

# Regional Sustainable Transportation Master Plan ....: ]bU FYdcfh











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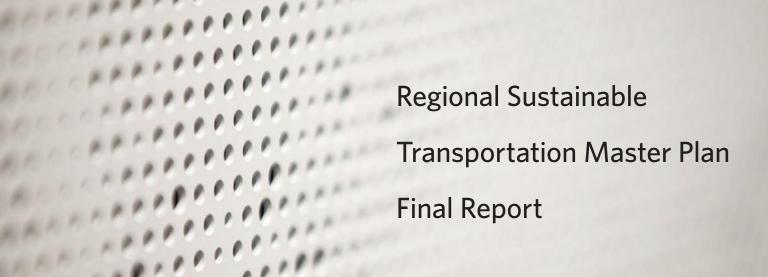
#### **Final Report**

#### **Technical Report**

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This report constitutes a summary of the Regional Sustainable Transportation Master Plan Technical Report. The Technical Report, providing an additional 900 pages of technical background material and discussion, should be referred to for further details.

The Regional Sustainable Transportation Master Plan (RSTMP) for the Tricommunity that includes the City of Moncton, City of Dieppe and Town of Riverview will guide development of the multi-modal transportation network so that it will best meet the needs of the community from now until 2040. This Plan, branded as Destination 2040, will set the transportation vision for the future of transportation in the Tricommunity; promote sustainable development; protect the natural environment; promote economic vitality and healthy communities; and provide safe, affordable, and efficient transportation for people and goods. This represents the first completely new transportation master plan developed in the Tricommunity in 40 years, and the first update since 1999.

The primary goal of this process has been to produce a broad and strategic study that builds on the community vision and lays down a path for building a sustainable and balanced transportation network over the next 25 years. The RSTMP identifies the transportation actions needed to provide the region with:

- A vibrant, mixed-use transportation network linking residential, commercial, retail, cultural, educational recreational and other public spaces into a sustainable and livable community.
- An urban, pedestrian-oriented environment that is characterized by ease of access, an attractive public realm, and reduced traffic congestion.
- An interconnected, multi-modal transportation system making all areas of the region readily accessible to all residents and well connected to destinations beyond.







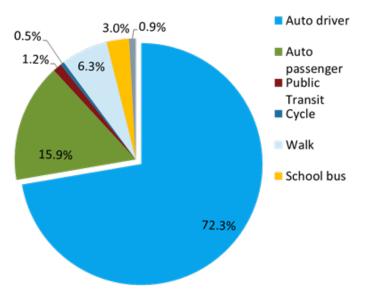




 A lower regional carbon footprint through the development of viable and attractive alternatives to the traditional single-occupant vehicle mode of travel.

Developing a Transportation Master Plan is a threestage process. The first stage involved assessing current conditions and identifying a vision for the community. The picture of current conditions, trends, experiences, expectations and concerns formed the basis for the vision and was reached through a diverse set of methods and tools:

• A comprehensive and statistically valid household travel survey where Tricommunity households were asked about their travel patterns, purposes and methods, as well as some personal and household attributes such as age, occupation and income range. This was used to build a travel database capable of finding trends and relating demographic characteristics (that can be forecast by land use planners) to travel characteristics (supplying key insight into the current and future needs of the transportation system).









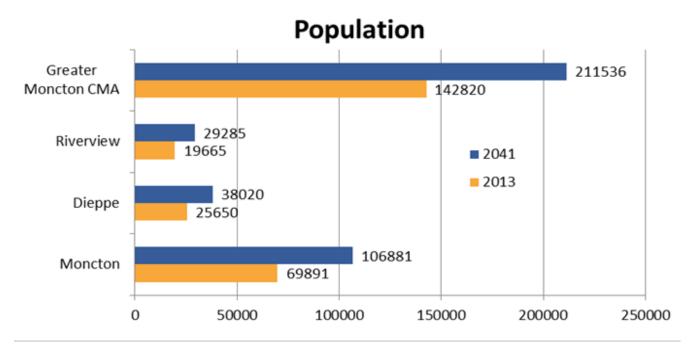


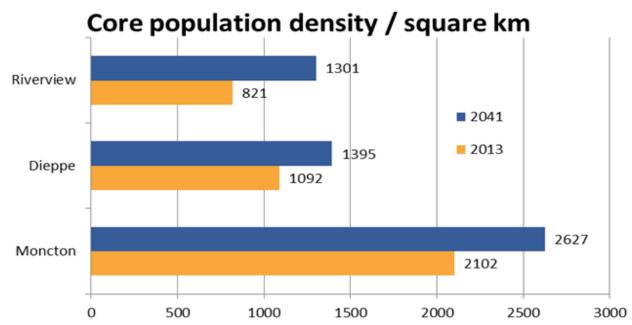
- A statistically valid transit riders' survey, focusing specifically on transit users, their travel patterns, and their reasons for choosing transit.
- A web-based public opinion survey. Unlike the household and transit surveys, this was not designed to capture a full cross-section of the community by statistical sampling and weighting, but was limited to those who chose to participate. However, respondents provided valuable insight into their concerns about safety and congestion, reasons for the trip choices they make, and suggestions for the priorities and investments that should be focused on. The survey was disseminated using a study website (www. destination2040.ca) that also provided updates on the study progress and invited public feedback.
- A demand forecasting model. This is a sophisticated program using the latest transportation planning software to provide detailed estimates of future travel patterns in the region, given expected growth in population and employment, and the infrastructure that will be needed to meet this demand. It is also a legacy tool that the Tricommunity can use for more detailed later analyses of issues raised in this Plan.
- Public visioning sessions, engaging a total of about 250 people, including Elected Officials, Municipal Staff, Community Leaders and Citizens. Four separate events were held during 2013 to enable municipal leadership of the Tricommunity and the public collaboratively to learn, share, and provide input to the RSTMP.
- Review of relevant previous studies conducted in the Tricommunity, including the previous Master Plans, demographic trends, and best practices in aspects of transportation master plans completed elsewhere.



The vision statement below was based on the assessment of existing conditions and feedback from public consultation:

"Our communities will work together to deliver a transportation system by 2040 that connects people sustainably, safely and seamlessly across Moncton, Dieppe and Riverview, and to create a quality multimodal transportation system accessible by residents of all ages, abilities and economic levels, integrated with mixed use neighbourhoods. We will decrease automobile dependence, promote walking, cycling, car-sharing, transit and train travel, and enhance our residents' quality of life through improved health, economic benefits, reduced travel cost, and aesthetic enhancement of our environment."











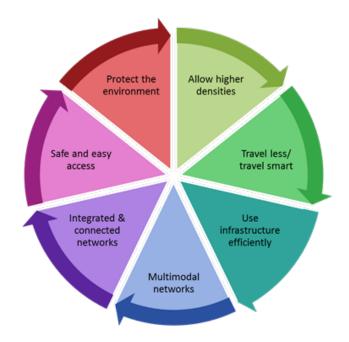




The second stage of the TMP process was to define the priorities that will enable the "desired future" to be reached. These priorities were finalized by synthesizing ideas and comments from the consultation process with acknowledged best practices in transportation planning.

The seven resulting priorities were:

- A. Manage travel demand—encouraging people to make fewer trips, shorter trips, or more efficient trips;
- B. Maximize network efficiency—improving the operation of existing infrastructure to enable better performance to be obtained without increasing road capacity;
- C. Build a multimodal network—developing a transportation network that is suitable for and able to accommodate all users
- D. Improve connections between communities—filling in the gaps in the network;
- E. Provide for safety and ease of use— ensuring transportation services are delivered in a safe, accessible and equitable way for all members of the community to use;
- F. Promote environmental sustainability and GHG reduction—reducing the number of long distance trips that need to be made, the time lost to congestion, and the proportion of trips made by single-occupant vehicles; and
- G. Intensify land use patterns—densification and transit-oriented design along key corridors.



Detailed reports on more focused issues were included as additions to the Plan. These included:

- Review and recommendations for parking strategies, focusing on the municipalities' downtown areas;
- Review of other local issues across all three municipalities, including localized traffic issues and downtown pedestrian circulation strategies;
- Review of area structure plans.

The final step of the process is creating a focused implementation plan to realize the vision and track the progress made towards it.

A series of actions were identified, each of which addresses one or more of the priorities. These were grouped into six categories: active transportation; public transit; road network elements; commercial vehicles; transportation demand management; and complete streets. These are described in Table 0-1.













### **Table 0 1: Priorities and Actions**

	Actions	RSTMP Priorities						
		Demand manage- ment	Network Efficiency	Multi modality	Connectivity	Safety/ usability	Sustain- ability	Land use
1	Develop well-connected trail and cycling networks			•		•	•	
2	Enhance pedestrian circulation and walkability			•		•	•	•
3	Improve active transportation information services			•		•		
4	Enhance safety of active transportation network			•		•	•	
5	Develop an enhanced and interconnected transit network			•	•		•	
6	Ensure transit accessibility to all users					•		
7	Provide information about transit choices and services			•		•		
8	Apply transit priority measures	•	•					
9	Implement transit-supportive land use design guidelines	•		•				•
10	Improve operational efficiency of key intersections		•					
11	Consider roundabout conversions		•					
12	Add a new river crossing between Dieppe and Riverview				•			
13	Implement arterial grid net- work and protect for future growth				•			
14	Add road capacity selectively				•		•	
15	Implement the truck route strategy			•				
16	Implement transportation demand management and trip reduction programs	•	•				•	
17	Apply parking management strategies and parking charges	•		•			•	
18	Develop complete streets	•		•		•	•	











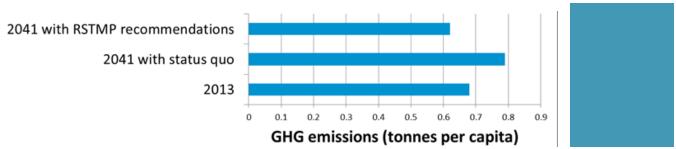
Land use (population and employment) forecasts at a traffic zone level were developed based on discussions with municipal planners, and the transportation forecasting model was run for 2016, 2021 and 2041 scenarios so as to follow Statistic Canada Census years. Potential improvements were evaluated in terms of their cost and their ability to improve system performance and efficiency, and compared against a "do nothing" scenario where no improvements are made to existing infrastructure, as well as a "business as usual" scenario that assumes only already-planned improvements are made. Key metrics used included:

- Active transportation and transit mode share
- Average trip travel time and distance
- Total vehicle kilometres travelled (VKT)
- Total vehicle hours travelled (VHT)
- Percentage of road network congested
- Annual hours lost to congestion

Without making improvements to road infrastructure, transit service, and active transportation networks, model projections indicate that peak period traffic congestion will increase across the network as follows:

 Base year (2013): The network generally functions well under peak conditions at present, with the exception of bottleneck points such as bridges, highway interchanges (especially the Dieppe Blvd/ Harrisville Road interchange with Highway 15), and high-density areas such as the downtown cores.

- Congestion indicates that key additions such as the Industrial Road extension and Highway 15 interchange and the Paul Street extension, are already needed.
- Short term (2016-2020): Similar to base conditions, with some increased congestion in downtown areas, especially along Main and Champlain Streets;
- Medium term (2021-2040): Without network improvements, congestion spreads to Wheeler Boulevard and Berry Mills Road, as well as other arterials in Moncton, the Acadie/Champlain area in Dieppe, and Coverdale Road in Riverview.
- Long-term (2041 and beyond): Without improvements, widespread traffic congestion is likely to affect the major arterials and highways in and accessing the Tricommunity, including almost all roads that have interchanges with Wheeler Boulevard, arterial roads in Dieppe and Hillsborough Road in Riverview. A blend of capacity enhancements on arterial roads and highways away from the centre, improved connectivity in the form of new and more efficient interchanges and crossings, and effective alternatives to driving in the central areas, will all be required to address the projected demand.
- This led to a set of infrastructure recommendations for the short (~5 year), medium (~10 year) and long-term (2041) horizons. These are summarized at a high level in Table 0 2.















## **Table 0 2: Implementation Time Frame**

	Actions	Short term	Medium term	Long term
		(2016-2020)	(2020-2040)	(2041 and beyond)
1	Implement transportation demand management and trip reduction programs	•		
	management and trip reduction programs			
2	Apply parking management strategies and	•		
_	parking charges			
3	Improve operational efficiency of	•	•	
1	key intersections  Consider roundabout conversions			
4	Consider foundabout conversions	•	•	
5	Apply transit priority measures	•	•	
6	Develop complete streets	•	•	•
7	Develop an enhanced and interconnected	•	•	•
	transit network			
8	Develop well-connected trail and	•	•	
	cycling networks			
9	Implement the truck route strategy	•	•	
10	Add a new river crossing between Dieppe		•	•
	and Riverview			
11	Implement arterial grid network and protect			•
	for future growth			
12	Add road capacity selectively	•	•	•
13	Ensure transit accessibility to all users	•		
14	Enhance safety of active			
	transportation network			
15	Provide information about travel choices	•		
	and services			
16	Enhance pedestrian circulation			
	and walkability	_		
17	Implement transit-supportive land use	•		
	design guidelines			









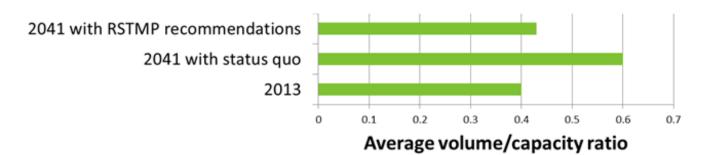




In summary, to meet the plan objectives and attain the vision that was developed, the following actions are recommended:

- The transportation network should be accessible to and safe for all to use, accomplished through implementing transit accessibility guidelines, expanding pedestrian and cyclist safety programs such as the Safe Routes to School, applying education and enforcement programs for crosswalks, and adding or signalizing crosswalks in high-volume areas.
- Transit-supportive land-use design guidelines should be followed to implement mixed-use development along key transit arteries such as Mountain Road, Champlain Street and Coverdale Road.
- This study has examined the corridors identified by the municipalities for complete streets treatment and made recommendations for which of these should be prioritized, including parts of Mountain Road in Moncton, Acadie Avenue and Champlain Street in Dieppe, and Trites and Whitepine Roads in Riverview.
- The downtown areas of the municipalities should be connected both within themselves and to surrounding areas with easily accessible pedestrian and cycle routes.

- Integrated trail, transit, cycling, road and truck networks should span Moncton, Dieppe and Riverview, without discontinuities at the borders or within the municipalities.
- Gaps in trail and cycling networks, such as between downtown Dieppe and the waterfront, between downtown Moncton and the University, or between south and north Riverview, should be filled to establish true networks. Where possible on medium or high-volume roads, shared lanes should be converted to full bike lanes.
- A third river crossing, serving all modes and connecting Riverview and Dieppe directly, is recommended to address a major connectivity gap.
- Implementing the 10-year transit strategy will help to encourage transit use in the Tricommunity by providing more useful two-way service on many routes, more information about services, and higher frequencies, as well as determining an optimally-located terminal. In the longer term, further expansion of the network to serve new development areas, connect Dieppe and Riverview directly, and serve key generators such as the airport is also recommended.
- Effective transportation demand management programs are recommended, such as establishing a community-wide TDM committee to develop









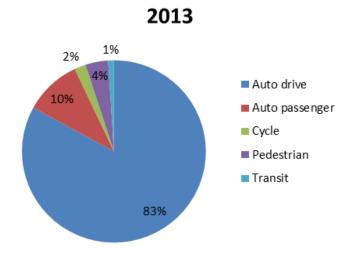


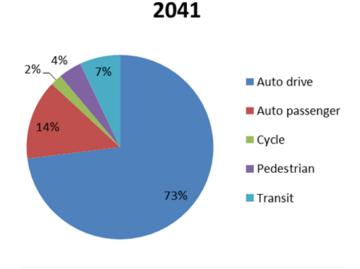


demand management ideas, creating carpool lots to reduce the number of vehicle trips into central areas, encouraging use of these by providing carpool parking spaces at workplaces, and implementing parking management strategies, including pricing plans to discourage downtown parking.

- Where new roads are built, they should be focused on serving new developments or filling in gaps in the network (such as between Riverview and Dieppe). On existing roads, studies to improve efficiency of intersections through signal timing, ITS measures or roundabout conversion should be considered as appropriate, while several new highway interchanges have been identified as important facilities to enhance connectivity and serve future demand. Some existing roads (such as the Highway 15-Wheeler Boulevard corridor) may require widening in the long-term to meet projected demand.
- Transit priority measures, such as signal priority or queue jump lanes at intersections, are an effective way to promote transit use by reducing the impact of congestion on buses. The study has identified key locations, mainly along downtown corridors, for transit priority treatment.

In summary, the City of Moncton, City of Dieppe and Town of Riverview will need, collaboratively, to build and maintain effective transit, provide safer active transportation options, improve transportation user education initiatives and incentives, increase densification and mixed-use development, act to reduce the "car-first" culture perceived as prevalent, and, overall, improve choice, connectivity, accessibility and ease of use for the people of the Tricommunity.















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