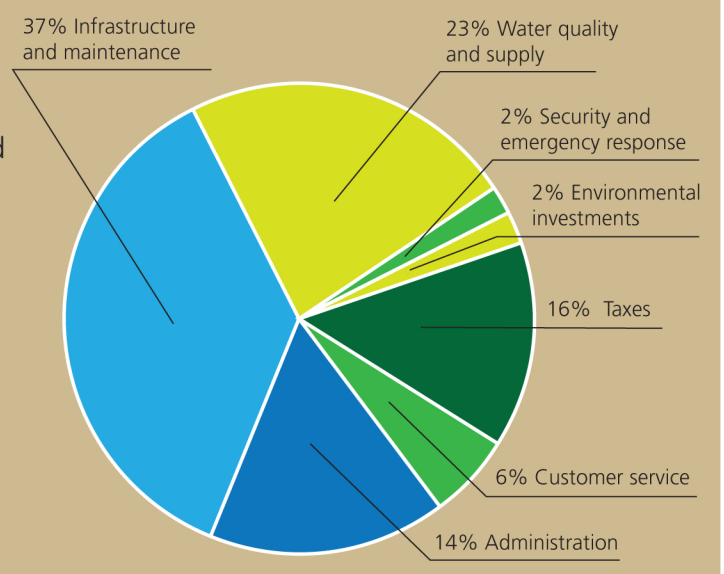
Drinking Water Quality Report **2010**

Where your rate dollar goes

Seattle Public Utilities (SPU) provides great-tasting, safe water to your tap at less than a penny a gallon. Your water rates pay for maintaining our water system, from protecting, storing, treating, and delivering water to your tap, to customer service, security, tax and administration.

Rate assistance program
For those of our customers who are struggling with financial hardship, we're committed to providing rate assistance. For more information about the program, go to www.seattle.gov/mybill.

Keeping costs down
In response to budget challenges SPU has streamlined this year's report while ensuring that customers continue to get important information about their drinking water quality. This year's report cost $.30 per piece to produce and send to all of our customers, a 7 percent decrease from last year.



Seattle Public Utilities

Conserving water is a shared value

Conserving water helps us provide water for people, salmon, other wildlife and future generations. Conserving water also helps you manage your water bills. Together, we have saved an estimated 9.6 million gallons per day (mgd) since 2000, even though our population is growing. And since 2007, we've saved more than 3 mgd toward our 2012 goal of nearly 6 mgd, which was set by the Saving Water Partnership to meet state requirements. In 2010 alone, we saved an estimated 570,000 gallons per day. That's enough water to fill 20,000 bathtubs every day!

Stopping leaks in our water system is one way we work to conserve. SPU supplied 43.2 billion gallons of drinking water in 2010, of which 2.8 billion gallons were classified as leakage*. Our system-wide leakage rate has averaged 5 percent over the last three years, very low compared with most other water utilities and well below the 10 percent state standard.

At home, you can save water and money by fixing leaks. Did you know that a toilet that leaks one gallon a minute can cost you up to $800 a month in water and sewer charges? For advice on finding and fixing leaks around your home, including toilet leaks, visit www.savingwater.org.

* Leakage includes water used in fire fighting, street cleaning, construction, water main and hydrant flushing and metering inaccuracies, as well as actual leakage from reservoirs, water mains and service lines.

We've reduced fluoride levels

Since 1970, fluoride has been added to Seattle's water as a preventative against tooth decay. In response to a January 2011 proposed U.S. Department of Health and Human Services recommendation, we have lowered fluoride levels to 0.8 parts per million, the lowest level allowed by state law. This move was strongly supported by local health officials.

We are continuing to work with state and local public health agencies in preparation for a final federal recommendation on fluoride levels, which is expected in late summer or early fall of 2011.

Your opinion matters

Much of the language in this report is required by the Environmental Protection Agency (EPA), but we've done what we can to make it easier to understand and read. **Let us know how we're doing and what you think about Seattle Public Utilities and your water. Go to www.seattle.gov/util to answer a few questions that will help us serve you better.**

Seattle Public Utilities

Our drinking water quality reflects our investments

Here's the part that the EPA requires:

SPU measures for potential contaminants that may impact human health, taste or appearance of your drinking water.

In general, drinking water sources (including tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

To ensure that tap water provided by public water systems is safe to drink, the U.S. Environmental Protection Agency and the Washington State Board of Health prescribe regulations that limit the amount of certain contaminants. U.S. Food and Drug Administration and the Washington State Department of Agriculture regulations establish similar limits on bottled water.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. But the presence of contaminants does not necessarily indicate that water poses a health risk. For more information about contaminants and potential health effects call the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

Two surface water sources provide the majority of water for SPU's system. In 2010, 62 percent was provided by the Cedar River. The remaining 38 percent came from the South Fork Tolt River. These two surface water sources begin in the Cascade Mountains and have very large protected watersheds. The system also has access to wells located in Burien that are only used to meet peak summer demand. The wells were not used in 2010.

Since both watersheds are publicly owned, SPU is able to safeguard our watersheds through a comprehensive protection program. This program prohibits agricultural, industrial, and recreational activities in the watersheds, and no one is allowed to live there. This means there is little opportunity for contaminants to enter the water. Even so, there is always some potential for natural sources of contamination.

In Seattle's surface water supplies, the potential sources of contamination include:

- microbial contaminants, such as viruses, bacteria, and protozoa from wildlife;
- inorganic contaminants, such as salts and metals, which are naturally occurring; and
- organic contaminants, which result from chlorine combining with the naturally occurring organic matter.

Our results

The results of monitoring in 2010 are shown in the adjacent table. These results are for parameters regulated by the federal and state agencies. For other water quality information, please check our web site *(www.seattle.gov/util)* or call **206-615-0827**. We can also send you a list of the more than 200 compounds for which we tested but did not find in our surface water supplies.

Water quality monitoring data can be difficult to interpret. To make all the information fit in one table, we used many acronyms that are defined below the table. In Seattle, if you live south of Green Lake, your water probably comes from the Cedar. Areas north of Green Lake usually receive Tolt water. Each source can provide water to other areas in Seattle if needed.

Other information about your water

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. For Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants, call the Safe Drinking Water Hotline (800-426-4791).

Washington's Source Water Assessment Program is conducted by the Department of Health (DOH) Office of Drinking Water. According to DOH, all surface waters in Washington are given a susceptibility rating of "high", regardless of whether contaminants have been detected or whether there are any sources of contaminants in the watershed. The Seattle wells have been given a susceptibility rating of "low" because of the type of aquifer, depth of well, and lack of contaminant detection. Information on the source water assessments is available from the DOH website at *https://fortress.wa.gov/doh/eh/dw/swap/maps*.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. SPU 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 running your tap for 30 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 (800-426-4791) or at http://www.epa.gov/safewater/lead.

Although there is no detectable lead in our source water, tests show there are sometimes elevated levels of lead and copper in some samples, primarily because of corrosion of household plumbing systems. These results show that it is very important that homeowners, business owners, and others be aware of their type of plumbing, and how the plumbing affects their drinking water quality.

		EPA's Allowable Limits		Levels in Cedar Water		Levels in Tolt Water		
Detected Compounds	Units	MCLG	MCL	Aver-age	Range	Aver-age	Range	Typical Sources
Raw Water								
Total Organic Carbon	ppm	NA	TT	0.9	0.4 to 1.8	1.3	1.2 to 1.4	Naturally present in the environment
Cryptosporidium	#/100L	NA	NA	ND	ND	ND	ND	Naturally present in the environment
Finished Water								
Turbidity	NTU	NA	TT	0.4	0.2 to 4.5	0.07	0.04 to 0.11	Soil runoff
Fluoride	ppm	4	4	0.95	0.7 to 1.1	1.0	0.9 to 1.2	Water additive, which promotes strong teeth
Barium	ppb	2000	2000	1.8	one sample	1.3	one sample	Erosion of natural deposits
Nitrate	ppm	10	10	0.02	one sample	0.13	one sample	Erosion of natural deposits
Arsenic	ppb	0	10	0.5	one sample	ND	one sample	Erosion of natural deposits
Chromium*	ppb	100	100	0.8	one sample	0.6	one sample	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	30	20 to 39	34	26 to 46	By-products of drinking water chlorination
Haloacetic Acids(5)	ppb	NA	60	21	6 to 34	30	18 to 30	
Total Coliform	% positive samples	0	5%	Highest Month = 0.8% Annual Average = 0.14%				Naturally present in the environment
E. Coli	# of samples	0	0	2 positive samples out of 2833 total samples collected in 2010**				Human and animal fecal waste
Chlorine	ppm	MRDLG = 4	MRDL = 4	Average = 0.84 Range = 0 to 2.2				Water additive used to control microbes

Note: *Cryptosporidium* was not detected in any samples from the Cedar or the Tolt rivers.
* The value reported reflects naturally-occurring total chromium and not hexavalent chromium.
** Follow-up sampling showed no indication of contamination. Compliance was maintained.

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 the MCLGs as feasible using the best available treatment technology.
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.
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.

TT: Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.
NTU: Nephelometric Turbidity Unit - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2009 was 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2009 were below 0.3 NTU.
NA: Not Applicable
ND: Not Detected
ppm: 1 part per million = 1 mg/L = 1 milligram per liter
ppb: 1 part per billion = 1 ug/L = 1 microgram per liter
1 ppm =1000 ppb

Lead and Copper Monitoring Results

Parameter and Units	MCLG	Action Level+	2010 Results++	Homes Exceeding Action Level	Source
Lead, ppb	0	15	5	0 of 50	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.14	0 of 50	

+ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
++ 90th Percentile: i.e. 90 percent of the samples were less than the values shown.

Seattle Public Utilities

Want to learn more?
Visit www.seattle.gov/util