

Transportation Demand Management (or achieving sustainable transportation in HRM)

Halifax Regional Municipality

What is Transportation Demand Management?

Special points of interest:

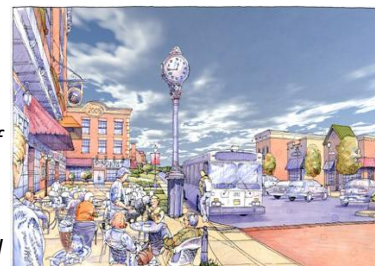
- TDM is a strategy designed to encourage the use of sustainable modes of transportation
- Benefits include reduced environmental impacts, reduced travel costs and healthier residents
- Through Transport Canada's ecoMOBILITY program, HRM has developed two projects to encourage sustainable transportation and decrease single occupant vehicle travel: guaranteed ride home and TDM migration fund.

There are a few ways to define what transportation demand management (TDM) is, however, they are essentially say the same thing. The following two definitions can be used when defining TDM.

HRM defines TDM as: *a set of strategic initiatives geared at improving the efficiency of the transportation network, encouraging alternatives to the single occupant vehicle trip and encouraging behav-*

ioral change.

Transport Canada defines TDM as: *the use of policies, programs, services and products to influence whether (is there a substitute for travel), why (what is the purpose of the trip), when (what time of day do I have to travel), where (what is my destination) or how (what mode will I or can I take) people travel.*



TDM Basics

Throughout North America, municipalities are experiencing increasing levels of traffic congestion, resulting in longer commuting times and increased levels of pollution. Traditionally, traffic congestion has been to expand the capacity of the road network, but it has not solved the problem.

Changing priorities, concerns over the environment and budget constraints are leading to changes in how public agencies manage the transportation network. Alternatives to increasing capacity

through the expansion of the road system are being incorporated into public policy in various jurisdictions in Canada, including HRM. Rather than expand the transportation network, the emphasis has been shifting toward utilization of alternatives and more efficient use of the existing transportation network.

Transportation Demand Management (TDM) provides substantive alternatives to the single occupant vehicle. When used as a component

of an overall transportation and land use plan, TDM can help reduce congestion, pollution and investment in the transportation network.

The intent of TDM is to promote and develop programs such as workplace commuter options, ridematching, and telework, among others. Providing viable alternatives to the single occupant vehicle trip, particularly at peak travel times is the primary goal of any TDM program. The program also looks at financial incentives to reduce

the number of single occupant vehicles on the road during peak travel times. These include parking fees, congestion tolls and charges.

TDM is not a method of eliminating the car from the road system, nor is it meant to prevent all types of road congestion. It is however, designed to delay or reduce the amount of road construction and make the system work more efficiently.

How is TDM Implemented?

Transportation Demand Management can be implemented in a number of ways. These include:



1. Encouraging Alternatives to the single occupant vehicle trip:

- This is being accomplished through the availability of public transit service, active transportation networks, ride-matching services

2. Educating Commuters:

- This is being done through transportation fairs, reports, public meetings, citizen groups, presentations

3. Developing Programs:

- This includes existing workplace commuter options programs, ride-matching programs and future programs such as individual travel plan-

ning. Other programs include Active and Safe Routes to School, which HRM participates in.

4. Providing Incentives:

- This includes the guaranteed ride home pilot program, preferential parking programs for carpools, university transit passes, etc.

Components of TDM Programs

Active Transportation

Active transportation is seen as being synonymous with TDM and the primary focus of many TDM programs. This is due to its benefits to the environment, the community and to individuals. By its very nature, it reduces greenhouse gas emissions from transportation activities, increased physical activity and fitness and is a low cost transportation alternative.

Within HRM it is supported by the Active Transportation Plan and dedicated staff and community members. The goals include a continuous network supportive of all non-motorized modes of transportation; increases in the number of participants and increased education and safety awareness campaigns.

Ridesharing

Ridesharing can be either informal (such as family members sharing rides to and from work) or formal arrangements (set up for benefits at work or through a

service). Either way, they help reduce the number of vehicles on the road and increase occupancy.

HRMSmartTrip.ca was set up as a formal on-line ridesharing program to assist HRM residents in finding commuting partners (carpool or buddies for walking, cycling and transit).

Ridesharing can have many benefits. These include reducing commuting costs, traffic congestion and greenhouse gas emissions; reducing stress and potentially car ownership.

Integration with Public Transit

Public transit is the single largest alternative to the single occupant vehicle trip. It is cost effective, environmentally friendly and reduces traffic congestion. When terminals and stations are linked to other sustainable modes such as bicycling and walking, a sustainable transportation network can result, enabling commuters to travel to

work without the need to travel by car.

For this to succeed, bicycle racks and lockers should be made available at terminals, active transportation infrastructure should be built to the terminal from surrounding residential or employment areas and carpool parking provided near the terminals.

Workplace Commuter Option Programs

These programs are offered through interested workplaces to encourage employees to use sustainable modes of transportation. Education (of programs such as ridesharing) plays an important role, as does providing incentives such as preferential parking, guaranteed ride home programs, bicycle parking and shower facilities. Employers who encourage flexible work arrangements such as telework, flexible start/end times and reduced work weeks can also see benefits for all.

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Parking, Land Use and TDM

The link between land use and transportation planning is undeniable. For many years, however, each was developed in virtual vacuums, with little, if any integration between the two. However, today, the two are being developed in conjunction with each other and the results are being seen. TDM programs can be very effective in areas where land use and transportation planning are integrated, providing a mix of uses and transportation options to

residents and workers alike.

Transit and pedestrian oriented developments:

The regional plan provides for the development of mixed use centres that are focused on transit service and walkable environments. Such developments will encourage the use of transit and active modes, reducing traffic volumes within the centres and between them.

Parking:

Parking plays a significant role in the travel choices made by commuters. If there is a large supply of affordable parking, commuters will choose to drive alone to work. However, if the cost of long-term parking (daily or monthly) is high and the supply is limited, then some commuters will likely look toward other modes for their daily commute. Parking for short term needs is not targeted by TDM programs.



Benefits of TDM

There are several benefits to having a TDM Plan. Below are some of the highlights:

- Improves land-use efficiency
- Reduces pollution
- Reduces collision risk
- Increases travel options for all
- Promotes lower cost alternatives to private automobile
- Decreases public investment in infrastructure
- Reduces traffic congestion
- Improves community health through active transportation modes
- Supports community economic plans
- Provides balance between transportation modes
- Supports policies that result in sustainable transportation initiatives

TDM can lead to a decrease in public investment into road infrastructure.

Regional Context—Policy Support for TDM

The HRM has developed a number of comprehensive community plans and strategy documents that support and reference the need for TDM in Halifax. The following is a brief annotated list of a few relevant policy and planning documents.

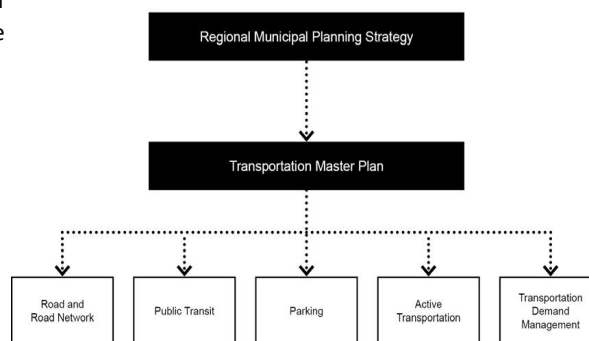
Regional Municipal Planning Strategy: Links transportation, land use and the environment for a sustainable development plan;

Transportation Master Plan: provision of transportation infrastructure and services that allow the community to meet mobility needs in a more sustainable manner;

Regional Parking Strategy: looks at the impact of parking on the decision to drive and its role in the overall transportation network and in particular, its role in TDM strategies and success; and

Active Transportation Plan: is an

essential document for the development and promotion of a TDM program within HRM through active modes.



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A Better Way to Travel

SMARTTRIP

Halifax is a growing municipality that requires a strong vision to manage traffic movements, strategically improve and expand roadways and transit services, and encourage alternative modes of transportation such as walking and carpooling.

As the population grows, managing travel demands will be done through: encouraging car and van pooling, investment in road network design, improvements to Metro Transit services, encouraging alternative modes of transportation, increasing use of Halifax Harbour and developing centres that encourage the use of alternative modes of transportation.



What HRM is Doing

HRM is undertaking many projects that will encourage a shift away from the single occupant vehicle and into more sustainable modes. These are outlined below:

The **active transportation plan** is in place and being implemented. A variety of infrastructure options are in development, including multi-use trails, sidewalk improvements, and on-road bicycle infrastructure as well as bicycle parking.

Transit improvements are underway with new services such as the MetroX and service improvements to many popular routes. Increased capacity to the system will occur with the opening of the new transit garage this summer. Any and all improvements to transit service will encourage a modal shift from less sustainable modes and de-

velopment of programs to support increased transit use.

The **regional parking strategy** is based upon TDM principles and provides recommendations to decrease parking requirements for new developments as well as increasing parking for sustainable modes. This will require changes to HRM's land use bylaws.

Transport Canada's ecoMOBILITY program has enabled HRM to develop two programs supporting a modal shift away from single occupant vehicle trips. The **guaranteed ride home pilot program** is designed to provide an insurance policy to users of sustainable modes of transportation. For example, if someone who has signed up for the program has an emergency then they will be able to travel home via taxi.

HRM has engaged four workplaces as

well as HRM staff to take part in the pilot program. This is also the beginning of the Workplace Commuter Options program. The second program, the **TDM Migration Fund**, is designed to gauge support for funding sustainable transportation initiatives from less sustainable modes. The details of the program are still being worked out.

Finally, a **ridematching program** has been launched in HRM. This program has been available for HRM residents for two years, and enables commuters to find carpool partners and transit, walking and cycling buddies online. The program provides a high level of security and anonymity for users. The provision of this program enables commuters to travel to work via sustainable modes.