

PERTH COUNTY

Award winning Municipal 511 system to facilitate emergency response

By Sophie Guilbault

Source: Adobe Stock Photo

THE SCIENCE

When responding to emergencies, it is crucial for response personnel to be able to access their destination in a timely manner. To do so, a clear understanding of road conditions can help emergency responders travel to their destination faster. In situations where every minute counts, having access to the exact location of road closures, areas affected by weather conditions, and zones of higher traffic can help them plan the most efficient routes to access emergency incidents quickly. It is also important to have effective situational awareness when communities are impacted by severe storms and flooding events.

THE TRIGGER

Prior to August 2017, municipalities in Perth County were relying on a system where faxes, emails, and social media updates from different municipalities were used to inform emergency personnel of road conditions. "Faxes and emails just pile up and there's no way of looking at a map and saying 'this road is closed because of weather conditions or construction.' If you're an emergency responder, you can lose minutes and kilometres that can be critical in the case of a major incident," said Dave Colvin, Emergency Management Coordinator for Perth County.

Faced with this problematic situation, the municipalities of North Perth, Perth East, Perth South, West Perth, and St. Mary's worked in partnership with Transnomis Solutions, a Canadian technology company that specializes in road information and communications solutions, to develop a system that would provide real-time updates on road conditions. The new Municipal 511 system developed for the County offers a one-stop source of information through a website that provides timely and accurate information to emergency responders.

THE APPROACH

The Municipal 511 system was designed as an interactive map that provides real-time display of closures and delays on roads. The concept was initially developed as a federal research project and then used during the Eastern Ontario flooding in the spring of 2017 to inform responders of road closures and areas affected by the flood. Perth County was then approached to use the program as a pilot project for its municipalities.

When this initiative started, municipalities of the County were initially consulted to ensure their input would be considered throughout the development of the project. From that point, Perth County's Emergency Coordinator took the lead on the project to ensure a rapid implementation for all municipalities involved. "This initiative represented a solution that was leading edge and required a quick implementation," said Dave Colvin.

The partnership between the County and Transnomis Solutions led to the development of a website displaying a map where a collection of layers of information are available. For instance, one layer represents updates that are sent

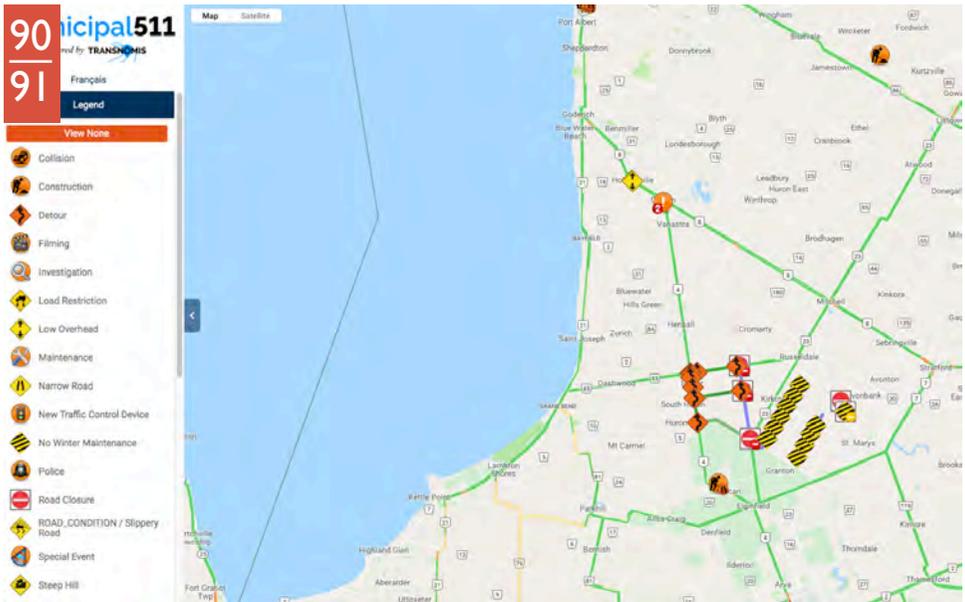


Figure 21: A public map portal is available and most information can be viewed by everyone, including the public. (Source: Perth County)

by the various municipalities regarding road closures and delays, while another one presents information that was reported by road users using the Waze mobile application. The information is precise enough to allow first responders to identify exactly where a road closure or delay is taking place and the details of the incident. Information coming from weather radars, provincial road reports, and provincial cameras can also be brought into the map. Other information, such as the location of people with an open burn permit, can be viewed by emergency personnel in order to avoid the accidental dispatch of fire trucks to properties that are undergoing a controlled burn.

The Municipal 511 system includes the capability to send emails and faxes, saving staff time and effort. It also pushes information out to the Waze system and Google Maps. Other publicly available navigation tools will soon be receiving the same data feed.

A public map portal is available and most information can be viewed by everyone, including the public. A responder-only portal allows for the addition of restricted information. All municipalities in the County, with the exception of Stratford, have agreed to participate and to keep uploading their data into the system.

THE OUTCOME

The Municipal 511 system used in Perth County was not only serving a clear and useful purpose, but it also came at an affordable price for participating municipalities. “The system is extremely cost effective when compared to its obvious benefits and other situational awareness software systems,” said Dave Colvin.

Since the implementation of the system, municipalities have reported important time savings when responding to specific events. For instance, one municipality reported a 70 percent time saving due to the system being able to pre-identify locations that were granted open burn permits. This allowed dispatchers to avoid sending response personnel to these areas when receiving calls from concerned neighbours. In addition, in 2018 the County was affected by flooding and a potential ice storm. During both events, the Municipal 511 map allowed responders, emergency managers and municipal staff to see where the roads were closed and gave them a better idea of the impacts the storms were having. This common operating picture is key to effective communications in such events.

When the program was initially launched in August 2017, training sessions on how to use the platform were offered by the County. Training videos have also been included on the website to allow users to make the best use of the information available. Since the launch of the Municipal 511 System, several improvements have been made based on the feedback provided by the participating municipalities.

A WORD FROM PERTH COUNTY

When asked what advice he would offer to municipalities interested in implementing a similar system, Dave Colvin offered the following suggestions: "My advice is to think outside the box, look for unique solutions and don't let yourself be stopped by traditional project management approaches because you can miss opportunities. Technology is changing very quickly and sometimes, by the time you put a committee together, determine your needs, the technology advances quicker than the project. It is important to embrace some of the newer technologies available."

The 511 system implemented in Perth County has recently been recognized nationally, earning the Canadian Association of Chiefs of Police/Motorola Award for Excellence in Emergency Preparedness in 2018.