2017
TULALIP UTILITIES
WATER QUALITY REPORT

CONTACT INFORMATION:

Please contact the numbers listed below if you would like more information about this report or for any questions related to your drinking water:

EPA's Hotline: 1 - 800 - 426 - 4791 **Tulalip Utilities (360) 716 - 4840** **TUA Fax: (360) 651 - 4612**

Gus Taylor (360) 716 - 4011 **Clifford Jones (360) 716 - 4840**

Frequently Asked QUESTIONS

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA) this report is designed to provide details about where you water comes from, what it contains and how it compares to standards set by regulatory agencies. This report is a snapshot of last years water quality. We are committed to providing you with information because informed customers are our best allies.

How can I get involved?

At this time we do not hold public meetings on a regular basis. You may contact our office at 360-716-4840 for any inquiries questions or concerns that you may have.

Is it ok to drink water from a garden hose?

During the summer heat, you are more prone and inclined to drink more fluids and water. However if you are out side and decide to drink water from your garden hose, you should take the time to reconsider. Many hoses are made of PVC, a material that uses lead as a stabilizer. When water settles in these lead based hoses the concentration of lead increase 10 to 100 times there allowable limit set by the environmental health agency. However, you can purchase lead free hoses from your local store. Make sure that they state, "drink-safe", or, "safe for potable water" or "lead-free". This indicates that they are plated with nickel as opposed to lead.

***Lead poisoning interferes with a variety of body processes and is very toxic to many of our organs and tissues. It interferes with the development of Our nervous system, thus is very harmful to the developmental process of our children so be sure to purchase hoses that will be safe for them play in and drink water from.**

Why are there contaminants in my drinking 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 (EPA) Safe Drinking Water Hotline (800-426-4791).**

The sources of drinking water (both tap 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 and, in some cases radioactive material and substances resulting from the presence of animals or from human activity: microbial contaminants such as viruses and bacteria that 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 stormwater runoff, industrial or domestic wastewater discharges, oil and gas productions, mining, or farming; pesticides and herbicides which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses; chemical contaminants including synthetic and volatile organic chemicals which are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater run-off and septic systems.

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

ADDITIONAL INFORMATION FOR LEAD:

If present elevated lead levels 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. Tulalip Utilities Authority 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 your 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 or at:: http://www.epa.gov/safewater/lead

How can I help conserve water?

The average U.S household uses approximately 400 gallons of water per day or 100 gallons per person per day. There are many low-cost and no-cost ways to conserve water. Small changes can make a big difference! There are many ways in which you can help to conserve water:

- Take short showers– a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month
- Use a water-efficient showerhead. They are inexpensive, easy to install and can save up to 750 gallons a month
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month
- Water plants only when necessary
- The average car wash uses over 30 gallons of water
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing you have a leak. Fixing it or replacing with a new model can save up to 1,000 gallons a month
- Adjust sprinklers so only your lawn and flowers are watered. Apply water only as fast as the soil can absorb it and only water during the coolest parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure future generations use water wisely. Make it a family effort to reduce your water bill!

Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline

How is my water treated?

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

How much water is used in a typical shower?

The Federal Energy Policy Act (FENPA) set a nationwide regulation that limits showerheads to a maximum flow of 2.5 gallons per minute (GPM). Showerheads made before 1980 are rated at 5 GPM. Since the average shower is estimated to last 8.2 minutes, the old showerheads use 41 gallons of water while the newer, low-flow showerheads use only about 21 gallons.

How many contaminants are regulated in drinking water?

The U.S. EPA regulates over 80 contaminants in drinking water. Some states may choose to regulate additional contaminants or to set stricter standards, but all states must have standards at least as stringent as the U.S. EPA's. Each well site has there own set of standards and regulations that are imposed and carefully supervised year round.

Where can I find source water assessment and its availability?

You may contact Tulalip Utilities at 360-716-4840 to inquire about this information.

How can I help protect our valuable source water?

Protection of drinking water is everyone's responsibility. There are a number of ways in which you can help to protect your communities water source:

- Eliminate excess use of lawn and garden fertilizers and pesticides– they contain hazardous chemicals that can reach your drinking water source.
- 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 sewer system
- Dispose of chemicals properly; take used motor oil to a recycling center
- Volunteer in your community. Find a watershed or wellhead protection organization in your community or visit the Watershed Information Networks How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to street drains reminding people "Dump No Waste– Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Why do I get this report every year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

"It is our goal to provide adequate safe drinking water for everyone in our community."

Prepared by RMJ

DELIA JIMICUM #105300135

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2017	0.5	0.7	MRDLG = 4	MRDL = 4	NO	Water additive used to control microbes
TTHM (ppb)	2016	5.8	5.8	N/A	80	NO	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
**Arsenic (ppb)	2016	5	5	0	10	**NO**	Erosion of natural deposits; Run-off from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2016	0.008	0.008	2	2	**NO**	Discharge of drilling wastes and metal refineries; Erosion of natural deposits.
Chromium (ppb)	2016	4	4	100	100	**NO**	Discharge from steel and pulp mills; erosion of natural deposits.
Nitrate (ppm)	2017	2.72	3	10	10	**NO**	Run-off from fertilizer use; leaching from septic tanks/sewage; Erosion of natural deposits
RADIOACTIVE CONTAMINANTS							
Combined Radium 226/228 (pCi/L)	2016	1.5	1.5	0	5	NO	Erosion of natural deposits
LEAD AND COPPER							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2015	1.3	1.3	.221	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**** While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (40 CFR§141.155)**

DELIA JIMICUM

The Delia Jimicum system consists of 12 residential connections serving approximately 42 persons. The water is supplied by one ground water well, with a 2000 gallon capacity storage tank. Water production is estimated at 4,200 gals/day. Disinfection is accomplished by injecting dilute sodium hypochlorite solution when the well pump is pumping to the reservoir.

ASPEN ESTATES #105300140

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2017	0.5	0.7	MRDLG = 4	MRDL = 4	**NO**	Water additive used to control microbes
Haloacetic Acid (ppb)	2017	2.7	37	N/A	60	**NO**	By-product of drinking water disinfection
TTHM (ppb)	2017	42.6	58	N/A	80	**NO**	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
Nitrate (ppm)	2017	0.14	0.14	10	10	NO	Runoff from fertilizers, leaching from septic tanks/sewage; erosion of natural deposits
LEAD AND COPPER							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2015	1.3	1.3	.196	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; corrosion of household plumbing systems.
Lead (ppb)	2015	0	15	7	0	**NO**	Corrosion of household plumbing systems; Erosion of Natural deposits

***Aspen Source water testing results can be obtained from the City of Everett's water quality report at: https://everettwa.gov/325/Public-Works**

ASPEN

The Aspen system consists of 189 connections serving approximately 600 persons. Water Storage is provided by a 119,000 gallon above ground concrete tank. Water is purchased from the City of Everett; It is surface water that comes from the Spada Lake reservoir which is located 30 miles east in the Cascade Mountains. Disinfection is provided by the City of Everett. The City of Everett maintains a 1.0 mg/l fluoride concentration in water supplied to the Aspen system.

Prepared by RMJ

JOHN SAM LAKE #105300098

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2017	0.6	0.7	MRDLG = 4	MRDL = 4	**NO**	Water additive used to control microbes
TTHM (ppb)	2015	2.1	2.1	N/A	80	**NO**	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
Arsenic (ppb)	2016	2	2	0	10	**NO**	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium (ppm)	2016	.002	.002	2	2	**NO**	Discharge of drilling waste; discharge of metal refineries; erosion of natural deposits
Chromium (ppb)	2016	4	4	100	100	**NO**	Discharge from steel and pulp mills; erosion of natural deposits.
Nitrate (ppm)	2017	3	3.09	10	10	**NO**	Runoff from fertilizer use; leaching from septic tanks/sewage; erosion of natural deposits
RADIOACTIVE CONTAMINANTS							
Combined radium 226/228 (pCi/L)	2016	1.5	1.5	0	5	**NO**	Erosion of natural deposits
LEAD AND COPPER							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2015	1.3	1.3	.23	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; Corrosion household plumbing systems.
Lead (ppb)	2015	0	15	1	0	**NO**	Corrosion of household plumbing systems; Erosion of natural deposits

JOHN SAM LAKE

The John Sam Lake system consists of approximately 48 residential connections serving approximately 168 persons. The water is supplied by one groundwater well with an above ground concrete storage tank with a capacity of 39,000 gallons of water. Water Production is estimated at approximately 11,400 gals/day. Disinfection is accomplished by injecting dilute sodium hypochlorite solution when the well pump is pumping to the reservoir.

TULARE ESTATES #105300155

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2016	0.5	.06	MRDLG= 4	MRDL = 4	**NO**	Water additive used to control microbes
Haloacetic Acids (ppb)	2016	2	2	N/A	60	**NO**	By-product of drinking water chlorination
TTHM (ppb)	2016	15.2	15.2	N/A	80	**NO**	By-product of drinking water chlorination
INORGANIC CONTAMINANTS							
Nitrate (ppm)	2017	.13	.13	10	10	**NO**	Runoff from fertilizer use; leaching from septic tanks , sewage; erosion of natural deposits
Arsenic (ppb)	2015	2	2	0	10	**NO**	Erosion of natural deposits; Run-off from orchards; Run-off from glass and electronics production wastes.
Barium (ppm)	2015	.006	.006	2	2	**NO**	Discharge of drilling waste; discharge from metal refineries: Erosion of natural deposits
Fluoride (ppm)	2015	.13	.13	4	4.0	**NO**	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
RADIOACTIVE CONTAMINANTS							
Combined Radium 226/228 (pCi/L)	2014	1.5	1.5	0	5	**NO**	Erosion of natural deposits
LEAD AND COPPER							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2016	1.3	1.3	0.158	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (ppb)	2016	0	15	3	0	**NO**	Corrosion of household plumbing systems; Erosion of Natural deposits

TULARE

The Tulare system consists of 12 connections serving approximately 35 persons. Water is supplied by one groundwater well with an above ground concrete storage tank with a capacity of 15,000 gallons. Typical water production is estimated to be approximately 3,800 gal/day. Disinfection is accomplished by injecting dilute sodium hypochlorite solution when the well pump is pumping to the reservoir.

Prepared by RMJ

TULALIP BAY #105300003

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2017	0.6	0.8	MRDLG= 4	MRDL= 4	**NO**	Water additive used to control microbes
Haloacetic Acids (ppb)	2017	24.9	39	N/A	60	**NO**	By-product of drinking water chlorination
TTHM (ppb)	2017	29	29.1	N/A	80	**NO**	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
Nitrate (ppm)	2017	.15	.15	10	10	**NO**	Run-off from fertilizer use; leaching from septic tanks/sewage; Erosion of natural deposits
LEAD AND COPPER RULE							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2017	1.3	1.3	.115	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead (ppb)	2017	0	15	2	0	**NO**	Corrosion of household plumbing systems; Erosion of Natural deposits

***Tulalip Bay Source water testing results can be obtained from the City of Everett's water quality report at: https://everettwa.gov/325/Public-Works**

TULALIP BAY

Water for the Tulalip Bay water system is supplied by surface water from the City of Everett. The water source is Spada Lake, 30 miles east in the Cascade Mountains. Tulalip Bay water system serves approximately 5440 persons and has approximately 1546 residential and 97 non residential connections. Typical demand is 0.6 MGD and peak demand is approximately 1.0 MGD. Disinfection is supplied by the city of Everett. Everett maintains a 1.0 mg/l fluoride concentration in the water supplied to the Tulalip Bay system.

MADISON ESTATES #105300144

		RANGE					
CONTAMINANTS	DATE	LOW	HIGH	MCLG	MCL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
DISINFECTANTS & DISINFECTANT BY-PRODUCTS							
Chlorine (ppm)	2017	0.4	0.5	MRLDG= 4	MRDL= 4	**NO**	Water additive used to control microbes
TTHM (ppb)	2015	6	6	N/A	80	**NO**	By-product of drinking water disinfection
INORGANIC CONTAMINANTS							
**Arsenic (ppb)	2017	5	5	0	10	**NO**	Erosion of natural deposits; Run-off from orchards; Run-off from glass and electronics production wastes.
Barium (ppm)	2017	0.009	0.009	2	2	**NO**	Discharge of drilling waste; discharge of metal refineries and erosion of natural deposits
Chromium (ppb)	2017	3	3	100	100	**NO**	Discharge from steel and pulp mills; erosion of natural deposits.
Nitrate (ppm)	2017	.57	.59	10	10	**NO**	Runoff from fertilizer use; leaching from septic tanks , sewage; erosion of natural deposits
RADIOACTIVE CONTAMINANTS							
Combined Radium 226/228 (pCi/L)	2016	1.5	1.5	0	5	**NO**	Decay of natural and man-made deposits
INORGANIC CONTAMINANTS							
CONTAMINANTS	DATE	MCLG	ACTION LEVEL	90TH PERCENTILE	# SAMPLES EXCEEDING AL	VIOLATION	LIKELY SOURCE OF CONTAMINANTS
Copper (ppm)	2015	1.3	1.3	.529	0	**NO**	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

**** While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. (40 CFR§141.155)**

MADISON ESTATES

The Madison estates water system consists of 25 water connections serving approximately 86 persons. The water is supplied by one ground water well with an above ground concrete storage tank with a capacity of 29,000 gallons. Average production is estimated at 9,636 gals/day. Disinfection is accomplished by injecting dilute sodium hypochlorite solution when the well pump is pumping to the reservoir.

IN MEMORY OF CLIFFORD G. JONES

We would like to honor and remember a very important member of our team that we lost unexpectedly on November 6, 2017, our Manager Clifford Jones. Cliff dedicated 20+ years to working at Tulalip Utilities. The Utilities department and crew and the customers were very important to Cliff. He always did his best to ensure things were done properly and as quickly as possible. He will be greatly missed by all of us at Tulalip Utilities as he was an amazing boss, friend & father. We will strive to continue to do our jobs as he always expected and taught us to do, in a way that will make him proud. Cliff will always be a part of our team and will always be remembered and honored in the work we do daily.

IMPORTANT DRINKING WATER TERMS & DEFINTIONS

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 and are non-enforceable public health goals.

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.

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.

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.

TOTAL COLIFORM (TC): A group of bacteria commonly found in the environment, for example in soil or vegetation, as well as the intestines of mammals, including humans. Total coliform bacteria are not likely to cause illness, but their presence indicates that your water supply may be vulnerable to contamination by more harmful microorganisms.

ACTION LEVEL (AL) - The concentration of a contaminant that, if exceeded triggers treatment or other requirements that a system must follow.

WQMP - water quality monitoring plan

N/A - not applicable

UNIT DESCRIPTIONS TERMS AND DEFINITIONS:

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

ppb: parts per billion, or micrograms per liter (ug/L)- One part substance per billion parts water

pCi/L: Picocuries per Liter- A measure of radioactivity

TTHM: Total Trihalomethanes

Prepared by RMJ