

2020 Annual Water Quality and Water Use Efficiency Report



Providing our customers with safe and reliable drinking water as well as educating and informing you on the importance of using water efficiently for future generations and the environment is a primary mission of the City of Fircrest Water Utility.

These annual reports are intended to provide current, factual and educational information about your drinking water and the importance of conserving. This report also includes details about where your water comes from, what it contains and how it compares to the stringent standards set by regulatory agencies and information on why we should conserve and how the city promotes conservation and our efforts to minimize water loss.

All public water systems are required by the Environmental Protection Agency (EPA), the State of Washington and the Department of Health to provide all of their water customers with annual reports on the quality of the drinking water provided and the City's efforts on promoting and educating our water conservation efforts.

Where does the water come from?

The City owns and operates the water system which consists of five ground wells and three reservoir tanks with a capacity of 1.8 million gallons. The water comes from two underground aquifers called the Vashon Advance Outwash and the Colvos Sand..

Wellhead Protection Plan

Preventing pollution is the first priority in protecting our groundwater supply. The objective is to reduce the risks of water supply contaminations by chemicals or other materials that might make the water supply unusable. Fircrest is completely dependent on groundwater. To protect the City's many wellheads, the focus is on human activity on the land above the water-bearing zones called aquifers. The City has developed a Wellhead Protection Plan that has been approved by the State Department of Health.

Do I need to take special precautions?

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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Why are there contaminants in my water?

The sources of drinking water (both tap 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 animals 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 (1-800-426-4791) or from the EPA's Office of Ground Water website at: www.epa.gov/OGWDW.

In order to assure the water system remains free of coliform bacteria, the City has implemented a disinfection system to the water system. This will provide an extra layer of protection to the miles of pipes that we have in our system and also our storage facilities.

Contaminants that may be present in source water include:

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

Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water 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 storm water runoff, and septic systems.

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

2019 MONITORING RESULTS

Substance	Highest Level Allowed (MCL)	Highest Level Detected	Ideal Goals (MCLG)	Range of Level Detected Exceed AL	Meets Standards	Potential Source
Inorganic Chemicals (IOC's)						
Fluoride	2 ppm	0.89 ppm	4 ppm	0.20 – 0.89	Yes	Treatment Additive
Nitrites	10 ppm	4.49 ppm	10 ppm	1.76 – 4.49	Yes	Erosion of Natural Deposits
Lead	15 ppb	0.0065 ppm	0	<0.0010 - 0.065	Yes	Household Plumbing
Copper	1.3 ppm	0.713 ppm	1.3ppm	<0.020 – 0.713	Yes	Household Plumbing

Microbiologic Contaminants						
Coliform	5%	None	0.5 ppm	None	Yes	Naturally Present in the Environment
Chlorine	4 ppm	1.27 ppm	4 ppm	0.10 – 1.27	Yes	Additive to control microbes
Inorganic Chemicals (IOC's)						
Tests were performed in 2019 on 27 inorganic chemicals for which none exceeded the MCL.						
Volatile Organic Chemicals (VOC's)						
Tests were performed in 2016 on 47 volatile organic chemicals for which none were detected.						
Synthetic Organic Chemicals (SOC's)						
Tests were performed in 2015 on 44 synthetic organic chemicals for which none were detected.						

Definitions:

Maximum Contaminant Level of 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 or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk of health. MCLGs allow for a margin of safety.

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

Treatment Technique or TT A required process intended to reduce the level of a contaminant in drinking water.

Maximum Residual Disinfectant Level or 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 or 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.

ppm – parts per million **ppb** – parts per billion

2020 Water Use Efficiency



In 2003 the State legislature passed the Municipal Water Law directing the State Department of Health to adopt a rule establishing water use efficiency requirements for all municipal water suppliers. The goal of the rule is to conserve water for future generations and the environment. This will help ensure enough water remains available regionally to meet your needs and the needs of our community as well as those of wildlife and the environment



The Washington State Department of Health requires municipal water suppliers to establish a water conservation goal and report on its progress annually. The City of Fircrest believes water conservation should be an everyday practice and the prevention of unnecessary leakage as well as the minimization of wasteful, inefficient water usage or practices are goals that all water users should be aware of and should improve upon whenever possible.

City's Progress Towards Water Efficiency Goal

The City of Fircrest has refined a conservation rate structure that began in 2017, which took our 2-tier rate structure and made it a 3-tier rate structure to further promote water conservation by making the residents of the City of Fircrest more aware of the amount of water they may be using.

The City also promotes water conservation, which was established in the Water System Plan's conservation plan in 2014, by offering customers free low flow/water efficiency items and educational materials at the Public Works Building as well as at the City's Fircrest Fun Days event.

Our focus on efficient use of water in homes, schools, and businesses is helping us maintain and exceed our progress toward the goal set on the demand side at 0.2% average annual consumption.

2018 Annual Water Use Efficiency Performance

Total Water Produced.....244,226,774 gal.

Authorized Consumption...236,145,251 gal.

Distribution Sys. Leakage ... 18,622,751 gal.

Distribution System Leakage – 3.3 %

3 Year Annual Average 5.2 %

(2017, 2018 & 2019)

Additional Conservation Efforts

Adopting our 3-year water rate structure, which began in 2017, is one of the many methods we are using to educate you, the residents of Fircrest on the importance of water conservation and water use efficiency, and to be in compliance with the Revised Code of Washington (RCW) 70.199A.180 Water Use Efficiency Requirements.

Other methods we are using, and have been for a number of years, is through education. We offer free water conservation kits as well as educational and informational brochures, we include water conservation ideas on our website and occasionally in the Fircrest Town Topics and we offer free water audits where a member of our crew will come out and meet with you to help with ideas, knowledge and education on how to cut back on water usage and to help determine and/or locating a potential leak. We also partner with the Pierce County Conservation District who assist us in restoration projects, workshops, they created a "Stream Team", Water Quality monitoring team along Leach Creek, amongst other important water quality and water conservation efforts.

How can I be WATER SMART in the summer and still have green grass?

Water consumption in the average American home, on summer days, can spike causing significantly higher water usage bills, compared to their "off peak" season.

Water your lawn, garden and shrubs only when it needs it. (If it's still moist 1-2 inches under the soil surface, you still have enough water).

How can I tell if my lawn needs water?

- walk across the grass. If the lawn springs back you don't need to water, but if you leave footprints, water may be needed.
- Use a Moisture Meter available free through the City of Fircrest Public Works Department.
- Use a Rain Gauge also available free through the City of Fircrest Public Works Department.

How often/much should I water?

Most lawns need about 1" (one inch) of water – including rain fall – to stay healthy. We recommend watering every other day, during the hottest summer weather, for 10-15 minutes per area/zone. During cooler days you could be able to water one day a week for 10-15 minutes per area/zone and still maintain a healthy lawn. ***(Stop by Public Works and pick up a free Moisture Meter)***

Where can I learn more about the quality of my water, conservation tips, or additional information?

Fircrest Public Works

120 Ramsdell St, Fircrest, WA

253-564-8900

www.cityoffircrest.net

US Environmental Protection Agency

Safe Drinking Water Hotline

800-426-4791

www.epa.gov/safewater

Washington State Department of Health

Northwest Regional Office

253-395-6750

www.doh.wa.gov/ehp/dw