

Municipalities : Creating Sustainable Cities and Communities





Up to one-half of Canada's greenhouse gas (GHG) emissions are under the direct or indirect control or influence of municipal governments (Federation of Canadian Municipalities). The choices we make, individually and as members of our community, may contribute to climate change or help mitigate its effects. By providing support to our cities and communities for better public transit systems, bike paths, walking trails, energy efficient buildings, waste reduction initiatives, as well as information and resources on climate friendly choices, we are working together to develop unique local solutions to the global problem of climate change.

In response, towns like Morden have introduced ground-source heat pumps, installed low energy use LED lights and improved energy efficiency. **The City of Brandon has introduced a biodiesel bus that runs on used cooking oil that would otherwise be discarded.** We must build on these partnerships to address our larger sources of emissions in this sector, and continue to focus on the successful efforts of citizens and communities across our province.

The Centre for Sustainable Transportation at the University of Winnipeg notes that 50 per cent of Manitoba's transportation emissions occur within the City of Winnipeg. While a number of transportation initiatives are outlined in this report, these must be accompanied by wise planning decisions. The location of new subdivisions, businesses and public facilities can have a significant impact on municipal GHG emissions, in the absence of sustainable land-use planning, particularly for transportation.

Another significant source of GHG emissions in this sector comes from municipal landfill sites. Many jurisdictions across Canada have tackled methane emissions from their landfills by capturing and flaring the gas or using it as an energy source. There is more work to be done, together, to lower these emissions and take advantage of the potential economic benefits that come from acting on this issue.

Further actions in communities across Manitoba are supported by local non-profit organizations such as Resource Conservation Manitoba, the Manitoba Eco-Network, the Climate Change Connection, Fort Whyte Alive and the Centre for Indigenous Environmental Resources. Thanks to their continued dedication and ability to partner with other local organizations and businesses, citizens and communities are becoming increasingly aware of their contribution to climate change and how they can become part of the solution.

Actions to date

CLIMATE-FRIENDLY PLANNING

- **INNER-CITY HOUSING.** Profits from the Waverly West development will be invested in Winnipeg's inner city. Investing in sustainable communities in the inner city will reduce transportation emissions and make our capital city a more vibrant place to live and work. As part of this effort, 120 homes in Winnipeg's Centennial neighbourhood will be retrofitted with energy and water-saving materials. The initiative is expected to deliver \$30,000 in energy savings and \$25,000 in reduced water bills, and will save more than 10 million litres of water per year.
- **THE ISLAND LAKE ENERGY EFFICIENCY PILOT INITIATIVE.** This initiative is working with Island Lake communities and Manitoba Hydro to use locally produced materials and support local training and employment to retrofit homes, with a focus on energy efficiency.
- **NEIGHBOURHOODS ALIVE!** This successful initiative continues to be expanded, which means more resources to support community revitalization in designated neighbourhoods in Winnipeg, Selkirk, Portage la Prairie, Brandon, Dauphin, The Pas and Thompson. Providing affordable, energy-efficient housing and infill development has significant community and climate change benefits.
- **SUSTAINABLE LAND PLANNING.** Communities on the east side of Lake Winnipeg have dedicated themselves to sustainable land planning supported by the province. They are looking to ensure the sustainability of the boreal forest and their communities through careful planning. This includes both protection of the forest and exploring new economic development opportunities including ecotourism, energy efficiency, alternative energy development and the nomination of part of the area as a UNESCO World Heritage Site.
- **COMMUNITY PLACES PROGRAM.** This program provides funding and planning assistance to municipalities and non-profit community organizations for facility construction, upgrading, expansion or acquisition projects. Eligible projects provide sustainable recreational and wellness benefits to communities. Non-profit organizations can apply for assistance with critical building repairs, energy saving initiatives and user-related improvements.



“Several benefits to the community have evolved, including GHG reduction in municipal operations and community outreach pertaining to environmental conservation. Morden hopes to continue the momentum while considering energy efficiency with each decision we make.”

- Ernie Epp,
Chief Administrative Officer,
Morden, Manitoba

SUPPORTING COMMUNITY-BASED CLIMATE ACTION

- **THE CLIMATE CHANGE CONNECTION (C3).** Funded in part by the Manitoba government and hosted by The Manitoba Eco-Network Inc., C3 has been the Manitoba’s climate-change public education and outreach hub since 2001. It has been very successful in creating awareness about climate change and empowering Manitobans to take action to reduce their GHG emissions. The organization manages a comprehensive website, a successful anti-idling campaign and the development and distribution of toolkits, brochures and climate friendly guides for business, communities and agriculture. They also run community and youth forums across the province, deliver climate change presentations to the public and support Manitoba’s Climate Change Community Challenge.
- **MUNICIPALITIES.** The Climate Change Community Challenge was a pilot program designed to develop and implement locally based solutions to climate change in four Manitoba communities. Projects ranged from waste reduction, energy efficiency and sustainable transportation to outreach and awareness, capacity building and the use of innovative technologies.
- **GREENING OUR SCHOOLS.** Manitoba Education, Citizenship and Youth (MECY) is identifying existing climate change education resources in the province’s kindergarten to Grade 12 system. MECY will develop interdisciplinary units on climate change and a complete climate change unit for teachers. Manitoba schools have also been provided with the video “Sila Alangotok - Inuit Observations on Climate Change,” produced by the International Institute for Sustainable Development.

In 2001, a Power Smart Energy Program initiated between the Pembina Trails School Division and Manitoba Hydro enabled the school division to significantly reduce annual utility costs (electricity, natural gas, water and solid waste).

The Pembina Trails School Division has also installed water reduction devices at selected schools in the division. Based on preliminary numbers, water utility costs at the schools are projected to drop by approximately \$75,000 per year.
- **RESOURCE CONSERVATION MANITOBA (RCM).** RCM is a non-profit, non-governmental centre for environmental education and applied sustainability. Households, workplaces, schools and communities count on RCM for practical information on active transportation, composting, waste reduction and resource conservation. RCM serves as a critical link to various partners and community networks due to its ability to identify simple, everyday solutions for the countless consumer habits that contribute to climate change.

Next steps: to 2012 and beyond

Landfill Gas (LFG) is composed of a mixture of hundreds of different gases. By volume, most LFG typically contains 25 per cent to 45 per cent methane and 40 per cent to 60 per cent CO₂. GHG methane is a powerful greenhouse gas, 21 times as potent in trapping heat as CO₂.

CLIMATE FRIENDLY PLANNING

The province is updating its provincial land-use policies. This will ensure that local development plans and ongoing land-use and development decisions reflect Manitoba's climate change mitigation and adaptation objectives.

EXPANDING COMMUNITY BASED ACTION

- **Provincial landfill gas (LFG) management and mitigation strategy.** Sending our waste to landfills results in large releases of methane into the atmosphere. The province will work with municipalities to reduce GHG emissions from large landfills by capturing methane and flaring it or using it for power generation. It will also work to reduce the amount of organic waste being sent to landfills, through composting.

There are approximately 462 active landfills in Manitoba. The Brady Landfill in Winnipeg is the largest landfill in Manitoba, emitting 273,420 tonnes of CO₂e annually. The City of Brandon has completed the first phase of a study of its landfill. Results suggest that landfill gas generation will achieve GHG emissions reductions of approximately 25,000 tonnes annually, with capital costs being recouped in approximately 2.5 years.

- **Municipalities.** Through Green Manitoba, the province will develop partnerships among government departments, agencies, stakeholder organizations and the Federation of Canadian Municipalities. Manitoba government will supply support for municipalities to complete the following steps:
 1. Create greenhouse gas emissions inventories and forecasts.
 2. Set emissions reduction plans.
 3. Develop local action plans.
 4. Implement local action plans or a set of activities.
 5. Monitor progress and report on results.
 6. Implement energy and water conservation and waste reduction strategies.
- **Greening our schools.** A new Green Schools Initiative will build upon the new Green Building Policy. It will cover all new schools (and major renovations) to help enable existing schools to target energy efficiency, water consumption, waste reduction and transportation demand management programs. The program will further integrate climate change education into our schools.

PUBLIC TRANSIT, ACTIVE COMMUTING, AND TRANSPORTATION

- The Province of Manitoba will:
 - establish an Active Transportation Advisory Group and partner with other levels of government
 - legislate a 50/50 funding agreement to share net municipal transit operating costs (including future rapid transit) and review opportunities to improve local public transit
 - enhance active commuting infrastructure, and improve road space allocations for cyclists for safety and access
 - improve public education on road safety, targeted at cyclist and drivers
 - review opportunities to expand park-and-ride infrastructure
 - promote ride sharing and other transportation demand management programs including Resource Conservation Manitoba's Community-Based Travel Marketing pilot project

