

# Annual Drinking Water Quality Report

## Fir View Water Company 23 May 2017

We're pleased to provide you with this year's Annual Quality Water Report. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is and always has been, to provide to you a safe and dependable supply of drinking water. Our water source is groundwater from the Willamette River Basin, drawn from the three wells on the water company lot.

**We are pleased to report that our drinking water is safe and meets federal and state requirements.**

If you have any questions about this report or concerning your water utility, please contact **Steve Pilkerton, President of the Board of Directors for the Fir View Water Company, at 541-926-6792**. We want our customers (and shareholders) to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first Tuesday of the month, 7:00 P.M., at the Pumphouse office, 4175 NW Ridgecrest Ave.

The Fir View Water Company routinely monitors for constituents in your drinking water according to Federal and State laws. **This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2016.** As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Parts per trillion (ppt) or Nanograms per liter (nanograms/l)* - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

*Parts per quadrillion (ppq) or Picograms per liter (picograms/l)* - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000.

*Picocuries per liter (pCi/L)* - Picocuries per liter is a measure of the radioactivity in water.

*Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.

*Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

*Nephelometric Turbidity Unit (NTU)* - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is 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.

*Maximum Contaminant Level Goal* - The “Goal” (MCLG) is 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.

**The Microbiological tests results are for the 2016 monthly tests. The Nitrate test result is from 7 OCT 2016. Radioactive test results are from 7 OCT 2016. The Inorganic, Synthetic Organic (SOC’s), and Volatile Organic chemicals (VOC’s) test results are from 7 OCT 2016. The household lead and copper test results are from 19 September 2014, with our next samples to be tested in summer 2017.**

TEST RESULTS						
Contaminant	Violation	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
1. Total Coliform Bacteria	NO	ND		0	presence of coliform	Naturally present in the environment
2. Fecal coliform and <i>E.coli</i>	NO	ND		0	a routine sample and	Human and animal fecal waste
3. Turbidity				n/a	TT	Soil runoff
<b>Radioactive Contaminants</b>						
4. Beta/photon emitters	NO	ND	mrem/yr	0	4	Decay of natural and man-made deposits
5. Alpha emitters	NO	ND	pCi/l	0	15	Erosion of natural deposits
6. Combined radium	NO	ND	pCi/l	0	5	Erosion of natural deposits

## Inorganic Contaminants

7. Antimony	NO	ND	Ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; Erosion of natural deposits; runoff from orchards; runoff from glass and Decay of asbestos cement water mains; erosion of natural deposits Discharge of drilling wastes; discharge from metal refineries; Discharge from metal refineries and coal-burning factories; discharge Corrosion of galvanized pipes; erosion of natural deposits; discharge Discharge from steel and pulp mills; erosion of natural deposits Corrosion of household plumbing systems; erosion of natural deposits; Discharge from steel/metal factories; discharge from plastic and fertilizer Erosion of natural deposits; water additive which promotes strong Corrosion of household plumbing systems, erosion of natural deposits Erosion of natural deposits; discharge from refineries and Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of Discharge from petroleum and metal refineries; erosion of natural Leaching from ore-processing sites; discharge from electronics, glass, and
8. Arsenic	NO	ND	Ppb	n/a	50	
9. Asbestos	NO	ND	MFL	7	7	
10. Barium	NO	ND	Ppm	2	2	
11. Beryllium	NO	ND	Ppb	4	4	
12. Cadmium	NO	ND	ppb	5	5	
13. Chromium	NO	ND	ppb	100	100	
14. Copper	NO	ND	ppm	1.3	AL=1.3	
15. Cyanide	NO	ND	ppb	200	200	
16. Fluoride	NO	ND	ppm	4	4	
17. Lead	NO	ND	ppb	0	AL=15	
18. Mercury (inorganic)	NO	ND	ppb	2	2	
19. Nitrate (as Nitrogen)	NO	ND	ppm	10	10	
20. Nitrite (as Nitrogen)	NO	ND	ppm	1	1	
21. Selenium	NO	ND	ppb	50	50	
22. Thallium	NO	ND	ppb	0.5	2	

## Synthetic Organic Contaminants including Pesticides and Herbicides

23. 2,4-D	NO	ND	ppb	70	70	Runoff from herbicide used on row crops
24. 2,4,5-TP (Silvex)	NO	ND	ppb	50	50	Residue of banned herbicide
25. Acrylamide	NO	ND		0	TT	Added to water during sewage/wastewater treatment
26. Alachlor	NO	ND	ppb	0	2	Runoff from herbicide used on row crops
27. Atrazine	NO	ND	ppb	3	3	Runoff from herbicide used on row crops
28. Benzo(a)pyrene (PAH)	NO	ND	nanograms/l	0	200	Leaching from linings of water storage tanks and distribution lines
29. Carbofuran	NO	ND	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
30. Chlordane	NO	ND	ppb	0	2	Residue of banned termiticide
31. Dalapon	NO	ND	ppb	200	200	Runoff from herbicide used on rights of way
. Di(2-ethylhexyl) adipate	NO	ND	ppb	400	400	Discharge from chemical factories
. Di(2-ethylhexyl) phthalate	NO	ND	ppb	0	6	Discharge from rubber and chemical factories
34 Dibromochloropropane	NO	ND	nanograms/l	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples,
Dibromochloropropane	NO	ND	ppb	7	7	Runoff from herbicide used on soybeans and vegetables

36. Diquat	NO	ND	ppb	20	20	Runoff from herbicide use
37. Dioxin [2,3,7,8-TCDD]	NO	ND	picograms/l	0	30	Emissions from waste incineration and other combustion; discharge
38. Endothall	NO	ND	ppb	100	100	Runoff from herbicide use
39. Endrin	NO	ND	ppb	2	2	Residue of banned insecticide
40. Epichlorohydrin	NO	ND		0	TT	Discharge from industrial chemical factories; an impurity of some water
41. Ethylene dibromide	NO	ND	nanograms/l	0	50	Discharge from petroleum refineries
42. Glyphosate	NO	ND	ppb	700	700	Runoff from herbicide use
43. Heptachlor	NO	ND	nanograms/l	0	400	Residue of banned termiticide
44. Heptachlor epoxide	NO	ND	nanograms/l	0	200	Breakdown of heptachlor
45. Hexachlorobenzene	NO	ND	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
46. Hexachlorocyclo- pentadiene	NO	ND	ppb	50	50	Discharge from chemical factories
47. Lindane	NO	ND	nanograms/l	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
48. Methoxychlor	NO	ND	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa,
49. Oxamyl [Vydate]	NO	ND	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and
50. PCBs [Polychlorinated biphenyls]	NO	ND	nanograms/l	0	500	Runoff from landfills; discharge of waste chemicals
51. Pentachlorophenol	NO	ND	ppb	0	1	Discharge from wood preserving Factories
52. Picloram	NO	ND	ppb	500	500	Herbicide runoff
53. Simazine	NO	ND	ppb	4	4	Herbicide runoff
54. Toxaphene	NO	ND	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle
<b>Volatile Organic Contaminants</b>						
55. Benzene	NO	ND	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
56. Carbon tetrachloride	NO	ND	ppb	0	5	Discharge from chemical plants and other industrial activities
57. Chlorobenzene	NO	ND	ppb	100	100	Discharge from chemical and agricultural chemical factories
58. o-Dichlorobenzene	NO	ND	ppb	600	600	Discharge from industrial chemical Factories
59. p-Dichlorobenzene	NO	ND	ppb	75	75	Discharge from industrial chemical Factories
60. 1,2 - Dichloroethane	NO	ND	ppb	0	5	Discharge from industrial chemical Factories
61. 1,1 - Dichloroethylene	NO	ND	ppb	7	7	Discharge from industrial chemical Factories
cis-1,2-ichloroethylene	NO	ND	ppb	70	70	Discharge from industrial chemical Factories
63. trans - 1,2 - Dichloroethylene	NO	ND	ppb	100	100	Discharge from industrial chemical Factories
64. Dichloromethane	NO	ND	ppb	0	5	Discharge from pharmaceutical and chemical factories
65. 1,2-Dichloropropane	NO	ND	ppb	0	5	Discharge from industrial chemical Factories

66. Ethylbenzene	NO	ND	Ppb	700	700	Discharge from petroleum refineries
67. Styrene	NO	ND	Ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
68. Tetrachloroethylene	NO	ND	Ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4 -Trichlorobenzene	NO	ND	Ppb	70	70	Discharge from textile-finishing factories
1,1,1 - Trichloroethane	NO	ND	Ppb	200	200	Discharge from metal degreasing sites and other factories
71. 1,1,2 -Trichloroethane	NO	ND	Ppb	3	5	Discharge from industrial chemical factories
72. Trichloroethylene	NO	ND	Ppb	0	5	Discharge from metal degreasing sites and other factories
. TTHM [Total trihalomethanes]	NO	3.40	ppb	0	80	By-product of drinking water chlorination
74. Toluene	NO	ND	ppm	1	1	Discharge from petroleum factories
75. Vinyl Chloride	NO	ND	ppb	0	2	Leaching from PVC piping; discharge from plastics factories
76. Xylenes	NO	ND	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories

### HOUSEHOLD LEAD AND COPPER TEST RESULTS

Substance	Units	Goal	Action Level	90 <sup>th</sup> Percentile	Homes exceeding AL	Complies?	Likely Source of Contamination
Copper	ppm	1.3	1.3	0.081	0	Yes	Corrosion of household plumbing
Lead	ppm	0	0.015	0.0020	0	Yes	Corrosion of household plumbing

The 90<sup>th</sup> percentile is the highest result found in the 90% of the samples when they are listed in order from the lowest to the highest results. EPA requires testing for lead and copper at customer's taps most likely to contain these substances based on when the house was built. The EPA determined that if the sample results exceeded the Action Level (AL), the water system must take action in reducing the risk of leaching of lead and copper. As you can see by the table above, your water was well below the action level on our last round of testing in 2014. Our next round of testing is scheduled for 2017.

**As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. The EPA has determined that your water IS SAFE at these levels.**

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for

many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

### Source Water Assessment

The 1996 Amendments to the Safe Drinking Water Act require all states conduct Source Water Assessments for public water systems within their boundaries. The assessments consist of (1) identification of the Drinking Water Protection Area, i.e., the area at the surface that is directly above that part of the aquifer that supplies groundwater to our wells, (2) identification of potential sources of pollution within the Drinking Water Protection Area, and (3) determining the relative risk to the well water from those sources. The purpose of the assessment is to provide water systems with the information they need to develop a strategy to protect their drinking water resource if they choose. The Health Division's Drinking Water Program has completed the identification of the Drinking Water Protection Area for our system. A map showing this area is on file at the Fir View Water Company office.

The name of aquifer supplying water to our wells is: SPENCER FORMATION.

**Please come to a board meeting if you have questions. Keep in mind the water system is your water system. Volunteer to assist us on water company projects, or gladly say "YES" if called to assist on a project. The goal is to provide top quality water to every tap. Please continue to do your part for water conservation -- that is, use our water wisely. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.**