



# Fruitland Mutual Water Company

## Water Quality Report 2015

### Water Quality Report

We at the Fruitland Mutual Water Company (FMWC), are pleased to inform you that your drinking water meets all State and Federal health standards. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water.

For more information regarding this report please contact:

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General Manager

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### Water Treatment

The quality of water FMWC serves to its customers requires no treatment to meet the minimum requirements of the U.S. Environmental Protection Agency, the State of Washington Department of Health and the Tacoma-Pierce County Health Department. We do however, disinfect the water with sodium hypochlorite to remain bacteria free. Our average hardness is 84.1 or 5.1 grains. The pH of the water varies between 7.05 to 7.28.

### Water Supply

The FMWC's primary source of supply is ground water pumped from the Frederickson Aquifer located at or near sea-level. There are five active wells supplying water to the system. The company has a second source through a wholesale connection with Tacoma Public Utilities. The aquifer is protected from potential sources of contamination by a cooperative effort from the water companies that draw water from it. This effort is known as the "Wellhead Protection Plan".

A copy of this plan can be viewed at the company office.

### Capacities

FMWC has the capability to draw 3850 gallons per minute and store 4,000,000 gallons within the system. This is adequate and sufficient to serve the residences and commercial activities in service area.

### Sources of Contaminants

The FMWC routinely monitors for contaminants in your drinking water according to Federal, State and local laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2015. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants do not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's Safe Drinking Water Hotline at (800-426-4791).

### Lead and Copper

Most of the membership has probably heard about the water crisis in Flint Michigan, regarding the increase in lead levels after changing sources. Fruitland Water began regular lead and copper sampling in 1992 and has always met standards established by the regulatory agencies. As shown in the table on page 3, the last round of lead and copper sampling recorded no reported levels above the MCL. The water company's next round of sampling will be in the summer of 2017. If you are interested in participating contact us at customerservice@fruitlandwater.com

### Special Precautions

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune system 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).

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. Fruitland Water 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, (800-426-4791) or at <http://www.epa.gov/safewater/lead>



## Fruitland Mutual Water Company's

### Water Use Efficiency Program

Water Produced	559,194,304
Water sold/accounted for	491,854,975
Difference	67,339,329
2015 Percentage lost	12.04%
2014 water loss	15.67%
2013 water loss	16.50%



### Water Conservation

Water is one of our most valuable resources. Early indications show a dry summer and as such we should make every effort to irrigate responsibly. In our area approximately one inch of water per week will keep a lawn healthy. Check your irrigation system regularly for proper operation, broken sprinkler heads are a sure waste of water and keep a system from working efficiently. When washing outdoors be sure to use a nozzle and turn off hose bibs when not in use.

### Progress

The water company continues to use listening devices and contracts with a leak detecting company for a minimum of one week per year. These efforts will continue and increase in frequency. Your help is still needed, if you notice green or damp patches in your yard, around water meters or fire hydrants let the water company know so staff can verify the cause. The implementation and use of the new meter reading system has helped reduce the demand on customer side. As meters are read they let the reader know if there are high reads or if water ran for an extended period of time. The reader then checks the meter visually and reports to the office if there is a suspected leak and then the office notifies the customer.

### Bacteriological Analysis

Fruitland Mutual Water Company conducts routine bacteriological tests on the distribution system continuously throughout the year. We submit a minimum of 120 samples for bacteriological analysis annually. In addition to this minimum, we submit construction, investigative and engineering samples. All bacteriological samples tested in 2015 resulted in negative detection for coliform bacteria.

### Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Not shown in the table are 29 inorganic chemicals all are below the established MCL, 81 synthetic organic chemicals all non-detected and 63 volatile organic chemicals all non-detectable. Fruitland Water is very fortunate in that since the quality of water being drawn is of such good quality no additional treatment or filtering is necessary.

Important Drinking Water Definitions	
Term	Definition
MCLG	Maximum Contaminant Level Goal: The level a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
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.
AL (Action Level)	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment of other requirements which a water system must follow.
MRDLG	Maximum residual disinfection level goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	Maximum residual disinfection level: 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.
MNR	Monitored Not Regulated.
MPL	State Assigned Maximum Permissible Level.
PPM	Parts per million
PPB	Parts per billion

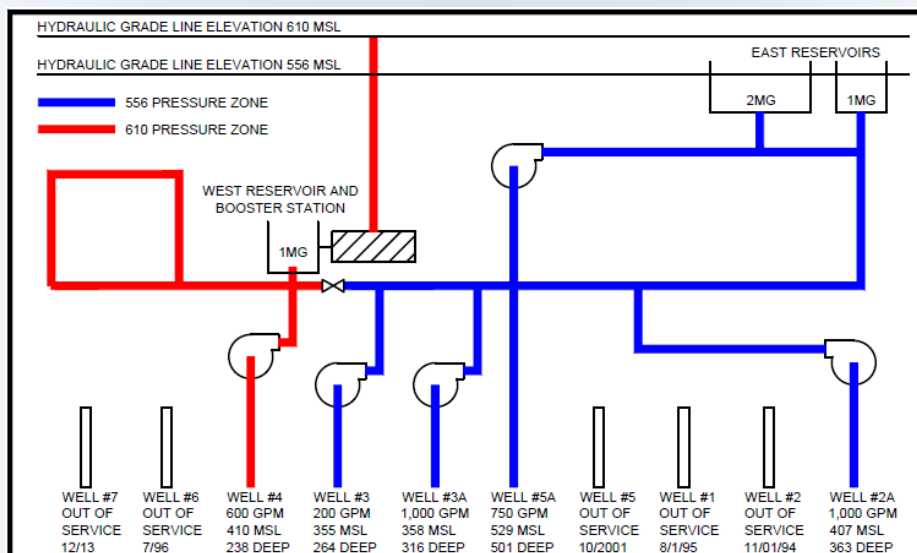
Substance	MCLG OR MRDLG	MCL, TT OR MRDL	Your Water	Sample Date	Violation	Typical Source
Disinfection By-products						
HAA (Haloacetic Acids)	NA	60	ND	2015	No	By product of drinking water disinfection
TTHM (Trihalomethanes)	NA	80	Low ND - High 3.8	2015	No	By product of drinking water disinfection

Substance	Well 2A	Well 3	Well 3A	Well 4	Well 5A	Typical Source
Other Regulated Water Quality Tests Performed						
Nitrates (MCL 10)	3.2	3.2	3.1	3.2	<0.2	Runoff from fertilizer use: Leaching from septic tanks, sewage; Erosion of natural deposits. MCL of 10.
Radium 228 (MCL 5.0)	ND	ND	ND	ND	ND	Erosion of natural deposits. MCL 5
Gross Alpha (MCL 15.0)	ND	ND	ND	ND	ND	Erosion of natural deposits. MCL 10

Fruitland Mutual Water Company has tested for dissolved Lead and Copper in the drinking water at the customers tap, pursuant to the regulations established by the USEPA. Water samples were drawn from the taps of selected homes having copper pipe with leaded joints (no longer an acceptable practice). After the 1996 results, annual testing was waved by WSDOH allowing for tri-annual testing. Fruitland Water currently meets the standard set by USEPA and requires no additional treatment for lead and copper.  
**Next regular sampling for lead and copper - August 2017.**

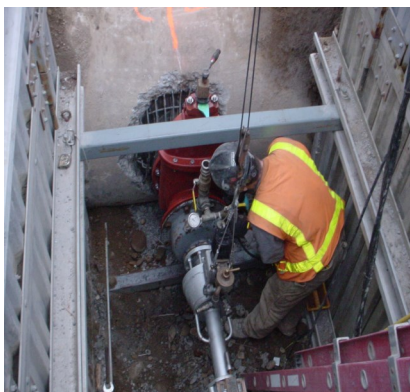
Substance	# of Samples Required	# of Samples Submitted	Highest Level	# of Samples Exceeding	Further Action Req.	Typical Source
Lead and Copper						
Lead	30	30	0.011	0	None	Corrosion of household plumbing systems
Copper	30	30	0.93	0	None	Corrosion of household plumbing systems

Compound:	MCL	MCLG	Highest	Range of Samples (Regulated at source)	Year	Typical Source of Contamination
Unregulated Contaminants Monitoring Rule 3 Study of Unregulated Contaminants						
Chromium (ppb)	100		0.40	<0.2 - .40	2013-14	Naturally occurring & Industrial Activities
Molybdenum (ppb)	Not set		<1	ND	2013-14	Naturally occurring & Industrial Activities
Strontium (ppb)	Not set		120	47 - 120	2013-14	Naturally occurring throughout the environment
Vanadium (ppb)	Not set		3.8	1.8 - 3.8	2013-14	Naturally occurring throughout the environment
Chlorate (ppb)	800		44	ND - 44	2013-14	By-product of drinking water chlorination
Chromium-6 (ppb)	Not set		0.40	.24 - .40	2013-14	Naturally occurring & Industrial Activities



**WATER QUALITY TABLE For Water Supplied During 2015 Through Tacoma Public Utilities Wholesale Connection**

Constituent	Highest Level Allowed (MCL)	Highest Level Detected	Ideal Goals (MCLG)	Range of level Detected or # exceed AL	Regulation Met?	Potential sources of contaminant
<b>REGULATED AT THE GROUNDWATER SOURCES</b>						
Arsenic	10 ppb	6 ppb	0	0-6 ppb	Yes	Natural erosion
Barium	2 ppm	0.044 ppm	2 ppm	0-0.044 ppm	Yes	Natural erosion
Chromium	100 ppb	2 ppb	100 ppb	0-2 ppb	Yes	Natural erosion
Nickel	100 ppb	3 ppb	100 ppb	0-3 ppb	Yes	Natural erosion
Nitrate	10 ppm	4.2 ppm	10 ppm	0-4.2 ppm	Yes	Agricultural uses,septic
Trichloroethylene	5 ppb	0.99 ppb	0	0-.99 ppb	Yes	Industrial contamination
<b>UNREGULATED AT THE GROUNDWATER SOURCES</b>						
Chloroform	not regulated	0.76 ppb	not regulated	0-0.76 ppb	not regulated	Industrial contamination
				Average 0.22 ppb		
<b>EPA UNREGULATED CONTAMINANT MONITORING (UCMR3)</b>						
Chlorate	not regulated (MRL = 20 ppb)	220 ppb	not applicable	0-220 ppb	NA	Agricultural uses, DBP
Chromium (total)	100 ppb (MRL = 0.2 ppb)	0.38 ppb	100 ppb	0-0.38 ppb	NA	Natural erosion
Hexavalent Chromium (Cr-6)	not regulated (MRL = 0.03 ppb)	0.31 ppb	not applicable	0.31 ppb	NA	Natural erosion
Strontium	not regulated (MRL = 0.3 ppb)	120 ppb	not applicable	0-120 ppb	NA	Natural erosion
Vanadium	not regulated (MRL = 0.2 ppb)	3.5	not applicable	0-3.5 ppb	NA	Natural erosion
<b>REGULATED AT THE TREATMENT PLANT</b>						
Fluoride	4 ppm	1.44 ppm	4 ppm	0.00-1.44 ppm	Yes	Treatment additive
Turbidity	5 NTU	3.43 NTU	not applicable	0.03-3.43 NTU	Yes	Soil erosion
<b>REGULATED IN THE DISTRIBUTION SYSTEM</b>						
<b>Disinfection byproducts</b>	<b>Highest running annual average allowed</b>	<b>Our running annual average</b>	<b>MCLG</b>	<b>Range of level Detected</b>	<b>Regulation Met?</b>	<b>Potential sources of contaminant</b>
DBP						
Total Trihalomethane	80 ppb average	12.5 ppb average	not applicable	0-24 ppb	Yes	Disinfection interaction
Haloacetic Acid	60 ppb average	8.3 ppb average	not applicable	0-16 ppb	Yes	Disinfection interaction
Bromate	10 ppb	0	0	0	Yes	Disinfection interaction
<b>REGULATED AT THE CONSUMERS TAP</b>						
<b>Lead &amp; Copper: sampled in 2013. Required once every 3 years</b>	<b>90% of taps sampled must be below action level</b>	<b>90% of taps sampled were at or below this level</b>	<b>MCLG</b>	<b># of sites above the AL</b>	<b>Regulation Met?</b>	<b>Potential sources of contaminant</b>
Lead	15 ppb (AL)	10 ppb	0	3 of 50 sites	Yes	Household plumbing
Copper	1.3 ppm (AL)	0.223 ppm	1.3 ppm	zero of 50 sites	Yes	Household plumbing
Total Coliform	< 5% positive	0.000%	0	0 of 2202 sites	Yes	Sampling technique



Tapping Tacoma Public Utility's (TPU) 52 inch transmission main #4. This metered connection allows Fruitland Water access to water supplied by TPU through a wholesale water purchase agreement. The agreement and connection is a reliable source of supply and combined with Fruitland Water's current water rights, meets future buildout demands.

**Mixing the two water supplies**

Before the wholesale purchase was agreed to, samples were taken from Fruitland Water sources and mixed together in 25% intervals. The samples were then photographed and checked for PH every 4 hours for 24 hours. The process showed no change in color or PH. The results were then forwarded to the regional engineer at the State Health Department for their records. The study verified that the two waters were compatible and should not increase the corrosive nature of the water.