

# A Strategy for Northern Quebec Regional Trains



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Cover Image: Train approaching Hervey, David McCormack photograph.

## Executive Summary

VIA Rail's northern Quebec trains service a vast and varied geographic area, from large cities to small villages through the Laurentian mountains. Unfortunately, the current services through this area are two of VIA's top three most subsidized trains. This would indicate that the service could do better at meeting the needs of the region's inhabitants and visitors. This might be because the equipment is mis-sized, service is unreliable, scheduling not convenient, or a little bit of each. It doesn't have to be this way. With concerted effort these services could become well used.

This paper outlines nine potential steps that VIA should investigate to improve this service. The suggestions include timetable changes, investment in assets, and rethinking the marketing of the trains. These suggestions could be instituted individually, partially, or in the whole, with the goal of making the essential service that these trains provide more financially sustainable.



*Trains 601 and 603 leaving Montreal for Jonquière and Senneterre*

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## Introduction

VIA Rail groups their trains into three reporting segments: The Quebec City to Windsor corridor, Long Distance (The Canadian & The Ocean), and Mandatory. The Mandatory service is also called Regional Trains. These trains tend to serve low population density areas of the country where alternative modes of transportation are difficult to use or non-existent, such as the Hudson Bay from Winnipeg to Churchill. While servicing towns and villages without alternative options is their *raison d'être*, VIA's regional service sometimes services cities with sizable populations. VIA's service in northern Quebec combines a little bit of both, with the Senneterre train servicing small hamlets north of Shawinigan, while the Jonquière trains terminates in the highly populated Saguenay Lac Saint Jean region. Both routes operate three days a week.

When VIA took over service from CN and CP, these trains were a daily overnight service. The train to Jonquière left Montreal at 21:05 (19:35 on Saturdays) and arrived in Chicoutimi at 6:50 in the morning. The train to Senneterre left Sainte Foy at 20:40 and met another train that left Montreal at 19:35 arriving in Senneterre at 10:15. This train continued to, and terminated in, Cochrane, Ontario. The return trains left at 22:58 (21:05 on Mondays) and 19:10 respectively. They would arrive in Montreal at 9:05 (6:45 on Mondays).

The figure displays four pages of a VIA Rail timetable for Quebec regional trains as of June 1981. Each page contains detailed scheduling information for specific routes, including train numbers, departure and arrival times, and station names. The routes shown are: 14. MONTRÉAL - CHICOUTIMI, 15. CHAMBORD - DOLBEAU, 16. QUÉBEC (STE-FOY) - CHAMBORD, 17. SHERBROOKE - MONTRÉAL, 18. QUÉBEC (STE-FOY)/MONTRÉAL - SENNETERRE, 19. SENNETERRE - COCHRANE, 20. SENNETERRE - VAL-D'OR, and 21. VAL-D'OR - ROUYN-NORANDA. The timetable includes columns for train numbers, routes, departure and arrival times, and station names. It also features a 'REFERENCE MARKS/SYMBOLS' section at the bottom of each page, providing a key for various symbols used throughout the schedule.

Figure 1: VIA Rail timetable for Quebec regional trains, June 1981

A couple of years later VIA changed the schedule so that the train to Jonquière left at 12:30 and the train to Senneterre left at 20:00 arriving at 22:15 and 9:40 respectively. VIA also had a train that left Montreal at 18:40 and met the Quebec City train in Hervey at 22:35. In reverse, one would hail the train from Jonquière at 9:09 and arrive for a late dinner in Montreal at 18:25. The train from Senneterre would leave at 20:45 and arrive at 10:55, after a refreshing sleep. From this schedule you can see that it was possible for someone living in Shawinigan to go to Montreal for business or pleasure in the morning and

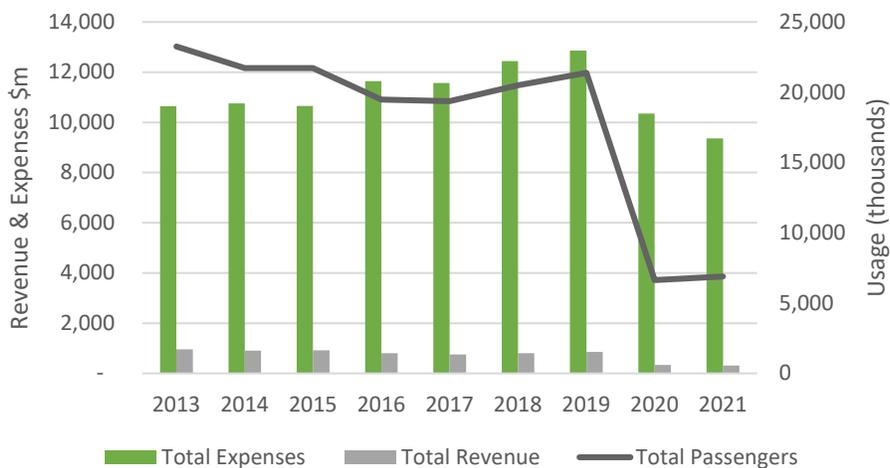
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return home in the evening. The same was true for someone in Montreal. They could visit a customer or family in Joliette for the afternoon. These same individuals would have to take two days, the further one took the train.

Where does that leave us now? These trains, as previously mentioned, operate every other day. The same individuals could visit a business associate or friend but they would have to stay the night because the trains leave from Montreal at 8:15, split in Hervey at 11:30 and return the next day at 17:15 (20:15 on Sundays). This assumes that the train arrives on time, which unfortunately is a faulty assumption, as these trains are notoriously late. As a result, VIA is not able to guarantee connections to any other of their corridor trains the day of arrival, so the poor traveler on these trains would be required to book a hotel in Montreal before continuing their journey to another city on the corridor.

They are notoriously late because these trains operate at a leisurely pace. There hasn't been much change in the speed during VIA's tenure, with a slight increase in average speed to 35-39mph (56-60km/h). Track condition and CN's refusal to prioritize passengers rail dispatching over freight could be a significant factor. Delayed trains increase VIA's expenses, because the company pays for extra wages for train and station staff, wasted fuel, and sometime provides discounted tickets for future travel.

Even with these deficiencies the trains together have the largest use among VIA's Regional Services, with an average of 21,000 annual riders in the seven years before 2020. That would be 34 individuals per train. Another thing that is one of the largest, unfortunately, is the operating subsidy per passenger mile, which averaged \$2.85 in the same period. This compares to \$2.54 for other mandatory services and \$0.32 systemwide.



*Figure 2: Ridership and financial performance*

This regional service departs Montreal with two locomotives, two baggage cars, and two coaches (before buffer cars were added). The trains operate in tandem until reaching Hervey, which is around three hours into the trip. This section passes through Joliette and Shawinigan, each with a population of around 50,000 each. The other stops have populations that are a few thousand or less. The train travels through Repentigny, with a population of 86,000, and L'Assomption, with a population of 23,000, without stopping. East and North of Hervey, the population drops until reaching the termini, which are Jonquière (Saguenay) with a population of 161,000 and Senneterre with 3,000.

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The federal government has provided VIA with capital over the past 12 years to improve their assets. This capital has provided new train sets being delivered for the Windsor-Quebec City corridor, and to improve track and stations, also mostly within the corridor. With around 95% of VIA’s passengers taking a train in the corridor it is only natural that this investment was targeted to the areas with the greatest ridership. For long-distance and regional services, the “Heritage program” sought to extend the life of antiquated rolling stock and locomotives, although it has become increasingly obvious that the life expectancy of equipment built in the 1940s and 1950s can only be extended so far and at escalating cost. The Quebec regional trains haven’t been a significant beneficiary of this investment, leaving various deficits that need addressing. Below are nine suggested actions that VIA could employ to address these deficits in order to increase usage and decrease losses.

### Action step 1: Separate the Senneterre and Jonquière trains

VIA already operates two trains. This requires two sets of equipment, staff, and fuel. The problem is they operate together. If they operated on sequential days, then individuals at stops between Montreal and Hervey would have twice as many opportunities to take the train. This would improve the utility and viability of taking the train over other modes. This section also has the largest population on the lines.

This change would result in an increase in VIA Rail’s operating costs, including paying CN for additional train paths between Montreal and Hervey Junction and additional head-end crew hours between Montreal and Garneau, where the Jonquière crew is currently based. However, revenue should grow faster than expenses, which would decrease the subsidy needed to operate the service.

Another benefit of splitting these trains is the potential for improvements to on-time-performance. Currently if one train is late to Hervey, the other must wait, even if it is on time. With separate trains there would be no waiting, allowing the trains to continue to Montreal without delay, and reduced dwell time.

↓ Read Down			Read Up ↑		
601	603	<b>Train</b>	604	600	602
1 3 5	2 4 6	<b>Days/Jours</b>	1 3 5	2 4	7
<b>08:15</b>	<b>08:15</b>	Montréal	<b>17:15</b>	<b>17:15</b>	<b>20:15</b>
<b>09:38</b>	<b>09:38</b>	Joliette	<b>15:54</b>	<b>15:54</b>	<b>18:54</b>
<b>10:43</b>	<b>10:43</b>	Shawinigan	<b>14:48</b>	<b>14:48</b>	<b>17:48</b>
<b>11:30</b>	<b>11:30</b>	Hervey	<b>14:00</b>	<b>14:00</b>	<b>17:00</b>
↓	<b>14:44</b>	Weymont	<b>10:26</b>	↑	↑
↓	<b>19:20</b>	Senneterre	<b>06:10</b>	↑	↑
<b>16:40</b>	-	Hébertville	-	<b>08:39</b>	<b>11:39</b>
<b>17:10</b>	-	Jonquière	-	<b>08:10</b>	<b>11:10</b>
<i>8h55</i>	<i>11h05</i>	<b>Duration</b>	<i>11h05</i>	<i>9h05</i>	<i>9h05</i>

Table 1: Schedule using alternating days.

A further variation could provide a fourth train each week on one of the routes, resulting in daily service between Montreal and Hervey. Sidings for a meet at Rivière-à-Pierre or Lac Édouard make this simplest to achieve on the more populated Jonquière route.

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↓ Read Down			Read Up ↑		
601	603	<b>Train</b>	604	600	602
1 3 5 6	2 4 7	<b>Days/Jours</b>	1 3 5	2 4 6	7
<b>08:15</b>	<b>08:15</b>	Montréal	<b>17:15</b>	<b>17:15</b>	<b>20:15</b>
<b>09:38</b>	<b>09:38</b>	Joliette	<b>15:54</b>	<b>15:54</b>	<b>18:54</b>
<b>10:43</b>	<b>10:43</b>	Shawinigan	<b>14:48</b>	<b>14:48</b>	<b>17:48</b>
<b>11:30</b>	<b>11:30</b>	Hervey	<b>14:00</b>	<b>14:00</b>	<b>17:00</b>
↓	<b>14:44</b>	Weymont	<b>10:26</b>	↑	↑
↓	<b>19:20</b>	Senneterre	<b>06:10</b>	↑	↑
<b>16:40</b>	-	Hébertville	-	<b>08:39</b>	<b>11:39</b>
<b>17:10</b>	-	Jonquière	-	<b>08:10</b>	<b>11:10</b>
<i>8h55</i>	<i>11h05</i>	<b>Duration</b>	<i>11h05</i>	<i>9h05</i>	<i>9h05</i>

Table 2: Schedule adding Saturday service.

### Action Step 2: Introduce trains from Garneau to Montreal

As previously mentioned, the section between Montreal and Hervey is the most populated portion of the line. Residents of these communities need to visit Montreal for the day, for business, healthcare and education. If residents are required to travel the day before and stay overnight, the train increases their costs and is a less attractive option. These residents might also require connections with trains to somewhere else in the corridor, or to take a flight from an international airport. This is not possible with the current schedule.

To rectify this, VIA could offer a train that leaves Garneau for Gare Centrale in the morning and returns after business hours going east. Having the possibility of a return train to Montreal from any of the cities along the route would allow residents and businesspeople to complete their task in the city and return home within the same day.

↓ Read Down		Read Up ↑
610	<b>Train</b>	611
1234567	<b>Days/Jours</b>	1234567
<b>07:05</b>	Garneau	<b>21:43</b>
<b>07:25</b>	Shawinigan	<b>21:18</b>
<b>08:35</b>	Joliette	<b>20:05</b>
<b>09:30</b>	Sauvé	<b>19:11</b>
<b>10:10</b>	Montreal	<b>18:30</b>
<i>3h05</i>	<b>Duration</b>	<i>3h13</i>

Table 3: Example Garneau to Montreal schedule

This schedule would also allow for onward trips to locations further west, leveraging the network effect to reinforce demand for train service, and attracting additional trips in the corridor.

This service would redeploy crew currently based in Garneau if the Jonquière train is separated and crewed from Montreal. Garneau-based crews should be able to return home the same day using a long-split duty pattern.

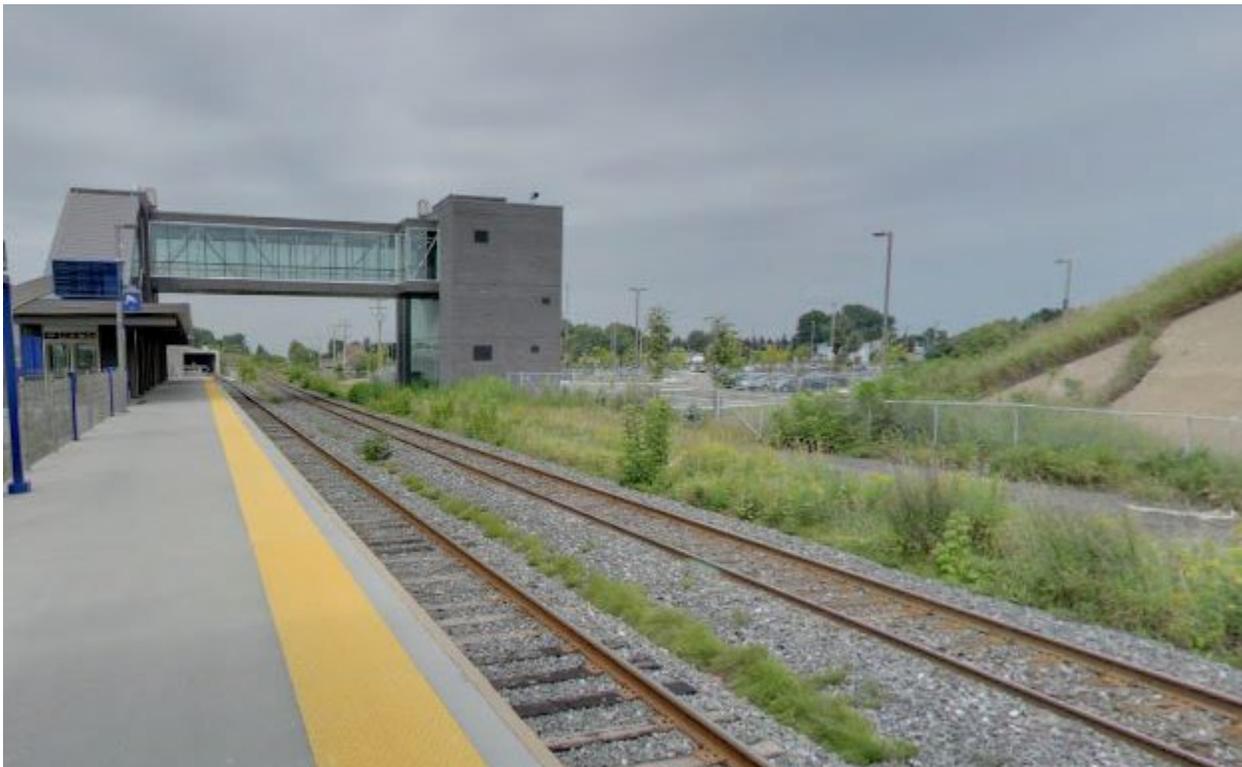
VIA could consider using one of their new Venture trains for this type of service. This would make the journey comfortable for users and it will allow VIA to maximize revenue by selling business class seats. This new equipment would be oversized initially, but as patronage increases VIA would have space to grow. Additional departures could be added, such as a mid-day return trip, as demand increases.

**Action Step 3. Investigate new stops in Repentigny, L'Assomption, and L'Epiphanie**

The goal of any service should be to benefit the most individuals with the least cost. The trains pass through three cities close enough to Montreal to have multiple methods of transport, but just far enough away that transit options to Montreal are time consuming or limited.

Repentigny is a station near the end of Montreal's Exo5 commuter rail service. It is a park and ride station that had an average weekday ridership of 7,400 in 2016 on 16 bi-directional trains that also terminate at Gare Centrale or at Ahuntsic. The station is intermodal, with bus bays for five local transit routes. Exo trains use the north platform of this two-track station, while VIA Rail uses the southern track.

Adding a new stop at Repentigny would require a modest investment to construct either a new platform on the south track or a crossover at the eastern end of the station. The benefit of adding service at this location, where the majority of the infrastructure is in place, is that it would supplement the frequency of the current weekday train services and offer a weekend service, making it more useful for passengers.



*Picture 1: Repentigny station from north platform*

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L'Assomption is a city of 23,442 residents and L'Épiphanie has a population of almost 8,900. The towns are connected to each other by transit with local bus route 6. Either town could support a station, or both. It would be a question of balancing speed and number of stops. Of the two towns, L'Épiphanie has more limited transit options, with just the one bus route. Adding a stop in L'Assomption would connect with at least three bus routes, which would allow the buses to collect passengers for the train to take them either east or west.

### **Action Step 4: Invest in the Joliette station**

The current station in Joliette is pretty but has seen better days. With bracing inside and out, it is surprising that it is still being used. This might be because it is a historic station near downtown. While it is usually advisable to invest in repairing our historic train stations to give them a new lease on life, in Joliette's case, it might be better to rethink its location. That is because the regional bus station that connects Joliette to Montreal and other local areas is only a few blocks away and adjacent to the tracks. A new station that combines both VIA and the bus could reduce costs and increase integration between the two services. Alternatively, inviting the MRC de Joliette to use the renovated VIA station as a multi-modal transit hub could share costs and increase integration between both regional bus, local transit, and train services.



*Picture 2: Joliette station showing outside bracing.*

**Action Step 5: coordinate with regional bus and transit services**

Passenger trains are strengthened when it is easy to transfer between different modes. Many leading locations worldwide employ this strategy to increase the network effect of trains by allowing passengers to transfer to local transit and vice versa. Here in Canada, we have taken tentative steps in this direction. VIA does have some integration with GO Transit and the UP Express for example.

In northern Quebec, outside of greater Montreal, there are transit services in Joliette, Jonquière, and Shawinigan. Of these three cities, Jonquière is the most integrated because the VIA station is at the transit hub. Completing the previous step would help with Joliette. In Shawinigan, the transit buses pass within some 125 metres of the station, but it would require a passenger to climb up an embankment through a thicket. The better solution would be to work with the city of Shawinigan to make the station a transit hub, with their two bus routes or the shuttle circuit stopping at the station. It would also be advisable to have the inter-municipal service move the Shawinigan stop from the Shell station in town to the train station. This would allow passengers to wait in the station until their train or bus arrives. It would also allow an individual to transfer between the two modes, such as someone from Trois-Rivières. These changes would require some investment in a better parking lot, a bicycle parkade, and bus bay.

This type of investment at Shawinigan station would also support VIA's collaboration with Parks Canada to provide public transportation to visitors to La Mauricie National Park, fulfilling a government promise to make travel to Canada's National Parks more accessible and affordable.

All cities along the route can benefit from slight changes in schedules or smart infrastructure investments like the above. Doing so would be a huge improvement, making individuals trips as seamless as possible. Of course, improved integration can only go so far if the trains don't run on time. The next two suggested steps help address that issue.



*Picture 3: Shawinigan station - David McCormack Photograph*

### **Action Step 6: Update equipment**

Canada is finally getting new equipment for the corridor. This is welcome because the LRC, HEP1 and HEP2 coaches that make up the bulk of VIA's fleet are at or past the end of their useful life. In 2022, concerns about the structural condition of the aging stainless steel HEP1/2 fleet forced VIA to add additional unoccupied buffer cars to their long distance and regional train as an added safety precaution. There is no question that new trains will need to be purchased soon, and VIA has submitted a business case to Transport Canada for this.

When VIA purchases replacement long-distance and regional service equipment, it is important that these new trains are appropriately sized for their expected usage, and regional trains have different requirements from long-distance overnight trains.

Replicating the current practice of a separate locomotive for one passenger car per destination would be inefficient, increasing both capital and operating costs. Instead of this model, many rail providers worldwide use Diesel Multiple Unit (DMU) equipment to provide frequent service to less populated areas like those found in Northern Quebec. Example of modern DMUs include Stadler's FLIRT, which is being used in Ottawa, or Alstom's Coradia family, and these trains are now also available in hydrogen-powered zero-emission versions. For this route and similar regional routes, the equipment would need to be configured with generous baggage space for canoes, bikes, and other outdoor equipment, and a small galley for food and beverage service.

### **Action Step 7: Infrastructure Improvements**

Like most of VIA's network, the company's northern Quebec trains run on infrastructure owned by a host railway, Canadian National. VIA has shown that it can work with CN to jointly fund improvements that benefit both companies. The northern Quebec routes are prime candidates for this partnership. The end of the signaled section is currently just outside Repentigny station, and there are sections with Rule 105, which means slow 15mph operations, track on both routes to Senneterre and Jonquière. Both call out for investments.

One possibility is to increase the amount of track that is signaled. Signaled track allows for higher operating speeds and a safer operation. In northern Quebec signals could be added all the way to Shawinigan. It is obvious that VIA and CN would not signal the full route, but adding signals on these 72 miles would allow the trains go faster in the most populated section, which will make them a more attractive travel option.

Rule 105 sections tend to be in yards or short section of track, such as a junction or diamond with another carrier. Rule 105 sections are almost always in un-signaled areas. As a result, it won't be possible to remove every Rule 105 section, but making incremental improvements to tracks will help minimize them. With improved track, trains will be able to journey faster and smoother, which will help passengers for sure.

**Action Step 8: Extend train service to Val D’Or**

Adding service to larger population centres makes the trains more fiscally sound. Val-D’Or is the largest city close to the current terminus in Senneterre. Extending the service an additional 56 kilometres to this city would make the service available to ten times the number of residents. Unfortunately, the average speed of service is currently 60 km/h, which means that extending the service would add an additional hour of travel time and crew scheduling to an already long trip. Improvement to the speed of service, as outlined in the steps above, would need to occur before this extension could be considered.

This type of improvement would benefit not just locals, but also tourists. The Senneterre line goes through the rugged beauty of the Laurentian mountains. Senneterre itself has a population of just 2,700 and no hotels or motels, whereas Val D’Or with a population of 34,000 has many options to select from. Tourists are less likely to take a train if there are no accommodation options when they alight. Having Val D’Or as the terminus would allow tourists to have a place to stay and enjoy the greater Abitibi-Témiscamingue region. It would also allow the tourist to connect with the Autobus Maheux network, expanding the experience even more. Tapping into these new markets would result in a significant improvement in train patronage.

VIA could also experiment with the schedule. As previously outlined in the introduction, this service at one point was a night train. During the summer of 2022, VIA also ran this service overnight due to infrastructure issues. The company might want to consider formalizing this because the distance between La Tuque and Senneterre, while scenic, is lightly populated. Having a train travel through this region during the night would allow someone to leave Montreal in the evening and wake up refreshed in Senneterre or Val D’Or in the morning. Of course, new long-distance equipment would be a prerequisite for this change, and it would be harder to take advantage of more efficient multiple unit trains.



*Picture 4: Northbound trains at Hervey Junction*

### **Action Step 9: Concentrated Marketing of the Line**

These lines traverse the beautiful Laurentian mountain range. Rail-based tourism is particularly attractive to the segment of the market seeking historical, cultural, and Indigenous learning experiences as part of their trip and willing to pay higher prices. With a little bit of creative thinking, VIA could come up with various strategies to capitalize on this natural asset. This might mean working with another company, such as a cruise line or resort operator, to provide an experience for travelers that will fill the seats. This could also include partnerships with tourism operators in northeastern Ontario and Ontario Northland to create combined offerings once the train service between Cochrane and Toronto is reinstated in 2026.

VIA could also try to go it alone, for example introducing a package holiday that will take travelers from Montreal to Jonquière by train, Jonquière to Quebec City by motor coach, and Quebec City back to Montreal by corridor train including hotels and meals along the way.

### **Summary**

VIA's cost to provide the service to both Senneterre and Jonquière in 2019 was almost \$13m and revenue was around \$800,000, producing a deficit of around \$12m. This is obviously not sustainable financially, but the service is needed for the smaller villages and lodges along the route that don't have travel alternatives, so it costs a lot to provide the service for each individual passenger. A large portion of the costs are fixed, so adjustments to attract more passengers would make better use of those expenses, and of all VIA's mandatory remote services, the ones in northern Quebec may offer the most straightforward opportunities for improved performance with the suggested changes.

The goal would be to move the southern half of the service closer to what is seen in the corridor, where the Toronto to Sarnia service, for example, attracts stronger ridership while serving a city not much larger than Shawinigan.

The nine suggested improvements are not an exhaustive or exclusive list. What they are is a list of changes that can be instituted incrementally so that they increase demand, improve the asset, and to reduce or share costs. There might be other improvements that haven't been considered that could also improve the financial performance for VIA. What is clear, however, is that the Federal government should provide VIA some flexibility to pursue alternatives to the current practice, and capital to improve the route. A little investment and hard work will allow Quebec to have a successful service that will benefit the northern regions with increased economic growth and opportunities for residents.