



# VILLAGE OF CLINTON

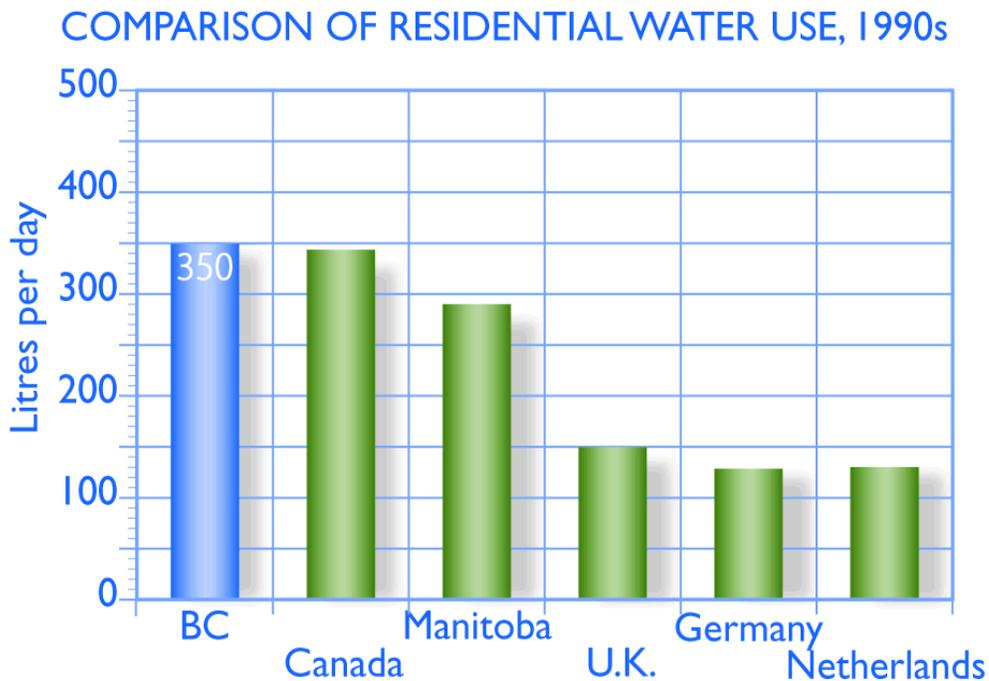
# WATER CONSERVATION PLAN

2016

## 1. INTRODUCTION

British Columbians use about **350 litres** of water per person per day. Conserving water reduces demand on a finite resource and saves on expensive drinking water and wastewater infrastructure. With climate change posing additional threats to water supplies, water efficiency must improve dramatically if we are to sustain the environment and our economy. Using water more efficiently is the key to a sustainable water future for everyone. \*\*

In B.C. measures implemented by local governments – like conservation planning, water metering, green buildings and water efficiency requirements in plumbing codes – show how successfully we can cut our water use, energy bills, and help the environment. \*\*



Source: OECD data for 1994 to 1999 in CESD(2001)

**B.C. is among the world's biggest water users.** \*\*

The Village of Clinton has consistently used more water than the BC Average and based on 2014 usage the consumption per person based on a population of 620 was approximately **950 Litres per day** with the summer months being the highest. This report will look at the current water storage, treatment and distribution along with a brief review on the sewer distribution and treatment systems. Due to the recent upgrades to the water treatment system the costs of operation and maintenance will be escalating and the need to reduce the amount of water becomes greater as these costs have to be paid by the users of the water system.

\*\* Ministry of Forest, Lands and Resource Operation: taken from webpage October 15, 2015 \*\*

## **2. COMMUNITY VALUES**

The Village of Clinton mission statement assists in the water conservation of the community with the following:

***“To increase Economic Opportunity and Improve the Quality of Life for All Citizens”***

The Village of Clinton vision statement also assists in the water conservation of the community with the following:

***“To maintain a safe and vibrant community that offers business and personal growth opportunities while promoting our heritage and embracing our healthy lifestyle”***

The Village of Clinton’s Official Community Plan provides important context for evolving water conservation program. This context emerges from the community’s vision for the future.

1. To reduce consumption to the BC and then Canadian average
2. To conserve water to reduce long-term capital costs and stay within the licensed withdraw
3. To reduce peak demand and maintain fire protection at all times during the year
4. To reduce energy consumption, associated greenhouse gas emissions, and energy costs for pumping and treatment.
5. To manage water infrastructure effectively
6. To protect the watershed to maintain water availability and water quality.

## **3. PURPOSE AND OBJECTIVES**

The purpose of the water conservation plan will be to:

1. To conserve water through a public education program recognizing the value of this precious commodity;
2. To examine, locate and correct water leakages on the main lines;
3. To encourage water conservation measures that are designed to optimize the Village of Clinton existing investment in municipal water infrastructure
4. To examine the viability of water meters and low flow plumbing fixtures
5. To encourage low water use landscaping
6. To examine the viability of expanding the water system to service other areas of the community and local First Nation endeavours.
7. To reduce the water consumption by 15% based on the 2014 usage by 2025.

The goal of water conservation planning is to achieve more efficient water use by residential, commercial and industrial consumers in the Village of Clinton. The impetus for moving toward water conservation is both economic and environmental. Economic concerns include a desire to alleviate capacity constraints, defer infrastructure replacement costs, and reduce operating costs. Environmental considerations involve minimizing the impact of both extracting and subsequently releasing treated water to the natural environment. This document is the

amalgamation of efforts and strategies to increase water use efficiently and allow for the sustainable supply of water for all users, and presents a comprehensive plan for the conservation of water resources in the Village of Clinton.

#### **4. POLITICAL SUPPORT**

The Village of Clinton has been working closely with the Federal, Provincial governments and Interior Health Association in ensuring the water resource is maintained and secure for the future of the community. Water quality is a major concern and recently a new water treatment plant was installed in order to improve the water quality to one of the highest standards in the Province. The Village is also committed to ensuring the local First Nation needs are met where they anticipate future growth. The 2015 & 2016 Strategic Planning through Asset Management Planning and the Water & Sewer Working Group are completing Water, Sewer and Storm Plans which will be utilized to set the priorities on upgrading the system.

#### **5. COMMUNITY PORTRAIT**

The Village of Clinton is located on Highway 97, 45kms north of Cache Creek and 88kms south of 100 Mile House. A second satellite area of the Village is located north and east of Highway 97 at Chasm.

There have been several changes to the population over the past 30 years and in 1981 there was a period of strong growth in the Thompson Okanagan region and Clinton's population reached a high of 825 persons. By 1991 the population declined to 662 persons. There was another strong growth period in the mid 1990's and by 1996 the population returned to 729 persons. The 2006 Census indicated the population had declined to 598 persons, and in 2011 there were signs of growth and the population had risen to 636 persons.

Clinton was founded on resource opportunity – first gold, then cattle, and then timber. If not directly benefiting from these resources the Village was able to capitalize being the closest residential and service centre.

The Village of Clinton was founded in the late 1800's and the water services were originally started in 1926 with the establishment of a Water Improvement District which also looked after the operation of the Fire Department and other assets of the community. In 1963 the Village of Clinton was incorporated and then took over the operation of the water and sewer services for the community.

## 6. WATERSHED & INFRASTRUCTURE PORTRAIT

The Village of Clinton water distribution system consists of two raw water reservoirs, a new 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 Hypo Chloride and then moves into the new 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 the station to the down town core at 78 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 2 inch galvanized iron, 703m 4 inch asbestos cement (ac), 250m 4 inch polyvinyl chloride (pvc), 4956m 6 inch (ac), 1632m 6 inch (pvc), and 1562m 8 inch pipe. The age of these pipes range from 75 years to 4 years. The 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.

## 7. WATER USE

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

The water use from 2011 to 2014 is provided below and assists in determining the number of litres per person and the process used to reach our goal of reducing water consumption by 15% over the next 10 years based on the 2014 usage.

2011	262,098,000 litres	<b>2015</b>	<b>232,531,000 litres</b>
2012	273,585,000 litres		
2013	237,127,000 litres		
2014	214,230,000 litres		

The water usage has varied over the years depending on the weather conditions and the education being processed throughout the community to conserve water. Water conservation has been based on a voluntary basis and pressure from the residents of the community. The Village has lacked the funds to enforce the water restrictions.

The water usage per person is as follows since 2011

2011	1158 litres per person	<b>2015</b>	<b>980 litres per person</b>
2012	1209 litres per person		
2013	1048 litres per person		
2014	950 litres per person		

There has been a good improvement with a decrease of 21.42% since 2012 however the average in British Columbia is 350 litres per person and this is the first goal we would like to ultimately reach.

The goal of the Village of Clinton is to reduce the average usage over the next 10 years by a further 15% based on the 2014 average usage per person.

## **8. WATER DEMAND FORECAST**

The Village of Clinton expanded the boundaries several years ago with the inclusion of the Light Industrial area south of the community and some residential/ALR lands to the north of the community. None of these communities are serviced with water and sewer and depend of well and septic systems. As funding and agreements with the property owners become feasible these areas will be considered for expansion to the water systems. Whispering Pines/Clinton Indian Band and High Bar First Nation have also expressed interest in having treated water for their anticipated needs. Whispering Pines/Clinton Indian Band was involved in the development of the upgrade to the Water Treatment Plant and the plant was developed to meet or expand to their needs should they move forward with the development of their Indian Reserve (IR1) lands. High Bar First Nation has interest in developing a reserve in the immediate area and would be considering water and sewer services from the Village. They have also purchased land within the Village that is not serviced and would like to be considered for water services in the future.

The Village of Clinton created a Sustainability/OCP Plan which indicated the community wished to increase the population up to 1500 people and this would entail future subdivision development and infill throughout the community.

The Village of Clinton contracted with TRUE Consulting to complete a feasibility study in 2014 to address the scope of providing water to the First Nations and to the boundary expansion areas. The report provided a recommendation to twin the pressure reducing valve station so more pressure can be utilized to service the outside communities and provide better pressure to the outer limits of the Village.

There has been new industrial and commercial development in the community and one of the main concerns is where the workers for these ventures will live. There have been several attempts to create some subdivisions in the community and these will be reviewed and possible developers sought to take the projects on. The Ministry of Forest Lands and Resource Operations has been contacted when Council attended the UBCM (2015) Conference and Council requested the Minister to assist us in getting some Crown Land released for the purpose of creating a new subdivision.

## **9. FUTURE SUSTAINABILITY**

The Village of Clinton made improvements to the water treatment system by building a new treatment plant and reservoir and making ongoing improvements where leaks have been identified. The Village has started to create management plans for the water infrastructure through the development of asset management, water plan, OCP upgrade and sustainability plan, road plan, and sewer plan which will assist in creating a priority listing of the projects the Village can do with the funding and grants available to them.

The water distribution system has reached the end of its life cycle in some areas of the community and the rest is quickly reaching the same fate. Capital funding is very limited for upgrading the system however with the 2016 rate structure for water it is anticipated this will assist in ensuring local funding and grant funding will assist in the long term reliability of the system. A water plan is currently being produced by TRUE Consulting (2015) which should provide a priority list for shelf ready projects as funding becomes available.

The Village recently completed an upper dam review as per Provincial regulations, and the report came back with some minor recommendations which are being addressed. The reviews are to be conducted every 10 years and will provide a report on the condition and improvements which need to be done, based on available funding.

The Village has also made changes to the water and sewer rates to ensure the long term sustainability of the water system can be met.

## **10. CURRENT WATER CONSERVATION & DEMAND MANAGEMENT**

### **COMMUNICATION**

1. The Village of Clinton has been educating the community on methods to conserve water through the following:
  - a. Mail outs with the water sewer billings
  - b. Newspaper articles
  - c. Webpage
  - d. Social Media (Facebook, Twitter etc.)
  
2. The Village of Clinton prepares a bulletin with water usage facts and conservation methods and places the information in the utility billings on an annual basis. The Village of Clinton has continued to provide water conservation Water Saver Kits to the residents who pay their water and sewer billings at the Village Office. Will continue until the supply is exhausted.

3. The Village of Clinton communicates with the water users when the water quality meets certain conditions such as a boil alerts and when the demand exceeds the volumes available in Clinton Creek.

#### REGULATION

The Village of Clinton “Water Regulation Bylaw No. 442, 2006” outlines the water restrictions:

1. During the period from June 1<sup>st</sup> to September 15<sup>th</sup> of each year, use of water for irrigation or sprinkling will be prohibited between the hours of 11:00 am and 7:00 pm
2. The Village may, whenever in its discretion and the public interest so requires, suspend or limit the use of water from the Village water system, or may further regulate the hours of use, or may further prescribe the manner in which such water may be used.
3. No water shall be used for irrigation, sprinkling and construction involving soil removal or replacement when restrictions have been imposed except as a permitted exemption under Four (4) below.
4. Application for exemption from water usage restrictions or regulations in place under one (1) above shall be made to the Village. Water usage exemption permits under this section may be used for the following applications:
  - a. New residential lawn or landscaping installation or construction
  - b. As a means of controlling dust or cleaning of private driveways or parking lots of a metered commercial or multi-family dwelling
  - c. Within a construction or building project under a building or development permit issued by the Village
5. The following activities and facilities are exempt from One (1) above:
  - a. Commercial Nursery Operations
  - b. Public Works activities and repair work
  - c. Water Parks
6. An exemption permit may be revoked at any time.

The Water Regulation Bylaw also states in Section Six (6) that the Village shall require the installation and use of water meters in the following instances:

- Any new construction
- Any existing commercial properties (phased in over several years)
- Any properties suspected of using an excess of water. Estimates will be based on using an excess of 500 litres of water per capita per day.

All new applications for non-residential properties using or consuming water shall be required to install and use a water meter. The charges prescribed in Schedule E of the Village of Clinton Fees and Charges Bylaw No. 538, 2016 (which may be amended from time to time) shall apply. The water meter shall be the property of the Village.

The Village of Clinton has not pursued the installation of water meters in the community due to the lack of political will and funding. Due to the recent upgrades and provincial awareness of the

high usage of water in British Columbia the Village of Clinton will review the need to have water meters installed and attempt to locate funding to support the installation of water meters.

The Village of Clinton Official Community Plan Section 7.2 Infrastructure Policies states as follows:

1. Water Conservation through education aimed at managing demand, particularly during the summer months is encouraged.

## **11. CONSERVATION MEASURES**

This section describes the Village of Clinton’s approach to water conservation over the next ten (10) years, from 2015 – 2025. The new program places a strong emphasis on helping residents become more water efficient and positioning the Village to make better-informed decisions around water management in the future. In many cases, the measures are simply enhancements of tools already in place. The actions in this strategy are organized around four themes:

1. Outdoor Water Use: enhance the effectiveness of the existing outdoor watering bylaw primarily through education and outreach, but also enforcement as required;
2. Water Use Accounting: enhance understanding of where water ends up throughout the Village, including identifying individual components non-revenue-water (NRW) and controlling them as appropriate
3. Municipal Leadership: lead the way toward sustainability by ensuring municipal facilities are water efficient;
4. Residential Water Use Program: raise awareness of the importance of water conservation, assist residents in reducing their use, and provide financial incentive for conservation.

The following actions will be reviewed and implemented to ensure the four (4) themes above are met:

1. Outdoor Water Use
  - i) Create a seasonal outdoor watering bylaw
  - ii) Promotion of the outdoor watering bylaw
  - iii) Education and outreach around outdoor watering
2. Water Use Accounting
  - i) Continue with Water Annual Report (IHA Requirement)
  - ii) Promotion of the Water Annual Report (IHA Requirement)
  - iii) Create a cross connection program
  - iv) Investigate the installation of water meters for all service users
  - v) Continue to locate leaks in the system to reduce the NRW

3. Municipal Leadership

- i) Review current landscaping best practices in parks and common areas
- ii) Include the water planning process into the Asset Management Planning
- vi) Complete an audit of all Municipal Building to ensure they are water conservation friendly

4. Residential Water Use Program

- i) Printed Educational materials
- ii) Water Conservation website
- iii) Continued usage of Social Media
- iv) Household water use efficiency
- v) Drinking Water Week promotion

5. Outdoor Water Use

Outdoor water use creates demands on the system that can be up to three times greater than average. Using less water on hot summer days ensures our supply has the highest quality possible and will also save individuals money on their bills.

- i) The Village currently does not have an outdoor watering bylaw however the Water Regulation bylaw indicates when the residents are not allowed to water during the drier season. The bylaw would ensure the public have a better understanding of the procedures for watering and to set the different stages how watering will be prohibited.

***The Village of Clinton will create an outdoor watering bylaw and post it on the Village Web Site and keep the public informed on the contents on a annual basis***

- ii) The Village has completed an upgrade the their website and the ability to create a water conservation web page would assist the users to assist in reducing their usage of water

***The Village of Clinton will create and maintain a water conservation web page to assist the public in reducing their water usage***

- iii) The Village will continue to use Social Media to provide awareness of the water conditions and usage along with tips on how to be Water Smart.

***The Village of Clinton will use Social Media to provide tips to the public on how to reduce their water usage***

- iv) The Village will continue to provide watering conservation tips to the public through bulletins in the utility billing and to provide other conservation tips through the local mediums.

***The Village will continue to place water conservation bulletins in the water billings each year***

- v) The Village may participate in Drinking Water Week

***The Village will participate in Drinking Water Week each year and will determine the theme for the week prior to the start of Drinking Water Week***

6. Water Use Accounting

- i) The Village of Clinton is required to complete an Annual Water Report each year as per the requirements of Interior Health Association. The report provides valuable information on the volumes of water used and how the water treatment & distribution system operated for the year.

***The Village of Clinton will use the information in the report to educate the public on the operations and maintenance of the water services***

- ii) To effectively manage water it is important to know how and where it is used throughout the Village. As the Village does not have full metering, the ability to track non-revenue water (NRW) becomes difficult. The Village can take some measures in assisting in monitoring the amount of water used through the recording of the daily usages leaving the water treatment area. There is no other measuring system from the time the water leaves the treatment area until it leaves the sewage treatment area. The ability to track leaks in the distribution system is easier when a secondary measure is available. Metering will also allow the ability to identify the abusers of the water usage and appropriate actions may be taken. There are other components of NRW which are legitimate uses such as main flushing, fire hydrant testing, and irrigation of public parks. Other areas are through an effective leak detection system.

***The Village of Clinton will review and create a shelf worthy (as funding becomes available) plan for the installation of water meters in the community***

- iii) Management of NRW is often the most cost-effective conservation measure available. The Village already has a pressure reducing valve station which has an added benefit of decreasing system loss. The Village is currently attempting to add a further pressure reducing station to ensure full potential of the water distribution system.

***There is a program in place to ensure that leaks that are identified and repaired in a timely manner.***

- iv) The Village of Clinton requires a review of the water, sewer and storm to ensure there are no cross connections which could create contamination of the distribution systems.

A cross connection is any actual or potential physical connection whereby the Village of Clinton water system is connected, directly or indirectly, with any non-potable or unapproved private water supply system, sewer, drain, conduit, well, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain contaminated water, liquid, gases, sewage, or other waste, or unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow.

The Goal of a Cross Connection Program is to assure customers that the last user on our potable water system has water just as safe as the first user and that nothing harmful has entered the system in between. Protecting the potable water system from cross connection is accomplished by using backflow preventers.

***The Village will create and implement a Cross Connection Control Program for the Village of Clinton***

7. Municipal Leadership

- i) The Village is committed to ensuring water is used as efficiently as possible at municipal facilities and in public spaces. It will model conservation practices that could be implemented by residents and businesses throughout the community.
- ii) There are a number of excellent examples of efficiency in place that will be continued as part of this strategy. For example, the Village endeavours to incorporate conservation into its construction and renovation projects. This not only includes using high-efficiency fixtures and fittings but also minimizing onsite consumption throughout the entire process.
- iii) As well, automatic irrigation systems on public property are set to irrigate based on weather and soil conditions. These systems are regularly maintained to optimize the settings and fix any leaks. In the future, the Village will review its landscaping choices to ensure public spaces exemplify water efficient design. This includes choosing native or drought-tolerant vegetation, considering landscape characteristics when planning a garden, and watering based on plant needs.

***The Village will continue to operate the irrigation systems as efficiently as possible with repairs being done in a timely manner***

***The Village will continue to review current practices to utilize drought-tolerant vegetation where practical in public spaces***

- iv) The Village has several building and properties utilizing the water services. There is a need to complete a full audit to determine what retrofits are required to ensure the Village is operating with appropriate fixtures to reduce the consumption of water.
- v) The Village will undertake audits and retrofits at its facilities, including:
  - 1. The Village Office
  - 2. Memorial Hall
  - 3. 47 Mile Sports Complex
  - 4. Public Washrooms (Hwy 97, Reg Conn Park & Elliot Park)
  - 5. Water Treatment Facility
  - 6. Museum

***The Village will complete an audit of the retrofits required for each of the municipal buildings and implement upgrades as funding permits.***

- vi) The Village of Clinton is committed to the implementation of Asset Management, which will provide a better understanding of the water and sewer infrastructure. The Village has completed a Water Plan and a Sewer Plan in 2015 and will be looking to complete a storm water plan in 2016. Once these plans have been completed a Road, Water, Sewer and Storm Water plan will be completed which will provide the Village with a comprehensive plan for future upgrades to the utility services.

***The Village will continue to work with TRUE Consulting to complete the Asset Management Plan for the Village of Clinton which will include a priority listing of upgrades to the utility services.***

8. Residential Water Use Program

- i) Water consumption in the Village has actually reduced over the past few years. The Village's per capita numbers are still way above the average in British Columbia and improvements can be made. The Village intends to offer additional educational materials and incentives to residents with the goal of encouraging everyone to use water as efficiently as possible.

***The Village will create more printed materials on water conservation which will be placed on the Social Media and Web Page.***

- ii) These measures will build on the Village's current initiatives, such as conservation information in the quarterly newsletter and billing inserts mailed directly to the customers, as well as the provincial BC Building Code that requires high-efficiency fixtures in new construction.
- iii) The Village has several Indoor Water Saver Kits which have been given to the customer when they pay their utility bill at the Village Office. The kits have also been given out as donation items for non profit groups for fund raising or prizes.

***The Village will continue to provide Indoor Water Saver Kits to the public until the existing supplies have been exhausted.***

- iv) The Village is currently updating the web site and the new site will have the capability to provide a section for water conservation and create a great tool to add gardening and indoor tips to assist in reducing the use of water. Information such as the Annual Water Report will be posted on the site.

***The Village will research further water conservation tips from the internet and magazines such as British Columbia Water and Wastewater Association for distribution through the web page and social media***

- v) The Village works with Social Media and tips on water conservation has been an ongoing information stream to the public.

***The Village will create a campaign for Water Drinking Week by being more proactive through social media and the web page.***

## **12. IMPLEMENTATION**

1. This section describes how the water conservation program will be implemented. A framework for monitoring, evaluation and continuous improvement will be provided.
2. Each of the action items identified Section 11 Conservation Measures will be provided with a time line, action, monitoring and follow up process.

### **i) Outdoor Water Use**

1. The Village of Clinton will create an outdoor watering bylaw and post it on the Village Web Site and keep the public informed on the contents on a annual basis

*To be completed in 2016 and then ongoing notifications in March of each year*

2. The Village of Clinton will create and maintain a water conservation web page to assist the public in reducing their water usage

*To be completed by the end of 2017 and then ongoing maintenance*

3. The Village of Clinton will use Social Media to provide tips to the public on how to reduce their water usage

*To maintain communication through Social Media starting in March of each year*

4. The Village will continue to place water conservation bulletins in the water billings each year

*To maintain the current practice of placing information on outdoor water use in a bulletin form and place in the annual billings*

5. The Village will participate in Drinking Water Week each year and will determine the theme for the week prior to the start of Drinking Water Week

*To increase the amount of Social Media and advertising each year during Drinking Water Week*

### **ii) Water Use Accounting**

1. The Village of Clinton will use the information in the Annual Water Report to educate the public on the operations and maintenance of the water services

Portions of the information in the Annual Water Report will be placed in the Village quarterly news letter and through Social Media/Web Page during the following year of the report. **ACT LIKE A REPORT CARD**

2. The Village of Clinton will review and create a shelf ready (as funding becomes available) plan for the installation of water meters in the community

The Village will investigate the cost and scope of having water meters installed in the community by the end of 2017

3. There is a program in place to ensure that leaks that are identified and repaired in a timely manner.

To maintain the current practices of fixing leaks when they are identified in a timely manner. Through the Asset Management Planning identify priority areas where old infrastructure can be replaced as funding becomes available

4. The Village will create and implement a Cross Connection Control Program for the Village of Clinton

The creation of a Cross Connection Control Program will be investigated in 2016 with a completion date of the end of 2016 based on funding and reviewing the implementation of the program by the end of 2020.

iii) Municipal Leadership

1. The Village will continue to operate the irrigation systems as efficiently as possible with repairs being done in a timely manner

To maintain the current practice of inspecting the sprinkling system in the parks in the spring to repair and maintain the sprinkling system on an annual basis

2. The Village will continue to review current practices to utilize drought-tolerant vegetation where practical in public spaces

To review the types of vegetation changes required to start a renewal program of changing the way in which we replace existing trees and shrubs in public spaces. To look for new technology to find self watering planters in areas not located near a water source by then end of 2018

3. The Village will complete an audit of the retrofits required for each of the municipal buildings and implement upgrades as funding permits.

To ensure when the review of all of the village owned facilities, through the buildings plan one of the emphasis will be on auditing the existing plumbing and identifying the areas where improvements should be made by the end of 2016

(Part of the Asset Management Planning process) and then start implementing some changes as funding becomes available. The whole process to be completed by the end of 2021.

4. The Village will continue to work with TRUE Consulting to complete the Asset Management Plan for the Village of Clinton which will include a priority listing of upgrades to the utility services.

To continue to work with TRUE Consulting to complete the individual plans for Parks and Recreation, buildings, water, sewer, storm, and other plans, keeping in mind the changes which could take place to improve water conservation.

iv) Residential Water Use Program

1. The Village will create more printed materials on water conservation which will be placed on the Social Media and Web Page.

To enhance the utilization of the new web page with a section on water conservation and to create smaller ads for Social Media which will be run on a regular basis all through the year showing tips and ideas on water conservation.

2. The Village will continue to provide Indoor Water Saver Kits to the public until the existing supplies have been exhausted.

To continue the practice of giving out the Indoor Water Saver Kits to the users of the water services when they are paying their billings during the year until the supply is exhausted.

3. The Village will research further water conservation tips from the internet and magazines such as British Columbia Water and Wastewater Association for distribution through the web page and social media

To enhance the utilization of the new web page with a section on water conservation and to create smaller ads for Social Media which will be run on a regular basis all through the year showing tips and ideas on water conservation.

4. The Village will create a campaign for Water Drinking Week by being more proactive through social media and the web page.

To increase the amount of Social Media and advertising each year during Drinking Water Week

### **13. CONCLUSION**

Through adoption of this plan the Village of Clinton is working towards its commitment to provide sustainable and safe water to the community today and into the future. The Village will implement tried and tested conservation measures that have been proven to reduce consumption in communities throughout the province and across the country.

Residential water use in the Village of Clinton is currently higher than most similar communities, at **950 litres per person per day**, even though we have decreased we are well over the British Columbia average of **350 litres per person per day**. The above numbers are from the 2014 water consumption report and as we do not have the 2015 report it is anticipated the numbers could be higher than 2014. As such, practical milestones and targets to reduce consumption have been set as follows:

- Reduce total residential consumption from 950 (2014) to 860 by 2020
- Reduce total residential from 950 (2014) to 800 by 2025
- Reduce the amount of produced water by 15% of the baseline amount until 2025

These targets will be achieved through implementation of conservation measures that can be categorized into four themes:

- Outdoor Irrigation
- Improved water use accounting
- Municipal Leadership
- Residential Efficiency Program

Conserving water has many advantages for the Village. Most importantly, it saves energy and money for treatment and distribution, it fulfills external infrastructure funding commitments, and it enhances the Village's stewardship of our shared natural environment. Using water as efficiently as possible is the responsibility of each and every individual. Only if everyone does their part can these benefits be enjoyed by the community.

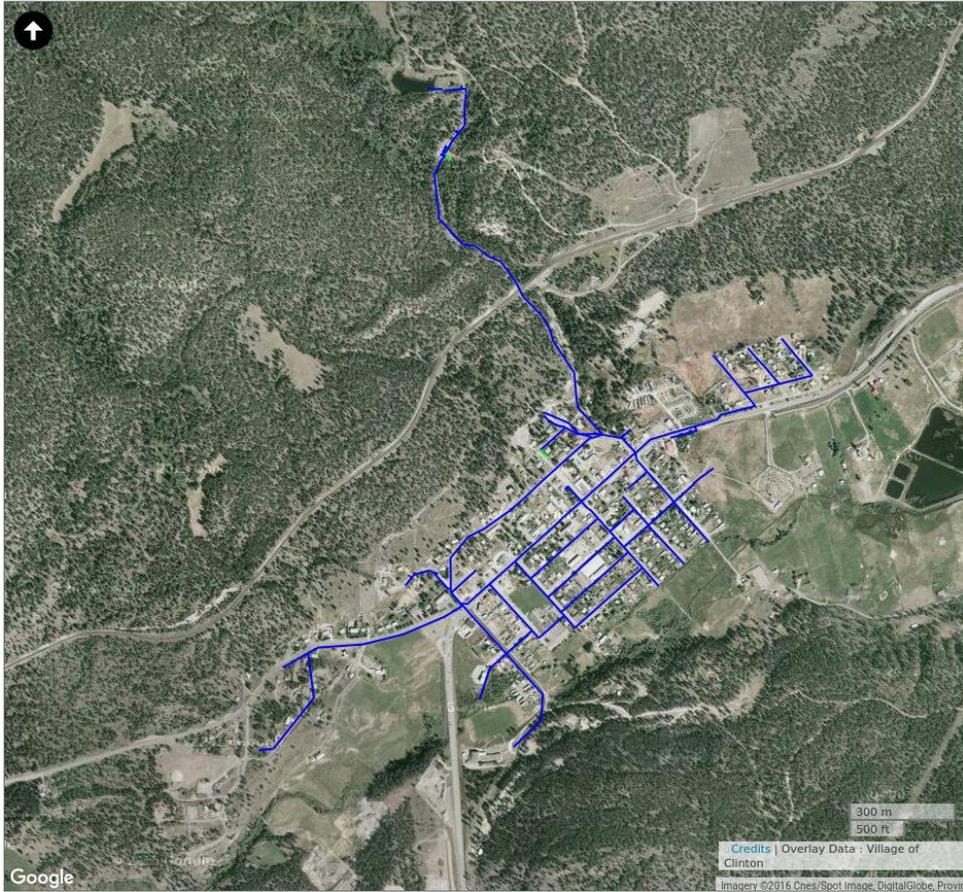
This plan is considered a "living document" – one that is flexible, adaptable, and responsive to changes in technology, awareness, and other factors that will occur during the implementation period. Over the next 10 years, staff will continue to explore new concepts around the areas of water efficiency. By 2025, the Village of Clinton will have solid data and be able to build on this foundation program to design new measures that address emerging issues of the next decade.

### **14. MAPPING**

Mapping of the current water systems will be added to this document.

COUNCIL ADOPTION: JUNE 8, 2016

AMENDMENTS \_\_\_\_\_.



- 675 - Drainage Main
- 675 - Water Main



Credits | Overlay Data : Village of Clinton  
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