

TownSuite Mapping LITE (+Scanning) and Managing Municipal Water Systems:

Spotlight on the Town of Centreville-Wareham-Trinity

Background

The Town of Centreville-Wareham-Trinity (CWT) is one of many small rural communities located along route 320, 'The Road to the Shore', in central Newfoundland. The municipality's population was 1161 as of the 2011 census, and while the Town of CWT has been incorporated since 1992, the water infrastructure is spread out among the three adjoining communities of Trinity, Centreville and Wareham.



Centreville-Wareham-Trinity 'Town Hall'

Prior to TownSuite Mapping LITE¹, a municipal software package offered through PROCOM Data Services Inc., CWT was struggling to manage their water infrastructure records. Their paper records, including as-builts and plan drawings, and hand written notes, contained all of the information about the in-ground infrastructure, which in some areas, was

installed over 45 years ago. Frequently, these drawings were out of date, with modifications and spec changes going unrecorded, and sole copies of as-builts and other documentation were damaged and illegible. There were also numerous copies of the same document, meaning that ongoing modifications were often recorded on different versions for the same curb stop location.

It was clear that their water infrastructure data was at risk of being lost and there was a higher than necessary degree of uncertainty around the state of their current infrastructure. Not only this, but it was very difficult for staff at the town office to effectively locate and provide key documents to the water operators in order for them to locate and identify buried infrastructure and adequately respond to emergency leaks.

I really struggled to find paper copies of as-builts and other documentation. Water operators would call me with little notice when they needed me to find an as-built, and sometimes I might be lucky searching for what they needed. What I was looking for could be on top of the box. Sometimes it might be at the bottom, or in a different place entirely. It was a major challenge to find the required information in a minimal amount of time.

- Town Clerk

Initial Objectives

Our primary concern was to digitize our valuable records, as a means of preserving them. Another key objective was to make it very easy for the maintenance staff, to help them identify

¹ The price of TS Mapping LITE starts at \$14,000 + HST, and includes software, training, scanning and setup. There is an annual fee that covers software updates and technical support provided to the municipal user. Funding for TownSuite Mapping LITE including TownSuite Scanning services is available through Gas Tax as well as financing through the vendor

where water lines are in the ground, rather than having to go through boxes of files, which could take hours on end, to look for record of lines that had been buried in the ground over 30 years ago.

- Mayor

The Town of CWT had two primary objectives in implementing TownSuite Mapping LITE. First, there was a need to preserve their critical data, because, as described above, this information was at risk of being permanently lost. The second objective was they needed to simplify access to their information on water infrastructure, thus making it easier and more efficient for staff to access and maintain data.

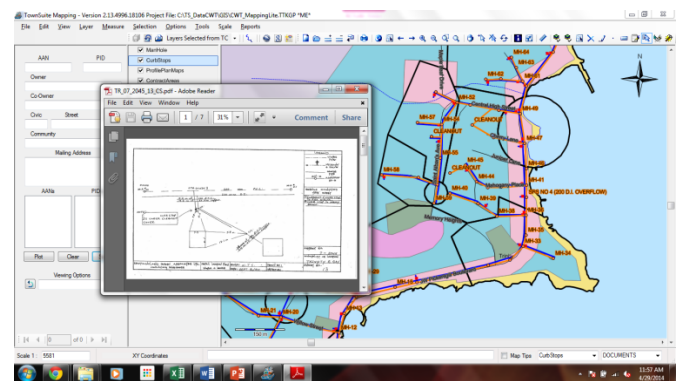
As an existing TownSuite Municipal Software client, CWT had become aware of the functions that Mapping LITE offered, through discussion and promotion at a Municipalities Newfoundland and Labrador convention. They recognized the potential that this software had to not only meet these objectives, but transform the way town staff would go about managing their water infrastructure data. Council quickly came on board and the process began.

TownSuite Mapping LITE + Scanning offered a way of preserving key documentation. Information would be easily obtainable for those curb stops and as-builts as opposed to taking an hour to go through file folders and maybe finding or maybe not finding something. With Mapping LITE, they could go to the map and click on it, print it out and have that to take with them. The goal was to simplify.

- Regional Water Operator, Bonavista North

Mapping LITE in CWT currently

Currently TownSuite Mapping LITE is fully implemented in CWT, and council, town staff and water operators are very pleased with the ongoing results. All their paper records have been scanned and digitized, using a mobile large format scanner², and their documents can be retrieved with a simple click on their respective curb stops located on an easy to use, interactive map. The software is set up on the computers in the Town Hall, where the town staff are the main point of contact for water operators in retrieving curb stop records and other as-built drawings on Mapping LITE.



Trinity pictured on TownSuite Mapping LITE

Mapping LITE has impacted the organization and management of water infrastructure in a number of ways and has satisfied those objectives that the Town of CWT set out to achieve, namely preservation of critical documents and increasing the accessibility of these records.

Now we are able to identify and locate waterlines much easier than the old archaic system of going through design papers and maps and the like.

- Mayor

² A feature of the Mapping LITE +Scanning package

My confidence in our infrastructure documentation has improved since TownSuite with our infrastructure data, because now I can see from man hole to man hole, and before it was just everywhere.

- Town Clerk

Through achieving these objectives, there have been numerous additional benefits, for the town staff especially. However, given the structure of the municipality, those improvements made in the day to day work of the town staff have a deep impact on the operations and effectiveness at every level of the municipality.

Council has benefitted from TownSuite in that now our staff have more time to attend to other business. Now, instead of looking 4 or 5 hours for sections of waterlines, they can do that same task in less than 30 minutes. That saves us valuable time and money.

- Mayor

As a councilor, we are really happy with this software. Councilors don't spend a lot of time in the office, but I know our staff are always busy in here, so we do save time by using TownSuite. It's good for us.

- Councilor

While saving time is stated as one of the biggest immediate benefits of the Mapping LITE software in CWT, along with the preservation of data, other benefits have emerged since they began. For the town clerk, this includes the ability to better visualize the water lines that exist in the ground, which was not as easy before Mapping LITE.

Additionally, a key feature of the Mapping LITE is that, not only can water documentation be retrieved more easily, but because it is in a digital format, individual curb stops can be

simply emailed to the water operators while they are out on their rounds. If required, the water operators also have the option of coming into the town office and retrieving a physical copy of the relevant curb stop data.

If I need a curb stop I will call Michelle and she'll locate it and print it off. I will just grab it go. Any changes to the curb stop, I will write it on the sheet and Michelle can update the notes in the documents, or add her own documents to the linked files.

- Water Operator

This is also an important feature of the software, because the water operators no longer need to take full size as-built drawings outside with them during emergency or standard maintenance operations. Moving into the future, the Town CWT suggests that they look forward to exploring other applications of TownSuite Mapping LITE.

Mapping LITE and future planning in CWT

The Town of CWT is content with the knowledge that their infrastructure data is safely preserved and easy to access. Currently, they are satisfied with keeping all of the copies of duplicate and variations of drawings found in their original storage boxes, but there is an option for them to work through any redundancy and consolidate these drawings into a "working copy" of their water infrastructure.

If there are two copies of something, and they are identical then one can probably just be deleted. But if they are slightly different versions of an as-built, or if something has been changed just a little, I just keep it. We can engage TownSuite to do updates for new changes or drawings to scan and plot them.

- Town Clerk

A key component in managing and planning water infrastructure using TownSuite Mapping LITE is the support they receive from PROCOM Data Services Inc. on a regular basis. In this respect, CWT is very pleased with the continued relationship.

The Town of CWT see the merit of using TownSuite Mapping LITE in strategic planning in the future. In some ways, this is the direction they are currently working in as far as adding further layers to their interactive maps. Now that their information is preserved and documented, it is easier for new staff to access and utilize this information knowing that there are few uncertainties about the locations and specifications of in ground infrastructure. Additionally, it is also easier to manage for new staff who know very little or nothing about what is in the ground. This is especially critical given that many rural municipalities across the province are facing high employee turnover, especially as it relates to staff members who are nearing retirement.

I think TownSuite will help with planning, I mean the existing hydrants are on the drawings now. So you could make an assessment of whether there should be one further down the road. In terms of planning, there is the ability for a layer with our zoning that you can look at in a glance. I haven't done much work with that part yet. But it's there. I think future strategic planning will come, it's just not a priority with council right now because we are trying to get our system fully updated.

- Town Clerk

As is the case with many small, rural communities, it is difficult to commit to long term, strategic planning when there is limited human and financial resources to accomplish those tasks which need addressing on a daily basis. However, to this end, TownSuite Mapping

LITE has already greatly assisted in alleviating some of these pressures in CWT.



Hydrant buried in snow bank

It is likely that future planning and management of water infrastructure in CWT will utilize additional layers of information where possible in Mapping LITE as well as the possibility of integrating with other packages offered by TownSuite Municipal Software. The Town of CWT values the 'integrative' function of TownSuite Mapping, which allows data to be visualized on an interactive map and they look forward to visualizing additional pertinent information in this system where possible and practical.

There is a lot of documentation related to our water, from the government, out there, and a lot of it that we don't really know about. And if that could be presented in some way, integrated together, that would be very helpful.

- Councilor

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