Annual Community Water Systems Report for Fraser Lake, British Columbia for 2023

The Village of Fraser Lake water system currently supplies potable drinking water to approx. 1400 residence or about 525 connections, including homes and businesses. Prior to being distributed to town services from open surface water source of Fraser Lake, all water is treated in the Level 3 Water Treatment Plant located at 305 Molywood Drive. The Water Plant currently treats approximately 244,000 cubic metres of water per year. The demand on Village treatment system is at its lowest in the winter months, with approx. 517 cubic metres per day and summer being the highest at 1050 cubic metres of demand per day.

The Water Plant treatment process involves raw lake water being pumped into the Water Treatment Plant, through a series of contact chambers and multi-media filtration tanks, that consist of Granular Media filtration and Granulated Carbon media, which in layman's terms, are different layers of sand and gravel that separate turbidity in the water that pathogens can attach themselves to. The filters paired with calcium chloride injection and finally ultraviolet light, support the process in successfully destroying all pathogens that may have initially entered the water supply.

The Class 3 Water Treatment Plant Facility (as certified by Provincial regulatory body of the Environmental Operations Control Program [EOCP) is operated by two highly qualified full-time employees, that also serve in other areas of Public Works operations. One who has already obtained Level 3 certification and one who is working towards their level 1 Water Treatment and Water Distribution certification. The Village is obligated to securing and training other interested employee(s) that will also obtain their certification and work towards a Level 3 Water Treatment and Water Distribution certification. Constant computer and "hands on" monitoring of plant is achieved through a series of sensors and monitors that assist operators in assuring town and business residence with the best water quality possible.

The Village of Fraser Lake is required by the Northern Health Authority to obtain a water sample from different locations and remit the collected sample to a certified laboratory for bacteriological testing once per week. For a complete listing of bacteriological results, please visit http:/healthspace.ca/nha and select *'water sample results'* –' *Fraser Lake'* and then select *'Fraser Lake CWS'*. To date, all monthly (12 per year) bacteriological analysis samples have been returned as having satisfactory quality rating. The annual chemical analysis is readily available to the public at main office, upon request. To view a detailed explanation of the results contained within the annual report please visit - http:/www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/guide/index-eng.php.

On an annual basis, water samples are collected from a designated location, determined by a Northern Health Authority, and are sent to an accredited and certified laboratory for comprehensive testing to assure all water usage users that a higher than acceptable value is maintained.

On an annual basis, the Public Works Dept., flushes all Water Distribution lines, that supply town residence as a proactive approach to ensuring all Village of Fraser Lake residence of satisfactory water

quality. The Water Tower Reservoir is inspected bi-annually by certified diving operators, via a Remote Control for any build up on tank walls and stability of reservoir. This Inspection is recorded on a DVD and kept on file. The inspection scheduled for 2021 showed signs of aging within the water tower. The life expectancy for the water tower was 40 years and since the tower has reached that age it was decided that planning for a new water tower would begin.

Looking forward to 2024, Village of Fraser Lake Administration has been very keen in pursuing grant funding for possible upgrades to the Water Tower Reservoir as well as water treatment facility that will enable a larger production of treated water along with certain aging components within SCADA system and further aging monitoring components. That have included the manufacturing expertise of Asland Technology personnel and the assistance of Urban Systems staff to look at providing conceivable plans of construction for a direct, designated supply line from Treatment Plant to Water Reservoir and then a direct line from reservoir to residence. These are huge projects for the community that will ensure the sustainability for future generations. The groundwork for the Water Tower Reservoir as well as the designated water line from the Reservoir to the bottom of the reservoir road will start this summer. The installation of the new Water Tower Reservoir will happen in 2025 as well the designated water line will begin construction in 2025 as well.

There are a notable amount of resident curb stops that have become bent and unmanageable as a result that will be considered for replacement. The public works department has ear marked Simon Fraser Ave and Tunasa Cresent for the start of the curb stop repair project to align with the designated water line project.