



Where History Meets Adventure

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Agenda Date: August 26, 2020
Date: August 21, 2020
Memo to: Council
From: Public Works Foreman
Subject: 2019 Annual Water Report

Recommendations/Options:

For council to approve the 2019 Annual Water Report as per Interior Health water license/ permit conditions and post it to the Village website and have available to the public.

Purpose/Issue

The Village is required under our conditions of permit for our water license, to annually produce a water report outlining what has gone on in the last year with our water system. Once this report is passed by council it will be forwarded to Interior Health and be made available to the public.

Background

The report touches on maintenance, consumption, sample results and last year's water project.

Karl Hansen, PW Foreman

VILLAGE OF CLINTON



2019 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 be 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 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 it has a storage capacity of approximately 9500 m³. It also consists of a water treatment building, a chlorination building, a metering building, a treated water reservoir with an 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, then it's 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 metering building then down the hill to the new pressure reducing station on Robertson Lane, the pressure coming into the station is 135 psi and it leaves the station at 73 psi. Depending 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, 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 2019 the residents of Clinton consumed 188,756 m³ or 188,746,000 liters of water. Below is a month by month summery of water usage.

January.....12,757 m³ or 12,757,000
liters

February.....12,418 m³ or
12,418,000 liters

March.....14,301 m³ or
14,301,000 liters

April.....13,011 m³ or
13,011,000 liters

May.....17,830 m³ or
17,830,000 liters

June.....20,321 m³ or 20,321
,000 liters

July.....23,346 m³ or
23,346,000 liters

August.....23,346 m³ or
23,346,000 liters

September.....14,406 m³ or
14,406,000 liters

October.....12,942 m³ or
12,942,000 liters

November.....10,558 m3 or
10,558,000 liters

December.....13,520 m3 or
13,520,000 liters

Water usage is down from 2018 by 55,358 m3 or 55,358,000 liters.

Below are the previous 5 years usages:

2018.....244,114 m3 or
244,144,000 liters

2017.....271,471 m3 or
271,471,000 liters

2016.....225,761 m3
or225,761,000 liters

2015.....232,531 m3 or
232,531,000 liters

2014.....214,230 m3 or
214,230,000 liters

Maintenance:

Regular maintenance in 2019 consisted of the annual tear down and acid washing of the sodium hypochlorite cell, tear down and cleaning of the coagulant pump and piping in the water treatment plant. There were twelve service repairs, one new main break, and two valve boxes replaced.

2019 Capital Projects:

The only project in 2019 was finishing off the watermain from the water treatment plant to the new PRV station on Robertson Lane. The village had applied for funding to loop the watermain for the Hugo Subdivision and to put new watermain onto part of West Road, but that was denied. The village will apply for this project again when funding becomes available.

Water Sampling and Quality:

In 2019 the Village took samples every week from 8 different locations around town for a total of 200 bacterial samples. This is another requirement of our operating permit. The following are locations of sample areas and results.

Water Treatment Plant.....49 samples.....no positive results

David Stoddard School.....8 samples.....no positive results

Village Office.....49 samples.....no positive results

Memorial Hall.....46 samples.....no positive results

Pine Ridge Trailer Park.....35 samples.....no positive results

Raw.....2 samples.....no positive results

Kelly Lake Rd.....4 samples.....no positive results

Reg Conn.....1 samples.....no positive results

There were no water advisories or boil water notices issued in 2019. 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.