

# Conserving Water Together...

In 2007, Firgrove held a public meeting and the Board of Trustees adopted water conservation measures designed to promote conservation, increase system efficiency and reliability, cut down on operating costs by reducing the need for capital improvements based solely on wasteful water consumption, and to comply with the spirit of the Department of Health's Water Use Efficiency (WUE) rule.

The Board and Management identified several areas where measures could be quantified each year. Firgrove is already fully metered for production and consumption and has begun working toward all of the following conservation efforts.



Firgrove is offering complimentary conservation kits to its customers. Please contact us at (253) 845-1542 to receive one.

## HOW YOUR WATER GETS TO YOU

Firgrove's water is supplied from 16 operating wells located throughout the Firgrove service area. The wells draw water from the Firgrove, Frederickson, and Deep aquifers. The aquifers are recharged annually through precipitation that falls in the region. Tacoma Water provides Firgrove with an additional source of water through three interties. This water is surface water from the Green River Watershed. Firgrove also has an emergency intertie with Rainier View and one with Fruitland.

The number of connections at the end of 2019 was 10,158, serving a population of approximately 26,900. During 2019, 296 new connections were made to the system. The total water produced by Firgrove sources was 1.07 billion gallons. Firgrove's highest production month was August with a total of 145.6 million gallons produced and the lowest month was February with 58.0 million gallons produced. Future improvements include additional interties with Tacoma Water and Lakewood Water as well as upgrades of transmission mains.

## 2019 Water Use Efficiency Data

|                                     |                       |
|-------------------------------------|-----------------------|
| Total Water Produced                | 1,070,676,474 gallons |
| Total Authorized Water Usage        | 983,283,829 gallons   |
| Percentage of Unaccounted for Water | 8.16%                 |

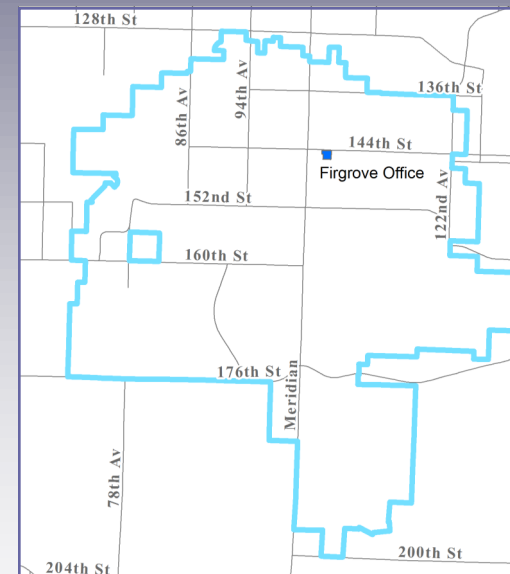
## CONSERVATION GOALS

- **Reduce water demand by 66,500 gallons per day within our service area by 2016.** This will be accomplished by offering reduced flow shower heads, sink aerators, toilet tank displacement bags, and leak detection tablets to our single family and multi-family customers. Each year we plan on distributing as many water conservation kits as we have consumer demand. To date, we have distributed over 2,015 kits.
- **Promote our odd/even address outdoor watering schedule to offset peak water demand in the summer months.**
- **Continue our conservation outreach programs** such as Water 4 Life, participation in the Puyallup Fair Water Education booth sponsored by Tacoma Water, and working in conjunction with other local water purveyors to develop water use tracking for fire protection districts in the central Pierce county region.
- **Track our bulk water and rental meter customers more closely on reporting measures.**

Firgrove Mutual Water Company  
10408 144th Street East  
Puyallup, WA 98374  
(253) 845-1542

Office Hours:  
7:30am-4:00pm Monday-Friday

Scheduled Closures:  
Friday, July 3 & Monday, July 6, 2020  
Friday, September 4 & Monday, September 7, 2020  
Thursday, November 26 & Friday, November 27, 2020  
Friday, December 25, 2020



Firgrove Mutual Water Company, PWS #25200M, is a mutually owned water company organized as a non-profit corporation in 1952, with the purpose of providing water to its customers. Each member pays a share of the cost of water mains, storage facilities, and the cost of operating the water system. Firgrove is overseen by a board of five trustees. Board of Trustee meetings are typically held on the third Tuesday of the month at 6:00pm at the Administration office. If you would like to attend a meeting or if you have a matter that you wish to bring to the Board, please contact the General Manager in advance to be placed on the agenda. Additional information on water quality or questions regarding this report may be directed to Steve Sacksteder at (253) 845-1542.

# 2019 Consumer Confidence Report



## Firgrove Mutual Water Company Since 1952

*It is the mission of Firgrove Mutual Water Company to provide high quality drinking water and excellent customer service. We will maintain the balance of quality service and cost effectiveness that best benefits our customers. We will be an integral member of our community through positive and supportive actions as its water purveyor. We will be environmentally responsible and responsive to the needs of economic development.*

# 2019 Water Quality Test Results

## DEFINITIONS

### Maximum Contaminant Level (MCL)

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 (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.

### Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

### 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.

### 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.

### Parts Per Million (ppm) or Milligrams per Liter (mg/L)

One part of a particular contaminant which is present for every million parts of water.

### Parts Per Billion (ppb)

One part of a particular contaminant which is present for every billion parts of water.

### Nephelometric Turbidity Unit (NTU)

A standard unit used to measure water clarity.

## Contaminants that may be present in source water include:

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**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 production, mining, or farming. Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.

**Pesticides and herbicides**, which may come from various sources such as agriculture, urban stormwater runoff, and residential uses.

**Organic 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 runoff, and septic systems.

The Washington State Department of Health Office of Drinking Water has compiled Source Water Assessment Program (SWAP) data for all community water systems in Washington. An interactive map with sources of potential contaminant data within Firgrove's water system is available at: <https://fortress.wa.gov/doh/swap/>.

The table below lists all of the drinking water contaminants that were detected during the 2019 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented below is from January 1 through December 31, 2019. The table does not list 27 inorganic chemicals, 46 volatile organic chemicals, and 44 synthetic organic chemicals, which include many industrial chemicals, herbicides, and pesticides, that Firgrove tested for and were not detected in the water. The State requires Firgrove to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

## OUR TESTING RESULTED IN NO VIOLATIONS

| Substance               | MCL/AL         | Highest Level Detected       | MCLG            | Violation? | Typical Source of Substance | Source of Sample    |
|-------------------------|----------------|------------------------------|-----------------|------------|-----------------------------|---------------------|
| Copper                  | 1.3 ppm (AL)   | 0.77 ppm 90% (2018)          | 1.3 ppm         | No         | Plumbing Materials          | Consumers' Tap      |
| Lead                    | 15 ppb (AL)    | 4.7 ppb 90% (2018)           | 0               | No         | Plumbing Materials          | Consumers' Tap      |
| Nitrate                 | 10 ppm         | 2.97 ppm                     | 10 ppm          | No         | Septic Tanks, Fertilizers   | Groundwater Source  |
| Arsenic                 | 10 ppb         | 2 ppb                        | 0               | No         | Natural Erosion             | Groundwater Source  |
| Total Trihalomethanes   | 80 ppb         | 12.25 ppb (7.97 running avg) | n/a             | No         | Disinfection By-products    | Distribution System |
| Haloacetic Acids 5      | 60 ppb         | 7.51 ppb (3.67 running avg)  | n/a             | No         | Disinfection By-products    | Distribution System |
| Chlorine Disinfectant   | 4.0 ppm (MRDL) | 1.39 ppm                     | 4.0 ppm (MRDLG) | No         | Disinfection Additive       | Distribution System |
| Total Coliform Bacteria | 5%/month       | 0%                           | 0               | No         | Damaged Distribution Mains  | Distribution System |

\*Lead and Copper are regulated at the consumers' tap, not at the source, which is what these results represent. This is because lead and copper in drinking water do not typically come from the water source. They come from the plumbing that serves, or is inside, the consumer's home, from corrosion of lead- and copper-containing plumbing or fixtures, or the lead solder that connects copper pipes.

## TACOMA

|           |       |           |       |    |                    |
|-----------|-------|-----------|-------|----|--------------------|
| Fluoride  | 4 ppm | 0.97 ppm  | 4 ppm | No | Treatment Additive |
| Turbidity | 1 NTU | 0.047 NTU | n/a   | No | Soil Erosion       |

For information about detections of Perfluoro Alkyl Substances (PFAS) in Firgrove sources, please read our PFAS article in the [Fall 2019 Aquifer newsletter](https://www.firgrove.org/forms/000139.pdf) (<https://www.firgrove.org/forms/000139.pdf>). PFAS compounds are an emerging contaminant of concern for which law makers are developing legislation. In the interim, Firgrove makes every effort to protect and ensure the quality of your tap water, and has stopped production from one of its well sites where detections were approaching proposed regulated levels for one of these compounds.

## ENSURING YOUR WATER IS SAFE

The sources of drinking water (both tap water 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 minerals and can pick up substances resulting from the presence of animal or human activity.

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 at 800-426-4791.

Firgrove treats its water with sodium hypochlorite to protect against harmful bacteria and microorganisms.

### Notice: Important Information

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 at 800-426-4791.

### Special Notice Regarding Lead and Copper

The EPA regulates maximum contaminant levels for lead in drinking water. Lead and copper in drinking water result primarily from corrosion of materials containing lead installed in household plumbing. These materials include lead solder, brass, bronze, and other alloys in contact with water. In 1986, Congress banned the use of lead solder containing greater than 0.2% of lead and restricted the lead content of faucets, pipes, and other plumbing materials to a maximum of 8%. Homes built prior to 1986 are more susceptible to lead and copper levels above EPA's MCL.

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. Firgrove 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 drinking 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 at <http://www.epa.gov/safewater/lead>.

## Unregulated Contaminant Monitoring Rule 4

### Background

The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The first Unregulated Contaminant Monitoring Rule (UCMR 1) was published on September 17, 1999, the second (UCMR 2) was published on January 4, 2007, the third (UCMR 3) was published on May 2, 2012, and the fourth (UCMR 4) was published on December 20, 2016. This monitoring provides a basis for future regulatory actions to protect public health.

### Why was the UCMR program developed?

The UCMR program was developed in coordination with the Contaminant Candidate List (CCL). The CCL is a list of contaminants that are not regulated by the National Primary Drinking Water Regulations, are known or anticipated to occur at public water systems, and may warrant regulation under the Safe Drinking Water Act. Data collected through UCMR are stored in the National Contaminant Occurrence Database (NCOD) to support analysis and review of contaminant occurrence, to guide the CCL selection process, and to support the Administrator's determination of whether to regulate a contaminant in the interest of protecting public health.

### DEFINITIONS

#### Minimum Recording Limit (MRL)

The lowest concentration at which a substance can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision.

#### Not Detected (ND)

Result was below the laboratory minimum detection level.

#### Parts Per Billion (ppb) or Microgram (ug/l)

One part of a particular contaminant which is present for every billion parts of water.

## Firgrove 2019 UCMR 4 Test Results

The table below lists all of the unregulated drinking water contaminants (UCMR 4) that were detected during the 2019 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The data presented below is from January 1 through December 31, 2019. Additional information on UCMR 4 can be found on EPA's website at <https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule>

| Substance                | Range of Level Detected | Average Level Detected | MRL      | Federal Standard | Source of Substance      |
|--------------------------|-------------------------|------------------------|----------|------------------|--------------------------|
| Manganese                | ND - 51.0 ppb           | 15.06 ppb              | 0.40 ppb | No               | Natural erosion          |
| Bromochloroacetic acid   | ND - 1.20 ppb           | 0.61 ppb               | 0.30 ppb | No               | Disinfection By-products |
| Bromodichloroacetic acid | ND - 0.90 ppb           | 0.27 ppb               | 0.50 ppb | No               | Disinfection By-products |
| Chlorodibromoacetic acid | ND - 0.51 ppb           | 0.15 ppb               | 0.30 ppb | No               | Disinfection By-products |
| Dibromoacetic acid       | ND - 0.58 ppb           | 0.10 ppb               | 0.30 ppb | No               | Disinfection By-products |
| Dichloroacetic acid      | 0.28 - 3.4 ppb          | 1.76 ppb               | 0.20 ppb | No               | Disinfection By-products |
| Trichloroacetic acid     | ND - 2.80 ppb           | 1.03 ppb               | 0.50 ppb | No               | Disinfection By-products |