Regional Transportation Plan

JRTA
JOINT REGIONAL TRANSPORTATION AGENCY

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This Regional Transportation Plan (the "Plan") was prepared under the mandate of the Joint Regional Transportation Agency, prior to the proclamation of Sections 2 to 20 of Chapter 10 of the Acts of 2025, *An Act Respecting Temporary Access to Adjacent Land, and to Amend Chapter 23 of the Acts of 2021, the Joint Regional Transportation Agency Act*, on July 15, 2025 pursuant to Order in Council 2025-219, which, among other things, renamed the Joint Regional Transportation Agency to Link Nova Scotia. Consequently, all references to the "Joint Regional Transportation Agency" in this Plan reflect the Agency's name and branding at the time of the Plan's development. This Plan is being published by Link Nova Scotia, which is the same legal entity as the Joint Regional Transportation Agency, operating under its new name.

Minister's Message

Transportation plays an important role in our day-to-day lives. It dictates how we get to work or school, access healthcare and other essential services. It shapes where we live and how we participate in our communities. It powers our economy, enabling supply chains and goods movement. It is freedom, equity, and opportunity.

To support us as we grow, Halifax and surrounding communities need a transportation system that offers better connections, safer commutes, and more affordable travel options.

That's why the government created the Joint Regional Transportation Agency (JRTA). The JRTA is tasked with planning for all modes of transportation to meet the needs of the growing region and to ensure the safe, efficient, and coordinated movement of people and goods.

It is with great enthusiasm I introduce the JRTA's Regional Transportation Plan. The Regional Transportation Plan is a long-term, evidence-based review of our transportation system, designed to take us into the coming decades. A first in Atlantic Canada, the plan utilizes best practices from other jurisdictions, customized for the unique needs of our region.

The plan includes 39 actions grouped into 10 strategies across five goals. Using a systems approach, the actions work together to tackle issues of affordability, efficiency, reliability, safety, sustainability, and resiliency.

Photo: Province of Nova Scotia

As government works to reduce greenhouse gas emissions, improve healthcare, increase housing options, and make life more affordable, I'm confident that the recommendations within the plan will support these priorities.

Collaboration and coordination across our Core Partners, within government, with municipalities, and alongside community will be needed to make this plan a success. I look forward to supporting the JRTA, now Link Nova Scotia, as we move to implementation.

When travel is easy, affordable, and accessible to everyone, we have more opportunities, we are healthier, and our lives are better.

Minister Fred Tilley
Department of Public Works

About the JRTA

To embrace opportunities and address challenges associated with the rapid population growth taking place in Halifax and surrounding communities, the Government of Nova Scotia established the **Joint Regional Transportation Agency (JRTA)** in fall 2021.

The JRTA is a provincial Crown corporation, reporting to the Minister of Public Works, tasked with long-range regional transportation planning. The first of its kind in Atlantic Canada, the JRTA takes a long-term and cohesive approach to transportation planning, working across jurisdictions and orders of government.

Mission

Championing regional collaboration to advance transportation solutions through joint planning, partnerships, data-driven analysis, and strategic investments.

Mandate

Plan for all modes of transportation consistent with the region's growth and development to ensure the safe, efficient, and coordinated movement of people and goods.

Partner Organizations

To successfully plan across jurisdictions, collaboration is critical. The JRTA has six Core Partners and one associate member who work together to define, plan, and execute a long-term vision for transportation in the region. These organizations advise and work with the JRTA through a Technical Advisory Board and Technical Working Group. Their existing plans, strategies and studies are foundational to the work of the JRTA.

Nova Scotia Department of Public Works (DPW)

Responsible for provincial transportation infrastructure, including provincial highways, roads, and bridges. DPW owns and operates the 100-series highway system in the Region, along with many secondary highways and roads, and is responsible for building and maintaining other critical infrastructure in the province including bridges, schools, and healthcare facilities.

Halifax Regional Municipality (HRM)

The largest and most populous municipality in Nova Scotia. HRM is responsible for regional and community land use planning, municipal transportation infrastructure, and operating Halifax Transit, the largest transit service in Atlantic Canada.

Halifax Harbour Bridges (HHB)

A provincial Crown corporation responsible for the construction, operation, and maintenance of the two bridges that cross Halifax Harbour – Angus L. Macdonald Bridge and A. Murray MacKay Bridge.

Halifax Port Authority (HPA)

Responsible for managing various port facilities in the Halifax Harbour. The Port of Halifax is the 4th busiest port in Canada, strategically located as North America's first inbound and last outbound gateway, situated in a naturally deep, ice-free harbour with direct access to the Canadian National Railway.

Halifax International Airport Authority (HIAA)

Operates, maintains, and develops Halifax Stanfield International Airport, Atlantic Canada's principal full-service airport. The airport handles 52% of all Atlantic Canada air passengers and more than 46% of air cargo exports.

Atlantic Canada Opportunities Agency (ACOA)

A federal department that works with businesses, organizations, and communities to fuel economic development in Atlantic Canada. ACOA represents the region's interest at the national level and works with other federal departments to ensure coordination of policies and programs.

Associate Member: Canadian National Railway (CN)

Canada's largest owner of rail networks, providing over 20,000 route miles across Canada and Mid-America, transporting more than $250 billion worth of goods annually.

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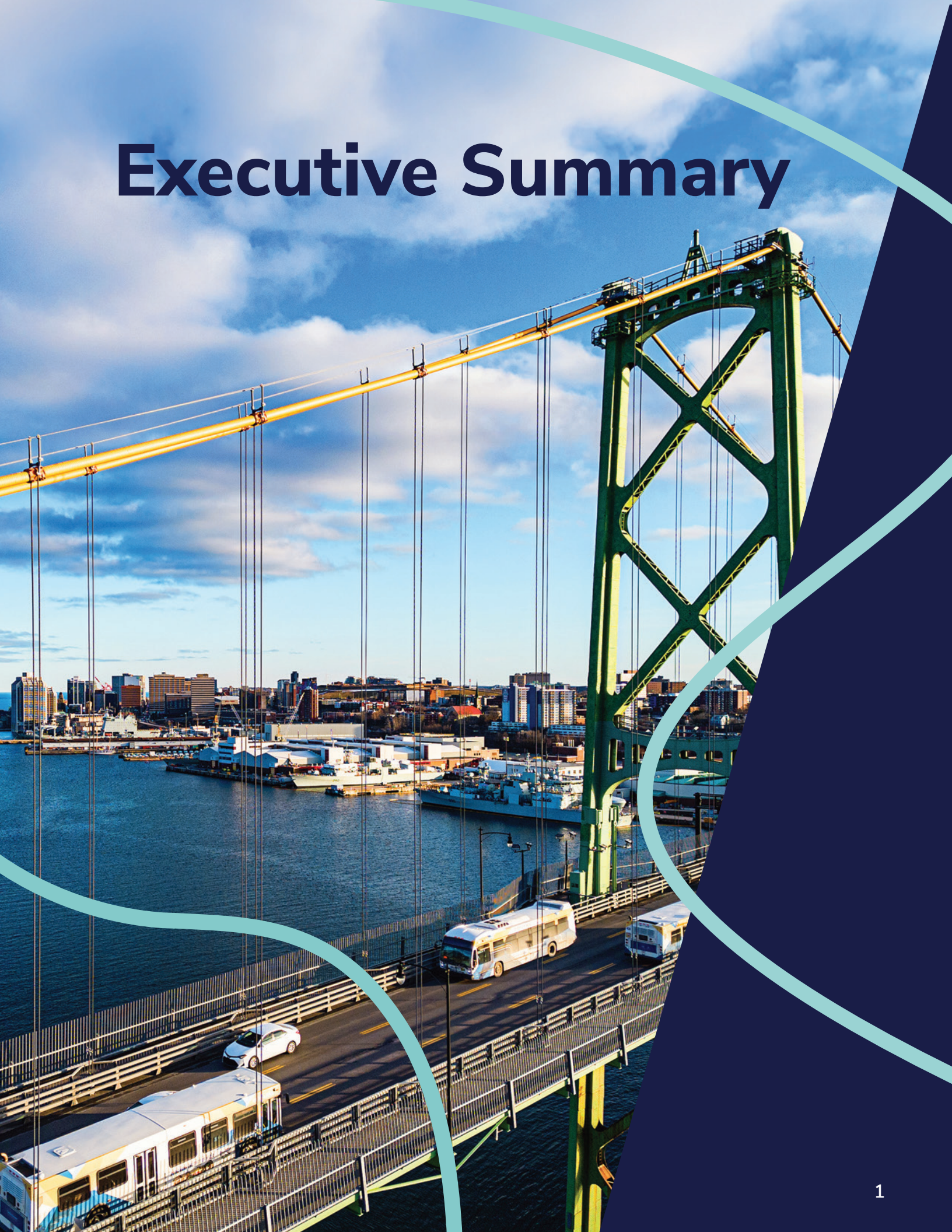


What is the Regional Transportation Plan?

The first of its kind in Atlantic Canada, the Regional Transportation Plan (RTP) presents a unified framework for the long-term future of the regional transportation system.

The RTP will:

- Facilitate sustainable growth and development.
- Enhance the safe and efficient flow of people and goods.
- Guide transportation investments.
- Provide a framework to measure transportation outcomes.
- Improve the health, well-being, and quality of life of Nova Scotians.

Vision

Nova Scotians have a safe, efficient, equitable, and resilient regional transportation system. Our people and communities are healthy, connected, and prosperous, powering a strong regional economy.

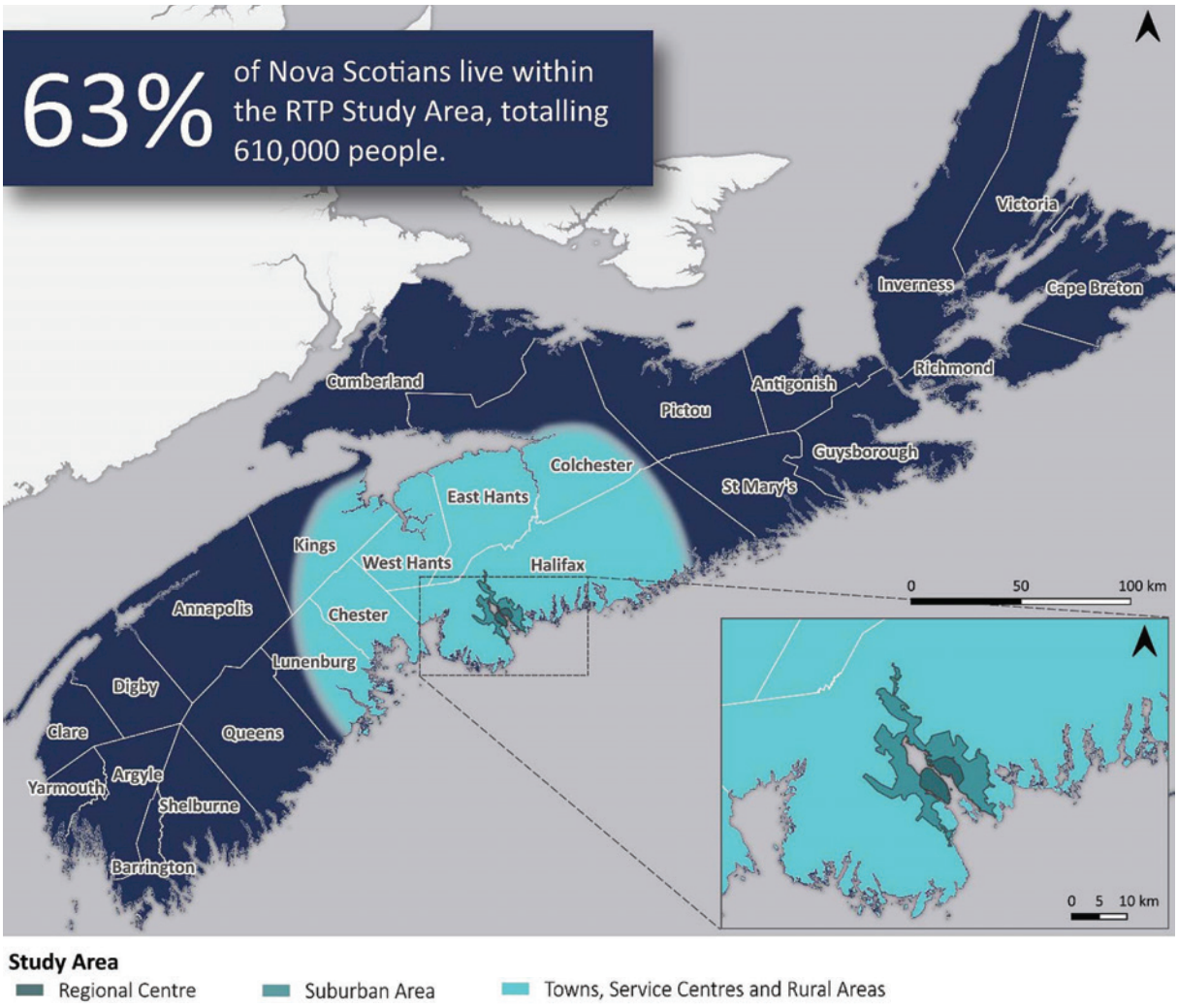
Development of the RTP

The JRTA led a collaborative effort to develop the RTP. The planning process included:

- Building on existing work by Core Partners, municipalities, and Provincial departments.
- Engagement with focus groups, the public, and community-led outreach.
- Analysis and modelling using scenario planning and a state-of-the-art travel demand model.

The Region

The RTP study area is centred on Halifax and includes communities within a roughly one-hour drive, which is defined as the Region. It includes five First Nations communities, 15 municipalities, and 19 historic African Nova Scotian communities.



A Growing Region

In 2021, Nova Scotia reached one million residents, with 63% living in the Region. With this growth comes new opportunities for prosperity, but also increased strain on the transportation system from more people and goods travelling each day.

The current transportation system is auto-oriented, with a well-connected road network and frequent transit service in and around the Regional Centre.

- Over 1.15 million driving trips are made each day in the Region.
- The geography of the Region creates constraints in the road network, especially in accessing the Halifax Peninsula where a large percentage of jobs, post-secondary education, and healthcare exists.
- Outside the Regional Centre there are limited options for those who do not drive.

The Future of Transportation in the Region

The RTP envisions a future in which the Region is more connected and easier to access, goods movement is more efficient and sustainable, and the transportation system is prepared for technological change.

Goals

The collaborative planning process resulted in five goals to transform the Region's transportation system:

Strengthen regional connections

Enable efficient and sustainable goods movement

Develop a future-ready transportation system

Coordinate and collaborate on long-term planning

Lead strategic investments, alignment, and implementation

A Strategic Approach

The RTP represents a strategic approach to regional transportation planning based on:

- **Collaboration** led by the JRTA and its Core Partners.
- **Tackling congestion** by investing in strategic road projects and more transportation options for Nova Scotians, such as rapid transit.
- Coordination between **transportation and land use planning** to ensure the transportation system can best serve the Region.
- Capitalizing on **technological developments** in the transportation sector which can improve safety, efficiency, reliability, and future proof the system.

Highlights of the Plan

A more reliable and efficient system

- Added road capacity and new connections targeting critical bottlenecks to reduce pressure on the road network.
- New and expanded transit to offer more frequent and reliable service, improving transportation choices for everyone and freeing up space on the roads for those who need to drive.
- Mitigating congestion to help goods move through the Region.

Greater access and affordability

- New rapid and inter-municipal transit service to provide an accessible, inclusive, and affordable option for travel in the Region.
- Continued support for community transportation to provide critical access for rural communities.
- Targeted programs to lower the cost of transportation for Nova Scotians.

Safer travel

- Improved design with targeted safety enhancements and new technologies to make streets and roadways safer and more comfortable for all users.

A sustainable transition

- Moving toward zero-emissions vehicles and investments in more transportation options to help reduce greenhouse gas emissions.

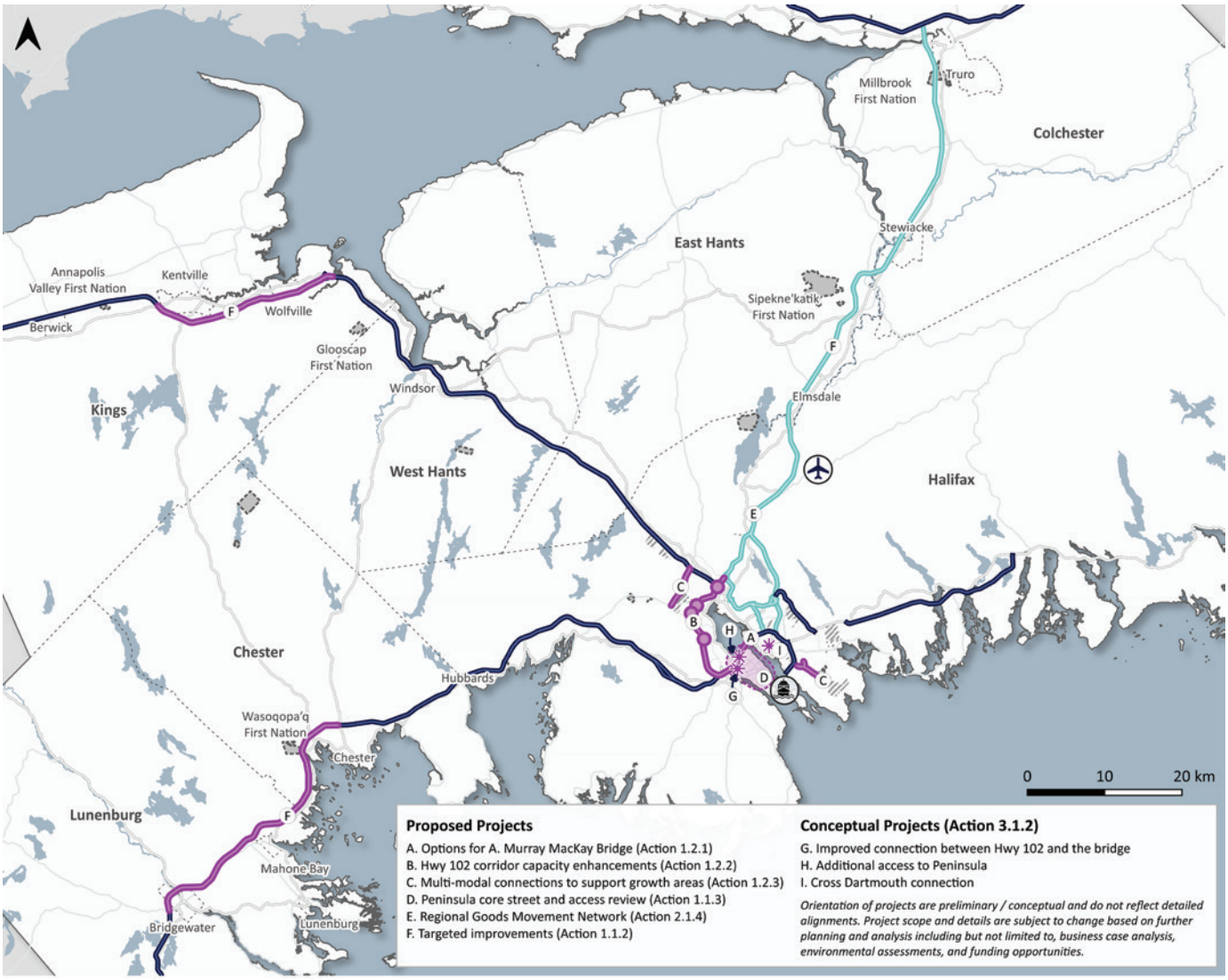
Resilient transportation networks

- Investments in the the road network, intelligent transportation systems, and dynamic control of infrastructure through a Regional Transportation Management Centre to allow the system to respond in real time to disruptions.
- Continuous evaluation of potential disruptive technologies and events to maintain the resiliency of the system in the future.

Future Road Network

The RTP focuses on maximizing existing infrastructure, mitigating bottlenecks, and creating resiliency in the road network.

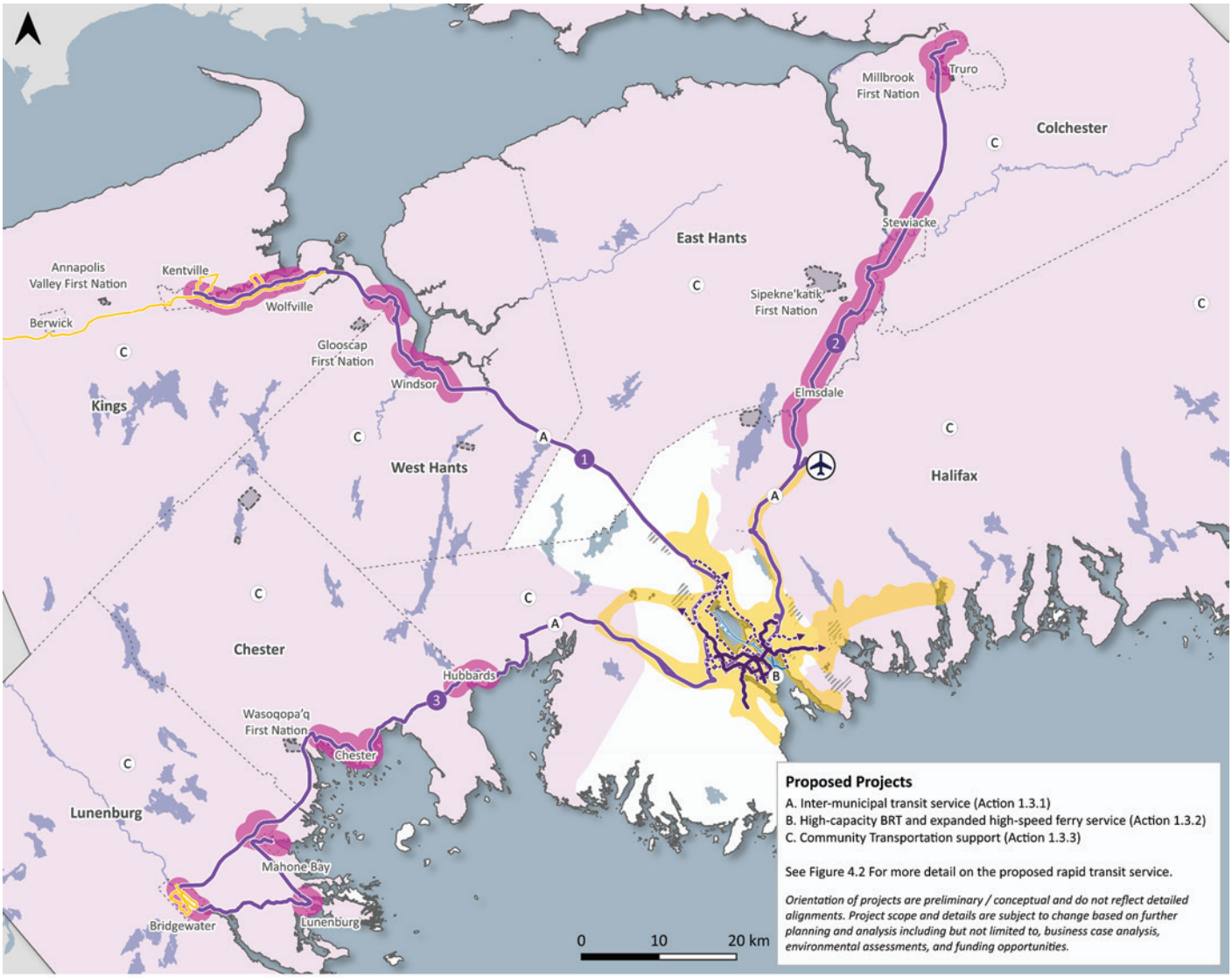
- Planned projects will target improvements to **safety and efficiency**. Notable projects include:
  - Advancing options for the A. Murray MacKay Bridge
  - Capacity and safety enhancements to 100-series highways
  - New multi-modal connections between Hammonds Plains Road and Highway 101 and between Mount Hope Avenue and Caldwell Road
- **New technologies and supportive policies** will help optimize network efficiency.
- **State of good repair** projects will maintain and enhance existing roads.
- Corridor and right-of-way **preservation** will support future growth in the system.



Future Transit Network

The RTP focuses on developing fast and reliable transit in HRM and new and expanded service to improve connectivity in the Region.

- **Fast and frequent rapid transit** within HRM will provide a strong alternative to driving, support more housing near stations, and build a foundation for an integrated regional transit system.
- A new **inter-municipal transit service** will allow people to travel around the Region without a vehicle and connect to existing local transit in HRM, Bridgewater and Kings, as well as community transportation and any future systems.
- A feasibility study will explore options for **passenger rail service** in the Region.



Sidewalk and Multi-Use Pathway Connections

The RTP focuses on filling key gaps and providing infrastructure like sidewalks and multi-use paths that make regional connections, support transit service by making first mile / last mile connections, and ultimately help improve safety and reduce strain on the road network.

Sidewalk or multi-use pathway recommendations in the RTP are intended to be fully integrated as part of new roadway or transit projects or larger retrofit projects. Incorporating elements like multi-use pathways at the start of the design process ensures maximum project efficiency, enhances capacity of public rights-of-way, and results in facilities that are purpose-built, separated from traffic and suitable for all users. This approach is a continuation of successful implementations already in place, such as the Aerotech Connector, Burnside Drive extension, and other areas in the province.

New infrastructure projects are also envisioned to make important connections across barriers such as 100-series highways, interchanges, and rail corridors. These regionally significant connections will provide safe routes for people to travel and improve access to important destinations.

New first mile / last mile connections to regional transit offerings (like Bus Rapid Transit, ferry service, and inter-municipal transit stops and stations) are also needed. These connections serve to make transit more accessible and extend the reach of the transit network, as all transit users end up walking or rolling during part of their trip.

Projects are also anticipated to help bridge gaps between planned and existing networks, including funded core networks within municipalities. The RTP supports ongoing efforts with municipal and community partners to build out further connections.

Making the Plan Happen

The RTP envisions the future of transportation. It will require commitment and hard work to make this future into a reality.

Implementation

The JRTA is already planning for the implementation of the RTP. It will be a complex undertaking requiring commitment from the Province and collaboration from all Core Partners, municipalities, and community. The work so far includes:

- A set of **priority recommendations** for steps that should be taken now.
- Identification of **funding sources** for major projects, including the Canada Public Transit Fund for rapid transit which supports increased housing supply.
- A review to consider suitable governance and management models to provide **clarity of roles and responsibilities** in the Region and streamline delivery.

Evaluation

The RTP includes mechanisms for the JRTA to provide updates on progress made.

- **Implementation progress** will be reported on regularly, with each action tracked.
- Key performance indicators have been developed to monitor **the plan's impact** and will be reported on every five years.
- A full **plan review** will be conducted every 10 years and the plan updated to account for demographic, technological, economic, and societal changes.

The Regional Transportation Plan is only the beginning

It is an exciting time for Nova Scotia. New growth is presenting tremendous new opportunities. Though this growth does present challenges, the RTP sets a course of action to create a transportation system to address the needs of today and support additional growth in the future. The Province, through the JRTA, will be at the forefront of this transformation, working with Core Partners, municipalities, and the public to transform the Region's transportation system.

Photo: Province of Nova Scotia

1

Introduction

The Regional Transportation Plan (RTP) envisions a safer, more equitable, efficient, and resilient regional transportation system. This section introduces the scope and vision of the RTP and provides context for its development.

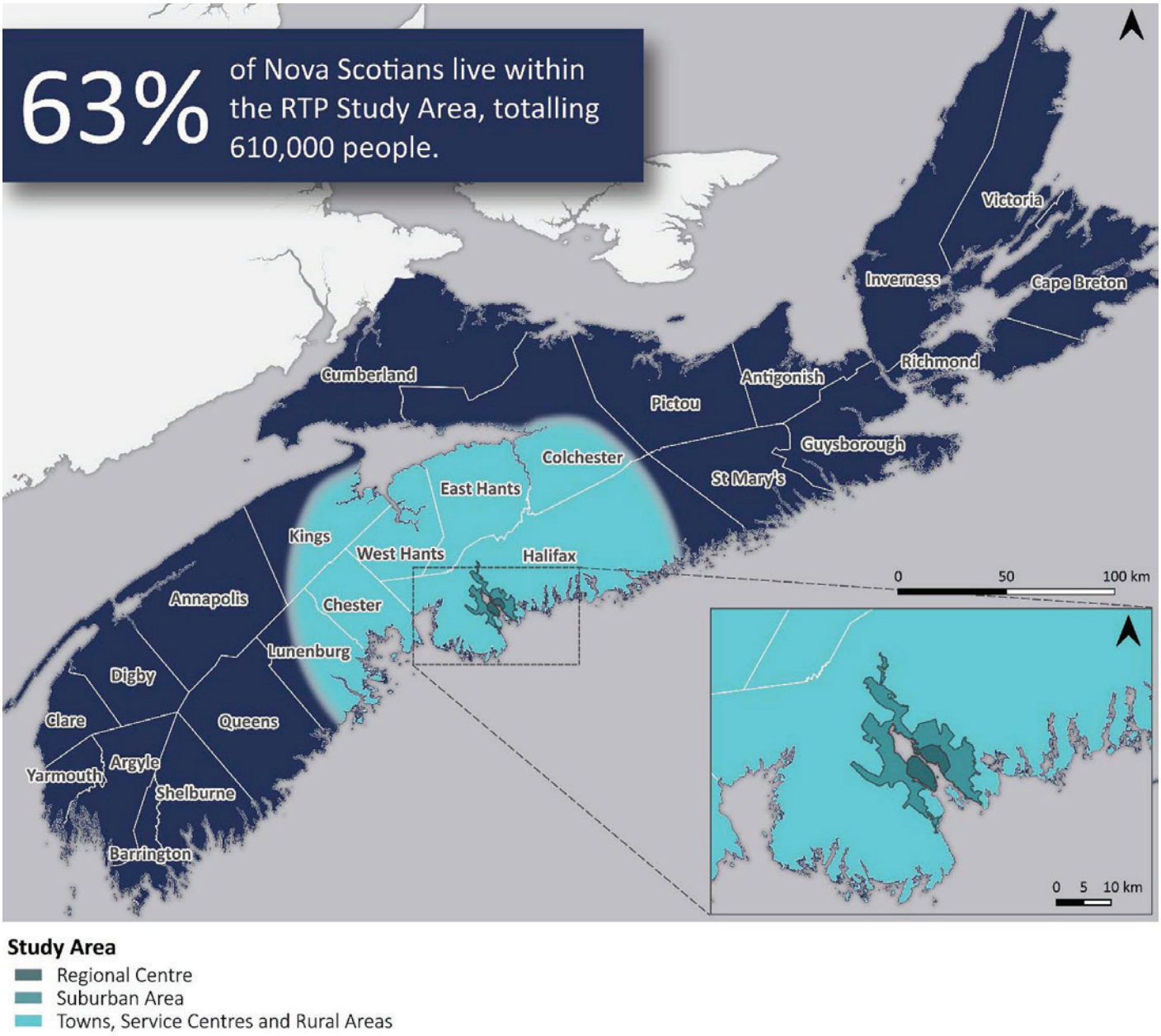
1.1 What is the Regional Transportation Plan?

This document is Nova Scotia's first ever plan for regional transportation. The RTP presents a unified framework for the long-term future of the regional transportation system. It will facilitate **sustainable growth and development** and improve the **safe and efficient movement of people and goods**. It will identify transportation investments and measure transportation outcomes for the decades to come.

1.1.1 Geographic scope

The RTP study area is centred on Halifax and includes communities within a roughly one-hour drive, which will be referred to as “the Region” (**Figure 1.1**). It includes five First Nations communities, 15 municipalities, and 19 historic African Nova Scotian communities.

Figure 1.1 The region covered by the Regional Transportation Plan



Geography Guide

Throughout this document, you will see references to specific geographies within the Region:

- The **Region** is the full study area of the plan, inclusive of communities within a roughly one-hour drive from the Regional Centre.
- The **Regional Centre** is the area comprising the Halifax Peninsula and Dartmouth within the Circumferential Highway (Highway 111).
- The **Suburban Area** is the suburban part of HRM outside of the Regional Centre which makes up the remainder of HRM's Urban Service Area.
- **Towns, Service Centres, and Rural Areas** is the area within the Region outside the HRM Urban Service Area. This includes rural HRM and the 14 surrounding municipalities.

The communities and municipalities within the Region are outlined below:

First Nations

- Annapolis Valley
- Glooscap
- Millbrook
- Sipekne'katik
- Wasoqopa'q

Municipalities

- Halifax Regional Municipality
- Municipality of the County of Colchester
- Municipality of the County of Kings
- Municipality of the District of Chester
- Municipality of the District of Lunenburg
- Municipality of East Hants
- Town of Berwick
- Town of Bridgewater
- Town of Kentville
- Town of Lunenburg
- Town of Mahone Bay
- Town of Stewiacke
- Town of Truro
- Town of Wolfville
- West Hants Regional Municipality

Historic African Nova Scotian communities

- Africville
- Aldershot
- Beechville
- Cambridge
- Cherry Brook
- Cobequid Road
- Dartmouth
- East Preston
- Five Mile Plains
- Gibson Woods
- Halifax
- Kentville
- Lake Loon
- Lucasville
- Maroon Hill
- North Preston
- Old Guysborough Road (Goff's)
- Truro
- Upper Hammonds Plains

Photo: Halifax Regional Municipality

1.1.2 Vision

What should the Region's future transportation system look like? Who should it serve, and how should it function? To develop a plan that works for the future, a desired future state needs to be established.

In collaboration with the Core Partners and the public, a vision for the future transportation system has been developed. It provides the destination to reach with this plan, and all recommendations have been developed with the vision in mind.

Nova Scotians have a safe, efficient, equitable, and resilient regional transportation system. Our people and communities are healthy, connected, and prosperous, powering a strong regional economy.

What makes this the right vision?

- It best encompasses the different needs of the transportation system and the people who rely on it. The transportation system needs to work for everyone. This means ensuring that people can get where they need to go, regardless of means, age, gender, or ability.
- It captures the important links between transportation and the other aspects of life that depend on transportation. This plan impacts so much more than just how people get around. Transportation is one of the foundations of society, and its form has a considerable influence on how the Region will develop in the future.

1.1.3 Principles

Principles are qualitative guidelines that influence the development of the RTP's recommendations, ensuring that the final product reflects the vision and goals. All aspects of the planning process have been guided by these principles.

Accessibility

Provides access to affordable, welcoming, inclusive, and efficient transportation essential for communities to thrive. The design of the system aligns with the province's goals for an accessible Nova Scotia by 2030.

Collaboration

Integrates a diverse range of ideas to advance regional transportation solutions that address challenges and maximize opportunities.

Equity

Addresses transportation needs for underrepresented and underserved communities so all Nova Scotians can travel easily throughout the region.

Resiliency

Prioritizes solutions that enhance the ability to recover from service disruptions and reduces the transportation system's vulnerability to climate impacts.

Sustainability

Prioritizes transportation solutions and coordinated land use that reduce greenhouse gas emissions to meet the province's net-zero target and protects environmental, agricultural, and cultural assets.

Well-being

Better connections for Nova Scotians to one another and the goods, places, and services they need to help build prosperous, safe, and healthy communities.

1.2 RTP development

Development of the RTP was a collaborative effort among Core Partners led by the JRTA. The RTP builds on their existing work. The planning process also combined **broad public, community-led engagement** and a rigorous approach to **modelling and data analysis**.

1.2.1 Building on existing initiatives

The RTP did not start from scratch. It was built on a considerable body of work by the Core Partners and municipalities in the region, and it complements and extends existing plans and projects, which propose important improvements to the transportation system.

It also works towards Nova Scotia's climate goals, building on existing net-zero initiatives underway across the province.

The RTP is shaped by provincial population projections and the expectations of municipalities in the Region for how this growth will be geographically distributed. It is the first transportation plan in the province to account for the pace of recent growth and the potential for continued growth.

Business as Usual Scenario

Transportation projects that have been initiated or committed to prior to the completion of the RTP are included in a **Business as Usual (BAU)** scenario – a future without any of the further interventions outlined in the RTP. This BAU scenario allows for the comparison of a future with and without the RTP.

The BAU includes:

- 100-series highway investments including the Highway 107 extension connecting Sackville and Bedford to Burnside, twinning along Highways 101 and 103, capacity enhancements along Highway 102, and select interchange upgrades.
- The Windsor Street Exchange Redevelopment and the Halifax Port Rail Solution.
- New connections between Trunk 2 in Wellington and Highway 102, as well as between Hammonds Plains and Highway 101.
- The Mill Cove Ferry.
- HRM's Regional Centre All Ages & Abilities Cycling Network and select active transportation projects that have secured funding to date.

1.2.2 Engagement

The RTP is a plan for Nova Scotians present and future and must properly reflect their needs and priorities. The RTP's development featured a multi-stage engagement program, in which the JRTA provided updates, validated findings and early recommendations, and gathered feedback to shape the RTP and actions within. The engagement program included:

- **Municipal working group** – in-person and virtual meetings with Chief Administrative Officers and / or senior planning staff from the 15 municipalities in the Region.
- **Provincial departments** – virtual sessions with 60+ staff from across Provincial departments.
- **Focus groups** – virtual sessions with representatives from community transportation operators, community organizations, advocacy groups, industry, major employers, and educational institutions.
- **Public engagement** – in-person and virtual engagement with residents that live or work in the study area to provide updates and collect feedback.
- **Community-led engagement** – based on advice from community leaders, the JRTA supported trusted, community-rooted organizations to host and facilitate 15 sessions and gather first-person and community-specific accounts and perspectives on transportation issues. This work included participation from more than 250 people across a range of distinct groups: African Nova Scotian youth, urban Indigenous people, women newcomers, and women and gender-diverse people experiencing homelessness or at risk of exploitation.

Feedback received is summarized in published What We Heard[1] reports, which demonstrate how the input provided was acted on.

1 *These reports are available at* linknovascotia.ca

1.2.3 Analysis and modelling

The recommendations of the RTP are informed by a rigorous process of analysis, scenario planning, and modelling. This was done to quantify the impact of the proposed actions to determine which ones would most benefit the Region.

The first step was to conduct a comprehensive review of the existing regional transportation system to identify gaps and needs and to produce potential future actions. This phase was supported by input from the engagement initiatives as discussed in the previous section.

Next, a scenario planning exercise was conducted to explore approaches that would be most resilient to a range of potential futures. The best approach was determined to be one which combined immediate investment with long-term strategic thinking and responsiveness to external change.

Finally, packages of potential network improvements and policy changes against a 'most likely' future growth scenario using a state-of-the-art travel demand model were systematically tested. The model generates high-quality forecasts of travel times, travel demand, congestion, and mode share given a proposed suite of network and policy changes. The best resulting package of network improvements is recommended in the RTP, and its anticipated impacts are highlighted.

Equity in Transportation Planning

As part of the development of the RTP, scenarios and recommendations were viewed through the lens of equity to understand the distribution of burdens and benefits. A transportation equity lens includes:

	Procedural equity	Geographic equity	Social equity
Definition	The involvement of diverse people and groups, including those generally underrepresented or historically excluded, in the processes that guide transportation decisions	The fair distribution of positive and negative outcomes across territory and space	The fair distribution of outcomes across population groups, particularly underrepresented and underserved communities that differ by income, socioeconomic status, and access to mobility
Usage	• Guided engagement on the RTP; and • Guide project design and implementation	• Guide project and policy design • Evaluate and measure the impact of proposed projects and policies (both benefits and burdens); and • Consideration in the prioritization of RTP recommendations	

2

Regional Snapshot

Extending about an hour's drive from Halifax, the Region varies from dense urban neighbourhoods to small towns to expansive rural areas. This section discusses the characteristics of the Region and the current transportation system.

2.1 A growing region

In 2021, Nova Scotia set new immigration and population records and surpassed the threshold of one million people. This period of strong growth presents **new opportunities**, from increased economic output to diversity of thought and culture. It has, at the same time, created **transportation issues**: increased congestion, more collisions, and longer daily trips. The Province is already acting on other challenges to increase housing supply, attract and retain its workforce, improve the healthcare system, and tackle the climate crisis. **Similar action is needed for the transportation system**.

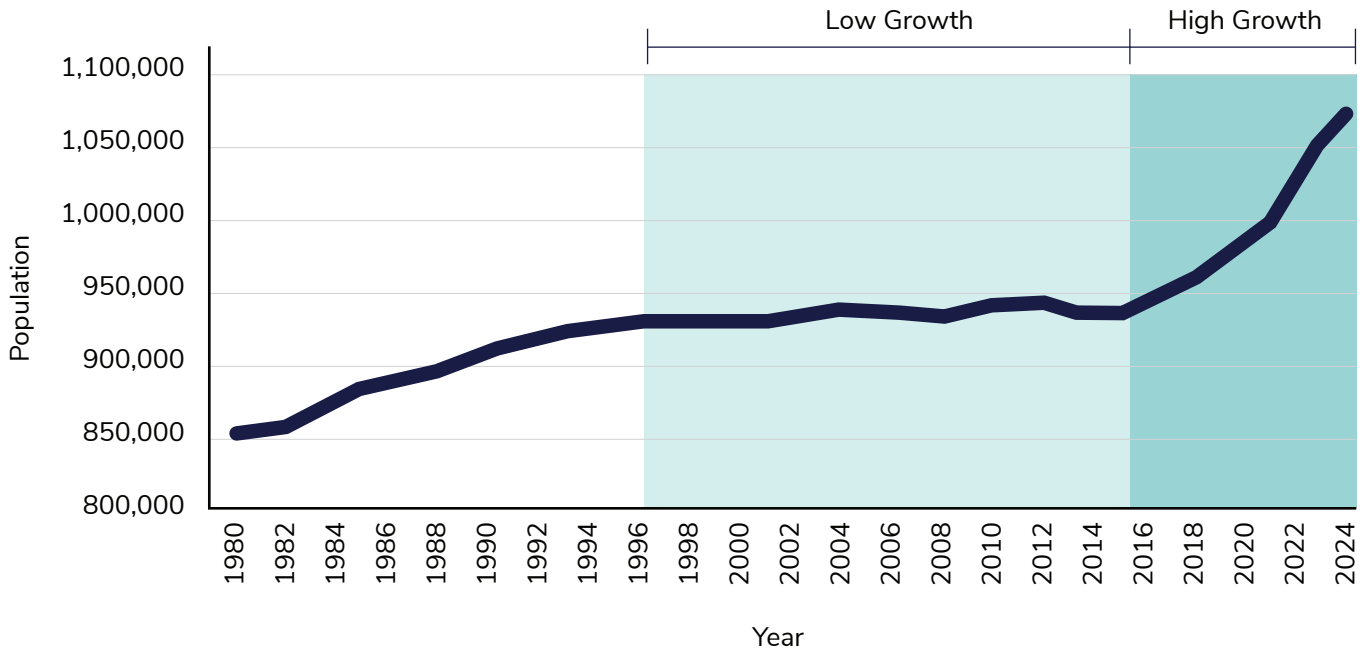
2.1.1 Background

With a high quality of life, easy access to the ocean and natural wilderness areas, lower costs of living than other parts of Canada, and flourishing research and economic sectors, Nova Scotia is attracting and retaining more residents than ever (**Figure 2.1**). Newcomers to the province are helping to create a more prosperous Nova Scotia for all residents, creating new opportunities, actively participating in communities, and contributing to key sectors like healthcare, construction, IT, and other skilled trades.

Between 2001 and 2021, the population of Nova Scotia increased by 6.8% from 908,000 to 969,000 people.[2] HRM has been the main source of growth within the province, increasing 22.5% from 360,000 people in 2001 to 440,000 people in 2021, due to higher rates of immigration from outside of Nova Scotia and internal migration from other parts of the province. Many communities in the Region have also been growing faster than the provincial average.

Recent growth, which started in 2016, reversed a prolonged period of little to no growth. Recognizing the importance of immigration and population growth for the future of the province, the government aims to further increase Nova Scotia's population over the next 30 plus years. Much of this growth is anticipated to occur within HRM and its neighbouring communities, which form the population and employment hub for the province.

Figure 2.1 Nova Scotia population over time



2 *Statistics Canada Census, 2021*

2.1.2 Population and employment patterns

As of 2021, the Region was home to approximately 610,000 people—nearly two thirds of the population of Nova Scotia. The urban areas of Halifax, Dartmouth, Clayton Park, and Bedford feature the highest concentrations of people (**Figure 2.3**). Most of the Regional Centre has densities above 40 people per hectare, and parts of downtown Halifax have over 160 people per hectare. Most of the Suburban Area has 10-40 people per hectare. Relatively dense residential patterns continue outwards from the Regional Centre into Lower Sackville, suburban Dartmouth, Spryfield, Beechville-Timberlea, and Eastern Passage.

In contrast, the rest of the Region has densities below 10 people per hectare. Here, the main concentrations are in and around Truro and Bridgewater, and along the corridor between Kentville, Wolfville, and Windsor. In rural areas, most residents live along or close to highways, such as along Highway 102 in the southeastern portion of the Municipality of East Hants. This is known as 'ribbon development'.

The communities of Millbrook and Sipekne'katik, both situated within or adjacent to the Highway 102 corridor, are home to the largest Indigenous communities within the Region. Other areas with high concentration of Indigenous people include the Acadia First Nation on the South Shore and Glooscap First Nation. HRM is also home to more than 16,000 people who identify as Indigenous. Within the HRM Urban Service Area, significant clusters of Indigenous people can be found in Halifax's North End and Cole Harbour.

The largest African Nova Scotia communities can be found in Halifax, Dartmouth, North Preston, East Preston, Pockwock, Cole Harbour, Cherry Brook, Lake Loon, Clayton Park, Spryfield, West Hants, and northwest Truro.

Historically, many established Indigenous[3] and African Nova Scotian[4] communities within the Region were intentionally relocated to more isolated areas far from resources or without the qualities of place that enabled these communities to thrive. These events have caused dispersion, fragmentation, and isolation of people and communities and have contributed to the formation of today's pattern of development. Understanding this historical context and its influence today is critical to help address historic transportation inequities through future investments and programs.

The distribution of jobs generally matches the housing and settlement patterns, with concentrations in or near major population centres. The largest concentration of jobs can be found on the Halifax Peninsula and in Burnside. Concentrations in downtown Dartmouth, Woodside, Bayers Lake, and the airport are also significant. Truro, Kentville, Wolfville, and Bridgewater are key employment nodes outside of HRM.

3 *Sipkne'katik Website - History*
4 *Nova Scotia Archives: African Nova Scotians in the Age of Slavery and Abolition*

2.1.3 Anticipated growth

The Province and many municipalities are preparing for significant population growth over the coming decades. Much of that growth is projected to occur within the Region. HRM has oriented its Regional Plan around a population of one million and the surrounding municipalities are anticipated to grow to 300,000 people (**Figure 2.2**). The anticipated distribution of growth within the Region is shown in **Figure 2.4**.

Growth on this scale presents a great opportunity for the province and the Region, but with that opportunity also comes several challenges. With consecutive years of recent high growth, representing over 100,000 new residents in a short period of time, travellers and goods are already impacted by increased congestion and reduced reliability, due in large part to the limited transportation options and space constraints in areas with significant transportation demand. Previous plans and studies have proposed some important improvements to the system, but none fully contemplated the pace of recent growth or the amount of growth currently anticipated.

Figure 2.2 Population and jobs within the region

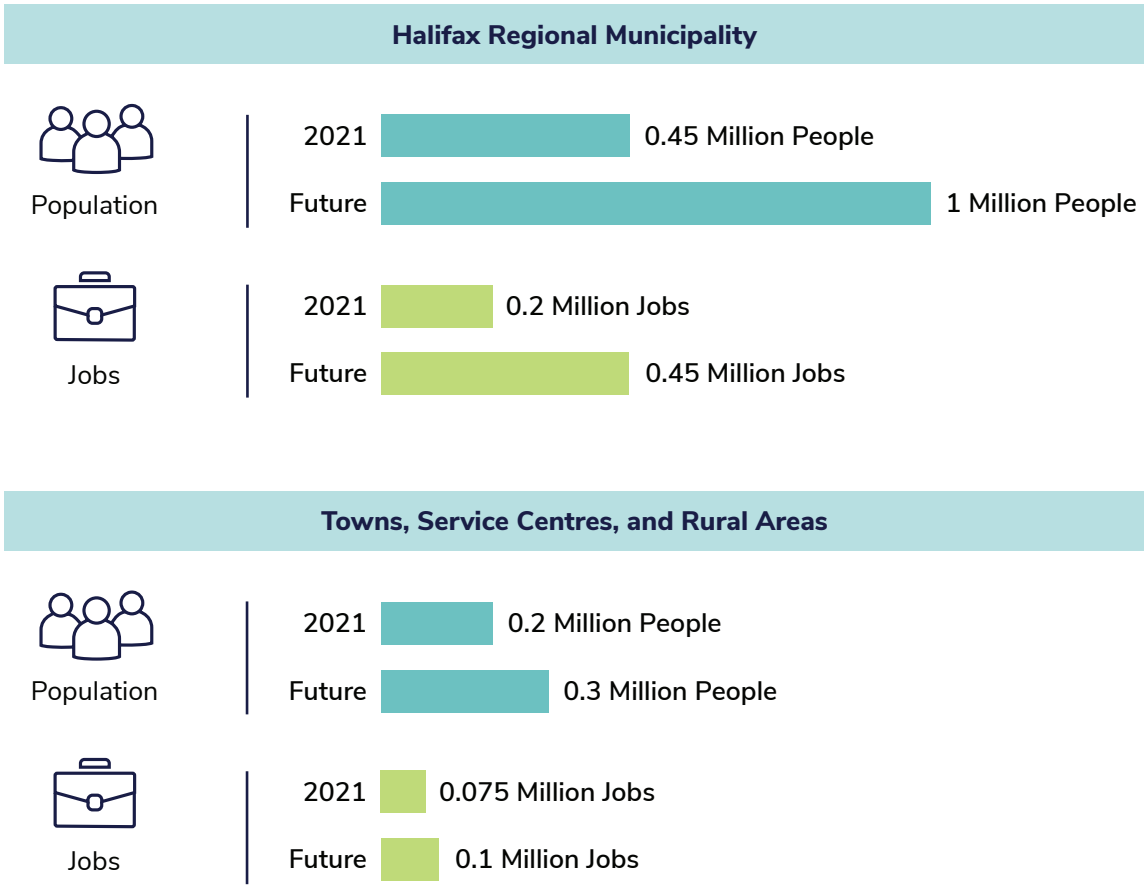
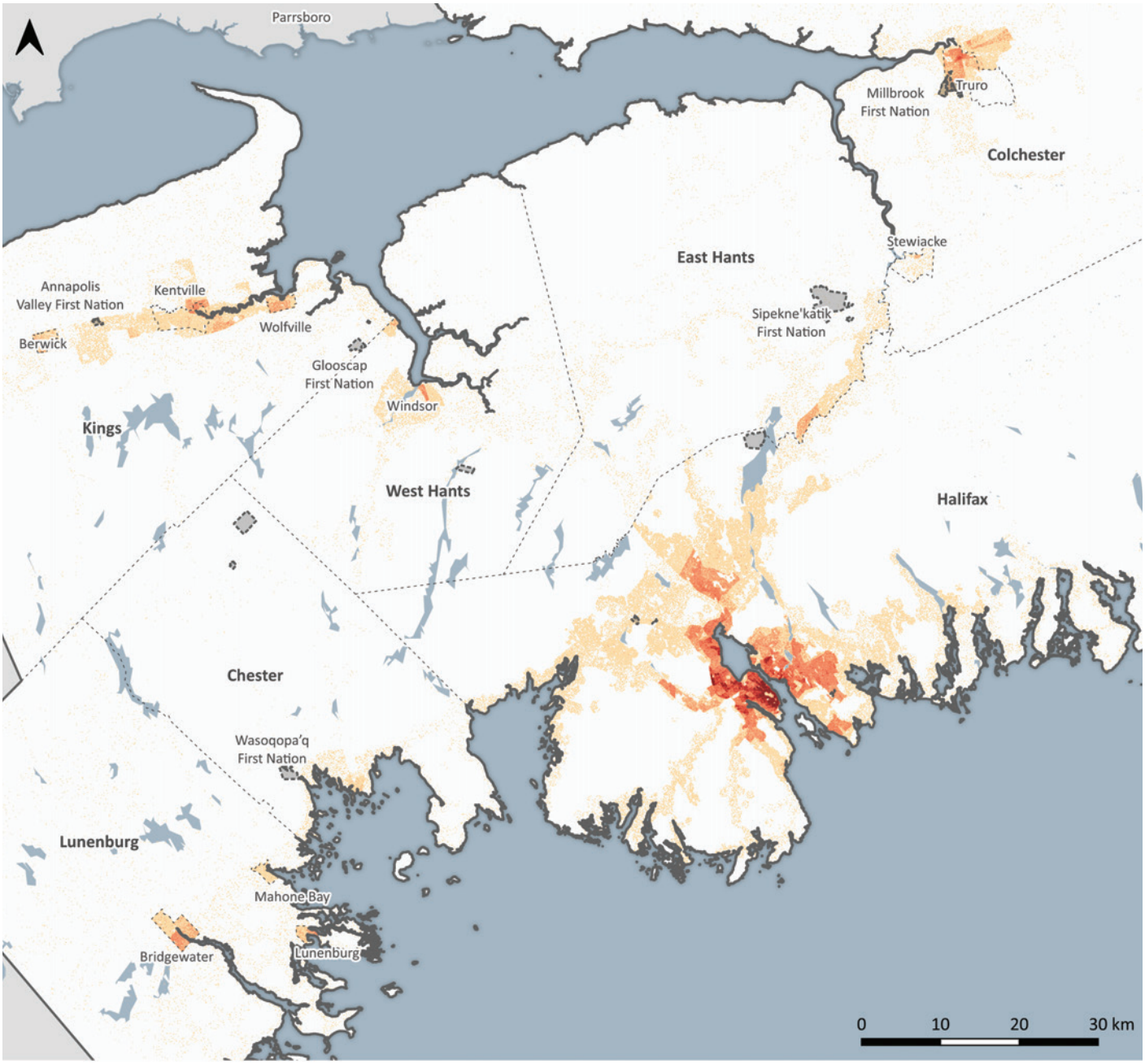


Figure 2.3 2021 population and employment density

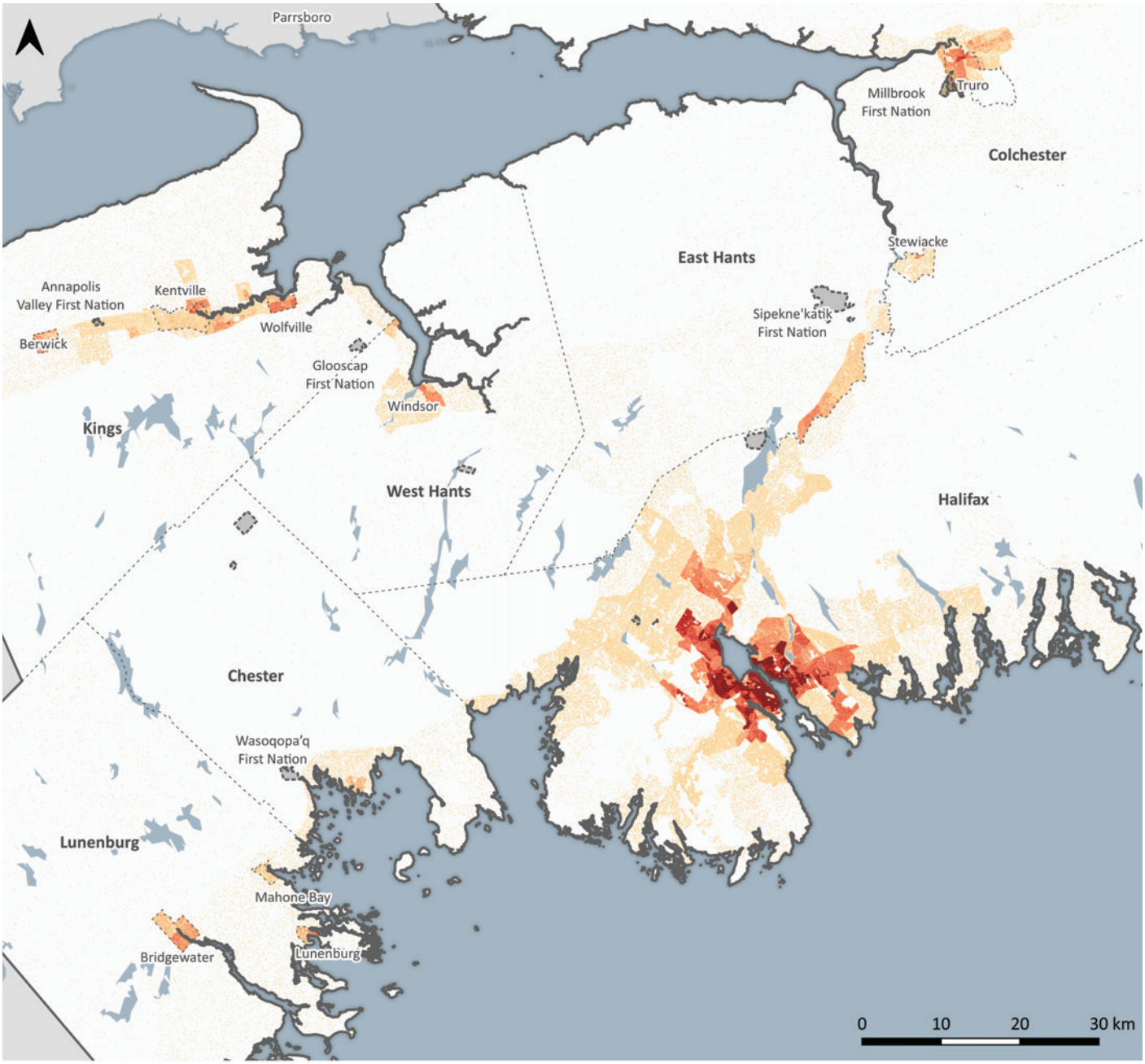


2021 Population and Employment Density Per Hectare

- < 10
- 11- 20
- 21- 40
- 41- 60
- 61- 80
- 81- 100
- > 100

- Municipal Boundaries
- First Nations Communities
- Waterbody

Figure 2.4 Projected long-term population and employment density



2.2 Regional transportation today

People getting around the Region today can rely on an **extensive and connected road network** which facilitates travel in urban, suburban, and rural areas. Options for travelling **without a vehicle are more limited**, so most people drive.

2.2.1 How people get around

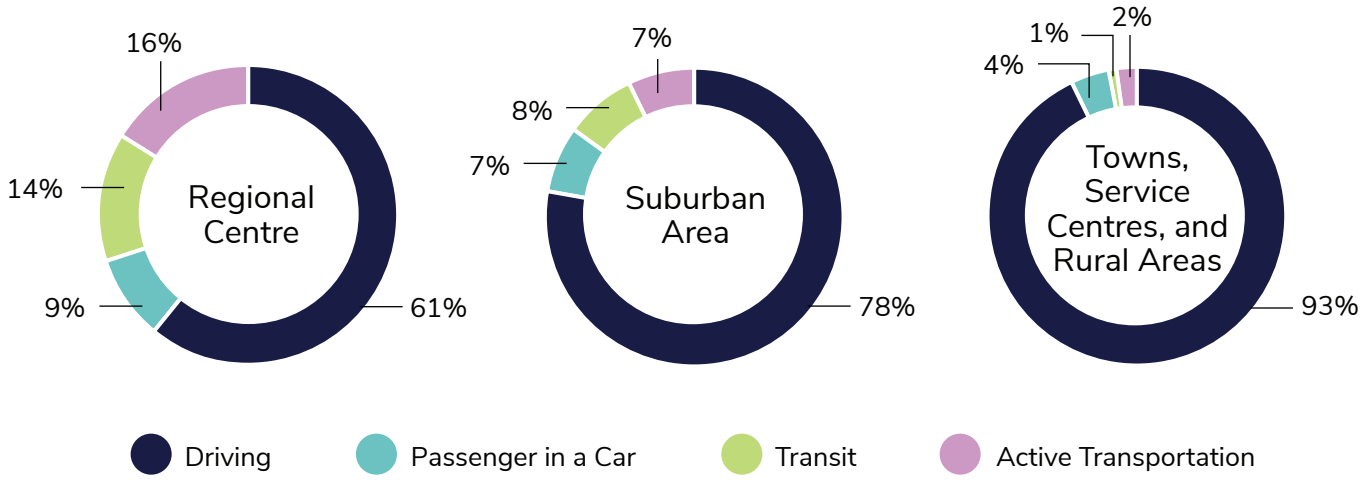
People living in the Region rely heavily on driving for their daily needs (**Figure 2.5**).[5] This translates to significant daily travel demand – over 1.15 million driving trips each day in the Region – and is reflected in the highest commuting mode share.

Walking, rolling, and cycling accounts for a meaningful segment of daily trips in the Regional Centre, where it makes up 16% of all commuting trips. The majority of trips are made up of people walking or rolling (14%) with a smaller number of people cycling (2%).

14% of commuting trips in the Regional Centre and 8% of commuting trips in the Suburban Area are people taking transit, making 70,000 weekday transit trips in 2022; this number has increased to over 100,000 weekday transit trips in 2024. New immigrants are often more reliant on public transit than other groups, or dependant on others for transportation when no public transit is available. A lack of transportation options often acts as a barrier in accessing immigration services, employment opportunities, support programs, and community organizations.

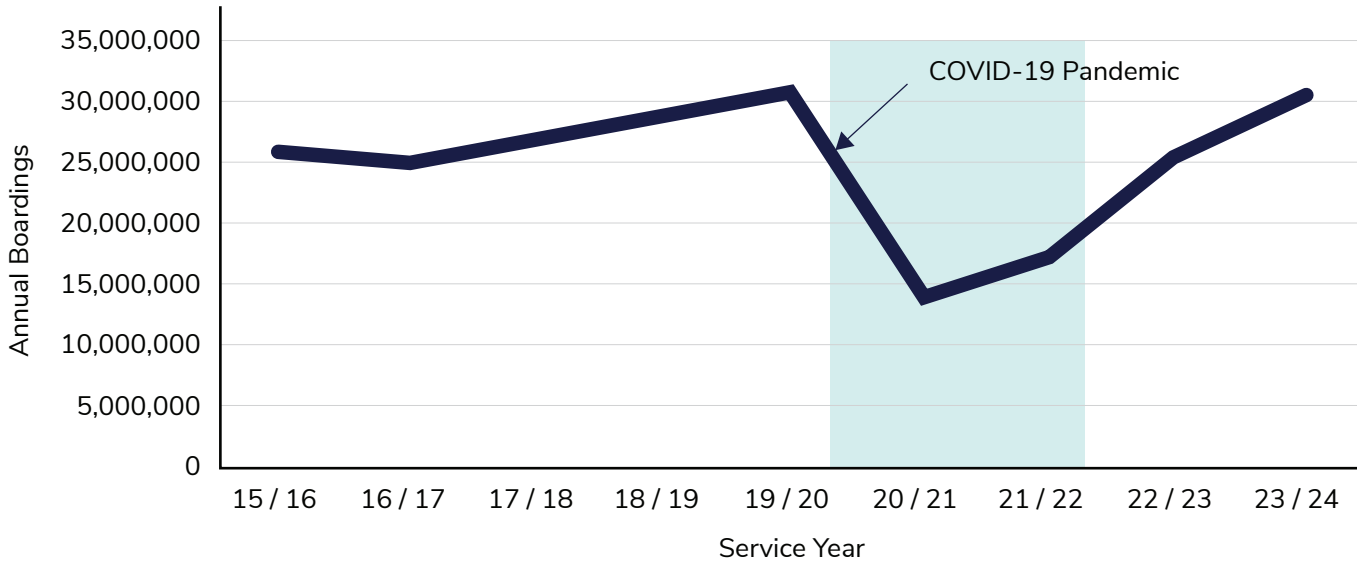
Halifax Transit boardings have mostly rebounded since the COVID-19 pandemic, with ridership nearly reaching its 2019 peak in the 2023/24 service year (**Figure 2.6**).[6] Outside of the HRM Urban Service Area transit commuting options are more limited, so trips are near non-existent.

Figure 2.5 2022 commuting mode share



5 *JRTA Regional Travel Demand Model*
6 *Halifax Transit Year End Performance Measures Reports*

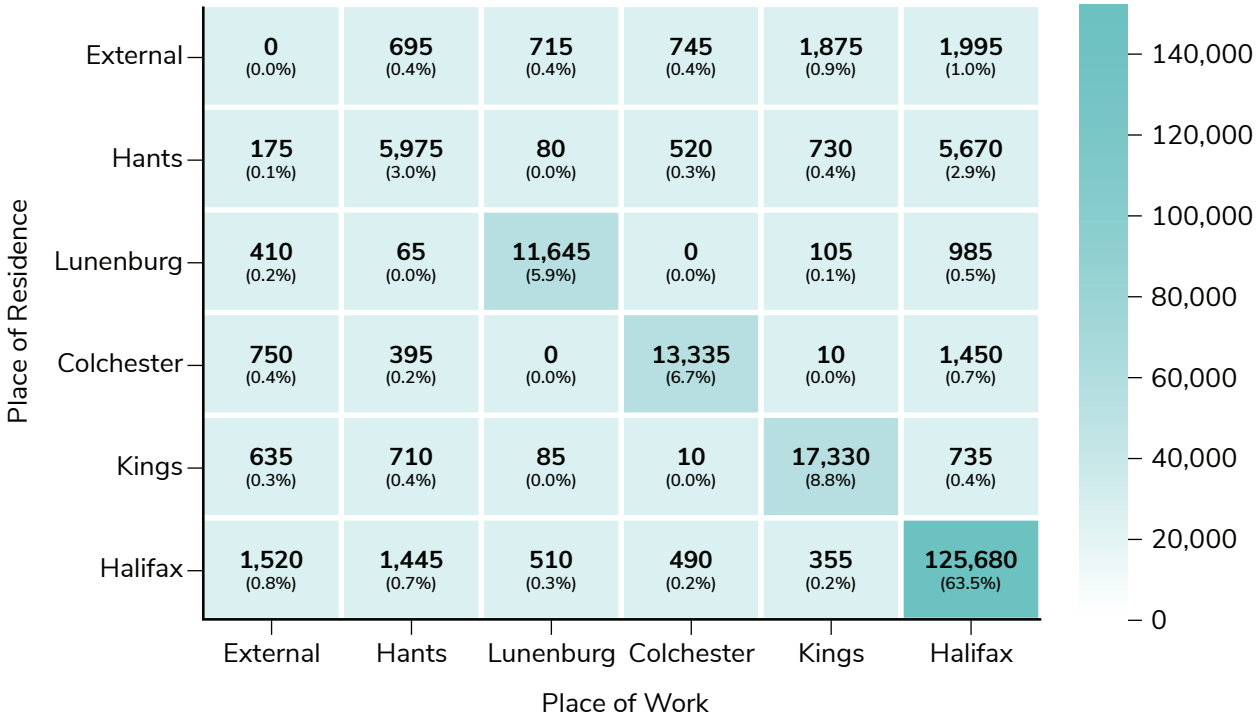
Figure 2.6 Annual Halifax Transit boardings



2.2.2 Where people are travelling

64% of residents in the Region both live and work within HRM (**Figure 2.7**),[7] with the Halifax Peninsula as the most significant trip generator and attractor. Just 8% of people work in a different county than where they live, meaning almost all the travel demand and resulting congestion in HRM is generated by HRM residents. An additional 9%, 7%, 6%, and 3% work and live in Kings, Colchester, Lunenburg, and Hants counties, respectively. These patterns exclude work-from-home.

Figure 2.7 2021 commuting travel patterns



7 *Canadian Census, 2021*

2.2.3 The existing transportation system

Due to years of ongoing investment, the Region has a comprehensive road network, anchored by Highways 101, 102, 103, 107, 111, and 118 (**Figure 2.8**). On a per capita basis, Nova Scotia has one of the highest densities of roads in Canada.[8]

Recent projects such as the Highway 107 extension between Burnside and Sackville and announcements such as the improvements to Highway 102 aim to further improve access to key destinations and mobility through the Region. However, significant challenges remain. A key constraint on the road network is access to the Halifax Peninsula. From the west, access is concentrated on a few access points via Highway 102, the Bedford Highway, and the Armdale Roundabout. From the east, the Halifax Harbour serves as a natural barrier in the network, with the Angus L. Macdonald Bridge and the A. Murray MacKay Bridge providing the only two vehicular crossings. The bridges currently attract significant daily demand, which is expected to increase in the future. Recent investments have extended the life of the Macdonald Bridge, but elements of the MacKay Bridge are nearing the end of their life.

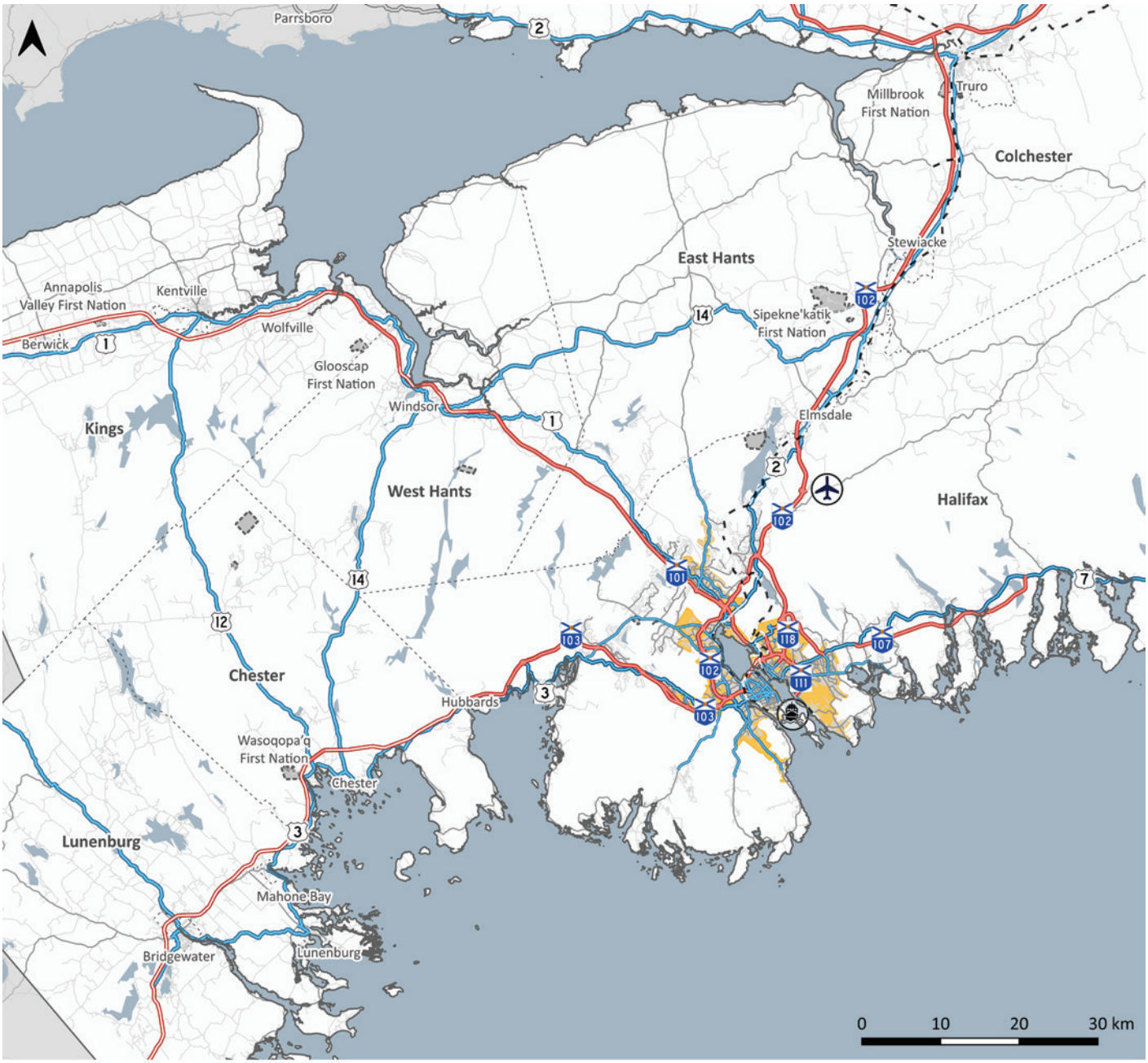
In contrast, the availability of AT infrastructure and transit service varies throughout the Region. Broadly, these networks are most comprehensive in urban or town centres and become sparser and less connected the further away one travels from these centres.

Within HRM, transit service is provided by Halifax Transit. Service is primarily focused within the HRM Urban Service Area with a few routes that provide connections from outlying areas into the Regional Centre and transit terminals. Service is less frequent in suburban and rural areas and off-peak options are limited. Currently, the harbour ferries are the only form of transit service in the Region that operates within a fully dedicated right of way. Beyond HRM, the Town of Bridgewater and Kings Transit are the only other fixed-route transit services available. All other local publicly accessible transportation is provided by eight community transportation operators, who offer on-demand services. Maritime Bus and VIA Rail offer further regional connections but run at a limited frequency.

The Region is an important hub in the North American supply chain, and a gateway for the movement of goods by air, sea, and land. The MacKay Bridge and Highways 102 and 118 are major goods movement corridors, carrying 4,000 to 10,000 trucks per day. The Port of Halifax is the largest port in Atlantic Canada and the fourth largest port in Canada. CN, which owns and operates the rail infrastructure in the Region, facilitates the transport of goods to / from the port. Halifax Stanfield International Airport is also an important passenger and air cargo link, welcoming 4.2 million passengers and processing 41,000 metric tonnes of air cargo in 2019.

8 *Statistics Canada, Inventory of publicly owned road assets, 2022*

Figure 2.8 2022 Regional transportation system



2022 Regional Transportation System

Transportation Network

- 100-Series Highway (Divided)
- 100-Series Highway (Undivided)
- Trunk Highway / Arterial
- Route / Collector
- Local Road
- Railroad

Key Gateways

- Airport
- Port

Map Elements

- Municipal Boundaries
- HRM Urban Service Area
- Analysis Area
- First Nations Communities

3

The Future of Transportation in the Region

The RTP outlines a future in which the Region is more connected, goods movement is more efficient and sustainable, and the transportation system is prepared for technological change. To get there, collaborative planning and strategic investments are needed. This section describes the desired future and how the RTP will achieve it.

3.1 A strategic approach to transportation

The RTP represents a **strategic approach to planning** for future transportation projects and policies. It emphasizes **collaboration, more choices**, stronger **coordination with land use planning**, and an adoption of **new technologies** that collectively support users and goods movement.

3.1.1 Goals for the future

As part of the planning process, five goals to transform the Region's transportation system have been developed in collaboration with the Core Partners and municipalities and through engagement with Nova Scotians. The goal statements reflect the desired future state of the transportation system. The RTP uses these five goals to structure its strategic directions and actions.

Strengthen regional connections

Travel between communities and to regional destinations, regardless of mode or trip purpose is safe, easy, and enjoyable. A realistic range of affordable and sustainable transportation options are available that lower household costs, emissions and vehicle dependency, reduce fatalities and injuries, and enhance social connectivity.

Enable efficient and sustainable goods movement

Essential corridors for moving goods locally and regionally are developed, preserved, and well-maintained to enable the reliable movement of goods and support economic development and trade.

Develop a future-ready regional transportation system

The transportation system is resilient and adaptable, able to respond to changing trends, uncertainty, and climate change. There is consideration for technological advancements, societal changes, and the long-term needs of the system.

Coordinate and collaborate on long-term planning

All orders of government work to align transportation and land use across departments and initiatives. The regional transportation system supports environmentally and fiscally sustainable development, recognizing the different needs of health urban, suburban, and rural communities.

Lead strategic investments, alignment, and implementation

Infrastructure decision-making and service delivery is cost effective, integrated, and efficient. Actions included in the plan are ambitious yet achievable, maximizing their potential to be funded and built.

3.1.2 The planning approach

As the RTP presents a transformational vision for the transportation system, achieving its goals will take a coordinated effort to advance the recommended strategies and actions.

The RTP outlines substantial investment in the regional transportation system. It also represents an evolution of transportation planning in the Region. This subsection lays out four aspects of the RTP's approach to transportation planning.

Collaboration

The RTP was developed by the JRTA in collaboration with partners across all orders of government. Continued collaboration will be important for the future of regional transportation planning.

The transportation system is multifaceted and complex and interacts with many different parts of society, the landscape, and the economy. The Region's transportation system is shaped by many actors, including the JRTA's Core Partners who own, operate, or fund transportation in the Region; municipalities that shape and influence growth and land use; industry that interfaces with the system and rely on it to support their operations; and academia which studies the system and potential interventions from a range of perspectives. The work of each organization and group affects the entire Region.

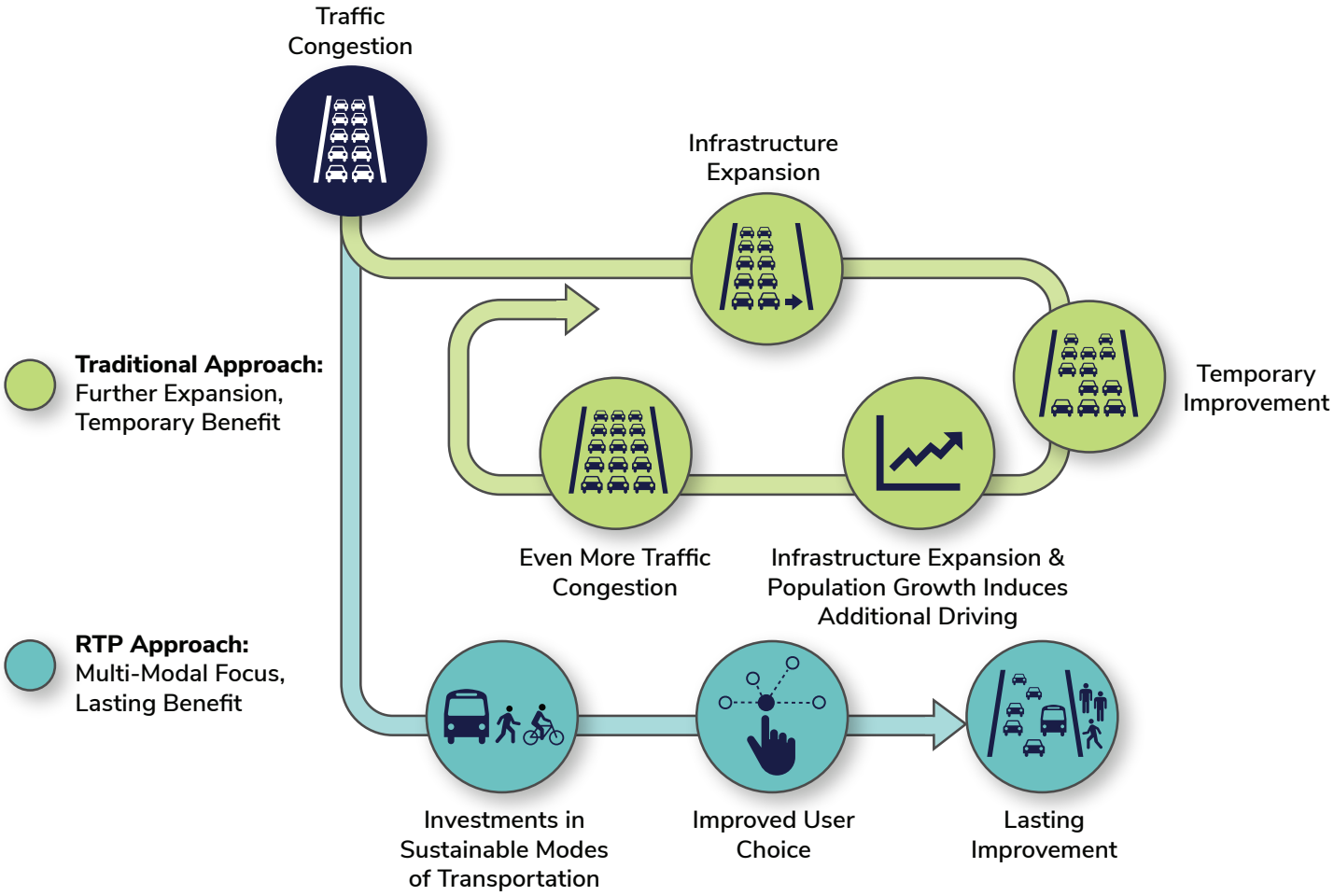
Sharing knowledge, data, experience, and capacities will result in richer future decision-making, benefiting the entire Region.

Tackling congestion

Across North America, the historical focus of transportation planners and engineers has been on expanding road capacity in response to growing travel demand. However, evidence from growing regions shows that this approach simply encourages more people to drive. This can lead to a cycle of continuously widening roads without achieving a sustained reduction in congestion, travel times, or GHG emissions (**Figure 3.1**). When faced with limited space, congestion can exacerbate conflicts between users, reducing road safety, and degrades the quality of community and public spaces.

To accommodate the anticipated growth and associated demand from both the movement of people and goods, and achieve lasting improvements, new approaches are needed. Investing strategically in a combination of projects including transit, AT, and technology such as intelligent transportation systems (ITS) along with strategic roadway links to address critical bottlenecks will better accommodate the future transportation demand and secure benefits of these investments over the long-term. Doing so provides more transportation choices for Nova Scotians, which can then free up more space on the roads for goods movement and for those who need to drive.

Figure 3.1 Breaking the cycle of traffic congestion



Investments in sustainable modes of transportation include both transit and AT:

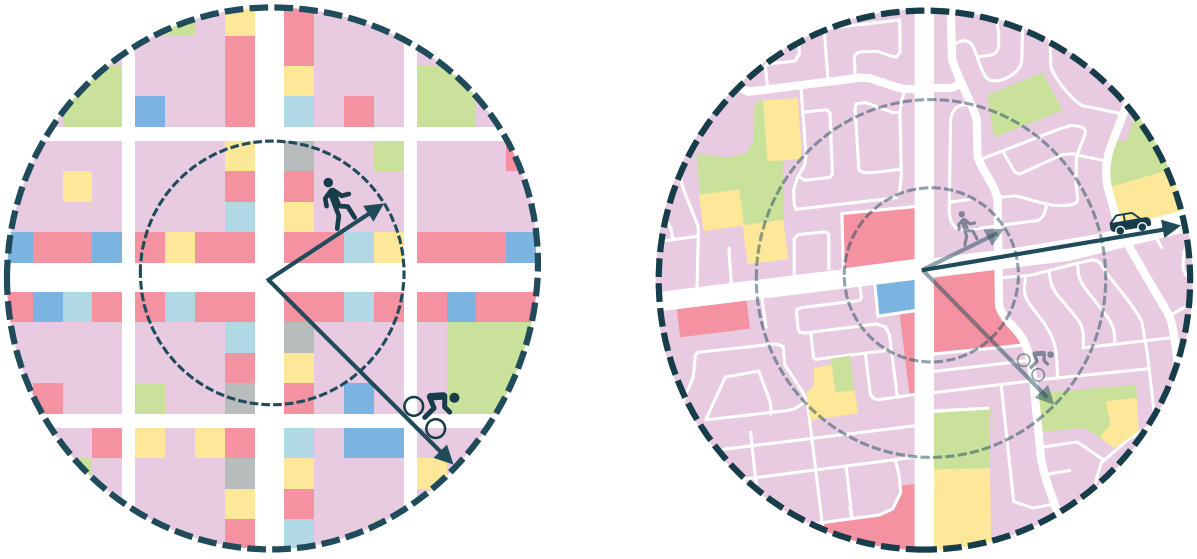
- **Transit**, which includes buses, ferries, and rail, can offer people a low-cost way to travel around the Region, and for many people may be their only means of travel for longer daily trips. Today, transit travel time is not usually competitive with driving and connections across the Region are limited.
- **Active transportation**, which includes walking, rolling, and cycling, can offer a healthier, reliable, lower-cost way to take shorter trips. However, pedestrians and cyclists today often face low levels of comfort along auto-oriented routes.

Coordinating transportation and land use planning

While transportation infrastructure and service investments are the focus of the RTP, they are just one part of the puzzle. Land use planning and community design play a critical role. Post-World War II communities within the Region, like most of North America, were oriented around the private vehicle. Communities like these, where people's daily needs and key destinations are separated from residential areas, make travel by anything other than a private vehicle challenging. This development pattern remains highly prevalent in suburban growth areas throughout the Region.

More coordinated and compact land use is required to maximize the investments outlined in the RTP. Higher levels of population and employment density around key transit nodes support higher transit service levels and promote AT (**Figure 3.2**). Although the RTP sets a precedent for regional collaboration on transportation planning, more work is needed to better link transportation and land use between the provincial and municipal governments to fully capitalize on this approach.

Figure 3.2 Land use comparison



Sustainable land use planning (left) provides a mix of land uses near residences so daily needs can accessed by AT within a short distance. Auto-centric design separates residential land uses from all other types, requiring long distance travel for daily needs, which is only viable by private vehicles.

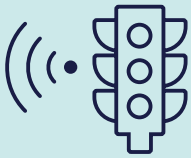
Capitalizing on technological developments

The transportation sector is undergoing a transformative change. New technologies offer expanded mobility options, increased efficiency, and improved safety. Some, such as ITS are available today, and others, such as connected and automated vehicles (CAVs), seem likely to emerge. The RTP includes actions to prepare for new technologies before they arrive and adopt beneficial innovations to improve the regional transportation system as it progresses.

An example of how to take advantage of ITS technology is through a transportation management centre which dynamically adjusts traffic operations in response to data from real-time monitoring. These centres improve the safety, efficiency, and reliability of the transportation system. Improved data collection and analysis will also enhance the understanding of regional travel patterns and goods movement which can inform targeted interventions in the future.

It is also important to monitor emerging technologies to allow for a timely and coordinated response when they arrive on the market as viable transportation options. Technologies such as CAVs have large potential upsides, but moving ahead without careful consideration also has risks—such as the possibility that CAVs may increase congestion by adding empty vehicles to the road network. Thus, it is important to support the local transportation research community, bringing the benefit of its cutting-edge research to the Region.

Examples of new and emerging transportation technologies

Technology	 **On-demand transit** provides bus service with flexible routes and times in low density areas or for those who need mobility support.	 **Intelligent transportation systems** such as smart traffic signals dynamically adapt traffic operations based on demand.	 **Connected and automated vehicles** are networked and drive themselves with minimal or no human intervention.
Potential	Provide mobility to non-drivers, especially in less-populated areas.	Utilize existing transportation infrastructure more efficiently.	Increase road safety and improve mobility for non-drivers.

3.2 Addressing the challenges of growth

The RTP addresses **five key challenges** that come with a growing population. We heard about these issues repeatedly during engagement, and the RTP was designed with them in mind.

Safety

The magnitude of risk – and perceived risk – posed to travellers in the transportation system.

Efficiency & Reliability

The dependability of the transportation system: its capacity to get people and goods where they need to go, when they need to be there.

Access & Affordability

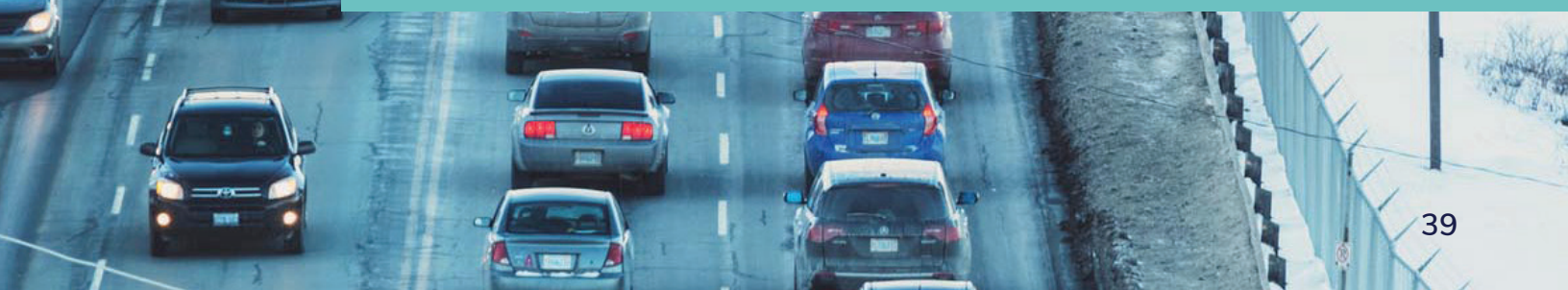
The ability of people to reach jobs, amenities, and other destinations in a reasonable time and within their budget.

Sustainability

The impact that the transportation system has on the local and global environment, and how it can help advance the Province's climate objectives.

Resiliency

The ability of the transportation system to withstand disruptions, and the speed at which it can return to normal following them.



3.2.1 Challenge 1: Safety

All deaths and serious injuries that occur within the transportation system are preventable tragedies. In 2022, Nova Scotia had the third highest provincial rate of traffic fatalities in Canada, at 6.9 fatalities per 100,000 people.[9] It also had the second highest provincial rate of traffic injuries in Canada, at 492 injuries per 100,000 people.[10] Road safety is affected by many factors including speed, street design, policy, technology, driver distraction, enforcement, and outreach. Improving safety requires a multifaceted approach.

Without the protection of a vehicle, pedestrians and cyclists are especially vulnerable on shared roads, and a lack of safety can discourage people from using these modes. For example, due to concerns about auto-centric environments, parents may drive their children to school and seniors or those with limited mobility may not travel at all. The Region's current road network discourages more sustainable modes of travel such as walking, rolling, and cycling due to its perceived level of safety.

What We Heard

The importance of transportation safety came up often in engagement.

- Many people raised concerns about collisions with other vehicles, unsafe or inadequate infrastructure for people walking or rolling, poor visibility at night due to lack of appropriate lighting, disconnected networks for people cycling, and safety on public transportation due to the behaviour of other users.
- While there is a desire to use AT to reach nearby destinations, as a sustainable option for the "last mile" of longer trips, for fun and recreation, and as a viable mode for those unable to drive, many people will not seriously consider this as an option until the system is safer, more connected, and better maintained.
- Personal safety is the single most important element when deciding between transportation options for vulnerable and at-risk groups.
- Stigma is a significant barrier for vulnerable and at-risk groups and is often felt when using transit. Stigma can negatively impact one's personal sense of safety in these instances.

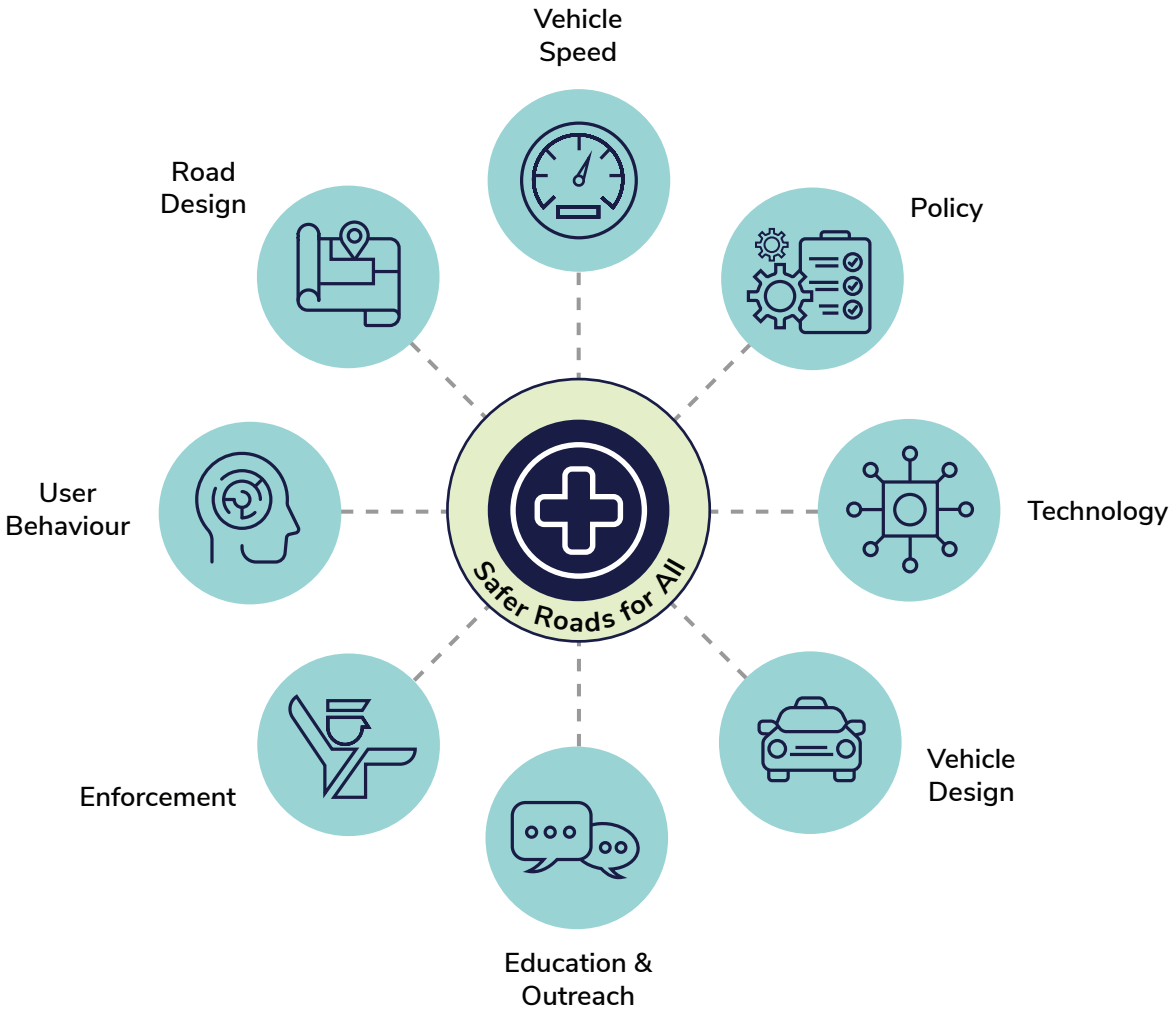
9 *Transport Canada National Collision Database*
10 *Transport Canada National Collision Database*

The RTP will build a safer transportation system

Everyone deserves the ability to travel safely, and a Region without traffic fatalities or serious injuries is possible. The majority of the Region's roadways today are designed primarily for the movement of vehicles, which contributes to the number of collisions experienced each year. The RTP takes a multi-pronged approach to improving road safety, illustrated in **Figure 3.3**, through changes to roadway design, leveraging technology, and targeted safety enhancements on key corridors.

As well as investing in safer roads, the RTP recommends investments in AT that will provide the physical infrastructure needed to better separate vulnerable road users from vehicles. Investments in transit will provide more transportation options, increasing access and helping to reduce the need to drive. Alongside these infrastructure improvements, supporting programs will help users gain comfort and confidence in safely navigating the transportation system.

Figure 3.3 Factors influencing road safety



3.2.2 Challenge 2: Reliability & Efficiency

Whether travelling to work, school, shopping, visiting family and friends, travelling to recreational activities, or travelling home, the transportation system gets people there and keeps goods moving. When the system doesn't work properly, it can be detrimental to the quality of life for everyone that depends on it.

The Region's geography presents several challenges to the efficiency of the road network, including several critical bottlenecks. Some notable constraints are:

- The Bedford area and the interchange between Highway 101 and 102
- The limited options for travel into and out of the Halifax Peninsula
- A challenging geography for goods movement with constraints on key corridors
- The aging MacKay Bridge, which is a frequent route for large trucks

Additional growth means more vehicles on the network. More vehicles on the network, with many of them travelling in constrained areas, creates congestion. In 2022, there were 1.15 million daily vehicle trips, and the demand on the system is anticipated to double without intervention, increasing the strain on an already-stretched system.

What We Heard

Travel time and efficiency was a prominent topic during RTP engagement. People are experiencing increased congestion during their daily travel and they want to spend less time in traffic.

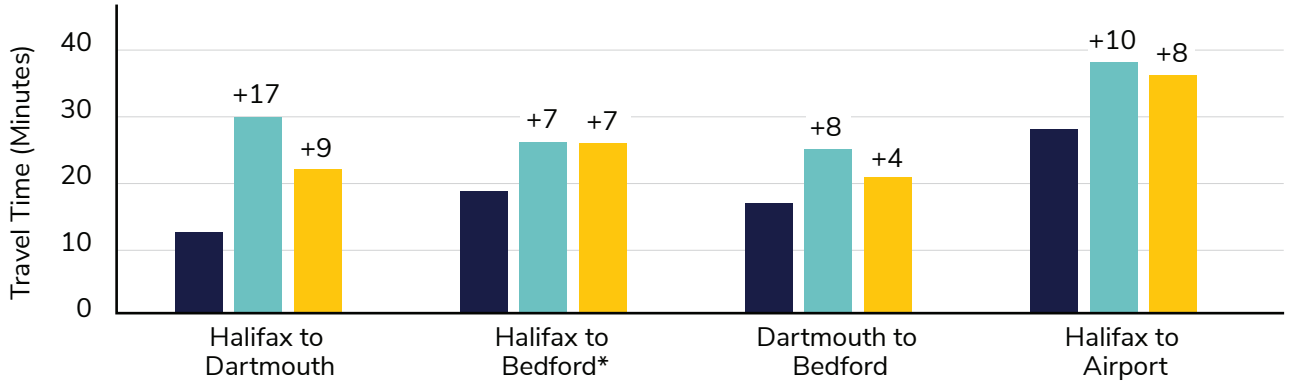
- Congestion was frequently identified as a major concern. Travel time and efficiency was a top priority for participants, in addition to reliability and convenience.
- Many participants drove and owned a vehicle due to the lack of other efficient and reliable options. People want to take advantage of the benefits of other modes (e.g. lower cost, safety, environmental impacts), but reliability issues prevent them from do so.
- People want to see reliable, frequent, and fast transit options to provide an alternative to getting around by vehicle. Irregular and infrequent bus schedules, long wait times and indirect routes discourage transit use.
- Parts of the Region are experiencing rapid development with more growth anticipated. Participants wanted a focus on improved transportation options in these developing areas to reduce congestion.

The RTP will optimize the performance of the transportation system

The RTP strikes a balance between new infrastructure and the optimization of existing assets to meet future demand. By adding road network capacity in targeted locations to address choke points while also expanding transit and AT infrastructure and service, the RTP will reduce the pressure on the road network and provide more space for goods movement and for those that need to drive, even as the Region grows. This will be supported by the adoption of new technologies and policy to maximize the use of existing infrastructure.

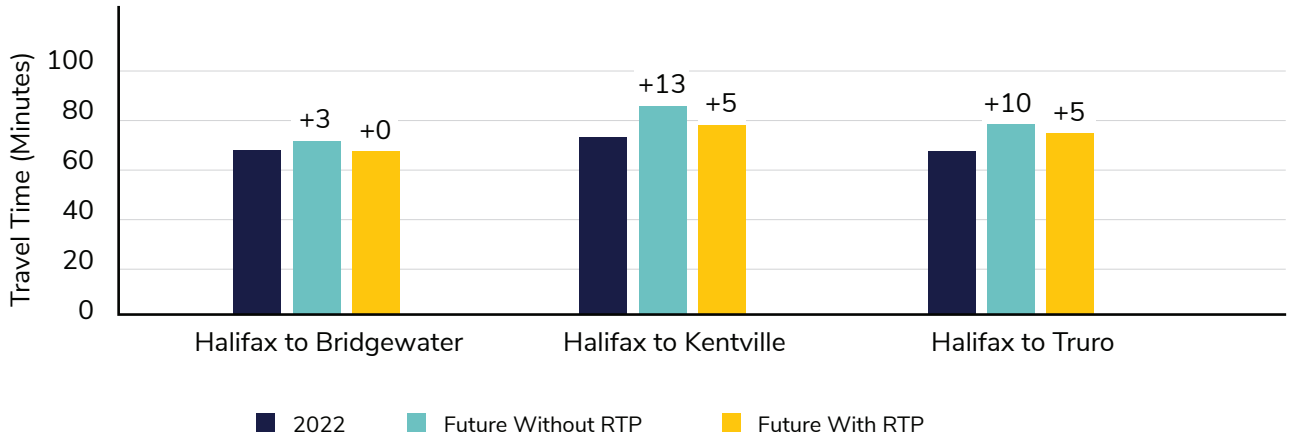
Without the RTP, significant degradation of network performance may result. **Figure 3.4** and **Figure 3.5** show a comparison of auto travel times between key destinations within the Region, both with and without the RTP's proposed recommendations. The RTP provides meaningful benefit through its ability to mitigate the impact of congestion that come from the levels of growth expected.

Figure 3.4 PM peak average travel time by vehicle (HRM)



** Travel times here are not showing a noticeable change as the BAU includes upgrades to Highway 102 between the Halifax Peninsula and Bedford.*

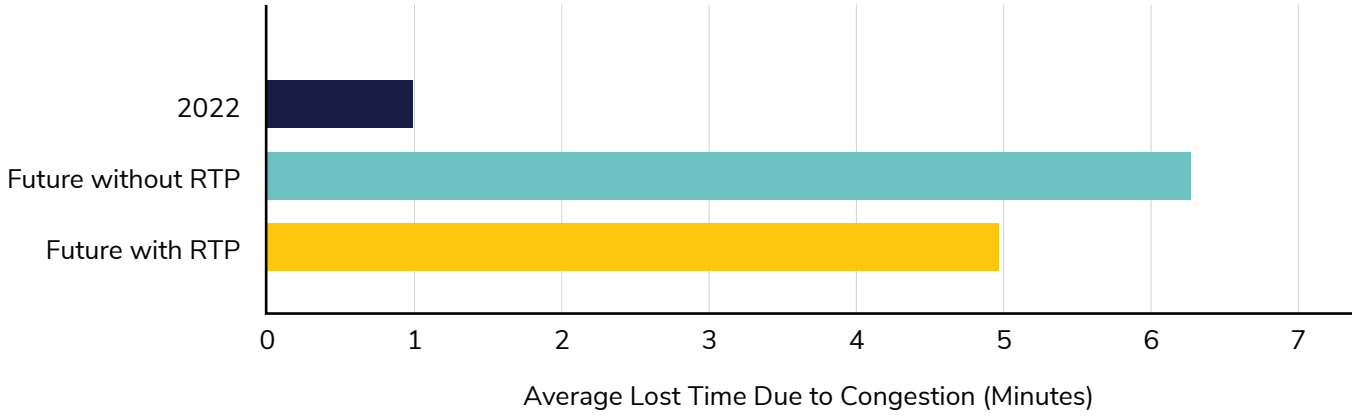
Figure 3.5 PM peak average travel time by vehicle (Region)



Without the RTP, increased demands on roadways will also result in a loss of goods movement efficiency, as trucks will operate in the same congested environment as vehicles. The RTP's recommendations help to mitigate the impacts of congestion, which will improve truck flow through the Region versus the future baseline (**Figure 3.6**).

Similarly, the introduction of rapid transit service within HRM provides significant benefit to transit travel times. Commuters travelling at peak times in the Regional Centre and Suburban Area can expect an average of 7-10 minutes of travel time savings versus a BAU future. The time savings are highest for those living and working close to rapid transit lines, where the level of service also supports high housing densities.

Figure 3.6 PM peak average peak period medium & heavy truck delay per trip



3.2.3 Challenge 3: Access & Affordability

After housing, transportation is the second highest expense for Nova Scotian households, costing on average nearly $11,000[11] each year. The existing transportation system and land use patterns make vehicle ownership all but necessary for most residents to access jobs and daily needs. Vehicle ownership is a significant financial burden on Nova Scotian households but provides high access to mobility.

Many people cannot afford a vehicle or may not be able to drive. 13% of Nova Scotians live in poverty,[12] 38% have a disability,[13] 22% are 65 or older,[14] and the province has welcomed many newcomers over the past decade – all groups more likely not to drive. For those who do not drive, the quality of access to jobs and amenities varies based on where they live. For many, neither vehicle ownership nor relocating to amenity-rich areas are feasible options, and accessing job opportunities, healthcare appointments, and social events can be a daily challenge.

What We Heard

We heard extensively from the community about the cost of transportation and its impact on household budgets and peoples' ability to get places.

- The cost of operating and maintaining a personal vehicle is unaffordable for many, and alternatives such as taxis can also be expensive, requiring residents to rely on family members or friends where transit is unavailable.
- Because of the increasing cost of housing, many people are living further from where they work and the services they need, requiring a vehicle adding to household expenditures.
- The need for a vehicle to travel much of the current system means that it is not equitable, creating barriers for those who do not drive. This disproportionately affects people with disabilities, seniors, youth, newcomers, African Nova Scotian communities, and First Nations communities, and is compounded in rural areas. Lack of access or affordability can also increase reliance on others, which, in some cases, results in decisions that put vulnerable people at risk of exploitation and human trafficking.
- Many rural residents expressed a desire to remain in their communities but are frustrated with the lack of accessible and affordable transportation options and the impact that this has on their health, quality of life, and overall sense of well-being.

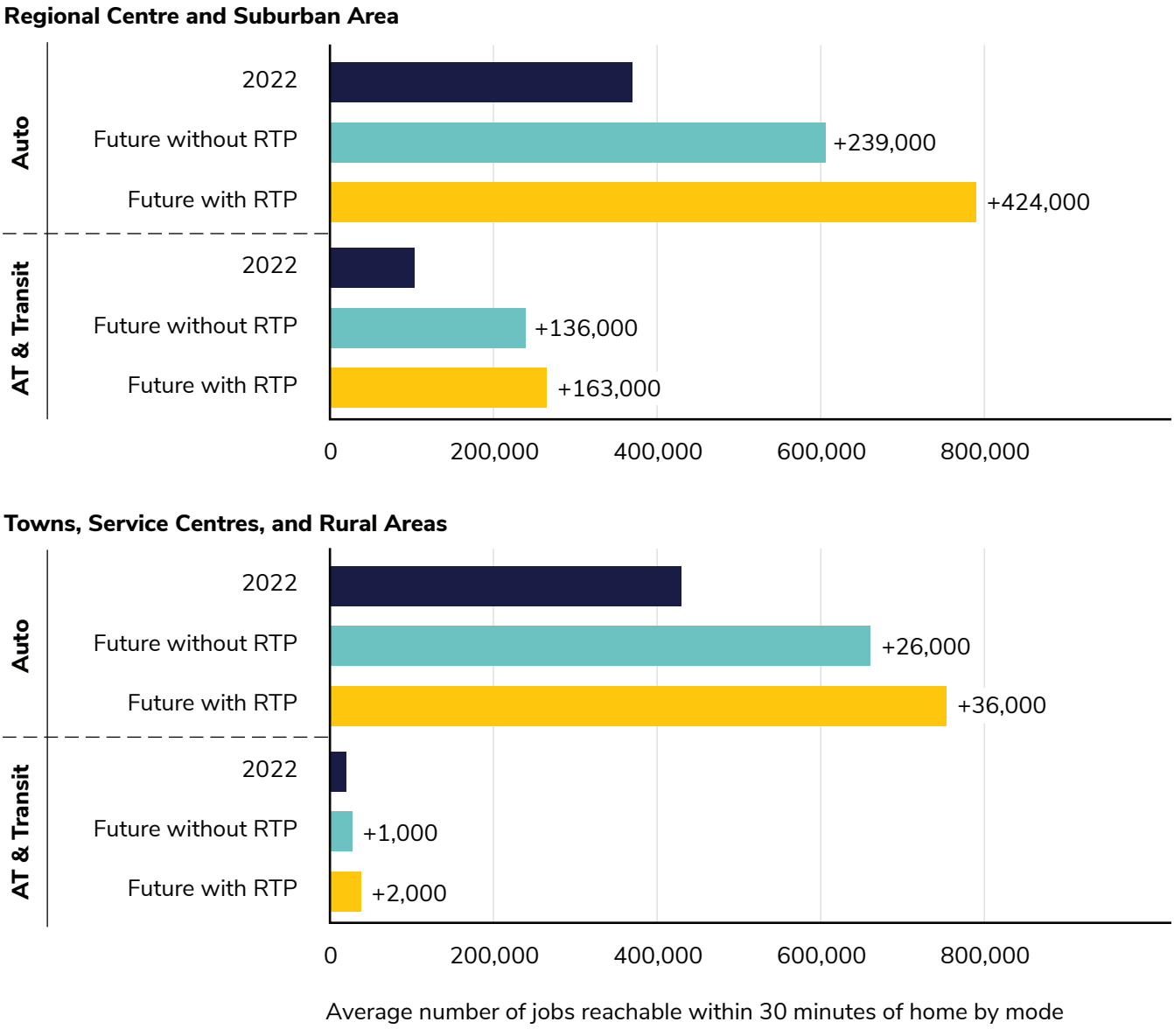
11 *Statistics Canada, Survey of Household Spending, 2021*
12 *Canadian Income Survey: Poverty, 2022*
13 *Canadian Survey on Disability: Nova Scotia Results, 2022*
14 *Canadian Census, 2016 and 2021*

The RTP will provide more options to make travel more affordable and improve access to key destinations

Improving the quality of both infrastructure and service for those who walk, roll, cycle, and take transit will help ensure that people have a viable range of options to get where they need to go without driving. Providing these options can help households save thousands of dollars annually.

Transit and AT infrastructure and service improvements along with corresponding land use changes and supporting programs can enhance access to key employment, education, and healthcare destinations, unlocking new social and economic opportunities for those without a vehicle. For example, the RTP will support significant improvements to access to employment beyond a business-as-usual future (**Figure 3.7**).

Figure 3.7 Change in employment job access



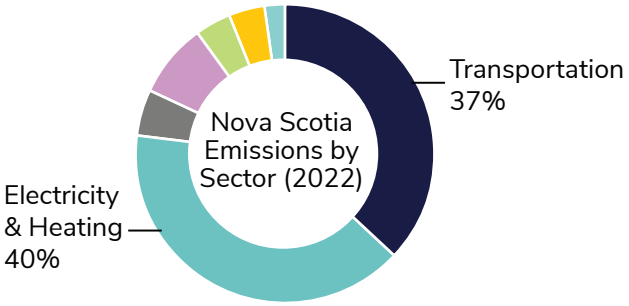
Average number of jobs reachable within 30 minutes of home by mode

3.2.4 Challenge 4: Sustainability

As the climate warms, the risks of catastrophic events such as floods, storms, and wildfires increase. This can have a significant impact on the function of the transportation system by damaging infrastructure and disrupting supply chains. In recent years, the Region has experienced some of these impacts firsthand and it is expected that the frequency and severity of extreme weather events will increase in the future.

Nova Scotia's greenhouse gas (GHG) emissions by sector as of 2022 are depicted in **Figure 3.8**[15]. Like much of North America, transportation is a large source of emissions.

Figure 3.8 Nova Scotia GHG Emissions



What We Heard

Throughout RTP engagement, participants enthusiastically voiced support for more sustainable transportation options.

- There was a desire for improved transit options for people to get around. In the Regional Centre and Suburban Area, more frequent service was a common request, while in more rural areas access to service was a priority.
- Additional options for people walking and rolling was identified as a strategy to reduce air pollution and GHG emissions, creating a cleaner and more sustainable environment. However, we heard that a desire to help the environment alone is not enough to get people moving; it also needs to be safe and comfortable.
- Participants expressed the need for public awareness campaigns to promote the benefits of transit, walking, and rolling to change public attitudes and behaviours around travel.

15 *Annual Progress Report on the Environmental Goals and Climate Change Reduction Act and Nova Scotia's Climate Change Action Plan – 2024 Edition*

The RTP will support the Province's climate targets

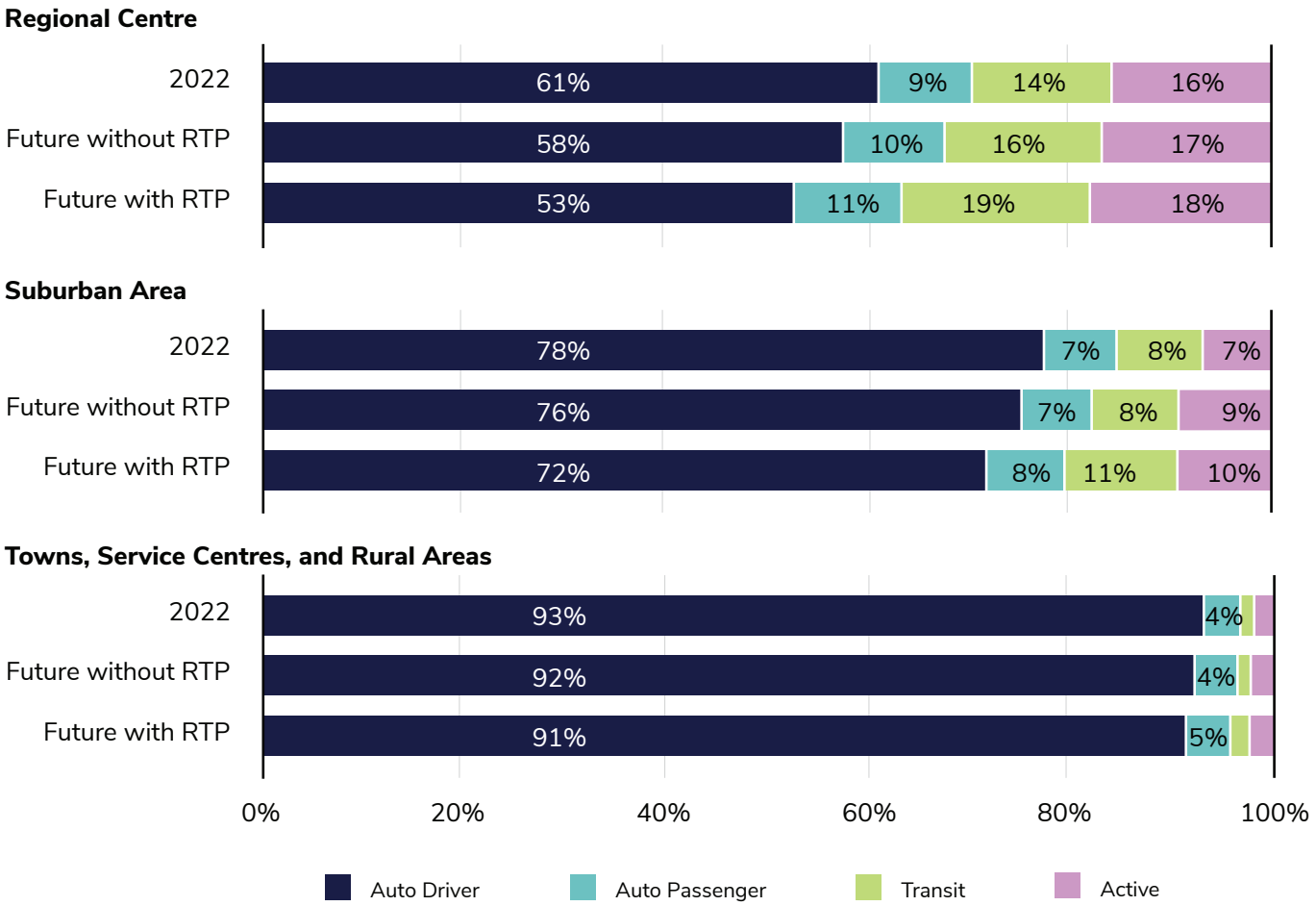
Nova Scotia's **Climate Change Plan for Clean Growth** outlines the Province's approach to tackle the GHG emission targets established in the Environmental Goals and Climate Change Reduction Act, which commits to be net-zero by 2050. The RTP complements the Province's existing climate change efforts with a focus on transportation.

The approach is two-fold; investments in transit, sidewalks, and multi-use paths as first-mile / last-mile connections will improve user choice that helps reduce overall auto demand; and support for the transition to zero-emission vehicles (ZEVs).

The RTP proposes actions that will improve the viability of multi-modal transportation options which will help reduce GHG emissions but also improve the capacity and reliability of the transportation system.

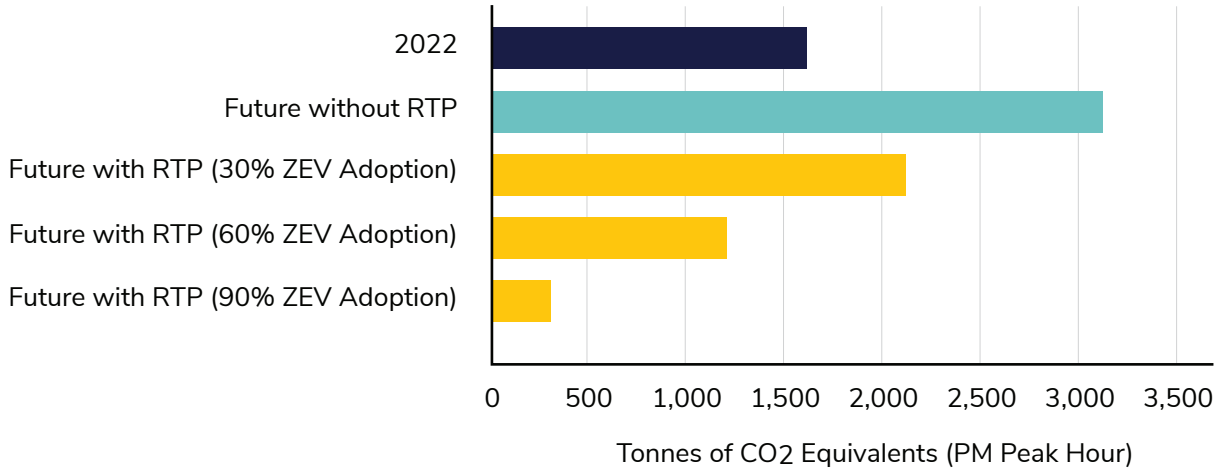
By providing more transportation options, the RTP will help to reduce strain on the road network by providing a noticeable shift away from single-occupancy vehicle trips in both the Regional Centre and Suburban Area (**Figure 3.9**). While the shift for residents outside the HRM Urban Service Area is less pronounced, they will also benefit from reduced congestion when they need to travel into or through Halifax.

Figure 3.9 Commuting mode shift



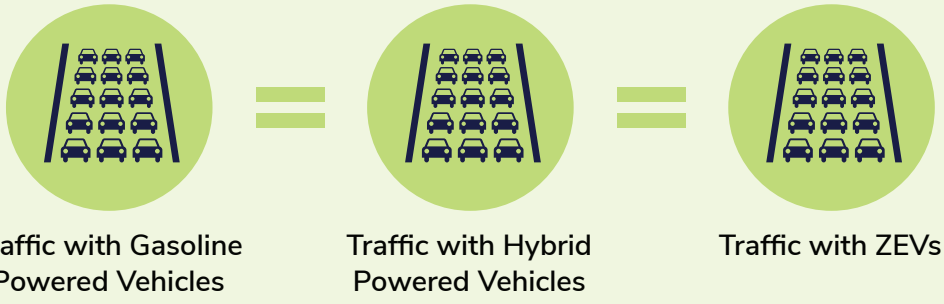
Actions in the RTP will help support the transition to ZEVs, including initiatives which help drive further adoption of privately-owned battery electric vehicles, initiatives which facilitate fleet transitions, and pilot initiatives to test and evaluate other fuel types for ZEVs. The impact that the RTP can have on transportation emissions (**Figure 3.10**) depends highly on how fast private vehicles and public fleets (including transit) transition to ZEVs.[16]

Figure 3.10 Future local GHG emissions from transportation sector



Limits of the zero-emission vehicle transition

The electrification of vehicles and the potential of new fuels like hydrogen are central pillars of decarbonizing the transportation system: they will greatly reduce GHG emissions and the associated environmental and health impacts. However, ZEVs are not a silver bullet. They still generate particulate matter due to tire and asphalt wear and will increase electricity demand, which is anticipated to be generated partially by fossil fuel-based sources in the medium term. Also, ZEVs are not a solution for congestion.



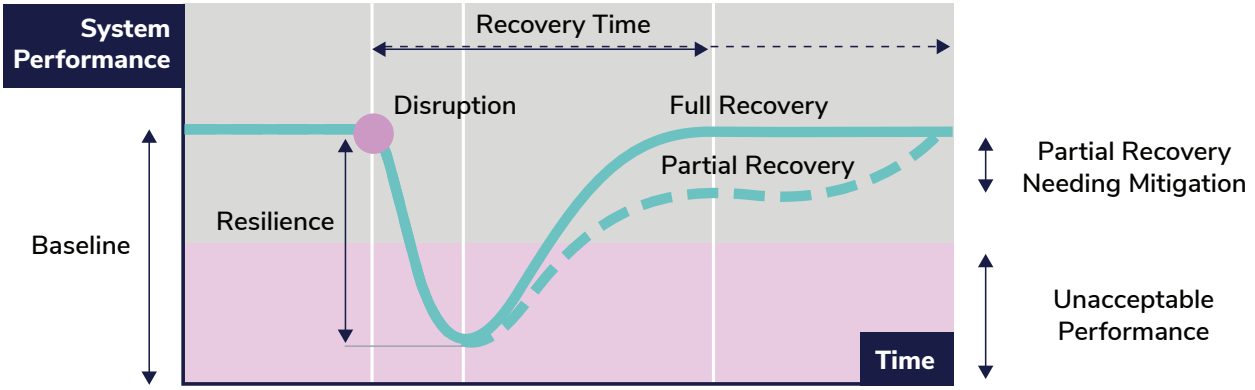
16 *Figure 3.10 does not include emissions from the generation of electricity.*

3.2.5 Challenge 5: Resiliency

Resiliency is the capacity of the transportation system to withstand unexpected shocks or disruptions. It measures how much pressure the system can take before it starts to degrade and how long it takes to return to normal (**Figure 3.11**). The Region's transportation system offers limited resiliency today due to major pinch points on the network and an auto-oriented development pattern.

In recent years, there have been many cases where a single collision results in significant disruption to the movement of people and goods. Shocks can stem from sources such as geopolitical events, technological changes, and natural disasters. Extreme weather events, population growth, and new technologies will continue to stress the transportation system. System resiliency improvements are needed to prepare for future uncertainties.

Figure 3.11 Illustration of system resiliency



What We Heard

Many participants shared their frustration with how the transportation system responds to unanticipated events.

- Participants worried about how the changing climate will bring more severe and frequent extreme weather events, which can damage critical infrastructure and stall goods movement. Some communities have limited access for emergency services and limited emergency exit routes, putting them at risk.
- Pinch points on the existing network limit options during times of congestion. Collisions or emergencies can result in critical links being shut down which brings the network to a standstill. There is a desire to see projects implemented that help improve system reliability to support the movement of people and goods.
- Long-term condition of infrastructure was a concern for some participants. Ongoing maintenance is required to ensure that existing assets remain dependable.

The RTP will improve the system's ability to withstand shocks

The resiliency of a transportation system is complex, and there is no one action that can be taken to ensure a completely resilient system. The RTP will improve the resiliency of the system through several interrelated approaches, which together aim to lower the magnitude of future shocks, reduce the time to bounce back to normal, and ensure that the post-shock normal is the same or better as before.

To allow the system to better respond to collisions and road closures, the RTP strategically addresses key choke points in the network, introduces new necessary connectors, and preserves transportation corridors that may be needed in the future.

Increased investment in the regional transit system gives people more options. Dynamic control of infrastructure such as traffic signals will improve recovery times and the public's access to information.

The RTP also acknowledges the need to monitor and evaluate future potential transportation disruptors that could have either a positive or negative impact on the transportation system. Some of these are listed in **Table 3.1**. Awareness and understanding of factors that may lead to long-term stress on the system are crucial to maintaining its resiliency. Collectively, these actions will serve to guide sound investments today and support future decision-making.

Table 3.1 Notable potential transportation disruptors

 **Technology**	• Connected and automated vehicles • Mobility-as-a-service • Micro and shared mobility • Intelligent Transportation Systems • Smart City technologies
 **Environment**	• Frequency of adverse weather events • Potential for future pandemics • Heat-related degradation of infrastructure • Changing migration patterns
 **Socioeconomic**	• Changing levels of immigration • Population growth and distribution • Economic activity and disruption • Work-from-home trends • Disruption to international trade

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3.3 The future transportation system

The Region's future transportation system will give people a range of **effective and accessible transportation options**, allowing them to choose how they want to get around and make goods movement more reliable. The future system features a more efficient road network which mitigates critical bottlenecks, introduces new rapid transit service and inter-municipal transit options, and provides more sidewalks and multi-use path connections with fewer barriers to get people moving.

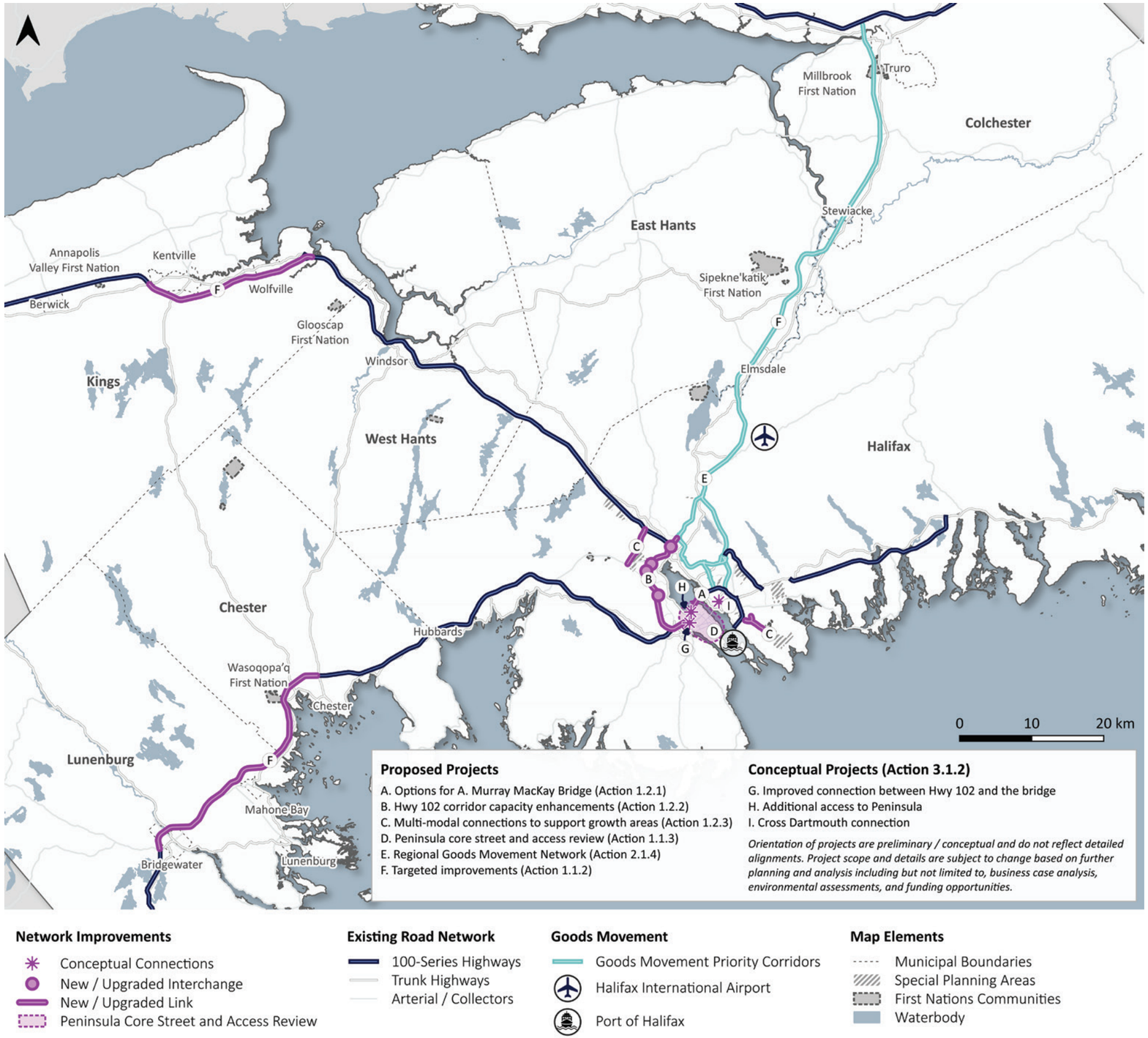
Future Road Network

The future road network (**Figure 3.12**) focuses on **maximizing existing infrastructure**, closing gaps that exist and eliminating critical bottlenecks while **maintaining a state of good repair** to prevent degradation of service over time.

- **Road network expansions and capacity increases** will be targeted at mitigating bottlenecks and improving the efficiency of the system. Expansions and capacity increases may also create opportunities to modify parallel corridors to better support transit, AT, or goods movement. Further changes will be evaluated with state-of-the-art travel demand modelling tools.
- **New technologies and supportive policies** will help to optimize the network, ensuring the transportation system is being utilized to its maximum potential.
- **State of good repair projects** will maintain and enhance existing transportation assets, preventing system degradation so that the transportation system Nova Scotians rely on today can be relied on for decades to come.

The road network currently provides dense coverage and strong connectivity throughout the Region. Not all growth can be accommodated by the road network, no matter how much capacity is added. As well, over-adding capacity can have a detrimental impact by further encouraging road use and leading to renewed congestion, eroding the benefits that expansion projects are meant to provide.

Figure 3.12 Future road network



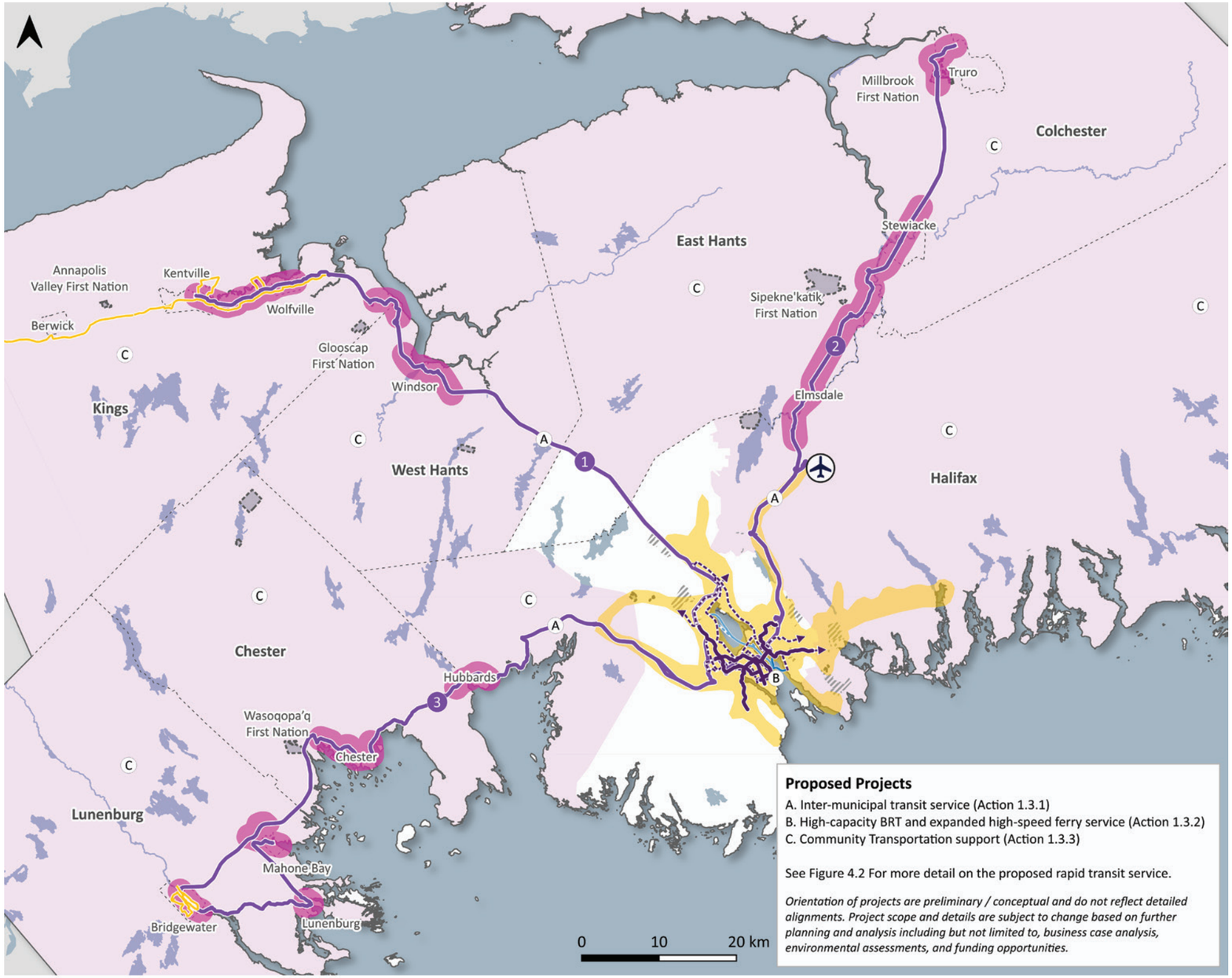
Future Transit Network

The future transit network (**Figure 3.13**) focuses on developing **fast and reliable core transit service** throughout HRM and the Region, in addition to **improvements to local service** coverage, duration, and quality which connect into the Regional Centre.

- **Rapid transit within HRM** will provide a viable, competitive alternative to driving, particularly for commuting, reducing demand on the road network during peak times and supporting more housing within the HRM Urban Service Area.
- **A new inter-municipal transit service** will improve regional travel by providing regular transit service between Towns, Service Centres, and Rural Areas and key destinations in HRM. Improved access will provide new opportunities for those in rural communities.

Just 8% of people work in a different county than where they live, meaning almost all congestion in HRM is generated by HRM residents. Therefore, concentrating efforts to improve transit within HRM will be most effective for tackling congestion. Strengthening rural transit is important for improving access to services such as healthcare and education and social connectivity.

Figure 3.13 Future transit network



Sidewalk and Multi-Use Pathway Connections

The RTP focuses on filling key gaps and providing infrastructure like sidewalks and multi-use paths that make regional connections, support transit service by making first mile / last mile connections, and ultimately help improve safety and reduce strain on the road network.

Sidewalk or multi-use pathway recommendations in the RTP are intended to be fully integrated as part of new roadway or transit projects or larger retrofit projects. Incorporating elements like multi-use pathways at the start of the design process ensures maximum project efficiency, enhances capacity of public rights-of-way, and results in facilities that are purpose-built, separated from traffic and suitable for all users. This approach is a continuation of successful implementations already in place, such as the Aerotech Connector, Burnside Drive extension, and other areas in the province.

New infrastructure projects are also envisioned to make important connections across barriers such as 100-series highways, interchanges, and rail corridors. These regionally significant connections will provide safe routes for people to travel and improve access to important destinations.

New first mile / last mile connections to regional transit offerings (like Bus Rapid Transit, ferry service, and inter-municipal transit stops and stations) are also needed. These connections serve to make transit more accessible and extend the reach of the transit network, as all transit users end up walking or rolling during part of their trip.

Projects are also anticipated to help bridge gaps between planned and existing networks, including funded core networks within municipalities. The RTP supports ongoing efforts with municipal and community partners to build out further connections.

The Province is currently developing an Active Transportation Strategy in parallel to the RTP. The strategy is anticipated to continue provincial support for core AT networks within communities and the Blue Route, a province-wide network of cycling and walking routes and trails. This work is supporting the goal to have core AT networks accessible for all ages and all abilities in 65% of Nova Scotian communities by 2030.

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4

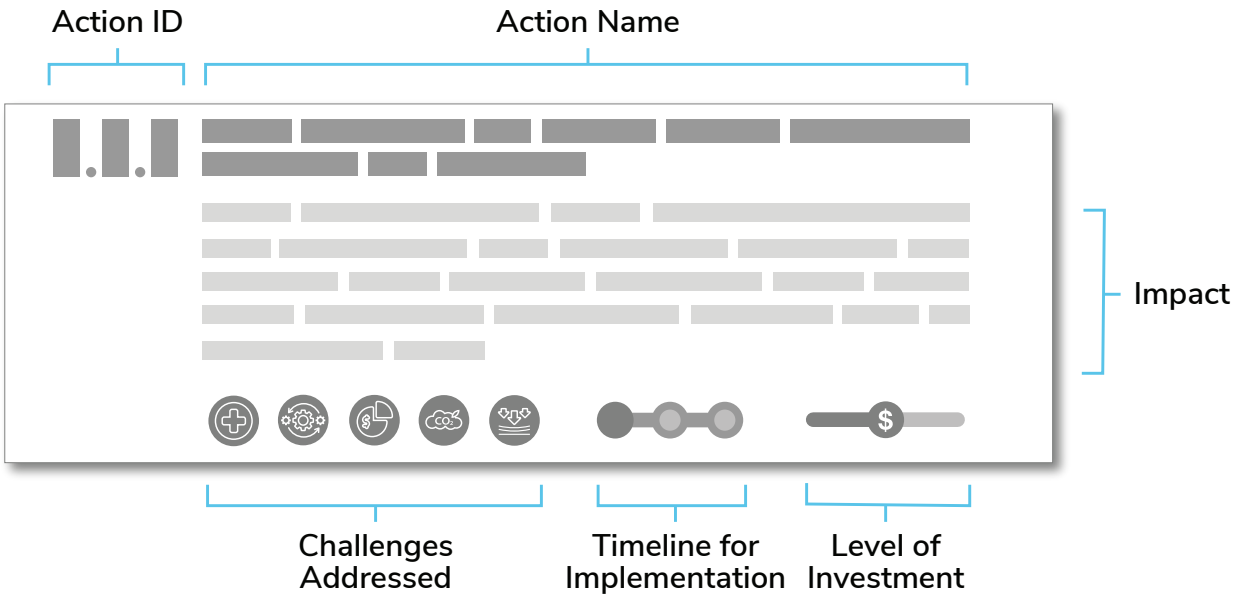
Action Plan

The RTP's recommendations are provided in the form of **39 actions** that are linked directly to the goals through a series of strategies. The JRTA and its Core Partners will lead the implementation of these actions over time. While the actions are organized under specific goals and strategies, successful implementation of the actions can also support the achievement of more than one goal in the RTP.

How to read the action plan

The next sections outline the strategies and actions that fall under each goal. The actions are outlined in the same way across these sections, as shown in **Figure 4.1**.

Figure 4.1 Action plan guidance



Section 3.2 detailed five key challenges faced by the transportation system. Every action indicates which challenge(s) it aims to address:

Each action also identifies an anticipated timeline for implementation and level of investment. Implementation timelines are categorized as short- (<10 years), medium- (10-20 years), and long-term (20+ years), and actions may be implemented over more than one timeframe. The level of investment varies; actions on the low end are expected to cost on the order of $1 million or less, and actions on the high end on the order of $1 billion or more.[17] Timeline and investment level are indicated graphically:

17 *The level of investment reflects the approximate capital cost of implementation, not ongoing operational costs or cost of studies. Major transportation projects will be evaluated through a comprehensive business case and evaluation framework per Action 4.2.2.*

What tools are available?

Actions in the RTP fall into one of three categories: projects, policies, and programs & outreach. These categories highlight the tools available to improve the transportation system.

Projects

Projects are interventions that involve the construction of physical transportation infrastructure, or the provision of some kind of transportation service. They can be an extension or expansion of what is already in place, or something new, and they generally require substantial capital investment to implement, operate, and/or maintain. Their goal is to expand system capacity and improve the experience using the system. Improving system capacity directly will better accommodate additional demand in the future, while improving service levels can both increase capacity and demand to the mode in question.

Policies

Policies can incentivize or disincentivize certain choices. This can be done through regulation or land use, which shapes development patterns and influences the viability of different modes, and the number of people who choose to travel with them.

Programs & Outreach

Ongoing programs and outreach can help manage demand, change mode share, and improve the efficiency of the system at a relatively low cost by encouraging changes in travel behaviour either through incentives or education. Travel demand management initiatives have been shown to meaningfully reduce the need to travel by providing alternatives in congested communities. This can help provide more room within the system for goods movement and those that need to drive.

Goal 1

Strengthen regional connections

Travel between communities and to regional destinations, regardless of mode or trip purpose, is safe, easy, and enjoyable. A realistic range of affordable and sustainable transportation options is available to lower household costs, emissions and vehicle dependency, reduce fatalities and injuries, and enhance social connectivity.

Strategy 1.1

Enhance the safety and efficiency of the regional transportation system

The Issue

Sustained high growth has strained the functionality of the regional transportation system. Increased collisions, increased congestion, and reduced reliability have overwhelmed the system in recent years.

The Response

Opportunities exist to improve the system through better coordination, integration, and targeted investments in existing infrastructure at a network level.

1.1.1 Create a Regional Transportation Management Centre (RTMC), with corresponding investments in intelligent transportation systems (ITS).

A RTMC and ITS investments will improve the safety, efficiency, and reliability of the system and enhance the capacity to move more people and goods. A RTMC is a facility that monitors and can manage the road network in real time using elements such as live video feeds from across the network, remote signal timing changes, variable message signs, and variable speed limits, among other ITS applications. These investments will allow for dynamic management of the system, assist in the recovery from disruptions such as collisions, poor weather, and special events, and provide users with real-time information to make informed travel decisions.

1.1.2 Provide targeted improvements to 100-series highways, interchanges, and regionally significant corridors.

Infrastructure investments on these critical links will help improve road safety, maintain a state of good repair, and improve operations. Project examples include road safety investments on Highways 101 and 103, additional connections to 100-series highways to provide redundancy and enhance emergency egress, as well as improved access management on other key corridors.

Strategy 1.1

Enhance the safety and efficiency of the regional transportation system

1.1.3 Review the function of the Halifax Peninsula's core streets and access corridors and implement suitable recommendations.

Completing a network level review of core streets on the Halifax Peninsula and transportation corridors connecting to it and provide a plan to help identify any changes to improve user safety, reduce travel time, and increase reliability to ultimately enhance the flow of people and goods through the most constrained areas. Findings could include recommendations to reconfigure the directional flow of key streets, reallocation of space within the right-of-way, prioritization of specific modes / uses, and further exploration of additional access points from the west. Monitoring and evaluation would be completed to measure peak-period travel times as well as the metrics in section 5.2.

1.1.4 Adopt more modern and efficient technologies to improve road safety.

Implementing new technology can help improve road safety by encouraging responsible driving behaviour. These changes can reduce the frequency and severity of collisions, help to improve system reliability, and free up resources for other public safety initiatives.

1.1.5 Enhance the coordination of road works on regionally significant corridors.

Greater coordination can help mitigate the impact construction has on system efficiency, reliability, and safety. Additionally, right-of-way encroachment policies should be revisited to limit length and magnitude of disruptions.

Strategy 1.2

Implement major transportation infrastructure projects that support all modes

The Issue

The road network cannot support all the anticipated growth on its own. Travel patterns throughout the Region today are more complex and continued growth requires new infrastructure that expands multi-modal travel options.

The Response

Strengthening existing critical links and the creation of new multi-modal connections that respond to changing travel patterns and demand will help improve the experience for everyone, regardless of travel mode.

1.2.1 Explore options for the future of the A. Murray MacKay Bridge.

Elements of the existing bridge are nearing the end of their lifespan, and the current capacity won't be sufficient to accommodate anticipated growth. This provincially significant connection serves as one of only five roadways to access the Halifax Peninsula and is an essential link in the regional goods movement network. Significant investments are needed to maintain or enhance this connection.

1.2.2 Enhance the capacity of the Highway 102 corridor between Exit 0 (Joseph Howe Dr) to Exit 4C (Duke St/Glendale Ave) to support higher-capacity modes.

This is one of the most critical segments in the transportation system. Over 60,000 people use it daily and, like the MacKay Bridge, it is an essential link in the regional goods movement network. This significant investment will increase the capacity to move people in this corridor, support rapid transit service, and improve goods movement. Support for higher-capacity modes could include HOV lanes and transit priority measures. Upgrades to key interchanges will also improve safety, increase capacity, and provide multi-modal connectivity.

Strategy 1.2

Implement major transportation infrastructure projects that support all modes

1.2.3 Advance new multi-modal connections to support growth areas.

With significant housing developments anticipated in Bedford and Dartmouth, and limited opportunities to enhance constrained corridors, new connections can help disperse more concentrated travel demand and provide multi-modal options for these new communities. Project examples include the connection between Hammonds Plains Road and Highway 101 and the Shearwater Connector.

1.2.4 Construct priority AT connections across 100-series highways and other significant barriers.

Highways, interchanges, and rail corridors are often major barriers to connected pedestrian and cycling networks. Key investments are needed to fill these gaps, better (re)connect communities and improve access to important destinations. Project examples include connections across Highway 102 near Dunbrack St and the community of Millbrook, Highway 111 near Portland St and Main St, and crossing the South End Rail Cut at Bayers Rd.

1.2.5 Establish common multi-modal project scoping criteria for transportation projects led by the JRTA and its Core Partners.

Standardizing a scoping approach to consider all travel modes in major transportation projects will enhance the impact of individual projects regardless of which organization is leading them.

Strategy 1.3

Build an integrated regional transit network

The Issue

The Regional Centre is the primary service, healthcare, research, and employment hub for the province and much of Atlantic Canada. Rapid growth has highlighted the need for improved transportation options to service and connect to this core area.

The Response

A cohesive transit network with strong rapid transit service in the most densely populated areas and new / expanded services to fill existing gaps and serve surrounding communities will positively impact people's degree of mobility, access to services and jobs, household budgets, the Region's economic productivity, and the labour market for employers.

1.3.1 Launch an Inter-municipal Transit Service and establish new Park & Ride lots to expand its reach.

Regular fixed-route transit service between Halifax and surrounding communities will improve access to key destinations and make travel between communities more affordable for everyone. New Park & Rides at key locations primarily outside of HRM and at Halifax Stanfield International Airport will enable more people to access this service, help lower fuel, parking, and other vehicle related costs, and reduce GHG emissions. Inter-municipal transit service can also build ridership for potential future rail service within these key regional corridors.

Strategy 1.3

Build an integrated regional transit network

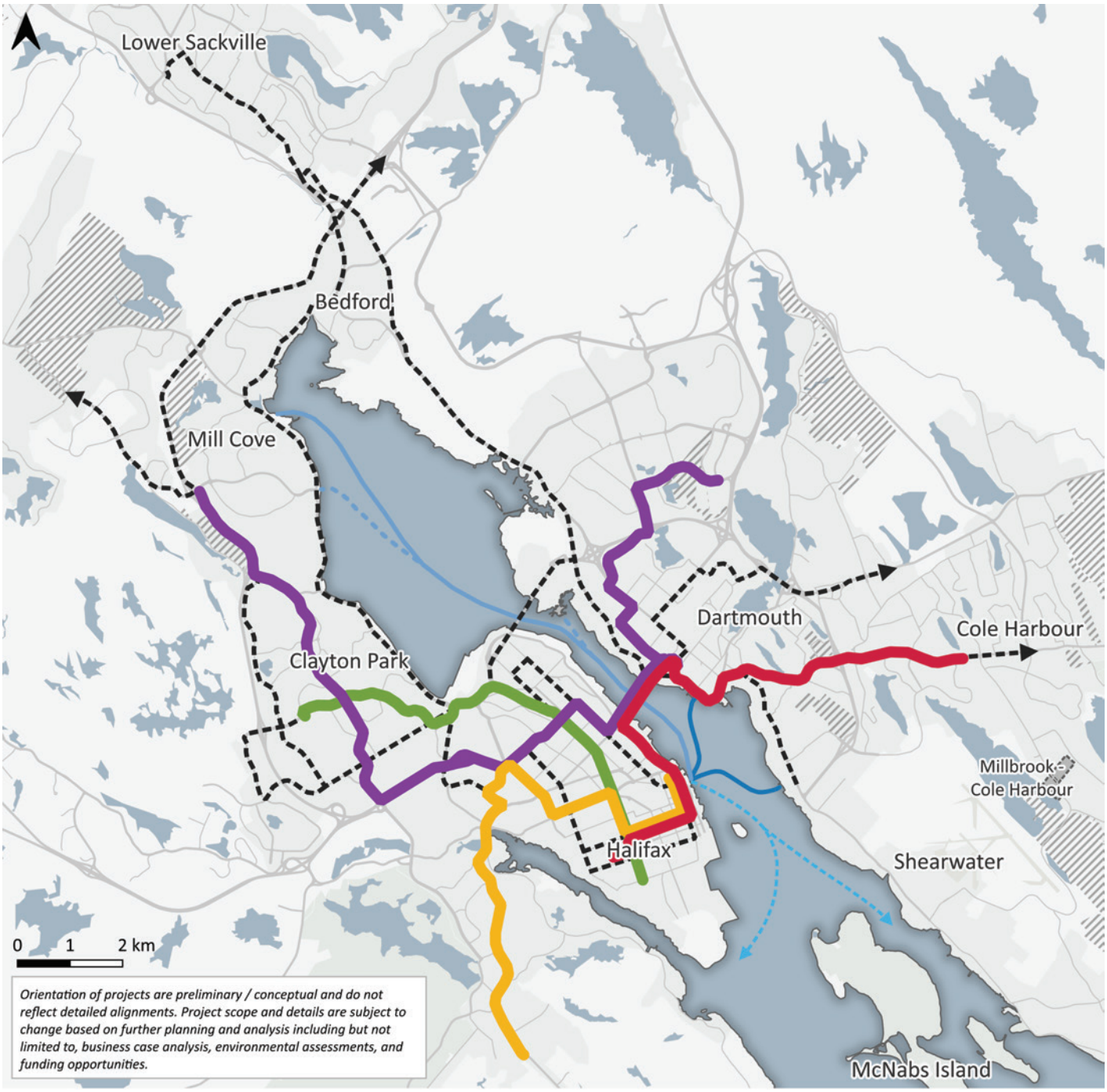
1.3.2 Implement Rapid Transit service and the associated infrastructure it requires (e.g., transit lanes, transit stations and terminals, and maintenance & operations facilities).

Fast, frequent, and reliable rapid transit service (Bus Rapid Transit [BRT] and additional high-speed ferry service) in densely populated areas is needed to support the province's growth and development, move more people more efficiently, reduce the cost of travel, increase access to jobs / expand the labour market, and support broader goals to reduce GHG emissions. Additional ferry service includes Mill Cove (funded) and Shannon Park, and longer-term potential routes including Larry Uteck, Purcells Cove, and Eastern Passage. Opportunities to increase ferry crossing frequency on existing routes, to provide maximum service efficiency will also be explored. The extent of this Rapid Transit service is visualized in **Figure 4.2**.

1.3.3 Support the continued growth and success of Community Transportation services.

Community Transportation operators provide a vital transportation service in areas where fixed-route transit is too costly, inefficient, and ineffective to operate. Development of a sustainable funding model in collaboration with Community Transportation operators will support service growth and affordable fares for users. Building a partnership between government and operators can help improve Nova Scotians access to healthcare and reduce the burden on medical transport, improve access to employment and services, and better connect residents to fixed-route transit services for longer distance trips.

Figure 4.2 Rapid transit in HRM



Legend

Rapid Transit

- BRT Green Line
- BRT Purple Line
- BRT Red Line
- BRT Yellow Line
- Future Frequent Transit / Potential Rapid Transit

Ferries

- Existing Ferry
- Planned High-Speed Ferry
- Proposed High-Speed Ferry
- Future Potential High-Speed Ferry

Map Elements

- Road
- Special Planning Areas
- First Nations Communities
- Waterbody

Strategy 1.3

Build an integrated regional transit network

1.3.4 Facilitate first mile / last mile connections to inter-municipal and rapid transit service.

Infrastructure like sidewalks and multi-use paths to connect to inter-municipal and rapid transit service will provide new options for riders to safely access these services and further help to reduce travel costs.

1.3.5 Collaborate with partners to meet demand and support new services to fill gaps and improve access.

The introduction of new transit services needs to be coordinated with adjustments to existing transit services. This will help maximize the impact of investments in new transit services and support improvements to better serve demand over time. Adjustments could include increases in transit service span, frequency or coverage, new services in surrounding municipalities, or new service models such as on-demand transit.

1.3.6 Advance transit service and fare integration as part of an integrated regional transit network.

Integration between transit services, such as a common user interfaces to manage fares and seamless transfers, will enhance the user experience, build ridership, and make travel more affordable, intuitive, and efficient.

Goal 2

Enable efficient and sustainable goods movement

Essential corridors for moving goods locally and regionally are developed, preserved, and well-maintained to enable the reliable movement of goods and support economic development and trade.

Strategy 2.1

Partner with industry to improve the efficiency and reliability of goods movement

The Issue

Increased congestion within the regional transportation system impacts the speed and reliability of goods movement which can in turn lead to disruptions in regional and national supply chains. This can impact the cost of goods locally and reduce Nova Scotia's competitiveness on the global market.

The Response

Prioritizing the movement of goods through heavily congested areas of the transportation system and key infrastructure investments are vital to the growth of the regional economy. As a first step, greater visibility is required to better understand key regional flows.

2.1.1 Establish a Freight Advisory Committee.

Establishing a committee with representatives from industry, the JRTA and its Core Partners will improve coordination and collaboration and provide expert insight for decision-making on investments and supportive policies to enhance the Region's goods movement network.

2.1.2 Enhance and standardize goods movement data collection.

Existing data on regional goods movement is quite limited compared to passenger transportation and land use data that supports decision-making. Partnerships with industry, the use of GPS data, and targeted surveys will help fill this key gap. Doing so will provide key insights on the movement of goods and commercial vehicles within and through the Region, support Action 2.1.4, and ultimately improve future decision-making.

Strategy 2.1

Partner with industry to improve the efficiency and reliability of goods movement

2.1.3 Support the evaluation of additional sites for potential inland terminal facilities.

The potential for additional inland terminal facilities represents a more permanent solution to the speed and reliability issues with heavy truck access to the Halifax Port. These facilities can help improve the flow of exports via the port and the flow of goods to regional markets in Nova Scotia and Atlantic Canada. The JRTA will support industry in the evaluation of potential sites.

2.1.4 Establish a Regional Goods Movement Network.

Building partnerships and filling data gaps will provide the basis to establish a Regional Goods Movement Network through which targeted policies, guidelines, standards can be developed, maintained, and implemented. The intent is to identify key segments of the regional transportation system that should be prioritized to maintain a state of good repair and potentially introduce truck priority measures that can reduce truck travel time, improving the efficiency and reliability of getting goods to market.

2.1.5 Work with industry to pilot innovative initiatives.

Piloting new technologies and strategies can provide opportunities to enhance goods movement and reduce GHG emissions while minimizing risk and gathering feedback to inform more definitive action. Example initiatives could include alternative fuel pilots for heavy trucks, use of technology to make the vehicle inspection process more efficient, and small scale vehicles or e-cargo bikes for last-mile deliveries in congested areas.

Goal 3

Develop a future-ready regional transportation system

The transportation system is resilient and adaptable, able to respond to changing trends, uncertainty, and climate change. There is consideration for technological advancements, societal changes, and the long-term needs of the system.

Photo: Halifax International Airport Authority

Strategy 3.1

Enhance system resiliency and plan for longer-term network connections

The Issue

Regional transportation infrastructure has been impacted by numerous extreme climate events in recent years. New infrastructure and connections are needed but the feasibility of some connections requires more detailed analysis.

The Response

New climate adaptation-oriented datasets can assist with the proactive identification of risks from extreme climate events. Additionally, more conceptual connections are likely required but these are best explored through feasibility studies in conjunction with ongoing monitoring on the pace and pattern of growth.

3.1.1 Conduct targeted vulnerability assessments for existing transportation infrastructure on critical corridors.

Extreme events are expected to occur with greater frequency and severity in the future. As new data such as provincial flood mapping becomes available, targeted assessments on the most critical corridors will help identify proactive measures to enhance climate resiliency.

3.1.2 Complete feasibility studies for additional large-scale network connections and AT links.

Several new road connections have the potential to improve the transportation system at a high-level, either by improving connectivity, introducing redundancy, or increasing system efficiency and reliability. Additional AT links can help fill gaps and augment existing municipal and provincial AT networks. Examples of these conceptual connections are outlined on **Figure 3.12.** However, more detail is required to analyze the cost-benefit of these conceptual connections.

Strategy 3.1

Enhance system resiliency and plan for longer-term network connections

3.1.3 Initiate preliminary work for a long-term strategy for Light Rail Transit (LRT) and regional passenger rail.

Passenger rail service has the potential to reshape travel in the Region by providing a very high-capacity form of transit service. Introducing this service is a significant undertaking, should target areas of potential high ridership, and would represent one of the most significant investments in the province's history. Actions 1.3.1 that introduces inter-municipal transit service and 1.3.2 that introduces BRT can establish a foundation of ridership and land use for future investments such as regional passenger rail and LRT. A passenger rail feasibility study will have an initial emphasis on connections between Halifax, Bedford, and Windsor and Halifax and Lantz.

3.1.4 Study options for increasing future multi-modal capacity across the Halifax Harbour.

The demand for the movement of people and goods to cross the Halifax Harbour is expected to increase in the future. Actions under Goal 1 will help meet part of this demand; however, additional capacity may be needed. Examples include:

1. Examining the feasibility and potential location of a third crossing between Dartmouth and the Halifax Peninsula,
2. An AT facility crossing the Northwest Arm, or
3. A truck barge to support regional goods movement.

Strategy 3.2

Test broader approaches to capitalize on emerging trends and technologies

The Issue

Technology alone will not solve the transportation challenges and often introduces new complexities. For example, advanced technologies like CAVs may enhance safety and efficiency but can also result in unintended consequences such as increased congestion, driver distraction, higher energy consumption, and new safety risks for other road users.

The Response

As advances in technology continue to change, it is necessary to test, monitor, and adapt to prepare for rapid changes in mobility options and services, as well as approaches to managing single occupancy vehicle-related congestion and overall demand on the system.

3.2.1 Monitor emerging transportation technology advancements and initiatives within Canada and abroad, focused on the application of CAVs, mobility-as-a-service, and micromobility. Pilot and adopt proven technologies where applicable and advance cutting-edge research on changing transportation trends.

Emerging technologies offer real potential to address increases in travel demand sustainably, improve access, and reduce the cost of travel. This is demonstrated by several local shared mobility and micromobility services that have been operating for years or are launching soon. Some technologies, like on-demand transit and CAVs, require further evaluation through pilots. To best leverage emerging technologies, partnerships with Atlantic Canada's vibrant community of transportation researchers are needed. This can improve the understanding of the transportation system, grow the local talent base, and build capacity to respond to future challenges.

Strategy 3.2

Test broader approaches to capitalize on emerging trends and technologies

3.2.2 Evaluate and implement policies and programs to manage transportation demand.

Policies and programs such as regulations, pricing signal initiatives, and education, along with infrastructure, service, and land use changes are all part of a holistic transportation system. These broader policy and program approaches can play a key role in shaping travel demand to help reduce strain on the transportation system. For example, the development and application of regulations to manage CAVs will be critical to ensure this new technology does not greatly increase trip length or double the number of trips on the road network.

Goal 4

Coordinate and collaborate on long-term planning

All orders of government work to align transportation and land use across departments and initiatives. The regional transportation system supports environmentally and fiscally sustainable development, recognizing the different needs of healthy urban, suburban, and rural communities.

Strategy 4.1

Improve data quality and access to improve future decision-making

The Issue

Transportation behaviour and patterns are complex and change over time. The impact of the COVID-19 pandemic on more established travel patterns is a prominent example of the need for quality datasets to support future decision-making. Today, data collection within the Region is conducted individually by Core Partners and municipalities. This results in discrepancies in terms of what types of data is available, what format it is available in, and how often it is updated.

The Response

Coordinated and ongoing data collection can help ensure investments in the transportation system reflects the wide variety of users, needs, and means. This will help inform business cases, support sound decision-making for all communities, and address long-standing inequities within the current system.

4.1.1 Establish a data strategy to guide ongoing data collection efforts and explore the potential for a more centralized regional open data platform.

Filling key data gaps uncovered through the planning process will provide the basis for monitoring and assessing changes in travel patterns over time. Core elements of the data strategy include the completion of a reoccurring regional transportation survey for households, enhanced goods movement data (Action 2.1.2), improved collision reporting, including improved access to more detailed police reports, resourcing requirements to enhance data management and analysis efforts, and identifying opportunities to make data collection more efficient. A more centralized regional open data platform is also envisioned to improve access to this important data.

Strategy 4.2

Strengthen the coordination of infrastructure investments by aligning transportation and land use

The Issue

Inefficient land use and settlement patterns are not only more difficult and costly to service, but also cause people to drive more, spend more on fuel, emit more GHGs, and increase demand on the road network. This all reduces individual mobility and access to services and employment opportunities. Poor mobility at a regional scale reduces the size of the labour market for employers and impacts a region's productivity and economic competitiveness.

The Response

An integrated approach to transportation and land use planning will help ensure investments in transportation infrastructure not only tackle issues of safety and congestion, but also help enable more housing, better access to jobs and services, and maintain or improve the quality of life for all Nova Scotians.

4.2.1 Develop a corridor preservation strategy and acquire lands needed to preserve future transportation corridors and other strategic infrastructure investments.

Strategic corridor planning and land acquisition is vital to ensuring the region can continue to accommodate growth and development. While the province has carried out corridor planning for much of the 100-series highway system, growth pressure and increased density of people and jobs within the region require the extension and coordination of corridor planning efforts to include higher-order transit (BRT and LRT) and road rights of way that integrate with major housing development areas.

Strategy 4.2

Strengthen the coordination of infrastructure investments by aligning transportation and land use

4.2.2 Establish a common business case and evaluation framework for major transportation projects to be used amongst the Core Partners.

Project business cases are a key part of sound transportation planning. A standard approach can help facilitate coordination and cooperation among partners, support good decision-making and streamline capital funding planning and funding applications with other orders of government.

4.2.3 Work with municipalities and provincial departments to conduct integrated long-term planning for growth.

Improved coordination between municipalities and provincial departments on long-term planning will identify synergies between land use decision-making and infrastructure investments and help maximize the impact of strategic investments. Improved coordination means collaboration on population projections and scenario development, and enhanced information sharing. Supporting transit-oriented development in conjunction with the RTP transit infrastructure and service recommendations is an example of how this coordination can amplify the impact of strategic investments.

Photo: Province of Nova Scotia

Goal 5

Lead strategic investments, alignment, and implementation

Infrastructure decision-making and service delivery is cost effective, integrated, and efficient. Actions included in the plan are ambitious yet achievable, maximizing their potential to be funded and built.

Strategy 5.1

Advance supporting initiatives that help build a transportation system for everyone

The Issue

Access to safe, reliable, and affordable transportation options is uneven across the region. This access varies both between communities and within communities. Without options that work across different geographic areas and respond to different needs, people and economies cannot thrive.

The Response

Improving access requires a range of approaches that create options for people to move throughout the Region based on their means and needs. This includes improving safety for everyone, enabling non-auto travel especially for short trips, and addressing the physical and socioeconomic barriers that limit mobility and directly impact sense of inclusion and well-being.

5.1.1 Collaborate with municipal partners to support traffic calming measures and economic development along rural main streets.

Lower vehicle speeds makes travel safer for all users. Traffic calming measures which introduce interventions in the roadway are one way to help reduce vehicle speed. Working with municipalities to implement these measures on provincial roads can help build more healthy and complete communities to improve safety, encourage healthy active mobility options for short trips, and support rural economic activity and growth in rural service centres.

Strategy 5.1

Advance supporting initiatives that help build a transportation system for everyone

5.1.2 Work with industry to build more awareness around the role of the transportation system in mitigating the risk of human trafficking through training and educational campaigns and identify and prioritize design changes to facilities.

In 2023, Nova Scotia had the highest provincial average annual rates of police-reported human trafficking in Canada and has held a top spot since 2013. The rate in Halifax is the highest of any metropolitan area in Canada. Sector partners, Indigenous community representatives and community service providers shared the many ways in which the transportation system plays a role in exploitation and human trafficking in Nova Scotia, in both the facilitation of trafficking and the supporting of survivors. In areas where transportation options are limited, the risk of exploitation is higher, including along primary corridors linking rural communities to critical support services in HRM. By supporting—and with support from—service providers and advocacy organizations, more awareness and training (including through Action 2.1.1) can help identify the signs of a person being trafficked, protect at-risk transportation users, and intervene early to prevent further harm. Other service-oriented actions (under Strategy 1.3 and Action 5.1.5) can ensure safe, affordable transportation options exist when needed and reliance on unsafe modes of travel is reduced or eliminated.

5.1.3 Collaborate with provincial departments, municipal partners, and industry on zero-emission transportation investments and initiatives.

Work to decarbonize the grid and the transportation system is underway across the province at many scales. This work plays a key role in significantly reducing GHG emissions from transportation. The JRTA will support the advancement of cleaner and more sustainable transportation options. This includes expanding electric vehicle charging infrastructure, increasing the adoption of zero-emissions vehicles including transit, electric mobility devices such as e-bikes, and promoting the use of clean fuels in transportation.

Strategy 5.1

Advance supporting initiatives that help build a transportation system for everyone

5.1.4 Deliver education initiatives to reduce barriers for residents to use new modes of transportation.

Broad communication of education campaigns focused on transportation options and their benefits can improve comfort and confidence for new users, dispel myths and preconceptions, and encourage greater transit and AT usage. As new projects come online, education can build awareness and increase their adoption by the public.

5.1.5 Support the establishment of a permanent student and/or youth transit pass programs and collaborate on additional targeted programs.

Support for a permanent Student Transit Pass program encourages greater transit usage and independence in youth, reduces the cost of transportation for households, and saves time for families. Additional targeted programs can be developed to encourage greater transit or AT usage, or to pilot or expand community and healthcare-focused transportation offerings, building on previous examples such as the Electrify Nova Scotia Rebate Program.

Strategy 5.2

Streamline the delivery of the Regional Transportation Plan

The Issue

Nova Scotia is experiencing growth that is expected to continue over the coming decades. While this brings opportunity, it also creates new challenges and pressures on the transportation system. This is especially true in HRM and the surrounding region, where housing, jobs, and industry are highly concentrated. Transportation improvements can be costly and take time, yet the growth pains are already being felt today.

The Response

Moving from planning to implementation requires the JRTA to evolve. This will expand the JRTA's mandate beyond planning, to securing funding, supporting design and construction, removing legislative barriers, and establishing a robust monitoring and review program to ensure investments are impactful and responsive to changing needs.

5.2.1 Complete a legislative and governance review to evolve the JRTA to fully deliver on its mission and mandate.

A legislative and governance review will determine the appropriate division of responsibilities between the Province, the JRTA, Core Partners, and others to implement the RTP. The review will also explore how the JRTA can continue to support the Core Partners and the broader transportation sector as they advance their priorities that are in alignment with the RTP.

Strategy 5.2

Streamline the delivery of the Regional Transportation Plan

5.2.2 Coordinate the response to funding opportunities and work with partners to realize efficiencies in procuring goods and services for regional transportation initiatives.

Many actions will require funding support from all orders of government through existing or new programs, while others can be cost-shared among Core Partners through capital or operating budgets. The JRTA is well-positioned to coordinate funding submissions, manage and direct funds for cost-shared projects, and support more efficient procurement efforts by taking advantage of bulk rates, such as procuring transit vehicles on behalf of multiple smaller operators.

5.2.3 Complete progress reports on the RTP implementation and conduct a formal review of the RTP every 10 years.

To provide greater transparency on RTP implementation regular progress reports will be published. A formal review will be conducted every 10 years to ensure the transportation system continues to meet the Region's needs over time.

5

Implementation and Monitoring

The RTP defines 39 actions to fulfill its goals, but it is only useful if these are meaningfully implemented. This section discusses the further efforts that will be required and the monitoring framework by which the JRTA will provide updates on progress made.

5.1 Implementation

Implementing the RTP will require commitment and the collaborative involvement of all the JRTA's Core Partners. Securing funding for priority projects is an important first step in this process.

5.1.1 Priority recommendations

From the 39 actions, a set of priority recommendations and first steps to initiate the action have been identified **(Table 5.1**). These priorities were selected based on current system needs and the availability of funding programs and are expected to be key areas of focus for the JRTA and its Core Partners over the next 10 years.

Community engagement and outreach will also be an important aspect of project delivery. The list of priority recommendations is not exhaustive and is not intended to reflect all RTP implementation efforts. Actions focusing on communication, education, awareness, and filling data gaps will be ongoing throughout implementation.

Table 5.1 Priority recommendations and immediate next steps

Actions to enhance efficiency and reliability	
1.1.1 Regional Transportation Management Centre (RTMC)	Complete a study to determine the appropriate scope and governance for the RTMC and identify priority areas for ITS investments.
1.1.3 Halifax Peninsula core street and access corridor review	Complete the assessment, including further study of additional western access points.
Actions to address critical bottlenecks	
1.2.1 Options for A. Murray MacKay Bridge	Develop options and evaluate to determine the best approach. Evaluate related conceptual connections in conjunction and pursue project funding opportunities in parallel.
1.2.2 Highway 102 corridor capacity	Initiate the design for the Highway 102 corridor. Conduct additional more detailed modelling to evaluate design options to determine how best to support higher capacity modes.
1.2.3 New multi-modal connections	Initiate the design for a new connection between Hammonds Plains Road and Highway 101.
Actions to enhance rural connections	
1.3.1 Inter-municipal Transit Service	Secure funding to launch the service and establish a prioritization framework to guide the introduction of new Park & Ride lots.
1.3.3 Community Transportation services	Collaborate with Community Transportation operators to determine a sustainable funding model. Secure funding to support the service.

Actions to launch Rapid Mobility	
1.3.2 High-capacity rapid transit (BRT) and expanded high-speed ferry service	Pursue funding from all orders of government to introduce a BRT system in HRM and any additional high-speed ferry service that is warranted.
Actions to support healthy, connected, and affordable communities	
1.2.4 Significant AT barriers	Initiate the design for key connections across Highway 102 near Dunbrack St and the community of Millbrook, Highway 111 near Portland St and Main St, and crossing the South End Rail Cut at Bayers Rd.
1.3.4 First mile / last mile gaps	Initiate the design for key connections to the Mill Cove Ferry. Pursue funding from all orders of government in parallel.
5.1.5 Student transit pass program	Support the establishment of a permanent program. Explore the creation of additional targeted programs.
Actions to support a strong economy	
2.1.1 Freight Advisory Committee	Collaborate with Core Partners, associations, and industry to establish a formal committee to guide decision-making related to goods movement.
2.1.3 Evaluation of potential inland terminal facilities	Provide support to industry on the evaluation of possible locations for future inland terminals.
Actions to advance strategic planning	
3.1.3 LRT and regional passenger rail feasibility study	Complete a feasibility study to determine the potential for passenger rail service in the Region and under what conditions it would be viable.
4.2.1 Corridor preservation strategy	Initiate a preservation strategy to acquire lands for provincially significant transportation projects. Continue to preserve existing publicly owned lands (e.g., potential Highway 113 or lands adjacent to rights of way which could serve as strategic transportation assets).
4.2.2 Common business case and evaluation framework	Complete a review of comparable business case and evaluation frameworks. Design a customized framework based on findings.

5.1.2 Coordination around long-term planning

The RTP sets out a long-term, cohesive vision and approach to transportation in the Region. As the Region grows, the needs and travel patterns become more complex and pressures on the system increase. To maintain a high degree of mobility—ensuring people can travel appropriate distances while mitigating increases to travel time and cost—ongoing monitoring, management, and review of the system and RTP are necessary.

A state-of-the-art travel demand model was developed to support the creation of the RTP. This model is also a key tool in the implementation of recommendations and assessment of future projects to ensure potential benefits and impacts to the system are considered at the regional scale.

The need for strong collaboration across departments, all orders of government and organizations within the transportation sector was essential for plan development and will only increase with time. The establishment of the JRTA signaled a shift to a regional approach to transportation and infrastructure planning in Nova Scotia, but this regional, coordinated approach has been well-established in jurisdictions across the country and around the globe.

There is no single model; each one is shaped within the context of the unique challenges, opportunities, or characteristics of its region. In some cases, the regional entity remains focused on coordination, long-term planning, and monitoring, like the current role of the JRTA. Often, mandates are extended to some level of service provision or asset ownership/management in support of regional integration and long-term planning goals. In other instances, regional entities are used to fully consolidate planning, management, and operations of all aspects of transportation and transit service.

Since most of the RTP's actions require some level of coordination with municipalities, agencies or other Core Partners—regardless of the lead organization—these groups have been involved in the early stages the RTP development, to ensure a unified vision and build support for the resulting recommendations. This work will continue through implementation to ensure the transportation system is supported by a sustainable, coordinated, scalable governance and management framework, with clear roles and responsibilities for all planning, implementing, and operating partners.

5.1.3 Funding

Collectively, the actions in the RTP represent significant investment in the regional transportation system. Successful implementation will require support from all orders of government (e.g., municipal, provincial, and federal).

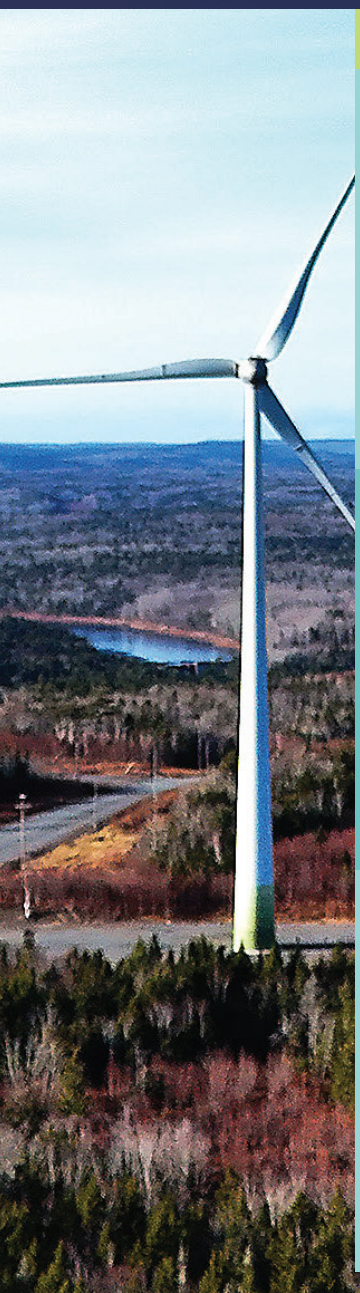
Some actions are low-cost initiatives that can be addressed through existing budgets by one or more of the Core Partners. Others will require multi-year capital planning or cost-sharing between Core Partners and other organizations, while the largest projects will only be realized with substantial support from the federal government.

Currently, one of the most significant funding opportunities for major transit projects in the RTP is through the Canada Public Transit Fund (CPTF). This program, announced in 2024, commits $30 billion over a ten-year period towards transit and AT infrastructure investments starting in 2026/27. The aim of the program is to increase transit and AT use, increase housing supply, help mitigate climate impacts, and improve transit and AT options for underrepresented and underserved communities. The JRTA is well positioned to secure funding through this program as there is strong alignment between the RTP actions and the CPTF objectives.

Photo: Halifax Regional Municipalitiy

5.2 Monitoring and evaluation

The JRTA recognizes the importance of regularly **communicating progress** on implementing the actions of the RTP. The RTP includes a mechanism for regular progress reports and a ten-year update cycle.



Why do monitoring?

Accountability

Demonstrating transparency through regular reporting of progress and impact to the public.

Advancing Goals

Ensuring that the RTP is working towards the fulfillment of each of its goals.

Conveying Benefits

Describing achievements and progress to Nova Scotians to help achieve buy-in for ongoing and planned initiatives.

Confirming Benefits

Analyzing whether the RTP is having the desired impact, to inform future decision-making and planning efforts.

Confirming Resilience

Establishing that the RTP is flexible and resilient to disruptors as they arise.

Allowing for Adaptation

Identifying areas for further interventions based on changing conditions within the Region over time.

5.2.1 Monitoring progress

The JRTA will provide regular status updates on the progress of implementing the RTP's actions. To standardize tracking, a series of indicators, shown in **Table 5.2**, have been developed to easily understand the status of all items at a glance. This provides a standard for easy and consistent tracking of actions. Some actions, such as physical infrastructure projects, policies or initiatives, will have a definitive end point once they are implemented. Others may need to be run in perpetuity as an on-going action item.

Tracking the actions will give the JRTA the tools it needs to confirm progress towards each goal, re-assess actions over time and pivot in a new strategic direction if needed, particularly when paired with the results of the monitoring framework.

Table 5.2 Progress indicators

Not Started 	Any medium- or long-term action not anticipated to be started within the short term.
Programmed 	0% - 10% Implementation The action item has not yet been started but is programmed to commence within the short term.
Recently Commenced 	10% – 30% Implementation Preliminary work has begun but substantial progress has not yet been made.
In Progress 	30% – 70% Implementation Work is well underway for implementing the action.
Ongoing 	Ongoing work is underway for implementing the action. This action may be active indefinitely.
Final Stages 	70% – 99% Implementation The action is nearly complete and is anticipated to be completed within one year.
Fully Implemented 	100% Implementation The action has been completed.

5.2.2 Monitoring impact

The JRTA will also assess the RTP's impact over time and compare real world results with baseline values and the forecasts used to create the RTP. As new infrastructure and services are introduced, the impact will be evaluated which could identify further opportunities to adapt the transportation system. For example, adding a new road link could create opportunities to re-envision an existing parallel corridor. **Table 5.3** outlines the key performance indicators that will be used to track the impact of the RTP over time. Transportation initiatives take time to implement and have impact, so monitoring will follow a five-year timescale, with a full RTP update recommended every 10 years.

Table 5.3 Key performance indicators

Safety	Serious injuries and deaths of road users	▽
	Serious injuries and deaths of active transportation users	▽
	Collisions involving trucks	▽
	Length of sidewalks	▲
	Length of protected cycling facilities	▲
Efficiency & Reliability	Average peak-period vehicle travel time delay	▽
	Variability in peak-period vehicle travel times	▽
	Average peak-period transit travel time delay	▽
	Variability in peak-period transit travel times	▽
	Average peak-period truck travel time delay	▽
Access & Affordability	Average jobs accessible within 30 minutes	▲
	Average jobs accessible within 30 minutes without a private vehicle	▲
	Average jobs accessible by transit for underrepresented/underserved communities	▲
	Population who can access the Regional Centre by transit	▲
	Housing starts with access to rapid transit or inter-municipal transit	▲
Resiliency	Average vehicle travel time delay due to major network disruptions	▽

The Regional Transportation Plan is only the beginning

There is much work ahead. The RTP provides the broad outline to transform the Region's transportation system. Each of the projects, policies, and programs recommended will require further definition, collaboration among partners, discussions with municipalities, opportunity for public input, and consultation with First Nations and impacted communities.

The Province, through the JRTA, will be at the forefront of this transformation, evolving to meet the needs of the Region, furthering the collaborative work to date, and championing the actions in the RTP. This is an exciting time for Nova Scotia. New growth is creating new opportunities for the province. While growth also presents challenges, the RTP defines a strategic direction for the future, tackling challenges head-on and achieving real benefits. Collective effort can build a regional transportation system that's safer, more efficient, easier to access, more affordable, better for the environment, and more resilient.

Glossary of Abbreviations

ACOA	Atlantic Canada Opportunities Agency
AT	Active Transportation
BAU	Business as Usual
BRT	Bus Rapid Transit
CAV	Connected and Automated Vehicle
CN	Canadian National Railway
DPW	Nova Scotia Department of Public Works
ZEV	Zero-emission Vehicles
GHG	Greenhouse Gas
GPS	Global Positioning System
HHB	Halifax Harbour Bridges
HIAA	Halifax International Airport Authority
HOV	High-Occupancy Vehicle
HPA	Halifax Port Authority
HRM	Halifax Regional Municipality
ITS	Intelligent Transportation Systems
JRTA	Joint Regional Transportation Agency
LRT	Light Rail Transit
RTMC	Regional Transportation Management System
RTP	Regional Transportation Plan

Glossary of Terms

Active Transportation
A mode of transportation using one's own power to move. Most commonly refers to walking, rolling, and cycling but also can encompass running, skating, etc. when they are used to get around.

Business-as-Usual / Baseline
A future condition where the transportation system includes only projects currently funded or being implemented. Used to compare the effectiveness of projects in the plan against changes to system performance that would happen regardless of intervention.

Bus Rapid Transit (BRT)
A specialized form of bus service that is generally faster, more frequent and more reliable than local bus service. Usually uses dedicated bus lanes and makes fewer stops than local buses for speed and reliability.

Capacity [roadway]
The theoretical maximum number of vehicles that can be accommodated in a fixed amount of time by a traffic lane or road segment under ideal conditions. Roads being over their capacity causes congestion and delays.

Capacity [transit]
The number of people a transit line, mode, or system can transport in a fixed amount of time.

Community Transportation service
An inclusive transportation service provided by a community organization in a low-density area of Nova Scotia.

Congestion
When the demand (number of vehicles) on a roadway exceeds its capacity, causing delays in travel.

Connected and automated vehicle (CAV)
A vehicle that can operate with minimal or no human involvement (automated) and communicates with other vehicles and infrastructure for navigation and vehicle control (connected). An emerging but unproven technology with the potential to reshape the transportation system.

Coverage [transit]
The area in which a transportation service such as transit is provided.

First mile / last mile [transit]

Getting to or from a transit stop / station using another mode such as walking, rolling, cycling, or driving. Micromobility such as bikeshare programs can provide new options for first / last mile travel.

Fixed-route transit

Transit that operates on a published route and schedule.

Frequency [transit]

How often transit service operates for a particular route or location (e.g., every 15 minutes, etc.).

Greenhouse gas (GHG) emissions

A measurement of greenhouse gases released during an activity. Often recorded in terms of CO_2 equivalents, which converts the climate-warming potential of a range of pollutants to that of CO_2 for a single, consistent unit of measure.

High-Occupancy Vehicle (HOV) lane

A lane on a highway or arterial road which can only be used by vehicles carrying multiple people. Used as a tool to reduce congestion by promoting carpooling and transit, reducing the number of vehicles on the road without changing the number of people travelling.

Intelligent Transportation Systems (ITS)

Digital systems which collect data about travel conditions and use it to dynamically adapt network operations. An example is smart traffic signals which respond to traffic flows and transit vehicles approaching an intersection to determine signal timings.

Land use

A broad term for how people utilize land for various purposes. A property's land use generally refers to its function (e.g. residential, park, mixed-use) and the number of people who live and work there. It can also be used broadly to refer to the distribution of these functions, population, and jobs over a geographic area.

Light Rail Transit (LRT)

A rail-based mode of transit serving an urban area which generally operates in a dedicated right-of-way and is powered electrically. It offers a capacity between Bus Rapid Transit and heavy rail (subway / metro) systems.

Micromobility

Small, lightweight transportation options typically used for covering short distances. Refers especially to new modes such as e-scooters that are often offered as part of sharing programs.

Mobility

The ability to move around a city or region. An individual's mobility is shaped by how the transportation system facilitates potential travel for them, considering their geographic location, access to modes of transport, levels of ability, time and money constraints, and knowledge of the system.

Mobility-as-a-service

A service which combines multiple transportation options into a single, integrated platform. Usually offered as a mobile interface (i.e., phone app or webpage) through which users can plan and pay for trips (e.g., buy transit tickets or reserve carshare or bikeshare).

Mode

A method of travelling, such as driving, walking, cycling, rolling, or transit.

Multi-modal

Including multiple travel modes. In transportation planning, it often refers to considering active transportation and/or transit as well as private vehicles for infrastructure projects or policies.

Network

The infrastructure or services (e.g. roads, transit routes, or paths) which link different places, allowing travel between places on the network by a particular mode.

On-demand transit

Transit that operates upon request from the user, picking them up and dropping them off directly at a specified location. Also known as "door-to-door" service.

Peak periods

Ranges of time during a day when the most people are travelling, usually referring to weekday mornings and early evenings when many people commute to and from work.

Regional passenger rail

A rail-based mode of transportation serving a geographic region which connects cities and towns in that region to each other.

Regional transportation system

The infrastructure and services making up the road, transit, and active transportation networks covering a region, as well as policies governing transportation and mobility technologies in use in the region.

Resilience

The transportation system's ability to resist, recover from, or adapt to disruption. Disruptions include short-term shocks like a traffic collision, or a long-term shock like COVID-19.

Right-of-way

Public space used for travelling. Includes roads, highways, sidewalks, multi-use paths, and cycling lanes.

Service span [transit]

The time range within a day that transit service runs.

Smart City technologies

Technologies used in urban areas to collect and analyze data and to provide services. Often refers to the integration of data collection (through sensors, cameras, etc.) and real-time analysis used to optimize service provision and inform decision-making.

Special Planning Area

Areas within Halifax Regional Municipality that have been designated for accelerated housing development under the authority of the Nova Scotia Minister of Municipal Affairs and Housing.

Traffic calming

Interventions to roadways or policies meant to slow the speed of vehicles to improve safety.

Transit priority

Measures that allow transit vehicles which share a right-of-way with other traffic to bypass congestion. Examples include advance signals for buses at intersections and transit priority lanes.

Travel demand management

Policies and programs that aim to reduce congestion at peak times by encouraging changes to travel behaviour. An example is incentivizing commuters to travel to work earlier or later than usual, spreading out peak traffic and reducing the worst levels of congestion.

Transit-oriented development

A land development strategy focusing on building housing, employment areas, and mixed-use communities around or integrated with public transit facilities. Communities designed and built around transit offer better access and more transportation options can encourage higher rates of transit use, reducing dependency on vehicles, and helping to manage congestion on the road network while supporting growth and development.

Underrepresented community

A group of people who are not adequately represented or have limited presence or visibility in certain domains or contexts, such as social, political, economic, educational, or cultural spheres. These communities typically experience marginalization, discrimination, or exclusion due to various factors, including race, ethnicity, gender, sexual orientation, disability, socioeconomic status, or other characteristics. From Nova Scotia's **Equity and Anti-Racism Strategy**.

Underserved community

A community that is not receiving / has not received an adequate level of support or attention from institutions, organizations, or government agencies. This lack of access can manifest in various areas, including health care, education, employment, housing, transportation, and social services. From Nova Scotia's **Equity and Anti-Racism Strategy**.

Urban Service Area

The area within which a municipality provides urban levels of service for water distribution, storm drainage, and sewage.

Zero-Emission Vehicles (ZEV)

Vehicles which do not emit greenhouse gases or other pollutants during use.

JRTA

JOINT REGIONAL
TRANSPORTATION
AGENCY