CITY OF ARLINGTON

Water Quality Report

JUNE 2001

Providing High Quality and Safe Drinking Water Is Arlington's Highest Priority!

The City of Arlington is pleased to provide you with our Drinking Water Quality Report for 2000. This report is prepared to inform our customers that the City's water meets or exceeds state and federal standards. This report describes where our water comes from, what it contains, how it compares to stringent water quality standards set by regulatory agencies, and what we are doing to protect and improve our water supply.

Where Does Arlington's Drinking Water Come From?

Arlington provides drinking water to two separate water systems/service areas: Arlington and Island Crossing. In the Arlington service area the source of drinking water is groundwater drawn from four wells and treated water purchased from a wholesale connection to the Snohomish County PUD water system. Three of the wells are located in Haller Park near the Stillaguamish River; the fourth well is located at the Arlington Airport. The PUD connection, supplied by a wholesale connection to City of Everett, serves residences along Burn Road between 172nd Street NE and 207th Street NE and supplies water to the Arlington service area. In 2000, the City supplied 79% of the Arlington service area drinking water from the Haller Park wells, 9% from the Airport well, and 12% from the PUD connection. Island Crossing receives 100% of its drinking water source from a wholesale connection with City of Marysville. Sources of water from Marysville include Edward Springs, the Stillaguamish Ranney Collector and several public wells.

About Arlington's Water Service Areas

Within the Arlington Service Area the City of Arlington provides water to more than 3,400 customers, which includes residential, industrial, commercial, and public property connections. In the Island Crossing Service Area, the City of Arlington provides water to over 150 customers. Connections in the Island Crossing service area consist of residential and commercial connections.

Water Treatment

To provide our customers with the safest water, Arlington adds chlorine to the drinking water supply as a primary disinfectant. Chlorine is added to the water to destroy any harmful bacteria that may enter the water distribution system.

Lead and Copper Sampling At Your Home Water Tap

The EPA requires monitoring for the presence of lead and copper with the goal to minimize human exposure to lead and copper found in drinking water. Lead and copper are not detected in Arlington's water sources. However, our water is naturally corrosive and may cause lead and/or copper in your home plumbing to leach into your drinking water.

In 1993, the City of Arlington tested for the presence of lead and copper in water drawn from 40 household taps. At the 90th percentile level, the 40 household tap water samples tested exceeded the EPA action level of 15 parts per billion lead and 1.3 parts per million copper.

Corrosion Control Treatment

In 1997, the City of Arlington began to treat water in the Arlington service area with a blended phosphate solution to make it less corrosive to pipes and home plumbing. The phosphate solution has been successful in reducing the leaching of lead and copper into drinking water at most homes. However, some homes still have drinking water lead and copper levels that exceed the EPA action level.

A more effective method of corrosion control treatment (pH adjustment) will be used with the new water treatment plant. Under provisions of the federal Lead and Copper Rule, the City will collect water samples at household taps to evaluate the effectiveness of pH adjustment. The tap samples will be drawn approximately six months after the new water treatment plant has been operating.

City of Marysville (Island Crossing) and City of Everett (PUD/Arlington) have collected lead and copper samples at household taps within their service areas. Those samples have not exceeded the action level for lead and copper in drinking water, and corrosion control treatment has not been required.

ARLINGTON SERVICE AREA – HALLER WELLFIELD, AIRPORT WELL

CONTAMINANT	DATE TESTED	UNIT	MCL	MCLG	DETECTED LEVEL	RANGE	MAJOR SOURCES	COMPLIES?
Inorganic Contaminants								
Copper (at customer tap)	Jan. 99	ppm	AL=1.3	1.3	1.38	0.04-1.38	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	NO[2]
Lead (at customer tap)	Jan. 99	ppb	AL=15	0	22	0-22	Corrosion of household plumbing systems; erosion of natural deposits	NO[2]
Nitrate - N	Jun. 00	ppm	10	10	0.56	nd-0.56	Runoff from fertilizers; leaching from septic tanks, sewage; erosion of natural deposits	YES
Nitrate/Nitrite - Total	Jun. 00	ppm	10	10	1.08	nd - 1.08	Runoff from fertilizers; leaching from septic tanks, sewage; erosion of natural deposits	YES
Microbiological Contaminants								
Turbidity (treated water)[1]	Sep/Dec 99	NTU	TT	N/A	2.0	0.12-2.0	Soil runoff	YES
Volatile Organic Contaminants								
TTHMs [Total Trihalomethanes]	Dec. 00	ppb	100	0	3.5	0-3.5	By-product of drinking water chlorination	YES
Radioactive Contaminants								
Gross Beta	Jul. 00	pCi/l	50	0	1	nd - 1	Decay of natural and man-made deposits	YES

ISLAND CROSSING SERVICE AREA – WHOLESALE FROM NORTH MARYSVILLE SERVICE AREA

CONTAMINANT	DATE TESTED	UNIT	MCL	MCLG	HIGHEST DETECTED LEVEL	RANGE	MAJOR SOURCES	COMPLIES?
Inorganic Contaminants								
Arsenic	Jan. 00	ppb	50	n/a	0.05	0.05	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	YES
Barium	Jan. 00	ppm	2	2	0.02	nd-0.02	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	YES
Copper (at source)	June 00	ppm	AL=1.3	1.3	1.3	nd-1.3	Leaching from wood preservatives	YES
Copper (at customer tap)	June 00	ppm	AL=1.3	1.3	0.77	At 90th % level	Corrosion of household plumbing systems	YES
Fluoride	Jan. 00	ppm	4	4	0.21	nd-0.21	Erosion of natural deposits; discharge from fertilizer & aluminum factories	YES
Lead (at source)	June 00	ppb	AL=15	0	2.26	nd-2.26	Erosion of natural deposits	YES
Lead (at customer tap)	June 00	ppb	AL=15	0	3	At 90th % level	Corrosion of household plumbing systems	YES
Mercury (inorganic)	Jan. 00	ppb	2	2	0.37	nd-0.37	Erosion of natural deposits; discharge from refineries & factories; runoff from landfills; runoff from cropland	YES
Nitrate	Jan. 00	ppm	10	10	3.68	nd-3.68	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	YES
Microbiological Contaminants								
Turbidity	Mar. 98	NTU	TT	N/A	1.09	nd-1.09	Soil runoff	YES
Total Coliform[3]	Nov/Dec 99	Samples	5% pos.	0	5	nd-5	Naturally present in the environment	YES
Volatile Organic Contaminants								
Total Trihalomethanes	Oct. 00	ppb	100	0	28.5	nd-28.5	By-product of drinking water chlorination	YES

The data presented in this table is from the most recent testing done in accordance with regulations.

1 *Bilateral compliance agreement allows MCL of 1.0 NTU. Department of Health is notified when turbidity level exceeds 1.0 NTU.*

2 *The City is in compliance with the federal Lead and Copper Rule, even though lead and copper levels at the customer tap exceed the action level.*

3 *5 out of 313 samples in 1999 tested positive.*

ARLINGTON SERVICE AREA – PUD (BURN ROAD)

Parameter	Major Source	Units	EPA Regulations		Everett Water Results		
			MCLG	MCL	Range or Highest Result	Average Value or Other	Complies?
Total Coliform Bacteria[1]	Naturally present in the environment	% Positive	0	5% Positive per Month	1.1% (1 of 93)	0% - 1.1%	Yes
Fluoride[2]	Dental additive, erosion of natural deposits	ppm	2	4	0.9 - 1.2	1.0	Yes
Nitrate[3]	Erosion of natural deposits, animal waste	ppm	10	10	0.03 - 0.13	0.089	Yes
Turbidity[4]	Soil erosion	NTU	N/A	TT	0.04	100%[6]	Yes
Total Trihalomethanes[5]	By-product of drinking water chlorination	ppb	N/A	100	23 - 47	34	Yes

[1]Total coliform bacteria testing is used to monitor microbial quality in the water distribution system.
[2]Fluoride is added to your water in carefully controlled levels for dental health.
[3]The small amount of nitrate comes from natural sources in the watershed.
[4]Turbidity is a measure of the amount of particulates in water measured in Nephelometric Turbidity Unit (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 process in removing these particulates.
[5]Trihalomethanes form as by-products of the drinking water chlorination process that is used to kill or inactivate disease causing microbes.
[6]Lowest percentage of monthly samples below the 0.1 NTU limit.

Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.13	1 of 176 (0.6%)	Yes
Lead	Plumbing, erosion of natural deposits	ppb	0	15	3	1 of 176 (0.6%)	Yes

USEPA regulations require monitoring for the presence of lead and copper at household taps every three years. The above data was collected in 2000. The next round of sampling will be conducted in 2003. The 90th percentile level is the highest result obtained in 90% of the samples collected when the results are ranked in order from lowest to highest. The results for water tested before it enters the household pluming are even lower. This indicates that there is virtually no lead or copper in the water you are provided, but your household plumbing may contribute to the presence of lead and copper at your tap.

Parameter	Units	Range Detected	Average Value
Bromodichloroacetic Acid[1]	ppb	1.0 - 1.3	1.1
Bromodichloromethane[2]	ppb	0.5 - 2.3	1.3
Chloral Hydrate[1]	ppb	1.3 - 9.9	4.2
Chloroform[2]	ppb	23 - 45	31
Dichloroacetic Acid[3]	ppb	4.2 - 20.9	12
Dichloroacetonitrile[1]	ppb	0.8 - 1.6	1.1
1,1—Dichloropropanone[1]	ppb	0 - 0.5	0
Haloacetic Acids (5)[3]	ppb	15.6 - 47.4	29
Trichloroacetic Acid[3]	ppb	5.6 - 29	18
1,1,1—Trichloropropane[1]	ppb	0.8 - 3.0	1.7
Total Organic Hallides[1]	ppb	67 - 130	98

These substances are by-products of the drinking water chlorination process. USEPA developed monitoring requirements for these substances to assist in evaluating occurrence levels and determining whether they should be regulated.
[1] These substances were monitored quarterly during 1998 as part of the Information Collection Rule requirements.
[2] These substances are monitored quarterly every year as part of the compliance with the trihalomethane standards.
[3] These substances were monitored quarterly during 2000. Haloacetic Acids (5) will become regulated in December 2001.

DEFINITIONS AND KEY TO TABLE

AL = *Action Level*: the concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which 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.
TT = *Treatment Technique*: a required process intended to reduce the level of a contaminant in drinking water.
Variance and exemption: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
NTU = Nephelometric Turbidity Units
pCi/l = picocuries per liter (a measurement of radioactivity)
ppm = parts per million, or milligrams per liter (mg/L)
ppb = parts per billion, or micrograms per liter (µg/L)

← What Do The Water Quality Tables Show Me?

The tables show the results of the City of Arlington's water quality analyses, and our wholesale water providers' analyses. Every regulated contaminant that was detected in the water, even in the minutest traces, is listed here. The tables contain the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

HELP CONSERVE WATER !

Water conservation is something we all should practice, especially with the drought conditions being experienced in the State of Washington. Drought conditions create a major natural resource challenge. We all have to work together to balance the water needs of people, fish, agriculture and energy production. Except for the air we breathe, water is the single most important element in our lives. It's too precious to waste. Here are some simple suggestions that will help you save water, energy and money.

In your bathroom

1. Flush the toilet only when necessary and avoid using the toilet as a wastebasket.
2. Check the toilet for leaks. Use food coloring or a leak detection tablet in the toilet tank. If color appears in the bowl without flushing, there is a leak that requires immediate attention.
3. Buy a water-saver toilet that uses only 1.6 gallons of water per flush.
4. Reduce the water level per flush by installing an ultra low-flow toilet or toilet displacement device. Use a plastic bottle weighted with pebbles and water. Never use a brick.
5. Install a low-flow showerhead and bathroom faucet aerator.
6. Don't run water in the sink while shaving, brushing your teeth or lathering your face and hands.
7. Take shallow baths, shorter showers and consider bathing small children together.

In your kitchen

8. Clean vegetables or rinse dishes in a pan of water, not under a running faucet.
9. Keep a bottle of drinking water in the refrigerator to avoid running the tap to get a glass of cool water.
10. Use the short-cycle option and air-dry setting on your dishwasher.
11. Run only full loads in your dishwasher.
12. Install a kitchen faucet aerator.
13. In-sink garbage disposal devices use roughly 11.5 gallons of water each day. Try composting organic wastes instead of throwing them away.

With your laundry

14. Wash only with full loads and use water level adjustment settings. Pre-rinse clothes only when necessary.
15. Use cold water detergents for a more effective cold water wash.

In your yard

16. Don't water your lawn too much. Buy a timer attachment that connects between the faucet and hose, or set a kitchen timer to remind you to move a sprinkler. One inch of water a week is all your lawn needs, including rain.
17. Be sure you're not watering the driveway, sidewalks, or side of the house instead of the lawn.
18. Adjust your lawn mower to a higher setting. The grass blades grow longer and shade one another, helping to fight off heat and hold moisture longer.
19. Use a mulching lawn mower. It's healthier for your lawn and prevents yard waste.
20. Try the concept of Xeriscape™, which means "landscaping for water conservation." The idea is to use plants that require less water. You can also decorate creatively with objects that need no water at all, such as rocks, bricks, benches, gravel, and deck areas.
21. Consider installing drip irrigation for individual bushes, trees, flowers, and garden areas. Drip systems are designed to get water slowly and directly to the roots of plants where they need it most.

Outdoor water use

22. When washing your car, don't let the hose run. Instead, wet the car thoroughly, then turn off the hose while you wash the car with soapy water from a bucket. Use the hose again for a final rinse.
23. Sweep outside with a broom, not the hose. Just five minutes of hosing will waste 25 gallons of water.

For further information on how you can conserve water, contact us at 360.403.3505. We will mail you a copy of the Department of Health's *Guidelines to being Waterwise*. Topics covered include Indoor Water Conservation, Outdoor Water Conservation, Lawn Watering Guide, Indoor Water Audit, Meter Reading and Leak Repair, Soil Preparation & Planning, Irrigation & Landscaping, and Salmon Recovery.

What You Should Know About Detected Contaminants That Exceed The Action Level or Maximum Contaminant Level

Turbidity: Turbidity, the cloudy appearance of water caused by the presence of suspended particles, has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Lead: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

A brochure containing tips on how to reduce your exposure to lead in drinking water was mailed to our water customers in February 2001. If you did not receive a brochure, or would like extra copies, contact the Water Department at 360.403.3505.

Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than is 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 Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

Information From The Environmental Protection Agency (EPA)

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

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) or by visiting the EPA's Office of Groundwater and Drinking Water Home Page.

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 radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

How Do I Get Involved In Decisions Affecting My Drinking Water?

The City of Arlington welcomes your interest in its water system. The Arlington City Council is the City's decision-making body. The City Council meets on the first and third Mondays of each month at 7:00 pm in the Arlington School District Board Room located at 315 N. French Avenue. For meeting information or scheduled agenda items, please call the City Clerk's office at 360.435.5785.

IMPORTANT WATER QUALITY INFORMATION INSIDE

Arlington Public Works Department
Water Utility Division
238 N. Olympic Avenue
Arlington, WA 98223

BULK RATE
U.S. Postage
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Why Did the City of Arlington Build A New Water Treatment Facility?

Water systems supplied with water from either surface water, or groundwater under the influence of surface water, must comply with provisions of the Surface Water Treatment Rule. Treatment techniques must be implemented to assure protection of the water supply from microorganisms such as cryptosporidium and giardia lamblia. The City's old water treatment plant was not capable of providing the optimum type of treatment. The project included construction of the new water treatment facility and improvements to the Haller Park well field. For more information about the new water treatment facility, call the Water Department at 360.403.3505.

What Type of Treatment Does the New Water Treatment Facility Provide?

To provide you the safest drinking water possible, the treatment plant uses coagulation and direct 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. And the pH of the water is adjusted so it is less corrosive to pipes and plumbing fixtures.

When Will the City of Arlington Begin Operating the New Water Treatment Facility?

The new Water Treatment Facility will be put into operation in mid-June 2001. Contact us at 360.403.3505 if you have questions about the new water treatment facility. Group and individual tours of the facility are available by appointment.

IMPORTANT TELEPHONE NUMBERS

City of Arlington Water Department, General Business	360.403.3526
City of Arlington Water Department, Emergency Pager	425.258.0919
City of Arlington, Utility Billing Questions	360.435.5785
WA State Department of Health, Northwest Drinking Water Operations	253.395.6750
USEPA, Safe Drinking Water Hotline	1.800.426.4791