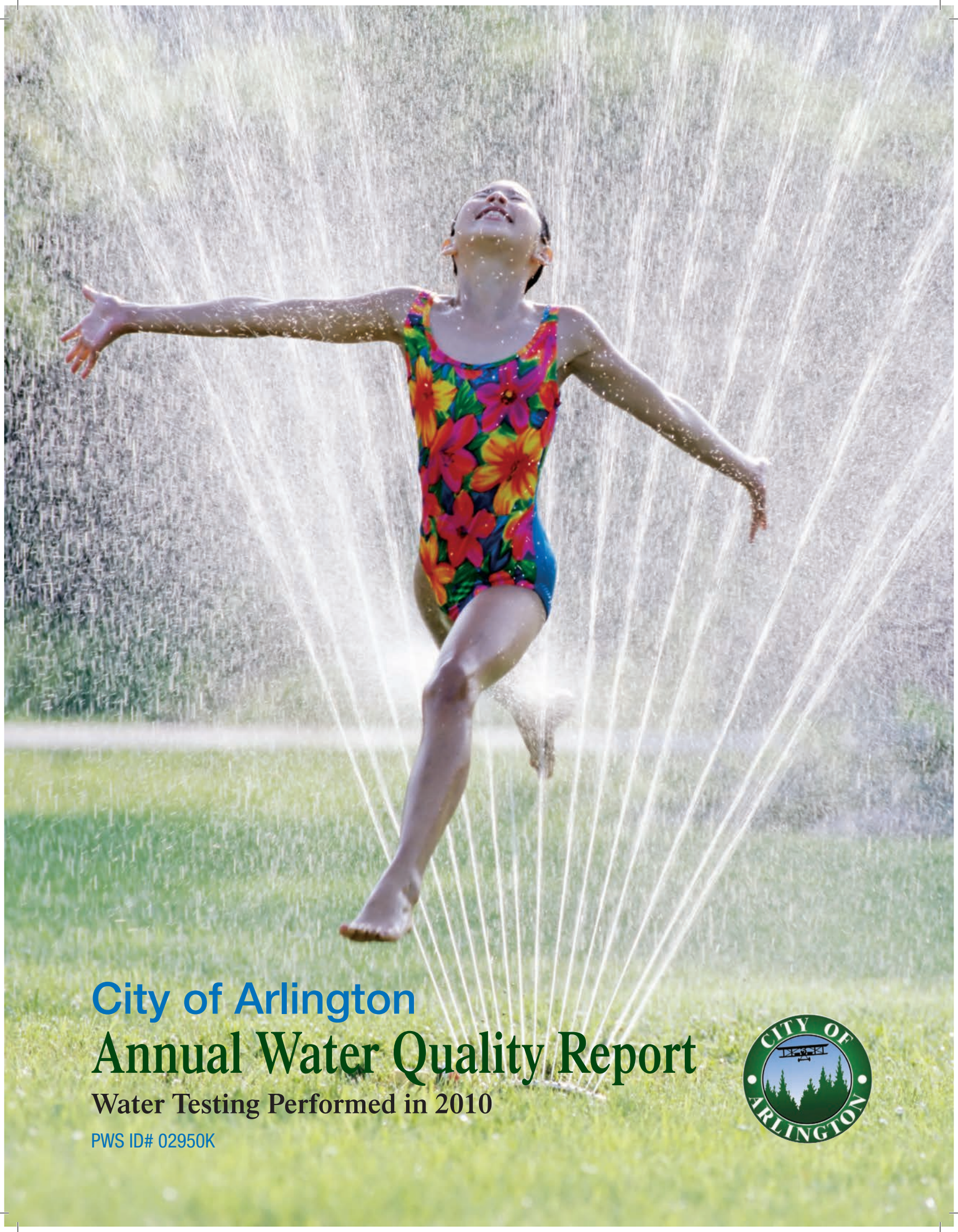
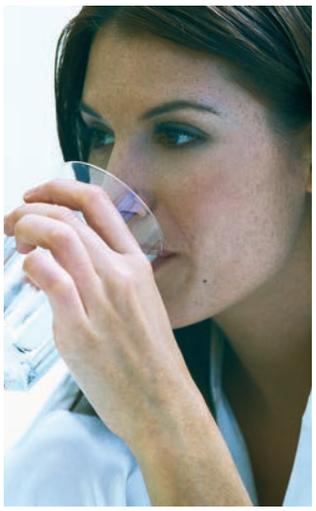


City of Arlington
Annual Water Quality Report
Water Testing Performed in 2010

PWS ID# 02950K

Continuing Our Commitment



The City of Arlington is pleased to report that your drinking water is high quality and compliant with all state and federal drinking water laws. We are committed to delivering the best quality drinking water, and to that end, we make more than 16,000 water quality observations and tests every year. This edition of our annual water quality report summarizes only the key findings of testing completed from January through December 2010. For more information about this report, or for any questions relating to your drinking water, please call the Water Department at 360.403.3526.

Where Does Our Water Come From?

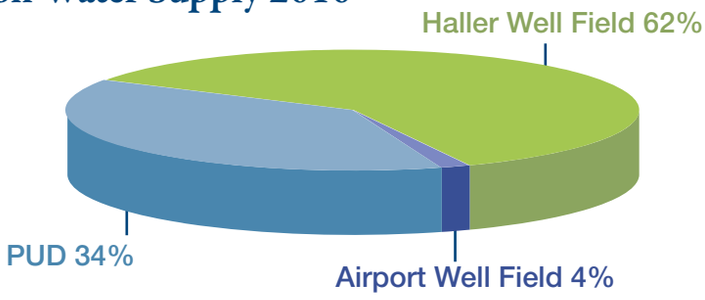
Three primary sources supply water to the Arlington service area. Arlington produces most of its water from the Haller and Airport well fields. The Haller well field naturally filters Stillaguamish River water by drawing it through the riverbank. The Airport well field draws groundwater from a deep aquifer. The origin of both these sources is precipitation that falls across the Stillaguamish Basin and infiltrates the ground surface.

The water we produce is blended with water the City purchases from its third source — Snohomish County Public Utility District (PUD).

This water is obtained from the City of Everett's Spada Reservoir near the headwaters of the Sultan River.

The graph below shows the proportion that each source is of our total water production of 1,393 acre-feet in 2010.

Arlington Water Supply 2010



How is My Water Treated and Purified?

Haller Well Field

Groundwater drawn from our well field located near the Stillaguamish River is treated in several steps at Arlington's water treatment facility. First, raw (untreated) water is pumped from the well field to the treatment plant, where a primary treatment chemical is added that causes small particles to stick together and form bigger particles called floc. Next, polymer is added to aid the filtering process and the water is passed through a clarifying filter where 60% to 70% of the floc is removed. The water then passes through a finishing filter where most of the remaining floc is taken out, and chlorine is added for disinfection. Finally, we add sodium hydroxide to adjust the pH level, making the water less corrosive to your pipes and plumbing fixtures.

Airport Well Field

Water drawn from our well near the Arlington Airport does not require filtration, but we do add chlorine for disinfection.

PUD

Drinking water purchased from Snohomish County PUD is treated at the City of Everett's water treatment plant using a treatment process similar to the process used by Arlington. Everett adds fluoride to the water for enhanced dental protection.

Working Hard to Bring You the Best Water in the State — Efficiently

Under the Safe Drinking Water Act (SDWA), the U.S. Environmental Protection Agency (EPA) is responsible for setting national limits for hundreds of substances in drinking water, and also specifies various treatments that water systems must use to remove these substances. Arlington Water Department continually monitors for these substances and reports our findings to the Washington State Department of Health (DOH), who confirms you are receiving clean water. DOH records indicate that ***we are one of only four filtration facilities providing you with clear, high quality water meeting the highest standards for 10 consecutive years!*** See www.doh.wa.gov/ehp/dw/programs/surface_water_2.htm for more information.

This publication conforms to the SDWA and DOH regulation's requiring water utilities to provide detailed water quality and water use information to each of their customers annually. We are committed to providing you with this information about your water supply because *customers who are well informed are our best allies* in successfully maintaining the highest drinking water standards.

Substances That May Be in Your Drinking Water

To ensure that tap water is safe to drink, DOH and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Likewise, the Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health. 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.

The sources of drinking water (both 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. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

Contaminants That May Be Present In Source Water

- **Microbes** — viruses, parasites and bacteria, from sewage treatment plants, septic systems, pets, livestock and wildlife
- **Inorganic materials** — salts and metals, naturally occurring or from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming
- **Pesticides and herbicides** — from agriculture, urban stormwater runoff, and residential uses
- **Organic Compounds** — synthetic and volatile organic compounds from industrial processes, petroleum production, gas stations, urban stormwater runoff, and septic systems
- **Radioactive contaminants** — naturally-occurring or the result of oil and gas production and mining activities

Sampling Results for 2010

In 2010, the City collected hundreds of water samples and made thousands of measurements in order to determine volatile organic, synthetic organic or radioactive contaminants were present in your drinking water. **The table below l that were detected.** The presence of contaminants in the water does not necessarily indicate that the water poses a hea here are less than the Maximum Contaminant Level Goals (MCLGs) which are established with a safety margin for the p

Since we purchase some of our water from the PUD, the table also includes data for the City of Everett water supply. useful to those in our service area that receive PUD water before it is blended with water pumped from our wells. This in along Burn Rd and 186th Street, or in the Crown Ridge, Eagle Heights, and eastern two thirds of Gleneagle subdivisions

DOH requires the utilities to monitor for lead, copper, and other contaminants less than once per year because the co nants do not change frequently.

Regulated Substances

Samples were collected in finished water at our sources and/or throughout the distribution system				Arlington Water Department		Snohomish County PUD		Definitions of the right of this table
Substance (units)	Year sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Compliant?
Arsenic (ppb)	2010	10	0	1	ND –1	ND	NA	Yes
Barium (ppm)	2010	2	2	0.009	0.007 – 0.009	0.005	ND – 0.005	Yes
Chlorine (ppm)	2010	(4)	(4)	0.80	0.28 – 1.49	0.91	0.34 – 1.36	Yes
Fluoride (ppm)	2010	4	4	0.17	ND – 1.01	0.75	ND – 1.01	Yes
HAAs [Haloacetic Acids] (ppb)	2010	60	NA	18.8	7.5 – 32.9	33.3	22.6 – 45.6	Yes
Nitrate (ppm)	2010	10	10	0.87	0.23 – 0.87	<0.08	ND – 0.114	Yes
Total Coliform Bacteria (% postivie sample)	2010	5%/month	0	ND	NA	1.6%	0 - 1.6%	Yes
TTHMs [Total Trihalomethanes] (ppb)	2010	80	NA	26.7	10.6 – 53.6	35.6	27.3-44.0	Yes
Turbidity (NTU)[1]	2010	TT	NA	0.051	0.017 – 0.051	0.10	ND – 0.10	Yes

Lead and Copper

Tap water samples were collected for lead and copper analyses from homes throughout the service areas				Arlington Water Department		Snohomish County PUD		
Substance (units)	Year sampled	AL	MCLG	90th Percentile	Homes Above AL/ Total Homes Sampled	90th Percentile	Homes Above AL/ Total Homes Sampled	Compliant?
Copper (ppm)	2010	1.3	1.3	0.803	0 / 30	0.188	0 / 108	Yes
Lead (ppb)	2010	15	0	2	0 / 30	3	2 / 108	Yes

Footnotes

[1] Turbidity, a measure of the cloudiness of water, is monitored because it is a good indicator of the effectiveness of the filtration system.

[2] Lead and copper samples in the Arlington service area were collected in 2010. Samples for PUD were collected in 2009, and will be collected again in 2012.

nine whether biological, inorganic,
w lists only those contaminants
health risk. All of the results shown
ıe protection of consumer health.
ply. This information is particularly
s includes any service connections
ions.
e concentrations of these contami-

f these terms are found to the able

?	Typical Sources
	Erosion of natural deposits
	Erosion of natural deposits, drilling fluids
	Water additive used to control microbes
	Water additive which promotes strong teeth
	By-product of drinking water disinfection
	Runoff from fertilizer use; Leaching from septic tanks, and animal wastes; Erosion
	Naturally present in the environment
	By-product of drinking water disinfection
	Soil runoff, sediment

?	Typical Sources
	Corrosion of household plumbing Erosion of natural deposits
	Corrosion of household plumbing Erosion of natural deposits

Table Definitions

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

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.

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.

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 (e.g. chlorine, chloramines, chlorine dioxide).

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.

NA: Not applicable.

ND: Not detected.

NTU (Nephelometric Turbidity Units): A measure of the clarity, cloudiness, or turbidity, of water.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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

90th Percentile: Out of every 10 homes sampled, 9 had lead and copper concentrations at or below this level.

Important Health 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Tap Water vs. Bottled Water?

A recent Gallop survey indicated most consumers drink bottled water because they think it is safer and purer than tap water. The second leading reason was taste. The convenience of bottled water was also a factor.

Tap water is regulated by the U.S. Environmental Protection Agency (EPA). EPA regulates public water suppliers under the Safe Drinking Water Act (SDWA), ensuring they have state-certified operators who monitor for numerous contaminants, utilize certified testing labs, and issue annual Consumer Confidence Reports to customers listing the sources and components of their water.

Bottled water is considered a food, and is thus regulated by Food and Drug Administration (FDA). FDA regulations are less stringent than EPA standards, but some bottlers may voluntarily exceed the standards required of them. Nevertheless, estimates that bottled water is actually repackaged tap water range from 25% to 40% of the bottled water market.

Consequently, although bottled water is perceived as a healthier, safer choice over tap water, that is not necessarily always true. While bottled water and tap water are both subject to testing for contaminants, independent tests by groups such as the Natural Resources Defense Council have found:

- ***Sixty to 70 percent of all bottled water in the United States is packaged and sold within the same state, which exempts it from FDA regulation. One in five states do not regulate their bottled water.***
- ***While most cities meet the standards for tap water, some tap water in the 19 U.S. cities tested was found to contain arsenic, lead, and pesticides.***
- ***In 1,000 bottles of 103 different brands of bottled water, 22 percent contained synthetic chemicals, bacteria and arsenic.***

While there are beneficial uses for carefully selected bottled water, including for those persons with health-related concerns, these studies indicate the benefits often do not outweigh the costs. The manufacturing, transportation, and disposal costs associated with bottled water are enormous. The San Francisco Chronicle, referencing a recycling authority, indicates, “Just supplying Americans with plastic water bottles for one year consumes more than 47 million gallons of oil, enough to take 100,000 cars off the road and 1 billion pounds of carbon dioxide out of the atmosphere.”

Finally, there’s the bottom line as each of us makes our living. Perhaps the table of comparative costs below, showing tap water at less than 1 penny per gallon, is enough to make you request “Arlington water, please” to quench your thirst.

What are you paying per gallon?

Arlington water (average SFR)		$ 0.005
Bottled water	(low end)	$ 0.87
Milk		$ 3.79
Unleaded gasoline		$ 3.90
Bottled water	(high end)	$21.19

Water Use Efficiency Information

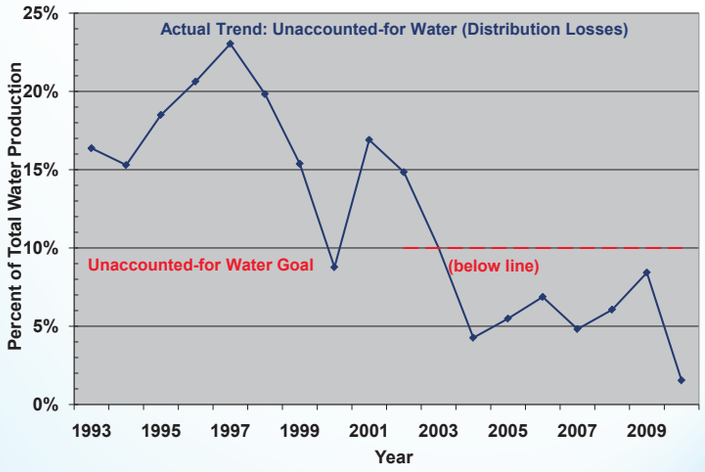
Arlington is making great progress toward goals required by the state's 2007 Water Use Efficiency (WUE) Rule. The City adopted its goals in its 2004 Water System Plan and the City Council re-affirmed them on January 21, 2008. Revised goals are ready for adoption with our Water System Plan later this summer (2011). Call us at 360-403-3526 if you would like to be part of the goal-setting process!

2010 Arlington Water Use Statistics

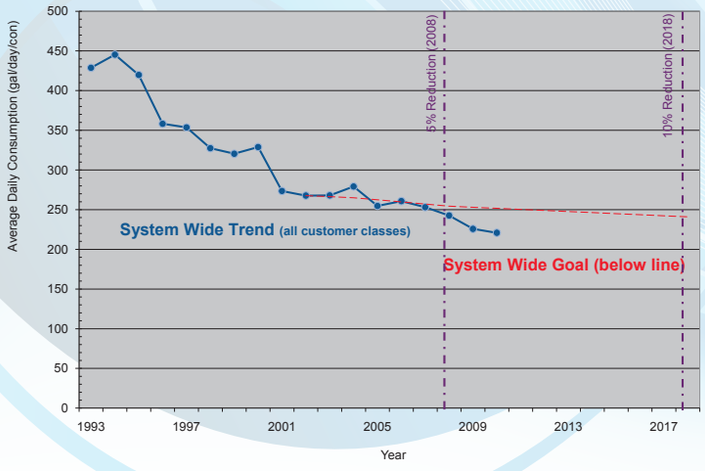
Total water produced and purchased (gallons)	453,750,486
Water to customers and other authorized uses (gallons)	446,782,093
Unauthorized and/or unquantified uses and leaks (gallons)	6,968,393
Unauthorized and/or unquantified uses and leaks (percent)	1.5%

Goal: Reduce unaccounted for water to 10 percent or less.

The WUE Rule requires that we account for at least 90% of the water we make, with unaccounted for "losses" from our distribution system at less than 10%. The tighter the system, the easier it will be to detect leaks when they do occur, thus saving water to meet genuine demand. Improvements in accounting and metering of nearly all services have resulted in losses of about 5.3% since 2004.



Goal: Achieve additional system-wide average water use reduction of 5 percent by the year 2008 and 10 percent by the year 2018, with 2002 as the base year.



When it comes to supplying water to a growing community, wise and efficient use of our existing water sources is much cheaper than the development of new supplies. Results indicate our customers are increasingly conscientious of their water use. Water consumption has dropped 17.5% to 221 gallons/day/connection. We are certainly on track for meeting our 2018 goal of 241 gallons/day/connection. With these efforts in place, the City's annual water savings will grow to 122 million gallons in 2025.

City of Arlington
154 W. Cox Avenue
Arlington, WA 98223

PRSRT STD
US POSTAGE
PAID
EVERETT WA
PERMIT NO. 201

Questions and Answers

I don't have any water.

If your **water bill has not been paid**: call Utility Billing at 360-403-3421. Otherwise, call Public Works Utilities Administration at 360-403-3526. We'll need to know your name, phone number, address, how long have you been without water. A water service specialist will contact you to solve the problem.

I need my water shut off.

If you are **stopping service**: call Utility Billing at 360-403-3421.

Before doing repairs: call Utilities Administration at 360-403-3526. We'll need your name, phone number, address and when you want the water shut off. A water service specialist will shut the water off, or call you to arrange a time to do so.

I need my water turned on.

If you are **moving in**: call Utility Billing at 360-403-3421.

If you are **done with repairs**: call Utilities Administration at 360-403-3526. We'll need your name, phone number, address, and when you want the water turned on. A water service specialist will turn the water on, or will call you to arrange a time to do so.

I need to report a leak.

Call Utilities Administration at 360-403-3526, or the emergency pager at 425-258-0919. Tell us your name, phone number, and the address of the leak.

If the leak is located:

In the house: you will need to call a plumber, but we will send a water service specialist to turn the water off if needed.

At the meter box: we will send a water service specialist out to investigate and repair the leak. They will call you with the results.

In the street: we will send a water service specialist out to investigate immediately. Let us know if it is gushing or trickling down the street, gushing up in the air, and/or associated with a hydrant break or construction accident.

Is there fluoride in my water?

Yes, but levels vary throughout our service area. Water we produce from groundwater has low natural concentration of fluoride, while water we purchase is "fully fluoridated" for dental protection by the City of Everett. All water sources blend within the distribution system, diluting fluoride to lower levels. The City's fluoride brochure compares this range of fluoride levels to the dental needs for children promoted by the ADA. Copies are available at Utilities Administration or where utility bills are paid at City Hall.

Printed locally on FSC Certified, Elemental Chlorine free paper. Please recycle.

Community Participation

You are invited to participate in our public city council meetings and voice your concerns about your drinking water. Arlington City Council meets the first and third Monday of each month beginning at 7 p.m. at the Council Chambers, 110 E. Third Street, Arlington, WA (enter off of Olympic Avenue near City Hall). For meeting information, call City Hall at (360) 403-3421, or visit our Web site at www.arlingtonwa.gov.