

# Transportation Demand Management

## A Small and Mid-Size Communities Toolkit



*Fraser Basin Council*



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# Introduction

This toolkit focuses on how local government in communities of less than 150,000 can use the strategies and techniques of transportation demand management (TDM) to encourage individuals to change their travel behaviour.

## THE ORIGINS OF TDM

TDM was originally devised to address urban congestion. TDM has expanded as small and mid-size communities begin using TDM techniques. Many local governments are looking to TDM to help manage their transportation systems, to provide a balance between travel modes, and to ensure they make the most cost-effective and strategic infrastructure improvements.

The transportation sector accounts for 36% of all greenhouse gas (GHG) emissions in BC. Nearly 60% of these emissions come from passenger vehicles.<sup>1</sup> As communities look to address the climate change crisis by promoting less carbon-dependent lifestyles, they are making it a priority to develop sustainable transportation systems.

The Government of BC has set an ambitious target to reduce provincial GHG emissions by 33% by the year 2020 and has required local governments to set emissions reduction targets as well. In the spring of 2008 the Province passed Bill 27, the Green Communities Statutes Amendment Act. It requires local governments to incorporate GHG emissions targets into their Official Community Plans (OCPs) by 2010 and into their Regional Growth Strategies (RGSs) by 2011.

In addition, in 2007 the Province created the Climate Action Charter for local governments. Most of BC's municipalities and regional districts have voluntarily signed onto

the charter. They have committed to become carbon neutral in their corporate operations by 2012, to measure their community's GHG emissions, and to develop compact complete communities.

In combination, these initiatives – the provincial GHG emissions target, Bill 27 and the Climate Action Charter – have increased the need for local governments to develop strategies to reduce their civic and community GHG emissions. Achieving these reduction targets will require individuals to change how they travel by driving less often. This is where transportation demand management (TDM) comes in.

TDM is a set of policies and programs designed to manage the demand for road space in a community through reducing residents' automobile use. However, TDM can also achieve broader goals. It can help create more sustainable community transportation systems, save money, and increase the health and well-being of local residents.

<sup>1</sup> BC Ministry of Environment, "Climate Change: Reducing Greenhouse Gases in B.C. – Transportation Initiatives," [www.env.gov.bc.ca/epd/climate/reduce-ghg/transport.htm](http://www.env.gov.bc.ca/epd/climate/reduce-ghg/transport.htm).

This toolkit is divided into reader-friendly sections beginning with section 1, which introduces TDM. Section 2 looks at what it takes to build a TDM strategy, starting with an overview of travel mode options and looking at the types of tools required to create and implement a TDM strategy.

Section 3 presents 10 TDM case studies in different small and mid-size BC communities; they profile successful bicycling programs, active transportation, intercommunity transit services, carpooling, car-sharing, parking management and comprehensive TDM programs. These case studies showcase ways to begin a single TDM initiative and how to integrate several initiatives into a comprehensive TDM program.

Section 4 of the toolkit presents promising ideas, programs and opportunities that can be added to a TDM program. The toolkit closes with a list of TDM resources. Throughout, contacts and links for further information are included to enable local governments to access further advice on developing TDM programs.

This toolkit is a part of the TDM for Small and Mid-Size Communities Program, coordinated by the Fraser Basin Council ([www.fraserbasin.bc.ca](http://www.fraserbasin.bc.ca)). This program increases the capacity of local government staff and elected officials to develop and implement TDM in communities of up to 150,000 people. Beyond offering this toolkit, the program includes regional TDM training workshops and a TDM Learners' Network. Local governments interested in participating in a workshop or the Learners' Network can visit [www.tdm.bc.ca](http://www.tdm.bc.ca).

BC communities are positioned to become leaders in sustainability. Many projects are getting started and will have the opportunity to grow quickly in the next few years. Given provincial policies to promote GHG emissions reductions, local governments will be developing and implementing local solutions to global problems. If you are looking to address your community's transportation challenges, this toolkit is full of successful strategies and is a great place to start.

## BC CLIMATE EXCHANGE

The Fraser Basin Council's BC Climate Exchange (BCCE) ([www.bcclimateexchange.ca](http://www.bcclimateexchange.ca)) launched the TDM for Small and Mid-Size Communities Program. FBC is a non-profit organization dedicated to advancing sustainability in the Fraser River Basin and province-wide; the organization strives for social well-being supported by a vibrant economy, sustained by a healthy environment.

The BCCE began in 2002 and has been funded by the Ministry of Environment to promote interaction between the various government, civil society and private-sector organizations in BC engaged in public education and outreach on climate change, impacts and solutions. The BCCE designed the TDM for Small and Mid-Size Communities Program to ensure communities have resources to develop sustainable transportation systems, cut GHG emissions, save money and increase social well-being.






# 1 • About TDM & Its Benefits

The term *transportation demand management* (TDM) describes a broad range of policies, programs and services designed to reduce the demand for vehicle use by influencing individual travel behaviour and providing expanded options. Innovative TDM programs strive for reduced traffic and improved mobility at the same time.

TDM looks at the demand side of the transportation equation to determine how vehicle use can be reduced, particularly during peak hours. It seeks to enhance options such as transit, walking, cycling, carpooling and telecommuting. This approach differs from the traditional transportation planning approach of increasing supply (i.e., roads) to meet increased demand for road space. Communities across the globe have discovered that building wider roads tends to attract more traffic, which in turn results in even larger traffic jams. This common transportation challenge is one that TDM aims to address.





TDM implies action. Its goal is to influence and change individual travel behaviour. For example, rather than focusing on the need to widen the road in a clogged roadway situation, TDM looks at each single-occupant vehicle as an opportunity to increase road capacity.

TDM develops strategies to fill up vacant automobile seats to increase road capacity without increasing the number of automobiles. It looks at ways to reduce the overall number of drivers by diverting trips to other modes of transportation (e.g., bicycling, transit) so that traffic can flow better. An additional TDM strategy is to shift travel off peak times (e.g., by allowing employees flexible work hours) to make better use of existing road capacity.

Local governments in many small and mid-size communities are realizing that TDM can avoid future road congestion, save money

on road construction, increase social well-being and reduce GHG emissions. Benefits of TDM are summarized here for elected officials considering TDM program development at the political level.

### ECONOMIC BENEFITS

Local governments can use TDM to boost local businesses by developing optimum travel patterns and concentrating development around the downtown core. In compact communities, increased accessibility to goods and services can be an economic stimulus for local businesses.

TDM can save municipalities money by lessening demand for new road construction and reducing major roadway expenditures. For example, Kamloops avoided a \$120-million roadway expenditure in 1999 by spending \$14 million up front on TDM techniques.<sup>2</sup> (See “Carpooling in Kamloops” case study, page 30.)

### SOCIAL & HEALTH BENEFITS

Several social objectives can be addressed through TDM programs. By increasing travel options, TDM increases accessibility to goods and services and reduces social isolation for seniors, people with disabilities and members of lower income households. TDM can also offer residents a more enjoyable and social commute through cycling, walking or carpooling.

Perhaps the greatest impact of TDM is through the promotion of greater personal health and fitness. Residents may be keen to participate in active transportation programs as a way to integrate physical activity into their daily commute.

<sup>2</sup> City of Kamloops, “Travel Smart Summary Report,” [www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf](http://www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf).



Street designed for vehicle travel  
Smart growth neighbourhood designed for multiple transportation modes

Photo Credit: David Flanders, UBC Collaborative for Advanced Landscape Planning (CALP)

## ENVIRONMENTAL BENEFITS

For many local governments, TDM is a way to address environmental issues by increasing sustainable transportation options. With Bill 27 requiring local governments to incorporate GHG emissions reduction targets in their Official Community Plans and Regional Growth Strategies by 2010 and 2011, respectively, TDM can reduce emissions in the transportation sector, which accounts for 36% of GHG emissions in BC.<sup>3</sup>

## SUSTAINABILITY BENEFITS

TDM can also be used by local governments to bring about smart growth strategies. Smart growth promotes complete and more compact residential, commercial and institutional developments, which result in greater individual and community sustainability. As smart growth leads to concentrated nodes in a community, TDM can create transportation options for newly developed areas. Smart growth in turn can support further TDM program development by reducing the need for extended commutes to access goods, services and employment. Smart growth and TDM can thus work simultaneously in a complementary strategy.

## COMMUNITY ENERGY & EMISSIONS INVENTORIES

Community Energy and Emissions Inventory (CEEI) reports (provided by the BC provincial government) include high-level estimated community energy consumption and GHG emissions from on-road transportation, buildings, solid waste and land-use change. Local governments can use CEEI reports to help analyze their potential transportation-related reductions in GHG emissions linked to TDM initiatives. For more information, visit [www.toolkit.bc.ca/ceei](http://www.toolkit.bc.ca/ceei).

By addressing issues before they become insurmountable, TDM is to transportation what prevention is to health care. Longer term, it promotes the development of denser, more compact and more sustainable communities with less land space devoted to automobile travel and parking. To move toward sustainability, local governments need to plan for future communities that house more people yet accommodate fewer cars. TDM is one tool to help achieve economically, socially and environmentally sustainable communities.

<sup>3</sup> BC Ministry of Environment, "Climate Change: Reducing Greenhouse Gases in B.C. – Transportation Initiatives," [www.env.gov.bc.ca/epd/climate/reduce-ghg/transport.htm](http://www.env.gov.bc.ca/epd/climate/reduce-ghg/transport.htm).





## 2 • Building a TDM Strategy

### 2.1 TDM Opportunities

- Active Transportation
- Ride-Sharing
- Public Transit Services
- Parking Management

### 2.2 TDM Tools

- Plans & Policies
- Education & Social Marketing
- Physical Infrastructure Improvements

This section presents a range of TDM opportunities applicable to small and mid-size communities of less than 150,000 people. (It does not cover strategies relevant to larger centres, such as transportation management associations and congestion pricing techniques.)

Section 2.1, “TDM Opportunities,” includes practical options in active transportation, ride-sharing, transit services and parking management. A brief definition of each opportunity is given along with sidebars suggesting ways to develop the specific mode of transportation. Detailed case studies of communities developing these opportunities can be read in section 3, “TDM in Small and Mid-Size Communities.”

Section 2.2, “TDM Tools,” provides an overview of the three primary tools local governments can use to develop TDM programs: plans and policies, education and social marketing programs, and physical infrastructure improvements.

## 2.1 TDM Opportunities

### ACTIVE TRANSPORTATION

The term *active transportation* refers to any self-propelled physical activity, such as walking, cycling, running, in-line skating, skateboarding and, in winter months, skiing and possibly skating. Citing the positive personal health benefits of physical activity will entice many more people to participate in active transportation than will economic rationales like saving money by driving less.<sup>4</sup> The health and well-being aspects of active transportation are clear and can be used to attract new walkers and cyclists.

The community benefits of active transportation are many and thoroughly summarized by the Victoria Transport Policy Institute ([www.vtpi.org/act\\_tran.pdf](http://www.vtpi.org/act_tran.pdf)). The following list is an excerpt from the benefits outlined in a backgrounder titled “Active Transportation Policy Issues”:

- Increased physical fitness among residents
- Increased air quality and resulting improvements in residents’ respiratory health
- Reduced spending on road and parking facility expansions
- Increased options for modes of affordable transportation and resulting increased mobility, particularly for non-drivers
- Improved community livability, which can increase local property values and business activity
- Increased public transit ridership (since most transit trips involve non-motorized links), leading to additional reductions in automobile travel

### PUBLIC HEALTH & SMART GROWTH

Smart Growth BC’s Creating Healthy Communities: Tools and Actions to Foster Environments for Healthy Living guide offers further research on connections between active transportation, health and smart growth. Find it under the resources section at [www.smartgrowth.bc.ca/AboutUs/Issues/HealthyCommunities/tabid/197/Default.aspx](http://www.smartgrowth.bc.ca/AboutUs/Issues/HealthyCommunities/tabid/197/Default.aspx).

Any size of community can access these benefits by developing active transportation programs as part of their TDM strategy. (See “Active Transportation Planning” case study, page 22.)

Walking and cycling are by far the most common modes of active transportation, and skateboarding is the mode of choice for a growing number of people, especially youth. Mostly these modes involve sharing the right-of-way with other users, be it on a sidewalk, road, bike path or trail. Safely coexisting with others going faster or slower is a common concern for those who use active transportation.

Municipalities<sup>5</sup> can design communities, specifically roadways, to increase the safety of those who use active transportation. For example, designated cycling lanes can be added to roadways. The Federation of Canadian Municipalities (FCM) has developed useful guidelines on integrating active transportation into communities. See [www.sustainablecommunities.fcm.ca/files/Capacity\\_Building\\_Transportation/CommunitiesinMotion-PUB-e.pdf](http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_Transportation/CommunitiesinMotion-PUB-e.pdf).

Photo Credit: City of Vernon

### EXPANDING ROLLERBLADING, IN-LINE SKATING, SKATEBOARDING

- Are community paths hard-surfaced for these users?
- Are rollerbladers, in-line skaters and skateboarders allowed to use community paths?
- Is there a skateboard park in the community?
- Is rollerblading, in-line skating or skateboarding part of any program at a recreation centre?



## Walking

Local governments can easily promote walking. Tips on promoting walking have been developed by the Central Okanagan Regional District ([www.kelowna.ca/CM/Page1056.aspx](http://www.kelowna.ca/CM/Page1056.aspx)). Other communities could create a similar resource page on their website or as a printed handout.

Walking is suitable for trips in small and mid-size communities where distances in town are short. Most people can walk a kilometre in 10 minutes and can walk for 30 minutes, or approximately 3 km, during good-weather months. It is reasonable to target distances of 3 km or less for the promotion of active transportation (if combined with strategies to change people's perception of the time and effort it takes to walk).



Street signs indicate walking distances to promote active transportation

### EXPANDING WALKING

- Is there a network of sidewalks, paths and trails in the community?
- Are there curb cuts, especially in the downtown area, for individuals using a wheelchair or other mobility aid?
- Are there directional signs displaying walking times to various community destinations?
- Are paths and trails mixed use for cyclists, walkers, joggers, etc.?
- Are there sidewalks along main roads into town?
- Is funding for walking facilities identified and secured (e.g., LocalMotion funding, [www.localmotion.gov.bc.ca](http://www.localmotion.gov.bc.ca))?
- Are there active walking programs at area schools (e.g., walking school bus)? (See “Bike to School Week” case study, page 28.)
- Do crosswalks and traffic lights with pedestrian signals offer sufficient time to cross, especially for seniors or people with disabilities?

### ENCOURAGING MULTI-MODAL TRAVEL

Active transportation programs encouraging multi-modal travel are an important TDM strategy. Multi-modal travel describes more than one type of transportation being used in a single trip. For instance, walking typically forms part of a trip taken on public transit, for transit users must walk to a bus stop and then again from a bus stop to their final destination. Residents can take a bus to work and walk home afterward or, if buses are equipped with bike racks, they can cycle home.

<sup>4</sup> Based on responses from Bike to Work Week surveys in Victoria, BC.

<sup>5</sup> Electoral areas within regional districts do not have the same jurisdiction over roads as municipalities. The Ministry of Transportation and Infrastructure is responsible for all roads in unincorporated areas, and Regional Districts are responsible for land use and zoning in these areas.





Photo Credit: Ken Ohrn, Cypress Digital

## EXPANDING CYCLING

- Are there designated bike lanes or bike paths in the community?
- Are bike lanes or paths clearly marked with signage? (See “Active Transportation Planning” case study, page 22.)
- Are the bike paths lit at night? Are there benches where cyclists can rest?
- Are there mixed-use off-road trails that allow bicycles?
- Is there a map clearly indicating bike lanes, trails and facilities?
- Are there bike racks in the downtown area or elsewhere? Are there any other “end of trip” facilities for cyclists, such as shower facilities or secure bike lock-up areas?
- Are transit buses equipped with bike racks?
- Is the community pursuing funding for cycling facilities (e.g., BikeBC, [www.th.gov.bc.ca/BikeBC/CIPP.html](http://www.th.gov.bc.ca/BikeBC/CIPP.html))? (See “Physical Infrastructure Improvements,” page 18, for other funding sources.)
- Is there a Bicycle Master Plan or an OCP that promotes cycling? (See “Active Transportation Planning” case study, page 22.)
- Is there a local cycling advocacy group?
- Is cycling encouraged and promoted at area schools? Are cycling safety courses available in the community? (See “Bike to School Week” case study, page 28.)
- Has the community participated in Bike to Work Week? (See “Bike to Work Week” case study, page 26.)

## Cycling

Cycling is perhaps the fastest way to make a trip of less than 5 km. It is reasonable to target distances of 5 km to 8 km for cycling in an active transportation strategy.

Cyclists travelling 8 km or more value shower facilities at their final destination, and all cyclists value safe, secure storage for their bikes. These facilities can be installed at various sites of employment in a community, such as large public institutions, businesses and regional district or municipal offices.

A major barrier to increasing the number of cycling trips to workplaces is the lack of secure bike lock-ups and changeroom facilities. Requiring these basic facilities can be made part of the development process through a community’s planning bylaw.

Safety is an important consideration for cyclists, especially where there is no bike lane on the roadway. Local governments can offer cycling safety courses through their recreational centres. Learning safe cycling skills will help residents overcome fear, and new cyclists will learn the rules of the road. Longer term, local governments can develop bike paths and lanes to make cycling safer and increase its appeal to residents.

A cycling map is helpful to show bike lanes, cycling routes, trails, hills and transit exchanges. It can show travel time between major destinations and can also promote cycling tourism in an area. The identification and signage of cycling routes is also a key step toward making cycling easy for the public.



## RIDE-SHARING

Carpooling and vanpooling are both forms of ride-sharing. Carpooling uses a private vehicle, whereas vanpooling typically uses a vehicle rented specifically for that purpose. Ride-sharing programs may be of special interest to dispersed rural communities where population density is too low for public transit and distances travelled are too great for active transportation modes.

Carpooling does not have to be formal. Most worksites have informal carpools, where a driver will pick up one or two colleagues on the way to work. Another example is a parent taking their child and one or two other children to school. Social networking sites such as Facebook have recently become more popular as a means of ride-matching. Post-secondary students in particular utilize such sites to arrange ride-sharing that is typically informal but effective.

Formalizing carpools can make it easier for people to participate in them. Many local governments have joined an online carpool matching service like Trans Canada Carpool ([www.carpool.ca](http://www.carpool.ca)) or Jack Bell Ride-share ([www.ride-share.com](http://www.ride-share.com)) to allow area residents to find carpool matches. Once a community has joined, the service is easy to use, registration is free, and the information entered by any individual is strictly confidential. (See “Carpooling in Kamloops” case study, page 30.)

Vanpooling is more formal and usually involves longer distances, with 5, 6 or 7 people in a vehicle. It is best for people with fixed work schedules who live beyond a community's transit service area. The longest-standing vanpool program in BC is run by the Jack Bell Foundation ([www.ride-share.com](http://www.ride-share.com)). More than 100 vehicles operate in the Lower Mainland, on the Sea to Sky Highway and on Vancouver Island. No formal vanpools currently operate in the BC Interior, and this is an area of opportunity for local governments to explore.



Local government can offer online ride-matching services to residents

## PUBLIC TRANSIT SERVICES

There are 82 transit systems serving 50 communities in BC.<sup>6</sup> Three types of transit service are operated through BC Transit: conventional transit, paratransit and custom transit.

- **Conventional transit** serves the general population using mid-size, large or double-decker buses with fixed routes and fixed schedules. Most buses are fully wheelchair accessible, with door ramps that lower.
- **Paratransit** offers small-town, rural and suburban areas flexible routing and schedules for passengers using minibuses, taxis and vans. Many paratransit systems offer trips beyond their immediate community one or more days a week.
- **Custom transit** serves those who cannot use conventional transit because of a disability. It operates vans and minibuses for dial-a-ride, door-to-door handyDART service. Service is also offered through contracted Taxi Supplement and Taxi Saver (discounted coupon) programs.

Where a community has a transit system, many ways exist to increase transit use. If a community does not have transit, it may investigate carpools or vanpools and look into the possibility of accessing a nearby community's paratransit services for travel between communities. (See "Intercommunity Transit Services" case study, page 33.)

For communities with transit systems, complete transit information is available online at [www.bctransit.com](http://www.bctransit.com).

## EXPANDING TRANSIT SERVICES

- Is transit information readily available in the community?
- Is the transit website user friendly?
- Does the community have plans to expand transit service?
- Are the buses wheelchair accessible and equipped with bike racks?
- Is there a door-to-door service such as handyDART for individuals who cannot climb stairs or easily get to a bus stop?
- Is there a Taxi Saver service? (Taxi Saver is a local government-subsidized taxi fare program for persons with a disability or mobility impairment.)
- Are there any transit links or special trips to neighbouring communities? (See "Intercommunity Transit Services" case study, page 33.)
- Are there bus pass programs for students (semester pass or U-Pass program)? (See "Integrating TDM Programs in Prince George" case study, page 44.)
- Is there an employer-based bus pass program allowing employees to purchase their transit pass through a payroll deduction at work? (See "Emerging TDM Opportunities," page 50.)
- Are there dedicated lanes for buses where appropriate?
- Are buses and bus stops designed for safety and comfort (e.g., well-lit stops)?



Photo Credit: City of Vernon

<sup>6</sup> BC Transit, [www.bctransit.com](http://www.bctransit.com).

Staff operating BC Transit information telephone lines can advise citizens whether there are transit or other trips to neighbouring communities and whether there are other transit-sponsored services like Taxi Saver in the community.

Larger transit systems allow employees to pay for their bus pass through a payroll deduction at work. Local governments can promote transit websites and information lines as well as employee bus pass programs on their own website along with a reminder that printed schedule information, called the Rider's Guide, is available at City Hall, libraries, recreation centres and seniors' centres.

Local governments can develop well-marked, easily recognizable bus stops with amenities like benches and schedule information at major stops. Infrastructure upgrades such as these can make taking the bus easier for residents.

Transit has been experiencing record ridership growth in BC the past few years. There is no better way to make the case for more service than to have increasing passenger loads.

## FCM TRANSIT GUIDELINES

The Federation of Canadian Municipalities' transit implementation guidelines for small Canadian communities offer useful advice to local governments expanding or developing transit services. Check out [www.sustainablecommunities.fcm.ca/files/Capacity\\_Building\\_Transportation/TransitGuidelinesSmallCommunities-PUB-e.pdf](http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_Transportation/TransitGuidelinesSmallCommunities-PUB-e.pdf).

## PARKING MANAGEMENT

Parking management is a TDM strategy that local governments can use to increase the desirability of different modes of travel and to reduce land devoted to parking. (See "Educational Institutions – A TDM Opportunity" case study, page 40.)

Parking management refers to policies and programs that result in more efficient use of parking resources.<sup>7</sup> It uses TDM techniques to reduce the number of vehicles seeking scarce parking spaces.

Local governments can manage parking through municipal parking fees as well as regulations or requirements for new developments. For example, a local government can reduce minimum parking requirements in exchange for the developer providing transit passes or car-share memberships.

Bill 27 has expanded local governments' ability to change or eliminate off-street parking requirements.



Local governments are now able to collect cash in lieu of off-street parking, even if they do not have a nearby parking facility available. The cash in lieu can be placed in a sustainable transportation infrastructure fund and used to fund future projects.

Designating high-profile on-street parking spaces for Smart Cars, bicycles and carpool vehicles is one way to visibly support different travel modes. Designating

<sup>7</sup> Todd Litman, "Parking Management: Strategies, Evaluation and Planning," Victoria Transport Policy Institute, November 5, 2008, [www.vtpi.org/park\\_man.pdf](http://www.vtpi.org/park_man.pdf).

the best parking spaces in an off-street lot for bikes and carpools has a similar effect. People walking or driving by will notice these designated spaces.

Another parking management technique is to set the price of a downtown parking space higher than the cost of a monthly bus pass. This simple technique has reduced parking demand in Kelowna and could be implemented elsewhere. (See “Successful TDM in the Central Okanagan” case study, page 46).

Local governments can offer their employees a parking cash-out option. Employees who give up their parking space could be paid a set amount as part of their benefits package. Promoting the sharing of parking spaces among employees is another option to reduce the number of required parking spaces.

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The areas of active transportation, ride-sharing, public transit services and parking management can be simultaneously developed by local governments as part of a community-wide TDM program aiming to increase sustainable transportation and decrease GHG emissions. Small and mid-size communities that have developed these program areas are described in section 3; these case studies provide other local governments with many ideas for successfully developing TDM programs.

## 2.2 TDM Tools

Building a TDM program is somewhat like cooking – basic ingredients are used to create a full meal. With TDM, the basic ingredients used by local governments are sustainable transportation plans and policies, education and social marketing programs, and changes to physical infrastructure. These “ingredients” are combined to develop sustainable transportation options such as active transportation, ride-sharing, public transit services and parking management. Although this section presents TDM tools in three separate sections, often a mix of the three tools are used concurrently to develop TDM in a community.

### PLANS & POLICIES

Policy and regulatory mechanisms represent one set of tools available to municipalities and regional districts. These include Official Community Plans (OCPs), Regional Growth Strategies, Transportation Plans, Local Area Plans and zoning bylaws that impact land use and transportation. Such plans and policies can support TDM policies for infrastructure improvements and social marketing programs as well as set targets for transportation behaviour changes. Developing a host of plans and bylaws that support TDM is an important way local governments can promote TDM in their communities.

### SUSTAINABILITY FACILITATORS

Smart Planning for Communities (SPC) is a province-wide collaborative initiative of the FBC that assists local and First Nations governments in addressing their long-term sustainability challenges by providing resources and tools for planning socially, culturally, economically and environmentally sustainable communities. SPC offers practical information and advice on integrated community sustainability planning from expert sustainability facilitators located across BC. Local governments wishing to integrate TDM planning with other planning processes may access SPC resources at [www.fraserbasin.bc.ca/programs/smart\\_planning.html](http://www.fraserbasin.bc.ca/programs/smart_planning.html).



## OCPs & Regional Growth Strategies

OCPs and Regional Growth Strategies provide high-level guidance for the development of transportation systems. They can set priorities and preferences for some modes of transportation in certain areas. Given Bill 27's requirement that OCPs and Regional Growth Strategies include GHG emissions reduction targets by 2010 and 2011, respectively, local governments can link OCP and Regional Growth Strategy targets to sustainable transportation and TDM goals.

The newly adopted OCP in Vernon (October 2008) is featured as a case study in this toolkit to illustrate an OCP supporting comprehensive TDM and sustainable transportation (page 36). Other OCP examples can be found through the BC Climate Action Toolkit ([www.toolkit.bc.ca/tool/official-community-plan](http://www.toolkit.bc.ca/tool/official-community-plan)). This toolkit is a resource to help local governments reduce GHG emissions and is managed by Smart Planning for Communities in collaboration with the Union of British Columbia Municipalities (UBCM) and the Province of BC.

An OCP such as Vernon's can lead a municipality to develop more specific plans such as a Local Area Plan, a Transportation Plan and mode-specific plans such as a cycling network plan. It is important to integrate TDM goals and strategies into a combination of plans that flow from higher-level plans down to operational plans.

## PLANNING FOR SMART GROWTH

Smart growth planning aims to promote denser, more compact developments with a mix of land uses, allowing residents to access services within walking distance. It seeks to reduce the number of vehicle trips required for community residents to go about their daily lives and access the goods and services they require. More people living closer to these goods and services is fundamental to sustainable transportation development. As such, smart growth planning is an important tool to develop an effective TDM strategy.

Planning for a smart growth neighbourhood promotes sustainable transportation

Photo Credit: Jon Laurenz, UBC Collaborative for Advanced Landscape Planning (CALP)



## PLANS & POLICIES (CONTINUED)

### Transportation Plans

Transportation Plans are more specific than OCPs and can relate directly to TDM. They set future targets for modes of transportation and seek to increase the market share of other transportation modes. Plans only differ in how aggressively they promote change and in the priorities they place on various modes of transportation. These plans guide municipal expenditures in transportation, and thus in TDM as well, and are essential in acquiring provincial and federal funding for priority infrastructure projects.

A good example of a TDM supportive plan leading to operations is the Central Okanagan Smart Transit Plan ([www.kelowna.ca/CM/Page468.aspx](http://www.kelowna.ca/CM/Page468.aspx)). The Bus Rapid Transit service proposed in this plan subsequently received funding approval and is now being implemented between downtown Kelowna and UBC Okanagan. (See “Successful TDM in the Central Okanagan” case study, page 46.)

### Local Area Plans

A Local Area or Neighbourhood Plan (LAP) can address location-specific transportation issues, obstacles, desired infrastructure changes, priorities and timing. Transportation-specific goals, in support of TDM, can be outlined in LAPs for a neighbourhood rather than for a whole municipality. LAPs typically advocate linking up and extending sidewalks, paths and bike lanes, enhancing other pedestrian amenities (wider sidewalks, benches, curb cuts), and dealing with specific problematic parking issues (residents-only parking, stopping zones, bus stops, signage).

### Zoning Bylaws

Zoning bylaws outline permitted land uses on all land within a municipality and are important tools to shape transportation systems and to support TDM. New zoning bylaw provisions can provide alternatives to developers who design parts of the transportation infrastructure in a community. They can indicate allowable trade-offs where more parking is normally required. Local governments are also now able to reduce minimum parking requirements through Bill 27. (See “Parking Management,” page 13.)

## EDUCATION & SOCIAL MARKETING



Teaching skills such as bike maintenance encourages cycling

Photo Credit: Ken Ohrn, Cypress Digital

Any TDM strategy needs accompanying education and social marketing programs to encourage people to use different modes of transportation. How do the two differ? Education uses logical and rational arguments to persuade people to do something different. Social marketing uses audience-specific campaigns to address real and perceived barriers and also uses peer social pressure to foster change. Both types of programs are easily developed by local governments and are crucial components to ensuring any TDM program successfully changes individuals' travel behaviours.

### Education

TDM-focused education gives people full and accurate information about options and benefits relating to transportation. In reality, not everyone is looking for more or

better information to challenge their transportation choices, and no one has the time to fully research every option in front of them. Although this reality does not undermine the real value of education, it does limit the ability of education alone to influence behaviour, particularly around the use of automobiles.

Sustainable transportation initiatives have effectively used educational techniques. Adult commuter cyclists have benefited from skills education courses to allow them to properly position themselves in traffic and safely share the road with other users. (See “Launching Bicycle Programs” case study, page 26, for further examples of education used in TDM programs.) Children commonly learn pedestrian safety through education at home and at school. They can learn basic cycling safety the same way.



As in these examples, it's clear that education programs can teach a set of specific technical skills needed to use a certain mode of transportation. They can also address broader TDM issues and objectives. Education programs are most effective when coupled with social marketing campaigns.

## Social Marketing

Individuals are more likely to change their travel behaviour when rational arguments to encourage change are presented in a way that appeals to their core values. Simply put, social marketing tugs at the heart to influence the head, not the other way around. Social marketing is a tool that is adept at selling ideas, attitudes and behaviours instead of commercial products. It has been effectively used to change behaviours related to smoking, recycling, the use of seatbelts, and the use of condoms to combat the spread of HIV.

Building a social marketing campaign to promote new travel behaviours is a multi-step process. The "TDM Marketing" section of the Victoria Transport Policy Institute's *TDM Encyclopedia* describes how to develop a social marketing campaign ([www.vtpi.org/tdm/tdm23.htm](http://www.vtpi.org/tdm/tdm23.htm)). Following is the basic five-step process:

- 1 Identify a market of travellers who are most likely to change.
- 2 Identify barriers to behaviour change through focus groups and surveys.
- 3 Develop a multi-faceted strategy (based on research) that improves transportation options and overcomes barriers for the target market.
- 4 Design a pilot project to test the new strategy.
- 5 Implement a full-scale program, evaluate it, and improve it over time.

Community-based social marketing, a field within social marketing, is founded on social science theories that behaviour change is most effectively achieved through initiatives delivered at the community level. In particular, successful community-based social marketing initiatives focus on removing barriers to an activity while simultaneously enhancing the activity's benefits.<sup>8</sup>

<sup>8</sup> Doug McKenzie-Mohr, *Fostering Sustainable Behaviour: Community-Based Social Marketing*, [www.cbsm.com](http://www.cbsm.com). This website houses useful resources on how to develop a community-based social marketing TDM program.

## COMMUNITY-BASED SOCIAL MARKETING STRATEGIES

Several key community-based social marketing tools can be used in a campaign. The following suggestions are adapted from work done by Doug McKenzie-Mohr:<sup>8</sup>

- Request a specific commitment from individuals to change behaviour. This could include collecting pledges from people regarding the number of days they commit to travelling to work by bike.
- Use visual reminders. These could include a keychain that has a slogan such as "Have you carpooled this week?" that will remind people every time they use their car of their previous commitments.
- Use incentives where possible – an important tool to encourage individuals in new travel behaviour. Incentives could include discounts on different modes of transportation (e.g., discounted bus fares) or benefits (e.g., free bicycle tune-ups).

Idle-Free Ambassadors collect commitments from drivers as part of a provincial social marketing campaign to reduce idling



### Additional Resources

Social Marketing.com  
[www.social-marketing.com](http://www.social-marketing.com)

Social Marketing Institute  
[www.social-marketing.org](http://www.social-marketing.org)

Webinar on TDM Marketing  
[www.commuterservices.com/lunchnlearn/8-20TDMmarketing.html](http://www.commuterservices.com/lunchnlearn/8-20TDMmarketing.html)



### PHYSICAL INFRASTRUCTURE IMPROVEMENTS

In many cases, new infrastructure or infrastructure upgrades can help achieve changes in travel behaviour. Some costs of TDM infrastructure upgrades may be recouped from avoiding road expansions (see “Additional Resources” for cost benefit analysis of TDM programs). Significant GHG emissions reductions may be gained once infrastructure upgrades are implemented, and infrastructure improvements can ease residents’ use of other transportation modes.

New infrastructure or infrastructure upgrades can be designed to encourage multiple modes of transportation rather than ease traffic flow for vehicles. Upgrades can create a network of sidewalks, bike paths and trails; shortcuts between residential districts; bike racks and lock-up areas; and road improvements to enhance safety for cyclists and pedestrians.

New types of roads may need to be built or current roads may need to be redesigned to ease travel by buses, bikes and pedestrians rather than by vehicles. It is important to develop a priority list for infrastructure improvements, which could include new sidewalks, pedestrian lights, crosswalks, additional bike lanes and paths, road improvements that support public transit (bus stops, bays, exchanges, bus priority at signals), and bike racks and other facilities.

Once a priority list of infrastructure upgrades is developed, local governments can consider funding strategies. Without a detailed project priority list, it is difficult to apply for and secure infrastructure funding.





### Additional Resources

Travel Smart Australia: *University Travelsmart Toolkit* (2003)  
[www.travelsmart.gov.au/universities/understanding.html](http://www.travelsmart.gov.au/universities/understanding.html)

Victoria Transport Policy Institute:  
*Least Cost Transportation Planning* [www.vtpi.org/tdm/tdm21.htm](http://www.vtpi.org/tdm/tdm21.htm)

### Funding to Improve Infrastructure

Matching funds from provincial and federal government funding programs make many infrastructure upgrade projects feasible. Municipalities can apply under a range of programs to receive infrastructure funding; a regularly updated list of funding resources is available at [www.tdm.bc.ca](http://www.tdm.bc.ca). Here is a brief list of several available funding sources:

BikeBC: [www.th.gov.bc.ca/BikeBC/CIPP.html](http://www.th.gov.bc.ca/BikeBC/CIPP.html)

Federation of Canadian Municipalities: [www.fcm.ca](http://www.fcm.ca)

BC Gas Tax: [www.civicnet.bc.ca](http://www.civicnet.bc.ca)

Infrastructure Grants: [www.cd.gov.bc.ca/lgd/infra/infrastructure\\_grants](http://www.cd.gov.bc.ca/lgd/infra/infrastructure_grants)

LocalMotion: [www.localmotion.gov.bc.ca](http://www.localmotion.gov.bc.ca)

Ministry of Transportation and Infrastructure: [www.gov.bc.ca/tran](http://www.gov.bc.ca/tran)

Transport, Infrastructure and Communities Portfolio: [www.infc.gc.ca/](http://www.infc.gc.ca/)

Western Economic Diversification: [www.wd.gc.ca](http://www.wd.gc.ca)

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### THE USE OF PARKING REVENUES

Utilizing regular parking revenues to fund the provision of bike facilities like bike racks and secure lock-ups is one way to expand transportation options. After all, adding a bicycle parking stall costs just a fraction of what it costs to add an automobile parking stall. Another creative use of regular parking revenues is to help fund pedestrian improvements such as sidewalk and streetscape enhancements – anything that makes walking more attractive and safe.



## 3 • TDM in Small & Mid-Size Communities

### 3.1 Getting TDM Started

- Active Transportation Planning
- Launching Bicycle Programs
- Carpooling in Kamloops
- Car-Sharing in Nelson

### 3.2 Taking TDM to the Next Level

- Intercommunity Transit Services
- Official Community Plan Revisions in Vernon
- Educational Institutions – A TDM Opportunity

### 3.3 Achieving Comprehensive TDM

- Integrating TDM Programs in Prince George
- Successful TDM in the Central Okanagan

Section 2 reviewed the key tools available to local government for developing TDM programs, including supportive plans and bylaw changes, education and social marketing programs, and physical infrastructure improvements. A well-rounded TDM program has roots in all of these areas. This section presents examples of communities using these tools to develop a specific aspect of TDM.

The 10 case studies describe an array of TDM program opportunities pursued by small and mid-size BC communities. They outline how each program began, how it was delivered and its results. Resources and contacts have been included throughout. The contact people were interviewed and provided the relevant numbers and statistics (unless otherwise noted). At the end of each case study are tips for local governments interested in starting a similar initiative in their community.

Section 3.1 outlines first steps that local governments can take to begin developing a TDM program. A local government may choose to start with a specific sustainable transportation initiative such as Bike to Work Week or carpooling, then expand its original project into a more comprehensive program. Examples of active transportation, bicycle programs, carpooling and car-sharing – all within reach of local governments regardless of whether they lack TDM experience or have a small population – are included here.

Section 3.2 features more advanced TDM initiatives, including regional transit, OCP revisions, and ways to

work with educational institutions that may be relevant to local governments already running TDM programs and wanting to expand their programs.

The final two case studies, in section 3.3, provide examples of comprehensive TDM programs. The Prince George and Central Okanagan case studies illustrate the ultimate goal local governments can strive toward: a comprehensive TDM program supported by policies, plans and programs that promote diverse modes of travel.

## 3.1 Getting TDM Started

Communities with little or no TDM experience have several options when starting out to build the cornerstones of what could become a comprehensive TDM program in the future. Developing active transportation, promoting carpooling programs, and supporting car-sharing programs are all ways a local government can encourage residents to reduce their vehicle use and to cut GHG emissions. By starting with a small, achievable project, local governments can build support for expanding a one-off initiative into an ongoing and diversified TDM program. The following case studies show how small or mid-size communities have achieved great successes by starting with a specific plan, special event or ride-share-related service.

### TAKING STOCK

A good starting point in any community, large or small, is to take stock of what programs, services, TDM elements and supportive infrastructure already exist. Transportation statistics in the 2006 and 2001 Canadian Census ([www12.statcan.gc.ca](http://www12.statcan.gc.ca)) can highlight past community transportation choices. These statistics can be used to develop targets for a new TDM program.

To better understand the challenge facing TDM in any community, local governments can look at the existing transportation systems, noting the problem areas and identifying opportunities. For example, what is the parking situation, especially downtown? Is there pay parking? How much is it and is it enforced? What are the plans to ease parking supply or demand issues? Good transportation studies or traffic reports will outline problems as well as provide future projections.

Many of the elements required for developing a TDM program are often already in place, but are usually mode specific, with little coordination or cross-promotion between programs. Find out if an inventory of existing programs has ever been done. If not, it may be possible to get a summer student to complete an inventory of transportation infrastructure by mode.

## ACTIVE TRANSPORTATION PLANNING

A number of communities have researched, developed and planned active transportation initiatives through funding grants offered by the Built Environment and Active Transportation (BEAT) initiative of the BC Recreation and Parks Association (BCRPA) and UBCM. Many of these communities are small yet have started ambitious active transportation plans. Such programs can kick-start a TDM program for small or mid-size communities, especially those with little or no public transit.

The following are examples from the 2008 BEAT Planning Grant Program, plus one from 2009 (Wells to Barkerville cycling trail). They highlight each community's active transportation project goal and subsequent successes as a result of BEAT funding. Lessons learned through various active transportation planning processes are also included.

### Construction of Trails

#### Wells to Barkerville

Wells (pop. 246) is a historic gold mining town that has become a gateway to outdoor recreation tourism in BC's Central Interior.

**Goal:** The community wanted to build an off-road trail 8 km long to allow cyclists and others to travel safely between Wells and the Provincial Heritage Site of Barkerville, without having to share a winding road with many trucks, motorhomes and campers.

**Method:** There is only one road between Wells and Barkerville, and it is heavily used during summer months by motor vehicles. The new trail will likely parallel the road in most areas; some sections may require a wider shoulder on the road itself and the relocation of ditches.

**Successes:** BEAT funding will enable the trail location to be established.

**Lessons:** Many of the summertime staff who work in Barkerville live in the Wells area, and commuting by bike is desirable. Yet safety concerns with using the main road are the major obstacles to greater bicycle use by commuters. Communities such as Wells may be able to expand their travel options and develop a TDM strategy through the development of a specific bicycle trail.

Contact: Jason Griffin, Economic Development Officer, [marketing@wellsbc.com](mailto:marketing@wellsbc.com)

## BEAT FUNDING SUPPORTS ACTIVE COMMUNITIES

Communities in the BEAT grant program are encouraged to undertake active transportation plans, initiatives and projects to promote physical activity and increase the health and wellness of communities. This is one of the first programs to promote better population health by specifically targeting active transportation. BEAT provided planning grants (up to \$25,000) to municipalities and was funded by the BC Healthy Living Alliance and ActNow BC.

### Bicycle Network Plans

#### Qualicum Beach

Qualicum Beach (pop. 8,500) is a seaside recreation and retirement community on Vancouver Island.

**Goal:** The community wanted to develop a bicycle network plan to identify opportunities and priorities for active transportation trails, lanes and routes.

**Method:** The community's strategy is to use cycling as a key to increasing the connectivity of active transportation corridors. As a first step, a bicycle network plan was prepared by HB Lanarc consultants.

**Successes:** Trail development continues to be a high priority for the Town of Qualicum Beach council. The Town has applied for funding to complete missing linkages in a multi-use corridor connecting the Middle School, on the west side of Qualicum Beach, through downtown, to major residential neighborhoods in the East.

**Lessons:** Developing the plan was more costly than first anticipated, but the plan also achieved more







comprehensive results. Qualicum Beach learned the need for a realistic cost estimate for preparing a comprehensive bicycle network plan.

Other communities developing a bicycle network plan may want to review planning budgets and how such a plan could support TDM program development. With some foresight, it is possible to develop a bicycle network plan in a cost-effective, comprehensive manner.

Contact: Luke Sales, Special Projects Manager,  
lsales@qualicumbeach.com

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### **Quesnel**

Quesnel (pop. 9,915) is a forestry-based community that is the commercial centre of the North Cariboo.

**Goal:** Quesnel wanted to build a trail from downtown to the Two Mile Flat industrial area. This required working around a busy provincial highway, an active railway, private industrial lands and steep banks leading to a river. It also meant overcoming budget and funding constraints.

**Method:** In the past, the favoured bicycle route was slated to negotiate a logical routing along the riverbank and through an industrial complex, but this route was never completed due to environmental constraints. A consultant was hired to review alternative routes. Public input as part of the BEAT project found that the public favoured redirecting the trail to a less busy alignment and expanding the scope of the project to include other areas of the city.

**Successes:** Public support gave the Two Mile Flat trail project a renewed focus. The City of Quesnel and the Ministry of Transportation and Infrastructure now have to conclude design details on the new trail alignment. In the consultation process, significant public support was expressed for other new multi-use trails, which are now being planned.

**Lessons:** It is beneficial to engage the public as early on in a trail planning process as possible. This ensures that a variety of trail options are considered and that public support will carry a trail project to completion.

Contact: Tanya Turner, City Planner,  
tturner@city.quesnel.bc.ca

## Active Transportation Plans

### Regional District of Nanaimo

The Regional District of Nanaimo (pop. 139,000) encompasses a large part of eastern Vancouver Island, including the communities of Parksville, Qualicum Beach, Lantzville and Nanaimo.

**Goal:** The Regional District's goal was to prepare an active transportation plan. The study area included the geographically large Electoral Area A, with low densities, narrow roads, ditches and relatively long distances between residents and popular destinations.

**Method:** BEAT funded the Active Transportation Plan prepared by Boulevard Transportation Group. The plan identified 9 actions and 5 supplementary actions to improve the active transportation network and to encourage active transportation.

**Successes:** Priorities were outlined in the Active Transportation Plan and will feed into the OCP review, which is underway.

**Lessons:** Rural communities, especially within a regional district, are challenged by a number of factors, including large separation distances, low densities, funding mechanisms and jurisdictional limitations. Nonetheless, it is critical to work closely with the communities and with the Ministry of Transportation and Infrastructure to develop and implement a plan.

Contact: Greg Keller, Senior Planner, [gkeller@rdn.bc.ca](mailto:gkeller@rdn.bc.ca)

### Sparwood

Sparwood (pop. 4,013), a town with a mining past, is often called the "best kept secret in the Rocky Mountains."

**Goal:** The District of Sparwood wanted to improve non-motorized connectivity between neighbourhoods; encourage residents to bike, walk and run; and promote the use of transit.

**Method:** Sparwood collected traffic statistics at key locations, conducted surveys at public input sessions

and undertook an evaluation of key trail areas. The results were used in the preparation of an active transportation plan, which will be included in the OCP review in 2009.

**Successes:** This initial BEAT grant helped the municipality recognize the value and importance of active transportation. It resulted in some rethinking of transportation priorities and allowed the District to get involved with active transportation.

**Lessons:** Securing further funding for trail construction and especially bridge construction on specific trails can be challenging but is essential.

Contact: Gary Walker, Director, Leisure and Community Services, [recreation@sparwood.bc.ca](mailto:recreation@sparwood.bc.ca)

### Golden

Golden (pop. 4,500) is located in the Rocky Mountains between Glacier and Yoho National Parks and is known as the gateway to extreme outdoor adventure.



**Goal:** Golden's aim is to have a continuous active transportation system throughout which will integrate with the planning of transit systems and the development of trails in surrounding communities.

**Method:** The Active Transportation Plan involved community consultation, a survey of a Grade 7 class and an assessment of Golden's active transportation routes (walking and biking). Members of the Golden Active Transportation Group used Internet-based communication tools, including a Facebook site with over 100 members and two blogs, to promote upcoming events and to distribute public consultation workshop results.

**Successes:** Golden's OCP advocates reducing GHG emissions, and the preparation of the Active Transportation Plan brought the community one step closer to implementing this policy.

**Lessons:** It is important for the Golden Active Transportation Group to coordinate the Active

Transportation Plan with their partners (the Ministry of Transportation and Infrastructure and the Town of Golden), and they have made an excellent start.

Contact: Lisa Reinders, Manager of Leisure Services, [leisure@town.golden.bc.ca](mailto:leisure@town.golden.bc.ca)

BEAT participating communities have made a very important step toward achieving better health by promoting physical activity through active transportation. Other local governments interested in improving resident health, increasing transportation efficiency and reducing GHG emissions can begin their TDM programs with active transportation planning.



### TIPS FOR LOCAL GOVERNMENTS

- Undertake initial background research to understand residents' current use of active transportation.
- Start small with a specific project that will increase active transportation in at least a section of the community.
- Develop an active transportation plan that will outline further program and infrastructure development.
- Use active transportation infrastructure and/or programs to build a comprehensive TDM program for the community. Build upon the successes of the active transportation plan to harness support for carpooling, car-sharing, transit expansion and other TDM initiatives.
- Apply for small project-based funding to begin with and use small grants to leverage larger funding opportunities.

### BEAT

The BC Recreation and Parks Association and UBCM co-lead BEAT as members of the BC Healthy Living Alliance. BEAT provided community planning grants to local governments and aboriginal communities to develop new plans or amend existing plans for active transportation. Funding was provided by the BC Healthy Living Alliance with support from ActNow BC. In 2008 10 grants of \$15,000 to \$25,000 were awarded in phase 1, and another 14 grants were awarded in 2009.

[www.physicalactivitystrategy.ca/index.php/beat/community-planning-grants](http://www.physicalactivitystrategy.ca/index.php/beat/community-planning-grants)

Contact: Cara Fisher, Built Environment and Active Transportation Initiative Coordinator, [cfisher@bcrpa.bc.ca](mailto:cfisher@bcrpa.bc.ca), 604-629-0965



## LAUNCHING BICYCLE PROGRAMS

Special event bicycle programs have successfully increased bicycle use and public support for expanded bicycle infrastructure in several BC communities. Hosting an event such as Bike to Work Week can be an excellent first, action-oriented TDM initiative to kick-start further TDM program development. The following two case studies outline suggestions for how to host a Bike to Work Week and/or Bike to School event in a community.

### BIKE TO WORK WEEK

#### A Program Begins

Bike to Work Week is a one-week, workplace-targeted TDM program promoting commuter cycling that began in Victoria in 1995. The program was developed, and is still delivered, by a volunteer-driven local society. More than 6,000 people register in Victoria's event each year, including up to 1,500 new cyclists.<sup>9</sup> It is a big reason why the Victoria region leads the country in the Canadian Census "journey to work – by bicycle" category at 5.6% of all work trips, compared to the Canadian average of 1.3%.<sup>10</sup>

In 2008 Bike to Work BC (BTWBC) was established as a non-profit society. Support from the Government of BC and Transport Canada enabled BTWBC to offer the delivery model to 16 BC communities in May 2009, modelled after the event held in Victoria for the past 15 years. Bike to Work Week will remain a springtime promotional event in future years.

A local government can build upon the Bike to Work Week event model that originated in Victoria. Many communities are running their first Bike to Work Week program in 2009.

#### Successful Program Delivery

The Victoria Bike to Work Week targets employees at worksites throughout Greater Victoria. Employees sign up to participate on a workplace team and their travel stats are logged for the week.

The annual campaign begins with a launch at City Hall five to six weeks before the event. The launch marks the unveiling of the main poster for the event and of the new Bike to Work Week T-shirt. Countdown posters featuring high-profile participants appear weekly in newspapers, and workplace team leaders are busy promoting the event at their workplace.

<sup>9</sup> Based on website registrations.

<sup>10</sup> Canadian Census 2006, [www12.statcan.ca](http://www12.statcan.ca).





During the week, participants can stop in at “celebration stations,” located at several different on-route locations each day, for complimentary beverages, healthy food and to enter to win much-sought-after draw prizes. Local bicycle shops eagerly participate, tuning up bikes at celebration stations as well as showcasing lights and cycling gear. The event receives prominent coverage in local media throughout the week.

Participants are not the cycling elite. Many employees cycle in their work clothes and have bikes that require a lot of dust removal and air in the tires to become roadworthy. This is an event that many people can feel comfortable participating in, and that is one of the reasons for its success.

Bike to Work Week ensures that participants are prepared by arranging many components, including the following:

- Challenges are initiated among workplaces.
- Various prize draws provide many opportunities to win.
- Bike shops along main cycling routes provide free basic mechanical assistance and air for tires to improve comfort.
- Safety courses build rider confidence. More than 1,400 people in Victoria have attended full-day commuter skills cycling courses since 2003, and demand for this course continues to grow through promotion of the courses at the Bike to Work Week events.

Bike to Work Week has created a fun event, one that people eagerly look forward to each year. It can be one of the first events that can kick off the spring cycling season in a community.



Bike to Work Week posters feature high-profile participants and are an example of social marketing

## Results

The Bike to Work Week campaign is a simple concept with significant results. It is applicable in any community and supports infrastructure improvements, better cycling conditions, and improved relationships between cyclists and other road users.

Furthermore, Bike to Work Week directly benefits the following in the local community:

- employers, who will be able to retain more productive staff
- air quality, by reducing emissions and particulates
- taxpayers, by reducing spending on roadways, as cycling reduces congestion and spending on health, for the event directly encourages active living

Bike to Work Week is a tested and proven special event ready for local delivery. Public support for further TDM programs may be gained from hosting such an event.<sup>11</sup>

## RESOURCES

Bike to Work Week: [www.biketowork.ca](http://www.biketowork.ca)

Annual yearbook with event photos: [www.biketowork.ca/files/images/2008%20Yearbook%20final.pdf](http://www.biketowork.ca/files/images/2008%20Yearbook%20final.pdf)

BC Cycling Coalition: [www.bccc.bc.ca](http://www.bccc.bc.ca)



## TIPS FOR LOCAL GOVERNMENTS

- Adopt Bike to Work Week as an excellent way to promote cycling and to build support for improving local cycling infrastructure.
- Determine the best way to organize and deliver the program. A local group may be the most appropriate to spearhead the campaign.
- Take part in the event itself. Host the campaign launch, sponsor celebration stations, or encourage municipal or regional district employees to take part in Bike to Work Week. See the Central Okanagan's Bike to Work Week webpage ([www.kelowna.ca/CM/Page875.aspx](http://www.kelowna.ca/CM/Page875.aspx)) and download sample event materials.
- Fund the delivery of cycling skills courses. This could be done by partnering with a local recreation centre.
- Apply for provincial funding for Bike to Work Week and to access the \$31 million announced in 2008 for cycling infrastructure in BC over the next three years ([www.th.gov.bc.ca/BikeBC](http://www.th.gov.bc.ca/BikeBC)).
- Prepare an active transportation plan for your community with support gained from Bike to Work Week events.

## BIKE TO SCHOOL WEEK

### A Program Begins

Kelowna adapted the Bike to Work model to schools in 2008, four years after Bike to Work Week began (see case study page 26). The regional TDM program, delivered by the City of Kelowna's TDM staff, promotes active transportation at schools through the Bike to School event.

### Successful Program Delivery

The program was designed to encourage student participation from kindergarten through Grade 12, teach cycling safety, allow students to calculate the environmental impact of making more trips by bike, and enable students to have fun all week long. The program was a partnership between School District 23 and the regional TDM program jointly funded by Central Okanagan municipalities. It was led by Wendy Majewski, marketing coordinator with the City's regional TDM program.

The first step was to build support within the school community through presentations to school district officials, parent advisory councils, the Central Okanagan Teachers' Association, principals and teachers. Following up with the most enthusiastic individuals at each school was the next step.

Promotional material was made available to every participating school via the i-go Central Okanagan website ([www.i-go.ca](http://www.i-go.ca)). Parents were invited to participate and to support their children's involvement.

## Results

Twenty-two schools participated and 4,277 students rode at least one day, including 664 who rode to school for

<sup>11</sup> Interview with Stephanie Johnson, Executive Director, Bike to Work Week.

the very first time. A total of 9,570 cycle trips were made by participating students. These are impressive results for the first year of the program.

During class time, five bike rodeos were held where students from Grades 3 to 7 could learn how to properly fit and wear their bike helmet, mount and dismount, make left- and right-hand turns, ride safely, etc. The rodeos were led by the district traffic safety officer. Ten such rodeos are planned for 2009.

One of the hands-on tools for students during Bike to School Week was the website developed by Hub for Action on School Transportation Emissions (HASTE). On this website ([www.hastebc.org](http://www.hastebc.org)), the travel emissions calculator allows students to enter their home and school location to calculate their cycling distance. Students then enter how they normally travel to school (i.e., by type of vehicle, number of passengers, etc.) and what they did during Bike to School Week. The program calculates the GHG emissions resulting from both entries.

The Bike to School program is a great way to teach children about the impact of transportation choices. One of the best ways to get adults to pay more attention to their transportation choices is to have their own children explain the impact of travel modes. Children can make powerful and persuasive arguments that any parent has difficulty ignoring.

## RESOURCES

Contact: Wendy Majewski,  
Marketing and Communications Coordinator,  
[wmajewski@kelowna.ca](mailto:wmajewski@kelowna.ca), 250-469-8817

Bike to School: [www.kelowna.ca/CM/Page875.aspx](http://www.kelowna.ca/CM/Page875.aspx)

Central Okanagan Regional TDM: [www.i-go.ca](http://www.i-go.ca)

HASTE: [www.hastebc.org](http://www.hastebc.org)

Kelowna 2030 Official Community Plan Review:  
[www.kelowna2030.ca](http://www.kelowna2030.ca)



## TIPS FOR LOCAL GOVERNMENTS

- Consider offering Bike to School Week in conjunction with Bike to Work Week. Invest staff resources to determine which programs make sense for the community.
- Encourage your school district to get involved with active cycling and walking programs for students and encourage schools to participate in Commuter Challenges, National Environment Week, and walking school bus or bike train programs and events ([www.hastebc.org/walking-school-busbicycletrain](http://www.hastebc.org/walking-school-busbicycletrain)).
- Improve signage and cycling infrastructure on routes to school (e.g., bike paths, lanes, lock-up areas, storage).



Photo Credit: City of Kelowna

## WHAT IS HASTE?

Hub for Action on School Transportation Emissions (HASTE) is a hub for groups taking action on reducing school transportation emissions in BC. It's a resource and networking centre to help students, teachers and schools improve the health of individuals, communities and the environment. Groups can start or enhance initiatives to reduce the negative impacts of school-related transportation choices, as well as plan active and safe routes to school.

Parking spaces for carpoolers encourage ride-sharing



## CARPOOLING IN KAMLOOPS

Carpooling is a simple way for local governments to begin TDM while saving money, reducing congestion and conserving energy along the way.

### A Program Begins

The City of Kamloops partnered with Trans Canada Carpool and the BC Climate Exchange in 2005 to offer Carpool.ca, an online ride-matching service, to major employers, including Thompson Rivers University, and to residents. The City wanted to expand the range of travel options available to commuters and to reduce single-occupant vehicle use and GHG emissions.

### Successful Program Delivery

The partnership with Carpool.ca is only one of several TDM measures spearheaded by the City. The carpooling program fit well with an expanding transit system, a successful U-Pass program at Thompson Rivers University and low-cost semester bus pass packages for high school students. Carpooling fills in transportation options especially for those who do not live along transit routes or who live beyond the transit service area.

"Carpool.ca takes about two minutes to use," says Anne Marie Thornton, director of Trans Canada Carpool, formerly known as Commuter Connections. There are now more than 120 communities and post-secondary institutions

## PROMOTIONAL CAMPAIGNS

Carpool.ca has a number of promotional campaign resources that local governments can use at [www.carpool.ca/resources.asp](http://www.carpool.ca/resources.asp).

In Kamloops several annual special events have been used to promote ride-sharing.

Promotional materials for the following campaigns are available from Carpool.ca.

- National Carpool Week in October
- Carpool Week in February
- "Go Green" Week for St. Patrick's Day in March
- Park Your Car on Earth Day, April 22
- National Commuter Challenge, during Environment Week
- Clean Air Day in June

across Canada using Carpool.ca and more than 10,000 potential carpoolers registered on the website.

For any community looking to expand the range of travel options available locally, it is far easier and more cost-effective to partner with a service like Carpool.ca than to develop a ride-matching service on their own. The benefits include all of the preferences, confidential details and logistics involved in carpool matching, access to promotional materials as well as outreach services for local employers. Essentially, a community joining Carpool.ca has an immediately deliverable product that is effective, affordable and easy to use.

### Results

Twenty-four Kamloops carpoolers registered in May 2005. This quickly grew to 100 after six months and to 350 carpoolers three years later. Included are employees at the following major employers: Thompson Rivers University, Convergys, City of Kamloops, Sun Peaks, NRI, Northern Trailer, Weyerhaeuser and Royal Inland Hospital. Carpooling is not just for employees of major employers. Many small employers are also represented, located throughout Kamloops.

The 2006 Canadian Census<sup>12</sup> reported that passengers in cars accounted for 7.7% of all trips to work in Kamloops, up from 6.9% five years earlier. This may not seem significant but it represents a positive trend. Filling up



vacant seats in peak hour vehicles takes cars off the road and reduces GHG emissions.

Joining and promoting a carpooling program is an excellent first step for any local government interested in pursuing TDM.

## RESOURCES

Contact: Colleen Lepik, Safer City Coordinator,  
Clepik@kamloops.ca, 250-828-3605

City of Kamloops carpooling webpage:

[www.kamloops.ca/transportation/carpooling.shtml](http://www.kamloops.ca/transportation/carpooling.shtml)

Trans Canada Carpool: [www.Carpool.ca](http://www.Carpool.ca),  
information@carpool.ca, 1-800-668-RIDE

Jack Bell Ride-Share: [www.online.ride-share.com](http://www.online.ride-share.com)



## TIPS FOR LOCAL GOVERNMENTS

- Participate as a sponsor and a model employer promoting events and programs that reduce vehicle use and minimize GHG emissions, such as carpooling.
- Designate “carpool only” on-street parking spaces or consider introducing carpool-friendly parking policies. Carpool.ca staff have a number of suggestions and case studies they would be happy to share.
- Include carpooling as part of a TDM strategy to promote a range of transportation choices in your community.

## CAR-SHARING IN NELSON

Car-sharing is a valuable component of a well-rounded TDM program that gives residents a number of affordable travel options. This case study presents a successful community-based car-share co-op in Nelson (pop. 10,000). Since the late 1990s, this car-share has grown to 126 members and 21 vehicles, serving six communities throughout southeastern BC.

Car-sharing is a clever and affordable way for people who do not own a vehicle to meet their transportation needs for those trips when they do need a vehicle. It allows individuals to be selective in deciding when and how often they need a vehicle. Car-share members save money by not having to pay for a vehicle when they do not need one and reduce their environmental footprint as a result.

### A Program Begins

The Nelson Carshare Co-op got its start in the late 1990s when a group of friends began sharing one particular friend's vehicle. Funding was secured and a relationship with the Vancouver Co-operative Auto Network was developed to formalize the Nelson Carshare Co-op.

### Successful Program Delivery

Members pay a \$500 refundable share in the co-op, which funds the purchase of car-share vehicles. Members can access a variety of cars, pickup trucks and utility trailers plus accessories such as roof racks, a car-top carrier and bike racks. The co-op has reciprocal agreements with car-share co-ops in other communities, such as Vancouver and Victoria, so members have access to vehicles in those co-ops as well.

## SHARING RIDES IN THE KOOTENAYS

Founders of the Nelson Carshare Co-op set up a ride-sharing system for longer-distance intercommunity travel where rides could be offered or sought for travel between communities. This ride-matching service is now run by the Kootenay Rideshare and is undergoing expansion. Details can be found at [www.kootenayrideshare.com](http://www.kootenayrideshare.com).

<sup>12</sup> Canadian Census 2006, [www12.statcan.ca](http://www12.statcan.ca).

## Results

As of 2009 the co-op has 126 members, 14 vehicles in Nelson, 3 in Revelstoke, 1 in Kaslo, 1 in Golden, and is now placing a vehicle in Kimberley and another in Fernie (see table). There is also interest from Rossland, Castlegar and Trail for car placements. Co-op membership can grow quickly; for instance, Revelstoke joined the Nelson Carshare Co-op in 1997 and had 22 members and 3 vehicles by 2009.

If residents are interested in starting a car-share, it is best to suggest they approach another community's co-operative to place a vehicle in the community. Additionally, when interest is expressed, a town hall meeting can be held to inform people about car-sharing, explain how a co-op works and gauge interest. This meeting can be at the invitation of the community or local government or can be organized by prospective participants. In each community, the key is to have a minimum of

six people willing to join and a local volunteer to administer the program and store the vehicle. Ten to eleven interested members would warrant placing a second vehicle.

The Nelson Carshare Co-op illustrates the ability for small and mid-size communities to implement car-sharing programs. Local governments can support resident-led car-share program development and can encourage employees to participate in the car-share.

## RESOURCES

Nelson Carshare Co-op:

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

Contact: John Alton, 250-352-1204, or Barry Nelson, 250-352-2704; [info@nelsoncar.com](mailto:info@nelsoncar.com)

Kootenay Rideshare:

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

Vancouver Co-operative Auto

Network: [www.cooperativeauto.net](http://www.cooperativeauto.net)

Victoria Car Share Co-op:

[www.victoriacarshare.ca/drupal-6.2](http://www.victoriacarshare.ca/drupal-6.2)



## TIPS FOR LOCAL GOVERNMENTS

- Encourage establishment of a car-share co-op. Promote car-sharing within the community as an important element to a more sustainable transportation future.
- Include car-share contact info in places like the transit Rider's Guide, local government website and recreation centre guides.
- Offer car-share memberships for employees (either free or at a subsidized rate) and allow car-share vehicles to be used as work vehicles. Consider requesting a car-share car to be placed at the local government office for employee use.
- Designate high-profile on-street parking spaces for car-share parking only. This can be done through municipal parking regulations.
- Set preferential parking rates for car-share vehicles, where a car-share vehicle will pay less at a parking facility or meter.
- Consider promoting car-share memberships in exchange for reducing parking requirements in new multi-family residential developments.



Nelson Carshare Co-op vehicles



### NELSON CARSHARE CO-OP MEMBERS & VEHICLES, 2009

Community	Members	Vehicles
Nelson	79	14
Revelstoke	22	3
Kaslo	4	1
Golden	8	1
Kimberley	7	1
Fernie	6	1
Totals	126	21

Source: Nelson Carshare Co-op

### DESIGNATED CAR-SHARE CO-OP PARKING

Specific bylaws that create and apply parking standards can be made TDM-friendly. The City of Victoria is amending its Streets and Traffic Bylaw to allow for several 24-hour reserved on-street parking spaces for car-share co-op vehicles in specified neighbourhoods. This is in recognition that car-share co-ops take traffic off the street and take vehicles out of driveways. The City works with adjacent property owners and residents to find suitable locations for car-share vehicles.

## 3.2 Taking TDM to the Next Level

The previous five case studies presented ways for local governments to get started on building a TDM program. For local governments that have some elements of TDM programming or planning in place, the next three case studies outline options for expanding a TDM program and its impact on GHG emissions.

The first case study presents ways to develop intercommunity transit links – crucial in small and mid-size communities where regular travel to a larger centre is required to access services and goods. The second case study offers an example of revising a community's OCP to provide policy support for emerging TDM programs. The third case study provides direction on how to work with a post-secondary institution to effectively manage parking at an educational institution through TDM programs. All three case studies offer insight for reducing GHG emissions through providing a greater number of transportation options to local residents.

### INTERCOMMUNITY TRANSIT SERVICES

This case study looks at intercommunity links – trips in between communities – an area of importance for small and mid-size BC communities. Typically, trips between BC communities have relied on the private automobile. However, there are publicly funded transportation links between many communities, some of them covering distances of several hundred kilometres. These transportation links are usually established for a specific purpose and are not well known or publicized. A list of publicly funded transportation links between BC communities that could be promoted by local governments is included in the second section of the case study.

The transit link between Vernon and UBC Okanagan in Kelowna is a key example of providing a long-distance transit link from one community to a post-secondary institution in another community. This practice is not common in small or mid-size communities and could be more widely implemented.

### VERNON TO UBCO IN KELOWNA

UBCO Okanagan, located at the north end of Kelowna, has 5,400 students. Nearly 500 students live in the Vernon/North Okanagan area and make daily trips to the UBCO campus in Kelowna.

#### A Program Begins

The North Okanagan Regional District and City of Vernon addressed their need for regional transit to UBCO in 2008 by instituting four transit round trips per day between downtown Vernon and the campus in Kelowna. Connecting regional transit buses from areas around Vernon allow students from Lumby, Enderby and Armstrong to connect with the bus to UBCO.

#### Successful Program Delivery

The service is funded by the North Okanagan Regional District and the City of Vernon and carries 155 passengers per day (one-way trips), with the first morning trip to UBCO carrying 40 or more passengers, more than a fully seated load. Students with a U-Pass account for 75% of all trips, showing that there are others in the community taking advantage of this intercommunity link at an affordable \$2.50 per trip. At UBCO, non-student riders can transfer to other transit routes in the Kelowna system.

#### UBCO TRANSIT

The UBC Okanagan campus has excellent transit service, with an express bus operating between the campus and downtown Kelowna every 15 minutes in peak hours. UBCO has a U-Pass program and has developed TDM initiatives with the help of UBC's TREK Program. The TREK program centre acts as UBC's TDM department





Photo Credit: Amanda Watson

## Results

Overcrowding on the first transit trip of the day is an issue, and providing a second early trip to campus is a budget challenge. Options to increase carrying capacity could be considered on this intercommunity route. There is no comparable transit link from the South Okanagan to UBCO, although there is demand for such a link.

Before this bus service began, students had to drive or carpool to Kelowna for UBCO classes. The only bus link was by Greyhound, and bus times made meeting class start times a challenge. The new public intercommunity bus service reduces the demand for parking at UBCO and reduces GHG emissions by reducing the number of vehicles on Highway 97.

## RESOURCES

UBCO TREK Centre: [www.trek.ubc.ca/okanagan](http://www.trek.ubc.ca/okanagan)

Vernon Regional Transit:

[www.bctransit.com/regions/ver/default.cfm](http://www.bctransit.com/regions/ver/default.cfm)

Vernon bus to UBCO schedule: [www.bctransit.com/regions/ver/schedules/schedule.cfm?p=thumb.txt&route=90%3A0&day=1&](http://www.bctransit.com/regions/ver/schedules/schedule.cfm?p=thumb.txt&route=90%3A0&day=1&)

Kelowna Regional Transit:

[www.bctransit.com/regions/kel/default.cfm](http://www.bctransit.com/regions/kel/default.cfm)

## OTHER INTERCOMMUNITY LINKS IN BC

Intercommunity bus services exist elsewhere in BC and can be further promoted or developed in partnership with local governments.

## Paratransit Services

Paratransit services, offered through BC Transit, include flexible transit service usually run with minibuses or

community buses that do not always follow a fixed route or a fixed schedule. Such services usually have a demand-responsive component that will allow a bus to deviate off route to make an individual pick-up or drop-off.

Many paratransit services in BC offer service to neighbouring communities once or twice a week in addition to providing local community service. The Princeton bus goes into Penticton up to 3 times per week, the Hazelton bus travels into Smithers 3 days per week, the Skeena Connector bus travels from Kitimat to Terrace 5 days per week, the Summerland bus goes into Penticton 5 days per week, and the Osoyoos bus goes to Kelowna once a week. These are only a few examples. Information on each community's paratransit system is available at [www.bctransit.com](http://www.bctransit.com).

## Health Connections

Health Connections is a provincially funded program to address regional travel needs for rural residents who must travel long distances to access specialized non-emergency medical services. Regional health authorities have full discretion in how they seek to deliver this service. Service restrictions vary region to region, but many include intercommunity bus services.

The Interior Health Authority has contracted with many transit systems to operate intercommunity bus links, for many medical services are found in regional centres and specialized services in larger centres like Kelowna or Kamloops. For example, under this program there is a bus link every Monday from Williams Lake into Kamloops, \$5 for a distance of 287 km. This bus service is not restricted to medical trips; anyone in a community has access to these intercommunity links,<sup>13</sup> provided there is room on the bus or minibus. Most operate one or two



## EXPANDING INTERCOMMUNITY TRANSIT

- Does the transit system or paratransit system operate trips to other communities?
- Are there Health Connections trips in the region?
- Are there Greyhound or other intercommunity bus services available?
- Are there volunteer programs that offer intercommunity transportation?
- Is there a ride-share program in the community (e.g., Kootenay Rideshare, page 31)?
- Are there fare subsidy programs that can be promoted to residents?
- Is there one place to access all intercommunity transit information?



Photo Credit: Northern Health Connections<sup>13</sup>

days per week. For a complete listing of communities, see [www.bctransit.com/health\\_connections/?p=2.list](http://www.bctransit.com/health_connections/?p=2.list).

The Interior Health Authority provided an estimated 25,000 rides in 2008, with 35% of the trips being medical in nature. Within the 200,000-square-kilometre Interior health region, encompassing the East Kootenay, Kootenay-Boundary, Okanagan and Thompson Cariboo Shuswap areas, these trips are a largely untapped resource for the area's 700,000-plus residents. Few people know about this service because it is not well advertised outside of doctors' offices and the medical community. Promoting these services is an opportunity for local governments.

### Other Intercommunity Links

Beyond province-wide intercommunity bus programs, there are several specific services that are running between communities in BC.

The Squamish-Whistler Commuter transit service runs 13 trips per day in winter between the two communities; 4 trips are run by transit and 9 by Greyhound. Passengers can purchase special Greyhound tickets (via a transit subsidy funded by both municipalities), which brings the price down to the equivalent transit fare. For rates, see [www.bctransit.com/regions/whi/schedules/commuter.cfm](http://www.bctransit.com/regions/whi/schedules/commuter.cfm).

This is a creative partnership that serves residents of both communities well. It has been running for nearly 10 years.

A transit link from Duncan via Mills Bay and Shawighan Lake into Greater Victoria began in October 2008, with three morning trips into Victoria and three afternoon trips back to Duncan and Shawnigan Lake, respectively. It is a new service and passenger loads have been light. However, the \$6 and \$8 trip fare and \$150 to \$235 monthly pass is higher than typical transit fares and may be a barrier to building strong ridership. Route information

is available at [www.transitbc.com/regions/cvc/schedules/](http://www.transitbc.com/regions/cvc/schedules/).

These specific programs exemplify the many partnership opportunities for local governments to develop intercommunity bus services or to promote existing services. Intercommunity transportation is a key area to be developed to round out a TDM program.



## TIPS FOR LOCAL GOVERNMENTS

- Consider developing transit links to nearby communities where there is demand. This could be to a post-secondary campus, a regional airport or a regional centre. Form partnerships with institutions or another local government to collaboratively develop a new intercommunity transit link.
- Promote the variety of transit links that do exist in and between many communities. These links and contact information could be prominent on transit websites, local government websites, at City Hall, libraries and recreation centres. Printed information and informed staff at places like seniors' centres and recreation centres are important, especially for promotion to seniors. Information is the key to building ridership.
- Perhaps most importantly, promote the development of local services and jobs to reduce the need for intercommunity travel.

<sup>13</sup> Health Connections trips on Vancouver Island are provided by a society and are limited to medical trips only. BC's Northern Health Authority also has a different service delivery model that targets medical trips only.

## OFFICIAL COMMUNITY PLAN REVISIONS IN VERNON

This case study covers the policies in Vernon's OCP that encourage, support or require TDM and the development of different transportation modes in the future growth and development of the community. Local governments can develop OCPs to support TDM once several action-oriented TDM activities have successfully gained council or public support.

The City of Vernon, located at the north end of the Okanagan Valley, is home to 37,000 people. The City has been growing at a rate of 1.1% a year. Vernon is also the centre for a regional population of 57,000. The City's population is aging: 22% are now seniors compared to 14% in 1976. The City has a five-bus transit system that carries 325,000 passengers per year.

### A Program Begins

The City has developed several TDM programs. Vernon and the North Okanagan Regional District implemented a new regional transit link from downtown to the University of BC Okanagan (UBCO) in Kelowna in August 2008 (see case study on page 33). Vernon added over 11 km of bike lanes in 2008 to its 100-km network, and even more will be added in 2009. The City is changing its development cost charge (DCC) bylaw to incorporate "transportation" DCCs instead of "road" DCCs and to include cycling and pedestrian infrastructure.

Vernon has hired a TDM coordinator. The City participates in transportation events (both the Commuter Challenge and Bike to Work Week) and is home to an enthusiastic cycling group.

### Supportive Plans

The City of Vernon wants to change its transportation focus, and residents have expressed a strong desire to see transit, pedestrian and cycling initiatives take a greater priority in transportation planning.

As a result, environmental, economic and social responsibility are the core principles that provide the foundation for Vernon's new OCP adopted in 2008, following a two-year review ([www.vernon.ca/ocp](http://www.vernon.ca/ocp)). The plan allows for more mixed-use developments; future developments will be built closer to commercial centres, services and activity centres, and many will be within walking distance. These principles are grounded in principles of smart growth (see sidebar on page 15).

The OCP states the City's role well. Under the Local Government Act, "The City has the legislative mandate to fundamentally address issues related

to climate change, peak oil and rising energy costs. Compact, complete communities served by alternative transportation networks serve to protect farmland and green and open spaces, provide a range of housing options and reduce dependence on fossil fuels."<sup>14</sup>

### OCP Transportation Section

The transportation section of an OCP is an opportune place to state a community's sustainable transportation goals that could support future and current TDM initiatives. Vernon has taken this opportunity and developed strong goals in the transportation section of its OCP ([www.vernon.ca/ocp/9.0\\_transportation.pdf](http://www.vernon.ca/ocp/9.0_transportation.pdf)). These goals outline Vernon's focus and preference for TDM over road-building as a strategy to manage the City's transportation needs.

The goals in Vernon's OCP transportation section include the following:

- Improve the livability of our community by increasing the use of alternative transportation modes, including, but not limited to, public transit, cycling, and walking.
- Increase community awareness and use of alternative modes of transportation.
- Maintain mobility levels as Vernon grows by developing and implementing a transportation

<sup>14</sup> City of Vernon, Official Community Plan, 2008, p. 4, [www.vernon.ca/ocp/1.00\\_planning\\_context.pdf](http://www.vernon.ca/ocp/1.00_planning_context.pdf).

<sup>15</sup> City of Vernon, Official Community Plan, 2008, p. 45, [www.vernon.ca/ocp/9.0\\_transportation.pdf](http://www.vernon.ca/ocp/9.0_transportation.pdf).



system which is safe, efficient, and affordable and decreases the reliance on the single-occupant vehicle.

- Integrate transportation planning with land use planning.
- Reduce the impact of transportation projects on Vernon neighbourhoods, agricultural lands, hillsides and sensitive habitats.<sup>15</sup>
- Support inter-regional services such as the transit link to UBCO in Kelowna.
- Ensure transit accessibility for residents with mobility challenges.
- Provide transit within walking distance (400 metres) of major facilities and traffic generators.
- Develop neighbourhood centres as transit hubs.
- Provide direct service between neighbourhood centres and downtown.
- Promote security on board and at transit facilities.
- Ensure that fares are kept as low as possible.

### OCP Policies

The transportation section in Vernon's OCP not only outlines ambitious goals but also includes policies that are specific to different transportation modes and other TDM measures such as parking management. The following policies are all from Vernon's new OCP. Some have been edited for reasons of space. Municipalities revising OCPs may want to use similar policies to those outlined here to expand support for emerging TDM programs.

#### Transit

- Increase frequency on all main routes.
- Extend hours of operation daily.
- Service new areas and introduce express buses.

#### Walking

- Double the number of walking trips made by 2031.
- Prioritize new sidewalk construction, especially in high-demand areas such as schools, seniors' centres, downtown and neighbourhood centres.
- Enforce snow clearing requirements.

## TRANSPORTATION PLAN

The *City of Vernon Transportation Plan: 2008–2031* emphasizes TDM, with specific focus on increasing transit, cycling and walking as travel choices. The City has set a target of 20% of all trips for these three modes by 2031. Their current mode share is 9%. This target shows the City's confidence in, and commitment to, its TDM strategy. The goal is to reduce single-occupant vehicle travel, and to explore and support trip reduction programs in the community. The plan has a 10-year strategy, a 10-to-25-year strategy, and a 25-year-plus strategy.



Photo Credits: City of Vernon



## OCP Policies (Continued)

### Cycling

- Have cycling account for at least 5% of all work trips by 2031 (now 2.3%).
- Integrate cycling routes, sidewalks and pathways with transit routes.
- Implement a mix of on-street cycling lanes and off-street paths to accommodate a wide range of users.
- Include commuter cycling facilities as part of any civic building projects and parkades and require same in major downtown building projects.
- Implement bike park-and-ride facilities.
- Enhance Ribbons of Green Trail Plan (10-year strategy and priorities).

### Road Network

- Implement (required) road network improvements.
- Determine the role that each component of the network of public roads plays and distinguish between the relative importance of providing transit, pedestrian and cycling facilities, automobiles, trucks, parking and/or property access for each roadway.
- Utilize congestion management as a tool by refraining from implementing road modifications intended to increase capacity and/or inefficiency of automobiles.
- Implement road modifications based on factors such as crash reduction, travel time savings, TDM objectives, land use development objectives.
- Design roads to incorporate streetscape design elements such as utilities, pedestrian facilities, bike lanes, bus bays.

### Parking Management

- Develop a parking strategy to discourage the use of single-occupant vehicles and to promote the use of alternative transportation modes. This involves establishing parking rates that discourage single-occupant vehicle use.
- Continue to ensure that short-term parking spaces are not used for long-term parking.
- Give priority to short-term customer parking in commercial areas (vs. longer-term employee parking).

### Ride-Sharing

- Develop a carpooling strategy with initial park-and-ride facilities planned for the College, Village Green Mall, Silver Star Foothills.
- Develop a regional ride-share matching program.
- Ensure municipal participation in carpool and ride-share programs.
- Encourage carpooling at major events.
- Encourage the development of car-share provisions or options in major new developments.

These policies set up the City to adopt car-share and carpool programs similar to those run in Kamloops and Nelson (see case studies on pages 30 and 31).

The list of policies included in Vernon's OCP transportation section is comprehensive and sets a supportive policy foundation for Vernon's emerging TDM program. Having clear and supportive policies will help Vernon achieve a major transportation mode shift in the next 20 years.

## RESOURCES

Contact: Kim Flick, Planning Manager,  
kflick@vernon.ca, 250-550-3594

Vernon OCP 2008: [www.vernon.ca/ocp](http://www.vernon.ca/ocp)

Vernon OCP Review Process:  
[www.vernon.sgas.bc.ca/index.php?page=process](http://www.vernon.sgas.bc.ca/index.php?page=process)

Issue Paper #5 Transportation:  
[www.vernon.sgas.bc.ca/tiny\\_mce/uploads/documents/5\\_transportation\\_options.pdf](http://www.vernon.sgas.bc.ca/tiny_mce/uploads/documents/5_transportation_options.pdf)

City of Vernon Transportation Plan: 2008–2031:  
[www.vernon.sgas.bc.ca/tiny\\_mce/uploads/transportation.pdf](http://www.vernon.sgas.bc.ca/tiny_mce/uploads/transportation.pdf)

BC Climate Action Charter:  
[www.cd.gov.bc.ca/ministry/whatsnew/climate/action\\_charter.htm](http://www.cd.gov.bc.ca/ministry/whatsnew/climate/action_charter.htm)

Smart Growth Development Checklist:  
[www.vernon.ca/services/pde/documents/smart\\_growth\\_development\\_checklist.pdf](http://www.vernon.ca/services/pde/documents/smart_growth_development_checklist.pdf)





Carpoolers park extra trucks in a lot and ride-share to Kelowna  
Photo Credit: City of Vernon

## Other Recent TDM Supportive Plans

Squamish – Smart Growth: [www.squamish.ca/node/362](http://www.squamish.ca/node/362)

Quesnel's OCP & Transportation:

[www.communityenergy.bc.ca/showcase-and-awards-introduction/tackling-transportation-in-quesnel](http://www.communityenergy.bc.ca/showcase-and-awards-introduction/tackling-transportation-in-quesnel)

Kamloops Travel Smart: [www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf](http://www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf)



## TIPS FOR LOCAL GOVERNMENTS

- Assess the current OCP to determine if there are principles or goals promoting sustainable transportation and TDM. Include new or updated sustainable transportation goals if a community's OCP is being revised.
- Update or create transportation-specific plans that fulfill OCP goals related to sustainable transportation. These could include developing or updating a transportation plan, cycling network plan, pedestrian plan, active transportation plan, etc. Take time to align the different plans with the overarching goals of the existing OCP. Or vice versa, take time to develop new OCP goals based on more specific targets in transportation plans that already exist.
- Identify specific first deliverables that will begin achieving targets laid out in the OCP and other plans. For example, start by hosting a sustainable transportation special event (e.g., Bike to Work Week) to build support for future TDM initiatives.





Photo Credit: University of Victoria

## EDUCATIONAL INSTITUTIONS – A TDM OPPORTUNITY

This case study highlights travel behaviour changes achieved at an educational institution, the University of Victoria (UVic), through innovative, comprehensive TDM programs and shows how these positive results compound to increase over time. The case study also shows how parking management has been used as a key TDM initiative at UVic. Local governments can work with educational or other institutions to implement TDM programs modelled after UVic's successes; they can borrow parts of UVic's program for community-wide TDM initiatives as well.

### A Program Begins

The University of Victoria was a typical suburban university campus in 1992, with an ample 5,800 parking spaces. A semester bus pass cost several times the price of a semester parking pass. Of total trips to campus, 11% were made on transit, 8.5% by cycling and nearly 9% by walking. Automobile use was dominant, with 58% of trips to campus being made in single-occupant vehicles.


In 1994 UVic offered students a subsidy toward a semester bus pass amounting to a 25% reduction in cost. By 1999 this idea had evolved into Western Canada's first Universal Transit Pass or U-Pass. All students had system-wide transit access for \$43 per semester, very close to the price for semester parking. A significant increase in transit service occurred when the U-Pass was initiated, and those using transit immediately rose to 18%, while those driving to campus fell to 54%.

### Supportive Plans

The Office of Campus Planning, Sustainability and Parking Services oversees the TDM programs and functions at UVic.

The university prepared a new campus master plan and transportation plan, which encouraged aggressive TDM strategies to reduce the number of single-occupant vehicles coming to campus. It identified parking lots as future building sites and committed to no new surface parking lots in order to protect the campus's extensive green space.

In 2008 the university expanded its transportation commitment with the Sustainability Action Plan: Campus Operations. A new vision was established: "UVic will be a campus that has sustainable travel options for every campus



community member and will act as a hub in a regional sustainable transportation network.” This plan set the following goals:

- Increase bus use, cycling and carpooling to 70% of campus modal split by 2014.
- Work with neighbouring municipalities to more than double the per capita proportion of bicycle use by 2014.
- Reduce the number of fleet vehicles that consume fossil fuels to 40% of total vehicle fleet.
- Increase support for persons with a disability as it relates to travel, parking and transportation choice.
- Build a foundation for greater co-operation between and coordination of sustainable transportation initiatives in the region.

UVic’s plans are excellent examples on which local governments could model their own TDM plans or use to develop TDM plans collaboratively with one or more local educational institutions.

### Successful Program Delivery

UVic’s TDM program goes beyond plans and goals and offers a range of innovative incentives to encourage people to change their travel behaviours. In early 2004 a series of investments in TDM were begun. Parking fees were increased, new cycling infrastructure was added, and an affordable transit pass for employees was established.

Parking has been effectively managed as a resource and parking revenues fund the TDM program. UVic now has 4,326 vehicle parking spaces (5,800 in 1992), more than 3,200 bicycle parking spaces and covered motorcycle parking. Ride-sharing is actively promoted and carpools get the best reserved parking spaces on campus. A general parking space costs \$394 annually and a reserved parkade space \$1,575. The daily parking rate is \$6 to \$10. This pricing has helped UVic minimize space used for parking.

The university has been a major participant in Bike to Work Week (see case study on page 26) for the past 15 years, holding high-profile events, challenges and celebrations on campus. UVic funds cycling skills courses for employees and students and is constantly improving related infrastructure on campus.

UVic’s other TDM incentive strategies include the following:

- The university’s employee bus pass is currently less than half the cost of the monthly retail bus pass. Although this subsidy is a taxable benefit for the employee, the pass immediately resulted in a jump from 50 participating employees each month to over 200 per month. Participants now top 600 each month.
- Employees can purchase a flexible parking pass that allows 12 parking days per month. This encourages employees to try different transportation modes.
- Employees and students living in family student housing who do not purchase a parking permit are eligible to receive a free Victoria Car Share Co-op membership funded by UVic (value \$400).
- The SPOKES Bicycle Bursary Program offers free refurbished bikes to students, faculty and staff for up to one year. Since 2003 the program has given away more than 1,200 bicycles. UVic is also developing a zero-interest loan for employees wanting to purchase a new bicycle.
- Four electric-bike charging stations are available on campus and a self-serve bicycle repair centre is being constructed in 2009.
- Fleet vehicles, including a hybrid car, are available for staff to use on business trips.
- The university has made extensive investments in video conferencing facilities, which help to reduce business-related travel.

# Results

UVic achieved a 27% reduction in on-campus parking during a 30% growth in student population and major new building activity in the past 16 years. Single-occupant vehicle traffic to campus plunged from 58% in 1992 to 37.5% in 2008, while parking rates soared from being minimally priced to market rate-priced.

The university's 2008 Campus Traffic Study showed further impressive gains for transportation efficiency and reduced single-occupant vehicle use over time thanks to a comprehensive TDM program (see table).

Results from the traffic study indicate that public transit's market share of all trips to and from the university now sits at 31%, nearly three times its pre-U-Pass level. Walking has also increased. There are four cars in the Victoria Car Share Co-op located at UVic; all were purchased by the university for the co-op and will help to further decrease single-occupant vehicle use to and from campus.

UVic's TDM programs in combination have contributed to a significant change in travel behaviours over 16 years.

The 16-year reduction in single-occupant vehicle use is a result of UVic carefully managing campus transportation demand. This includes providing and managing effective, sustainable transportation options for students, staff, faculty and visitors.

The university's intense focus on sustainability and its multi-faceted TDM program will continue current trends toward further reducing the number and proportion of single-occupant vehicles coming to campus.

The 2010 and 2012 traffic surveys will likely see transit use surpass driving as the dominant mode of transportation. Longer term, the university will have to consider a new parkade if building on existing parking lots continues. Many institutions would have built a parkade as the first response to a parking supply issue. UVic will build it as a last resort.

UVic's multi-year TDM program offers local governments an example of an innovative, comprehensive TDM program successfully changing travel behaviours. Local governments may replicate parts of UVic's program and/or work with an educational institution to design a campus-based TDM program. Such a campus program could be a catalyst for further community-wide transportation changes.

# RESOURCES

Contact: Sarah Webb,  
Sustainability Coordinator,  
swebb@uvic.ca, 250-721-6678  
UVic Sustainability Web Portal:  
[www.uvic.ca/sustainability](http://www.uvic.ca/sustainability)  
(click on Operations and follow link to  
Transportation & Travel Choices)  
UVic 2009 parking rates: [web.  
uvic.ca/vpfin/financialplanning/  
campusplanning/parkingindex.htm](http://web.uvic.ca/vpfin/financialplanning/campusplanning/parkingindex.htm)  
TDM Study, 2003:  
[web.uvic.ca/vpfin/financialplanning/  
campusplanning/TitlePageTDM.pdf](http://web.uvic.ca/vpfin/financialplanning/campusplanning/TitlePageTDM.pdf)

UVIC MODAL SPLIT (%) FOR ALL TRIPS TO CAMPUS, 1992 TO 2008

Travel Mode	1992	1996	2000	2004	2006	2008
Auto Driver	58.1	57.5	54.4	47.1	44.1	37.5
Auto Passenger	14.7	15.6	11.0	11.8	11.9	12.8
Transit	11.0	11.3	17.8	26.2	27.4	31.0
Cyclist	8.5	6.9	5.5	6.0	5.3	7.1
Pedestrian	7.7	8.7	11.3	8.7	11.2	11.2
Skateboard	0.0	0.0	0.0	0.2	0.1	0.3
Totals	100.0	100.0	100.0	100.0	100.0	99.9

Source: University of Victoria, Campus Traffic Study, 2008





## TIPS FOR LOCAL GOVERNMENTS

- Develop partnerships with educational institutions to explore TDM options and transportation issues.
- Encourage all public institutions to work collaboratively in minimizing the number of single-occupant vehicles and reducing peak hour travel.
- Provide cycling, pedestrian and transit infrastructure in neighbourhoods adjacent to educational and other large institutions.
- Work with post-secondary institutions to implement transit U-Pass programs.
- Consider reducing parking requirements for new buildings in exchange for TDM initiatives and facilities such as bicycle storage, car-share programs, etc.

31% of trips to UVic are made on public transit  
Photo Credit: University of Victoria



## 3.3 Achieving Comprehensive TDM

The final two case studies in this section profile communities refining their TDM initiatives into a comprehensive TDM program. The example set by Prince George illustrates the importance of revisiting the design of TDM programs once several initiatives (such as bicycle paths, transit, and active transportation planning) have been instigated. The Central Okanagan offers an example of a community that began with small TDM initiatives and built a regional comprehensive program over a number of years.

### INTEGRATING TDM PROGRAMS IN PRINCE GEORGE

#### A Program Begins

The City of Prince George has embraced TDM principles on many fronts, from preparing plans to developing new building standards to expanding transit to enhancing infrastructure such as bike lanes, trails and sidewalks. Transit is particularly noteworthy, as the City has embarked on a long-range, aggressive growth strategy for its transit system to increase service and market share.

With a regional population of 83,000 and a history deeply rooted in the forest industry, Prince George plays a significant role in the province's economy and in global lumber markets and is poised to be a TDM leader in northern BC.

While the City is facing the challenges of a downturn in global markets, which can affect many revenue sources, there is new opportunity as residents everywhere look for ways to save money or become more efficient in how they travel.

#### Supportive Plans

Prince George is an active participant in the Partners in Climate Protection Plan. It has committed, by 2012, to reduce its own corporate GHG emissions by 10% and community-wide emissions by 2% below 2002 levels.

Prince George is BC's first northern community to launch a project with the Smart Growth BC's Smart Growth on the Ground program. This initiative will focus on the downtown core, engage key stakeholders and seek to build a consensus for future development that integrates residential, commercial and public land uses in a sustainable and energy-efficient way.

#### Successful Program Delivery & Results

##### Improved Transit

Prince George Transit carried a record 1.34 million passengers in 2008 (a 12.6% annual increase) with a fleet of 25 buses. The City has recently implemented many transit improvements.

- In March 2009 city council approved free use of transit on air quality advisory days, when poor air quality is a

serious concern in the community. This innovative Free Fare for Clean Air program, which will run for a one-year test period, is the first of its kind in Canada. Weather records from Environment Canada indicate an average of 12 such days per year, which could cost the City \$13,800 in forgone transit revenue.

- A major 7,200 annual hour transit service expansion in August 2008 saw new routes and improved frequency better serve the University of Northern BC (UNBC) and main travel corridors.
- Over 3,100 students at UNBC began a transit U-Pass program in 2008.
- Transit ridership gets another boost in September 2009, when students at the College of New Caledonia begin a new U-Pass program following an 88% acceptance vote in March. The additional U-Pass program will increase revenue and allow for expanded transit services.
- BC Transit and the City of Prince George are developing a long range transit plan that would provide 90,000 hours of additional service and 32 new buses. This would more than double current transit services. Shorter term to 2012, the plan calls for 14,800 more annual hours of service and 5 more buses. The priorities are to serve main corridors, to increase the frequency of service and to address requests for more evening and weekend buses.
- City council and BC Transit are looking at diverting buses to serve the new Duchess Park Secondary School, currently being constructed to Leadership in Energy and Environmental Design (LEED) Gold standards. The City recognizes that high school students are a key transit market. Influencing their travel behaviour can pay substantial benefits for the long-term health and vitality of the City.
- The City participates in the BC Scrap-It Program. Individuals can surrender a 1996 or older vehicle in exchange for a four-year transit pass or two-year transit pass plus \$1,200.

The transit improvements in Prince George have laid the foundation for increased comprehensive TDM programs that can be led by the City. In conjunction with transit improvements the City is also increasing the accessibility of other modes of transportation.

## Active Transportation Plan

The City is currently preparing an active transportation plan to encourage residents to become more physically active and to provide facilities and incentives to do so. This plan includes the development of bike paths, trails and links between neighbourhoods. (See “Active Transportation Planning” case study, page 22, for other examples.)

### Cycling

The Cycling Network Plan will be a key component of the Active Transportation Plan, and the City is committed to promoting bicycle use both on-road and off-road. Bike to Work Week made its debut in 2009. (See case study on page 26.)

### Centennial Trails Project

A five-year Trails Implementation Plan from the City’s Trails Task Force to expand the current 87-km trail network was completed in 2008. The plan is clear that “integrating trails into the transportation system is an easy way to go green.” Immediate priorities are to rename, rebuild and improve Heritage Rivers Trail, UNBC – River Connector Trail, Hart Connector Trail and the new Blackburn Connector Trail. These are largely multi-use trails that will allow for better connectivity between neighbourhoods. Many of these shorter links will specifically enhance active transportation modes, especially among students.

The combination of overarching strategies like Smart Growth on the Ground and improvements to transit services and active transportation infrastructure is building a comprehensive TDM program in Prince George; other local governments can follow their lead.

## RESOURCES

Contact: Daniel Pearce, Transit Analyst, [dpearce@city.pg.bc.ca](mailto:dpearce@city.pg.bc.ca), 250-614-7828

Prince George Active Transportation Plan:

[www.city.pg.bc.ca/city\\_services/transportation/activetransportation](http://www.city.pg.bc.ca/city_services/transportation/activetransportation)

Cycling Network Plan:

[www.city.pg.bc.ca/city\\_services/transportation/cyclenetwork](http://www.city.pg.bc.ca/city_services/transportation/cyclenetwork)

Smart Growth on the Ground: [www.sgog.bc.ca/content.asp?contentID=138](http://www.sgog.bc.ca/content.asp?contentID=138)



## TIPS FOR LOCAL GOVERNMENTS

- Integrate different plans such as OCPs, transportation plans, active transportation plans, etc., leading to changes in travel behaviour within the community. The sum of these plans is greater than the parts. Integration will lead to a comprehensive TDM strategy rather than isolated program components.
- Assess current initiatives and future opportunities for improvement in any of the following areas: active transportation, transit, and smart growth development.



## SUCCESSFUL TDM IN THE CENTRAL OKANAGAN

### A Program Begins

In 1998 the City of Kelowna and the Regional District of Central Okanagan jointly developed a business plan for TDM in the Central Okanagan that featured a new approach to managing area growth and providing transportation services. The City and the Regional District both realized that local governments will not be able to meet or afford the ever-increasing demand for road and highway infrastructure. Environmental, economic and community concerns favoured a more balanced approach to transportation, one using a range of mobility management strategies to address travel demand and respect other important community objectives.

The Regional District of Central Okanagan, the City of Kelowna and Westbank First Nation subsequently formed a partnership to implement the TDM program. TDM is now a regional responsibility that is contracted to City of Kelowna staff for delivery.

The TDM function was initially handled by the Transportation Department of the City, which also had jurisdiction for roads, bike lanes, transportation planning, transit and parking. After the City reorganized, resulting in changes to the structure of departments and reporting relationships, TDM became the responsibility of the Regional Services group of the City, along with projects of a regional nature such as roads, transit and air quality.

### Successful Program Delivery

Three staff members deliver the regional TDM program. The City hired its first TDM employee in 1995, a technician who looked after roads, sidewalks, bike paths, and pedestrian and cycling safety. A TDM manager was hired within the Transportation Department in 1999, as the City and Region had expanded their interests in TDM and environmental management. A full-time marketing and communications coordinator was hired the following year.

An active transportation coordinator position was created to deliver programs like Bike to Work Week, school-based educational programs and the commuter challenges the city participates in as well as support transit customer service and infrastructure enhancements. In addition, the TDM group has partnered with School District 23 to staff and fund a school traffic safety officer. This person has the key responsibility of supporting children in walking and cycling and being bused to school safely — addressing a major barrier for parents.

In 2000 City staff were directed to prepare a Regional TDM Implementation Strategy. One of the first tasks was



Map of Kelowna bicycle routes



## TDM PROGRAM EXAMPLES

Additional TDM programs in the Central Okanagan include education programs ([www.kelowna.ca/CM/Page1089.aspx](http://www.kelowna.ca/CM/Page1089.aspx)), special events ([www.kelowna.ca/CM/Page865.aspx](http://www.kelowna.ca/CM/Page865.aspx)), and cycling promotion through Bike to Work/School Week, cycling skills courses, and enhanced cycling infrastructure and facilities. These programs can be accessed through the main TDM website called i-go ([www.i-go.ca](http://www.i-go.ca)).

## PROMOTING TRANSIT IN THE OKANAGAN

In addition to the public survey, the following means were used to promote transit:

- Okanagan Valley Transportation Corridor study ([www.rdno.ca/publications/pdf/ovtc\\_report.pdf](http://www.rdno.ca/publications/pdf/ovtc_report.pdf)).
- Central Okanagan Smart Transit Plan ([www.kelowna.ca/CM/Page468.aspx](http://www.kelowna.ca/CM/Page468.aspx)), which laid the foundation for developing a BRT (Bus Rapid Transit) express bus system from downtown Kelowna to the UBC Okanagan campus.
- Major transit service expansion in August 2008 with the beginning of express-style BRT service and the addition of 10 new double-decker buses.
- UBC Okanagan U-Pass program that began in September 2007 ([trek.ubc.ca/okanagan/UPass.html](http://trek.ubc.ca/okanagan/UPass.html)).



to conduct a survey to determine travel patterns and probe attitudes toward TDM. The results showed a public that was interested in improving transit service, cycling, walking and carpooling and also concerned about the environmental pollution, congestion, and health costs associated with excessive vehicle use. The public wanted to see more frequent transit service, more direct routes and service later in the evening. The survey also showed the public's attachment to the convenience and flexibility of their private vehicles.

In 2004 a project was initiated to develop a social marketing strategy for regional TDM. This project included extensive research into and analysis of public attitudes and opinions about transportation. A social marketing strategy was developed that identified target markets, identified key barriers to behaviour change and suggested directions for the TDM program.

As first steps to increase transportation options and address the public's attachment to private vehicles, the City aggressively created bike lanes and now has over 240 km of bike lanes. An early parking management strategy was developed to ensure that the price of a monthly parking space downtown was more expensive than the cost of a monthly transit pass.

Besides asking about transportation in general, the City surveyed the public on the transit system. The Transit Opinion Survey started a 10-year focus on transit during which the transit system doubled in less than 10 years from 33 buses and 2.3 million passengers to 62 buses (including 13 high-capacity double-deckers) and 4.2 million passengers in 2009.



TDM strategies can enhance downtown businesses

Photo Credit: City of Kelowna

## Supportive Plans

The City of Kelowna's OCP and Transportation Plan strongly advocate land use policies that support transit, walking and cycling. The plans advocate development of town centres with higher residential densities and a mix of complementary land uses.

The Regional Growth Management Strategy, now under revision, advocates the use of TDM techniques to provide area residents with a more balanced range of travel options in the future. It will also advocate making compact and more efficient use of land and enhancing modes of transportation other than exclusive use of vehicles.

## Results

The TDM program has proven its worth to the City of Kelowna, the Regional District of Central Okanagan and area residents. The high-profile program is still growing and now has three full-time staff and many community partners. The budget allocation (including three staff members) is close to \$275,000 annually. This is just over 1% of the estimated \$20 million that the City spends annually on roads.

Central Okanagan's TDM has grown from running a few challenge programs (social marketing initiatives) to fundamentally altering how the City and the Regional District are planning to service new growth and accommodate more people travelling on existing roadways. TDM influenced how people travel, increased the carrying capacity of roadways, added balance to the transportation system, addressed parking management issues and saved the local governments millions of dollars by avoiding unnecessary roadway expenditures.<sup>16</sup>

## RESOURCES

City of Kelowna and Regional District of Central Okanagan TDM Program:

[www.kelowna.ca/CM/Page1119.aspx](http://www.kelowna.ca/CM/Page1119.aspx)

Kamloops Travel Smart Program:

[www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf](http://www.kamloops.ca/pdfs/plans/travelsmart/tsnetmanagement.pdf)

Active Transportation Summit, Kelowna, October 2008:

[www.physicalactivitystrategy.ca/pdfs/Proceedings.pdf](http://www.physicalactivitystrategy.ca/pdfs/Proceedings.pdf)

<sup>16</sup>Interview with Jerry Dombowsky, Regional Programs Manager, City of Kelowna.



## TIPS FOR LOCAL GOVERNMENTS

- Develop a broad-based TDM strategy that includes transit, cycling, ride-sharing and walking as well as plans for sidewalks and parking. Ensure the strategy has several early deliverables, such as walking or cycling programs or a solution to a parking issue. These deliverables will encourage people to “buy in” and will build political support for the new TDM program. Small successes instill confidence.
  - Enlist non-governmental organizations (NGOs) to help deliver various components of programs, such as Bike to Work BC, the BC Scrap-It Program and other local groups. A small or mid-size community could contract the delivery of Bike to Work Week to a local cycling group and hire students to run short-term campaigns such as a commuter challenge.
  - Ideally, hire someone dedicated to TDM. However, this would probably not be a first step for any small or mid-size community.
- TDM is likely to fall as a part-time task to an individual in the planning or development services area. It is ideal if the TDM program is in the transportation, engineering or development services areas. This will allow the planning decisions that take place in those areas to integrate TDM principles and goals. A TDM technician who deals largely with road safety issues may also be a logical first step, as this area of responsibility incorporates pedestrian and cycling safety and related improvements.
- Prepare a cycling master plan or an active transportation plan as an early step in building TDM programs. A cycling master plan is a prerequisite for applying for cycling infrastructure funding from the provincial government ([www.th.gov.bc.ca/BikeBC](http://www.th.gov.bc.ca/BikeBC)).
  - Tackle TDM in multiple areas: Prepare applications for federal, provincial and other funds (FCM, UBCM, etc.). Prepare a parking management strategy, provide input into bylaws (e.g., suitable
- TDM trade-offs for parking space reduction), sell TDM internally, conduct safety audits, and work with NGOs to seek funding that municipalities alone cannot access.
- Utilize existing resources in your community to do things like deliver safety programs for cycling. Recreation centres are set up to register people for courses, process payment and assist in delivering such programs. Ask Bike to Work BC to organize an instructor for running cycling skills courses. Use the City’s website, recreation centre and local media to advertise the course, but don’t oversell it beyond its capacity. Starting small is smart. It is important to show deliverables in a community before a local government may be willing to fund a TDM staff position.
  - Look for opportunities to promote TDM internally at the local government level. Profile the early adopters in a campaign by featuring them in newsletters, media articles, and next year’s promotional poster; recognize them at community events.

The 10 case studies presented here were chosen to showcase a range of TDM strategies used in communities of different sizes. Case study examples ranged from beginning a single TDM initiative to integrating existing TDM programs into a well-rounded, comprehensive program. The hope is that some of the ideas, programs, applications or potential partnerships will inspire and encourage communities to further their own TDM efforts, regardless of their starting point.

## LESSONS LEARNED

Two key observations can be drawn from the case study examples. One is that the benefits of TDM behaviour change increase with time. It is not just the initial impact of a new program that counts, but the fact that 10 or more years later the positive behaviour change is still taking place (e.g., U-Pass at UVic, page 40). TDM programs that become more comprehensive over time attract even more participants.

The second observation is that compelling health benefits for active transportation modes are an emerging and largely untapped persuasive message that could be used to engage residents. This could well be the most compelling reason to date for residents to participate in cycling, walking and jogging programs. The payoff to the individual is huge in terms of personal health, and the benefit to society is equally significant in terms of reduced health care costs, reduced GHG emissions and improved transportation efficiency.





## 4 • Emerging TDM Opportunities

### 4.1 Program Areas

- Special Event Planning
- Community Bus Pass
- Specialized Transit Programs
- Integrated Transit & School Bus Services
- Diversified Downtown
  - Parking Subsidy Programs
- Personalized Trip Planning
- Guaranteed Ride Home Programs
- Home Delivery Programs
- Telecommuting
- Encouraging Individual Action

### 4.2 Policy Areas

- Tax-Exempt Status for
  - Transportation Alternatives
- Pricing Incentives
- Carbon Offsets

TDM encompasses making fewer trips, developing and using options to driving alone, ride-sharing, locating destinations closer to where people live, and putting more people within walking distance of many of the goods and services they need to access on a daily or weekly basis.

This TDM toolkit has featured some successful TDM initiatives in BC and encourages local governments to follow up on specific initiatives that may increase their community's sustainability. There are also many other ideas and initiatives not discussed in these case studies, and a few are presented in this section. The following are promising areas where local governments could be leaders in new TDM initiatives – opportunities selected specifically for their suitability to small and mid-size communities.



## 4.1 Program Areas

### SPECIAL EVENT PLANNING

Local governments often promote transit for transportation to major community or sporting events in their area.

There are direct benefits to having people try alternative modes of transportation during large events. Experience has shown that people will be more likely (at worst, less reluctant) to use transit after having a good experience at a special event. This was the case in Victoria in 1994 when a 12-day major sporting event saw record modal splits for transit (50% and up), which set the stage for an impressive five-year growth in ridership.<sup>17</sup>

Local governments can partner with special event ticket vendors (e.g., boat shows, fairs, etc.) to charge a per ticket fee (on all tickets) to have major event tickets double as a transit day pass. Local governments would typically need to charge a dollar per ticket to enable people to use their entrance ticket as a transit ticket (for an event located in an area already served by transit). Through the additional fee, local governments recoup transit revenues on these special event passes. Running special trips to a location not usually served by transit would require higher fees charged per ticket to cover the costs of additional transit services.

### COMMUNITY BUS PASS

A community bus pass allows a large, defined group of people to purchase a deeply discounted annual or long-term transit pass. This concept is modelled after the U-Pass programs that provide affordable bus passes for university students. One community that pioneered this idea was Boulder, Colorado, with an Eco Pass that now has over 40 participating neighbourhoods (see [www.bouldercounty.org/ecopass/EcoPassOverview.htm](http://www.bouldercounty.org/ecopass/EcoPassOverview.htm)). The first community bus pass in Canada began at a university community called UniverCity (pop. 10,000) within walking distance of Simon Fraser University (see [www.university.ca/community/amenities.4.html](http://www.university.ca/community/amenities.4.html)).

The next targeted “community” for a special transit pass could be all high school students in a particular municipality. Students would benefit from a community bus pass by gaining access to transit after school and on weekends. Students who grow up using transit will be more inclined to do so when they become adults and enter the workforce. Local governments could consider community bus pass programs to build immediate ridership for transit systems.



Offering transit to special events can encourage residents to take transit regularly

<sup>17</sup> Counts by BC Transit during Commonwealth Games.



## SPECIALIZED TRANSIT PROGRAMS

Many specialized transit programs exist in larger communities; they are often underutilized or do not exist in small or mid-size communities. The following list of programs compiled from BC's many transit systems includes specialized services that could be adopted by small transit systems and/or promoted if they already exist.

### New Services

- **90-minute transfer:** Many systems are adopting this “open transfer” policy, which allows transit users to make a return journey on the same fare provided it is within 90 minutes of the original boarding time. On many systems transfers are only good for travel in one direction and a return trip requires a second fare. 90-minute transfers benefit people making shorter trips on the bus as they will only pay a single fare.
- **Bike and bus:** Buses equipped with a bike rack can carry two bikes each. This program has proven very popular throughout the province and encourages bimodal transportation.

### Services for Youth and Families

- **Family travel:** Several systems allow between two and four children (age 12 and under) to board free of charge when accompanied by any adult or senior boarding with a bus pass. Many parents drop off their children at school and then continue on their trip to work under this policy. Alternatively, it is a weekend-only policy in some systems. Adopting an everyday policy would be ideal.

- **Summertime transit passes:** Many systems have a bus pass targeted at youth for the summer period at attractive prices, as low as two months for the price of one.
- **Class rides free (exists in Kelowna):** A teacher can bring their class on board free of charge for field trips or other class outings up to twice a year under this policy, which is a great way to introduce children to transit.
- **GradPass program:** This program typically allows graduating high school students two complimentary days of transit service in the month of June.
- **McGruff program:** Children can turn to any transit driver if they are lost, scared or in need of assistance. All drivers have radio access to police and emergency services.
- **Expired bus pass program:** Recreation centres will exchange last month's bus pass for a free visit to their facility. Transit promotes the program on board buses and recreation centres get new customers in this win-win program.

### Services for Seniors and People with Disabilities

- **Community travel training programs:** Some communities offer travel training assistance especially for seniors who may require the door-to-door services of handyDART (a small bus that can be ordered ahead of time to pick up and drop off at specific locations). There is great benefit in being able to explain someone's travel options in a one-on-one setting.
- **Request a stop:** Passengers can request to be let off the bus between stops at night if they feel their safety at risk.
- **Taxi Saver program:** Many communities have a program to allow handyDART-eligible customers to purchase subsidized taxi fare to supplement their travel options. This program is especially useful for seniors and on those hours or days when there is no transit service.

### Services for Workplaces

- **ProPass program:** Employees of participating employers may purchase an annual bus pass through payroll deduction at work. This pass is typically discounted 15% to 20% and is well documented to increase transit ridership.
- **Transit ambassador program:** Transit systems send one of their knowledgeable staff to speak to groups interested in making use of the transit system.

Adding specialized services to a small transit system can build ridership and increase opportunities to expand services to other neighbourhoods or to expand service frequency on existing routes, making transit more attractive to residents.



### INTEGRATED TRANSIT & SCHOOL BUS SERVICES

School busing is very important in rural areas, and transit is very important in the denser areas of a community. There are potential efficiencies to bringing these services closer together, such as combining bus and fuel purchasing, coordinating vehicle maintenance, and closely integrating schedules. Many communities already depend on their transit systems to carry students in areas where school bus service faces budget cutbacks. Taken a step further, there may be reasons beyond budget cuts to promote closer integration of these services within communities. Integration could allow students and non-students to access a better transit network.

Another practice occasionally found in rural areas is to allow non-students to ride on school buses where there is room. This practice is not common in Canada but is found in the United States.

Now that BC school districts do not receive dedicated school bus funding, any savings achieved in the school bus budget could be reallocated elsewhere in the local education budget, creating a stronger incentive to streamline student transportation. Local governments can examine the possibilities for integrating transit and school bus services in their area.

### DIVERSIFIED DOWNTOWN PARKING SUBSIDY PROGRAMS

In many communities residents shopping at downtown businesses receive reduced parking rates with the purchase of goods or services. This subsidy does not encourage sustainable transportation choices such as the use of public transit. Local governments with such programs can enhance them by adding other components. For example, merchants could offer customers a choice between a bus ticket and a parking stamp. Diversifying downtown transportation subsidies can encourage residents to leave their vehicles at home.

## TRIP PLANNING IN PERTH

One of the first individual trip planning programs began a decade ago in Perth, Australia. Residents were given information and incentives to try alternatives. The results were impressive: a 91% increase in cycling trips, 21% in transit, 16% in walking and an overall 14% reduction in automobile travel.<sup>18</sup>

## PERSONALIZED TRIP PLANNING

Personalized trip planning can offer individualized advice in person, over the phone or online to help residents develop travel plans that reduce automobile use. Many examples of successful personalized trip planning programs are found in larger cities, but these services could be offered in small and mid-size communities especially in partnership with local NGOs.

A home-based trip planning service called TravelSmart was part of a larger program in six Vancouver inner-city neighbourhoods. Residents who were interested received information on alternatives in one-on-one sessions in their homes. In the year-long pilot project, trips by vehicles declined 8% and walking trips increased by 9%. Transit trips increased 12%.<sup>19</sup>

Other opportunities for individual trip planning services include adding a trip planning module to a transit website. Such a service could be modelled on the Kelowna Bike to School case study, where the HASTE website ([www.hastebc.org](http://www.hastebc.org)) was used to calculate GHG travel emissions (see page 28). This type of calculator is being launched through TransLink for Metro Vancouver. Google Maps ([maps.google.ca](http://maps.google.ca)) also includes trip planning features and could be used in local government programs.

## GUARANTEED RIDE HOME PROGRAMS

Guaranteed ride home programs offer a low-cost solution to address a key barrier to individuals leaving their vehicles at home. Many people are reluctant to use different modes of travel in case an emergency arises that requires the use of their automobile. Established programs have found that personal emergency situations are very rare indeed, yet the possibility of an emergency carries a lot of weight in terms of individual perception and travel behaviour.

These programs offer a free ride home, usually by taxi, in an emergency for employees who regularly use sustainable modes of transportation to commute to work. Typically programs define “regular use” as three or more days per week. These programs also define emergencies and exclude having to work overtime or missing a last bus as an emergency. Most tend to be employer-specific programs.

Local governments can look for opportunities to promote guaranteed ride home programs at post-secondary institutions, major employers, downtown businesses and within government offices.





Home delivery services can reduce vehicle trips related to purchasing consumer goods

## HOME DELIVERY PROGRAMS

Home delivery programs enable people to shop without requiring a vehicle. Many food stores offer a free home delivery service for seniors, and many large retailers offer delivery services on larger items or for online purchases above a set dollar value. Online purchases shift the necessity of making the trip from the consumer to the merchant, ideally reducing the number of vehicle trips made. Merchants are able to combine several deliveries in one trip, unlike consumers, who tend to travel for a single purchase.

Expanding home delivery programs for all residents and promoting these services is one way downtown merchants could distinguish themselves from their competitors at the local shopping centre. Additionally, merchants could offer intercommunity deliveries. Promoting more home delivery programs among local merchants is within reach for local governments and small or mid-size communities.

## TELECOMMUTING

Telecommuting includes programs that allow employees to reduce their number of weekly commutes by working at home one day a week or more. Telecommuting programs depend on the type of work an individual does and on the particular employer.

Providing high-speed Internet service to communities is perhaps the most practical way to allow some people to work from home. This allows them to reduce the number of commuting trips they make to work and/or to central offices located in larger urban centres. Local governments could promote telecommuting through fostering the development of expanded high-speed Internet services with local businesses.

## ENCOURAGING INDIVIDUAL ACTION

Municipalities can encourage individuals to adopt more efficient travel habits and modes. It was the sum of individual transportation choices that got North America into traffic congestion and developed automobile-dependent culture, and it will likely be the sum of different individual choices in the future that will change these patterns.

The Victoria Transport Policy Institute's *TDM Encyclopedia* has a section on promoting individual action (see [www.vtpi.org/tdm/tdm68.htm](http://www.vtpi.org/tdm/tdm68.htm)).

<sup>18</sup> Juliette Jowit, "Inside Track: How to Think People Out of Their Vehicles," *Financial Times*, September 11, 2001, reproduced in "TDM Marketing," *TDM Encyclopedia*, Victoria Transport Policy Institute, [www.vtpi.org/tdm/tdm23.htm](http://www.vtpi.org/tdm/tdm23.htm).

<sup>19</sup> Transport Canada, TravelSmart, [www.tc.gc.ca/programs/environment/UTSP/travelsmart.htm](http://www.tc.gc.ca/programs/environment/UTSP/travelsmart.htm).

## 4.2 Policy Areas

The following is a list of emerging policies that could impact residents' transportation choices and yet are beyond the control of local government policy-making. These emerging policy ideas have been included to illustrate the need for all levels of government to work on innovative policies to support comprehensive local TDM programs.

### TAX-EXEMPT STATUS FOR TRANSPORTATION ALTERNATIVES

The majority of free employee parking in Canada is not a "taxable benefit" attributed to an individual's income, and hence may encourage driving to work. One possible solution is to add free parking as a "benefit" on which employees would pay taxes, similar to how subsidized employee bus pass programs are now a taxable benefit. Alternatively a tax-exempt status could be granted for any employer-provided transit benefit, bicycle purchase or vanpool subsidy to reduce taxes for those utilizing sustainable transportation.

Visit the website of the Canadian Urban Transit Association (CUTA) for more details on tax exemption opportunities ([www.cutaactu.ca/en/employer\\_provided\\_tax\\_exempt\\_transit\\_benefits](http://www.cutaactu.ca/en/employer_provided_tax_exempt_transit_benefits)).

### PRICING INCENTIVES

Distance-based insurance (also called "pay as you drive"), where vehicle insurance is linked to the number

of kilometres driven, is offered in countries such as Australia ([www.payasyoudrive.com.au/](http://www.payasyoudrive.com.au/)).

The Victoria Transport Policy Institute's *TDM Encyclopedia* ([www.vtpi.org/tdm/tdm79.htm](http://www.vtpi.org/tdm/tdm79.htm)) is a resource on this policy opportunity as is *Wikipedia* ([www.en.wikipedia.org/wiki/PAYD](http://www.en.wikipedia.org/wiki/PAYD)).

The British Columbia Automobile Association (BCAA) has an evening and weekend insurance option for members who do not drive their vehicle during business hours. Members in this program receive a 15% reduction on private vehicle insurance premiums. BCAA also offers a bicycle assistance program that is included in their membership fees, providing roadside assistance for bicycle mechanical failures and flat tires. Both of these programs provide incentives for drivers to reduce their vehicle use.

### CARBON OFFSETS

Carbon offsets are an area of exploration for local governments. Communities that have signed on to the Climate Action Charter have committed to being carbon neutral in their corporate operations by 2012. A joint Province of BC–Union of BC Municipalities (UBCM) Green Communities Committee (supported by Green Communities Committee Working Groups) is tasked with identifying the offset program or programs acceptable under the Climate Action Charter.

A widely accepted definition of “offset” is a recognized, project-based, voluntary reduction of GHG emissions or CO<sub>2</sub> removals enhancement to compensate for emissions occurring elsewhere. The term *recognized* is key because many projects and their activities can lead to GHG emissions reductions or CO<sub>2</sub> removals enhancement, but they do not automatically become offsets. A project-based emissions reduction or removals enhancement must be recognized or approved by an offset program authority to be characterized as an offset.

TDM projects that might be employed to meet carbon neutral obligations under the Climate Action Charter would need to meet the specific eligibility criteria of the offset program(s) identified by the Green Communities Committee as acceptable under the Charter. The carbon offset area is one local governments may want to explore further for opportunities.

The emerging opportunities in TDM presented in this section are by no means exhaustive. Although some are outside local government control and would require partnerships to develop, they do offer a few areas in which local governments could expand new TDM programming. Adding one or two innovative elements to any TDM program can build participation from a broader range of residents and help build support for a comprehensive TDM program in communities.





Photo Credit: Ken Ohrn, Cypress Digital

## Conclusion

Active transportation, ride-sharing, public transit and parking management are important areas of sustainable transportation in small and mid-size communities. The case studies in this toolkit show how to develop these areas into a comprehensive regional TDM program, supported by plans, policies and successful program delivery.

To further explore TDM program development, local governments are encouraged to participate in other training offered through the Fraser Basin Council's TDM for Small and Mid-Size Communities Program. For more information on training opportunities, visit [www.tdm.bc.ca](http://www.tdm.bc.ca).

The case studies presented well illustrate the benefits of TDM programming, from improving residents' health and social well-being to saving local governments money to decreasing governments' and communities' GHG emissions. Provincial policies such as Bill 27 encourage local governments to reduce GHG emissions. At the same time, many small and mid-size communities face shrinking economies and aging populations. Given these realities, it is an opportune time for local governments to develop comprehensive TDM programs to build vibrant communities.



# Resources

## ActNowBC

*ActNow for a Healthier Community:*

*A Communities Guide to ActNow BC*

[www.actnowbc.ca/healthy\\_living\\_tip\\_sheets/healthy\\_communities](http://www.actnowbc.ca/healthy_living_tip_sheets/healthy_communities)

## Association for Commuter

Transportation of Canada (ACT) – Resources

[www.actcanada.com/EN/Resources.aspx](http://www.actcanada.com/EN/Resources.aspx)

## BC Climate Action Toolkit – Transportation section

[www.toolkit.bc.ca/solution/transportation](http://www.toolkit.bc.ca/solution/transportation)

## BC LocalMotion

[www.localmotion.gov.bc.ca](http://www.localmotion.gov.bc.ca)

## BC Ministry of Transportation and Infrastructure – Bike BC

[www.th.gov.bc.ca/BikeBC](http://www.th.gov.bc.ca/BikeBC)

## BC Recreation and Parks Association Walking Program

[www.bcrpa.bc.ca/walking](http://www.bcrpa.bc.ca/walking)

## Better Environmentally Sound Transportation (BEST)

[www.best.bc.ca](http://www.best.bc.ca)

## Canadian Urban Transit Association (CUTA)

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

## Centre for Sustainable Transportation, University of Winnipeg

[www.centreforsustainabletransportation.org](http://www.centreforsustainabletransportation.org)

*Child- and Youth-Friendly Land-Use and Transport Planning Guidelines for British Columbia*

[www.kidsonthemove.ca/uploads/Guidelines BC2.pdf](http://www.kidsonthemove.ca/uploads/Guidelines BC2.pdf)

## Community Energy Association (CEA)

[www.communityenergy.bc.ca](http://www.communityenergy.bc.ca)

## Federation of Canadian Municipalities (FCM)

*Communities in Motion:*

*Bringing Active Transportation to Life*

[www.sustainablecommunities.fcm.ca/files/Capacity\\_Building\\_Transportation/CommunitiesinMotion-PUB-e.pdf](http://www.sustainablecommunities.fcm.ca/files/Capacity_Building_Transportation/CommunitiesinMotion-PUB-e.pdf)

*Improving Travel Options with*

*Transportation Demand Management (TDM)*

[www.sustainablecommunities.fcm.ca/Capacity\\_Building/Sustainable\\_Transportation](http://www.sustainablecommunities.fcm.ca/Capacity_Building/Sustainable_Transportation)

## Fostering Sustainable Behaviour

Community-Based Social Marketing

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

## Fraser Basin Council – TDM Program

[www.fraserbasin.bc.ca/programs/tdm.html](http://www.fraserbasin.bc.ca/programs/tdm.html)

Smart Planning for Communities

[www.fraserbasin.bc.ca/programs/smart\\_planning.html](http://www.fraserbasin.bc.ca/programs/smart_planning.html)

## Hub for Action on School Transportation Emissions (HASTE)

[www.hastebc.org](http://www.hastebc.org)

## Smart Growth BC

*Creating Healthy Communities: Tools and Actions to Foster Environments for Healthy Living*

[www.smartgrowth.bc.ca/AboutUs/Issues/HealthyCommunities/tabid/197/Default.aspx](http://www.smartgrowth.bc.ca/AboutUs/Issues/HealthyCommunities/tabid/197/Default.aspx)

Transportation section

[www.smartgrowth.bc.ca/Default.aspx?tabid=97](http://www.smartgrowth.bc.ca/Default.aspx?tabid=97)

## Transport Canada

*Sustainable Transportation in*

*Small and Rural Communities*

[www.tc.gc.ca/Programs/Environment/utsp/smallruralcomms.htm](http://www.tc.gc.ca/Programs/Environment/utsp/smallruralcomms.htm)

Urban Transportation Showcase program

[www.tc.gc.ca/Programs/environment/utsp/menu.htm](http://www.tc.gc.ca/Programs/environment/utsp/menu.htm)

## Victoria Transport Policy Institute

*TDM Encyclopedia*

[www.vtpi.org/tdm/index.php](http://www.vtpi.org/tdm/index.php)



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