

VILLAGE OF CLINTON



2021 ANNUAL WATER REPORT

Introduction:

The Village of Clinton is required under its operating permit to provide an Annual Report to the users of the water system. This report will provide an overview of the maintenance and improvements made to the system over the past year, including a summary of water test results.

This report will be submitted to Interior Health and posted on the Village web site.
www.village.clinton.bc.ca



Clinton Distribution System

The Clinton water distribution system consists of two raw water reservoirs. One is located approximately 8 kms west of Clinton and has a storage capacity of approximately 45,000 m³. The second is located just above the water treatment plant and has a storage capacity of approximately 9500 m³. The system also includes a water treatment building, a chlorination building, a metering building, a treated water reservoir with a 1400 m³ capacity, a pressure reducing station and approximately 9 kilometers of pipe and 50 fire hydrants. Water is fed from the upper reservoir to the lower reservoir via Clinton Creek. Once it reaches the lower reservoir the water is piped into the water treatment plant where it is treated. It is then piped to the chlorination building. The water is treated with Sodium Hypochlorite, then moves into the 1400m³ treated storage tank. From the storage tank the treated water is piped through to the metering building then down the hill to the pressure reducing station on Robertson Lane. The pressure coming into the station is 135 psi and it leaves the station at 73 psi. Depending on where you live in town the pressure can be anywhere from 60 psi to 100 psi by the time it reaches your home. Of the approximately 9 kilometers of water pipe, 1100 meters is 10-inch HDPE pipe, 560 meters of 8-inch asbestos cement (ac) pipe, 1632 meters of 6-inch PVC pipe, 5100 meters of 6-inch ac pipe, 175 meters of 4-inch PVC pipe, 703 meters of 4- inch ac pipe and 300 meters of 2- inch galvanized iron pipe. The age of these pipes ranges from 80 years to 1 year old. Life expectancy of the in-ground pipes is 80 years for polyvinyl chloride pipe (PVC), up to 100 years for high density polyethylene (HDPE) pipe, 40 years for galvanized pipe and 50 years for asbestos cement pipe.

Water Consumption:

In 2021 the residents of Clinton consumed 174,732 m³ or 174,732,000 liters of water. Below is a month by month summery of water usage.

January.....	10,224 m ³ or 10,224,000 liters
February.....	11,229 m ³ or 11,229,000 liters
March.....	11,571 m ³ or 11,571,000 liters
April.....	12,029 m ³ or 12,029,000 liters
May.....	14,393 m ³ or 14,393,000 liters
June.....	24,731 m ³ or 24,731,000 liters
July.....	29,163 m ³ or 29,163,000 liters
August.....	20,609 m ³ or 20,609,000 liters
September.....	11,722 m ³ or 11,722,000 liters
October.....	10,093 m ³ or 10,093,000 liters
November.....	8,960 m ³ or 8,960,000 liters
December.....	10,008 m ³ or 10,008,000 liters

Water usage is down from 2020 by 2,643 m³ or 2,643,000 liters.

Below are the previous 5 years usages:

2020.....	177,375 m ³ or 177,746,000 liters
2019.....	188,756 m ³ or 188,746,000 liters
2018.....	244,114 m ³ or 244,144,000 liters
2017.....	271,471 m ³ or 271,471,000 liters
2016.....	225,761 m ³ or 225,761,000 liters

Maintenance:

Regular maintenance in 2021 consisted of the annual tear down and acid washing of the sodium hypochlorite cell, as well as tear down and cleaning of the coagulant pump and piping in the water treatment plant. The pressure reducing station screens were cleaned. The floating intake in the lower reservoir was inspected and new screens were installed on the floating intake, as well as new chains and shackles. The upper reservoir regular maintenance included, weed eating and removal of trees on both berms. In addition to this the bypass was exercised to make sure it is still functional if needed. The inspections of the reservoirs are all requirements of the province. There were five service repairs, four new connections and eight service calls for water turn on or off, as well as hydrant flushing.

2021 Capital Projects:

There were no capital projects in 2021.

Water Sampling and Quality:

In 2021 the Village took samples every week from seven different locations around town for a total of 204 bacterial samples. This is another requirement of the operating permit. The following are locations of sample areas and results.

Water Treatment Plant.....	51 samples.....	no positive results
Village Office.....	51 samples.....	no positive results
Memorial Hall.....	50 samples.....	no positive results
Pine Ridge Trailer Park.....	33 samples.....	no positive results
Raw.....	2 samples.....	no positive results
Kelly Lake Rd.....	8 samples.....	no positive results
Reg Conn.....	6 samples.....	no positive results
Hwy Washrooms.....	3 samples.....	no positive results

There were no water advisories or boil water notices issued in 2021. A full list of sample results for bacteriological and chemical analysis can be viewed at the Village office.

Cross Connection Program:

The Village has developed a Cross Connection Bylaw and Program to address the potential for the water system to be compromised by high-risk service connections which could introduce contaminated water into the Village's water system. There will be letters sent out to the high-risk users as well as meeting with them to explain how the program will operate. There will also be information pamphlets mailed out explaining what a cross connection is, and what steps can be taken to avoid them.

Water Conservation Plan:

Council adopted an updated Water Conservation Plan in 2016. The plan is available on the village website for viewing.

Emergency Response Plan:

The Village has an Emergency Response Plan that pertains to the water system. The plan identifies potential problems that could affect the Village's ability to provide safe and reliable drinking water. These problems range from water main breaks to natural disasters. The plan provides a systematic approach for dealing with these emergencies. The plan has been updated with the addition of the treatment plant and reservoir to the system. The current Emergency Response Plan is available on the Village of Clinton web site.