

Sustainability Solution



transportation

*Improving Travel Options with*  
**Transportation  
Demand  
Management  
(TDM)**





## DID YOU KNOW...

...that the Federation of Canadian Municipalities' Green Municipal Fund™ (GMF) offers financial assistance for municipal studies and projects related to sustainable transportation? The Fund provides financing and knowledge to support the development of communities that are more sustainable. Find out more at [www.fcm.ca/gmf](http://www.fcm.ca/gmf).

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*Bike to Work Society*



The Federation of Canadian Municipalities (FCM) has been the national voice of municipal governments since 1901. FCM fosters sustainable communities enjoying a high quality of life by promoting strong, effective, and accountable municipal government.

FCM's Green Municipal Fund™ (GMF) offers a range of resources and services that specifically address the sustainable community development needs of municipal governments. The Fund provides financing and knowledge to support the development of communities that are more environmentally, socially and economically sustainable.

FCM Green Municipal Fund  
24 Clarence Street, Ottawa, Ontario K1N 5P3  
Tel.: 613-241-5221  
Fax: 613-244-1515  
[transportation@fcm.ca](mailto:transportation@fcm.ca)  
[www.fcm.ca/gmf](http://www.fcm.ca/gmf)

*Improving Travel Options with Transportation Demand Management (TDM)*  
\*Includes customizable PowerPoint presentation and additional resources on CD.

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Ce document est aussi disponible sous le titre *Améliorer les options de déplacement grâce à la Gestion de la demande en transport (GDT)*.



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# TDM at a glance

## WHAT IS TDM?

**Transportation demand management (TDM)** is the use of policies, programs, services and products to influence **whether, why, when, where** and **how** people travel.

TDM measures can motivate people to:

- » shift modes — walk, cycle, take transit or rideshare instead of driving.
- » make fewer trips — telework, shop online or use the telephone.
- » drive more efficiently — shop locally, do several things on each trip, and avoid peak traffic periods and congested routes.

## THE BENEFITS OF TDM

### For communities

- » greater return on investments in transit, walking, cycling and carpooling facilities
- » cleaner air
- » less traffic congestion
- » lower healthcare costs

### For employers

- » easier employee recruitment
- » better employee retention
- » lower parking costs

### For individuals

- » greater choice and convenience
- » time and cost savings
- » better health and fitness

## COMMITMENT

- ➔ Coordinate and integrate departmental efforts.
- ➔ Build strong partnerships with like-minded municipalities and other orders of government.
- ➔ Identify and support TDM champions.
- ➔ Dedicate staff and budget resources.
- ➔ Improve commuting options for municipal staff.

SEE PAGES 6–7.

## PLANNING

- ➔ Develop a TDM strategy and action plan.
- ➔ Integrate TDM into land use and transportation plans.
- ➔ Support TDM through the development approval process.
- ➔ Build TDM into infrastructure plans.

SEE PAGES 8–9.

## THE KEYS TO SUCCESS

## SERVICES

- ➔ Make travel options more affordable.
- ➔ Make travel options more convenient.
- ➔ Make travel information easier to find and understand.
- ➔ Help employers and institutions improve commuting options.

SEE PAGES 10–11.

## PROMOTION

- ➔ Link TDM projects using a strong brand and positive message.
- ➔ Use special events to build awareness and enthusiasm.
- ➔ Reach individuals through social marketing.
- ➔ Recognize and reward success.

SEE PAGES 12–13.

# Introducing TDM

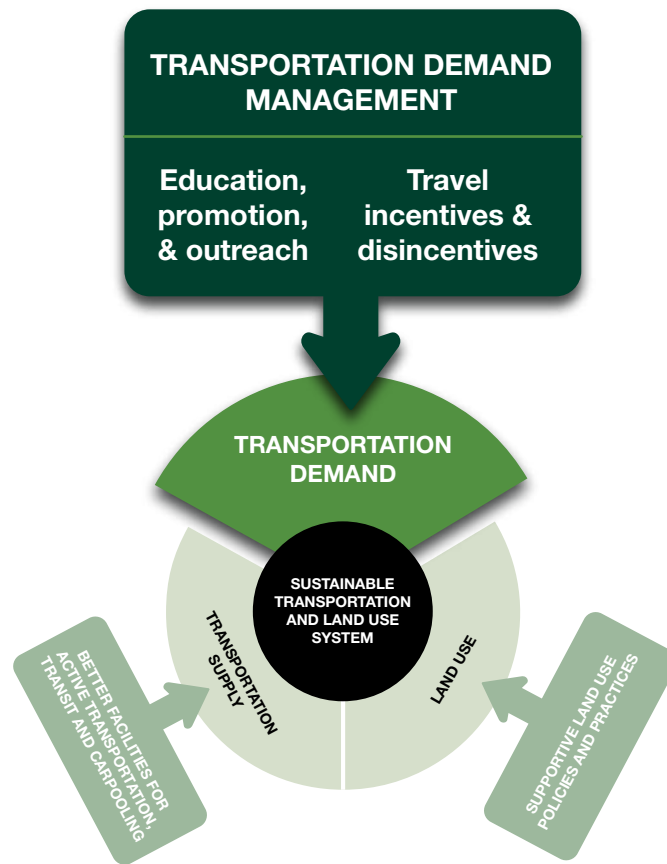
In a world with finite resources, keeping a balance between supply and demand is good for the environment. But for municipalities across Canada, it's also good business. Recycling and conservation programs are standard practice in the water, waste and energy sectors, offering real economic savings and social benefits. And now many Canadian communities are working hard to modify use of another precious resource — our transportation infrastructure.

By managing the demand for travel, municipal governments can reduce the need for new or widened roads, diminish the social costs of car use, and increase the return on their investments in transit, walking, cycling and carpooling facilities.

*Transportation demand management (TDM) is the use of policies, programs, services and products to influence whether, why, when, where and how people travel.*

TDM shapes the economic and social factors behind personal travel decisions, and complements efforts to make land use and transportation supply more sustainable (see figure). TDM initiatives, which can target an entire community or a single workplace, fall into two general categories:

- » **education, promotion and outreach**, such as an information campaign
- » **incentives and disincentives**, such as discounted transit fares



## HAVE YOU HEARD...

Launched in 2004 as a collaborative initiative to reduce traffic congestion and pollution in the Greater Toronto and Hamilton Area, Smart Commute has **reduced regional car travel** by 75 million vehicle kilometres and greenhouse gas (GHG) emissions by 17,400 tonnes.

In Metro Vancouver, TransLink used individualized marketing to engage thousands of families in 2005–2006. Preliminary results indicate that the TravelSmart project **increased the number of walking trips by nine per cent, transit trips by 12 per cent and cycling trips by 33 per cent** in several neighbourhoods.

A recent study commissioned by Transport Canada (*The Impact of Transit Improvements on GHG Emissions: A National Perspective*, Cansult and TSI Consultants, 2005) forecast that the **GHG reductions resulting from major transit investments could be substantially increased** by implementing TDM programs and policies.

In Saint John, N.B., a TDM strategy for the downtown core is expected to **reduce growth-related parking demand**, eliminating the need for up to 425 new parking spaces and saving \$5 to \$10 million in parking construction costs.

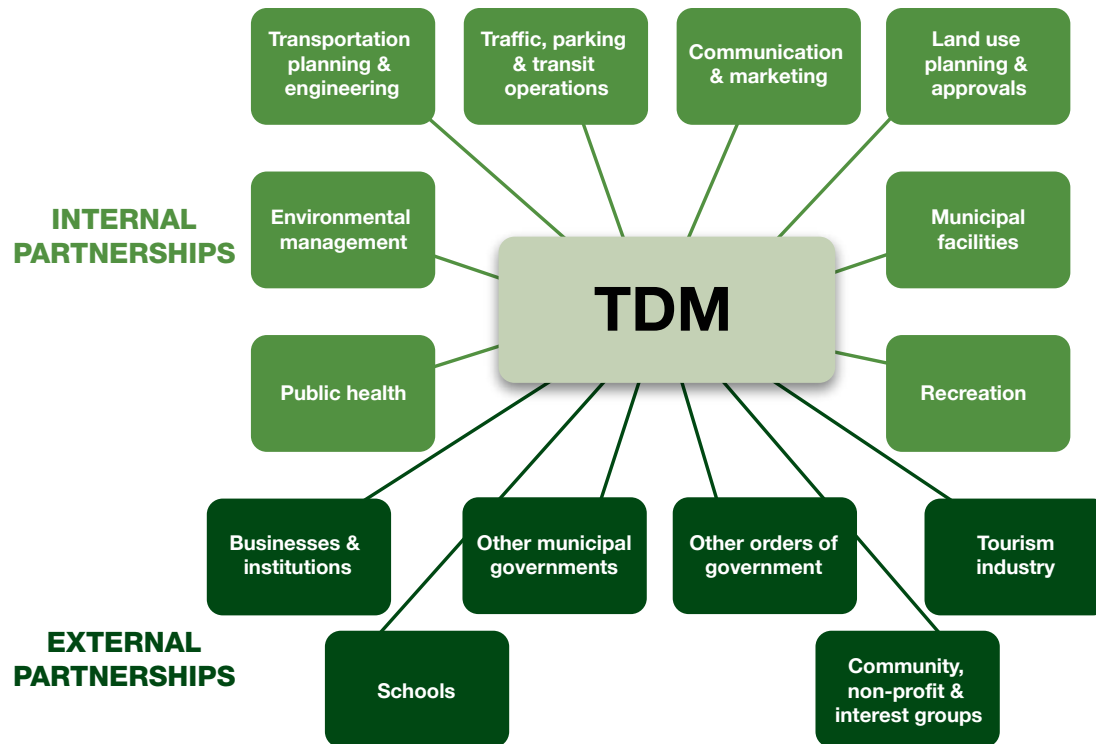
To test the impact of individualized marketing, the City of Portland, Oregon, worked with households in a neighbourhood near a light rail line that was being built in 2004. When the rail line opened, **residents of the targeted community increased their transit use by 44 per cent** — almost double the 24 per cent increase in a nearby neighbourhood that did not receive targeted information — and reduced their car use by 14 per cent.

Successful TDM programs require staffing and budget commitments. But even more importantly, municipalities need strong leadership to build key partnerships both inside and outside their organizations.

Effective municipal TDM programs depend on internal partners, such as transit operators, traffic engineers, land use planners, communications experts, facility operators, recreational coordinators, environmental managers and public health professionals (see figure).

They also need external partners, such as businesses, schools and community groups, to extend the program's reach, ensure credibility and add resources to boost the impact of municipal TDM investments.

While implementing TDM takes time and resources, the return on these investments is far more beneficial than simply building roads and continuing to bear the ever-increasing costs of car travel.



## COMMON TDM MEASURES



Prominent web page



Transit pass programs

Photo: TransLink



Ridematching services

Photo: City of Calgary



Telework opportunities



Individualized marketing

Photo: TransLink



Active and safe routes to school programs

Photo: City of Peterborough



In-house commuting options programs

Photo: Region of Durham

# Commitment

TDM involves getting people to change their behaviour — a challenging goal, to be sure. Success is far more likely when a municipality has made a real commitment to leadership.

➔ **Coordinate and integrate departmental efforts.** Real success in TDM requires the involvement of many different staff members. An interdepartmental steering team or working group is a good way to bring these various actors together and coordinate roles, with the ultimate goal of bringing TDM into the mainstream of municipal activities.

➔ **Build strong partnerships with like-minded municipalities and other orders of government.** Neighbouring municipalities can share knowledge or launch joint initiatives. Strong alignment with other orders of government can help to ensure the effectiveness of TDM initiatives — federal, provincial and municipal governments all play a role in making TDM work. Provincial and federal governments can also offer technical or financial assistance to municipalities.

➔ **Identify and support TDM champions.** The presence of a committed, persistent and persuasive champion on council or in senior management can make the difference in getting a TDM program off the ground. Champions raise the visibility of TDM, build support for budgets and projects, and act as the “face” of the issue for media and the public. Decision-makers need to be vocal in making the case for TDM and supporting others who are already behind it.

➔ **Dedicate staff and budget resources.** TDM programs don’t necessarily need lots of staff, but they do need someone to be TDM’s “eyes and ears” within the municipal organization. That person will connect people and projects, watch for opportunities, and serve as an expert resource. Many communities have a full-time TDM coordinator and a budget to provide essential tools and services.

➔ **Improve commuting options for municipal staff.** Before asking others to rethink their travel choices, municipalities need to lead by example. This is vital to establishing credibility with businesses, institutions and other governments. In addition, municipal employees will appreciate having better options for getting to work — and they will understand why it’s important to promote TDM in the rest of the community.

## TAKING AN INTEGRATED APPROACH

### *Markham, Ontario*

The Town of Markham has taken many steps to make TDM a success. To improve commuting options for municipal employees, it has implemented ridematching and preferential parking for carpoolers, cycling facilities, a discounted transit pass pilot project, and a guaranteed ride home service for commuters who use sustainable modes. The town has a full-time TDM coordinator and helped create Smart Commute 404-7, a transportation management association (TMA) that brings together the public and private sectors. It has also integrated TDM principles into its land use planning and parking management initiatives.

[www.markham.ca](http://www.markham.ca) (search on “Smart Commute”)



## KEY STEPS

- » Express council support for TDM principles and objectives.
- » Identify a staff lead for TDM, and involve other groups on a steering team.
- » Investigate ways to improve commuting options for municipal staff.

## LEADING BY EXAMPLE

### *Peel Region, Ontario*

Since completing its TDM strategy in 2004, the Region of Peel has focused on implementation. The region employs a full-time TDM coordinator, and supports two local Smart Commute organizations that work with area employers. It also offers a commuting options program for its employees with carpool ridematching, preferential carpool parking, and an emergency ride home service. This program has helped offset a reduction in employee parking spaces at regional headquarters.

**[www.peelregion.ca](http://www.peelregion.ca)**

(search on “Smart Commute”)

## FORGING LOCAL SOLUTIONS

### *Calgary, Alberta*

The City of Calgary was the first municipality in Canada to offer a regional rideshare program. It has successfully completed a leading-edge internal telework pilot project, and its full-time TDM staff work with major employers to help them improve commuting options for their employees. The city has developed a comprehensive TDM strategy to guide its long-term efforts, and in 2007 it partnered with the Association for Commuter Transportation of Canada (ACT Canada) to host the first Canadian TDM Summit.

**[www.calgary.ca](http://www.calgary.ca)**

(search on “sustainable transportation”)



Photo: Region of Peel



Photo: City of Calgary

# Planning

Rather than waiting for the future to arrive, why not make it happen? A proactive approach to creating TDM opportunities will increase the odds of success.

➔ **Develop a TDM strategy and action plan.** It's becoming more common for communities to develop a strategic plan for TDM that takes a multimodal view of challenges and solutions, and recommends specific policies, programs and projects to advance TDM inside and outside the organization. It need not take a lot of time or resources, and it's a good way for council to endorse key priorities and build momentum.

➔ **Integrate TDM into land use and transportation plans.** TDM programs and projects can be more effective when they are supported by a strong policy framework. Integrated community sustainability plans (ICSPs), development plans, transportation plans, transit or active transportation plans, parking plans and others should highlight how TDM can complement changes in land use or transportation supply.

➔ **Support TDM through the development approval process.** New commercial and residential developments should incorporate features that support successful TDM programs. It's easier to encourage cycling when offices offer showers and secure bike parking, and to promote carpooling when priority parking spaces are set aside for carpoolers. The best time to get features like these included in developments is before construction. This requires the involvement of approvals officers, developers, planners and architects — a goal made easier by certification programs (such as LEED®), guidelines, checklists, professional development and support from elected officials. Keep in mind that developers may commit to ongoing TDM programs (such as subsidized transit passes) in exchange for reductions in parking or roadway modifications.

➔ **Build TDM into infrastructure plans.** TDM measures that accompany the opening of new transit or active transportation infrastructure can accelerate the use of those facilities. TDM strategies can also reduce the impacts of major construction projects that restrict the use of bridges or major roads for weeks or months. Encouraging some drivers to change the mode, route or time of their trip can help maintain personal mobility, environmental quality and economic opportunity.

## COMPLEMENTING INFRASTRUCTURE

### *Ottawa, Ontario*

In 2008, the City of Ottawa approved a comprehensive, long-range cycling plan that recognizes the value of TDM measures as a complement to infrastructure.

The plan recommends marketing and education campaigns, maps and other user information, special events and awards, support for user groups, and requirements for bicycle parking, change rooms and showers at workplaces.

[www.ottawa.ca/onthemove](http://www.ottawa.ca/onthemove)



Photo: Noxon Associates Limited

## KEY STEPS

- » Bring stakeholders together to create a TDM strategy.
- » Review plans to see how TDM can support transportation and land use goals.
- » Develop standards or guidelines to ensure that new developments support TDM.

## INNOVATING FOR NEW DEVELOPMENT

### *Saanich, British Columbia*

The District of Saanich worked with several partners to build TDM measures into the innovative Short Street redevelopment project. The developer received a reduced parking requirement in exchange for providing new residents with a transit pass for one year, a car-share vehicle with membership for each unit, and secure underground bicycle storage.

[www.smartgrowth.bc.ca](http://www.smartgrowth.bc.ca)  
(search on “Short Street”)

Photo: District of Saanich Planning Department



## CREATING A TDM STRATEGY

### *Durham Region, Ontario*

The Region of Durham has developed a TDM program that supports its Official Plan, Community Strategic Plan and Transportation Master Plan. In 2007, the region completed a TDM study that identified the needs and interests of employers, assessed TDM's market potential, and evaluated different ways of involving employers in commuting options initiatives. After council approved a new regional TDM service called Smart Commute Durham, staff developed a detailed action plan to guide its implementation.

[www.region.durham.on.ca](http://www.region.durham.on.ca) and  
[www.smartcommutedurham.ca](http://www.smartcommutedurham.ca)

## EVALUATING DEVELOPMENT PROPOSALS

### *Markham, Ontario*

To help build a new mixed-use town centre, the Town of Markham created a document to measure the suitability of development proposals. The document's several scorecards include one for transportation that incorporates TDM-supportive goals for new developments. The *Markham Centre Performance Measures* document won a 2003 FCM-CH2M HILL Sustainable Community Award in the planning category.

[www.markham.ca](http://www.markham.ca) (search on “downtown Markham”)

## REDUCING THE IMPACTS OF CONSTRUCTION

### *Calgary, Alberta*

In 1999, the City of Calgary closed the Centre Street Bridge, a major downtown access point, for a year-long rehabilitation project. The city launched a public awareness campaign called “Escape the Rush” to encourage alternatives to driving into downtown during the closure. The program included employer outreach initiatives, billboards and media ads to promote flextime, telework, carpooling, transit, cycling and walking. After the bridge reopened, many commuters kept their new travel habits.

[www.calgary.ca](http://www.calgary.ca) (search on “Escape the Rush”)

Photo: City of Calgary



# Services

TDM initiatives help individuals choose options for getting around that simply work better for them. At the same time, prudent fiscal management requires communities to focus TDM resources on segments of the travel market where success is most likely.

➔ **Make travel options more affordable.** Saving money is a great motivator, and financial incentives are an effective way to encourage sustainable travel choices. Perhaps the best example is workplace and post-secondary transit pass programs, which offer discounted passes in exchange for a long-term (usually one-year) personal commitment to transit. Such programs can provide an “anchor” for broad multimodal TDM initiatives at workplaces, universities or colleges. Other options include discounted parking passes for carpoolers, or financial assistance for commuter bicycle purchases.

➔ **Make travel options more convenient.** Many TDM services actually increase travel choices. Ride-matching systems help people find carpool partners. Vanpooling services provide vehicles and coordination to get people to and from work. Car sharing programs give people an alternative to owning a car. Cycling courses help individuals overcome their reluctance to cycle on busy roads. Municipalities may not provide all these services directly, but can enable and support them.

➔ **Make travel information easier to find and understand.** A lack of information can be the main obstacle to making more sustainable travel choices — people may be unaware of nearby cycling routes, or confused about how to plan and make transit trips. Getting information to people when and where they need it is key. Online travel planners, “next bus” arrival information, cycling route maps, tips and tricks for carpooling or teleworking — all of these can help real people overcome real challenges.

➔ **Help employers and institutions improve commuting options.** Much “heavy lifting” in TDM is done by the employers and institutions that offer programs to increase commuting options. Municipalities can help these partners avoid “reinventing the wheel” while doing their part. Training, technical advice and templates go a long way. Municipal staff might offer direct assistance, or they may support efforts by transportation management associations (TMAs) or other non-profit groups.

## LEVERAGING PARTNERSHIPS

### *Greater Toronto and Hamilton Area, Ontario*

Since 2004, a network of 10 local Smart Commute organizations has been established in the Greater Toronto and Hamilton Area. These agencies work with employers to improve and encourage commuting options such as ridesharing, transit, cycling, walking and telework. They are supported by the central Smart Commute program at Metrolinx (a provincial agency) that develops tools such as the Carpool Zone ridematching service, and coordinates regional promotion and communication. For their efforts in support of Smart Commute, the regions of Halton, Peel, York and Durham, and the cities of Hamilton, Mississauga and Toronto received the 2008 FCM-CH2M HILL Sustainable Community Award in the transportation category.

[www.smartcommute.ca](http://www.smartcommute.ca)



Photo: Region of Halton

## KEY STEPS

- » Create a prominent web page with information on transit, active transportation and ridesharing.
- » Offer a public ridematching system to encourage carpooling.
- » Talk to employers and schools about improving travel options.

## SERVING EMPLOYER NEEDS

*Montréal, Québec*

Voyagez Futé offers a one-stop service for downtown employers that want to improve employees' transportation choices and motivate them to leave their cars at home. The organization provides information, advice and operational support for workplace initiatives, and acts as a liaison between the private and public sectors. Its board of directors includes representatives of municipalities, the private sector, transit authorities and other agencies.

[www.voyagezfute.ca](http://www.voyagezfute.ca)

## PARTNERING WITH EMPLOYERS

*Winnipeg, Manitoba*

The EcoPass is Winnipeg Transit's discounted monthly pass available to employees at participating companies. Each employer resells passes to transit users at a discount of five to 100 per cent, and Winnipeg Transit rebates a portion of this discount back to the company. EcoPass employers have reduced their parking costs and discovered a new advantage for recruiting and retaining employees.

[www.winnipegtransit.com](http://www.winnipegtransit.com)

## BRINGING STUDENTS ON BOARD

*Sherbrooke, Québec*

Since 2004, University of Sherbrooke students have received unlimited access to transit just by showing their student card. The program is similar to universal transit pass (or U-Pass) initiatives at other post-secondary institutions across Canada — but with one real difference. Rather than having all students pay a mandatory fee for their pass, the university covers all program costs in collaboration with the Société de transport de Sherbrooke, the local transit provider.

[www.usherbrooke.ca/jeux/reussite](http://www.usherbrooke.ca/jeux/reussite)

## SUPPORTING DOWNTOWN REVITALIZATION

*Saint John, New Brunswick*

The Saint John Parking Commission offers ShareYourRide.ca, a state-of-the-art web-based ridematching system. The municipality sees carpooling as a way to support downtown redevelopment without a large investment in public parking facilities. Saint John Transit helps promote the ridematching service, which it sees as supporting its own goals for sustainability and quality of life.

[www.shareyourride.ca](http://www.shareyourride.ca)



Photo: Société de transport de Montréal



Photo: Saint John Parking Commission/  
Saint John Transit Commission

# Promotion

Spreading the word about more sustainable travel choices is a key part of TDM. Promotion and education can help people better understand how they can reduce their travel “footprint.”

➔ **Link TDM projects using a strong brand and positive message.** Experience in North American communities shows that branding TDM programs can increase the perceived value of the services and products being offered. Note that successful branding is about more than name recognition — through consistent messaging it can establish a defining program characteristic (such as economical, green, healthy or safe) that builds consumer confidence and increases demand.

➔ **Use special events to build awareness and enthusiasm.** Special events encourage people to try a new way of getting around, even for just one day. They also validate sustainable travel choices through media coverage, political endorsements and celebrity involvement. Many municipalities conduct or sponsor local versions of the Commuter Challenge, International Car Free Day, International Walk to School Month, Rideshare Week, Bike to Work Week and other events, tailoring national materials to fit their local circumstances.

➔ **Reach individuals through social marketing.**

High-level social marketing has been used for decades to encourage conservation and recycling, and can help build a positive image for public transit, ridesharing and active transportation. The emerging practice of individualized marketing helps individuals and families explore options in a more personal, customized way. It is proving to be an especially powerful approach to motivating people to make sustainable travel choices, having reduced household car travel by up to 10 per cent in a variety of neighbourhoods.

➔ **Recognize and reward success.** Rewarding participation, effort and success is a basic principle of team endeavours. TDM program awards for “most valuable” employers, community groups and individuals can build goodwill and strengthen partnerships. Awards also generate significant public and media attention, particularly when press releases from award recipients accompany those from the municipal sponsor.

## EDUCATING THE NEXT GENERATION

### *Waterloo Region, Ontario*

“You Can Clear the Air” is a curriculum supplement that teaches Grade 3 students about transportation choices and air quality issues. The program also encourages teachers, parents and other community members to travel more sustainably. Its development was led by the Region of Waterloo and involved the regional transit system, two school boards, teachers and children. The project received an Honourable Mention from the 2004 FCM-CH2M HILL Sustainable Community Awards.

[www.region.waterloo.on.ca](http://www.region.waterloo.on.ca)



## KEY STEPS

- » Create a recognizable TDM program identity.
- » Support events like Bike to Work Week, the Commuter Challenge or Car Free Day.
- » Sponsor awards for TDM achievements by employers and local organizations.

## CELEBRATING BICYCLE COMMUTING

### *Greater Victoria, British Columbia*

Bike to Work Week is a successful B.C.-wide program that encourages people to commute by bike. The event originated in Greater Victoria in the early 1990s, and now includes official events in 11 communities that are supported by numerous partners including municipal, regional and provincial governments. The 2008 event attracted more than 680 registered teams and 6,000 cyclists, of whom more than 1,100 were new to bicycle commuting.

[www.biketowork.ca/victoria](http://www.biketowork.ca/victoria)



Photo: John Luton/Greater Victoria Bike to Work Society

## BRANDING TDM

### *Peterborough, Ontario*

Together, local organizations including the City of Peterborough are encouraging residents to walk, cycle, rideshare and take transit. Under the common brand of Peterborough Moves, they have developed a website offering multimodal travel information as well as the Shifting Gears Workplace Transportation Challenge and other school and community activities.

[www.peterboroughmoves.com](http://www.peterboroughmoves.com)

## BOOSTING THE ENVIRONMENT AND THE ECONOMY

### *Montréal, Québec*

The Active in My Neighbourhood campaign encourages those who live and work in the Montréal neighbourhood of Rosemont—La Petite-Patrie to walk, cycle and shop locally. Launched by the Équiterre organization, this initiative has been delivered since 2006 by the Corporation de développement économique communautaire (a community economic development organization) and several local partners with support from local, provincial and federal governments.

[www.cdec-rpp.ca](http://www.cdec-rpp.ca)

## MARKETING TO INDIVIDUALS

### *Vancouver, British Columbia*

Several area municipalities recently partnered with TransLink to test the potential of individualized marketing to motivate people to make sustainable travel choices. Preliminary results indicate that by offering households customized information and incentives, the TravelSmart project increased the number of walking trips by nine per cent, transit trips by 12 per cent and cycling trips by 33 per cent in a variety of neighbourhoods.

[www.translink.bc.ca](http://www.translink.bc.ca) (search on “TravelSmart”)



Photo: TransLink

# TDM resources

The following national organizations offer a variety of TDM information, tools and resources. Readers should also seek out other organizations in their community, region or province.

## FCM GREEN MUNICIPAL FUND

[www.fcm.ca/gmf](http://www.fcm.ca/gmf)

- » Green Municipal Fund™ grants and loans
- » Case studies
- » Profiles of award winners
- » Webinar podcasts
- » TDM resource links

## TRANSPORT CANADA

[www.tc.gc.ca/urban](http://www.tc.gc.ca/urban)

- » Online TDM Resource Centre
- » Canadian Case Study Library and issue paper series
- » Information network and capacity building
- » ecoMOBILITY program
- » Urban Transportation Showcase Program (UTSP)
- » Moving on Sustainable Transportation (MOST) program
- » *Commuter Options* guide and training materials ([www.tc.gc.ca/commuter](http://www.tc.gc.ca/commuter))

## ASSOCIATION FOR COMMUTER TRANSPORTATION OF CANADA

[www.actcanada.com](http://www.actcanada.com)

- » Research reports
- » Professional development opportunities

## GREEN COMMUNITIES CANADA

[www.saferoutestoschool.ca](http://www.saferoutestoschool.ca)

- » Special events
- » News
- » Resources

Check out this CD and find a customizable PowerPoint presentation, complete with speaking notes, to introduce TDM to your council, staff or peers. The disk also includes this document and other useful resources.

