2017 CONSUMER CONFIDENCE REPORT
NORTHWEST WATER SYSTEM, ID 61947 2, SNOHOMISH COUNTY

Valued Customer,

We are pleased to present this year's annual water quality report. The purpose of this report is to keep you informed of the continued safe and dependable supply of quality drinking water we provide to you. It is through our commitment to careful monitoring and continued improvement of the water distribution process and protection of your water resource that we ensure the quality of your water.

The Northwest water system is owned and operated by Iliad Water Company LLC. Iliad provides water services to 23 communities in Washington State. To learn more please visit our website at www@iliadnw.com/water/. Your certified operators are Jared Hays and Jamin Udman. If you have any questions about your water system or this report contact our office Monday – Friday between the hours of 8:00am and 4:30pm by mail at 1107 S. Bailey St., Seattle WA 98108, email at services@iliadnw.com, or by phone at 206-764-3345 / 800-928-3750. For emergencies after business hours please call our 800-928-3750 number.

Iliad Water Company purchases water from the City of Everett and supplies it to you through our source S01 well. Activity is restricted to the area to minimize contamination of the well. Iliad Water Company does not treat the water. The city of Everett gets their water from the Spada Lake Reservoir located in the Upper Sultan River Watershed which is patrolled and human activities limited to minimize impact on the water supply. From the Spada Lake Reservoir the water flows to the Chaplain Reservoir where the city of Everett's water treatment facility is located. The water is treated using coagulation, flocculation, filtration, and chlorine for disinfection.

The water supplied to you is routinely monitored by both the city of Everett and Iliad Water Company for contaminants in your drinking water according to Federal and State Laws. The water quality information presented in the Iliad Water Analysis Data Table is from the most recent round of testing done by Iliad Water Company according to regulations. All data shown was collected during the last, January 1st to December 31st, 2017, unless otherwise noted in the table. There were no water quality maximum contaminant level violations for Iliad Water Company.

Please see the city of Everett 2017 Water Quality Analysis Results included at the end of this report. Note the monitoring violation related to turbidity (bottom of the first table). Due to an equipment malfunction, incorrect turbidity data was reported to the Department of Health (DOH) during the months of March, April and May 2017. This constitutes a monitoring violation. To satisfy the Tier 3 public notification, we must include the monitoring violation statement in your 2017 water quality report (CCR).

To learn more about the city of Everett water, please visit their website at www.everettwa.gov.

GENERAL INFORMATION REQUIRED BY THE DEPARTMENT OF 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 pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA's) Safe Drinking Water Hotline (1-800-426-4791).

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, 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 and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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.

Contaminants that may be present in drinking water, including bottled water, and the sources of contamination:

- **Microbial contaminants**, such as viruses, parasites, and bacterial that may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife.
- **Inorganic contaminants**, such as salts and metals, which can occur naturally or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Pesticides and herbicides**, which may come from various sources such as agriculture, urban stormwater runoff, and resident uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can occur naturally or result from oil and gas production and mining activities.

Department of Health (DOH) and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture (AGR) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Website: Department of Health www.doh.wa.gov, U.S. Environmental Protection Agency www.epa.gov, Food and Drug Administration www.fda.gov, and Washington Department of Agriculture www.agr.wa.gov.

The Washington State Department of Health reduced the monitoring requirements for Asbestos, Dioxin, Endothall, EDB and other soil fumigants, Glyphosphate, and Diquate because the sources are not at risk of contamination. The last sample collected for these contaminants were found to meet all applicable standards.

SOURCE WATER PROTECTION TIPS

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides.
- Dispose of chemicals properly, for example, take used motor oil to a recycling center.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Volunteer in your community. Find a watershed or wellhead protection organization you community and volunteer to help. If there are no active groups, consider starting one. Use the EPA's Adopt Your Watershed to locate groups in your community, or their Information Network to find out how to start a watershed team.

REQUIRED ADDITIONAL INFORMATION ON LEAD

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in piped, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you care concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791or online at http://www.epa.gov/safewater/lead.

IMPORTANT TERMS:

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

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

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 a known or expected risk to health. MCLGs allow for a margin of safety.

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.

MRDL (Maximum Residual Disinfectant Level Goal): 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.

Trihalomethanes (TTHM) and Haloacetic Acids (HAA5): Form as by-products of the chlorination process that is used to kill or inactivate disease causing microbes.

Turbidity: A measurement of the amount of particulates in water in Nepheloimetric 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.

UNITS OF MEASURE

mg/L (milligrams per Liter): One part substance per liter of water. One milligram per liter is equal to one part per million (ppm).

NA: Not applicable

ND: Not detected

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water.

pCi/L (Piocuries per liter): A measure of radioactivity.

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

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

ug/L (Micrograms per Liter)

µS/cm (Siemens per cm)

NORTHWEST WATER SYSTEM

REGULATED SUBSTANCES — **WATER ANALYSIS DATA TABLE**

Substance	Typical Sources	Sample Date	Unit Meas.	Maximum Allowable (MCL)	Ideal Level/Goal (MCLG)	Level Detected	Comply? Y/N
Total Coliform Bacteria	Naturally present in the environment	Monthly	% Positive	5% per month	0	ND	YES
E-Coli	Human and animal fecal waste	Monthly	% Positive	5% per month	0	ND	YES
Total coliform bacteria testing is ued to monitor microbial quality in the water distribution system. Iliad collects one coliform sample per month.							
DISINFECTANT BY-PRODUCT (DBP)	**Tested for 12 substances. Dectected contaminants are listed below.**						
Substance	**Typical Sources**	**Sample Date**	**Unit Meas.**	**Maximum Allowable (MCL)**	**Ideal Level/Goal (MCLG)**	**Level Detected**	**Comply? Y/N**
Halo-Acetic Acids							
Monochloroacetic Acid	By-product of drinking water chlorination	6/28/2017	ug/L			3.6	YES
Dichloroacetic Acid	By-product of drinking water chlorination	6/28/2017	ug/L			15.6	YES
Trichloroacetic Acid	By-product of drinking water chlorination	6/28/2017	ug/L			17.8	YES
HAA(5)	By-product of drinking water chlorination	6/28/2017	ug/L		60	36.9	YES
EPA Regulated - Under Trihalomethanes Program							
Chloroform	By-product of drinking water chlorination	6/28/2017	ug/L			34.7	YES
Bromodichloromethane	By-product of drinking water chlorination	6/28/2017	ug/L			1.8	YES
Total Trihalomethane	By-product of drinking water chlorination	6/28/2017	ug/L		80	36.5	YES
These substances are individual disinfection by-products for which no MCL standard has been set, but which must be monitored to comply with the USEPA Disinfection By-products Rule. Based on population served and that the water is purchased from the City of Everett, we are required to collect one TTHM sample and one HAA5 sample every year.							
The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, through representative, are more than one year old.							
LEAD and COPPER							
Substance	**Typical Sources**	**Sample Date**	**Unit Meas.**	**AL**	**Level Detected**	**Average**	**Comply? Y/N**
Lead - 5 sites	Plumbing, erosion of natural deposits	8/24	ppb	0.015	ND	0	YES
Copper - 5 sites	Plumbing, erosion of natural deposits	8/24	ppm	1.3	ND	0	YES
USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. The above data was collected in 2015 and the next round will be in 2018.							

Required Monitoring Violation Statement:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During March, April and May 2017, our water supplier, the city of Everett, did not complete all monitoring or testing for turbidity, and therefore cannot be sure of the quality of your drinking water during that time. There is nothing you need to do. At no time was the quality of your drinking water compromised. The city of Everett plant has resolved the problem and taken steps to prevent a repeat occurrence.

CITY OF EVERETT
2017 Water Quality Analysis Results

Detected 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?
Total Coliform Bacteria	Naturally present in the environment	% Positive	0	5% Positive per Month	None	0%	Yes
Total coliform bacteria monitoring tracks the microbial quality of the water distribution system. Everett collects approximately 125 samples per month and no more than 5 percent of the monthly tests can be positive. No total coliform was detected in 2017.							
Fluoride	Dental health additive	ppm	2	4	0.2–0.8	0.7	Yes
Fluoride is added to your water in carefully controlled levels for dental health.							
Residual Disinfectant Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.2–1.1	0.6	Yes
Haloacetic Acids (5) (HAA5)	By-product of drinking water chlorination	ppb	N/A	60	22–43	39	Yes
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	ppb	N/A	80	32–59	56	Yes
Haloacetic acids and trihalomethanes form as by-products of the drinking water chlorination process. The TTHM and HAA5 results are from eight locations in Everett which are monitored to determine compliance with current regulations.							
Turbidity	Soil erosion	NTU	N/A	TT	100%	0.15	Yes
The EPA turbidity limit is 0.3 NTU. In 2017, no filtered water turbidity results exceeded 0.3 NTU so the lowest percentage that met the EPA limit was 100%. During the months of March, April and May 2017, an equipment malfunction caused erroneous turbidity data to be recorded and reported to the Dept. of Health. Although the problem was resolved and correct data was provided to the Dept. of Health, this constitutes a monitoring violation that requires public notification (see below).							

Required Monitoring Violation Statement:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During March, April and May 2017, we did not complete all monitoring or testing for turbidity, and therefore cannot be sure of the quality of your drinking water during that time. There is nothing you need to do. At no time was the quality of your drinking water compromised. The plant has resolved the problem and taken steps to prevent a repeat occurrence.

Detected Unregulated Contaminants

Parameter	Units	Ideal Level/Goal (MCLG)	Everett Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	1.1–2.7	1.8
Chloroform (trichloromethane)	ppb	70	30–56	41
Dichloroacetic Acid	ppb	0	3–18	13
Trichloroacetic Acid	ppb	20	17–24	21
These substances are disinfection by-products for which no MCL standard has been set, but which must be monitored to determine compliance with the EPA MCL's for Total Trihalomethanes and Haloacetic Acids (5).				

Lead, Copper and pH

Parameter	Major Source	Units	EPA Regulations		Everett Water Results		
			Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Lead	Plumbing, erosion of natural deposits	ppb	0	15	2	0 of 108 (0%)	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.122	0 of 108 (0%)	Yes
USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. The above data was collected in 2015. The next required round of sampling will be in 2018. 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.							
pH	Soda ash is added to reduce water corrosivity by increasing pH and alkalinity	s.u.	Daily Avg 7.6	Min Daily Avg 7.4	Average 7.6	Minimum 7.1	Yes
Everett is required to operate corrosion control treatment at or above a minimum daily average pH of 7.4. The average daily pH cannot be below 7.4 for more than nine days every six months. In 2017, the average daily pH dropped below 7.4 for eight days.							

Required Lead Statement:

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. The City of Everett Utilities Division 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 flushing 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 or at http://www.epa.gov/safewater/lead.

Other Information

Required Polymer Statement:

During water treatment, organic polymer coagulants are added to improve the coagulation and filtration processes that 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 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 the USEPA.

Definitions:

Turbidity - Turbidity is a measure of particulates suspended in water in Nephelometric Turbidity Units (NTU) and is an important test in determining drinking water quality. Particulates in water can include bacteria, viruses and protozoans that can cause disease.

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.

Maximum Residual Disinfectant Level (MRDL) – 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.

Maximum Residual Disinfectant Level Goal (MRDLG) – 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.

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

Action Level (AL) – The concentration of a contaminant, which, if exceeded, triggers 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.

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

Voluntary Information:

Parameter	Units	Everett Water Results	
		Range Detected	Average Value
Alkalinity[1,2]	ppm	13.9–29.1	16.8
Aluminum[1]	ppm	0.006–0.045	0.02
Arsenic[3]	ppb	<0.1–0.2	0.1
Calcium Hardness[1,2]	ppm[4]	7.3–13	9.6
pH[1]	s.u.	7.4–9.1	7.9
Sodium[3]	ppm	5.4–6.6	5.9
Total Hardness[1,2]	ppm[4]	9.6–15.8	12.5

[1] Results from samples collected from 26 locations in the Everett distribution system.
[2] Hardness and alkalinity units are in ppm as $CaCO_3$ (calcium carbonate equivalent units).
[3] Arsenic and Sodium were monitored at the treatment plant effluent.