Long-Term Integrated Interprovincial Crossings Plan for the National Capital Region

A Strategic Plan for Interprovincial Crossings and Sustainable Transportation for the National Capital Region

Approved Plan | January, 2022

National Capital Commission
Commission de la capitale nationale

Canada

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Long-Term Integrated Interprovincial Crossings Plan for Canada's Capital Region

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Executive Summary

The National Capital Commission (NCC) Long-Term Integrated Interprovincial Crossings Plan for the National Capital Region: A Strategic Plan for Interprovincial Crossings and Sustainable Transportation for the National Capital Region ("the Strategic Plan") sets out a vision for the interprovincial movement of people and goods in the National Capital Region today and towards 2050. It includes key directions, strategies and initiatives to help the region achieve common goals and objectives along with a monitoring framework to measure qualitative and quantitative monitoring indicators and targets over the short, medium and long terms. Its purpose is to inform interprovincial decisions in ways that are sustainable, equitable and environmentally sensitive that work towards creating a more liveable and prosperous region.

The key findings of the analysis and the Plan include:

People going to work and heavy truck movements represent the biggest challenges for interprovincial travel. The commuting peak is when congestion is heaviest; however, managing demand, either through shifting more people to transit, increasing shared space offices or increasing work-from-home, are impactful strategies. A key component of interprovincial commuter travel is related to the federal policy for a 75% / 25% distribution of regional federal employees between Ottawa and Gatineau. This distribution ratio is assumed to continue into the future for the purposes of this study. Meeting the challenge of reducing the volume and impact of heavy trucks in the core area will also require more than a new interprovincial crossing.

Increased congestion and travel times are inevitable with a growing population and downtown employment areas. It is important to recognize that accommodating growth in travel demand solely through building more vehicular lanes will only lead to further congestion. Transit, walking and cycling would be more attractive if they provide more reliable, comfortable and time-competitive travel options.

Opportunities to enhance vehicular capacity are limited in the core area. However, analysis shows there is significant opportunity to increase the people moving capacity of the existing crossings within the core through transportation initiatives. The planned transit projects are important to meet growth in travel demand. Analysis of the West Gatineau Tramway and the downtown transit loop shows that it can contribute significantly to meet the needs of interprovincial travel by increasing people moving capacity.

Analysis shows that diverting heavy trucks from the core area will require more than a new crossing, such as removing Rideau Street and King Edward Avenue from the truck route system, as proposed by the current City of Ottawa Transportation Master Plan.

Diverting heavy truck travel from the core area will require more than a new crossing. Efficient and well integrated interprovincial freight movement is essential to the economic vitality of the Capital Region. A new interprovincial crossing combined with municipal measures to prohibit heavy trucks from the King Edward-Rideau-Waller-Nicholas corridor will be most effective in the diversion of heavy trucks from the core area. These are considerations to be examined by the new Sixth Interprovincial Crossing Office recently announced in federal Budget 2021.

The Vision for Interprovincial Transportation in 2050

The Strategic Plan Vision: By 2050, the transportation network to cross the Ottawa River will provide well-connected and sustainable travel options that contribute to a high quality of life and economic prosperity in the National Capital Region. The system of crossings will support equitable mobility and the safe and efficient movement of people and goods, while respecting the region's natural environment and cultural heritage.

Developed in consultation with regional municipal, provincial and federal agencies, stakeholders and the public; the vision for the Strategic Plan sets a sustainable path to achieve common goals and objectives under five strategic pillars:

- One Region (Transportation Integration)
- Sustainable Use of Crossing Infrastructure
- Environment and Climate Change
- Economy; and,
- Quality of Life.

Testing Plan Directions

Based on existing and anticipated conditions, if current trends hold, the National Capital Region (NCR) will face significant transportation challenges in 2050 if no action is taken. As a part of the strategic planning process, several scenarios were prepared and tested to compare how different transportation initiatives and investments would impact travel patterns and behaviour in the NCR. These scenarios fell under two broad categories:

1. **Making better use of existing crossings:** actions, including enhanced transit service, reconfiguration of existing crossings and strong policies to manage interprovincial travel demand.
2. **Investing in major infrastructure:** investments in new infrastructure to address 2050 transportation demands, such as new multi-modal crossings of the Ottawa River, a downtown traffic tunnel or urban bypass routes.

The analysis of these two categories and respective scenarios showed that there are opportunities to make better use of existing crossings by managing current travel demand. Managing demand could include shifting trips to more sustainable modes and enhanced work-from-home and remote work place strategies. These would provide opportunities to accommodate short-term growth while further studies take place on a new interprovincial crossing.

The system of crossings will support equitable mobility and the safe and efficient movement of people and goods, while respecting the region's natural environment and cultural heritage.

Overall Plan Directions

Based upon the analysis of existing and future conditions and the testing of policy and infrastructure scenarios, five overall directions for the Strategic Plan are identified:

1. **A Flexible Framework:** Flexible framework to guide interprovincial mobility
2. **Better Data:** Updated data to ensure decisions are fact-based and reflect evolving conditions
3. **Regional Collaboration:** Collaborative and coordinated interprovincial transportation planning and service delivery among the levels of government
4. **Recovery Opportunities:** Leverage opportunities in post-pandemic recovery
5. **Sustainability focus:** Prioritize sustainable mobility and climate resilience through targeted investments and optimization

These five directions were then applied to the pillars that the Strategic Plan is centred on:

- **Moving Together as One Region:** The National Capital Region includes several municipalities and two provinces. Meeting future interprovincial travel needs will require continued collaboration and shared decision making.
- **Encouraging Sustainable Mobility:** An important part of sustainable mobility is efficiently moving people and goods on the existing crossings. This involves offering comfortable and convenient transportation choices that are competitive with personal vehicles.
- **Protecting the Environment:** Transportation is a large source of greenhouse gas (GHG) and other air pollutants; reducing these emissions, including overall automobile dependency, and implementing climate change resiliency into designs are large parts of achieving climate change goals.
- **Supporting Economic Prosperity:** The interprovincial crossings play a vital role for travel within the region and, more broadly, connecting the provincial and national highway networks.
- **Improving Quality of Life:** The transportation system plays an important part in maintaining and enhancing quality of life in the National Capital Region by providing reliable and safe travel options as well as managing negative externalities caused by transportation, including provision of accessible and reliable transit services and managing heavy truck movements.

As the National Capital Region continues to grow, a more formalized governance for regional and interprovincial transportation planning and investment could be beneficial to support enhanced collaboration, coordination and cooperation.

The Strategic Framework

This Strategic Plan categorizes leading initiatives by the following three broad timelines that would phase the collective efforts towards achieving the shared vision:

- **Short-Term / Bold Starts (immediate to five-year horizon):** represents immediate strategies and quick wins that have a very strong potential to move towards achieving goals and objectives.
- **Medium-Term / Initiating Change (five-to ten-year horizon):** represents strategies that can be taken in the near term that can play a greater role in shifting interprovincial travel behaviour.
- **Long-Term / Sustaining Progress (beyond ten years):** represents longer-term strategies either where implementation requires further study or where the action may be influenced by the performance of others pursued under bold starts or initiating change.

Governance

As the National Capital Region continues to grow, a more formalized governance for regional and interprovincial transportation planning and investment could be beneficial to support enhanced collaboration, coordination and cooperation. The Strategic Plan does not recommend a model for governance for interprovincial travel or regional transportation in the National Capital Region. However, it does lay initial groundwork by establishing a common vision and objectives, assessing the general needs and gaps, continuing conversations between NCR agencies and outlining potential governance models.

Monitoring Framework

Given that the Strategic Plan is intended to be a flexible living plan, systematic monitoring of progress towards the vision and goals is important for informing future updates. This Plan draws on existing approved multi-jurisdictional plans and documents, many of which include quantifiable objectives for similar broad goals. These have been integrated into the objectives of this Plan and will also inform the monitoring framework. Towards this effort, two quantitative approaches for monitoring have been developed as part of this Plan to be further reviewed and refined over time using the most up-to-date information.

- **Forecasting indicators:** these indicators were used to evaluate the 2050 scenarios during the Strategic Plan development process.
- **Monitoring indicators:** these indicators are intended to provide present-day snapshots of progress towards the vision and provide an indication of how implemented strategies are working.

The National Capital Commission (NCC) acknowledges that the National Capital Region, in which it carries out its mandate, is situated on the unceded territory of the Algonquin Anishinabeg Nation. The NCC recognizes the important place that the Algonquin Nation has had in the past and will continue to have in the future of the Capital. The NCC values Indigenous heritage and knowledge and commits to continue working collaboratively with local Indigenous leaders and peoples to build a sustainable Capital Region.

1 Introduction

The National Capital Commission is a federal Crown corporation with a broad mandate to build a dynamic and inspiring capital that is a source of pride and unity for Canadians and a legacy for future generations.

1.1 The Strategic Plan

The National Capital Commission (NCC)'s Long-Term Integrated Interprovincial Crossings Plan for the National Capital Region: A Strategic Plan for Interprovincial Crossings and Sustainable Transportation for the National Capital Region (the Strategic Plan) sets out a vision and strategies for the interprovincial movement of goods and people in phases towards 2050. The Strategic Plan supports the continued successes of the region while promoting the unique cultural, recreational and symbolic role of the National Capital Region (NCR).

The NCC has a mandate from the federal government to develop the Strategic Plan in collaboration with provincial and municipal governments, including:

- Ministry of Transportation of Ontario;
- Ministère des Transports du Québec;
- City of Ottawa, including OC Transpo;
- Ville de Gatineau; and,
- Société de transport de l'Outaouais (STO).

1.2 The National Capital Commission and National Capital Region

The National Capital Commission is a federal Crown corporation with a broad mandate to build a dynamic and inspiring capital that is a source of pride and unity for Canadians and a legacy for future generations. The NCC fulfills this mandate through its roles as the long-term planner of federal lands, principal steward of nationally significant public spaces and creative partner for development and conservation.

The National Capital Region (NCR) is a rapidly growing area located on both sides of the Ottawa River. It includes the cities of Ottawa (Ontario) and Gatineau (Québec) and the surrounding rural municipalities. There are seven active interprovincial crossings between Ontario and Québec in the NCR: five bridges and two ferries. The region is set to grow significantly between now and 2050. The NCC has been mandated to prepare this Plan that identifies strategies and supporting policies for the interprovincial movement of people and goods in ways that are sustainable and equitable, and that support a more liveable and prosperous region.

1.3 The Process: How We Got Here

The Strategic Plan was developed in four phases, starting from spring 2020 and ending in fall 2021 (Figure 1.1).

Figure 1.1: The Strategic Plan Development Process

Phase 1 **Assess Needs & Opportunities**	Spring 2020	Identified existing plans and policies of local agencies and reviewed existing travel patterns and forecasts to identify needs and opportunities.
Phase 2 **Establish Vision & Goals**	Summer/ Fall 2020	Established a vision, supporting goals and objectives to guide scenario development in Phase 3 and the final Strategic Plan development in Phase 4.
Phase 3 **Develop & Evaluate Future Scenarios**	Winter 2020/ Spring 2021	Developed and evaluated a series of conceptual scenarios to identify potential solutions to achieve the vision.
Phase 4 **Develop the Strategic Plan**	Summer/Fall 2021	Identified a series of potential short- and long-term strategies to achieve the vision and a monitoring framework to measure progress towards the vision.

1.4 Timing of Upcoming Data

The Strategic Plan and its analyses used the most up-to-date data for population and employment forecasts and regional transportation travel data. These include origin-destination survey data from 2011 and commercial vehicle data from 2007. This data was adjusted based on known trends; however, recent impacts from the pandemic and the accelerating evolution in mobility will need to be better understood.

The Strategic Plan is a "living document" that will be updated as conditions evolve over time.

It is anticipated that the NCR-household origin-destination survey will be undertaken in fall 2022, with results available in 2023. This data will update the understanding of travel patterns, purposes, modes and travel demand forecasts. NCR municipalities are also investigating the possibility of updating trucking data through a commercial vehicle survey in the next few years. This survey would provide detailed origin-destination information for trucks moving through the NRC. Population and employment forecasts for Gatineau and Ottawa are also routinely updated as part of the ongoing planning process.

1.5 Relationship to Other Relevant Studies and Initiatives

There are several other relevant transportation studies and initiatives underway that are important to monitor as this Strategic Plan is updated in the future. These studies, initiatives and plans include:

- Establishment of a new Sixth Interprovincial Crossing Office as per federal Budget 2021;
- Establishment of a new NCC Transit Office as per federal Budget 2021;
- Studies/plans by the STO related to the West Gatineau Tramway, including the final alignment;
- The Ottawa Transportation Master Plan Update;
- STO and OC Transpo transit service plans;
- The Alexandra Interprovincial Bridge replacement project;
- Any future studies related to a potential Interprovincial downtown transit loop.

These studies will include recommendations, either infrastructure, policy or both, that will influence, at least in part, the broader interprovincial transportation network, including interprovincial transportation patterns.

Updates to the Strategic Plan

The COVID-19 pandemic has resulted in unprecedented change, with drastic impacts on health, economy, environment and society.

The Strategic Plan draws on the currently available information to consider how the pandemic will affect cities in the future.

However, the National Capital Commission acknowledges that there is uncertainty about the long-term implications of the pandemic and a need for ongoing monitoring and integration of updated data.

Updates to regional travel data are expected to begin in late 2022, with results available in 2023. The Strategic Plan is intended to be reviewed and revised after these updates are complete.

The feedback from these various groups demonstrated strong support for the vision, goals and objectives of the Strategic Plan. Key priorities, needs and desires for these groups were also identified.

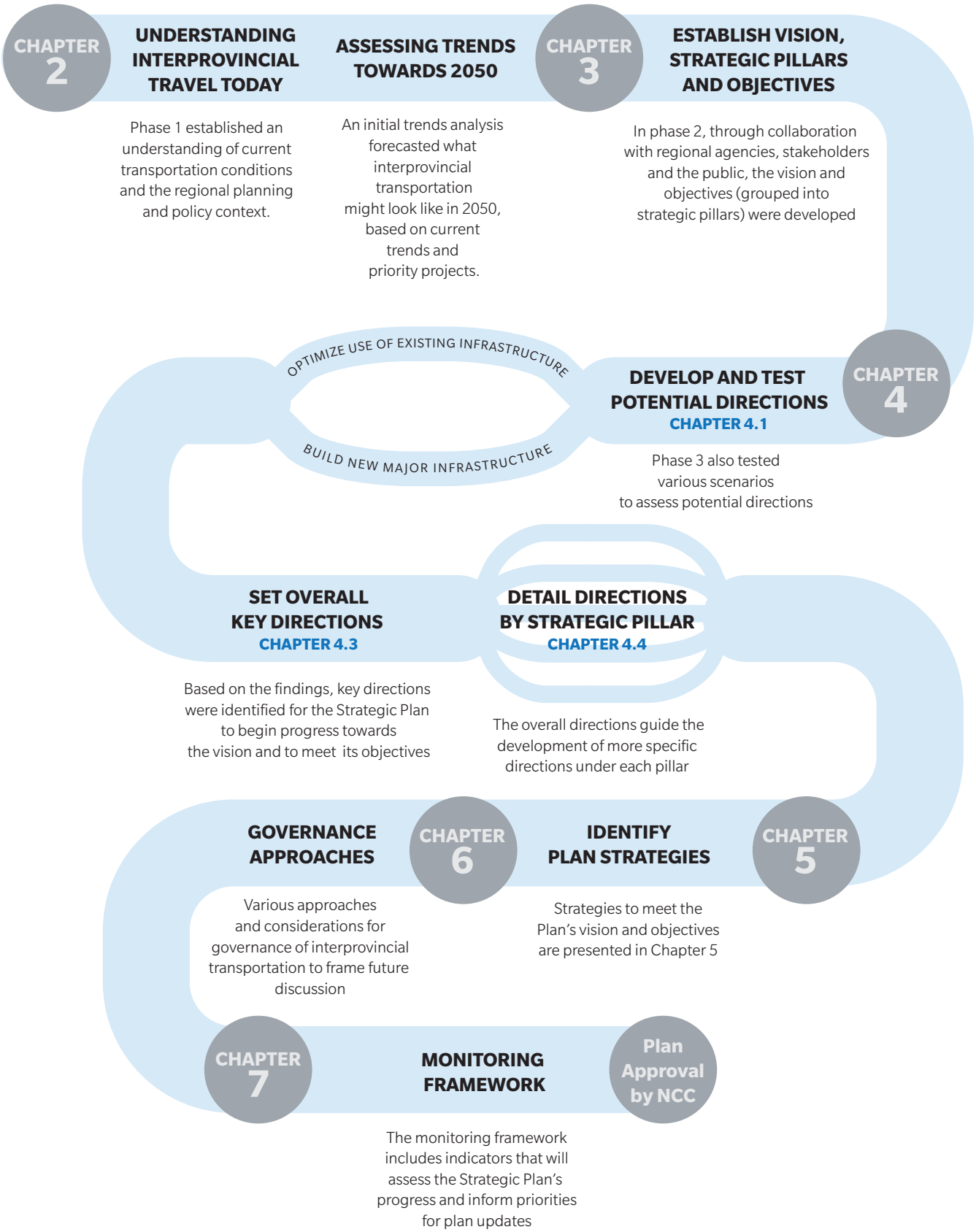
1.6 What We Heard

Consultation was an important part of the Strategic Plan. A range of engagement strategies were used to reach members of the public, associations and businesses, in addition to extensive consultation with other federal, provincial and municipal partners and regional transit operators in the NCR. The feedback from these various groups demonstrated strong support for the vision, goals and objectives of the Strategic Plan. Key priorities, needs and desires for these groups were also identified. These were then used to refocus the Strategic Plan to support local community needs.

Key issues identified include:

- The need to manage the impact of interprovincial truck traffic on neighbourhoods and communities;
- The need to protect the environment and reduce climate change impacts;
- The need to consider all modes, including sustainable modes and personal vehicles; and
- The need to look at interprovincial transportation as an integrated system that includes more than just the crossings.

1.7 How to read the Strategic Plan



2 National Capital Region: Today and Towards 2050

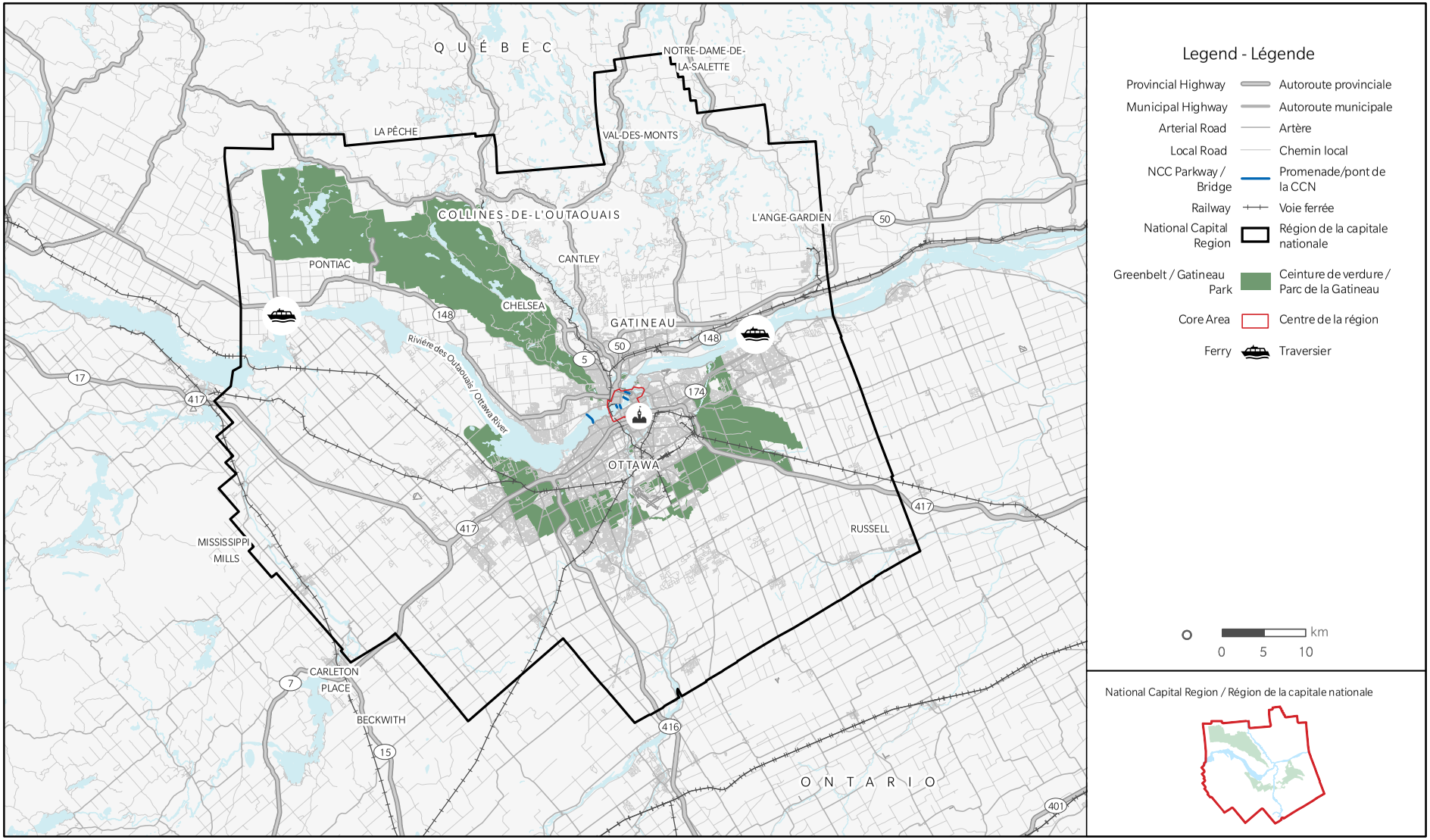
The National Capital Region is set to experience significant growth between now and 2050. More people and jobs in denser areas present opportunities to be harnessed and demands to be managed.

2.1 National Capital Region Today

The National Capital Region (NCR) covers an area of 4,715 km^2. It straddles the Ottawa River and includes the cities of Ottawa (Ontario) and Gatineau (Québec), as well as surrounding rural municipalities. Provincial transportation is under the jurisdiction of the Ontario Ministry of Transportation (MTO) and the Ministère des transports du Québec (MTQ). In 2016, the NCR was home to approximately 1,260,000 people and 627,000 jobs. The interprovincial crossing system in the NCR includes two ferry crossings and five active bridges.

The two main transit agencies in the NCR are OC Transpo (Ottawa) and the Société de transport de l'Outaouais (STO, Gatineau). OC Transpo currently provides seven conventional transit routes that cross the interprovincial bridges, while the STO has more than 30 routes. Rural transit services in the Outaouais are provided by Transcolline, while rural municipal transit services in the Ottawa area are provided by several providers including Leduc Bus Lines and 417 Bus Lines. Both Gatineau and Ottawa have downtown cores that are well served by rapid transit and both have plans to extend their respective rapid transit networks. While the two rapid transit networks do not currently physically connect across the Ottawa River, the STO has recently proposed a West Gatineau Tramway to downtown Ottawa that includes improved connections. The NCR also includes a robust cycling network, particularly in the downtown core. This includes both shared and separated paths and reflects Ottawa and Gatineau's commitment to increasing the number of people who travel by cycling.

Figure 2.1: National Capital Region



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2.2 Land Use Planning (Roles and Responsibilities)

The roles and responsibilities for land use planning throughout the NCR are complex due to the involvement of multiple levels of government – the federal government, and the provincial and municipal governments. In addition, the NCC has a planning mandate established under the National Capital Act, which states that the NCC is responsible to:

"prepare plans for and assist in the development, conservation and improvement of the National Capital Region in order that the nature and character of the seat of the Government of Canada may be in accordance with its national significance."

The National Capital Act authorizes the NCC to construct infrastructure, engage in joint projects with local municipalities and authorities, maintain property, preserve historic places and conduct research related to planning in the NCR. The NCC's planning framework requires all individuals and federal organizations to get NCC approval before undertaking projects on federal lands or in federal buildings in the NCR.

Overarching Foundational Documents

The Strategic Plan draws on a wide range of existing plans and documents at various government levels. This is to ensure that the Strategic Plan aligns with the goals, objectives and policies of other plans and documents applicable to the NCR. These foundational documents include federal, provincial and municipal plans that cover a range of topics, such as land use, zoning, urban design, heritage, Indigenous peoples, environment and transportation among others. Key plans are listed below.

National Capital Commission

- *Plan for Canada's Capital (2017-2067)* defines an overarching vision and strategic planning direction for the entire National Capital Region over a 50-year time horizon.
- *Capital Urban Lands Plan (2015)* is a land use plan. It provides detailed direction and guidance for the use and stewardship of urban federal lands.
- *NCC Sustainable Development Strategy (2018-2023)* defines the NCC's role in creating a greener and more sustainable NCR that will thrive for future generations.

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Provincial governments

- *Preserving and Protecting our Environment for Future Generations: A Made-in-Ontario Environment Plan* is intended to provide general guidance and principles to achieve a balance between meeting Canada's 2030 reduction targets under the Paris Agreement and economic prosperity.
- *Plan d'action 2013-2020 sur les changements climatiques* presents actions required in all the sectors of the economy to reach the objective of reducing Québec's GHG emissions to 20% below the 1990 GHG emissions levels by 2020.
- *Politique de mobilité durable du Gouvernement du Québec: transporter le Québec vers la modernité (2018)* includes sustainable mobility policies, actions and monitoring for the sustainable movement of people and goods to the year 2030.

Municipal governments

- *City of Ottawa Official Plan (2003)* provides a vision for the future growth of the city and a policy framework to guide the city's physical development to the year 2031. The Official Plan is currently being updated.
- *Ville de Gatineau - Schéma d'aménagement et de développement révisé (2015)* provides a direction that reflects the planning orientations, priorities and values of the Ville de Gatineau over the horizon 2016 to 2050.

  It includes the action to work with regional partners to maintain freight transportation on the King Edward-Rideau-Waller-Nicholas (KERWN) corridor in Ottawa in the event of a bridge being built in the eastern part of the region.
- *City of Ottawa Transportation Master Plan (2013)* has a strong focus on supporting active mobility and transit projects, recognizing the past imbalance in the funding of auto-centric projects. The Transportation Master Plan is currently being updated.

  The current plan states that the City will remove Rideau Street and King Edward Avenue from the City's identified truck route system once a safe and efficient alternative is found.

Previous Interprovincial Transportation Planning and Related Studies

- *Strategic Transportation Initiative for Canada's Capital Region (2005):* Outlined the mandate, strategies and actions for the NCC's role in the planning and implementation of transportation infrastructure supporting the NCR.
- *Interprovincial Crossings Environmental Assessment Study Transportation Report Final (2013):* The NCC, in partnership with the MTO and the MTQ and in cooperation with the two municipalities, initiated the Interprovincial Crossings Environmental Assessment Study in 2006. The multi-phased study examined "reasonable options to improve interprovincial transportation capacity across the Ottawa River to address long-term needs." The study was terminated in 2013 due to a lack of consensus among the study partners leading to the rejection of Kettle Island as the study's preferred corridor for a new interprovincial crossing.
- *Interprovincial Transit Strategy for Canada's Capital Region (2013):* This was a collaborative effort between the City of Ottawa, the Ville de Gatineau, the STO and the NCC. The strategy recommended policies and measures towards a seamless interprovincial transit system.
- *Downtown Ottawa (Truck) Tunnel Feasibility Study (2016):* This feasibility study by the City of Ottawa was in response to the critical concerns regarding truck traffic between Highway 417 and the Macdonald-Cartier Bridge. The tunnel would provide a diversion route for heavy trucks from the surface road network.
- *STO - Étude complémentaire pour la réalisation d'un système de transport collectif structurant dans l'ouest de la ville de Gatineau (Additional study for a structuring public transit system in Gatineau's west end) (ongoing):* This study by the STO analyzed the possibilities for improving transit in west Gatineau to support continued residential growth and to mitigate mobility challenges. In 2020, the study confirmed the need for a tram, utilizing the Portage Bridge to reach Ottawa.

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The NCR is the centre of Federal Government activity, and this area has a higher number of public administration jobs than the national average. There are 134,000 public administration jobs, representing almost 17 percent of jobs for the entire area.

2.3 People and Jobs in the National Capital Region

The City of Ottawa ("Ottawa") in Ontario as well as Ville de Gatineau ("Gatineau") and Les Collines-de-l'Outaouais Regional County Municipality ("Les Collines-de-l'Outaouais") in Québec are the three key municipalities in the NCR. The population in these three municipalities has increased 32% overall between 1996 and 2016 at an average annual growth rate of 1.4%.

On the Gatineau side, employment is mainly concentrated in the central Hull sector with some employment north on Autoroute 5 and east on Autoroute 50. On the Ottawa side, there is a strong concentration of employment downtown near the bridges (similar to Gatineau), but there are other hubs of employment, some adjacent to major transit stations, in the city. In 2011, average vehicle ownership rates were 1.3 vehicles per household in Ottawa, 1.4 in Gatineau and 2.0 in Les Collines-de-l'Outaouais. Higher levels of vehicle ownership are expected in rural areas given reduced transit alternatives.

In 2016, there were approximately 627,000 jobs in this area (including full-time, part-time and work-at-home), and a total employed resident labour force of about 643,000. Ottawa is home to 81% of jobs in the NCR and has approximately 30,000 more jobs than resident workers. This surplus of jobs attracts workers to travel across the river from Gatineau and Les Collines-de-l'Outaouais, where the number of workers exceeds the number of jobs.

A wide range of industries is represented in the NCR. The NCR is the centre of federal government activity, and this area has a higher number of public administration jobs than the national average. There are 153,000 public administration jobs, representing almost one-quarter of jobs for the entire area. In this growing region, construction employment has many jobs, especially in the fastest-growing municipality of Les Collines-de-l'Outaouais. The NCR has a strong professional, scientific and technical services focus, most of which is located in Ottawa. The NCR has a reduced focus on manufacturing, primary industries and wholesale trade compared to the rest of Canada. These types of industries rely heavily on the movement of goods and benefit greatly from strong inter-regional connectivity, which are both constrained in the NCR.

2.4 Existing Interprovincial Crossings

There are seven existing interprovincial crossings in the NCR: five bridges and two ferries.

Figure 2.2: The Interprovincial Bridges: Key Facts [1, 2]

	Champlain Bridge	Chaudière Crossing	Portage Bridge	Alexandra Bridge	Macdonald-Cartier Bridge
Construction Date	1924-28	1919	1973	1898-1900	1963-65
Length	1.1 km		700 m	563 m	618 m
Ownership	NCC	PSPC*	NCC	PSPC*	PSPC*
Structure Type	Concrete girder bridge	Steel truss bridge	Girder bridge	Steel truss cantilever bridge	Continuous steel box girder bridge
General Purpose Lanes	2	2	4	2	6
High-Occupancy Vehicle (HOV)/ Transit Lanes	1 (central lane in peak travel direction)	-	2	-	-
Roadway Capacity (vehicles per hour)	1200 per direction +1200 HOV in peak direction	1600 per direction	2400 per direction	2000 per direction	4800 per direction
Transit Service	STO	OC Transpo	OC Transpo STO	none	STO
Walking and Cycling Infrastructure	Sidewalk - east side; Unidirectional painted bike lanes on paved road shoulders	Physically separated sidewalk - east side; Unidirectional painted bike lanes on road shoulders	Sidewalks - both sides; Bidirectional physically separated cycle track - east side	Wooden-plank pedestrian access added in 1950; now split into pedestrian path and directional cycle lanes	Physically separated multi-use path - both sides
Daily Heavy Truck Volumes[3]	Restricted	1200 daily Seasonal load restrictions	Restricted	Restricted	3050 Full load allowance
Daily Auto and Light Truck Volumes[3]	44,000	15,783	23,743	17,300	72,800
AM Peak Hour Autos[4]					
Towards Ontario	2400 vph	1550 vph	1900 vph	700 vph	4372 vph
Towards Québec	500 vph	750vph	1550 vph	550 vph	1577 vph

Notes:

1 There are also two ferry crossings at the eastern and western edges of the Natioinal Capital Region.

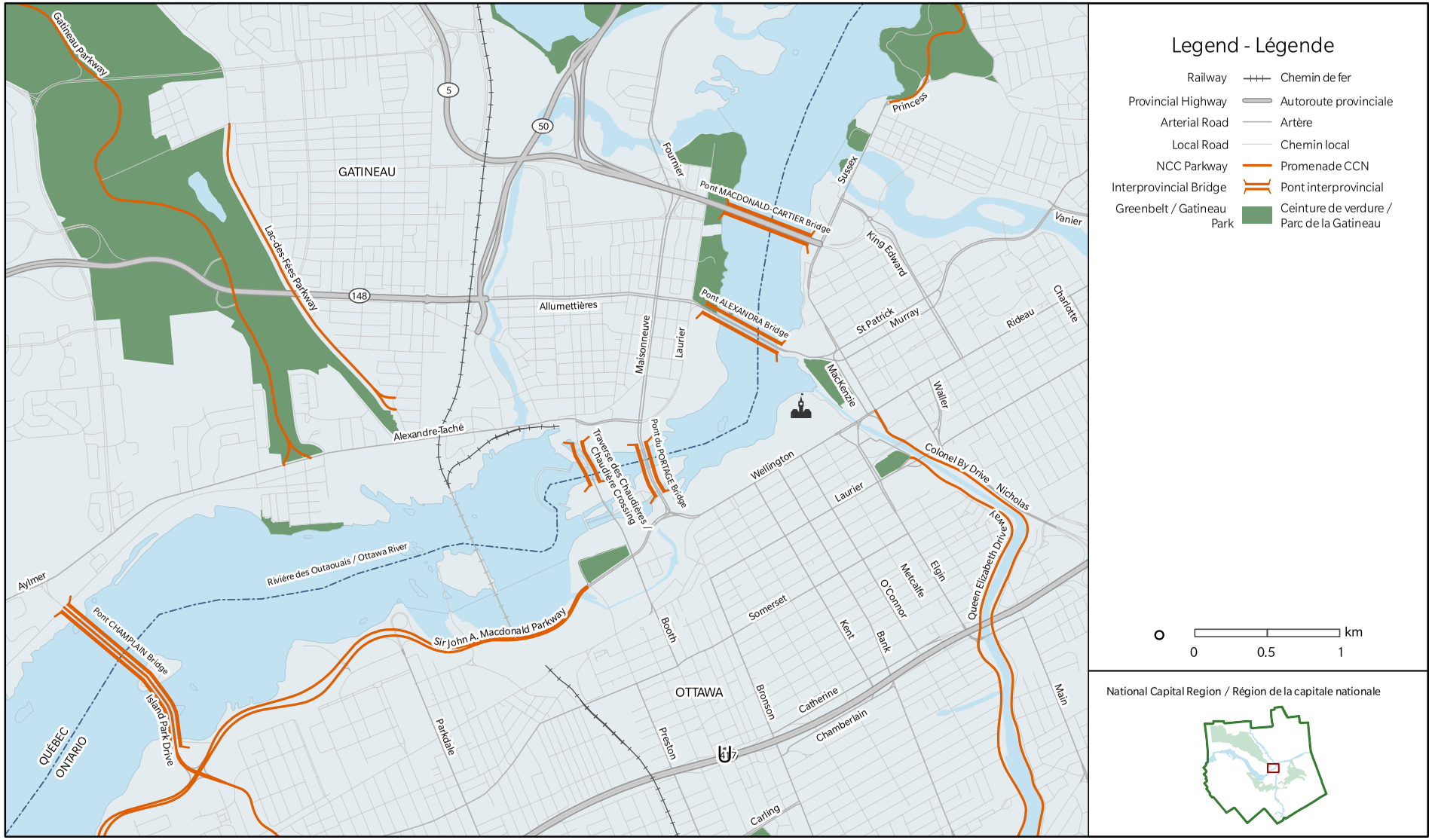
2 The Chief William Commanda Bridge (formerly the Prince of Wales Bridge) will be available for active transportation in 2022.

3 Source: 2019 City of Ottawa Screenline Traffic Counts; Miovision Nov 2021 Traffic Counts

4 Source: CIMA+: Étude d'impact et d'avant-projet pour un lien cyclable sur la rue Laurier à Gatineau, 2017

*: Public Services and Procurement Canada (PSPC)

Figure 2.3: Existing Interprovincial Crossings



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2.5 How we travel today in the NCR

While traffic volumes on the five interprovincial bridges have largely been consistent between 1995 and 2017, the capacity of the crossings is approached or exceeded on all five crossings in the morning rush hour period. This results in significant traffic congestion and delays. The highest-volume crossing is the Macdonald-Cartier Bridge, with approximately 36% of interprovincial traffic volumes in the morning rush hour period. The lowest-volume crossing is the Alexandra Bridge, with approximately 10% of interprovincial traffic volumes in the morning rush hour period. The use of sustainable transportation modes has significantly increased. Between 1996 and 2011, the number of rush hour trips towards Ontario on transit more than doubled and by bicycle more than quadrupled. Despite this increase in sustainable travel modes, car travel remains the most common way of crossing the river.

Almost 70% of interprovincial trips in the morning rush hour are from Québec to Ontario, while approximately 60% of trips in the afternoon rush hour are from Ontario to Québec. This trend is most prominent on the Macdonald-Cartier and Champlain bridges, where there are approximately three times as many trips from Québec to Ontario in the morning rush hour compared to trips in the opposite direction. Automobiles, buses and pedestrians all follow this travel pattern.

Interprovincial trips represent almost 10% of all travel in the NCR during the morning rush hour period with almost all of those trips (90%) being work-related. Approximately 30% of the interprovincial travellers in the morning rush hour period use public transit; which is about 10% higher than any of the surrounding municipalities during the same time period. Public transit is commonly used to access central employment areas during the morning rush hour period. These transit users on the Québec side are quite dispersed throughout Gatineau and Les Collines-de-l'Outaouais. There are also concentrations of employment around the bridges, and people come from throughout the NCR to reach these employment areas.

Freight transportation by road between the provinces is only permitted on the Macdonald-Cartier and Chaudière bridges. Full loads are permitted on the Macdonald-Cartier bridge, while only restricted loads are permitted on the Chaudière bridge. Neither bridge connects directly to the Ontario provincial highway system, so trucks must travel through neighbourhoods and the downtown area in Ottawa. This causes safety concerns and other negative impacts such as noise, vibration and increased congestion in these areas.

The use of sustainable transportation modes has significantly increased. Between 1996 and 2011, the number of rush hour trips towards Ontario on transit more than doubled and by bicycle more than quadrupled.

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More than 51,000 trips are made every morning rush hour between Ottawa and Gatineau.

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Interprovincial trips represent almost 10% of all travel in the NCR during the morning rush hour period with almost all those trips (90%) being work-related.

2.6 Key Interprovincial Transportation Issues

Six key interprovincial transportation issues facing the NCR today were identified based on an analysis of existing conditions and stakeholder engagement.

Congestion on crossings: Many vehicles cross the river during the morning rush hour period, resulting in traffic congestion when vehicular capacity is reached. Numerous automobiles often carry only one person and occupy more road space per person than other sustainable transportation methods (such as public transit, carpools and people walking or biking).

Indirect routes for trucks: Trucks do not have a direct connection from the Ontario highways to the bridge crossings and currently travel through Ottawa's downtown core and neighbourhoods near the bridges. In addition, households and businesses in Gatineau are largely served by distributors and warehouses located in Ottawa or elsewhere in Ontario, increasing the demand for interprovincial goods movement. This results in safety concerns and negative impacts such as noise and traffic congestion in the downtown core and local communities.

Population growth in Gatineau: Despite the population and employment trends for the NCR overall, in Gatineau the population is expected to grow faster than the number of jobs. As a result, many people need to commute across the river into Ottawa in the morning for work and return to Gatineau in the afternoon. This can result in significant travel delays on the crossings and highlights the need to accommodate growth in ways that ensure equity of access to employment opportunities.

Sustainable transportation limitations: While the downtown cores of both Ottawa and Gatineau are well serviced by public transit, suburb-to-suburb travel between the provinces can be challenging and inconvenient. Furthermore, while there are ongoing and planned improvements to the active mobility networks in both Ottawa and Gatineau, the networks on either side of the river are not well connected due to the reliance on existing crossings. This can make it challenging to efficiently travel between the provinces by cycling or walking.

Lack of space around the crossings: There is a lack of space at the entrances and exits to the existing crossings due to existing urban built form and important heritage, ecological and other considerations. Combined with the congestion on the crossings, this causes further travel delays for vehicles, cyclists and pedestrians. Enlargement of approach roads to existing bridges is therefore not feasible.

Regional governance and decision making: The cities of Ottawa and Gatineau, and provincial and federal agencies, often collaborate on interprovincial transportation studies and operations, particularly in the delivery of cross-river transit services. There remain opportunities to improve collaboration and coordination between these various agencies while respecting the responsibilities and policies of each organization.

Interprovincial travel between Ottawa and Gatineau is a critical part of the transportation network in the NCR that unifies the region, and the crossings currently face many challenges. The Strategic Plan is an important step to improve regional governance and decision making about interprovincial transportation.

Trucks do not have a direct connection from the Ontario highways to the bridge crossings and currently travel through Ottawa's downtown core and neighbourhoods near the bridges.

2.7 Emerging Trends

There are numerous emerging trends that are impacting cities today. The COVID-19 pandemic, new technologies and changing development patterns all impact how, when and why people move. While the direct result of these trends is not yet clear, future transportation systems should be planned and designed with an understanding that these emerging trends may involve both risks and opportunities. Monitoring is required for transportation systems to adapt to changing travel patterns that are driven by these trends.

Work-from-home levels: The COVID-19 pandemic has resulted in an accelerated shift to remote working. However, the extent to which current work-from-home levels will remain in the long term is unclear. The study incorporated remote work levels based on the needs of various employers in the NCR and the most up-to-date information available at the time. However, these work patterns are likely to change and vary between industries in the future. Supporting higher levels of remote working is an opportunity to reduce commuting trips and promote sustainability. Increased flexibility in working hours resulting from these models can also help to manage travel demand.

E-commerce: E-commerce has been growing in North America in recent years and experienced a significant increase during the COVID-19 pandemic. Many residents have discovered new home delivery services or increased their patronage of existing ones to shop for a wide range of products and services. If these trends continue there could be a sustained higher demand for these services well after the pandemic is over. In that situation, the interprovincial bridges would likely see more goods movement from heavy trucks making long-distance trips, as well as smaller delivery vans and cargo e-bikes making deliveries. Curbside management is a key consideration as these vehicles will be making frequent stops for short periods of time.

Complete community policies: The cities of Gatineau and Ottawa's planning policies include direction towards complete communities, where people can live, work and play within the same area. The current forecasts suggest that the population will outpace employment in Gatineau, with many people commuting from Gatineau to Ottawa for work. However, this may change as Gatineau's policies encourage economic growth and increases in local employment.

Congestion pricing: Congestion pricing is a tool that charges a fee on users in congested areas to incentivize other forms of transportation. This can take a variety of forms, such as tolls or broader area-wide pricing strategies. This tool has the potential to encourage more efficient use of existing capacity and influence travel demand on the interprovincial crossings and could be considered in the future.

Automated vehicles (AVs): Automated vehicles have the capability to perform driving tasks without a human operator. These vehicles fall on a spectrum regarding the degree of automation, but companies are researching and developing cars capable of higher levels of automation that would require significantly less human intervention. The timeline for widespread use of AVs is uncertain, with estimates varying widely. Once fully implemented, these vehicles may improve safety and capacity on crossings, since they can travel closely together without human error. However, congestion may increase since fully automated vehicles could entice more people to travel by car. Goods movement may also change with the adoption of more automated technology. Transit is an early opportunity for automation to improve quality of service and reliability; Ottawa's O-Train currently operates with automated train control.

Electrification: Many auto manufacturers have been heavily investing in their capacity to produce battery-powered, plug-in electric vehicles (EVs). As investments have increased and more government subsidies and grants have become available, EVs have become more commonplace on the streets of Ottawa and Gatineau. This has the potential to significantly reduce emissions but raises questions of how municipalities should effectively implement charging networks.

Transportation connectivity: Vehicles and remote systems can communicate wirelessly in real time. This enables fare payment systems between transit agencies to be integrated, real-time reporting of where vehicles are and how often they are used, dynamic prices for transportation infrastructure that can adjust based on how much the infrastructure is used, and connectivity between vehicles and other vehicles as well as infrastructure. This has the potential to improve transportation safety and efficiency given the increase in available real-time information. Many cities have started to implement supporting infrastructure on their transportation networks.

Shared transportation: Shared transportation involves multiple people using the same transportation resource. This has already been widely commercialized through ride-hailing. Shared use of bikes, electric scooters and other personal mobility vehicles is also growing. This may result in an increase in their use for short trips between the downtowns, or the use of shared transportation by local businesses for goods delivery. However, these shared transportation modes can be challenging to regulate, particularly between municipalities and provinces, and may increase conflicts between users on the curbs in busy downtown areas.

Shared transportation involves multiple people using the same transportation resource. This has already been widely commercialized through ride-hailing.

With input from NCR agencies on transportation priorities, the Strategic Plan explored what interprovincial travel could look like in 2050 based on current trends.

Mobility as a Service (MaaS): A growing opportunity emerges to offer mobility—the ability to travel from one place to another—as a service rather than selling vehicles or rides on individual modes of transportation. This is termed "Mobility as a Service", or MaaS. MaaS offers travellers a single platform to manage trips across all modes. The vision is that a user will enter their starting point and desired destination, and a central platform would scan all modes of travel across public and private-sector services to plan the optimal route. Ticketing, trip booking and payment processing would all be handled by the platform. MaaS has the potential to make it easier for residents to discover and use sustainable shared-ride options; however, it also may increase the use of single-passenger autonomous vehicles and congestion. Further challenges also exist related to data privacy between private mobility providers and governments and implementing a sustainable business model when aggregating multiple private mobility providers into a single platform.

2.8 Interprovincial Travel in the NCR in 2050

The population and employment in the National Capital Region are expected to grow by 40% and 60%, respectively, between 2016 and 2050. This could result in a 50% increase in the number of people travelling between the provinces.

With input from NCR agencies on transportation priorities, the Strategic Plan explored what interprovincial travel could look like in 2050 based on current trends.

Key questions included:

- How would travel needs change between today and 2050?
- How would transportation improvements currently planned, such as the West Gatineau Tramway, influence access to opportunities in the NCR?
- How would the current transportation challenges look in 2050 and what new challenges would arise?

It was important to forecast to the future to understand the gaps between where we are likely headed versus the vision and objectives of the Strategic Plan.

Unknowns and Uncertainties

As with all long-term planning, there are many unknowns and uncertainties that can influence outcomes. The pandemic is highlighting how context and needs can rapidly shift. These are some of the key elements that can impact the Strategic Plan:

Extending rush hour periods

As the number of people crossing the river is forecasted to grow, the rush hour periods may start earlier and end later. This extension of the rush hour periods is influenced by when commuters choose to travel and increasing flexibility in work schedules.

Long-term work-from-home levels

The Strategic Plan assumed an overall work-from-home level of 15% in 2050 based on current expectations. Shifts in this percentage would have a major impact on rush hour demand on interprovincial crossings.

Change in retail and goods movement

The acceleration of online shopping means more deliveries at all times of the day. How companies manage this increase in demand is uncertain.

Impact of induced demand

Induced demand is the concept of "build it and they will come" or "add vehicular capacity and they will come." This can be negative, in the case of road infrastructure that may induce more driving and suburban sprawl, but can also be positive, with the provision of separated bike lanes to encourage cycling.

Changing investment priorities

The status and timing of projects reliant on multiple levels of government approvals and funding is subject to change, influencing the projected outcomes of the Strategic Plan

Rate of economic growth

The Strategic Plan is based on population and employment projections based on most-likely scenarios of economic growth. How the pandemic and resulting economic recovery will influence development and travel patterns is not yet known.

The Strategic Plan assumed an overall work-from-home level of 15% in 2050 based on current expectations.

In 2050, rush hour transit use into Ottawa is expected to more than double, compared to 2011.

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Morning rush hour congestion is expected to grow by approximately 50% between 2011 and 2050.

In Ottawa, jobs increase more than the population, while in Gatineau, population increases more than jobs. This results in a continued growth in the number of people travelling from Gatineau into Ottawa for work and overall increase in interprovincial travel by 50%. Coordination and integration between the agencies on both sides of the river has led to major transportation improvements, such as the proposed West Gatineau Tramway. These improvements help to facilitate travel connections across **one region** and help to provide equitable access to opportunities.

The transportation improvements assumed for 2050 include rapid transit investments that improve transit speed and reliability. This contributes towards a more **sustainable use of crossing infrastructure**, as the overall mode share for transit, walking and cycling is expected to increase by 10% compared to 2011. Morning rush hour transit ridership towards Ottawa is expected to grow by 106% as a result of transit expansions and people taking transit to avoid congestion. This significantly increases the people-carrying capacity of the crossings.

This increase in the proportion of trips made by sustainable modes, in addition to adoption of zero-emission vehicles, has positive effects on the **environment and climate change** as GHG emissions are reduced.

Despite transit improvements and assumed increases in work-from-home levels, there will continue to be congestion and delays on the crossings, largely experienced by people in automobiles and trucks. Morning rush hour congestion is expected to grow by 53% between 2011 and 2050. Congestion-related delays have negative impacts on the **economy**, as spending time in traffic prevents people from contributing to the economy and increases the time it takes for goods to be transported. Better transit service and dedicated infrastructure would help reduce delays for people crossing the river.

Heavy truck traffic is also anticipated to continue and increase as the lack of direct connection between Ontario highways and the crossings remains. This negatively impacts health, safety and **quality of life** as the trucks must travel through neighbourhoods and Ottawa's downtown core to reach the crossings. Heavy trucks also circulate in Gatineau's downtown core.

If current trends continue, the use of sustainable transportation modes will increase. However, the forecasted growth in population, employment and cross-river trips means that many of the current issues facing the NCR, identified this chapter, are anticipated to be exacerbated.

3 The Vision for Interprovincial Transportation in 2050

THE STRATEGIC PLAN VISION

By 2050, the transportation network to cross the Ottawa River will provide well-connected and sustainable travel options that contribute to a high quality of life and economic prosperity in the National Capital Region. The system of crossings will support equitable mobility and the safe and efficient movement of people and goods, while respecting the region's natural environment and cultural heritage.

Developed in consultation with municipalities in the region, stakeholders and the public, the vision for the Strategic Plan sets a sustainable path to achieve common goals and objectives under five strategic pillars:

- One Region (Transportation Integration)
- Sustainable Use of Crossing Infrastructure
- Environment and Climate Change
- Economy
- Quality of Life

Finding a balance and understanding the interactions between the pillars is one of the challenges of the Strategic Plan. Strategies that are highly beneficial to one pillar may come with negative consequences for another.

Finding balance and understanding the interactions between the pillars is one of the challenges of the Strategic Plan.

Figure 3.1: Strategic Pillars and Objectives

One Region (Transportation Integration)	**Physical Integration**	**Organizational Integration**	**Symbolic Integration**
	Well-connected Ottawa and Gatineau downtowns that serve as multi-modal transportation hubs Land use and transportation crossing infrastructure supporting each other	Meaningful involvement of all levels of government in interprovincial transportation plans and coordination in standards, regulations, maintenance and enforcement Meaningful opportunities to involve the Algonquin Anishinabeg	Context-appropriate design that preserves and enhances the character, unique cultural heritage and crossings' symbolic role in the nation's capital
Sustainable Use of Crossing Infrastructure	**Moving People and Goods More Efficiently**	**Comfortable and Convenient Transportation Choices**	
	Increased sustainable and space-efficient mode use for cross-river trips Reduced auto use and overall demand for peak interprovincial trips	Improved mobility options are available for cross-river trips	
Environment and Climate Change	**Environmental Quality**	**Resilience**	**Protected Environment**
	Reduced GHG emissions and air pollutants from transportation	Better withstand extreme weather disruptions associated with climate change	Reduce and then further mitigate disruption to natural areas, waterways and parks along the river
Economy	**Prosperity and Competitiveness**	**Connecting Beyond the Region**	**Efficiency and Fiscal Responsibility**
	Reduced delay for people and goods crossing the river Supporting tourism in the National Capital Region	Reduced travel time to connect between provincial highway systems	Controlled spending and sustainable funding sources for crossing infrastructure, services and maintenance
Quality of Life	**Balancing Goods Movement and a High Quality of Life**	**Safety and Security**	**Access to Opportunities and Nature**
	Improved community health and safety in the neighbourhoods adjacent to the crossings	Improved real and perceived traveller safety and comfort	Reduced travel time for cross-river trips mainly through decreased trip distance between place-of-work and place-of-residence Equitable access to efficient cross-river travel Increased access to the region's natural spaces

4 Plan Direction

Based on the existing conditions and anticipated conditions if current trends hold, the NCR will face significant transportation challenges in 2050 if no action is taken. Additionally, there are gaps between this trend-based 2050 NCR and the desired 2050 NCR outlined in the vision, pillars and objectives.

This chapter describes how the Strategic Plan addresses these challenges and fills these gaps. The key issues and opportunities were used to develop several scenarios that reflected different transportation initiatives and investments. These scenarios were used to set guiding directions for the overall Strategic Plan and recommend actions to meet the vision, pillars and objectives.

4.1 Testing Potential Directions

As a part of the strategic planning process, several scenarios were prepared and tested to compare how different transportation initiatives and investments would impact travel patterns and behaviour in the NCR. The analysis was based on future 2050 demand and compares performance against the baseline conditions described earlier in section 2.7.

As a part of the strategic planning process, several scenarios were prepared and tested to compare how different transportation initiatives and investments would impact travel patterns and behaviour in the NCR.

These scenarios fell under two broad categories:

1. Making better use of existing crossings

This direction included scenarios that focus on bold actions, including enhanced transit service, reconfiguration of existing crossings and strong policies to manage interprovincial travel demand.

Key questions that were tested in the scenarios under this category included:

- Can future interprovincial travel demand be accommodated without building new major infrastructure beyond what is currently planned?
- How does the location of work influence peak interprovincial travel patterns?
- What are the impacts of program-related initiatives, such as travel demand management measures and roadway reconfigurations?

What did we test?

- The influence of work-from-home and remote office/ shared work places on travel demand
- The effects of locating places of work in different areas within the NCR
- Expanded travel demand management programs for major employers
- Policies that restricted heavy truck movement in the core area

What did we find?

- There are opportunities to optimize the people carrying capacity of existing infrastructure.
- Work-from-home levels will reduce commute demand, only if coordinated so that not everyone travels to work on the same days
- Where people choose to reside has implications on travel demand given current employment locations
- Interprovincial heavy truck movements would not significantly be reduced within the core area without the implementation of truck traffic restrictions or truck route network changes by Gatineau and Ottawa affecting the Macdonald-Cartier Bridge and the KERWN corridor.

* Banning or restricting all trucks from the Macdonald-Cartier Bridge without a new river crossing would result in the diversion of trucks to the Chaudière Crossing

2. Investing in major infrastructure

This direction included scenarios that pursue further investments to address 2050 transportation needs, such as new crossings of the Ottawa River or urban bypass routes.

Key questions that were tested in the scenarios under this category included:

- How does a new interprovincial crossing impact travel patterns in the region? How does the location of this crossing affect its performance?

What other measures may be required to reduce the volume and impacts of heavy trucks? The analysis finds that new infrastructure alone will not solve the challenges created by heavy truck travel in the core area. The following are some non-infrastructure measures that can be explored:

- Expand truck restrictions, such as bans, which require collaboration with local municipalities to assess the availability of alternative routes and the resulting impacts on other communities and the economy.
- Reimagine goods movement logistics, such as the use of local distribution or consolidation centres where goods are transferred onto smaller vehicles at the periphery of an urban area. This would require collaboration with the goods movement industry.
- Integrate existing policies and plans, such as goods movement and truck route strategies being pursued by local municipalities.
- Encourage multi-modal goods movement, such as the use of cargo bikes for local deliveries, which is being explored by various companies in North America.
- It is important to note that the roles and responsibilities to implement these measures vary, requiring collaboration and coordination between the NCC, municipalities, industry partners and others.

- Can a transit-only crossing in the core area accommodate growth in travel demand without needing to build new car and truck capacity?
- Does new interprovincial vehicular infrastructure divert sufficient heavy truck and through traffic to adequately address quality of life concerns in the KERWN corridor?

What did we test?

- A new transit-only crossing in the core area to connect the West Gatineau Tramway into downtown Ottawa, instead of using existing lanes on the Portage Bridge
- Integrating the downtown transit loop with the West Gatineau Tramway, operating as LRT via a new transit-only crossing and the Alexandra Bridge
- The Ottawa traffic tunnel to connect the Macdonald-Cartier Bridge to Highway 417
- A new all-mode crossing in the east, west or both

What did we find?

- A new transit-only crossing in the core area would improve transit connectivity and increase people moving capacity where demand is greatest. Moving transit operations off the existing bridges would offer opportunities to enhance other modes of sustainable travel, such as high-occupancy vehicles or more protected space for walking and cycling.
- The analysis conducted through this study indicates that the traffic tunnel would reduce morning peak hour interprovincial heavy truck volumes in the KERWN corridor by approximately 33% in 2050.
- An important consideration is that the traffic tunnel would not provide alternative routes for truck travel across the Ottawa River, further increasing the reliance of goods movement on the Macdonald-Cartier Bridge.
- The eastern all-mode crossing has a comparatively higher potential to divert truck traffic from the core area and KERWIN corridor than a western one.
- A new crossing would provide an opportunity to divert most interprovincial heavy trucks not destined for the core area, such as logging trucks. The effectiveness to divert through-trips and inter-regional trips will be dependent on the location of the crossing, more direct connectivity to the provincial highway networks and travel time.
- Diverting heavy trucks from the core area will require more than a new crossing, such as removing Rideau Street and King Edward Avenue from the truck route system, as proposed by the current City of Ottawa Transportation Master Plan.

4.2 Summary of Key Findings

Interprovincial commute trips and heavy truck movement represent the biggest challenges for interprovincial travel

Trips to work create the most substantial rush hour for interprovincial travel demand. Population growth in Gatineau is resulting in the need for increased travel to job opportunities in Ottawa. While employment in downtown Ottawa and near transit stations is relatively easy to access by sustainable modes, there will remain jobs that are less accessible by transit, walking and cycling.

Heavy truck movement will also grow as demand for goods movement increases in the region, particularly with an increase in online shopping. Shifting goods movement by large trucks and tractor trailers onto smaller vehicles, modifying truck movement and delivery times, and diverting those vehicles onto alternative routes are goals that will require more discussion with industry stakeholders.

Growing cities face mobility challenges, particularly when there are few alternatives to driving and high concentrations of employment are located in downtown areas. The focus needs to shift towards managing the network to optimize use of available space, provide alternatives and improve reliability. There are unique opportunities within the context of the National Capital Region, including highly centralized employment in downtown Ottawa and Gatineau, where the federal government can continue to play a role in influencing employee travel behaviour and encourage self-sufficient communities. In addition, where congestion occurs in constrained locations, such as on the interprovincial crossings, there is more potential for shifting to sustainable modes.

The heaviest demand for interprovincial crossing is within the core area of Ottawa and Gatineau, near the areas of the existing crossings. However, providing additional routes within this area to increase capacity and to improve redundancy is a challenge. This includes the environmental sensitivity and geography of the Ottawa River, the protection of the visual landscape of Canada's Parliament, and the built-up communities on both banks of the river.

The construction of the West Gatineau Tramway and the under-construction Stage 2 of the Ottawa LRT will play a major role to accommodate the increase in travel demand by transit mode across the Ottawa River and the entire region. The higher-order transit projects also have the potential to influence land use, with greater transit-oriented mixed-use development and more people living and working adjacent to major transit stations.

Growing cities face mobility challenges, particularly when there are few alternatives to driving and high concentrations of employment are located in downtown areas.

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Increased congestion and travel times are inevitable with a growing population and downtown employment areas.

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Opportunities to enhance the vehicular capacity of existing crossings are limited in the core area.

-

The planned transit projects are important to meet growth in demand.

Diverting heavy truck travel will require more than a new crossing.

Heavy truck travel is concentrated in the downtowns and core area of the region, a combined effect of being the most direct route for both through traffic and the destinations of goods deliveries in the urban areas within the region. A new interprovincial crossing in the east combined with municipal measures to prohibit heavy trucks from the KERWN corridor will be most effective in the diversion of heavy trucks from the core area. Improved goods movement logistics and shifting of deliveries to smaller trucks and different times of day would also help to reduce impacts.

4.3 Overall Strategic Plan Directions

Based upon the analysis of existing and future conditions and the testing of policy and infrastructure scenarios, five overall directions were identified.

1. **A flexible framework:** Flexible framework to guide interprovincial mobility

   Given the current environment of uncertainty, the Strategic Plan could provide a framework through the shared vision and objectives to help guide how interprovincial travel is managed into the long term in the National Capital Region.

   This Strategic Plan will evolve and require regular updates given the evolution of travel demands and patterns, municipal land-use policies and the evolving post-pandemic world of work.

2. **Better data:** Update data to ensure decisions are fact-based and reflect changing realities

   The key to updates and evolution of the Strategic Plan will be better data. Current data sources for travel demand in the region are outdated: regional origin-destination data is from 2011 and interprovincial origin-destination truck travel data is from 2007. There have been many changes to technology and mobility since these last updates – new mobility, smartphones and GPS, crowd sourced navigation, and automation were not as ubiquitous then as they are now. Planned updates will improve decision making and validate the Strategic Plan's findings and analysis.

3. **Regional collaboration:** Collaborate and coordinate transportation across the region

   Creating forums for regional transportation planning and analysis coordination, such as the TRANS committee, will help to build on current

cooperative planning practices and ensure more collaborative planning and delivery of interprovincial transportation services. Many of the existing initiatives to address interprovincial travel are reinforced and supported by the vision and objectives of the Strategic Plan.

4. **Recovery opportunities:** Leverage opportunities in post-pandemic recovery

   The pandemic has accelerated patterns that were already underway, such as remote work, off-site learning and online shopping. There is a significant interest in continuing work-from-home by employers and workers and this will have implications on future transportation patterns and demand. Coordinating longer-term plans to support more sustainable travel is a unique opportunity in the immediate term.

5. **Sustainability focus:** Prioritize sustainable mobility through targeted investments and optimization

   The Strategic Plan focuses on sustainable directions for interprovincial travel. Immediate and near-term investments in higher-order transit, such as the West Gatineau Tramway and Ottawa (Stage 2 LRT), could double the number of people travelling by transit from Gatineau to Ottawa in the morning peak period by 2050, compared to 2011. Combined with the shift to zero-emissions vehicles, GHG emissions for interprovincial travel can be reduced by 99% before 2050, compared to 2011.

The pandemic has accelerated patterns that were already underway, such as remote work, off-site learning and online shopping.

4.4 Making Progress on the Strategic Pillars

The Strategic Plan is centred on the following five key pillars:

- One Region
- Sustainable Use of Crossing Infrastructure
- Environment and Climate Change
- Economy
- Quality of Life

While section 4.3 outlines how the existing and future conditions and testing scenarios were used to develop five overall directions for the Plan, section 4.4 outlines how these five directions are applied to the pillars and used to inform the recommended actions in Chapter 5.

Meeting future interprovincial travel needs will require continued collaboration and shared decision making.

Moving Together as One Region

The National Capital Region includes several municipalities and two provinces. This creates a planning and governance context that is unique within Canada, although the Strategic Plan shows that the vision and objectives for interprovincial travel are generally aligned between the NCC and its municipalities. Meeting future interprovincial travel needs will require continued collaboration and shared decision making.

Governance structures and decision making

Chapter 6 explores potential considerations and approaches to transportation planning and service delivery on a regional scale. While the Strategic Plan does not recommend a specific approach or model, it lays out the vision and objectives that serve as a foundation for further discussion on governance approaches and structures and to guide future decision making.

In some existing examples globally, major investment in new infrastructure crossing jurisdictional boundaries provided the impetus to have further discussion on roles, responsibilities and governance. Planned and potential investments in new interprovincial infrastructure will require agreements related to funding, construction and operations. The role of the NCC is also evolving with the recent transfer of ownership of the existing crossings to the agency. The discussions of governance will need to continue and consider the sensitivity and fit within existing governance structures.

Coordination of planning between agencies

The existing TRANS committee is an example of successful intergovernmental transportation data collection, modelling and forecasting collaboration and coordination in place in the National Capital Region. The committee and its members recognize the benefits of coordinating transportation data collection and analysis on a regional level.

Current initiatives presently being coordinated within the NCR include the update to the origin-destination household travel survey and the regional truck survey. The NCC is also an active stakeholder on major regional projects, such as the West Gatineau Tramway.

Service integration and seamless travel

Interprovincial transit service is well integrated between Gatineau and Ottawa. OC Transpo and STO operate services crossing the Ottawa River and fares are integrated, in terms of one agency's fare media being accepted on the other. STO operates very frequent service into downtown Ottawa via the Portage Bridge while OC Transpo operates frequent service over the Chaudière Crossing and peak period service over the Portage Bridge. Like other modes of travel, the interprovincial transit services are concentrated in the core area using the existing crossings.

Continuing to support improved transit priority on the interprovincial crossings will play an important role for the agencies to deliver reliable and effective service. While the NCC does not play a specific role in the planning or delivery of transit service, it can support the advancement of higher-order transit projects.

Continuing to support improved transit priority on the interprovincial crossings will play an important role for the agencies to deliver reliable and effective service.

Analysis Highlights:

- Existing planned transit projects are critical to encouraging more sustainable mobility.
- Complete communities supported by active transportation infrastructure make sustainable mobility more feasible for more trips.
- Lower cost initiatives to increase the people moving capacity of the crossings (including transportation demand management) improves sustainable mode share.

Encouraging Sustainable Mobility

Encouraging more sustainable mobility is critical to achieving the Strategic Plan's vision. An important part of sustainable mobility is efficiently moving people and goods on the existing crossings. This involves offering comfortable and convenient transportation choices that are competitive with personal vehicles.

Implement planned transit projects

Gatineau and Ottawa have numerous planned and committed transit projects that are anticipated to be implemented between now and 2050. It is important for all agencies in the NCR to make continued progress on implementing these projects as they are essential to encouraging more sustainable mobility in the region – an important shared goal of all levels of government.

Key highlights include the Ottawa LRT Stage 2 Extension and the planned West Gatineau Tramway.

Strengthen interprovincial active transportation connections

Improving the interprovincial active transportation networks encourages the use of sustainable mobility. It will be important to upgrade bridge infrastructure where required and increase connectivity to make getting to and from the crossings easier. Both Ottawa and Gatineau plans already include important additions and upgrades to the network. Further, recently proposed changes to the Chief William Commanda Bridge will also provide important increased connectivity across the river and the broader transit and pathway network.

Expand travel demand management programs

Travel demand management programs aim to reduce the number of trips made, encourage less travel during the busiest times and change destinations of trips so that fewer trips go to the busiest places at the busiest times. These actions help make more efficient use of existing infrastructure and can contribute to a more reliable and comfortable trip. The Strategic Plan aims to expand upon the robust and successful transportation demand management programs of Ottawa, Gatineau and the federal government.

Move more people on the crossings

Making better use of the current crossings by increasing their people moving capacity is an important part of managing and accommodating interprovincial transportation as the region grows. Reconfiguring the crossings in the short-term will be explored to make the most of the space and move more people. An important first step is to assess the existing transit-only and carpool lanes to identify potential measures to improve their effectiveness and opportunities for expansion. Other interim measures will also be identified as the Strategic Plan is implemented and updated.

Case Study

In 2019 the federal Government introduced new flexible workplace alternatives for Government of Canada employees. The initial pilot program saw the introduction of five co-working spaces – shared workspaces located outside of the core area where government employees from participating departments can work. These alternate work locations enable many employees to have workspace that is closer to home. Having work options closer to home has the potential to improve quality of life for employees by reducing the time spent travelling to work. Shorter trip distances and fewer trips into downtown can also help to reduce congestion/ crowding on the overall transportation network.

Analysis Highlights:

- Anticipated future electric vehicle uptake will substantially reduce transportation-related GHG emissions.
- New infrastructure increases system resilience to extreme weather by providing alternative routes when weather-related damage occurs.
- New all-mode crossings may encourage more people to drive more and encourage further car-dependent growth. This would have energy and emissions implications.

Protecting the Environment / Acting on Climate Change

Protecting the environment and acting on climate change are integral components of fostering a healthy, vibrant and liveable Capital Region. Transportation is a large source of GHG and other air pollutants; reducing these emissions is a large part of achieving broader federal, provincial and municipal climate change goals. The federal government is committed to achieving net-zero emissions by 2050 through the Canadian Net-Zero Emissions Accountability Act. In addition to reducing emissions, it is also important to minimize the environmental impacts of new infrastructure and implement climate change resiliency into design. Acting on climate change is a collective effort that requires the collaboration of all jurisdictions. The Strategic Plan focuses on reducing emissions through interprovincial transportation measures.

Encourage electric vehicle use

Electric vehicles are an important part of reducing transportation related GHG emissions and achieving overall GHG reduction targets. The NCC will work to set targets for zero-emission interprovincial trips and take corresponding steps to encourage zero-emission vehicles (ZEVs) for interprovincial trips. Ottawa and Gatineau are already encouraging ZEV uptake. Encouraging more ZEVs must happen in parallel with reducing personal vehicle use no matter the technology. While ZEVs aid in reducing emissions, managing transportation demand and fostering a liveable Capital Region still requires more trips by transit and active transportation.

Support net-zero transit vehicles

While diesel buses carry many people efficiently, with fewer emissions than the same number of people travelling by car, they are still sources of pollution. Both Ottawa and Gatineau are pursuing zero-emission bus fleets, which are being supported by funding from the Government of Canada. These will contribute to reducing GHG emissions from interprovincial travel. Advancing the West Gatineau Tramway will also help reduce bus travel across the river.

Integrate climate change resiliency into design

It is also important to incorporate climate change-resiliency into design, in addition to taking steps to reduce emissions. Weather and climate change considerations include many different measures such as incorporating weather protection for walking and cycling infrastructure and designing infrastructure to reduce maintenance needs. The NCC will continue to incorporate best practices in climate-resilient design in all its projects.

Supporting Economic Prosperity

Transportation plays an important role in supporting economic growth and prosperity. The interprovincial crossings play a vital role for travel within the region and, more broadly, connecting the provincial and national highway networks.

Global changes and evolution in goods movement logistics and technology have created shifts in the freight transportation needs in the National Capital Region. Although working from home may reduce some of the demand for travel, growth in online purchasing has increased delivery truck traffic throughout the region. Congestion and delay are projected to increase by 2050 on the interprovincial crossings.

Major new infrastructure is shown to have limited added benefit from a delay perspective; however, it would have the advantage of offering a route for goods movement outside the core area.

Create capacity for more employment and economic activity in both downtowns

Connecting the two downtowns by leveraging available capacity and investing in higher-order transit will create opportunities for more population, employment and activity in the core area. This would also boost tourism potential, supporting sustainable travel between cultural and other attractions on both sides of the Ottawa River.

Frequent, reliable higher-order transit travel between the two downtowns would reduce reliance on auto travel between federal office locations and create opportunities for more employment to locate centrally within the region.

Develop a better understanding of truck travel in region

The current origin-destination data as it relates to interprovincial goods movement is from 2007. There have been major shifts in freight and retailing since then. The most influential is the explosive growth in online retailing and home deliveries, including more reliance on local warehousing and logistics. There are also changes in the size and composition of trucks, such as the use of multiple-unit trailers, and the continued growth of rail-based freight transport.

Improving the understanding of current truck demands, origins, and destinations will help validate analysis around heavy truck movement on the interprovincial crossings and support the implementation of future goods movement strategies, policies and infrastructure. It is with this goal in mind that the new commercial vehicle model developed by the TRANS committee will make it possible to gain a good understanding of the movements of trucks and to better assess the associated impacts.

Analysis Highlights:

- A new interprovincial crossing combined with municipal measures to prohibit heavy trucks from the KERWN corridor will be effective in the diversion of heavy trucks from the core area.
- A collaborative approach among the three levels of government is needed to reduce trucks from the Macdonald-Cartier Bridge and associated Gatineau and Ottawa approaches.
- Congestion and delay are projected to increase by 2050 on the interprovincial crossings. Major new infrastructure is shown to have limited added benefit from a delay perspective; however, it would have the advantage of offering a route for goods movement outside the core area.
- Under all scenarios, delay is expected to increase for autos. Strong demand measures or new infrastructure have similar potential to limit the increase.

Analysis Highlights:

- Strategic policy-based restrictions are also important for managing truck traffic, including time-of-day restrictions and permitting for on-street loading.
- More dedicated space for sustainable modes improves travel time reliability and makes sustainable modes more attractive.

Integrate new retail/goods movement trends

The pandemic has accelerated changes in retailing patterns that began over the past decade. Online shopping is more prevalent and has expanded beyond general merchandise and now includes day-to-day necessities such as groceries. Compared to in-person shopping, where there is a greater potential for fewer trips with larger purchases, low-cost or free same-day delivery have encouraged more frequent small online purchases, which results in a higher number of trips by delivery vehicles on roads. New distribution centres and pick-up points have started to change travel and delivery patterns

Integrating these changes into the understanding of goods movement and the retail economy will be important as the Strategic Plan evolves. This is not a unique challenge to the NCR; exploring and implementing best practices from other cities, such as neighbourhood pick-up points, urban consolidation centres and deliveries by alternate modes all have potential to reduce demand.

Improving Quality of Life

The National Capital Region with its abundant access to green space, excellent services and rich cultural opportunities provides an excellent quality of life for residents. The transportation system plays an important part in maintaining and enhancing quality of life in the Capital Region. Transportation contributes to quality of life by providing reliable and safe travel options as well as managing negative externalities caused by transportation, including managing issues created by heavy trucks while still supporting the region's economy.

Reduce heavy truck infiltration and impacts

Trucks are essential to the National Capital Region's economic well-being, but truck traffic must be managed to support quality of life. In the NCR, interprovincial truck traffic currently uses downtown streets, primarily in Ottawa, to connect between the Québec and Ontario provincial highway networks. This has negative noise, pollution and safety impacts on surrounding neighbourhoods. A new interprovincial crossing combined with municipal measures to prohibit heavy trucks from the KERWN corridor will reduce heavy truck infiltration and impacts in this busy area.

Integrate Vision Zero policies

Providing safe multi-modal travel options is a critical part of both quality of life and encouraging more active transportation for interprovincial trips. It is important to have infrastructure that promotes safety and comfort for people of all ages and abilities. When people feel safe and comfortable, they are more likely to use active transportation. Managing risks posed by heavy trucks is important for furthering the safety of all road users.

Vision Zero is the broad philosophy that fatalities and serious injuries on the road network are preventable and the goal should be zero traffic-related fatalities and injuries. The NCC will integrate Vision Zero policies into its planning processes and explore measures, such as truck safety initiatives, pedestrian and cycling safety reviews and associated improvements, and updated roadway geometric designs, to enhance the safety of all road users.

Foster more reliable commutes

Having consistent and predictable travel times improves quality of life by enabling people to know how long it will take to get to a destination at a given time of day. Improving travel time predictability allows people and businesses to plan their activities with a reduced risk of being late or needing to leave early to account for potential delays. This focus on managing congestion, rather than reducing congestion, is about avoiding unpredictable delays, particularly related to sustainable modes. The NCC will work with municipalities to develop measures to foster more reliable interprovincial travel times such as updating incident response plans to better respond to incidents that cause delay, coordinating construction projects to manage the impacts on all modes, expanding transit priority measures and improving real-time traveller information for all modes to enable people to choose alternate routes in case of unforeseen delays.

5 The Strategic Framework

The Strategic Plan sets out the overall direction for interprovincial transportation in the National Capital Region and strategies to achieve the collective vision and objectives of the NCC and its partners. The testing of the potential directions, as outlined in Chapter 4, shows that current trends and already planned initiatives can have a significant influence.

This Strategic Plan offers the opportunity for the parties to take a greater collaborative approach to prioritize potential strategies, focusing on those that have the best potential to shift the trajectory towards the Plan's sustainability vision.

Three following timelines are proposed to frame delivery of the shared vision that creates a transportation system over the next 30 years:

- **Short-Term / Bold Starts (immediate to five-year horizon):** this represents the immediate timeline for strategies and quick wins that have a very strong potential to move towards achieving goals and objectives. In the current context of a post-pandemic recovery, examples of these strategies include post-pandemic workplace planning, leveraging changes in behaviour such as remote work and learning, and being shovel ready for pandemic recovery stimulus investment.
- **Medium-Term / Initiating Change (five- to ten-year horizon):** this represents the timeline for strategies that can be taken in the near term that can play a greater role in shifting interprovincial travel behaviour. These strategies should have a high rate of return on investment with a prioritization on measures that reflect the sustainable vision, such as optimization of existing crossings and investment in transit and active transportation. They can also include strategies that enable longer-term decision making or capital investment.
- **Long-Term / Sustaining Progress (beyond ten years):** this represents the longer-term timeline either where implementation requires further study or where the strategy may be influenced by the performance of other alternative demand management measures or optimizations pursued under bold starts or initiating change.

Section 5.1 summarizes the initiatives under each of the three timelines. This is intended to serve as a guide for continued progress towards the vision and is subject to change based on further study, available resources, capital funding priorities and policy changes.

5.1 Strategies

	One Region	Sustainable	Environment	Economic	Quality of Life
Short Term (1 of 2)					
Governance & Policy					
Complete an interprovincial transportation governance review	•			•	
Work with partners to complete updates to regional travel data, including the origin-destination survey and the commercial vehicle survey	•				
Establish the PSPC Sixth Crossing Project Office with the support of the NCC	•			•	•
Set mandate and roles for the NCC Transit Project Office	•				
Continue commitment to the Ottawa-Gatineau federal employment ratio of 75:25.					•
Active Transportation					
Implement the Capital Pathway Strategic Plan	•	•	•		•
Examine the feasibility of adding the crossings as part of the Weekend Bike Day open streets events	•	•	•		•
Expand "park-and-cycle" initiatives along key interprovincial cycling routes		•	•		•
Transportation Demand Management					
Conduct post-pandemic assessment of work-from-home practices as part of overall updates to regional transportation data		•		•	
Encourage carpool programs for federal employees and increase preferential parking for carpooling at federal workplaces		•			
Continue and expand programs to encourage sustainable transportation at federal workplaces, such as employer-subsidized transit passes		•			

5.1 Strategies

	One Region	Sustainable	Environment	Economic	Quality of Life
Short Term (2 of 2)					
Environment and Climate Change					
Integrate best practices for climate-resilient infrastructure as part of rehabilitation programs of existing crossings			•		
Adopt zero-emissions fleet strategies for NCC and federal vehicles			•		
Expand provision of electric vehicle charging stations at federal workplaces and facilities			•		
Goods Movement					
Embark on a joint regional truck route and goods movement study	•			•	
Establish a regional goods movement forum with the goods movement industry to link industry stakeholders to decision making on interprovincial travel	•			•	
Regularly review and assess the impact and suitability of existing and potential truck restrictions on core area routes				•	•
Wayfinding & Safety					
Review and explore opportunities to improve interprovincial traveller information, such as dynamic signage	•				•
Review and update response programs and procedures to reduce impact of incidents					•
Medium Term (1 of 3)					
Governance & Policy					
Integrate vision and objectives of the Strategic Plan into relevant local and regional documents	•				

5.1 Strategies

	One Region	Sustainable	Environment	Economic	Quality of Life
Medium Term (2 of 3)					
Explore opportunities for integrated regional traffic management, such as integration of crossings operations in a centralized traffic operations centre	•				•
Continue coordination between construction projects on interprovincial crossings and connecting municipal roadways	•				•
Transit					
Identify needs and opportunities to further improve the integration of the interprovincial transit system and service	•	•	•	•	•
Active Transportation					
Conduct a connectivity analysis to ensure the continuity and integration of pedestrian and cycling networks with the interprovincial crossings	•	•			
Explore the feasibility of coordinated interprovincial micro-mobility sharing programs (i.e. e-scooters, bike sharing, etc.)	•	•			
Regularly conduct pedestrian and cycling safety audits for interprovincial crossings and adjacent routes to identify improvements		•			•
Transportation Demand Management					
Expand GCcoworking pilot project		•		•	•
To encourage the use of zero-emissions vehicles, consider allowing green-plated vehicles access to high-occupancy vehicle lanes on the crossings			•		
Explore ways to encourage transition to low-carbon/smaller vehicles for goods movement			•	•	

5.1 Strategies

	One Region	Sustainable	Environment	Economic	Quality of Life
Medium Term (3 of 3)					
Trucks					
Explore the utilization of urban consolidation centres (UCCs) to reduce truck movements as part of a regional goods movement strategy				•	•
Long Term					
Transit					
Continue the development of the interprovincial transit loop to support strengthened connectivity within the core area	•	•		•	
Trucks					
Assess the feasibility of integrating interprovincial heavy truck movements as part of any emergent curbside management programs		•		•	•

6 Governance

The National Capital Region contains a unique governance context that includes a large metropolitan area with several bodies influencing transportation policy, planning and service delivery:

- The federal government, including the National Capital Commission
- The provincial governments of Ontario and Québec, including the respective Ministries responsible for transportation
- The municipal governments of Gatineau and Ottawa, including OC Transpo
- The Société de transport de l'Outaouais (STO), the local transit agency providing service in Gatineau.

Whereas there is ongoing collaboration on issues of regional importance and the delivery of services, such as through the TRANS committee and integrated interprovincial transit services between Gatineau and Ottawa, there is a need for mechanisms to ensure that the initiatives of this Plan are pursued in a collaborative and coordinated fashion. In this regard, there are many steps towards implementing any such changes, which are beyond the responsibility and authority of any single agency.

The TRANS committee: A foundation for further regional collaboration

The TRANS committee is a joint technical committee on transportation, created in 1979 as a subcommittee of the former Joint Administrative Committee for Planning and Transportation (JACPAT). While the JACPAT ceased its activities in the mid-1990s, TRANS continues as a successful and effective forum for communication and coordination of technical efforts linked to transportation data collection, modelling and coordination of special studies in the NCR.

TRANS is unique in Canada in its multilateral partnership and participation of the federal, provincial and municipal levels of government on transportation data collection, modelling, forecasting.

The administration of TRANS is managed by the City of Ottawa and co-funded by partner agencies through a continuing and renewable agreement that recognizes the legitimate mandate, functions and annual financing of TRANS.

In the context of the National Capital Region, a new governance forum for more collaborative interprovincial transportation planning and investment would provide opportunities to further expand collaboration and coordination while potentially taking a greater role in the planning, construction and delivery of infrastructure and services critical to interprovincial connectivity.

6.1 Potential Benefits of Regional Governance

As the region continues to grow, more formalized governance for regional and interprovincial travel could be beneficial to provide a forum for continued collaboration, coordination, and cooperation. Partners within the NCR recognize the importance and necessity of having a joint regional perspective on transportation planning activities, as the movement of people and goods cannot be separated along municipal or provincial boundaries.

The implementation of regional governance structures for transportation is common in larger urban centres around the world to overcome challenges such as the coordinated delivery of capital projects and services that cross jurisdictional boundaries, the improvement of traveller journeys on the regional network and coordination of regional transportation with other policies such as land use. Typically, these governance structures are most beneficial where transportation needs and contexts are complex. In Canada, regional transportation governance structures are in place in most large cities, including Vancouver, Edmonton, Toronto and Montreal.

In the context of the National Capital Region, a new governance forum for more collaborative interprovincial transportation planning and investment would provide opportunities to further expand collaboration and coordination while potentially taking a greater role in the planning, construction and delivery of infrastructure and services critical to interprovincial connectivity. There are unique challenges in the NCR that do not exist elsewhere, primarily the unique involvement of the federal government in transportation planning owing to the region encompassing two provinces. This warrants further study and discussion to create a "Made in the NCR" solution. There are also opportunities and unique successes to build upon, such as the project confirmed in the Gatineau tramway study, which was proposed by the STO, will be funded by the governments of Canada and Québec, and will also serve downtown Ottawa. Existing governance structures, such as the NCC Board, whose members include the mayors of Ottawa and Gatineau, can also provide precedents.

In 2021, the federal government provided a mandate to the National Capital Commission to establish a Transit Office. The primary purpose of this office is for the NCC to play a role in facilitating the planning and development of an integrated interprovincial transit system, primarily in response to the proposed West Gatineau Tramway project, which will cross the river between Gatineau and Ottawa. In addition, the Transit Office could also help advance the proposed downtown transit loop, along Confederation Boulevard, which crosses interprovincial boundaries. These two projects present an opportunity to initiate further discussions around governance of interprovincial transportation and regional mobility.

6.2 Regional Governance and the Strategic Plan

The Strategic Plan does not recommend a model for governance for interprovincial travel or regional transportation in the National Capital Region. However, it does lay initial groundwork by establishing a common vision and objectives, assessing the general needs and gaps, and continuing conversations between NCR agencies.

6.3 Principles of Regional Transportation Governance for Interprovincial Travel in the NCR

Through the development of the Strategic Plan, several principles emerge for interprovincial transportation governance in the NCR. These are not prerequisites for a future model; however, they should be considered when exploring and assessing the most suitable approach.

These principles include:

- Establishing a common vision and providing a forum for ongoing collaboration, coordination and cooperation
- Defining clear roles and responsibilities for the delivery of capital projects, maintenance of infrastructure and service delivery
- Ensuring that decision making on local levels is consistent with regional goals and objectives
- Recognizing that:
  - land use and transportation are inextricably linked, but local planning responsibilities lie with municipalities with unique local contexts as it relates to needs, policies and priorities
  - efficient interprovincial travel requires planning beyond the crossings of the Ottawa River and needs to include municipal and provincial connections
  - seamless travel means that jurisdictional boundaries are invisible to the traveller and planning should prioritize the experience of journeys and mobility

Through the development of the Strategic Plan, several principles emerge for interprovincial transportation governance in the NCR.

6.4 Potential Governance Models

There are three key roles that can be fulfilled by a regional governance body:

- Transportation planning coordination and collaboration
- Delivery of capital projects
- Ongoing service delivery, operations and maintenance

The level of involvement by a regional agency varies by local context, such as pre-existing governance structures, the level of need for such an agency, funding and revenue generation options and political will and priorities. The following approaches and levels of involvement can include:

1. **Coordination-only** – the role of the regional body is to serve primarily as a forum for coordination and collaboration between member agencies. This could be in the form of standing or steering committees, coordination tables, or through a memorandum of understanding. The goal of coordination could be to set regional priorities and could also result in the development of a regional plan. In most cases, detailed planning, construction and service delivery are left to the respective agencies. This is currently happening to a degree within the National Capital Region through the TRANS committee and other interprovincial transportation data collection exercises, travel demand models and studies.
2. **Coordination and construction** – the role of the regional body is primarily to coordinate the planning and delivery of new capital projects, with operations primarily left to the respective local agencies. The extent of this role is typically defined by the level of investment; the primary funding agency of new capital projects would have an interest in retaining ownership, particularly where costs can be amortized over the life of the infrastructure.
3. **Targeted full responsibility** – the role of the regional body is to take responsibility for transportation of regional significance. Examples include the identification of a regional network of roads, transit and active transportation with the regional body assuming primary responsibility for planning, design, construction, maintenance and operations. This is similar to the role of regional municipalities, such as York Region and Durham Region in Ontario.
4. **Full responsibility** – the role of the regional body is to have full responsibility for transportation. This would require substantial effort to transfer these responsibilities to a regional body and potential responsiveness to local issues.

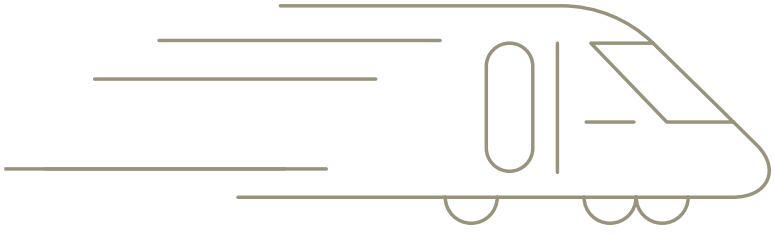
6.5 Governance Model Case Studies

WMATA (Greater Washington, DC)

- Established in 1967 as part of approval/ implementation of regional rail system to serve the national capital.
- Authority is a result of agreement between Virginia, Maryland and the District of Columbia.
- Coordinates planning and operations of regional transit.
- Operates all transit service in jurisdiction, including the transit fare card and service coordination.
- Federal government only funds capital costs. Operating subsidy for WMATA is shared by local jurisdictions, based on a formula that considers population, ridership and number of stations.
- Governance through a board of directors with representatives from three jurisdictions and federal government.

Metrolinx (Greater Toronto, ON)

- An agency of the Province of Ontario, Metrolinx was established in 2006 to coordinate regional transportation planning in the Greater Toronto and Hamilton Area (GTHA). Metrolinx is also responsible for the operations of GO Transit, UP Express and PRESTO.
- Metrolinx is governed by a board of directors. Priorities are set largely through the Ministry of Transportation and provincial cabinet.
- Leads planning and delivery of regional rapid transit projects. Expansion of LRT and subway will grow Metrolinx's operational mandate – while new lines will be owned by Metrolinx, operations will be contracted through private partnerships or in Toronto's case, TTC.
- Develops the Regional Transportation Plan (RTP) in collaboration with municipalities, which supports the province's growth plan for the GTHA. Metrolinx has a statutory influence on municipal policy through planning policy statements and transportation planning policy statements. Municipal official plans and transportation master plans are mandated to conform to the RTP.



ARTM (Autorité régionale de transport métropolitain) (Greater Montreal, QC)

- Established in 2017 to serve as a plan, coordinate, finance and promote public transport services in the Greater Montreal area.
- Develops the strategic plan for public transportation, including coordination of the regional origin-destination surveys.
- Establishes a regional fare system and other regional standards to improve travel, such as regional wayfinding.
- Centralized funding agency to support capital and operational budgets.
- Governed by a board of directors that includes15 members; 10 members are independent members, not associated with any of the area municipalities and appointed by either the Government of Québec or the Montreal Metropolitan Community municipalities; 5 remaining members are the mayors of the cities in the Montreal area.

TransLink (Greater Vancouver, BC)

- Established in 1999 to plan and manage the regional transportation system. Operating subsidiaries for all transit in the Lower Mainland (bus, rail, ferries).
- Develops regional transportation strategy and sub-regional transportation strategies.
- Defines a regional major road network where TransLink contributes to the upkeep and maintenance; collaborates on the planning. Ownership remains with respective municipalities. Cost shares on improvement projects for all modes that are consistent with the vision and RTP.
- Owns and maintains five bridges (a fraction of all the bridges in the greater Vancouver area).
- Governed by a board of directors (day-to-day business) and the Mayors' Council (approves transportation plans and strategies).

7 Monitoring Framework

Given that the Strategic Plan is intended to be a flexible living plan, systematic monitoring of progress towards the vision and goals is important for informing future updates. Monitoring will enable a better understanding of emerging travel trends and aid in selecting the most appropriate measures to further the vision as the Strategic Plan is implemented. Monitoring is also essential to help guide planning and investment decisions and track the need for any changes to the Plan indicators and metrics that help define success.

This chapter proposes a monitoring framework to track progress. Some indicators use current data sets that are planned to be updated in the coming years, including the regional household origin-destination survey, a commercial vehicle survey, and population and employment forecasts. Some indicators use data that is already available including the census, traffic counts, transit ridership numbers and fare card data. Other indicators may require collecting new data.

The proposed monitoring indicators are shown in Figure 7.1 organized by Strategic Plan pillar. The table includes two types of indicators:

- **Forecasting indicators:** these indicators were used to evaluate the 2050 scenarios during the Strategic Plan development process. These should be updated as more recent data becomes available. Monitoring how forecasts change is important because as the region develops, future transportation patterns, upon which the Strategic Plan is built, will change.
- **Monitoring indicators:** these indicators are intended to provide snapshots of progress towards the vision and provide an indication of how implemented strategies are working.

The figure includes the Strategic Plan objectives presented in Chapter 3. Indicators were chosen that best measure the objectives, while acknowledging that there cannot always be a perfect match. Furthermore, some of the indicators will require additional refinement and discussion with NCR agencies to facilitate data collection.

Another important part of the monitoring framework is the emergence of new data sources and incorporating them into the monitoring framework as they become available. The increasing use of smartphone data and data from new mobility providers presents an opportunity for a richer understanding of transportation patterns if appropriate privacy protections are in place.

Another important part of the monitoring framework is the emergence of new data sources and incorporating them into the monitoring framework as they become available.

As the Strategic Plan is updated, additional targets can be developed using the most up-to-date information to develop targets that are bold yet achievable based on the Plan's strategies.

7.1 Targets in Existing Policies and Plans

This Plan draws on existing approved multi-jurisdictional plans and documents, many of which include targets that set quantifiable objectives for similar broad goals. These targets have been integrated into the objectives of the Plan and will also inform the monitoring framework. As the Strategic Plan is updated, additional targets can be developed using the most up-to-date information to develop targets that are bold yet achievable based on the Plan's strategies.

The following existing approved municipal and federal targets are among the most significant in the existing plans. Achieving these targets would represent substantial progress towards achieving the Strategic Plan's vision.

- **Increase sustainable mode share:** Gatineau and Ottawa have city-wide targets for increasing the proportion of all trips made by carpool, transit, cycling and walking to 54% by 2031 and 50% by 2046, respectively. There are further opportunities to increase sustainable mode shares throughout the NCR.
- **Reduce total interprovincial auto trips:** Gatineau and Ottawa have targets of reducing auto trips by 11% between 2011 and 2031 and reducing auto mode share by 4% between 2011 and 2031, respectively. This requires measures to increase mobility options, including for interprovincial travel.
- **Achieve net-zero emissions for interprovincial travel:** The federal government is committed to achieving net-zero emissions by 2050. The Strategic Plan assumes an uptake of electric vehicles, although a greater uptake could be achieved through policies such as implementing public rapid charging stations and subsidies for purchasing net-zero technologies.

Figure 7.1: Monitoring Plan Indicators

Pillar 1: One Region (Transportation Integration)

Connectivity of the constituent communities through a coordinated NCR-wide transportation network and a coordinated approach to planning and designing the network.

Objectives	Monitoring Indicators	Data Source
• Well-connected Ottawa and Gatineau downtowns that serve as multi-modal transportation hubs	• Updates to municipal transportation plan and official plans that reflect the Strategic Plan	• Qualitative review of municipal plans
• Land use and transportation crossing infrastructure supporting each other	• Major interprovincial origins and destinations pairs accessible by rapid transit	• TRANS model
	• Average trip length between home and work	• TRANS model
	• Specialized transit service integration	• STO/OC Transpo

Pillar 2: Sustainable Use of Crossing Infrastructure

Space-efficient use of existing (and potential future) crossing infrastructure

Objectives	Forecasting Indicators	Data Source
• Increased sustainable and space-efficient mode use for cross-river trips	• Volumes and mode shares of cross-river trips across all crossings (a.m. peak period 6:30 a.m. - 9:00 a.m., each direction)	• TRANS model
• Reduced auto use and overall demand for peak interprovincial trips	• Average interprovincial auto occupancy	
• Improved mobility options are available for cross-river trips	• Auto vehicle kilometres travelled for interprovincial trips	
	• Average auto and transit travel time in minutes for interprovincial trips	

	Monitoring Indicators	Data Source
	• Percent of large employers with a transportation demand management plan • Cost of maintenance per person kilometre • Change in designed people moving capacity of crossings • Daily traffic volumes for all modes	• Employer survey • Capital plans • Analysis of crossings • Traffic counts

Pillar 3: Environment and Climate Change

Minimizing adverse environmental impacts and mitigating and adapting to climate change

Objectives	Forecasting Indicators	Data Source
• Reduced GHG emissions and air pollutants from transportation • Better withstand extreme weather disruptions associated with climate change • Reduced disruption to natural areas, waterways and parks along the river	• GHG emission levels per person-km (CO2 equivalent grams from auto and transit) • Annual total emissions (CO2 equivalent kilo tonnes from auto, commercial vehicles and transit)	• TRANS model
	Monitoring Indicators	**Data Source**
	• Percent of interprovincial trips made using electric vehicles • Percent of transit fleets that are zero-emission vehicles • Pollution levels in the vicinity of each crossing • Percent of interprovincial goods moved on zero-emission vehicles	• Household survey • OC Transpo/STO • Pollution sensors • Commercial vehicle survey

Pillar 4: Economy

Efficient interprovincial travel of people and goods to enhance the NCR's economic well-being

Objectives	Forecasting Indicators	Data Source
• Reduced delay for people and goods crossing the river • Reduced travel time to connect between provincial highway systems • Controlled spending and sustainable funding sources for crossing infrastructure, services and maintenance	• Total hours of delay on interprovincial crossings • Volume-to-capacity ratios on all river crossings and selected roads approaching the crossings (a.m. peak hour) • Average travel time in minutes for vehicles between the provincial highway networks on crossings that allow heavy trucks (a.m. peak hour)	• TRANS model
	Monitoring Indicators	**Data Source**
	• Percent of interprovincial goods movement traffic destined for Ottawa-Gatineau • Value of goods crossing the interprovincial bridges • Proportion of truck trips in peak versus off-peak hours • Interprovincial truck travel time reliability • Interprovincial passenger travel time reliability	• Commercial vehicle survey • Commercial vehicle survey • Commercial vehicle survey/ traffic counts • GPS data • Smartphone data

Pillar 5: Quality of Life

Facilitate access to opportunities for all and reduce the adverse impacts of travel on adjoining communities, especially those caused by heavy goods vehicle traffic.

Objectives	Forecasting Indicators	Data Source
• Improved community health and safety in the neighbourhoods adjacent to the crossings • Improved real and perceived traveller safety and comfort • Reduced travel time for cross-river trips • Equitable access to efficient cross-river travel • Increased access to the region's natural spaces	• Heavy truck vehicle-kilometres-travelled on non-highway and non-major arterial links in the vicinity of each crossing • Average a.m. peak hour auto travel time in minutes for interprovincial trips • Average a.m. peak hour transit travel time in minutes for interprovincial trips • Average a.m. peak hour auto and transit travel times in minutes for interprovincial trips originating in low income traffic zones • Heavy truck vehicle-kilometres-travelled on the KERWN between Macdonald Cartier Bridge and Hwy 417	• TRANS model • GPS data • Commercial vehicle survey
	Monitoring Indicators	**Data Source**
	• Transit Level-of-Service on interprovincial travel routes • Collisions on interprovincial crossings and select approach roads • Sustainable connections to major destinations (e.g. Gatineau Park) • Quality of travel experience by all modes	• OC Transpo/STO • City of Gatineau, City of Ottawa, PSPC, NCC • Mapping analysis • Multi-modal Level-of-Service Analysis of interprovincial bridges

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NCC Board of Directors

NCC Advisory Committee on Planning, Design and Realty

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Consultant Expertise

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