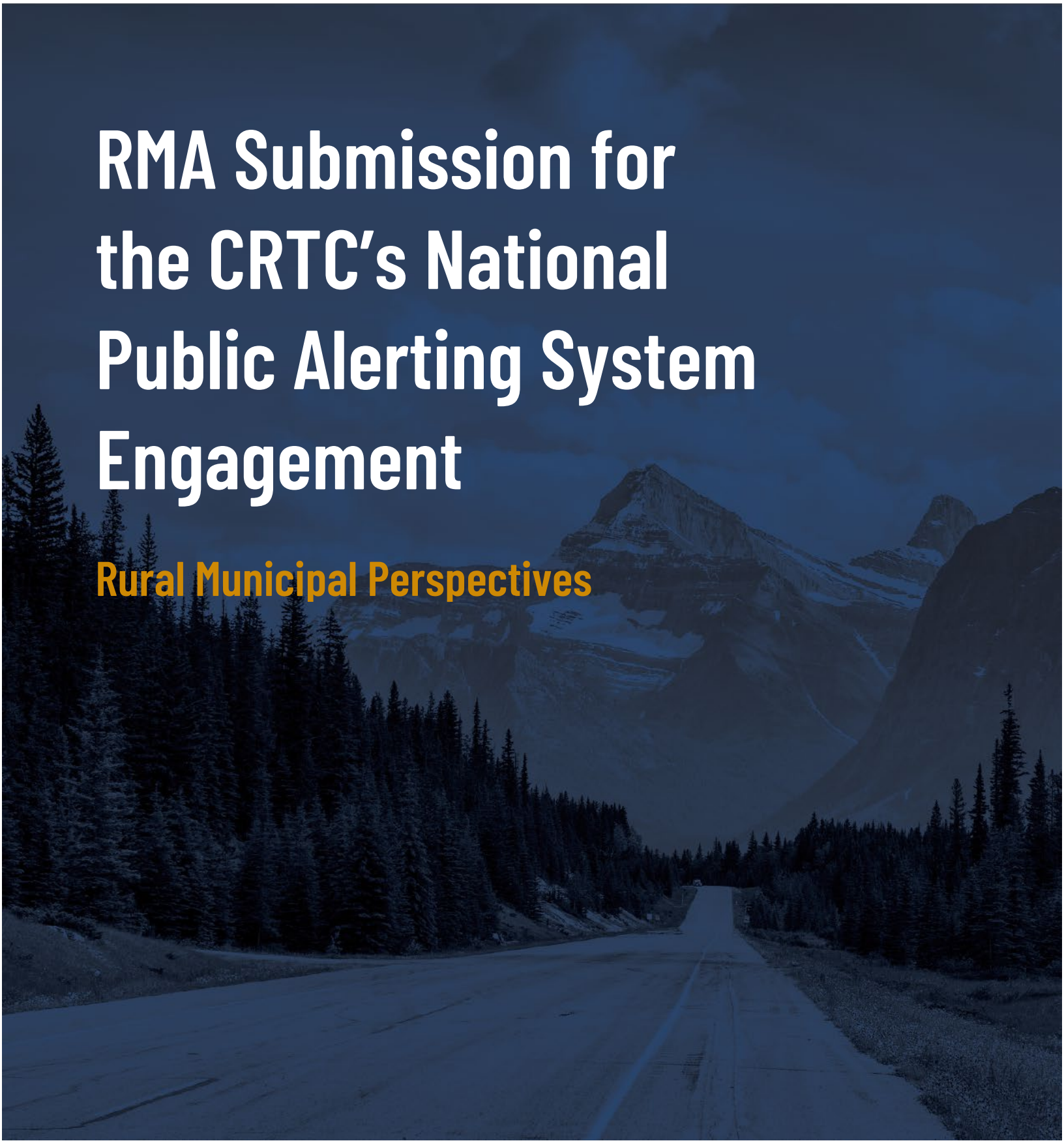
RMA
RURAL MUNICIPALITIES *of* ALBERTA

RMA Submission for the CRTC's National Public Alerting System Engagement

Rural Municipal Perspectives



October 23, 2025

Introduction

The Rural Municipalities of Alberta (RMA) represents Alberta's 69 rural municipalities, which collectively provide local services to 85% of Alberta's geographic area. Access to reliable cellular coverage has long been an issue for the residents of Alberta's rural municipalities, and this issue connects well to the Canadian Radio Television Commission's (CRTC) engagement regarding the National Public Alerting System (NPAS).

Scope of this Submission

While the CRTC's engagement is considering targeted improvements to the NPAS in several areas including accessibility, language rights, and testing schedules, RMA's submission to this engagement is focused on the availability of public alerts in rural areas rather than their content or accessibility.

Specifically, this submission addresses the following questions from the CRTC's Notice of Consultation:

> **5. How can the Commission help improve the availability of public alerts? Specifically:**
>
> (a) Where are the current gaps in accessing Wireless Public Alerting (WPA) in rural, remote, and Indigenous communities in Canada and how can such gaps be efficiently tracked?
>
> (b) What is the feasibility, technically or otherwise, of creating and operating a national mobile application available for download across Canada, as a possible solution for reducing gaps in WPA?
>
> (c) Should Wireless Service Providers (WSPs) be required to provide alerting over 3G networks? What technical or economic challenges exist to doing so?
>
> (d) How can the Commission improve the current reach of WPA to rural, remote, and Indigenous communities in Canada through regulatory measures? What other means should the Commission consider to support the distribution of public alerts to Canadians that are not currently served by WPA?

Rural Cellular Coverage

Cellular coverage varies significantly across rural Alberta. Many of Alberta's rural municipalities experience what could be called "unreliable" cellular coverage, which includes unreliable access to emergency services such as 911 as well as public alerting. In fact, this challenge is so widespread that Alberta's Minister of Technology and Innovation's mandate letter includes a call to "[explore] options to address poor cellphone coverage on major highways across Alberta."

This occurs for a number of reasons, including proximity to urban centres, the number of cellular towers and associated wireless infrastructure, and geography that blocks and interrupts cellular signals; however, it can also be attributed to a lack of funding from federal and provincial agencies for cellular infrastructure in rural and remote areas, such as fibre connections and the construction and maintenance of the cellular towers themselves.

Where are the current gaps in accessing WPA in rural, remote, and Indigenous communities in Canada and how can such gaps be efficiently tracked?

Current Gaps

At RMA's Spring 2023 Convention, member municipalities ratified **Resolution 5-23S: Access to Mobile Wireless Cellular Services,** which called on RMA to engage with the CRTC to address the lack of reliable cellular network coverage for mobile wireless (cellular) service. RMA provided Resolution 5-23S to the CRTC in Spring 2023 but has yet to receive a response.

The sponsor of Resolution 5-23S, the County of Barrhead, is located approximately 120 kilometres northwest of Edmonton. The County is among the numerous other rural municipalities across Alberta that have raised concerns about their ability to access the internet and operate their businesses due to challenges with telecommunications. For those rural and remote areas are not serviced by landlines or that are being refused landline service, reliance on spotty or unreliable mobile wireless becomes the only option.

Due to the significant variations in cellular coverage across rural Alberta, it is difficult to model and track gaps in coverage. Despite this difficulty, the CRTC has made reports on *Major Roads With and Without LTE Services* that support cellular networks and *LTE Service Coverage Areas*.

The interactive map associated with the CRTC's *Major Roads With and Without LTE Services* report does a good job of identifying those areas with and without LTE services, but is not totally accurate, as the County stated that there are at least two locations with no cellular access which are not represented as such on the map:

- Highway 18 between Barrhead and Westlock
- Highway 33 heading west to Swan Hills and south to Edmonton

Given the relatively close proximity of these locations to an urban centre (Edmonton) and the much larger distances separating other rural municipalities from urban centres, it is likely not the only error on the map. Further, the map represents roads as being either "with" LTE coverage in green or "without" LTE coverage in red; it does not address or reflect the reliability of this coverage, which can change with weather, geography, and other conditions. In emergency situations, unreliable service could be just as problematic as an area with no wireless service.

As for the *LTE Service Coverage Areas*, much of Alberta shows coverage by at least two facilities-based networks. In the County of Barrhead's case, the County is shown as fully covered by two facilities-based networks; however, there are several areas within the County including three-digit highways (provincial highways servicing local, rural, and collector road functions) that do not have reliable coverage and experience dead spots that likely result from no coverage by service providers, no wireless signal, or a lack of cellular towers.

In summary, the CRTC's reporting and maps do not accurately reflect the reality on the ground in rural Alberta with respect to mobile wireless/cellular services and misrepresents the coverage as being better than it truly is. These issues with the data lead to rural Alberta being underserved by cellular carriers and cellular infrastructure being underfunded, which in turn potentially increases risk to life and property by negatively impacting emergency response and NPAS functionality.

Tracking Gaps in Coverage

One way that the CRTC could potentially increase the efficient tracking of gaps in coverage and access to WPA could be through targeted engagement with rural municipalities Canada-wide to better understand their local circumstances and identify gaps in coverage within their specific municipalities.

Another way to increase effective and efficient tracking could be by collecting location and cellular reception data through a national mobile application (as discussed below), should one ultimately be developed. It may be feasible for the app to collect data regarding the device's current cellular service

connection *and* the quality of that connection relative to the device's GPS location, which could be sent back to a repository operated by the CRTC and used to inform real-world connection statuses on maps. This decreases reliance on industry-provided data and statistics and could better represent the real world operational conditions for devices in rural and remote areas, as well as obvious blank or dead spots in the reported data.

What is the feasibility, technically or otherwise, of creating and operating a national mobile application available for download across Canada, as a possible solution for reducing gaps in WPA?

A CRTC mobile alerting application has the potential to improve access to the NPAS, but it does not fully address the reality of unreliable, poor, or non-existent cellular coverage in many rural and remote areas of Alberta. While sending alerts to a mobile app over Wi-Fi could increase reach in areas with strong cellular service, this approach will only reduce gaps if devices are connected to reliable, high-speed wireless internet, and only if that internet is actually available to the rural residents who live, work, or travel through areas with little or no cellular coverage. In other words, the app may provide incremental improvements, but it will not resolve the fundamental issue of inadequate rural cell service.

That said, there are opportunities to design the application in a way that maximizes its usefulness for rural residents. Many households and businesses in areas without cell coverage rely on alternative connectivity solutions such as Starlink, fixed wireless broadband, or Wi-Fi calling over VOIP. Some vehicles are also equipped with Wi-Fi, which could allow travelers in areas with limited coverage to still receive alerts. By ensuring the app is compatible with these technologies, its reach could be extended beyond traditional cellular networks.

However, the success of this approach ultimately depends on rural access to high-speed broadband internet, an issue that RMA has long advocated on. RMA's two-year internet speed testing project demonstrated that less than 10% of tests met the Government of Canada's target threshold of 50/10 Mbps. Without significant improvements to broadband availability, particularly in the most isolated areas, the benefits of a mobile alerting app will remain uneven.

Because many rural and remote communities lack the population density to attract broadband investment on a purely commercial basis, it may be necessary for municipalities to partner with the federal government, provinces, and industry groups to ensure residents' needs are met. Funding programs should permit rural municipalities to be partners in constructing broadband infrastructure and, where appropriate, in providing broadband service. Moreover, funding must prioritize the most underserved areas with the poorest connectivity, rather than targeting communities that are only slightly below the 50/10 threshold; no community should be left behind, and funding should not be allocated to areas already meeting the 50/10 standard until that benchmark is achieved nationwide.

Finally, any new mobile alerting application should be integrated with Alberta's existing emergency alert system and application. Ensuring interoperability between the federal NPAS app and Alberta Emergency Alerts would reduce confusion, avoid fragmented messaging, and provide rural residents with a more reliable and consistent source of critical information during emergencies.

Should Wireless Service Providers (WSPs) be required to provide alerting over 3G networks? What technical or economic challenges exist to doing so?

While RMA cannot comment on the technical or economic challenges due to a lack of technical expertise, RMA's response to the first part of this question is a resounding yes.

Public alerting through the NPAS should continue to be utilized for mobile devices connected to 5G or 4G LTE networks, but the NPAS should not be entirely reliant on the latest technology, as the supporting infrastructure and networks required to send alerts to these devices is not yet fully developed and service issues are already widespread in rural Alberta.

In many places across rural Alberta, including along major highways, cellular device users will often watch their reception change from 5G, to LTE, to 3G, and back again in a matter of kilometres. Ensuring that alerting is sent over 3G networks will increase rural Albertans' ability to receive public alerts through the NPAS.

How can the Commission improve the current reach of WPA to rural, remote, and Indigenous communities in Canada through regulatory measures? What other means should the Commission consider to support the distribution of public alerts to Canadians that are not currently served by WPA?

From a regulatory perspective, imposing mandates on Canadian telecom companies could improve the current reach of WPA to rural, remote, and Indigenous communities in Canada. Mandates could include:

- **Expanded network coverage obligations:** Requiring wireless providers to meet minimum geographic coverage gaps in sparsely populated areas, where alerts struggle to reach residents.
- **Tie spectrum licensing to WPA performance:** Making WPA coverage and reliability a condition of spectrum license renewals or new allocations, with measurable benchmarks and penalties for non-compliance.
    - In addition, spectrum policy should address the practice of large telecom providers bidding for and holding spectrum without deploying it effectively, which prevents smaller or alternative providers from accessing bandwidth that could be used to expand service. Releasing or reallocating underutilized spectrum could help increase coverage in rural dead zones and ensure that spectrum resources are used in the public interest.
- **Mandating device testing:** Relying on telecom-provided data is efficient, but not effective. Instead, mandating device testing in rural or remote areas with accompanying public reporting could lead to positive developments for WPA and the NPAS.

In terms of other approaches to improving the reach of WPA in rural, remote, and Indigenous communities, the simplest solution – albeit likely the most expensive – would be to institute a satellite-based alerting system. While this would require the integration of existing cellular infrastructure and systems with satellites, it could theoretically reach every phone across Canada, irrespective of how rural or remote the community is.

In the absence of this technological approach being taken, RMA would advocate for increased funding for cellular infrastructure, as well as increases in monitoring and reporting, to improve the efficacy and reach of WPA. For those Canadians not currently served by WPA, community-based alerting infrastructure such as FM/AM radio, local TV channels, or public alert sirens and digital signage could also improve the ability of the NPAS to reach these Canadians.