

The image features a close-up of water splashing into a clear glass, with a mountain range visible in the background. The entire scene is set against a blue gradient background. The Seattle Public Utilities logo is in the top left corner.

Seattle
Public
Utilities

**MOUNTAIN FRESH WATER
DELIVERED RIGHT TO YOUR FAUCET**

DRINKING WATER QUALITY REPORT 2011



SEATTLE TAP
WATER
GREAT TASTE
GREAT QUALITY
GREAT VALUE

WASTING LESS, ENJOYING IT MORE

No one likes to waste things, especially something as precious as our great water. And you, our residential and commercial customers, continue to do a great job of conserving water. In 2011, you saved an estimated 1.4 million gallons per day (mgd) as part of the Saving Water Partnership (a group of local water utilities that purchase water from Seattle and work together to provide water conservation programs in Seattle and King County). That's enough water to supply 9,400 single-family homes.

In the past five years, we've collectively saved about 4.6 mgd toward our 2012 goal of nearly 6 mgd. Conservation saves you money, protects fish and wildlife, and helps ensure a reliable future supply even as our region grows. We're doing our part as well: Seattle Public Utilities supplied 118 mgd of drinking water in 2011, with a leakage rate of only 6 percent—low compared with most other water utilities.

DRINK LOCAL

This year's Drinking Water Quality Report confirms the good news: Seattle's tap water continues to be some of the best in the nation. Not only is our water exceptional, it also tastes great, as measured by our taste test lab. Why is our water so good?

Where it comes from: Protected watersheds.

Treatment: Filtering, ozonation, and ultraviolet light as needed.

Testing: We test for hundreds of contaminants.

Delivery: Always available any time, right from your faucet.

This means you don't have to turn to expensive bottled water to get great quality, taste, and value.



WATER FACT:

Seattle's drinking water supply not only goes to your faucet, but flows downstream to provide habitat for fish and wildlife.

WHAT THE EPA WANTS YOU TO KNOW ABOUT YOUR WATER

To ensure that tap water is safe to drink, the Environmental Protection Agency and the Washington State Board of Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration and/or the Washington State Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Sources of drinking 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.

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 (800-426-4791)**.

WHERE OUR WATER COMES FROM—PROTECTED WATERSHEDS

Our water comes from two large, protected watersheds in the Cascade Mountains—the Cedar and Tolt rivers. In 2011, about 60 percent of our water came from the Cedar River, and 40 percent from South Fork Tolt River. The system also occasionally gets water from wells located in SeaTac, which are used to meet peak summer demand and were not used in 2011.

Since both watersheds are publicly owned, Seattle Public Utilities is able to vigorously protect them. We prohibit 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.
- Organic contaminants, which result from chlorine combining with the naturally occurring organic matter.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as those undergoing chemotherapy, organ transplant recipients, 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. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*

and other microbial contaminants are available from the **Safe Drinking Water Hotline (800-426-4791)**.

The State Department of Health (DOH) Office of Drinking Water gives surface waters in Washington 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/>.

OUR RESULTS

The results of monitoring in 2011 are shown in the table on the next page. These results are for parameters regulated by the federal and state agencies. For other water quality information, please check our website or call **206-615-0827**. We can also send you a list of the more than 200 compounds we didn't find!

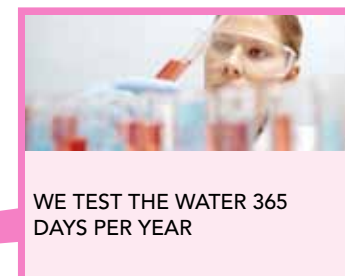
Water quality monitoring data can be difficult to interpret. To make all the information fit in one table, we used many acronyms that are defined below the table.



A TASTE PANEL ENSURES GOOD TASTING WATER



OZONATION, FILTRATION, AND UV TREATMENT RESULT IN SAFE, HEALTHY DRINKING WATER



WE TEST THE WATER 365 DAYS PER YEAR



SEATTLE'S WATER COMES FROM 100,000 ACRES OF WILDERNESS WATERSHEDS IN THE CASCADES

WE TEST FOR OVER 200 COMPOUNDS AND THIS IS ALL WE FOUND

		EPA'S ALLOWABLE LIMITS		LEVELS IN CEDAR WATER		LEVELS IN TOLT WATER		
DETECTED COMPOUNDS	UNITS	MCLG	MCL	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCES
RAW WATER								
Total Organic Carbon	ppm	NA	TT	0.7	0.3 to 1.2	1.3	1.2 to 1.6	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	ND	ND to 2	Naturally present in the environment
FINISHED WATER								
Turbidity	NTU	NA	TT	0.4	0.2 to 2.9	0.06	0.04 to 0.15	Soil runoff
Barium	ppb	2000	2000	1.4	one sample	1.2	one sample	Erosion of natural deposits
Cadmium	ppb	5	5	ND	one sample	0.8	one sample	Erosion of natural deposits
Chromium**	ppb	100	100	0.2	one sample	0.2	one sample	Erosion of natural deposits
Fluoride	ppm	4	4	0.8	0.6 to 1.0	0.8	0.4 to 1.1	Water additive, which promotes strong teeth
Nitrate	ppm	10	10	0.09	one sample	0.11	one sample	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	34	18 to 51	38	21 to 70	By-products of drinking water chlorination
Haloacetic Acids(5)	ppb	NA	60	23	8 to 44	27	18 to 37	
Chlorine	ppm	MRDLG = 4	MRDL = 4	Average = 0.89		Range = 0 to 1.9		Water additive used to control microbes

*Cryptosporidium was not detected in any samples from the Cedar. It was detected in one of four samples from the Tolt.
 **The value reported reflects naturally occurring total chromium and not hexavalent chromium.

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.

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.

Although there is no detectable lead in our source water, lead and other metals can leach into the water, primarily because of corrosion of household plumbing systems. 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. Seattle Public Utilities treats the water to minimize the tendency for lead to enter the water, and results show that we have been very successful at this.

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. Seattle Public Utilities is responsible for providing high quality drinking water, but cannot control the variety of materials used in home plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 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>.

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 2011 was 5 NTU, and for the Tolt it was 0.3 NTU for at least 95 percent of the samples in a month. 100 percent of the samples from the Tolt in 2011 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

WANT TO LEARN MORE? VISIT WWW.SEATTLE.GOV/UTIL/WATERQUALITY FOR CONSERVATION INFO., VISIT WWW.SAVINGWATER.ORG



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PRESORTED
STANDARD
US POSTAGE PAID
SEATTLE, WA
PERMIT NO. 2129

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 naghahalaga 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.

세ATTLE의 수도물은 깨끗하고 안전하며 또한 저렴합니다.
통역 서비스를 원하시면 206-684-3000으로 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 taleefoonka: 206-684-3000.

We're interested in your opinions! Take a quick survey at www.seattle.gov/util

This report cost \$0.37 to produce and mail to you.

Printed on 30 percent post-consumer, 100 percent recycled paper using soy-based inks.

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