2015 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 2015 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 water system 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 2015 the City continued planning and engineering for the replacement of water lines that have either reached their service life or have inadequate capacity. These water lines will then be slated for construction in 2015-2016. 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 benefit both water flow and quality.

See Page 7 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 six 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 8 through 12 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 2015 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 615 N. Sequim Avenue, 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 Food and Drug Administration regulations establish limits for contaminants in bottled water which are required to meet the same standards as public drinking water.

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, persons with HIV/AIDS or other immune system disorders, some elderly and also infants can particularly be at risk for infections.

Lead and copper can leach into residential water from building plumbing systems. Lead and copper monitoring is conducted at homes categorized as high risk and under worst case conditions. Homes or buildings that were built or re-plumbed with copper pipes and lead-based solder are considered to be high risk. The use of lead-based solder was stopped in 1985. For more information please contact the Washington State Department of Health at 1-800-521-0323.

Checking Chlorine and Pumping Levels

Water Use Efficiency Leakage Information for 2011	Million Gallons
Total Water Produced	331
Total Water Purchased	281
Unaccounted for Distribution System Water	44
Distribution System Losses as Percentage	13.3%

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.

Reading Water Meters with Touch Read Wand

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 waterings.

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.

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
- DOE 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.

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.

Monitoring Levels in Local Wells

The Following Tests are From July 2015

Table 2

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

Source – (SO1) Infiltration System

DOH#	Analyte	Results	Units	SRL	Trigger	MCL	Method
20	Nitrate-N	<(0.1)	mg/L	0.5	5	10	EPA 300.0

Table 2

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

Source – Silberhorn (SO2)

DOH#	Analyte	Results	Units	SRL	Trigger	MCL	Method
20		2.01	mg/L	0.5	5	10	EPA 300.0

Table 2

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

Source – Port Williams (SO5)

DOH#	Analyte	Results	Units	SRL	Trigger	MCL	Method
20		0.90	mg/L	0.5	5	10	EPA 300.0

Definitions of the above tables are located on page 12.

Local school children Experience the Dungeness River

Other samples taken in 2015

Sample	Results	Method EPA	Sample frequency
Average Free Chlorine	0.30 mg/L		Daily
Coliform Bacteria	Non-Detected	EPA SM 9223 B	Monthly

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

Analyte	Results (Combined Average)	Units
Hardness, Total (as CaCO3)	108 avg. mg/L	ug/L as CaCO3

The Following Tests are From August 2015

Table 3

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

Source – Port Williams Pump Station

Disinfection By-Product Compound Report

EPA Regulated - Under Trihalomethanes Program

EPA Method 524.2 For State Drinking Water Compliance

DOH #	Compounds	Results	Units	SRL	Trigger	MCL	Method
	Halo-Acetic Acids		ug/L	2			552.3
411	MONOCHOLROACETIC ACID	ND	ug/L	1			552.3
412	DICHLOROACETIC ACID	1.8	ug/L	1			552.3
413	TRICHLOROACETIC ACID	1.0	ug/L	1			552.3
414	MONOBROMOACETIC ACID	ND	ug/L	1			552.3
415	DIBROMOACETIC ACID	ND	ug/L	1			552.3
416	HAA(5)	2.8	ug/L	1	45	60	552.3
417	BROMOCHLORACETIC ACID	1.0	ug/L	1			552.3
	EPA Regulated – Under Trihalomethanes Program						
27	CHLOROFORM	5.2	ug/L	0.5			524.2
28	BROMODICHLOROMETHANE	2.8	ug/L	0.5			524.2
29	CHLORODIBROMOMETHANE	1.5	ug/L	0.5			524.2
30	BROMOFORM	ND	ug/L	0.5			524.2
31	TOTAL TRIHALOMETANE	9.5	ug/L		60	80	524.2

Table 3

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

Source – 2 inch Blow-Off Ridge Field Road

Disinfection By-Product Compound Report

EPA Regulated - Under Trihalomethanes Program

EPA Method 552.3 For State Drinking Water Compliance

DOH #	Compounds	Results	Units	SRL	Trigger	MCL	Method
	Halo-Acetic Acids		ug/L	2			552.3
411	MONOCHOLROACETIC ACID		ug/L	1			552.3
412	DICHLOROACETIC ACID		ug/L	1			552.3
413	TRICHLOROACETIC ACID		ug/L	1			552.3
414	MONOBROMOACETIC ACID		ug/L	1			552.3
415	DIBROMOACETIC ACID		ug/L	1			552.3
416	HAA(5)		ug/L	1	45	60	552.3
417	BROMOCHLORACETIC ACID		ug/L	1			552.3
	EPA Regulated – Under Trihalomethanes Program						
27	CHLOROFORM		ug/L	0.5			524.2
28	BROMODICHLOROMETHANE		ug/L	0.5			524.2
29	CHLORODIBROMOMETHANE		ug/L	0.5			524.2
30	BROMOFORM		ug/L	0.5			524.2
31	TOTAL TRIHALOMETANE		ug/L		60	80	524.2

2015 VOLATILE ORGANIC COMPOUNDS (VOC) REPORT

Sample Location: Source – (SO1) Infiltration System

EPA Method 524.2 for Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	Lab	Method
	EPA/State Regulated							
160	TOTAL XYLENES	ND	ug/l	0.5	0.5	10000	a	524.2
57	T - 1,2 - DICHLOROETHYLENE	ND	ug/L	0.5	0.5	100	a	524.2
60	CIS - 1.2 - DICHLOROETHYLENE	ND	ug/L	0.5	0.5	70	a	524.2
47	1,1.1 - TRICHLOROETHANE	ND	ug/L	0.5	0.5	200	a	524.2
48	CARBON TETRACHLORIDE	ND	ug/l	0.5	0.5	5	a	524.2
49	BENZENE	ND	ug/L	0.5	0.5	5	a	524.2
50	1.2 - DICHLOROETHANE	ND	ug/L	0.5	0.5	5	a	524.2
51	TRICHLOROETHYLENE	ND	ug/L	0.5	0.5	5	a	524.2
63	1.2 - DICHLOROPROPANE	ND	ug/l	0.5	0.5	5	a	524.2
66	TOLUENE	ND	ug/l	0.5	0.5	1000	a	524.2
67	1.1.2 - TRICHLOROETHANE	ND	ug/L	0.5	0.5	5	a	524.2
68	TETRACHLOROETHYLENE	ND	ug/l	0.5	0.5	5	a	524.2
71	CHLOROBENZENE	ND	ug/L	0.5	0.5	100	a	524.2
73	ETHYLBENZENE	ND	ug/L	0.5	0.5	700	a	524.2
74	MIP - XYLENE	ND	ug/l	0.5	0.5		a	524.2
45	VINYL CHLORIDE	ND	ug/L	0.5	0.5	2	a	524.2
75	O-XYLENE	ND	ug/L	0.5	0.5		a	524.2
76	STYRENE	ND	ug/L	0.5	0.5	100	a	524.2
52	P-DICHLOROBENZENE	ND	ug/L	0.5	0.5	75	a	524.2
84	0 - DICHLOROBENZENE	ND	ug/l	0.5	0.5	600	a	524.2
95	12.4.-TRICHLOROBENZENE	ND	ug/L	0.5	0.5	70	a	524.2
46	1.1 - DICHLOROETHYLENE	ND	ug/L	0.5	0.5	7	a	524.2
56	METHYLENE CHLORIDE	ND	ug/L	0.5	0.5	5	a	524.2
102	•1.2 - DIBROMOETHANE (EDB)	ND	ug/L	0.5	0.02	0.05	a	524.2
103	•1.2-DIBROM0-3-CHLOROPROPANE	ND	ug/L	0.5	0.04	0.2	a	524.2
	EPA/State Unregulated							

2015 VOLATILE ORGANIC COMPOUNDS (VOC) REPORT Continued

Sample Location: Source – (SO1) Infiltration System

EPA Method 524.2 for Water Compliance

DOH#	COMPOUNDS	RESULTS	UNITS	SRL	Trigger	MCL	Lab	Method
58	1,1 - DICHLOROETHANE	ND	ug/L	0.5	0.5		a	524.2
59	22 - DICHLOROPROPANE	ND	ug/L	0.5	0.5		a	524.2
86	BROMOCHLOROMETHANE	ND	ug/L	0.5	0.5		a	524.2
62	1.1 - DICHLOROPROPENE	ND	ug/L	0.5	0.5		a	524.2
104	DICHLORODIFLUOROMETHANE	ND	ug/L	0.5	0.5		a	524.2
64	DIBROMOMETHANE	ND	ug/L	0.5	0.5		a	524.2
65	CIS - 13 - DICHLOROPROPENE	ND	ug/L	0.5	0.5		a	524.2
69	TRANS- 1,3 - DICHLOROPROPENE	ND	ug/L	0.5	0.5		a	524.2
53	CHLOROMETHANE	ND	ug/L	0.5	0.5		a	524.2
70	1,3 - DICHLOROPROPANE	ND	ug/L	0.5	0.5		a	524.2
72	1.1.1.2 - TETRACHLOROETHANE	ND	ug/L	0.5	0.5		a	524.2
87	ISOPROPYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
79	1.2.3-TRICHLOROPROPANE	ND	ug/L	0.5	0.5		a	524.2
78	BROMOBENZ ENE	ND	ug/L	0.5	0.5		a	524.2
80	1.1.2.2 - TETRACHLOROETHANE	ND	ug/L	0.5	0.5		a	524.2
81	0 - CHLOROTOLUENE	ND	ug/L	0.5	0.5		a	524.2
88	N - PROPYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
89	1.3.5-TRIMETHYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
54	BROMOMETHANE	ND	ug/L	0.5	0.5		a	524.2
82	P - CHLOROTOLUENE	ND	ug/L	0.5	0.5		a	524.2
90	TERT - BUTYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
91	1.2.4 - TRIMETHYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
92	SEC - BUTYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
83	M - DICHLOROBENZENE	ND	ug/L	0.5	0.5		a	524.2
93	P - ISOPROPYLTOLUENE	ND	ug/L	0.5	0.5		a	524.2
94	N - BUTYLBENZENE	ND	ug/L	0.5	0.5		a	524.2
55	CHLOROETHANE	ND	ug/L	0.5	0.5		a	524.2
97	HEXACHLOROBUTADIENE	ND	ug/L	0.5	0.5		a	524.2
96	NAPHTHALENE	ND	ug/L	0.5	0.5		a	524.2
98	1.2.3 - TRICHLOROBENZENE	ND	ug/L	0.5	0.5		a	524.2
85	TRICHLOROFLUOROMETHANE	ND	ug/L	0.5	0.5		a	524.2
EPA Regulated – Under Trihalomethanes Program								
31	TOTALTRIHALOMETHANE	ND	ug/L	0.5	60	80	a	524.2
27	CHLOROFORM	ND	ug/L	0.5			a	524.2
28	BROMODICHLOROMETHANE	ND	ug/L	0.5			a	524.2
29	CHLORODIBROMOMETHANE	ND	ug/L	0.5			a	524.2
30	BROMOFORM	ND	ug/L	0.5			a	524.2
	State Unregulated - Other							
0	METHYLTERT-BUTYLETHER	ND	ug/L	1.0			a	524.2

2015 RADIONUCLIDE ANALYSIS REPORT

Sample Location: Silberhorn Wellfield

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		2.5	pCi/L	12/03/2015	15	TRS/E900.0
166	Radium 228		-0.2	pCi/L	12/03/2015	5	PLJ/RA-05
Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L							
39	Radium 226*			pCi/L			
Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L							
105	Uranium** (mass)			ug/L		30	
105	Uranium** (activity)			pCi/L		20**	
Depending on the foregoing data determine the following (must be completed if data is available):							
40	Radium 226+228			pCi/L		5	
40	Gross Alpha***= Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	
Do the following only if specifically requested by the client or the state							
42	Gross Beta****			pCi/L		50	
42	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

2015 RADIONUCLIDE ANALYSIS REPORT Continued

Sample Location: Port Williams Well Field

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		1.5	pCi/L	12/03/2015	15	TRS/E900.0
166	Radium 228		0.9	pCi/L	12/03/2015	5	PLJ/RA-05
Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L							
39	Radium 226*			pCi/L			
Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L							
105	Uranium** (mass)			ug/L		30	
105	Uranium** (activity)			pCi/L		20**	
Depending on the foregoing data determine the following (must be completed if data is available):							
40	Radium 226+228			pCi/L		5	
40	Gross Alpha***= Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	
Do the following only if specifically requested by the client or the state							
42	Gross Beta****			pCi/L		50	
42	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

MCL (Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

MDA: Minimum Detectable Amount

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

ND (Not Detected): Use in the results column for compounds analyzed and not detected at a greater than or equal to the MDA.

pCi/L: Picocuries Per Liter, Measure of radioactivity in water.

***If Gross Alpha is less than, or equal to 5 pCi/L**, it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 is greater than pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)

****Uranium's MCL is given mass terms (ug/L).** When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/L per ug/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/l.

***Use Gross Alpha in lieu of Radium 226 when Gross Alpha is less than, or equal to, 5.0 pCi/L.

*****The MCL for beta particle and photon radioactivity from man-made radionuclides** is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.

UNREGULATED CONTAMINANT MONITORING REGULATION REPORT

Sample Location: Ranney Well

COMPOUND	VALUE	UNITS	METHOD	MRL
Metals				
VANADIUM	**0.56**	ug/L		0.2
MOLYBDENUM	**ND**	ug/L	200.8	1
COBALT	**ND**	ug/L	200.8	1
STRONTIUM	**173**	ug/L	200.8	0.3
CHROMIUM	**0.22**	ug/L	200.8	0.2
Hexavalent Chromium				
HEXAVALENT CHROMIUM	**0.228**	ug/L	218.7	0.030
Oxyhalide Anion				
CHLORATE	**63**	ug/L	300.1	20
Synthetic Organic Compound				
1,4-DIOXANE	**ND**	ug/L	522	0.06
Volatile Organic Compounds				
1,2,3 - TRICHLOROPROPANE	**ND**	ug/L	524.3	0.03
1,3-BUTADIENE	**ND**	ug/L	524.3	0.1
CHLOROMETHANE	**ND**	ug/L	524.3	0.2
1,1 - DICHLOROETHANE	**ND**	ug/L	524.3	0.03
BROMOMETHANE	**ND**	ug/L	524.3	0.2
CHLORODIFLUOROMETHANE	**ND**	ug/L	524.3	0.08
BROMOCHLOROMETHANE	**ND**	ug/L	524.3	0.06
Perfluorinated Compounds				
PERFLUOROOCTANESULFONIC ACID (PFOS)	**ND**	ug/L	537	0.04
PERFLUOROOCTANOIC ACID (PFOA)	**ND**	ug/L	537	0.02
PERFLUORONONANOIC ACID (PFNA)	**ND**	ug/L	537	0.02
PERFLUOROHEXANESULFONIC ACID (PFHXS)	**ND**	ug/L	537	0.03
PERFLUOROHEPTANOIC ACID (PFHPA)	**ND**	ug/L	537	0.01
PERFLUOROBUTANESULFONIC ACID (PFBS)	**ND**	ug/L	537	0.09

UNREGULATED CONTAMINANT MONITORING REGULATION REPORT Continued

Sample Location: Silberhorn Wellfield

			METHOD	
Metals				
VANADIUM	**1.8**	ug/L		0.2
MOLYBDENUM	**ND**	ug/L	200.8	1
COBALT	**ND**	ug/L	200.8	1
STRONTIUM	**205**	ug/L	200.8	0.3
CHROMIUM	**1.2**	ug/L	200.8	0.2
Hexavalent Chromium				
HEXAVALENT CHROMIUM	**1.491**	ug/L	218.7	0.030
Oxyhalide Anion				
CHLORATE	**88**	ug/L	300.1	20
Synthetic Organic Compound				
1,4-DIOXANE	**ND**	ug/L	522	0.06
Volatile Organic Compounds				
1,2,3 - TRICHLOROPROPANE	**ND**	ug/L	524.3	0.03
1,3-BUTADIENE	**ND**	ug/L	524.3	0.1
CHLOROMETHANE	**ND**	ug/L	524.3	0.2
1,1 - DICHLOROETHANE	**ND**	ug/L	524.3	0.03
BROMOMETHANE	**ND**	ug/L	524.3	0.2
CHLORODIFLUOROMETHANE	**ND**	ug/L	524.3	0.08
BROMOCHLOROMETHANE	**ND**	ug/L	524.3	0.06
Perfluorinated Compounds				
PERFLUOROOCTANESULFONIC ACID (PFOS)	**ND**	ug/L	537	0.04
PERFLUOROOCTANOIC ACID (PFOA)	**ND**	ug/L	537	0.02
PERFLUORONONANOIC ACID (PFNA)	**ND**	ug/L	537	0.02
PERFLUOROHEXANESULFONIC ACID (PFHXS)	**ND**	ug/L	537	0.03
PERFLUOROHEPTANOIC ACID (PFHPA)	**ND**	ug/L	537	0.01
PERFLUOROBUTANESULFONIC ACID (PFBS)	**ND**	ug/L	537	0.09

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.

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

2015 Water Quality Monitoring Schedule

Coliform Monitoring Requirements

	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015	Jan 2016	Feb 2016	Mar 2016	Apr 2016	May 2016
Coliform Monitoring Population	11994	9617	9576	11803	11766	11748	11858	11928	11938	11944	11956	11969
Number of Routine Samples Required	10	10	10	10	10	10	10	10	10	10	10	10

Chemical Monitoring Requirements

Distribution Monitoring

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Lead and Copper	30	Jan 2014 - Dec 2016	standard - 3 year	09/20/2013	Sep 2016
Asbestos	1	Jan 2011 - Dec 2019	standard - 9 year	06/30/2009	Jun 2018
Total Trihalomethane (THM)	2	Jan 2015 - Dec 2015	reduced - 1 year	08/06/2014	***Aug 2015***
Halo-Acetic Acids (HAA5)	2	Jan 2015 - Dec 2015	reduced - 1 year	08/06/2014	***Aug 2015***

Source Monitoring

Ranney Well

Test Panel/Analyte	*# Samples Required*	*Compliance Period*	*Frequency*	*Last Sample Date*	*Next Sample Due*
Nitrate	1	Jan 2015 - Dec 2015	standard - 1 year	03/25/2015	
Complete Inorganic (IOC)	1	Jan 2011 - Dec 2019	waiver - 9 year	07/15/2008	Jul 2017
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	07/07/2009	***Jul 2015***
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/26/2007	Jul 2016
Pesticides	0	Jan 2014 - Dec 2016	waiver - 3 year	07/26/2007	
Soil Fumigants	0	Jan 2014 - Dec 2016	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2019	standard - 6 year	07/07/2010	Jul 2016
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	07/07/2010	Jul 2016

Water Quality Monitoring Schedule
Continued

Source Monitoring
Silberhorn Wellfield

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Due
Nitrate	1	Jan 2015 - Dec 2015	standard - 1 year	03/25/2015	
Complete Inorganic (IOC)	1	Jan 2014 - Dec 2016	standard - 3 year	05/18/2011	Aug 2016
Volatile Organics (VOC)	0	Jan 2014 - Dec 2016		05/18/2011	
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	05/18/2011	May 2017
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	07/26/2007	Jul 2016
Pesticides	0	Jan 2014 - Dec 2016	waiver - 3 year	07/26/2007	
Soil Fumigants	0	Jan 2014 - Dec 2016	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2016	standard - 3 year	05/08/2015	
Radium 228	1	Jan 2014 - Dec 2016	standard - 3 year	05/08/2015	

Source Monitoring
Port Williams Wellfield

Test Panel/Analyte	# Samples Required	Compliance Period	Frequency	Last Sample Date	Next Sample Due
Nitrate	1	Jan 2015 - Dec 2015	standard - 1 year	03/25/2015	
Complete Inorganic (IOC)	1	Jan 2014 - Dec 2016	standard - 3 year	11/28/2007	Aug 2016
Volatile Organics (VOC)	1	Jan 2014 - Dec 2019	waiver - 6 year	06/04/2013	***Feb 2015***
Herbicides	1	Jan 2014 - Dec 2022	waiver - 9 year	11/28/2007	Jul 2016
Pesticides	0	Jan 2014 - Dec 2016	waiver - 3 year	11/28/2007	
Soil Fumigants	0	Jan 2014 - Dec 2016	waiver - 3 year		
Gross alpha	1	Jan 2014 - Dec 2019	standard - 6 year	11/03/2009	***Nov 2015***
Radium 228	1	Jan 2014 - Dec 2019	standard - 6 year	11/03/2009	***Nov 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 2015-2016 the City will be engineering water mains on North and South Sunnyside, West Fir, a portion North 4th and expansion of a booster station. Construction in 2017.