A HISTORY OF DRINKING WATER, COLLINGWOOD STYLE

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The history and development of the Collingwood Fire Department was closely linked with the history and development of the Collingwood Waterworks. The book Ordeal By Fire—A History Of The Collingwood Fire Department 1852-2005 by Douglas G. Skelding *contains a number of references to the town's waterworks in the late 19th and early 20th Centuries. Permission to quote from this book has been given by Jack McAllister. As always, Carole Stuart at the Collingwood Public Library is a star when it comes to finding old newspaper articles.*

Few people today, when wanting a glass of water to drink or to fill a kettle or do the laundry or wash their car etc., give much, if any, thought to the system of water mains, valves, reservoirs and pumps that produce water when they turn on the tap. It wasn't always so. There is an unlimited supply of fresh water in Nottawasaga Bay, but delivering that water to your taps requires a lot of infrastructure.

We again turn to our old friend John Nettleton, the tailor, who arrived in Collingwood on July 9th, 1857 and who has left us an eye witness account of what the town was like at that time. His reminiscences of the early years 1857-1870 which he read before the Huron Institute on March 8th, 1912, are preserved for us in *The Huron Institute Papers and Records Vol. II (1914)* by that great guardian of

Collingwood's past, David Williams. In particular, Nettleton's memories of how water was obtained in those early years before the town had a waterworks is quite a contrast to the convenience of the running water that we take for granted:

On Huron street the water used to come up to our back door, and in stormy weather the spray would come into the sheds and kitchens. We used to go out of the back door, to the lake, for all our water, and in the winter had to make holes in the ice to get it. Those living at a distance from the lake had the water drawn to them in barrels. Afterwards, we got artesian wells, by drilling through the rock. We got very good water when we got down from 16 to 27 feet. This continued until the wells were contaminated by sewage. Then our present water system was commenced. Messrs. Lindsay & Burdett laid the mains, which I think all will admit, have been very satisfactory.

Early maps of Collingwood in the 1850's show that the natural shore of the bay was almost right at the edge of First/Huron St. before much landfill changed that shoreline. This explains the statement "going out the back door for water". The big sawmill at the foot of Pine and Maple Streets contributed to filling in the harbour west of Hurontario St. as did the Ontario, Simcoe & Huron Railway to the east of Hurontario. This landfill activity took place nearly thirty years before the Queen's Drydock of 1883, predecessor of the Collingwood Shipyard, filled in even more of the harbour for shipbuilding berths around the drydock.

The Collingwood Waterworks that John Nettleton refers to became a reality in 1889-90, starting during the term of office of Mayor Andrew Lockerbie (1889-90) and being finished in 1890 during the term of Mayor Charles Macdonell . This was a huge step forward for Collingwood. A pumping station on Raglan St. near Sunset Point took water from an intake pipe in the bay and pumped it through the water mains as they then existed. Since steam power was the only available power at that time, the pumps were operated by stationary steam engines powered by wood and coal-fired boilers. The 1894 *Annual Report For The Board of Trade* for the year 1893, prepared by that veteran Collingwood promoter Fred

T. Hodgson and available online, paints a picture of the Collingwood Waterworks of the day:

The Corporation of the Town of Collingwood is rich in useful possessions. It owns a first-class water service with duplicate boilers and engines and some 12 miles of mains and 56 hydrants for fire service with all necessary buildings, appliances and appointments. Water distributed by this system is not surpassed in the world for supply, purity and low temperature. It is drawn from Georgian Bay, and from chemical analysis, made by competent authorities, it has been pronounced the most healthful drinking water in the Dominion. In connection with our excellent water service, we have an excellent Fire Department, with a Silsbee No. 1 fire engine, which is used for fires when such take place beyond the reach of the hydrants, a first class chemical engine, several thousand feet of hose and a full complement of hose carts and attachments, fire hose stations distributed at convenient points, and easy of access. An old style hand engine is also owned by the town.

Fred Hodgson was quite the optimist—this was the man who, in 1894, predicted that,

…it does not require any extraordinary mental acumen to feel convinced that sooner or later the town must become a place of considerable importance and it is safe to say that in all human probability, and by a course of natural development, the boy is now going to school who will see the census of this town figure up to around 100,000 inhabitants.

Fred's reckless optimism and glowing report on the waterworks and fire department did not paint the entire reality of the situation. Douglas G. Skelding, in his history of the Collingwood Fire Department, *Ordeal By Fire,* tells us that when there was a fire in town "*the waterworks had to be notified in order to increase the water pressure to the hydrants, so a runner had to be dispatched to notify them to do this*". From this point in time, the need for a "runner" seems almost comical. Perhaps the runner could use a horse during good weather, but had no choice but to struggle through knee-deep (or deeper) snow in the winter months. It appears that a telephone at the pumping station was not considered a

necessity [!] for there had been telephone service available in Collingwood since 1886. This shortcoming was rectified early in the first decade of the 20th Century, the telephone link from the Fire Hall to the Waterworks costing the Town of Collingwood the enormous sum of $70.00. Again, from this point in time the amount seems trivial; however, using an inflation calculator, $70.00 in 1904 is equivalent to $2057.00 in 2020 dollars.

From the Fire Department's point of view, at times the water pressure to the fire hydrants was too little, and, by the time another boiler had been lit and produced steam, sometimes the pressure was so high that it burst the fire hoses so that, despite their best efforts, the town's firefighters were limited in what they could do and some buildings burned to the ground. When Collingwood's new Town Hall/Opera House, open for only two months, caught fire from a nearby building on August 12, 1890 and was gutted with just the walls and empty clock tower still standing, the shortcomings of the water system were in full glaring view. Skelding tells us that for the first hour of that fire, the water pressure was very low and then became so great that it burst nine lengths of hose. The "several thousand feet of hose" trumpeted by Fred Hodgson were at the mercy of the exertions of the waterworks pumping station.

In the first decade of the 20th Century, the electrical fire call box system used to send an alarm was not always dependable, but when it did work, in conjunction with this, the steam whistle at the waterworks was used as an alarm in the east end of town, while the bells of the Anglican Church on Elgin St. and the Methodist Church (now Trinity United) on Maple St. were used to alert the central and western sides of town as it then existed. From the summer of 1905 there was also a fire bell in a tower (not the Town Hall tower) on the north side of the Opera House, but, being a stationary bell, it required an electrical system to strike it and this, too, did not always work well. Provided someone could get into the two churches to ring their rope-pulled bells, these could be heard far and wide especially in the still night air. These multiple alarm sounds alerted just about everyone in town that there was a fire, but inadequate water volume and pressure to fight it would remain an issue for many years to come through the 1920's. Even in 1965 during the disastrous industrial fires at Georgian China and

Quinlan-Crawford, water volume and pressure were an issue (see my December 2020 story).

When the new Fire Hall on Ste. Marie St. was officially opened in 1911, one of the speakers stated that the pumps at the waterworks were not in good condition resulting in little or no working pressure at the fire hydrants. From the pages of the *Collingwood Enterprise* newspaper, March 4, 1915, we get a glimpse into the state of Collingwood's waterworks 15 years into the 20th Century:

SUPT. STAPLETON DISCUSSES FIRE CONDITIONS IN C'WOOD—AN EXHAUSTIVE REPORT PRESENTED TO W. & L. COMMISSION

Collingwood, Ont., Mar 1, '15. The Chairman and Members, Water and Light Commission, Town.

Gentlemen,--I have noticed an editorial report in the local press of Saturday commenting on the Underwriters' Inspection on Wednesday and Thursday of last week and I think a few words of explanation would not be amiss regarding this inspection.

For some reason that I fail to understand the Engineer on duty at the time got rattled. He even left the telephone booth with the phone receiver hanging down, thereby rendering the telephone useless. Every facility within our means is provided in the Pumping Station for coping with emergencies. First of all we have three boilers and two pumps. Under ordinary conditions we operate one pump with one boiler, and keep a small fire banked under a second boiler with forty pounds steam always showing on the steam gauge. When a fire alarm comes in, the steam in the second boiler is immediately raised and the boiler at once placed in commission. Now, then, with these two boilers under steam we are able to take care of any fire and supply three or four streams and maintain 125 lbs. water pressure at the pumps. (This is the pressure the Underwriters ask for.) We can furnish125 lbs. water pressure from one boiler for two streams, while the second boiler is being cut into commission. We keep the third boiler always in readiness for any emergency with sufficient dry wood within reach to enable us to get up steam and cut in this third boiler with one hour's notice should we be confronted

at any time with a serious conflagration. Should a serious conflagration break out we would and could be depended upon to send out from the Pumping Station the full capacity of the boilers and pumps and maintain that capacity for an indefinite period. It would be, in my opinion, sheer nonsense and lack of administrative ability to entail the heavy expense of keeping three boilers under steam at all times in expectation of a call from the Underwriters' Inspector, and common sense should convince anyone that the idea would be absurd. In fact we could not keep three boilers under steam at all times as we have to wash them out and repair them and leave one in readiness for the boiler inspector's examination periodically. The Underwriters know this and they admit it; yet the Inspector comes along with his stopwatch and instead of counting hours or minutes he counts the seconds from the time the alarm is sent in until six streams of water are running from six nozzles, and then he takes the pressure. Is this reasonable? No matter how serious the conflagration should be, six streams of water would not be needed at a moment's notice, and we would be in a position to supply six streams by the time it was needed. The plain facts are that the game is one sided. The Underwriters have us beat before they leave the City of Toronto. They should take the conditions as we would be required to meet them.

The second day's test proved beyond doubt what we could do, were we reasonably called upon. We maintained 125 lbs. at the station during the test and 125 lbs. all day while the hydrants were being tested. Is that not proof enough?

Stapleton goes on to describe the shortcomings and failings of Collingwood's obsolete fire alarm system of pull boxes and then returns to the subject of the waterworks*:*

I discussed the Water extension with the Inspector and I am now fully convinced that if the Town is going to work in harmony with the Underwriters that the Mountain water is a dream. The Inspector says that we would still have to maintain the present plant and build a reservoir at the pumping station and also put in another force main up town as well as installing new pumps. So that it would simply mean two distinct water works systems and the up-keep would be enormous.

I have already taken up with the Hydro Electric Commission the possibility of extending the Eugenia power line to Collingwood [*the Eugenia Falls power station came online in November 1915, eight months after this report was published; since 1912 Collingwood had been receiving hydro-electric power from the Big Chute generating station on the Severn River]. *Were a second line or source of electric power brought to Collingwood then we could electrify our pumps and the second power supply would be accepted by the Underwriters as a stand-by or auxiliary and we could discard our steam altogether. Had we electric pumps installed we would then be in a position at all times to meet the reasonable and unreasonable requirements of the Underwriters. We would also be in a position to effect a saving of approximately $2750.00 per year in fuel, as the water would be pumped off the peak load and the power would therefore cost us nothing for the operation of the pumps. The pumps now in use have outlived their usefulness and it would cost a considerable outlay to have them properly overhauled, and even then they would be 'steam eaters' and not at all economical. So that if there is a possibility of electrifying the pumping station at some not too distant date I would say get along as we are for the present. We are not doing badly under present conditions and the records of the past year corroborate this. The Underwriters' Inspector could not do any better himself.*

After the second test was completed, the Inspector informed me that the test made was by far the best and most satisfactory test ever made in Collingwood. If the Inspector had visited town and called for a test during the earlier part of the winter when the anchor or floating ice had the intake pipe choked up on several occasions and when we were compelled to rely exclusively on the shore emergency pipe for our water supply there would be a very different story to tell. As several times during the present winter the only pressure available on Hurontario St. and which is recorded on the gauge in the Water and Light Office was ten pounds and with no fire streams attached. You are liable to be confronted with this predicament at any moment during the winter season and a calamity could not be avoided. Then again during the hot dry season when the water is being used for lawns and street sprinkling, the pressure would also be very inadequate. We could

not have been favored with more favorable conditions for a test than the time when the test here referred to was made.

The Collingwood W. & L. Com., Per E. J. STAPLETON, Superintendent.

To sum up Mr. Stapleton's letter, the Collingwood waterworks in 1915 had three boilers and two pumps that were past their "best before date" to provide water to the town, the intake pipe was, at times in the winter months, choked with ice and an emergency intake pipe right at the shore was used to provide water when this occurred. With regard to Mr. Stapleton's remarks about extending the power line from Eugenia Falls to Collingwood, this was, in fact, done in a way that created an electrical link between the Eugenia and the Severn River power plants and multiple communities in between. Some historical items in the Collingwood *Enterprise-Bulletin* indicate that the town's water pumping station was indeed electrified in 1915. Considering that Eugenia Falls started generating power in mid-November of that year, and that the power line *was* extended to Collingwood, this gave the town the second source of electric power that Mr. Stapleton wished for so that they could discard the steam power. His reference to "Mountain water" is not clear but could have referred to pumping water to a reservoir on Blue Mountain and achieving consistent pressure in town from that elevation.

A new pumping station was built in 1934 along with a new intake pipe, adequate for the needs of the town (population about 5,800 at the time). The intake would not be replaced until 1969. There were also new electric pumps.

By November of 1949, the Town of Collingwood had completed the installation of a new twelve-inch water main from the pumping station via Huron Street, connecting to the Hurontario Street system. New pumps had been installed and other renovations had been made to the pumping station. (Skelding, pg. 101)

A test was made of this new infrastructure and found to be very satisfactory with the new pumps easily handling the water needs for the town and allowing two pumper trucks to run a total of six lines of fire hose from the hydrants near the north end of Hurontario St.

My friend Donald Kelly's father Wilmur worked at the pump house on Raglan St. many years ago. One day in the early 1960's, Donald and I visited his father there and I saw the electric pumps and heard the constant sound of them providing Collingwood with water. Those electric pumps sent more than water throughout the town in the spring of each year. During the annual spring snowmelt, a lot of silt came down the rivers and streams from the mountain and surrounding farming countryside into the bay. The mouth of the Pretty River was not far from the 1934 intake pipe and this created a lot of turbidity in the water resulting in much silt being pumped through the town. Two other streams that emptied into the bay east of Heritage Drive and contributed to the turbidity of our drinking water were the CNR creek and the Batteaux River.

On Ste. Marie St. we boiled our drinking water in the spring and stored it in glass milk bottles from Potts Bros. Dairy in the fridge waiting for the sediment to settle. Because of the colour of this silty water, my mother referred to it as "chocolate milk". Another Collingwood resident who grew up on Beech St. remembers her mother boiling the water as well. Boiling our drinking water was taken for granted as a yearly event in those days as the Pretty River spewed silt into the bay either during the spring runoff or during a severe storm like when the outer fringe of Hurricane Hazel sideswiped Collingwood, dumping four inches of rain on the catchment area of the local rivers and creeks on its way north to James Bay on October 15th, 1954. Before the new intake was installed much farther out from the shore in 1969-70, this lady said she never did her laundry for 2-3 days after a major rain storm because of the silt that ended up in the water supply and what it did to the white articles in her laundry.

Where I grew up on the east side of Ste. Marie St. near the corner of Victory Drive in the 1950's, the ancient, small water main on our street was long past its "best before date" as were the ancient pipes coming from it to the houses on the street. It provided water but not much in the way of pressure. If our garden hose was watering the lawn or backyard garden and someone turned on a tap in the house or flushed the toilet, the water coming out of the hose nozzle dropped down to just a trickle. In those days, there were no water meters and we paid a

flat rate for water to the Public Utilities Commission. In extremely cold weather we left the cold tap in the bathtub dripping to ward off a frozen water line.

When it was announced in the 1960's that the water main on our street was going to be replaced, we and our neighbours rejoiced. The Town ran a new water service from the new main on the west side of the street to the shutoff at the property line and then it was up to the property owners to renew the water line the rest of the way to their house. My father and I dug a deep trench to run a new copper line down along the driveway and around to the back of the house to tie in with the house plumbing. I saw a section of our original water line and it was so corroded, it was a wonder that water flowed through it at all. Some years ago when Collingwood was under a winter deep freeze and the *Enterprise-Bulletin* was reporting on various parts of town where the water lines to the houses were freezing, I wrote to the family living in the house where I grew up to let them know where their water line is buried and how deep we buried it. The owner wrote back thanking me for the information and said their water was just fine.

The landmark multi-leg water tower, said to have a capacity 2,273,000 litres (just under 500,000 Imperial gallons) in Central Park was erected in 1962. According to some reports, it was a used one discarded when it was no longer needed in another community. It was dismantled and sold to the Town Of Collingwood second hand. Located in a central part of town, *as the town's footprint then existed*, it was intended to store water and provide fire protection. George Cooper, one of the Shipyard superintendents I worked for in the Administration Office during my high school and university summers, lived on Hamilton St. near the park. He told me that when he saw that water tower go up a few blocks from his house, he worried that the pressure from it would explode his water pipes.

When a new intake pipe for the water pumping station was installed in 1969-70, it was 1070 millimeters in diameter (42 inches) and it went out 765 metres (2509 feet—nearly half a mile) into the bay at a depth of approximately 27 feet of water. The town's *Annual Water Compliance Report*s for the years 2014, 2016 and 2017 stated that the gravity-flow intake was at a depth of 26 feet and, of course, this measurement is subject to the changing water levels on the Great

Lakes. There is a photo of the intake on page 119 of Christine Cowley's book *Butchers, Bakers And Building The Lakers* which shows the four inlets constructed in such a way as to prevent the intake from drawing water down from the surface and up from the bottom. At the same time, an addition was built at the pumping station, all of the improvements scheduled to go into service on October 1, 1970.

Jack MacMurchy's article in the *Enterprise-Bulletin* on July 23, 1970 was headlined "**We Will Have The Best Water Available"** and he reported that tests conducted on site by the Ontario Water Resources Commission revealed that our drinking water was "the purest available in Ontario". Fred Hodgson, if he were alive, would have said "I told you so!" The water was also predicted to be reasonably free from sand even at low water levels. Jack MacMurchy also reported that during the previous winter of 1969-70, the intake pipe was blocked with ice. This was rectified by reversing the pressure from the water tower and directing it through a diesel-powered fire pump in the old pump house and pumping the water out through the intake to clear the ice jam. Another article in the "*E-B*" from May 24, 1978 stated "**Our Water Is Clean And Safe**" and described how the water was chlorinated and screened at the pumping station before being sent through town.

Time marched on and in March 1996 during the spring snowmelt/runoff a number of people in town fell ill with an intestinal issue, resulting in a Boil Water Advisory. This was the catalyst for the construction of Collingwood's Raymond A. Barker Water Treatment Plant, opened in 1998, which uses a state-of-the-art membrane technology to filter water, the first plant of its kind in North America.

Collingwood's drinking water is still classified as some of the best in Ontario. Now, 20 years into a new century, and with growth in the town's population and the fact that Collingwood also supplies water to other areas including New Tecumseth (Alliston) and part of The Town Of The Blue Mountains (Craigleith), further additions and improvements to the capacity of the water system are necessary to keep up with the demand. In a *Collingwood Today.ca* report on April 28/21, Jennifer Golletz stated, "Currently, as much as 35 to 50 percent of the Collingwood plant's capacity is sent to TBM and New Tecumseth". Contrary to the

overly optimistic 1894 prediction of Fred Hodgson, Collingwood is projected to have a population of 33,400 by 2031. His prediction of "around 100,000 inhabitants" which was supposed to happen 100 years ago would be guaranteed to keep the town officials awake at night.

Things have come a long way since 1857 when John Nettleton just had to go out his back door and chop a hole in the harbour ice to get a drink of water. Fred Hodgson praised the quality of the drinking water provided by the original waterworks in 1894 and he would be pleased to know that, 127 years later with the latest technology, Collingwood's water is still highly regarded.

David Vuckson is a great-grandson of pioneer Collingwood merchant R. W. O'Brien. His roots in town go back to 1875. David and his wife Pamela live in Victoria, B.C.