

VILLAGE OF CLINTON



2017 ANNUAL WATER REPORT

Introduction:

The Village of Clinton is required under its operating permit to provide an Annual Report to the users of the system. This report will provide an overview of the maintenance and improvements made to the system in 2017, including a summary of water test results.

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



Clinton Distribution system

The Clinton water distribution system consists of two raw water reservoirs, a water treatment building, chlorination building, a treated water reservoir, one pressure reducing station and approximately 9.7 kilometers of pipe. 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 building where it is treated, then piped to the chlorination building. The water is treated with Sodium Hypochlorite and then moves into the 500,000 gallon storage tank. From the storage tank the treated water travels to the pressure reducing station, the pressure coming into the station is 150 psi and leaves to the down town core at 75 psi. Depending where you live in the community, pressures range from 60 psi to 100 psi by the time it reaches your home. Of the 9.7 kilometers of pipe, 610 meters is 2inch galvanized iron, 703 m 4 inch asbestos cement (ac), 250 m 4 inch polyvinyl chloride (pvc), 4956 m 6 inch ac, 1632 m 6 inch pvc and 1562 m 8 inch ac pipe. The age of these pipes range from 80 years to 8 years old. Life expectancy of the in ground pipes is 80 years for Polyvinyl Chloride pipe, 40 years for galvanized pipe and 50 years for asbestos cement pipe.

Water Consumption:

In 2017 the residents of Clinton consumed 271,471 m³ or 271,471,000 liters of water. Below is a month by month summary of water usage.

January.....	16,009 m ³ or 16,009,000 liters
February.....	16,956 m ³ or 16,956,000 liters
March.....	15,954 m ³ or 15,954,000 liters
April.....	15,169 m ³ or 15,169,000 liters
May.....	21, 486 m ³ or 21,486,000 liters
June.....	30,421 m ³ or 30,421,000 liters

July.....	43,074 m ³ or 43,074,000 liters
August.....	42,272 m ³ or 42,272,000 liters
September.....	22,447 m ³ or 22,447,000 liters
October.....	15,044 m ³ or 15,044,000 liters
November.....	16,061 m ³ or 16,061,000 liters
December.....	16,578 m ³ or 16,578,000 liters

Water usage is up in 2017, the months of July and August both almost doubled compared to 2016 due to the wild fires. July 2016 daily average was 827 m³ and July 2017 average was 1389 m³. August 2016 average was 785 m³ and August 2017 average was 1364 m³.

Below are the previous year's usages:

2016.....	225,761 m ³ or 225,761,000 liters
2015.....	232,531m ³ or 232,531,000 liters
2014.....	214,230m ³ or 214,230,000 liters
2013.....	237,127m ³ or 237,127,000 liters
2012.....	273,585m ³ or 273,585,000 liters

Maintenance:

The regular maintenance completed in 2017 at the Water Treatment Facility involved: tear down and acid washing of the sodium

hypochlorite cell, cleaning of the sodium hypochlorite storage tank as well as cleaning of the backup bleach tank. The manufacturers of the membrane system at the water treatment plant were up and serviced the system. The water mains were flushed and 9 fire hydrants were serviced.

2017 Capital Projects:

The Village was awarded one of the two grants that were applied for in 2017. The grant the Village received was the Water Supply Main Replacement which will replace approx 900 meters of the old 8 inch asbestos cement water line coming from the treatment plant down to the below ground PRV station with a 10 inch High-density polyethylene pipe(HDPE) and a new above ground pressure reducing station. The old AC line will be transformed into a sanitary sewer to send waste water from the water treatment plant which currently sits in a pond to the sewer lagoon. This project is worth 1.17 million dollars and is 83% funded by the provincial and federal governments. The grant that was rejected was a water line looping from Tingley St. to the old cemetery and up into the Hugo Subdivision. We may revisit this application in the future when grants are available.

Water Sampling and Quality:

In 2017 the Village took samples every week from 9 different locations around town for a total of 194 samples. This is another requirement of our operating permit. The following are locations of sample areas and results.

Water Treatment Facility..... 48 samples.....no positive results
 David Stoddart School.....40 samples.....no positive results
 Village Office..... 48 samples.....no positive results
 Kelly Lake Road.....2 samples..... no positive results
 Hugo Subdivision.....1 sample..... no positive results
 Memorial Hall.....41 samples..... no positive results
 Reg Conn Washrooms.....1 sample..... no positive results
 Teal St.....4 samples.....no positive results
 Pine Ridge Trailer Park.....4 samples.....no positive results
 Raw water.....3 samples

Due to the wildfire the water treatment plant had to be bypassed because of the amount of water that was pulled from fire hydrants in the first 5 days of the event. The treatment plant could not keep up with the demand and as a result of this a boil water advisory had to be issued. The system was flushed and tested and the advisory lifted by the time residents returned from being evacuated. A full list of sample results for bacteriological and chemical analysis can be viewed at the Village office.

Cross Connection Program:

The Village will be developing a Cross Connection Program over the next couple of years 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.

Water Conservation Plan:

The Village updated the water conservation plan and council adopted it 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 the emergency. 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.