

Fall City Water District 2024 Water Quality Report for 2023

Dear Fall City Water District Customer

Fall City Water District is pleased to provide you with this Water Quality Report. This report is required by the United States Environmental Protection Agency (USEPA) and the Washington Department of Health (WDOH) and must be distributed annually to all customers of the District. This report describes the District's function, presents the water quality data and outlines the program to protect the water sources.

Please feel free to contact Dustin Possert at the District office at (425) 222-7882 if you require any assistance understanding the information provided in this report or require any additional information.

Fall City Water District Profile. The Fall City Water District is a municipal corporation formed in 1981 under RCW Title 57. An elected three member Board of Commissioners manages the District. Board meetings are held on the third Wednesday of each month at the District Office located at 33015 SE 43rd St., Fall City, at 7:00 p.m. Certified Operations Manager and Water Distribution Technicians maintain and perform the day-to-day operations of the District.

The District supplies potable water to 1154 service connections with an estimated service population of approximately 3,108 individuals. The District maintains over 26 miles of watermain and uses 9 storage tanks with a total storage capacity of 924,585 gallons. It is District policy to not add fluoride to the water, therefore customers may wish to inquire with their dentist about supplemental fluoride treatment.

Where Does Our Potable Water Come From? Our water source is groundwater, which is pumped from one well field and five individual wells. The well field is located adjacent to the District offices at 33015 SE 43rd St. We have individual wells located at Chief Kanim Middle School, Heathercrest, Rutherford Estates, Plum Creek Estates and Spring Hill. Generally, water from the closest well is supplied to those customers living in the vicinity of the supply. The Chief Kanim and Heathercrest wells feed into the District's main system that is supplied by the well field. Rutherford Estates, Plum Creek and Spring Hill are stand alone systems.

Water Use Efficiency Goals And Performance Report. In 1990, the District's yearly average water use, per ERU, per day was 237 gallons. Using year 1990 as the base the District achieved the required 8% reduction of residential yearly average water use, per ERU, per day of 218 gallons and 2 times that for non-residential connections, per ERU, per day of 436 gallons by the year 2000. Beginning in year 2000 and beyond, the District's water use efficiency goal has been to maintain residential yearly average water use, per ERU, per day of 218 gallons, and 2 times that for non-residential connections, per ERU, per day of 436 gallons by 2025. These amounts are adopted goals in the District's water use efficiency program along with a distribution system leakage average for all of the District's system at or less than 1 percent of total water production. In 2023 the District's total annual production was 80,932,546 gallons of water; residential yearly average water use, per ERU, per day was 171 gallons; non-residential connections, per ERU, per day was 281 gallons; and distribution system leakage average for all of the District's system was .5 percent of total water production.

Wellhead Protection Program. As part of the District's ongoing commitment to the protection of our groundwater resource, the District has completed a Wellhead Protection Plan. Elements of the Plan include an extensive land use and contaminant source inventory, risk analysis, emergency plans and an education program to encourage property owners within the wellhead protection area to use less harmful products and best management practices that protect and conserve groundwater. The Wellhead Protection Plan is available for review at the District office.

Customer Responsibility. For protection of water quality within the District's system of water mains, the District has installed check valves on all water meters to create a non-returnable barrier. Check valves do not allow customer water to return to the District's water system. District customers are responsible to provide expansion tanks and similar devices on their plumbing in order to deal with water pressure variations, including thermal expansion and spikes in pressure, that occur within customer homes and plumbing.

Water Quality Test Results.

The District is required by State and Federal law to test for contaminants in the water supply on a regular basis. All data shown in the tables below were collected during the last calendar year unless otherwise noted.

Synthetic Organic Chemicals - The Washington State Department of Health has reduced the monitoring requirements for synthetic organic chemicals because the source is not at risk of contamination. The last samples

collected in 2002 and 2019 resulted in not detected and were found to meet all applicable EPA and Department of Health standards.

Coliform Bacteria is monitored on a monthly basis. In routine sampling for 2023, the District did not exceed the maximum permissible levels for coliform bacteria.

Lead and Copper 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. Fall City Water District 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 thirty seconds to two minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. Because domestic plumbing is the primary source for lead and copper, drinking water regulations require testing of the water while it is in contact with domestic plumbing for at least 6 hours. The District has identified a number of representative homes and takes in-house samples when water has been standing for the required amount of time. Instead of a MCL, the USEPA has set an action level. If more than 10% of the first draw samples are greater than 15 ppb for lead or 1300 ppb for copper, the water system is required to optimize treatment to minimize the levels of lead or copper. Monitoring conducted by the District during 2022 for the Fall City, Riverview Park and Heathercrest areas showed lead ranging from none detected to 1.6 ppb and copper ranging from none detected to 130 ppb. Monitoring conducted by the District during 2022 for the Rutherford Estates area showed lead ranging from none detected to 1.2 ppb and copper ranging from 32 ppb to 170 ppb. Monitoring conducted by the District during 2022 for the Plum Creek area showed no lead and copper ranging from none detected to 140 ppb. Monitoring conducted during 2022 for the Spring Hill area showed no lead and copper ranging from none detected to 150 ppb. Lead and Copper levels are below action levels.

Inorganic Testing -State/EPA Regulated & Unregulated			Source	Source	Source	Source	Source	Source
Contaminant (Units) (Secondary)	MCL	Major Contaminant Sources in Drinking Water	Well Field Groundwater	Chief Kanim Groundwater Seldom Used	Heathercrest Groundwater	Rutherford Groundwater	Plum Creek Groundwater	Spring Hill Groundwater
Manganese (ppb)	50	Natural deposits	ND - 16	52	ND	ND	62	ND
Sodium (ppm)	**	Natural deposits	62	30	11	15	11	20
Hardness (ppm)	*	Natural deposits	110	56	81	77	70	51
Chloride (ppm)	250	Natural deposits	95	ND	94	ND	ND	ND
Electrical Conductivity	700	Natural deposits	540	260	230	240	200	200
Iron (ppb)	300	Natural deposits	ND	ND	ND	ND	6.2	ND
Fluoride (ppb)	4,000	Natural Deposits	ND	ND	ND	ND	ND	100
Calcium (ppm)	*	Natural Deposits	23	-	-	26	-	-
Magnesium (ppm)	*	Natural Deposits	-	-	-	4.7	-	-
Turbidity (NTU)	*	Natural Deposits	0.14	1.4	0.38	0.1	0.15	0.14
Color (color unit)	15	Natural Deposits	ND	ND	ND	ND	ND	5
pH (unit)	*	Natural Deposits	7.4	7.6	7.4	7.3	7.5	7.1
Total Dissolved Solids(ppm)	500	Natural deposits	280	160	140	130	130	120

Manganese - Manganese is subject to a secondary water quality standard primarily pertaining to the aesthetic quality of the water rather than direct health effects. Manganese is an abundant and widespread natural constituent of rocks and soils in many portions of western Washington. Manganese can cause a bitter metallic taste in water, leave brown or black discoloration and leave black spots in ice cubes. To minimize these effects, manganese levels are reduced to usually non-detectable levels by filtration plants at the Downtown Well Field, Heathercrest Well, Spring Hill Well and Rutherford Well. The Plum Creek Well exceeds secondary standards for manganese; however, manganese primarily pertaining to the aesthetic quality of the water rather than direct health effects.

* No MCL requirement.

Sodium - ** No MCL requirement. The EPA has established a recommended level of 20 ppm for sodium due to concerns for persons requiring restricted daily sodium intake in their diets. Sodium in drinking water may cause increased blood pressure. Persons on sodium-restricted diets may wish to advise their physicians of sodium levels in the water.

Contaminant (Units)	MCL	System ID 245508 2022
Asbestos (MFL)	7	0.16

Asbestos - Approximately 16% of the District’s pipes contain asbestos that is a mineral fiber found in rocks and soil used in products for strength. When intact and undisturbed,

asbestos-containing materials generally do not pose a health risk.

Inorganic Testing – State EPA Regulated (Primary)			Source Well Field Groundwater 245508	Source Chief Kanim Groundwater 245508	Source Heathercrest Groundwater 245508	Source Rutherford Groundwater 20067	Source Plum Creek Groundwater 642943	Source Spring Hill Groundwater 833103
Contaminant (Units)	MCL	Major Contaminant Sources In Drinking Water						
Arsenic (ppb)	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.	1.1	2.9 – 5.4	2.8 – 5	3.2 – 5.9	8.2	4.2 – 6.7
Gross Alpha(pCi/L)	15	Natural deposits	<3	<3	<3	<3	<3	<3
Radium 228(pCi/L)	5	Natural deposits	0.671	0.886	0.437	0.979	0.929	1.15

Arsenic - The MCL requirement for arsenic is 10 ppb. The Chief Kanim Well will seldom be used now that the new filtration plant can handle the volume produced at the Downtown Well Field location. When the Chief Kanim Well is in use, the water is blended with the water from the Downtown Well Field, which results in a diluted arsenic level. Arsenic treatment plants were installed at the Heathercrest, Spring Hill and Rutherford Wells to reduce arsenic levels. As a result of this treatment, small chlorine residual of 0.4 mg/L or less is contained in the Heathercrest, Spring Hill and Rutherford service area drinking water. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. Some people who drink water that contains arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. EPA’s standard balances the current understanding of arsenic’s health effects against the costs of removing arsenic from drinking water.

Disinfection By products			Site 1 Source Heathercrest 245508	Site 2 Source Heathercrest 245508	Source Rutherford 20067	Source Spring Hill 833103
Contaminant (Units)	MCL	Major Contaminant Sources in Drinking Water				
Total HAA’s (ppb)	60	By-product of drinking water chlorination	<1	<1	2.8	1.1
Total Trihalomethane(ppb)	80	By-product of drinking water chlorination	11.9	13.3	6.4	3.2

What do those Abbreviations Mean?

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:

Not-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 second every 12 days or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (ug/L) - one part per billion corresponds to one second in 32 years, or a single penny in \$10,000,000.

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

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

Treatment Techniques (TT) – A required process intended to reduce level of a contaminant in drinking water.

Maximum Contaminant Level (MCL) - 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 (MCLG) - 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.

Required Information from the U. S. Environmental Protection Agency on the Potential for Health Concerns Relating to Drinking Water

The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface 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. A contaminant is defined as any substance in water. Not all substances are harmful. 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 or from the EPA's Office of Ground Water and Drinking Water web site at www.epa.gov/OGWDW/.

To ensure that tap water is safe to drink, USEPA adopts regulations setting the water quality standards for public water systems. The federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same level of public health protection. This water quality report provides information on your water sources, water quality and programs and projects related to your drinking water. It is required by the federal Safe Drinking Water Act and will help you make decisions for yourself and your family about an important subject – your drinking water.

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 or their guardians should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

The U. S. Environmental Protection Agency (USEPA) sets water contaminant standards under the Safe Drinking Water Act. Drinking Hot Line 1-800-426-4791; Web site <http://www.epa.gov/ehp/dw/>

The Washington State Department of Health enforces the USEPA standards. State certified laboratories are used to test the water according to these standards and procedures. Web site <http://www.doh.wa.gov/ehp/dw/>

The Fall City Water District collects water samples, operates and maintains water production, storage and distribution system.

District Customers are asked to report questionable use of fire hydrants. Only District staff and the local fire department are authorized to use fire hydrants. Customers that notice any other use of a fire hydrant should contact the District office immediately. The Customers are the best source of security by keeping an alert eye for extraordinary activity at the District's water facilities and reporting it immediately to the District and local police.