

Making the Case for Active Transportation

- Bulletin # 4: Environmental Benefits -



There is growing evidence of the negative effects of motorized transportation on the environment. Creating active transportation systems can help reduce reliance on motorized means of transportation and increase use of sustainable modes. A shift to greater use of non-motorized means will reduce the impact on and harm to our natural environment such as air, land and water.

“High per capita vehicle miles of travel and number of vehicle trips are also associated with higher levels of air pollutants that have adverse respiratory health impacts.”(p.27)¹

The transportation sector is a major source of air pollution in Canada. Automobile-dependent communities require more land for roads and parking than communities that are designed with active transportation infrastructure.²

Municipal planning and engineering staff need to create opportunities to reduce automobile use by:

- ✘ establishing active transportation networks,
- ✘ making roadways safer and more attractive to pedestrians and cyclists,
- ✘ enhancing transit services,
- ✘ promoting sustainable transportation behaviour,
- ✘ increasing density requirements and establishing zoning that promotes mixed use, and
- ✘ plan for transit-oriented development.¹

Active transportation refers to any form of human-powered transportation. Examples include:

- Walking,
- Cycling,
- Using a wheelchair,
- Pushing a stroller,
- Running, and
- In-line skating or skateboarding.



Agricultural land is being destroyed by sprawling development. Viable farmland tends to be viewed by urban developers and city planners as most suitable to “grow houses.”⁴ Building urban infrastructure on agricultural land, better known as ‘urban sprawl’, reduces the availability of local produce and depletes lands that provide food and cover for wildlife, help control flooding, protect wetlands and watersheds and maintain air quality. In addition, farmlands absorb and filter wastewater and provide ground water recharge.^{5,6} Finally, urban infrastructure creates *heat islands*⁷ which place higher demands on energy use and increase greenhouse gas emissions. Compact communities supportive of active transportation choices reduce not only the environmental impact of transportation but also have further-reaching environmental benefits.

Transport Canada³ identified that urban passenger travel creates almost half of the greenhouse gas emission of Canada’s transportation sector, which in turn produces about ¼ of Canada’s greenhouse gas emissions.

The Government of Canada is helping to reduce emissions by working with cities to enable Canadians to include cleaner transportation choices in their daily commutes. These cleaner choices include active transportation opportunities.³

Reducing the number of vehicle miles travelled through supporting alternative, non-polluting means will reduce harmful emissions, exposure to pollutants and reduce traffic volume.³

Green Transportation Hierarchy² Prioritizing the needs of transportation users according to this list favours more efficient modes (in terms of space, energy and other costs) over modes that leave a larger ecological footprint. Planning transportation to reflect this hierarchy will provide greater opportunities for active transportation and environmental benefits.

1. Pedestrians
2. Bicycles
3. Public Transportation
4. Service and Freight Vehicles
5. Taxis
6. Multiple-Occupant Vehicles
7. Single-Occupant Vehicles

Building active transportation infrastructure creates more liveable communities:

Designing “complete communities” (see *Making the Case for Active Transportation: Bulletin # 6 – Safety* for definition) makes good environmental sense and decreases the reliance on automobiles. Interconnecting streets, nearby shopping, parks centrally located in the community and the availability of pathways and cycling lanes make it easier for residents to choose active transportation modes and decrease their production of greenhouse gases.⁴

Unlike automobile use, active transportation leaves no ecological footprint. The ecological footprint refers to the human demands on natural resources such as land, water and air. “The greatest contributing factor to a large ecological footprint is carbon-intensive fuel supplies for transportation, electricity and heating.”(p.20)⁸

Municipal decision makers (council members, municipal staff) need to balance moving cars with the health of the environment and people.

“Community planning that encourages walking, biking and public transit use will help lower pollution levels, increase physical activity levels and decrease the risks for heart disease and stroke. Careful planning is also required to reduce pedestrian exposure to air pollution along suburban streets”(p.1) and in central parts of cities, which, while often being more walkable, are locations where cars and people are more highly concentrated.⁹

Take Action!

Talk with your municipal transportation department to discuss its transportation planning. Share the benefits of active transportation and the need for comprehensive multi-modal transportation planning (walking, cycling and public transit) that considers the needs of all modes of transportation. Share with them the Green Transportation Hierarchy as “a basis for shifting

Other Making the Case for Active Transportation Bulletins:

- Health Benefits
- Economic Benefits
- Safety
- Role for Municipal Decision Makers
- Barriers
- Built Infrastructure
- Increasing Social Capital

CFLRI Quick Facts:

The CFLRI's 2004 Survey of Canadian Municipalities¹⁰ collected data from municipalities with populations of 1,000 or more to examine local policy and the extent to which social and physical environments support and promote physical activity: ✕ 13% indicated that they had such a plan and of these, just over one third stated that their plan specified priority for the various modes of transportation.

emphasis in transport planning, road space allocation, funding and pricing to favour more efficient modes”.²

By setting aside 1.8 million new acres for The Ontario Greenbelt in southern Ontario, the provincial government has taken strong steps towards protecting the environment and building stronger, healthier, more compact communities.⁸ This type of policy statement could be considered by other Canadian provinces. Review your provincial government’s website (see list in Bulletin 5) to see what type of environmental policies they have to support developing active transportation opportunities in your community.

Consider using a website that rates the walkability such as www.walkscore.com when considering a household move. Factor this information about neighbourhoods you are considering into your decision when choosing a new home.

References:

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9. Heart and Stroke Foundation of Canada. (2007). Heart and Stroke Foundation of Canada Position Statement: The built environment, physical activity, heart disease and stroke. Retrieved from www.heartandstroke.ca
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How to use this bulletin: This bulletin is for professionals and community members who want to build a case for active transportation in their community. Share the information in this bulletin with community decision makers such as municipal council members and municipal staff responsible for land-use planning, transportation, public utilities, social services, parks, recreation and building codes, to increase knowledge on the environmental benefits of active transportation.

