2019 Consumer Confidence

Annual Water Quality Report

Water System ID No. 77620Y

For more information or questions please contact:

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Phone: (360) 683-4908 Fax: (360) 681-0552 - Email: waterinfo@sequimwa.gov—Website: http://www.sequimwa.gov

Dear Water Customer:

The City of Sequim is pleased to share with you, our customers, the quality of your drinking water in this 2019 Annual Water Quality Report.

We want to be sure you know:

The City of Sequim's drinking water **meets or exceeds** all state and federal safe drinking water standards. You will find full details in this report.

History of Sequim's Water System

A study of the City of Sequim's water system was completed in 1973. As a result of this study, additional improvements were made to the City's water system. These improvements included covering the City reservoir, metering connections, and replacement of sub-standard water lines. Another report was completed in 1983 which addressed issues of water quality, water resources, and conservation. Improvements made to the City's water system, which were recommended in this report, included covering the 500,000 gallon reservoir, development of the Silberhorn Well Field, installation of a chlorination system in the intake piping, and construction of a new infiltration gallery on the Dungeness River. In 1986, a reservoir at a higher elevation was constructed and the Silberhorn Well Field was brought online. The City's 1.7 million-gallon (MG) reservoir was constructed in 1996. It provides a higher-pressure zone for the City. The Port Williams Well No. 1 was drilled and began providing drinking water in 1995. In 1998, additional pipelines were constructed and Port Williams Well No. 2 was drilled and equipped. A one million gallon reservoir on the east slope of Bell Hill was completed in 2008.

Port Williams Well No. 3 was completed and put into operation in 2009. Number 1 well at our Silberhorn well field was reconditioned and put back online in 2011. In 2013 the city replaced approximately 580 lineal feet of drinking water main lines in South Sequim Avenue and Washington Street. Our water meter replacement program for residential water meters was completed in 2013. In 2016 the City installed a water main water across South 3rd Ave. Water mains were replaced on North and South Sunnyside Ave. Water main on West Fir Street was replaced in 2019 to increase fire flow, leakage and continued the planning and engineering for the replacement of water lines and essential equipment that have either reached their service life or have inadequate capacity. These water lines and equipment will be slated for construction in 2020-2021. The city is committed to having a robust water system and will continue to improve your water system with the replacement of undersized public water lines with pipe that meets our current standards to

See Page 8 for the latest information on water testing.

Water Quality Protection Programs

The City is committed to supplying its customers with high quality drinking water. The City has adopted a Water System Plan to ensure that the drinking water supplied to its customers meets or exceeds all Federal and State standards.

The City of Sequim's Water System Plan

This plan was approved by the Sequim City Council, Department of Health (DOH) and Department of Ecology (DOE). The plan analyzes all aspects of the water system, identifying current and future plans by the City to continue to provide high quality drinking water to its customers. The City's Water System Plan must be updated every 6 years. The City completed the process of a new water system plan in 2014.

Water Conservation Program

The 2013 Water System Plan recommends many ways in which the City and its residents can help preserve and protect our water resources (see page 4 under Water Conservation).

Water Storage

Commercial and domestic demand, nesting, and emergency use water storage is provided by four reservoirs. The combined storage capacity of all four reservoirs is 3,400,000 gallons of water.

Water Quality Monitoring Requirements

Existing State law requires water systems to monitor for numerous contaminants on a regular basis. The City is in compliance with existing water quality monitoring requirements. Pages 7 through 11 indicate the water quality tests regularly performed by the City.

Wellhead Protection Program

The Water System Comprehensive Plan sets protective boundaries around the City's wells, identifies potential contamination sources around the wells and provides notification to City residents about wellhead protection.

Cross Connection Program

The city is mandated by Washington State Department of Health (DOH) to have an active cross connection program in place. In 2019, the city will continue to contact customers to achieve our full compliance with DOH cross control requirements. CCC Rules (PDF, DOH 331-355) - Washington State CCC regulations (WAC 246-290-490) and related definitions.

If you see a potential problem, let us know.

Drinking Water Wells

To protect your drinking water wells, follow the Department of Ecology's "Homeowners Guide to Well Construction." You may also refer to the Washington State Administrative Code WAC 173-160-171. Sequim welcomes input and would be happy to supply you with additional information. Feel free to contact the City Public Works staff at 152 West Cedar Street, 360-683-4908 or www.sequimwa.gov.

Upper Dungeness River

Washington's lakes, streams, and rivers play critical roles in people's lives. People rely on clean, unpolluted water for recreation, such as boating, fishing, and swimming. They also rely on clean water for DRINKING. To remain healthy, people need water that is safe to drink (see www.clallam.net for more information on WRIA 18 watershed protection).

General Health Effects Information

While traveling through the ground, groundwater dissolves some of the naturally occurring minerals that may contain substances resulting from the presence of animals or human activity. Contaminants that may be present include microbes, inorganic and organic chemicals, pesticides, herbicides, and radioactive materials. To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The FDA and Washington State Department of Agriculture regulations establish limits for contaminants in bottled water which are required to meet the same standards as public 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 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. Immunocompromised 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).

EPA 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 Sequim 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 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

ODW Lead Statement: 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 pipes, 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 are 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 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.

To ensure that tap water is safe to drink, the Department of Health 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 regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Checking Chlorine and Pumping Levels

Water Use Efficiency Leakage Information for 2019	Million Gallons
Total Water Produced	365
Total Water Purchased	322
Unaccounted for Distribution System Water	42
Distribution System Losses as Percentage	11.8%

The table above shows the City's water production, purchased water and water system loss. This table also shows the city's commitment to conserve and to account for all water produced and eliminate all unaccounted for water.

Leak Repair

Water Conservation for You

Save Water Indoors

The average family uses 22% of their water washing clothes, 1% washing dishes, 16% using faucets, 17% showering, 27% flushing toilets, 14% on leaks, 2% taking baths, and 2% on other uses.

Save Water in the Bathroom

Check all faucets, pipes, and toilets periodically for leaks. A faucet drip or invisible leak in the toilet will add up to 15 gallons of water per day, or 105 gallons per week, which adds up to 5,475 gallons of wasted water per year. Check your flapper periodically to make sure it's a tight fit.

Install water saving shower heads. Low-flow showerheads deliver 2.5 gallons of water per minute or less and are relatively inexpensive. Older showerheads use 5 to 7 gallons per minute.

Take short showers or shallow baths. Simply taking shorter showers will save gallons of water. For long exposures to the water, a partially filled bath instead of a shower will use less water.

Install a 1.6 gallon low-flow toilet. Ultra-low flow toilets use only 1.6 gallons of water per flush. Using these could cut indoor water use by as much as 20%. Older toilets use 3.5 to 5 gallons per flush.

Check for toilet leaks. Once a year, check for toilet leaks. Remove the toilet tank cover and drip 10 drops of food coloring into the tank. After 15 minutes, check for color in the toilet bowl. If you see any color, your toilet has a leak and should be repaired immediately. Again, remember to check your flapper periodically to make sure it's a tight fit.

Don't use the toilet as a wastebasket. Using a wastebasket instead of the toilet for tissues, cleaning wipes, cloth and other bits of trash will save gallons of water that otherwise are wasted. It will also save the City staff time in finding system plug-ups, doing repairs and reduces City wastewater treatment costs. This saves you, the taxpayer, money.

Fix leaky faucets immediately. A leaky faucet may simply need a new washer. Small faucet leaks can waste 20 gallons of water per day. Large leaks can waste hundreds of gallons.

Turn off the water while shaving, brushing teeth, etc. Don't let water run when you brush your teeth, wash your face or hand, or shave. This can save 3 to 7 gallons per minute.

Water Loss in Gallons at 60 psi	
Leak this Size	Loss per Month
1/32"	6000
1/16"	25,000
1/8"	100,000
1/4"	400,000

Save Water in the Kitchen and Laundry

Fill your dishwasher. Your dishwasher uses the same amount of water whether it is full or just partially full of dishes, so be sure to fill it before you run it. Many dishwashers have a water saver cycle to save even more water.

Select proper water level laundry. Unlike your dishwasher, you can control the amount of water used by your clothes washers. Select the proper water level for each load of laundry.

City Staff Installs a New Water Meter

Water Saving Tips in the Garden

Since summertime outdoor watering is the biggest use of water (by far), we encourage City residents to reconsider your lawn…

Consider allowing your lawn to go dormant in the summer.

If you do choose to let your lawn go dormant, don't start watering it mid-summer and then stop again. This will damage grass plants.

If you need to water your lawn, do it in the early morning.

- 1" of water once/week is recommended for most of Western Washington.
- Measure the depth of watering with a shallow pan placed under sprinklers.

Also in the Garden

- Water early in the mornings to reduce evaporation losses. An occasional, ample watering is more effective than numerous, superficial watering.
- Use trickle or drip irrigation systems for watering trees, shrubs, hilly areas, or widely spaces plants.
- Collect runoff from roofs and paved areas for garden use.
- Use surface mulch around trees, shrubs, flowers and garden crops to reduce evaporation loss.
- Choose drought tolerant and native plants

More Water Saving Ideas

• Wash dishes by hand in a sink or a dishpan—uses less water than a dishwasher.

• Rinse or wash fruits and vegetables in standing, not running, sink water.

• Use the garbage disposal as efficiently as possible.

• Thaw frozen foods in the refrigerator.

• Loosen ice cubes by removing the trays a few minutes before they are needed.

• Keep a covered container for cool drinking water in the refrigerator.

• Repair faucets and toilets promptly.

• Clean sidewalk, driveway, and patio with a broom rather than by hosing off.

• Use a bucket for soapy wash water and rinse quickly with a hose when washing house windows or a car.

• Save bath, shower, and laundry water for toilet flushing if water is in extremely short supply.

• Avoid letting children play with running water.

• Super savers can also install low-flow toilets, dishwasher and clothes washer.

Source: http://www.clallam.net/waterconservation/

Questions:

How can I stay in touch with decisions that affect my drinking water?

- Newspapers
- Attend City Council Meetings
- City of Sequim website: http://www.sequimwa.gov
- DOH website: http://www.doh.wa.gov/ehp/dw/default.htm
- ECY website: http://www.edy.wa.gov/programs/wr/wrhome.html

Is bottled water cleaner and safer than tap water?

Since the Federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same levels of public health protection as public water systems, bottled water is not necessarily cleaner or safer than tap water.

Changing Weekly Water Flow Charts

Why is chlorine added to my drinking water?

Pursuant to state and federal laws, very small amounts of liquid chlorine in the form of Sodium Hypochlorite (NaOCl) are added to your drinking water as a disinfecting agent to protect you from disease-causing microorganisms. If you are bothered by the chlorine taste, keep a pitcher of tap water in the refrigerator. The chlorine will dissipate rapidly if the water is allowed to sit for a time.

Protecting our Water Supplies

People have grown understandably concerned about the safety of America's drinking water supply. It is a concern we all share and the City of Sequim has been working hard with our Emergency Management partners, EPA, DOE, DOH, County Health, Dungeness River Watershed, Users, Homeland Security and others in the drinking water industry to provide you with a safe and reliable water system.

Is our Drinking Water Supply Safe? YES

Your City Staff monitors:

- Daily Chlorine Checks
- Daily Turbidity (clarity of water)
- Monthly Coliforms
- Taste and Odor
- Security Surveillance at All Water Supply and Supply Areas
- Backflow Device Testing
- Inspection of All Installations and Repairs

City customers would be immediately notified if precautions were needed or warranted.

Source protection information
Washington State Department of Health Office of Drinking Water compiled Source Water Assessment Program (SWAP) data for all community PWSs in Washington. SWAP data for your PWS is online at: http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWaterProtection/Assessment.aspx

If you don't have access to the Web, we encourage you to use the Internet service available through the public library system.

What should I do if I see someone around the City's drinking water supply that looks suspicious?
Contact your local law enforcement by dialing 9-1-1 to report a suspicious event.

The Following Tests are From 2019

Test Results Summary						
Contaminant	Violation Yes/No	Level Detected	Unit Measurement	MCLG	MCL	Typical Source
Microbiological Contaminates						
Coliform Bacteria	NO	ND	Present or Absent	0	One Positive monthly sample	Natural present in the environment
Inorganic Contaminates (IOC)						
Nitrate (as Nitrogen) (SO1) Infiltration System	NO	0.5	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Nitrate (as Nitrogen) (SO2) Silberhorn Wellfield	NO	1.94	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Nitrate (as Nitrogen) (SO5) Port Williams Wellfield	NO	0.57	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Iron (SO2) Silberhorn Wellfield	NO	<1.0	mg/L	0.3		
Volatile Organic Contaminates (VOC) EPA Method 524.2 for State Drinking Water Compliance (Silberhorn Wellfield) (SO5)						
EPA/State Regulated	NO	ND	ppb			Natural present in the environment also found in manmade products
EPA/State Unregulated	NO	ND	ppb			Natural present in the environment also found in manmade products
EPA Regulated under Trihalo-methanes Program	NO	ND	ppb		60/80	Byproduct of drinking water disinfection
State Unregulated	NO	ND	ppb			Natural present in the environment also found in manmade products

Definitions of the above tables are located on page 12.

Local school children experience the Dungeness River

Other samples taken in 2019

Sample	Results	Method EPA	MRDL	Sample frequency
Average Free Chlorine	0.30 ppm	4500-CI G	4 ppm	Daily

Combined Average Hardness of the City's Water System (3 sources)

Analyte	Results (Combined Average)	Units
Hardness, Total (as CaCO3)	108 avg. ppm	ppb as CaCO3

The Following Tests are From August 2019

Table 3

Water Quality Data (Regulated by EPA, State and other)

Disinfection By-Product Compound Report

EPA Regulated - Under Trihalomethanes Program

EPA Method 524.2 For State Drinking Water Compliance

Disinfection Byproducts Stage 2						
Contaminant	Violation Yes/No	Level Detected	Unit Measurement	Sample Year	MCL	Typical Source
HAA (5) Site 24	NO	4.8	ppb	2019	60	Byproduct of drinking water disinfection
Total Trihalomethanes Site 24	NO	8.5	ppb	2019	80	Byproduct of drinking water disinfection
HAA (5) Site 26	NO	4.0	ppb	2019	60	Byproduct of drinking water disinfection
Total Trihalomethanes Site 26	NO	4.8	ppb	2019	80	Byproduct of drinking water disinfection

2016 RADIONUCLIDE ANALYSIS REPORT

Sample Location: Ranney Well

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	METHOD USED
EPA/STATE REGULATED (These analyses should be performed in order as listed)							
165	Gross Alpha		0.4	pCi/L	12/03/2015	15	TRS/E900.0
166	Radium 228		0.7	pCi/L	12/03/2015	5	PLJ/RA-05

Monitoring Levels in Local Wells

Reading the Tables

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.

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.

MFL (Million fibers per liter): Unit of measure for asbestos fibers greater than 10 mm in length.

NTU (Nephelometric turbidity unit): The unit of measure for turbidity.

PPM (Part per million): One part per million or one milligram per liter (mg/L).

Secondary MCLs: MCLs based on factors other than health effects such as taste and aesthetics.

DBPs-TTHMs (Total Trihalomethanes): Contaminants created from the reaction of chlorine and water. The result shown is samples from 2008.

DOH (Department of Health): Washington State Department of Health.

VOC: Volatile Organic Chemicals

SOC: Synthetic Organic Chemicals

Radioactive Contaminates: Can occur naturally or be the result of oil and gas production and mining activates.

SRL: (State Reporting Level) indicates the minimum reporting level required by DOH.

NA: (Not Analyzed) use in the results column for compounds not included in current analysis

ND: (Not Detected) use in the results column for compounds analyzed and not detected at a level greater or equal to the SRL.

Trigger Level: (DOH Drinking Water response level) Systems with compounds detected at concentrations in excess of this level are required to take additional samples.

Method: Is a definitive procedure that produces a test result.

Results: Is the product of performed test.

Units: Are measurements an metric form: L = Liter, mg = milligram

Water Quality Monitoring Results

The data shown in Table 2 are some of the items tested for by the City of Sequim. All the contaminants are well below the levels allowed by the state and federal agencies. Additional information on chemical analyses can be obtained by calling Sequim Public Works Department at 360-683-4908

2019 Water Quality Monitoring Schedule

Coliform Monitoring Requirements

	Mar 2019	Apr 2019	May 2018	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019	Dec 2019	Jan 2019	Feb 2019
Coliform Monitoring Population	13815	13827	13840	13865	11488	11447	13619	13637	13619	13729	13799	13809
Number of Routine Samples Required	15	15	15	15	10	10	15	15	15	15	15	15

Chemical Monitoring Requirements

Distribution Monitoring

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Due
Lead and Copper	30	Jan 2017 - Dec 2019	standard - 3 year	10/06/2016	Jul 2019
Asbestos	1	Jan 2011 - Dec 2019	standard - 9 year	06/30/2009	Jun 2018
Total Trihalomethane (THM)	2	Jan 2018 - Dec 2018	reduced - 1 year	08/02/2017	Aug 2018
Halo-Acetic Acids (HAA5)	2	Jan 2018 - Dec 2018	reduced - 1 year	08/02/2017	Aug 2018

Source Monitoring

Ranney Well (SO1)

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Date
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	03/30/2017	Jul 2019
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	07/26/2007	
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	07/15/2015	
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/18/2016	
Pesticides	0	Jan 2017 - Dec 2019	waiver - 3 year	07/26/2007	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2019	standard - 6 year	07/18/2016	
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	07/18/2016	

Water Quality Monitoring Schedule
Continued

Source Monitoring

Silberhorn Wellfield (SO2)

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Date
Nitrate	1	Jan 2018 - Dec 2018	standard - 1 year	03/30/2017	May 2019
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	wavier— 9 year	05/18/2011	
Iron	1	Jan 2017 – Dec 2019	Standard – 3 year	05/18/2011	Aug 2019
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	06/16/2017	
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/18/2016	
Pesticides	0	Jan 2017 - Dec 2019	waiver - 3 year	07/26/2007	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2019	standard - 6 year	05/28/2015	
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	05/08/2015	

Source Monitoring

Port Williams Wellfield (SO5)

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Date
Nitrate	1	Jan 2018- Dec 2018	standard - 1 year	03/30/2017	May 2019
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	03/09/2016	
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	06/04/2013	Jun 2019
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/18/2016	
Pesticides	0	Jan 2017 - Dec 2019	waiver - 3 year	11/28/2007	
Soil Fumigants	0	Jan 2017 - Dec 2019	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2019	standard - 6 year	11/18/2015	
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	11/18/2015	

Current Events:

The City of Sequim completed the Water System Plan (WSP) in 2014. The WSP update is required by the Washington State Department of Health (Office of Drinking Water) every 6 years. The WSP includes many chapters, for example: Cross connection program, water system planning, operations, sampling, sources and water use efficiency. In 2018 the City completed the construction water mains on North and South Sunnyside. 2018-2019 the City will be finalizing engineering and beginning construction of new water mains on West Fir, a portion North 4th and finalization 5th and McCurdy booster station.