

What if my water tastes like chlorine? Chlorine is used by water utilities throughout the civilized world to prevent disease-causing microorganisms from growing inside water lines. The Washington State Department of Health requires chlorinating for surface water supplies. There may be an odor of chlorine when you first turn your tap on, especially in the morning. However, that odor should rapidly dissipate and you should not be able to taste it after running the water for a while. If your water has a persistent objectionable taste or odor, please call us.

Do all water systems add fluoride to their water? Not all water systems add fluoride to the water. The City of Snohomish does not add fluoride to the water produced at the City's water treatment plant, but the City of Everett does add fluoride to their water at one part per million (ppm), which is the level health experts have determined to be safe. The city's water is supplied to the south pressure zone, and the city of Everett's water is supplied to the north pressure zones. Usually water in the south pressure zone does not contain fluoride, however on occasion we supplement water supply in the south zone with Everett water. During these times, fluoridated water from Everett is mixed with non-fluoridated water from Snohomish.

What does hardness refer to? Hardness refers to dissolved minerals in water (calcium and magnesium) that interfere with the sudsing action of soap. The harder the water, the less the sudsing action. The water you receive is very soft, which means that dishwashing, clothes washing and other activities require less soap than in other areas of the county.

Is bottled water safer than tap water? Not necessarily. Like tap water, the safety of bottled water depends on both the source of the water and the treatment it undergoes. Bottled water is

regulated by the Food and Drug Administration, not the EPA as tap water is. If you are using bottled water for health purposes, you should research the product you are using to make sure it provides the benefits you want.



What if my water is rusty or discolored?

Rusty or discolored water is usually caused by corroded galvanized plumbing in your home. Galvanized pipe is made of iron which corrodes over time, and the rust particles from the pipe can turn your water pale yellow to dark brown. Although it is aesthetically unappealing, this discoloration is not harmful to you. Your water will generally clear after a few minutes of flushing.

How can I get involved in water quality decisions? The Snohomish City Council meets Tuesday evenings at 7:00 PM in the meeting chambers of the School District Administration Building located at 1601 Avenue D, north of the Fire District station.

In May 2006 the City of Snohomish water treatment plant experienced a water treatment technique violation. On May 25th, during a Comprehensive Performance Evaluation Study with the Department of Health, we experienced a process control failure of one of the additives to our water. The result of this failure caused the turbidity (cloudiness) to rise slightly above the state standard. The process failure was corrected immediately, and the flow from the water treatment plant was shut down. However, some of the high turbidity water entered the system. Turbidity has no health effects, but high levels of turbidity can interfere with the disinfection process and provide a medium for microbial growth. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and

parasites, which can cause symptoms such as nausea, cramps, diarrhea and associated headaches. City of Snohomish water customers were sent a notice of this violation on June 27, 2006

WATER QUALITY INFORMATION

City of Snohomish

City Hall.....(360) 282-3180
Please call us with your water quality questions or concerns. If no one is available to assist you, someone will contact you within 24 hours to discuss your issues.

City of Everett
Public Works Dept..... (425) 257-8800
The City of Everett maintains a 24-hour Water Quality Hotline for your convenience.

24-hour Hotline..... (425) 257-8821
Please call with your questions or concerns about the City of Everett water quality.



SNOHOMISH DRINKING WATER MEETS THE HIGHEST STANDARDS

Drinking water quality is determined by testing for a variety of natural and man-made contaminants that can enter the water system. The City of Snohomish conducts many water quality tests each day.

About This Report...

The Safe Drinking Water Act requires community water systems to provide customers annual reports on the quality of their drinking water.

*Prepared by the City of Snohomish
Spring 2007*

Drinking Water Source

Your drinking water comes from two sources: the City dam on the Pilchuck River, and the City of Everett transmission line in the north part of the City. Our Water Treatment Plant on the Pilchuck River provides about 52% of the City water used; the other 48% is supplied by the City of Everett.



Our Treatment Plant is located about 16 miles northeast of the City, near Granite Falls on the Pilchuck River. The plant (built in 1981) treats an average of 750,000 gallons of water daily drawn from the Pilchuck River at the weir dam (built in 1936), and sends it through 16 miles of transmission line to the 5,000,000- and 1,500,000-gallon reservoirs at 13th and Pine. It is then distributed to the south pressure zone, which is generally in the area south of Tenth Street and includes the outlying areas of Ludwig Road, Sexton Road and Airport Road.

The area north of Tenth Street--the north pressure zone--is supplied by City of Everett water from the Spada Lake Reservoir located at the headwaters of the Sultan River.

Spada reservoir, which was created by the construction of Culmback Dam in 1965 and holds about 50 billion gallons of water, is located about 30 miles east of Everett in the Sultan Basin Watershed. From Spada Lake, the water flows through about 7 miles of tunnels and pipelines to Chaplain Reservoir where the City of Everett water treatment facility is located. Chaplain reservoir holds about 4.5 billion gallons of water. After the water is treated it flows through large transmission pipelines to a number of reservoirs located around the city. More information on Everett water quality is available at Snohomish City Hall or the City of Everett's Water Division.

At times, when the turbidity of the Pilchuck River is extremely high and difficult to treat, Everett

water is also supplied to the south pressure zone via pipelines to our reservoirs.

How is it Treated?

To provide you with the safest product possible, your drinking water is processed at our Water Treatment Plant. The plant uses coagulation and advanced filtration to remove suspended particles that may contaminate the water. Chlorine is added as a disinfectant to make sure the water is free of harmful microorganisms. The level of this additive is monitored continuously to ensure proper dosages are being added. Steps are also taken to adjust the pH of the water so it is less corrosive to pipes and plumbing fixtures.

The Water Treatment Plant operates 24 hours a day, about 300 days a year. Some days, usually after a hard rain, the water coming down the Pilchuck River has high turbidity, so the transmission line is fed from the back-up storage tank at the plant. On average, about 750,000 gallons of water flow through the plant each day, where it is treated and tested before it is passed on to the public. Ongoing improvements help to ensure that the Water Treatment Plant is able to meet the drinking water needs of our community. Equally important, they ensure the plant keeps pace with new drinking water regulations and continues to provide you safe, high quality drinking water.

Watershed Protection

Watershed protection is the first line of defense in protecting the naturally pristine water of the Pilchuck River. The watershed is patrolled on a regular basis. Access is restricted to sensitive areas of the watershed, and human activities are managed to minimize potential impacts on water quality. We also work with other jurisdictions and agencies to establish and maintain land-use policies that minimize the potential water quality impacts from human

activities in the watershed. The city of Everett follows similar procedure

What Is Your Water Tested For?

As water from the watershed travels over the surface of the land, 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. In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in the water provided by public water systems.



Last year, your drinking water was tested for a wide range of contaminants at varied frequencies. The contaminants that were detected are listed in the table found in this brochure. In reading this data, it is important to note that all of the contaminants listed were present in amounts significantly below EPA's allowable levels

Potential Health Effects

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 can be obtained by calling the EPA's Safe Drinking Water Hotline: 800-426-4791.

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, persons with HIV/AIDS or other immune system disorder, 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 *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can result in diarrhea, fever, and other gastrointestinal symptoms. The organism is in all of Washington's rivers and streams, and comes from animal wastes in the watershed. *Cryptosporidium* is eliminated by the effective treatment the City uses, including filtration and disinfection.

Polymer Addition

During water treatment, polymers are added to improve filtration and remove particulates from water. These particulates can include viruses, bacteria and other disease-causing organisms. The USEPA sets limits on the type and amount of polymer that a water system can add to the water. During treatment, the City adds only state approved NSF-certified polymers at levels far below the safe limits set by the EPA and the state.

Cross-Connection Control

The Cross-Connection Control Program administrates the procedures to protect the public water system from contamination via cross-connections as required in WAC 246-290-490 and per City Code section 15.10. The City currently evaluates the degree of hazard for new services and connections.

Frequently Asked Questions



What if my water is cloudy?

Cloudiness usually results from water line construction, routine waterline blow-offs, or fire hydrant operations in your area, and is caused by disturbance of residual sedimentation in the waterline and/or tiny air bubbles

in the water. Generally, this will disappear if you run your cold water tap for a few minutes. If you try this and the cloudiness persists, please call us.

What if I'm extremely sensitive to chlorine?

If you are extremely sensitive to the taste or smell of chlorine, you can use a granular-activated carbon filter to remove it from your water. These filters can be purchased as part of a water pitcher or as a unit that attaches directly to the faucet. If you purchase a filter, make sure to follow the instructions and change filters on schedule.

Tip for water customers

Even a minor continuous water leak can result in considerable additional water consumption that will be reflected in your monthly utility bill. It is to a property owner's economic benefit to ensure that their water system is tight and water is conserved to the extent possible. The additional cost for any leak between the City meter and the property are the responsibility of the utility customer.

Regulated Contaminants

Substance	Major Source	Units	EPA Regulations		Snohomish Water Results		
			Ideal Level/Goal (MCLG)	Maximum Allowable (MCL)	Range or Other	Avg Value or Highest Result	Comply?
Nitrate	Erosion of natural deposits, Animal waste	ppm	0	10	0.264	0.264	Yes
Total Coliform Bacteria	Naturally present in the environment	% Positive	0	5% Positive per month	0%	0%	Yes
Total coliform testing is used to monitor the water distribution system. Snohomish collects 10 samples per month. Not more than 5% of the monthly totals can be positive							
Residual Disinfectant Level (Free Chlorine)	Added as a drinking water disinfectant	ppm	(MRDLG) 4.0	(MRDL) 4.0	.02 - 1.66	0.58	Yes
MRDLG is the 'maximum residual disinfectant level goal' and MRDL is the 'maximum residual disinfectant level'							
Haloacetic Acids (5)	By product of drinking water chlorination	ppb	N/A	60	17.1 - 32.6	24.3	Yes
Total Trihalomethanes	By product of drinking water chlorination	ppb	N/A	80	10.8 - 53.4	34.1	Yes
Haloacetic Acids and Trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease causing organisms							
Turbidity	Soil Erosion	NTU	N/A	TT	0.00 - 1.22	0.04	Yes
Turbidity is a measure of the amount of particulates in water measured in Nephelometric Turbidity Units (NTU). Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment processes used to remove these particulates. Values .3 NTU for EPA and .1 NTU for state.							

Substance	Major Source	Units	Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Copper	Plumbing, erosion of natural dep.	ppm	N/A	1.3	0.114	None	Yes
Lead	Plumbing, erosion of natural dep.	ppb	0	15	0.002	None	Yes

CITY OF SNOHOMISH 2006 WATER QUALITY DATA

City of Everett 2006 Water Quality Analysis Results

The city of Everett has submitted the following data for the year 2006. The substances reported are subject to state and federal regulations. All of the 2006 test results are significantly below the allowable levels.

USEPA require Everett to monitor for the presence of lead and copper at households every 3 years. This data was collected in 2006. The 90th % level is the highest result obtained in 90% of the samples collected when the results were ranked from highest to lowest. Results for Everett water tested before it enters homes are even lower. This suggests that there is virtually no lead or copper in the water you are provided, but household plumbing may contribute to the presence of lead and copper in your tap.

These substances are subject to state and federal regulations. All of the 2006 test results are significantly below the allowable levels.

REGULATED CONTAMINANTS

Parameter	Major Source	Units	EPA Regulations		Everett Water Results		
			Ideal Level/Goal (MCLG)	Maximum Allowable (MCL)	Range or Other	Average Value or Highest Result	Comply?
Nitrate	Erosion of natural deposits, animal waste	ppm	10	10	0.044-0.166	0.099	Yes
Total Coliform Bacteria	Naturally present in the environment	% Positive	0	5% Positive per Month	None	0%	Yes
Total coliform bacteria testing is used to monitor microbial quality in the water distribution system. Everett collects 100-105 samples per month. Not more than 5 percent of the monthly total can be positive for total coliforms.							
Fluoride	Dental health additive	ppm	2	4	0.0* - 1.1	0.9	Yes
Fluoride is added to your water in carefully controlled levels for dental health. NOTE: During the summer of 2006, the national supply of fluoride chemical ran out. Thus, there were three periods when the treatment plant did not add fluoride to the drinking water (Four days in July, 11 days in August and six days in September).							
Residual Disinfectant Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.2 - 1.0	1.0	Yes
Haloacetic Acids (5)	By-product of drinking water chlorination	ppb	N/A	60	17.3 - 38.8	27.5	Yes
Total Trihalomethanes	By-product of drinking water chlorination	ppb	N/A	80	26.3 - 39.3	33.5	Yes
Haloacetic acids & trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease-causing microbes. MRDLG is the "maximum residual disinfectant level goal" and MRDL is the "maximum residual disinfectant level". NOTE: Where water systems collect their own data, they should substitute their results.							
Turbidity	Soil erosion	NTU	N/A	TT	100%	0.08	Yes
Turbidity is a measure of the amount of particulates in water measured in Nephelometric Turbidity Units (NTU). Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment processes used to remove these particulates. Values reported are the lowest monthly percentage of samples that met the turbidity limit (0.3 NTU for EPA and 0.1 NTU for the state) and the highest filtered water turbidity measurement obtained in 2006.							

LEAD AND COPPER

CITY OF EVERETT

Parameter	Major Source	Units	EPA Regulations		Everett Water Results		
			Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.072	None	Yes
Lead	Plumbing, erosion of natural deposits	ppb	0	15	3	3 of 134 (2.2%)	Yes

USEPA and state regulations require Everett and the systems it supplies to monitor for the presence of lead and copper at household taps in their service area every three years. The above data was collected in 2006. The next round of required sampling will be conducted in late summer of 2009. The 90th% level is the highest result obtained in 90 percent of the samples collected when the results are ranked in order from lowest to highest. The results for water tested before it enters household plumbing were even lower. This indicates that there is virtually no lead or copper in the water, but household plumbing may contribute to the presence of lead and copper at the tap.

DISINFECTION BY-PRODUCTS

Parameter	Units	Ideal Level/Goal (MCLG)	Everett Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	1.1 – 2.4	1.7
Chloroform (trichloromethane)	ppb	300	25.1 – 37.0	31.7
Dichloroacetic Acid	ppb	0	4.6 – 19.0	12.0
Trichloroacetic Acid	ppb	300	8.7 – 22.2	15.5

These substances must be monitored quarterly during each year to determine compliance with the USEPA Stage 1 Disinfectants/Disinfection By-products Rule.

NOTE: Where water systems collect their own data, they should substitute their results.

Definitions

Cryptosporidium:

Cryptosporidium is a microscopic organism that, when ingested, may cause diarrhea, fever, and other gastrointestinal distress. It can be found in all of Washington's rivers and streams and comes from animal wastes in the watershed. Cryptosporidium is eliminated by effective treatment including filtration, sedimentation and disinfection. Your water is tested regularly for the presence of Cryptosporidium. In 2005, none of the 12 monthly samples of the raw, source water showed the presence of Cryptosporidium. However, no Cryptosporidium was detected in the finished/treated water you receive.

Treatment Polymers:

During water treatment, polymers are added to improve filtration and remove particulates from water. The particulates that are removed can include viruses, bacteria and other disease causing organisms. The USEPA sets limits on the type and amount of polymer that a water system can add to the water. In addition to the EPA limits, the State of Washington also requires that all polymers used be certified safe for potable water use by an independent testing organization (NSF International). During treatment, Everett adds only NSF approved polymers and the levels used are far below the safe limits set by USEPA.

Important Terms

Maximum Contaminant Level Goal (MCLG) – 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.

Maximum Contaminant Level (MCL) – 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 water treatment technology.

Treatment Technique (TT) – A required process and performance criteria intended to reduce the level of a contaminant in drinking water.

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

Parts per Million (ppm)/ Parts per Billion (ppb) – A part per million means that one part of a particular contaminant is present for every million parts of water. Similarly, parts per billion indicate the amount of a contaminant per billion parts of water.

Applicable (N/A) - Means that EPA has not established MCLGs for these substances

Why do we need to conserve?

While it rains a lot in this area, it doesn't rain much in the summer when we use the most water. Conservation is the most cost-effective source of water supply. Following are some water conservation tips.

Leak Detection and Repair

Did you know that a leaking toilet can waste up to 150 gallons per day? A dripping faucet can waste 20 gallons per day? Or a hot water leak can cost you .40 cents or more per day in electricity?



Faucets

Faucet leaks are usually caused by worn washers or "O" rings (for washer-less faucets). Repairing faucet leaks is easy. All you have to do is turn off the water supply line to that faucet, replace the washer and turn on the water line again.

Outside Taps

Check the outside taps for leaking water. A hose mistakenly left dribbling away in the grass or garden can waste thousands of gallons of water over the course of a summer. Remember to close outside faucets tightly every time you shut off the water.



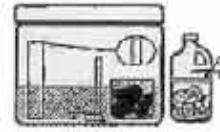
Showerheads

Standard shower heads dispense 5-15 gallons of water per minute. Pair this culprit with the toilet, and it's no surprise that 2/3 of all water used in the home flows through the bathroom.

Toilets

Toilet leaks are the most common household water waster. To determine if your toilet is leaking, look at the toilet bowl after the tank has stopped filling. If water is still running into the bowl, or if water can be heard running, your toilet is leaking.

Although water may not be seen or heard running, your toilet may have a silent leak. To test for a silent leak, drop a little food coloring into the tank. DO NOT FLUSH. Wait for about 20 minutes, if the food coloring appears in the toilet bowl, your toilet has a silent leak. These leaks are also easy to fix with parts from your hardware or home store.



Reduce the water level per flush by installing an ultra low-flow toilet or a toilet water displacement device. Use a plastic bottle weighted with pebbles and water. Be sure installation does not interfere with the operating parts. Don't displace so much water that you need to double flush. *Do not use a brick* or any other item that could break down or disintegrate

Lawn Watering

How Much?

To keep your lawn healthy, you need to replace the water that is lost to evaporation and transpiration (loss of water through plant tissues). Even during the hottest part of summer, a healthy lawn needs no more than one inch of water per week. To measure this, place empty tuna cans or similar containers around your lawn while your sprinkler is running. Time how long it takes to fill the cans one inch. This is the total amount of time you should water your lawn in one week.

How Often?

Water only when your lawn needs it (a simple testing device can be used to determine need). Whether you water every three days or once a week, make sure you apply no more than one inch per week, including rainfall.



When?

The best time to water is late in the evening or early in the morning when the evaporation rate is lowest.

