

**MANITOBA**

**GAS TAX FUND AND PUBLIC TRANSIT FUND**

**PROJECT OUTCOMES REPORT**

**FOR COMPLETED PROJECTS**

**AS OF DECEMBER 31, 2008**

**MANITOBA LOCAL GOVERNMENT  
OCTOBER 2009 REPORT**

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## **EXECUTIVE SUMMARY**

### **Purpose**

The Manitoba Gas Tax Fund/Public Transit Fund (GTF/PTF) Project Outcomes Report is a public document reporting on the outcomes achieved through municipal GTF/PTF investment on environmentally sustainable municipal infrastructure.

The report is intended to provide information on how cumulative GTF/PTF investments in projects completed by December 31, 2008 have contributed to the programs' shared national objectives of cleaner air, cleaner water and reduced green house gas emissions (GHG).

The GTF and PTF agreements require all provincial and territorial governments and municipalities to report on project outcomes.

### **What are the Gas Tax Fund and Public Transit Fund Programs?**

The Gas Tax Fund and Public Transit Fund are outcomes based programs designed to achieve or contribute towards environmental sustainability.

The Canada-Manitoba Gas Tax Agreement, signed in November 2005, committed \$167.3 million of federal gas tax revenues to Manitoba municipalities over a five-year period, 2005 through 2009. A further \$267.6 million has been made available for investment in Manitoba municipalities through a four-year extension of the gas tax program, starting in 2010.

Manitoba directly allocates the GTF to 198 municipalities, primarily on a per capita basis. For unincorporated northern communities, Manitoba Aboriginal and Northern Affairs administers the funding.

The Canada-Manitoba Public Transit Agreement, signed in March 2005, provided a one-time federal transfer of \$14.65 million for municipal transit infrastructure, allocated to the four cities in Manitoba with transit systems – Winnipeg, Brandon, Thompson and Flin Flon.

The GTF provides funding for the construction, rehabilitation and/or expansion of municipal infrastructure in seven major investment categories: capacity building, community energy systems, local roads and bridges, public transit, solid waste, waste water and water.

The PTF objective is to improve public transit service to Canadians and contribute to shared national outcomes of reduced smog-forming emissions, reduced GHGs and reduced energy use. Specific outcomes include improvements to transit infrastructure, system efficiency and ridership.

### **Manitoba GTF/PTF Outcome Indicators**

Developed in consultation with Manitoba municipalities, the Manitoba performance indicators follow a national performance measurement framework. The indicators are simple, credible and easy for municipalities to collect. They demonstrate direct results towards intended outcomes.

There is a causal link from outputs reported at the municipal level, to intermediate outcomes of improved air quality, improved energy use, increased water conservation/protection and improved water quality/safety at the provincial level, to the final outcomes of cleaner air, cleaner water and reduced greenhouse gas emissions at the national level.

Appendix 1, Manitoba GTF/PTF Project Outcome Indicators, outlines the indicators used by Manitoba for each project category and type, as well as the relationship to provincial and national outcomes.

## **Outcome Highlights**

**\$43.8 Million GTF/PTF invested in 271 Completed Projects**

**\$11.8 Million levered**

To the end of December 2008, \$115 million in GTF and PTF has been allocated to Manitoba's 198 municipalities, allowing the initiation of 370 infrastructure projects, of which 271 were complete as of December 31, 2008.

*The 271 completed projects represent \$43.8 million in GTF/PTF spending – the subject of this outcomes report.*

The \$43.8 million GTF/PTF investment levered an additional \$11.8 million from other sources, resulting in total spending of \$55.6 million on the 271 completed GTF/PTF projects.

## **Provincial Intermediate Outcomes**

### **Improved Air Quality - Improved Energy Use**

The local road and bridge category, which includes active transportation represents the majority of the completed GTF/PTF projects to date – 199 projects or 73 percent. These projects all lead to improved air quality. Smoother roads reduce fuel consumption, leading to reduced GHG emissions. Improved surfaces also contribute to cleaner air by minimizing dust and the need for dust abatement chemicals. Similarly, bridge repairs reduce fuel consumption by saving travel time.

- 200 km of new or improved roads.
- bridge improvements shortened driving distances by 153 km.
- 15 new or enhanced active transportation paths (bike trails, sidewalks)

Another significant area of program spending has been on public transit infrastructure. New bus purchases have resulted directly in increased ridership. Enhancements to Winnipeg's transit facilities improve passenger service and system efficiencies, which may, in turn, increase ridership, reduce commuter traffic and result in corresponding GHG emissions.

- Four new transit vehicles resulting in a 59 person increase in transit rider capacity
- 6.4 percent increase in average weekday boardings on four major transit routes with upgraded bus stops
- 5.6 percent increase in average weekday boardings on major routes implementing on-street transit priority measures

## **Increased Water Conservation/protection**

Over half of all GTF/PTF funds (57 percent) have been spent on waste water projects, which contribute to increased water conservation/protection and cleaner water. Storm water management projects reduce sewer spills and basement flooding. Waste water collection and treatment projects reduce discharges and treat waste water to a higher standard.

- 15 storm water projects, resulting in 176,427 metres of new or improved pipe
- 10 waste water collection and treatment system projects, resulting in increased waste water capacity of 91,431 cubic metres/day

## **Improved Water Quality/Safety**

Water infrastructure accounted for a smaller proportion of the GTF spending but has still contributed to cleaner and safer drinking water for Manitobans. These projects improved water supply/distribution by extending or replacing water pipes, installed new rural water lines, increased water storage and, in some cases, treated water to a higher standard.

- Four water treatment projects resulting in increased treated water capacity of 1,310 cubic metres/day

Solid waste infrastructure, community energy systems, and municipal capacity building accounted for about 6 percent of the completed projects and less than 1 percent of all program spending to date. These categories may well increase in importance in subsequent outcome reports as more GTF projects are completed in the coming years.

- Six solid waste projects diverted 1,787 tonnes/year of waste from landfills

## **Conclusion**

Manitoba municipalities have benefited greatly from the Canada-Manitoba Gas Tax Fund and Public Transit Fund, which provide long-term, stable and predictable levels of funding to address municipal infrastructure priorities.

The GTF/PTF programs provide significant funding support for environmentally sustainable municipal infrastructure

Projects funded through the GTF/PTF are contributing to the programs' shared national objectives of cleaner air, cleaner water and lower greenhouse gas emissions, as well as contributing to Manitoba's strategic priorities. Three of Manitoba's strategic priorities are directly related to environmental sustainability. The GTF and PTF transfer programs complement other provincial and federal/provincial initiatives through a range of infrastructure funding programs that help address Manitoba's strategic priorities.

Tables 2 and 3 to this report provide additional details on GTF/PTF outcomes:

- Table 2, Project Outcomes by Category and Project Type
- Table 3, Project Outcomes by Category

# INTRODUCTION

## The Gas Tax Fund and Public Transit Fund

In November 2005, Canada and Manitoba signed a five-year Gas Tax Fund (GTF) agreement, transferring \$167.3 million of federal gas tax revenues to Manitoba municipalities between 2005 and 2009 for environmentally sustainable municipal infrastructure projects. In turn, Manitoba directly allocates the GTF to 198 municipalities, primarily on a per capita basis. For unincorporated northern communities, Manitoba Aboriginal and Northern Affairs administers the funding.

In March 2005, Canada and Manitoba entered into a separate agreement providing for a one-time federal transfer of \$14.65 million for municipal transit infrastructure. The Public Transit Fund (PTF) is allocated to the four cities in Manitoba with transit systems – Winnipeg, Brandon, Thompson and Flin Flon.

In 2007, the federal budget committed a further \$8 billion to extend gas tax funding across Canada an additional four years through to 2014. This adds another \$267.6 million to Manitoba's GTF starting in 2010.

The GTF is an outcomes-based transfer program designed to contribute to environmental sustainability in support of shared national objectives of cleaner air, cleaner water and reduced green house gas (GHG) emissions. GTF provides funding for the construction, rehabilitation and/or expansion of municipal infrastructure in seven major investment categories:

- capacity building<sup>(1)</sup>
- community energy systems
- local roads and bridges
- public transit
- solid waste
- waste water
- water

GTF outcomes vary by project category and include, for example: improved water quality, improved wastewater treatment and collection, reduced per capita tonnage sent to landfills, improved recovery and use of recycled and organic materials and reduced GHG emissions and energy consumption.

The PTF program shares similar environmentally sustainable outcomes. The PTF objective is to improve public transit service to Canadians and contribute to shared national outcomes of reduced smog forming emissions, reduced GHGs and reduced energy use. Specific outcomes include improvements to transit infrastructure, system efficiency and ridership.

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<sup>(1)</sup> Capacity building includes the following activities:

- i. collaboration: building partnerships and strategic alliances; participation; and consultation and outreach
- ii. knowledge: use of new technology; research; and monitoring and evaluation
- iii. integration: planning, policy development and implementation (Ex: environmental management systems, life cycle assessment)

The GTF and PTF agreements require all provincial and territorial governments and municipalities to report annually on how the gas tax funds are spent (an annual expenditure report) and what project outcomes are achieved (an outcomes report).

This report constitutes Manitoba's GTF/PTF project outcomes report. The outcomes report focuses on cumulative GTF/PTF investments for *completed* projects, as well as how the projects contributed to the GTF/PTF overall program objectives of cleaner air, cleaner water and reduced GHG emissions.

## **Manitoba Priorities for Environmental Sustainability**

The GTF and PTF project investments are intended to contribute to a sustainable environment. Manitoba, along with other provinces and territories, support shared national objectives of cleaner air, cleaner water and reduced GHG emissions.

Manitoba's 2009 budget document, *Moving Forward: Manitoba's Priorities for the Future*, identified seven strategic priorities for the future. Three of the strategic priorities are directly related to environmental sustainability. Key initiatives supporting those strategic priorities are as follows:

- 1. Promoting a Cleaner Healthier Environment:**
  - legislated Kyoto Accord greenhouse gas emission targets
  - new incentives for hybrid vehicles
  - legislated 50-50 funding agreement to share net municipal transit operating costs, including future rapid transit
  - Lake Winnipeg Clean-Up Strategy
  - reduction in Manitoba coal reliance
  - low income programs to insulate homes and reduce heating costs, building on Manitoba's number one ranking in energy efficiency
  
- 2. Developing Our Clean Energy Advantage for the Benefit of All Manitobans:**
  - conserving energy with Manitoba Hydro's PowerSmart program
  - growing the export market for clean energy, displacing GHG production in other jurisdictions
  - developing Manitoba's wind power potential
  - implementing the full stage of the 2003 ethanol mandate
  - committing to mandate biodiesel at five per cent blends by 2010
  - leading North America in geothermal energy
  
- 3. Building our Economy, Building our Communities**
  - launching Manitoba's largest investment in road, highway and bridge infrastructure – a ten-year, \$4 billion revitalization plan
  - improving the winter road network
  - creating the Building Manitoba Fund, providing municipalities a share of provincial income, corporation and fuel taxes
  - revitalizing downtown Winnipeg by providing funding and/or leadership for major projects
  - revitalizing Brandon by investing in key infrastructure projects



## **Linkages with Other Infrastructure Programming in Manitoba**

The Gas Tax Fund and the Public Transit Fund are only one component of a range of infrastructure and environmental enhancement programs, which include both provincial initiatives and federal-provincial initiatives in partnership with Manitoba local governments.

Appendix 1 outlines some of the key infrastructure, environmental and community initiatives that are building a better Manitoba.

## **METHODOLOGY**

### **Guidelines/Principles for Measuring Project Outcomes**

The following principles and/or guidelines were used for measuring the outcomes of GTF/PTF funded projects:

- Indicators should be:
  - simple, credible and relatively easy to collect
  - measurable/quantifiable and attributable to the GTF/PTF project
  - demonstrate meaningful change between pre and post project implementation
  - expanded and further developed as required for future projects
- Report on indicators for completed projects only.
- Report on indicators for achieved outcomes and/or rationale of ancillary benefits.
- Some projects have several components representing different project categories based on: the primary intent (rationale) of the project and/or the category with the largest project funding investment.
- Report on indicators reflecting the full impact or outcome of the project, even if GTF represents only a portion of the project funding. However, the dollar value reported should only represent the GTF portion of the funding.
- If no quantitative measure is available, report qualitative information explaining the rationale and how the project leads to the outcome.

### **Manitoba GTF/PTF Outcome Indicators**

The Manitoba indicators were developed following a national performance measurement framework. In developing the indicators, Manitoba consulted with relevant Manitoba government departments, the Association of Manitoba Municipalities, the City of Winnipeg, as well as the federal government and other provinces. The Manitoba indicators can be expanded to accommodate additional project types as the need arises.

Manitoba's performance indicators demonstrate direct results towards intended outcomes. There is a causal link from outputs reported at the municipal level, to intermediate outcomes at the provincial level, to the final outcomes of cleaner air, cleaner water and reduced greenhouse gas emissions at the national level.

The seven key investment categories for municipalities are broken down into sub-categories, and it is at this level that project activity and outputs are reported. These outputs are aggregated at the provincial level (intermediate outcome) to demonstrate provincial outcomes of improved air quality, improved energy use, increased water conservation/protection and improved water quality/safety. Provincial outcomes relate to the national outcomes for the agreement (final outcome).

Appendix 1, Manitoba GTF/PTF Project Outcome Indicators, outlines the indicators used by Manitoba for each project category and type, as well as the relationship to provincial and national outcomes.

## **Relationship of GTF/PTF Outcome Indicators to Other Manitoba Performance Measures / Reporting**

Manitoba routinely publishes key performance measures in departmental annual reports (since 2006) and, beginning in 2007/08, in an annual Financial Management Strategy (FMS), Report on Outcomes which can be found on the Manitoba Finance website at <http://www.gov.mb.ca/finance/index.html>.

The FMS outlines the government's priorities in key categories, such as GHG emissions or water quality, one or more indicators to measure progress for each priority area, and the outcomes for the current year and for the future.

The GTF/PTF outcomes directly relate to these Manitoba measures and enhance Manitoba's performance reporting. For example, one of the GTF outcome indicators for the wastewater project category is the volume of wastewater treated to a higher standard (3 cubic metres/day) measure of cleaner water. These measures relate to the water quality index measures used in the FMS Report on Outcomes.

Examples of Manitoba's outcome measures are outlined in Appendix 2.

# PROJECT OUTCOMES

## Overview

Since the signing of the Canada-Manitoba Gas Tax Fund and Public Transit Fund Agreements some four years ago, \$115 million in GTF and PTF has been allocated to Manitoba's 198 municipalities<sup>(1)</sup>.

In turn, municipalities have initiated 370 infrastructure projects, of which 271 are now complete as of December 31, 2008.

*The 271 completed projects represent \$43.8 million in GTF/PTF spending – the subject of this outcomes report.*

The \$43.8 million GTF/PTF spent on the 271 completed projects has levered an additional \$11.8 million in funding from other sources (Ex: other federal, provincial, local or non-government funding) resulting in total spending of \$55.6 million on the 271 completed GTF/PTF projects.

Manitoba Initiated/Completed GTF/PTF Projects		
GTF Funding Allocated		\$100.3 M
PTF Funding Allocated		14.7 M
<b>Total</b>		<b>\$115.0 M</b>
	<b>Initiated</b>	<b>Completed</b>
Projects	370	271
GTF Spent	\$76.2 M	\$40.4 M
PTF Spent	4.8 M	3.4 M
<b>Total</b>	<b>\$81.0 M</b>	<b>\$43.8M</b>
Levered Funds	\$47.9 M	\$11.8M
<b>Total Project Costs</b>	<b>\$128.9 M</b>	<b>\$55.6 M</b>

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(1) Manitoba's [September 2009 GTF Annual Expenditure Report](#) reports \$100.3 million in GTF allocated to Manitoba municipalities by March 31, 2009. Similarly, \$14.65 million in PTF was allocated to the four municipalities with public transit. This represents a total GTF/PTF allocation to Manitoba municipalities of \$115 million as of March 31, 2009

## Highlights of Completed Projects

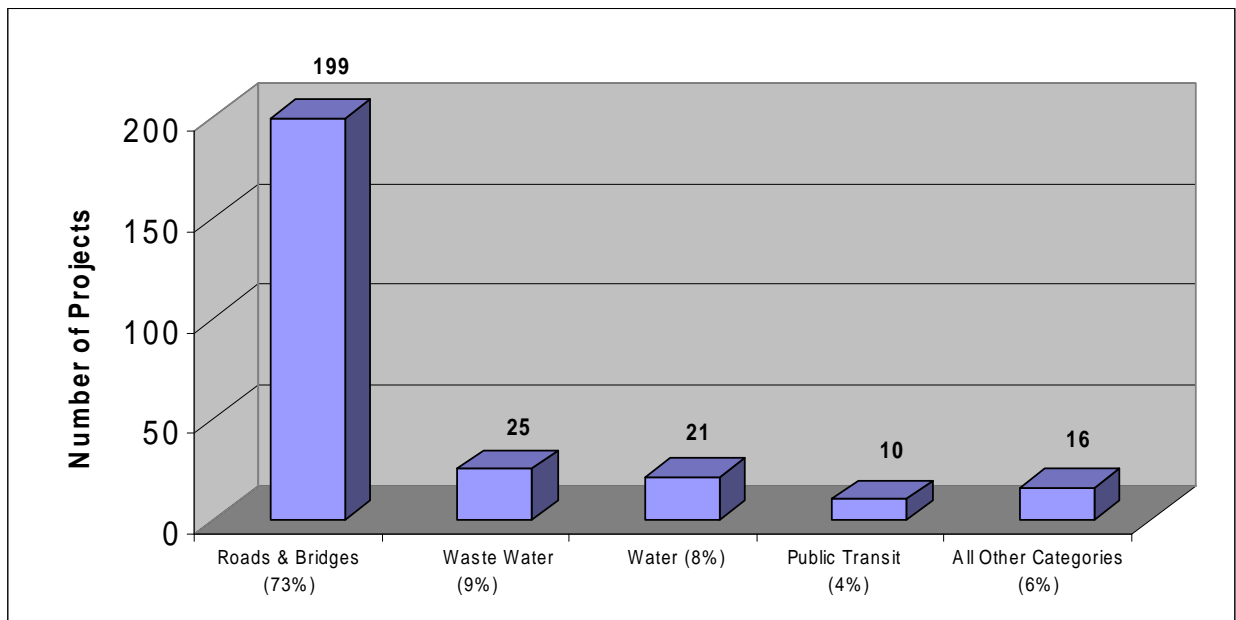
### Number of Completed Projects

The 271 completed projects are concentrated in three categories:

- roads and bridges (199 projects – 73 percent)
- waste water (25 projects – 9 percent)
- water (21 projects – 8 percent)

These three categories account for 90 percent of all completed projects to date (see Chart A).

**Chart A – Completed Projects by Project Category**



### Spending

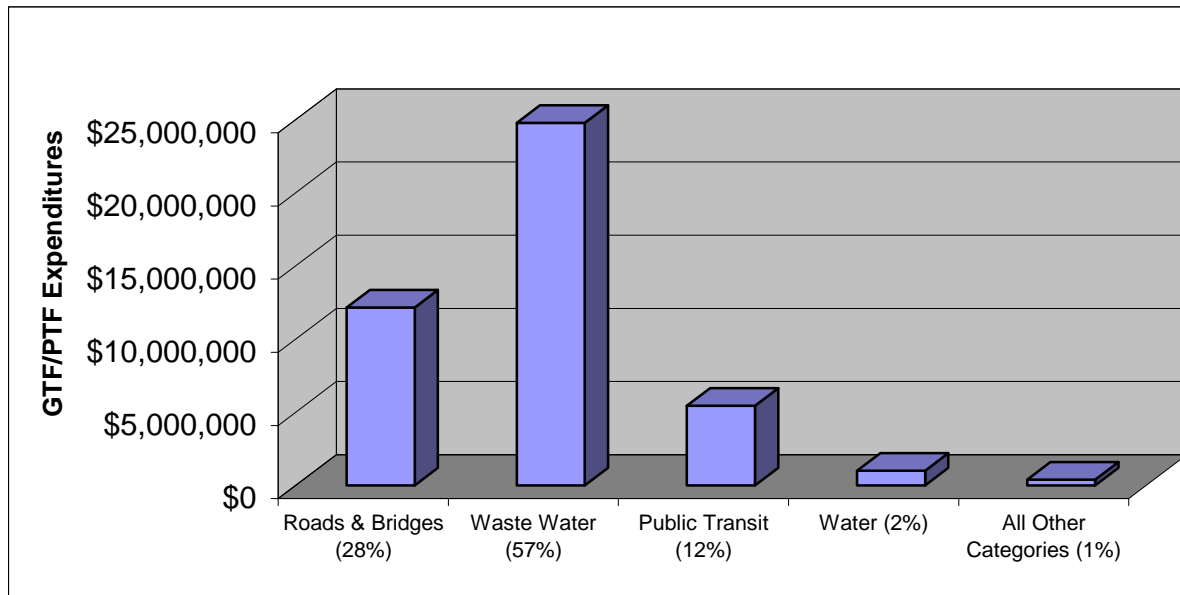
Of the \$43.8 million spent to date on completed GTF/PTF projects:

- waste water projects accounted for \$24.8 million (57 percent)
- local roads and bridges accounted for \$12.2 million (28 percent)
- public transit accounted for \$5.4 million (12 percent)

These three project categories saw almost 97 percent of all GTF/PTF spending (see Chart B).

## Highlights of Completed Projects

Chart B – Spending on Completed Projects by Project Category

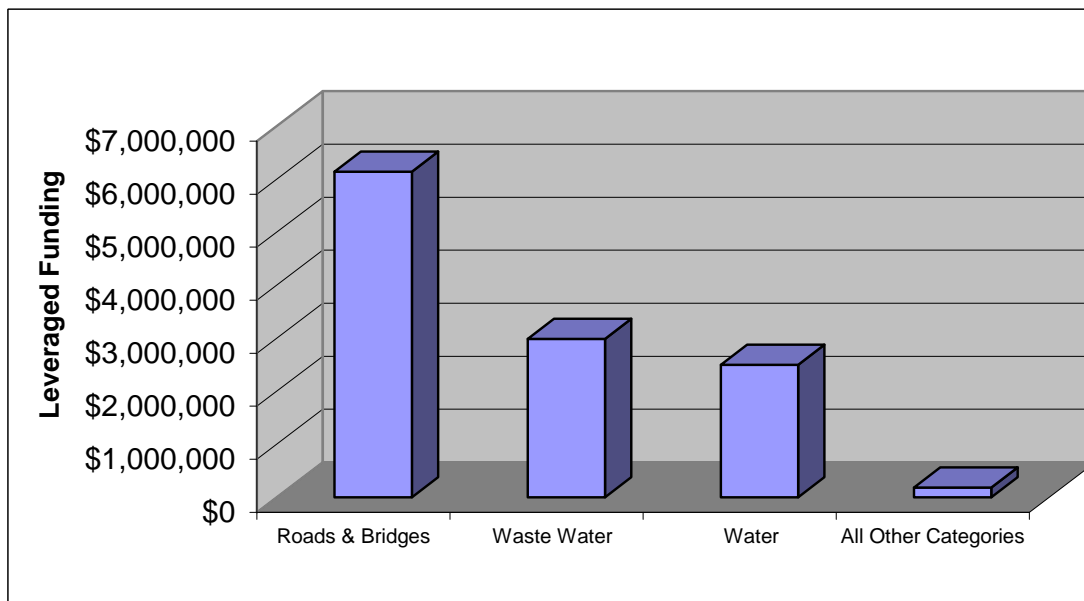


### Leveraged Funding

GTF/PTF spending of \$43.8 million leveraged another \$11.8 million in funding from other sources, including other federal, provincial, local government or non-government funding:

- local roads and bridges projects leveraged \$6.1 million
- waste water projects leveraged almost \$3 million
- water projects leveraged almost \$2.5 million
- all other categories accounted for \$0.2 million in leveraged funds

Chart C – Leveraged Funding by Project Category



## Outcomes by Project Category

GTF and PTF funds are invested in environmentally sustainable municipal infrastructure in seven infrastructure project categories. These projects are intended to achieve the national outcomes of cleaner air, cleaner water and reduced GHG emissions.

### **Project outcomes achieved with GTF/PTF funds include:**

- 200 km of new or improved roads
- bridge improvements shortened driving distances by 153 km
- 15 new or enhanced active transportation paths (bike trails, sidewalks)
- four new transit vehicles resulting in a 59 person increase in transit rider capacity
- six solid waste projects diverted 1,787 tonnes/year of waste from landfills
- 15 storm water projects, resulting in 176,427 metres of new or improved pipe
- 10 waste water collection and treatment system projects, resulting in increased waste water capacity of 91,431 cubic metres/day
- four water treatment projects resulting in increased treated water capacity of 1,310 cubic metres/day

*Cautionary note:* Municipalities reported both quantitative and/or qualitative outcomes; not all project outcomes were quantified. The quantified outcomes in this report therefore do not reflect a comprehensive roll-up of *all* quantifiable outcomes.

Tables 1, 2 and 3 to this report provide additional details on GTF/PTF outcomes by project category:

- Table 1, Manitoba GTF/PTF Project Outcome Indicators
- Table 2, Project Outcomes by Category and Project Type
- Table 3, Project Outcomes by Category

GTF/PTF outcomes by project category, with specific project examples, are summarized below.

## Outcomes by Project Category

### Local Roads and Bridges

A total of \$12.2 million was spent on local road and bridge projects (28 percent of total GTF/PTF spending). GTF funds levered another \$6.1 million in other spending, resulting in total spending of \$18.3 million on municipal roads/bridges.

A total of 199 projects were completed by the end of 2008, representing 73 percent of all completed projects. This included 170 road, 15 active transportation and 14 bridge projects.

Projects under the local roads and bridges category resulted in cleaner air and reduced GHG emissions. Municipalities also reported improvements in energy use, safer communities, improved flood protection, improved drainage and healthy living.

Local Roads and Bridges			
Completed Projects	199		
GTF Expenditures	\$12.2 M		
Leveraged Funds	6.1 M		
<b>Total Project Costs</b>	<b>\$18.3 M</b>		
Outcomes	Roads	Active Transportation	Bridges
Projects	170	15	14
GTF \$ Spent	\$10.3M	\$1.2M	\$0.7M
Km of new / improved roads	199.7 km		
Km of new / improved pathways		11.8 km	
Km of travel distance saved			153.2 km

## Outcomes by Project Category

### Local Roads and Bridges

#### Roads

- single most common project type
- 170 (63 percent) of all completed GTF/PTF projects
- \$15.4 million in GTF and levered funds spent
- 200 kilometres of new or improved roads

#### Other outcomes identified by municipalities include:

- improved traffic flow
- enhanced 911 response
- improved drainage
- less dust and use of dust abatement chemicals
- reduced maintenance costs
- smoother drives – improved fuel efficiency; more direct route
- less vehicular damage and less exhaust



City of Winnipeg - Regional Street Renewal

### ***City of Winnipeg – Local and Regional Street Renewal***

- *The City of Winnipeg used GTF funds to improve 68.18 km of regional roadways, 56.17 km of local roadways and 7.04 km of gravel roadways.*
- *Road renewals resulted in improved rides/traffic flow, reduced idling and improved fuel consumption.*
- *Resurfacing gravel roadways also improved ride comfort, reduces maintenance and the application of dust control chemicals*

### ***City of Portage la Prairie – Street Renewals***

- *Portage la Prairie used GTF funds to construct and pave seven km of local streets.*
- *These road projects resulted in improved air quality, less dust and smoother ride for residents.*



## Outcomes by Project Category

### Local Roads and Bridges

#### *Active transportation*

- \$1.3 million in GTF and levered funds spent
- 15 walking paths/bike trails
- almost 12 km of new/improved pathways

#### **Other outcomes identified by municipalities include:**

- safer trails with fewer hazards
- smoother walking surfaces
- separation of vehicular and pedestrian traffic
- improved safety and reduced travel time
- reduced vehicular use - less congestion
- increased pedestrian traffic



City of Thompson - Sidewalk

### ***City of Brandon – Active Transportation***

- *The City of Brandon undertook seven new sidewalk construction and replacement projects.*
- *\$693,716 in GTF funds were used to construct or redevelop 4.1 km of sidewalks.*
- *Sidewalk and pedestrian pathway construction contributes to more pedestrian and less vehicle traffic within the community, resulting in improved air quality.*

### ***City of Thompson – Active Transportation***

- *The City of Thompson assessed and developed a plan for the repair and replacement of city sidewalks.*
- *\$234,900 in GTF funds were used to redevelop 1.1 km of sidewalks.*
- *Sidewalk and pedestrian pathway construction reduces the reliance on car travel within the community.*

## Outcomes by Project Category Local Roads and Bridges

### *Bridges*

- \$1.6 million total spent on 14 bridge improvements
- 153 km in travel distance saved
- resulted in improved traffic flow  
economic benefits to farmers; improved safety



RM of Dauphin - Henderson Bridge

### *R.M. of Dauphin – Bridge Repair*

- *The R.M. of Dauphin invested \$86,000 in GTF funds for major repairs to the Henderson Bridge.*
- *This resulted in 6.4 km in saved travel distance.*
- *Efficient transportation networks are critical to reducing vehicle travel distances. Maintaining bridge structures helps ensure bridges are not closed. Bridge closures result in detours and in turn, increase GHG emissions through increased vehicle travel.*

### *R.M. of Oakland – Bridge Repair*

- *The R.M. of Oakland spent \$44,637 in GTF funds to replace old, unsafe bridge structures with new culverts.*
- *This resulted in 57.6 km in reduced travel distances for rural residents, contributing to reduced fuel consumption and improved air quality.*

**Outcomes by Project Category**  
**Waste Water Infrastructure**

\$24.8 million was spent on wastewater infrastructure (57 percent of total GTF/PTF spending). GTF funds levered another \$3 million in other funding, resulting in total spending of \$27.8 million on municipal waste water infrastructure.

25 projects were completed, representing 9 percent of all completed GTF projects, consisting of: 15 storm water management and 10 waste water collection/treatment systems projects. This resulted in increased water conservation/protection and cleaner water for the citizens of Manitoba.

Wastewater Infrastructure		
Completed Projects		25
GTF Expenditures		\$24.8 M
Leveraged Funds		3.0 M
<b>Total Project Costs</b>		<b>\$27.8 M</b>
Outcomes	Storm Water Management	Waste Water Collection & Treatment
Projects	15	10
GTF \$ Spent	\$21.5M	\$3.3 M
Metres of new pipe	176,427	
Cubic metres per day (m <sup>3</sup> / day)		91,431

**Storm Water Management**

- \$22.1 million in GTF and levered funds spent on 15 projects
- replaced or installed 176,427 metres of pipe
- resulted in fewer overflows; fewer emergency repairs; less basement flooding

**Waste Water Collection and Treatment**

- \$5.6 million in GTF and levered funds spent on 10 projects
- increased collection/treatment capacity by 91,431 cubic metres/day
- resulted in fewer discharges; cleaner discharges; waste water treated to a higher standard

**City of Winnipeg – Combined Sewers**

- *The City of Winnipeg installed 2,511.2 metres of sewer mains and replaced 205.17 metres of catch basin leads to increase collection of storm water run-off, reducing the potential for basement flooding and property damage.*
- *Improvement to combined sewers also reduce the likelihood of sewage and rainwater entering into premises ,resulting in decreased health risks to residents from mould and mildew. The risk of untreated sewage spilling into the environment is also reduced.*

**Sewer Renewals / Treatment Plant Upgrades**

- *The City of Winnipeg placed 85,030 metres of deteriorating combined sewers and 82,767 metres of wastewater infrastructure to ensure sewer discharge is delivered to the wastewater treatment plants.*
- *These improvements also reduce the risk of pipe collapse and service interruption causing sink holes in city roads.*

## Outcomes by Project Category

### Public Transit

\$5.5 million was spent on 10 public transit projects (4 percent of total GTF/PTF spending), including installation of transit dispatch and Telebus systems; purchase of four new buses, other transit capital assets (bus stop upgrades and transit priority signals/queue jump and diamond lanes).

Projects under the public transit category resulted in improved energy use, cleaner air and reduced GHG emissions. Municipalities also reported improvements in passenger service, functional efficiency, passenger amenities and overall transit performance.

Public Transit Infrastructure		
Completed Projects		10
GTF Expenditures		\$5.4 M
Leveraged Funds		0.1 M
<b>Total Project Costs</b>		<b>\$5.5 M</b>
Outcomes	Transit Buses	Other Transit Capital Assets
Projects	2	8
GTF \$ Spent	\$0.3M	\$5.2 M
Increase ridership (persons)	59	

#### Transit Buses

- purchased four new transit vehicles (two regular/two handi-transit)
- resulted in increased transit ridership by 59 people

#### Transit Capital Assets (Winnipeg)

- 6.4 percent increase in average boardings on routes with upgraded bus stops
- 5.6 percent increase in average weekday boardings on major routes implementing on-street transit priority measures



City of Winnipeg - Transit Bus Stops

### City of Winnipeg – Bus Stop Upgrades

- *The City of Winnipeg installed new and enhanced bus stop facilities on four major transit routes, including new shelters, signs, benches and landscaping.*
- *This provided higher quality waiting areas that are more comfortable, accessible and attractive, resulted in a 6.4 percent increase in average weekday boarding at the upgraded stops.*

### On-Street Transit Priority Measures

- *New on-street transit priority measures were implemented to improve the speed and reliability of transit service on major transit routes. Improvements included new transit priority signals, queue jump lanes and diamond lanes.*
- *This resulted in reduced bus running times and reduced variability in bus running times on most weekday routes and increased ridership through a 5.6 percent increase in average weekday boardings on these routes.*



## Outcomes by Project Category

### Water Infrastructure

\$1 million was spent on 21 water infrastructure projects (2 percent of total GTF/PTF spending) comprised of 17 water supply/distribution and four water treatment projects. GTF funds levered another \$2.5 million in other funding, resulting in total spending of \$3.5 million on municipal water infrastructure.

Projects under the water infrastructure category resulted in improved water quality/safety and cleaner water.

Water Infrastructure		
Completed Projects		21
GTF Expenditures		\$1.0 M
Leveraged Funds		2.5 M
<b>Total Project Costs</b>		<b>\$3.5 M</b>
Outcomes	Supply Distribution	Water Treatment
Projects	17	15
GTF \$ Spent	\$0.8M	\$0.2
Metres of new water pipe	1,971 m	
New connections	115	
Increase in water storage capacity	389 m <sup>3</sup> / day	
Increase in water treatment capacity		1,310 m <sup>3</sup> / day
Water metres installed	75	

### Supply/Distribution and Water Treatment

- replaced, installed, or extended 1,971 metres of water pipe
- added 115 new connections; increased storage capacity by 389 cubic metres/day
- improved water lines/pipes, new water pipelines facilitating development of new subdivisions, increased water storage
- increased water treatment capacity by 1,310 m<sup>3</sup>/day
- resulted in higher standard of water quality



RM of Grey - Regional Water System

### City of Flin Flon – Water Mains

- *The City of Flin Flon used \$170,500 in GTF funds to upgrade 200 metres of water lines and replace fire hydrants.*
- *The delivery of clean, safe drinking water is a key factor to ensuring healthy, sustainable communities.*

### R.M. of Grey – Regional Water System

- *The R.M of Grey spent \$57,000 in GTF funds to install rural water pipelines for the Grey Regional Water System, resulting in 31 new connections.*
- *Regional water systems are critical to ensuring the efficient and effective delivery of water in rural areas of Manitoba.*

## Outcomes by Project Category

### Other Project Categories

- \$.4 million was spent on all other GTF projects, (less than 1 percent of total TF/PTF spending) including two community energy systems, eight municipal capacity building (planning, building regional partnerships, research, etc.) and six solid waste (landfill/waste diversion) projects.
- The GTF spending levered an additional \$.158 million in other funding, resulting in total project spending of \$.6 million.

### Number of Projects and GTF/PTF \$ Spent

	Projects	GTF/PTF Spending	Levered Funds	Total Project Costs
Community Energy Systems	2	\$ 61,903	-	\$ 61,903
Municipal Capacity Building	8	\$ 113,322	\$ 48,215	\$ 161,537
Solid Waste	6	\$ 223,540	\$ 109,895	\$ 333,435
<b>TOTAL</b>	<b>16</b>	<b>\$ 398,765</b>	<b>\$ 158,110</b>	<b>\$ 556,875</b>

### Community Energy Systems – two projects

- Installation of new geo-thermal heating, ventilation system and energy efficient lighting in a municipal workshop.
- Replacement of new energy efficient windows/doors in a municipal office.
- This resulted in lower heating bills, increased energy efficiency and improved energy use.

### Solid Waste Infrastructure –

- Installation / expansion of solid waste diversion / disposal facilities.
- This resulted in the diversion of 1,787.3 tonnes of solid waste per year.



RM of Stuartburn - Recycling Blue Boxes

### R.M. of Stuartburn – Recycling

- Purchased recycling bins (blue boxes) for residents.
- Increased recycling - diverted 69 tonnes of solid waste/year from the community's landfill.

### R.M. of Woodlands – Sustainable Community Planning Study

- Funded a study to identify, prioritize infrastructure improvements to effectively and efficiently manage future growth.
- This 20 year vision will represent orderly, green-minded development.

### R.M. of Grandview – Geothermal/Energy Efficiency Upgrades

- Installed geothermal heating system, improved ventilation and energy efficient lighting in its municipal workshop.
- This resulted in decreased energy consumption and lower heating and electricity costs for the municipality.

## CONCLUSION

Manitoba municipalities have benefited greatly from the Canada-Manitoba Gas Tax Fund and Public Transit Fund, which provide long-term, stable and predictable levels of funding to address municipal infrastructure priorities.

The GTF/PTF programs provide significant funding support for environmentally sustainable municipal infrastructure. A total of \$115 million in GTF/PTF funds had been distributed to 198 Manitoba municipalities to the end of 2008. This enabled municipalities to initiate 370 projects, of which 271 have been completed. Manitoba municipalities spent \$43.8 million in GTF/PTF funds on all 271 completed projects.

Projects funded through the GTF/PTF are contributing to the programs' shared national objectives of cleaner air, cleaner water and lower greenhouse gas emissions, as well as contributing to Manitoba's strategic priorities. Three of Manitoba's strategic priorities are directly related to environmental sustainability. The GTF and PTF transfer programs complement other provincial and federal/provincial initiatives through a range of infrastructure funding programs that help address Manitoba's strategic priorities.

Most of the completed GTF/PTF projects to date (73 percent) are for local roads and bridges. Smoother roads reduce fuel consumption, thereby reducing GHG emissions. Improved surfaces also contribute to cleaner air by minimizing dust and the need for dust abatement chemicals. Similarly, bridge repairs reduce fuel consumption by saving travel time.

In terms of program spending, over half of all GTF/PTF funds (57 percent) have been spent on waste water projects, which contribute to increased water conservation/protection and cleaner water. Storm water management projects reduce sewer spills and basement flooding. Waste water collection and treatment projects reduce discharges and treat waste water to a higher standard.

Another significant area of program spending has been on public transit infrastructure. Enhancements to Winnipeg's transit facilities improve passenger service and system efficiencies, which may, in turn, increase ridership, reduce commuter traffic and result in corresponding GHG emissions.

Water infrastructure accounted for a smaller proportion of the GTF spending but has still contributed to cleaner and safer drinking water for Manitobans. These projects improved water supply/distribution by extending or replacing water pipes, installed new rural water lines, increased water storage and, in some cases, treated water to a higher standard.

Solid waste infrastructure, community energy systems and municipal capacity building accounted for about 6 percent of the completed projects and less than 1 percent of all program spending to date. These categories may well increase in importance in subsequent outcome reports as more GTF projects are completed in the coming years.

## MANITOBA GTF/PTF - PROJECT OUTCOME INDICATORS

**Note:** For each Project Category and Project Type, the indicator outcome report will include the *total number of projects* and the *total GTF/PTF dollar value*, as well as aggregated quantitative measures and/or qualitative information for the proposed project indicator.

*Ancillary benefits* – qualitative information will be provided where possible and linked to provincial objectives (Ex: bike paths - healthy living)

CATEGORY & Project Type	OUTCOME INDICATOR  (Indicator & quantitative or qualitative measure)	EXPECTED OUTCOME (Intermediate/ Prov. Outcome)	OUTCOME TYPE (Final/National Outcome)
<b>CAPACITY BUILDING</b>			
<i>total number and dollar value of capacity building projects</i>			
integrated community sustainability plan	rationale - # of projects	n/a	n/a
use of new technology	rationale - # of projects	n/a	n/a
research	rationale - # of projects	n/a	n/a
other	to be developed as necessary		
<b>COMMUNITY ENERGY SYSTEMS</b>			
<b>Subcategory: Conservation</b>	<i>total number and dollar value of energy conservation projects</i>		<i>cleaner air: reduced GHG</i>
	<i>improved energy use</i>		
energy systems	decrease in energy consumed - in units appropriate to energy source <sup>1</sup> ; ancillary benefit - qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG
retrofits of municipal buildings	decrease in energy consumed - in units appropriate to energy source <sup>1</sup> ; ancillary – qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG



**TABLE 1**

<b>CATEGORY &amp; Project Type</b>	<b>OUTCOME INDICATOR (Indicator &amp; quantitative or qualitative measure)</b>	<b>EXPECTED OUTCOME (Intermediate/Prov. Outcome)</b>	<b>OUTCOME TYPE (Final/National Outcome)</b>
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**COMMUNITY ENERGY SYSTEMS –  
conservation continued**

street lighting	decrease in energy consumed – in units appropriate to energy source <sup>1</sup> ; ancillary - qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG
other energy efficiency	decrease in energy consumed - in units appropriate to energy source <sup>1</sup> ; ancillary – qualitative	improved energy use; ancillary benefits	cleaner air; reduced GHG
other	to be developed as necessary		

**LOCAL ROADS AND BRIDGES**

<b>Subcategory: roads</b>	<b>total number and dollar value of road projects</b>	<b>improved air quality</b>	<b>cleaner Air; reduced GHG</b>
arterial roads - new	# of km	improved air quality	cleaner air; reduced GHG
arterial roads – improved	# of km	improved air quality	cleaner air; reduced GHG
local roads – new	# of km	improved air quality	cleaner air; reduced GHG
local roads – improved	# of km	improved air quality	cleaner air; reduced GHG
traffic flow	# of projects; rationale	improved air quality	cleaner air; reduced GHG
other local roads (eg. drainage, culverts)	# of projects; rationale	improved air quality; ancillary benefits	cleaner air; reduced GHG

**TABLE 1**

<b>CATEGORY &amp; Project Type</b>	<b>OUTCOME INDICATOR (Indicator &amp; quantitative or qualitative measure)</b>	<b>EXPECTED OUTCOME (Intermediate/Prov. Outcome)</b>	<b>OUTCOME TYPE (Final/National Outcome)</b>
<b>LOCAL ROADS &amp; BRIDGES cont'd</b>			
<b>Subcategory: active transportation</b>			
	<b>total number and dollar value of active transport projects</b>	<b>improved air quality</b>	<b>cleaner air; reduced GHG</b>
bike lanes	new or improved active transportation routes - # of km; ancillary – qualitative	improved air quality; ancillary benefits	cleaner air; reduced GHG
<b>Subcategory: bridges</b>			
	<b>total number and dollar value of bridge projects</b>	<b>improved air quality</b>	<b>cleaner air; reduced GHG</b>
bridges within local boundaries	travel distance saved as a result of work - # of km	improved air quality	cleaner air; reduced GHG
other	to be developed as necessary		
<b>PUBLIC TRANSIT</b>			
<b>Subcategory: rolling stock</b>			
	<b>total # and \$ value of rolling stock projects</b>	<b>improved air quality</b>	<b>cleaner air; reduced GHG</b>
bus, rail car, trolley	rationale - # of projects; additional capacity (# of units or # of people)	improved air quality; improved energy use	cleaner air; reduced GHG
transit buses – bus rolling stock – new	additional capacity - # of people	improved air quality; improved energy use	cleaner air; reduced GHG
transit buses – bus rolling stock – replacement	replaced capacity - # of people or # of units	improved air quality; improved energy use	cleaner air; reduced GHG

**TABLE 1**

<b>CATEGORY &amp; Project Type</b>	<b>OUTCOME INDICATOR (Indicator &amp; quantitative or qualitative measure)</b>	<b>EXPECTED OUTCOME (Intermediate/Prov. Outcome)</b>	<b>OUTCOME TYPE (Final/National Outcome)</b>
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***PUBLIC TRANSIT cont'd***

<b><i>Subcategory: ITS</i></b>			
	<b><i>total number and dollar value of ITS systems installed</i></b>	<b><i>improved air quality</i></b>	<b><i>cleaner air; reduced GHG</i></b>
intelligent transportation systems (ITS) – transit operations	rationale - # of projects	improved air quality; improved energy use	cleaner air; reduced GHG
ITS – traveler information	rationale - # of projects	improved air quality; improved energy use	cleaner air; reduced GHG
<b><i>Subcategory: capital assets</i></b>			
	<b><i>total number and dollar value of projects leading to system improvements</i></b>	<b><i>improved air quality</i></b>	<b><i>cleaner air; reduced GHG</i></b>
transit infrastructure & related facilities	rationale & type of new or improved facilities - # of projects	improved air quality; improved energy use	cleaner air; reduced GHG
transit priority capital investments – eg. transit queue jumpers	rationale - # of projects	improved air quality; improved energy use	cleaner air; reduced GHG
other public transit	rationale – # of projects	improved air quality; improved energy use	cleaner air; reduced GHG
other	to be developed as necessary		

***SOLID WASTE INFRASTRUCTURE***

<b><i>Subcategory: landfill expansion/creation (ancillary)</i></b>			
	<b><i>increase in landfill capacity (tonnes) and rationale; total number of projects and dollar value</i></b>	<b><i>ancillary</i></b>	<b><i>ancillary</i></b>
waste disposal - landfills	increased capacity – tonnes/annum	ancillary benefit	ancillary benefit
waste disposal – landfill environmental improvements	qualitative information; # of projects	increased water conservation/protection	cleaner water

TABLE 1

<b>CATEGORY &amp; Project Type</b>	<b>OUTCOME INDICATOR (Indicator &amp; quantitative or qualitative measure)</b>	<b>EXPECTED OUTCOME (Intermediate/Prov. Outcome)</b>	<b>OUTCOME TYPE (Final/National Outcome)</b>
<b>SOLID WASTE INFRASTRUCTURE – continued</b>			
<b>Subcategory: waste diversion</b>	<b>total number and dollar value of waste diversion projects</b>	<b>increased water conservation/protection</b>	<b>cleaner water</b>
waste diversion – collection depots	waste diverted/consolidated - tonnage/annum	increased water conservation/protection	Cleaner water
waste diversion – recycling	increased recycling/waste diverted from landfill - tonnage/annum	increased water conservation/protection	cleaner water
other	to be developed as necessary		
<b>Waste Water (WW)</b>			
<b>Subcategory: storm water management</b>	<b>total number and dollar value of storm water projects</b>	<b>increased water conservation/protection</b>	<b>cleaner water</b>
sanitary and combined sewer systems	sewer pipe replaced or installed - # of meters	increased water conservation/protection	cleaner water
separate storm water systems	storm water pipe replaced or installed - # of meters	increased water conservation/protection	cleaner water
<b>Subcategory: collection</b>	<b>total number and dollar value of WW collection projects</b>	<b>increased water conservation/protection</b>	<b>cleaner water</b>
WW collection systems and/or WW treatment facilities or systems (Ex: dealing with <i>capacity</i> , not treatment standards; includes new or expanded lagoons)	increase in WW treatment capacity or WW collected – m <sup>3</sup> /day; # of new connections on municipal WW system	increased water conservation/protection	cleaner water
WW treatment systems (increase in standard of <i>treatment</i> , not increase in capacity; includes lagoon upgrades)	increase in volume of WW treated to a higher standard – m <sup>3</sup> /day	increased water conservation/protection	cleaner water
other	to be developed as necessary		

**TABLE 1**

<b>CATEGORY &amp; Project Type</b>	<b>OUTCOME INDICATOR (Indicator &amp; quantitative or qualitative measure)</b>	<b>EXPECTED OUTCOME (Intermediate/Prov. Outcome)</b>	<b>OUTCOME TYPE (Final/National Outcome)</b>
<b>WATER</b>			
<b>Subcategory: supply/distribution</b>			
	<b>Total number and dollar value of water supply/distribution projects</b>	<b>improved water quality/safety</b>	<b>cleaner water</b>
extension of pipes to those previously on other systems	# of new connections to municipal water system; # of meters of new pipe	improved water quality/safety	cleaner water
replacement of pipes	# of meters of repaired or replaced pipe	improved water quality; safety	cleaner water
extension of pipes to new users	# of new connections to municipal water system (+ rationale); # of meters of new pipe	improved water quality; safety	cleaner water
expansion of reservoir/dam (same treatment; increased capacity)	increase in water storage capacity - m <sup>3</sup> /day (+ rationale)	improved water quality/safety	cleaner water
<b>Subcategory: treatment</b>			
	<b>Total # and \$ value of water treatment projects</b>	<b>improved water quality/safety</b>	<b>cleaner water</b>
drinking water treatment systems (same capacity; higher treatment standard)	increase in volume of water treated to a higher standard – m <sup>3</sup> /day	improved water quality/safety	cleaner water
<b>Subcategory: demand management</b>			
	<b>Total number and dollar value of demand mgmt projects</b>	<b>improved water conservation/protection</b>	<b>cleaner water</b>
metering systems	increase in water metering systems - # of households	improved water conservation/protection	cleaner water
other	to be developed as necessary		

**Footnotes:**

1. Decrease in energy consumed in units appropriate to energy source – eg. KWH. Ideally, the unit should then be converted to GHG emission reductions (in CO<sub>2</sub> equivalents).

MANITOBA - GTF/PTF PROJECT OUTCOMES REPORT, BY CATEGORY AND PROJECT TYPE - COMPLETED PROJECTS as of August 1, 2009

CATEGORY Subcategory	PROJECT TYPE	TOTAL NO. OF PROJECTS		TOTAL GTF/ PTF \$ INVESTED		OTHER \$ SPENT	TOTAL		OUTCOME INDICATORS		QUANTITATIVE MEASURE (3) municipal aggregatio	EXPECTED OUTCOME provincial	OUTCOME TYPE national
		#	% (1)	\$	%(2)		\$	%	qualitative	quantitative			
<b>COMMUNITY ENERGY SYSTEMS</b>													
<i>Conservation</i>													
	energy systems	1		51,440			51,440						
	retrofits of muni bldgs	1		10,463			10,463		decrease in energy consumed			improved energy use	reduced GHG
	street lighting	0							decrease in energy consumed			improved energy use	reduced GHG
	other energy efficiency	0											
<i>Conservation subtotal</i>		<u>2</u>		<u>61,903</u>			<u>61,903</u>						
<b>COMMUNITY ENERGY SYSTEMS, TOTAL</b>		<u>2</u>	<b>0.74%</b>	<u>61,903</u>	<b>0.14%</b>		<u>61,903</u>	<b>0.11%</b>					
<b>LOCAL ROADS AND BRIDGES</b>													
<i>Roads</i>													
	arterial roads-new	0								# of km		improved air quality	reduced GHG
	arterial roads-improved	0								# of km		improved air quality	reduced GHG
	local roads-new	9		250,426		19,656	270,082		see written report	# of km	3.965	improved air quality	reduced GHG
	local roads-improved	150		9,222,584		5,006,830	14,229,414		see written report	# of km	191.759	improved air quality	reduced GHG
	traffic flow	5		744,444			744,444		improved traffic flow			improved air quality	reduced GHG
	safety	2		17,413			17,413		road signs to enable 911 to find rural location			safer communities	ancillary bene
	other local roads(4)	4		94,097		2,824	96,921			# km of road improvement	4.000	improved drainage; flood protection	ancillary bene
<i>Roads, subtotal</i>		<u>170</u>		<u>10,328,964</u>		<u>5,029,310</u>	<u>15,358,274</u>				<u>199.724</u>		
<i>Active Transportation</i>													
	bike lanes	1		21,736			21,736		safer trail; hazard removed	# of km	1.200	improved air quality	reduced GHG
	walking paths(5)	14		1,137,780		143,543	1,281,323		smoother walking surfaces; separation of pedestrian and vehicular traffic - improved safety and reduced travel time; reduced vehicular use; less congestion; increased pedestrian traffic; improved drainage	# of km	10.610	improved air quality	reduced GHG
												healthy living	
<i>Active Transportation subtotal</i>		<u>15</u>		<u>1,159,516</u>		<u>143,543</u>	<u>1,303,059</u>				<u>11.810</u>		
<b>LOCAL ROADS, TOTAL</b>		<u>185</u>		<u>11,488,480</u>		<u>5,172,853</u>	<u>16,661,333</u>				<u>211.534</u>		
<i>Bridges</i>													
	local bridges	14		669,663		971,066	1,640,729		travel distance saved	# of km	153.200	improved air quality	reduced GHG
									improved traffic flow				
									econ benefits to farmers				
									improved safety				
<i>Bridges, subtotal</i>		<u>14</u>		<u>669,663</u>		<u>971,066</u>	<u>1,640,729</u>				<u>153.200</u>	improved air quality	reduced GHG
<b>LOCAL ROADS &amp; BRIDGES, TOTAL</b>		<u>199</u>	<b>73.43%</b>	<u>12,158,143</u>	<b>27.76%</b>	<u>6,143,919</u>	<u>18,302,062</u>	<b>32.91%</b>					

**TABLE 2**

<b>MUNICIPAL CAPACITY BUILDING</b>									
<i>building partnerships and strategic alliances</i>	1	23,231		23,231	H2O service to pers. care home	n/a		improved water quality; safety	cleaner water
<i>integrated community sustainability plan</i>	1	11,250	41,840	53,090	capacity building	n/a		local capacity building	n/a
<i>other municipal capacity</i>	3	55,008		55,008	capacity building	n/a		local capacity building	n/a
<i>research</i>	3	23,833	6,375	30,208	capacity building	n/a		local capacity building	n/a
<b>MUNICIPAL CAPACITY BUILDING, TOTAL</b>	<b>8</b>	<b>2.95%</b>	<b>113,322</b>	<b>0.26%</b>	<b>48,215</b>	<b>161,537</b>	<b>0.29%</b>		
<b>PUBLIC TRANSIT</b>									
<i>ITS</i>	transit operations	1	23,516	24,412	47,928	improved passenger service	n/a	improved air quality and energy use	reduced GHG
	travel information	1	407,791		407,791	improved passenger service	n/a	improved air quality and energy use	reduced GHG
<i>ITS, subtotal</i>		<u>2</u>	<u>431,307</u>	<u>24,412</u>	<u>455,719</u>				
<i>rolling stock, subtotal</i>	handi-transit; new	2	285,411		285,411		# of persons	59	improved air quality and energy use
						improved functional efficiency & passenger amenities	n/a		improved air quality and energy use
<i>capital assets</i>	transit facilities	5	4,570,563		4,570,563				reduced GHG
	queue jumpers	1	154,000		154,000	improved transit performance	n/a		improved air quality and energy use
<i>capital assets, subtotal</i>		<u>6</u>	<u>4,724,563</u>		<u>4,724,563</u>				reduced GHG
<b>PUBLIC TRANSIT, TOTAL</b>		<b>10</b>	<b>3.69%</b>	<b>5,441,281</b>	<b>12.42%</b>	<b>24,412</b>	<b>5,465,693</b>	<b>9.83%</b>	
<b>SOLID WASTE INFRASTRUCTURE</b>									
<i>landfill, subtotal (6)</i>	waste disposal - environmental improvements	2	100,877	84,895	185,772	improved waste disposal grounds	n/a		increased water conservation/protection
									cleaner water
<i>waste diversion</i>	collection depots	2	94,000	25,000	119,000	waste consolidation	tonnes/yr	1,649,280	increased water conservation/protection
	recycling	2	28,663		28,663	increased recycling/waste diverted	tonnes/yr	138,000	increased water conservation/protection
<i>waste diversion, subtotal</i>		<u>4</u>	<u>122,663</u>	<u>25,000</u>	<u>147,663</u>			<u>1,787,280</u>	cleaner water
<b>SOLID WASTE, TOTAL</b>		<b>6</b>	<b>2.21%</b>	<b>223,540</b>	<b>0.51%</b>	<b>109,895</b>	<b>333,435</b>	<b>1,787,280</b>	<b>0.60%</b>

**TABLE 2**

<b>WASTE WATER INFRASTRUCTURE</b>										
<i>storm water mgmt</i>	sanitary & combined	11	21,328,551	465,772	21,794,324	less sewer spills; fewer emergency repairs	# of meters of pipe replaced/installed	171,170.760	increased water conservation/protection	cleaner water
	separate storm water	4	118,711	216,534	335,245	less basement flooding	# of meters	5,256.200	increased water conservation/protection	cleaner water
<i>storm water mgmt, subtotal</i>		15	21,447,262	682,306	22,129,569			176,426.960		
<i>collection (7)</i>	WW collection & treatment systems - expanded capacity	10	3,342,056	2,306,356	5,648,412	increased WW capacity; fewer discharges; cleaner discharges one project expanding capacity also involved higher treatment standard	m3/day	16,431.233	increased water conservation/protection	cleaner water
<i>collection, subtotal</i>	WW treatment- increase in standard of treatment	10	3,342,056	2,306,356	5,648,412		m3/day	75,000.000	increased water conservation/protection	cleaner water
<b>WASTE WATER, TOTAL</b>		<b>25</b>	<b>24,789,318</b>	<b>56.60%</b>	<b>2,988,662</b>	<b>27,777,981</b>				<b>49.95%</b>
<b>WATER</b>										
<i>supply/distribution</i>	pipe replacement	5	415,081		415,081	improved/replaced water line/pip	# of meters	1,000.000	improved water quality/safety	cleaner water
	extend pipe to new users	7	265,231	754,195	1,019,426	new rural water pipelines and new residential developments	# of new connections # of meters	115.000 971.233	improved water quality/safety	cleaner water
<i>supply/distribution, subtotal</i>	capacity expansion	4	126,532	1,139,681	1,266,213	increase in water storage	m3/day	388.800	improved water quality/safety	cleaner water
	upgrade drinking water treatment systems	4	195,135	605,103	800,238	higher standard of water quality	m3/day	1,310.000	improved water quality/safety	cleaner water
<i>demand mgmt., subtotal</i>	metering systems	1	9,229		9,229	improved accuracy of billings relative to water plant output	# of water meters installed	75.000	improved water quality/safety	cleaner water
<b>WATER, TOTAL</b>		<b>21</b>	<b>7.75%</b>	<b>1,011,208</b>	<b>2.31%</b>	<b>2,498,979</b>	<b>3,510,187</b>			<b>6.31%</b>
<b>GTF/PTF COMPLETED PROJECTS,</b>										
<b>GRAND TOTAL</b>		<b>271</b>	<b>100.00%</b>	<b>43,798,715</b>	<b>100.00%</b>	<b>11,814,082</b>	<b>55,612,798</b>			<b>100.00%</b>

- Notes:
1. % of total number of GTF/PTF completed projects
  2. % of total \$ GTF/PTF invested
  3. quantitative measure - the municipal aggregation would be higher than reported as some municipalities provided qualitative measurements and not quantitative measurements.
  4. other local roads includes drainage, culverts, etc.
  5. walking paths include sidewalks
  6. Project # 511534, Gimli Landfill, is recorded in the GTRS (\$90,000 GTF) as a landfill. However, it appears to be a wastewater project. The outcome is therefore rolled up under the waste water category.
  7. Project # 395, RM of Victoria, Holland Water Treatment Plant, is recorded in the GTRS (\$45,000 GTF plus other \$ for a total of \$303,103) as a waste water project. Given it is a water treatment plant, the outcome is rolled up under water infrastructure.



TABLE 3

## MANITOBA - GTF/PTF PROJECT OUTCOMES REPORT, BY CATEGORY - COMPLETED PROJECTS

CATEGORY Subcategory	TOTAL #	NO. OF PROJECTS %	TOTAL GTF/ \$	PTF \$ INVESTED %	OTHER \$ SPENT	TOTAL		OUTCOME	
						\$	%	INDICATOR	MEASURE municipal aggregation
<b>COMMUNITY ENERGY SYSTEMS</b>									
<i>Conservation</i>	2								
<b>COMMUNITY ENERGY :</b>	<b>2</b>	<b>0.74%</b>	<b>61,903</b>	<b>0.14%</b>		<b>61,903</b>	<b>0.11%</b>		
<b>LOCAL ROADS &amp; BRIDGES</b>									
<i>roads</i>	170		10,328,964		5,029,310	15,358,274		# of km	199.724
<i>active transportation</i>	15		1,159,516		143,543	1,303,059		# of km	11.810
<i>bridges</i>	14		669,663		971,066	1,640,729		distance saved km	153.200
<b>LOCAL ROADS &amp; BRIDGES :</b>	<b>199</b>	<b>73.43%</b>	<b>12,158,143</b>	<b>27.76%</b>	<b>6,143,919</b>	<b>18,302,062</b>	<b>32.91%</b>		
<b>MUNICIPAL CAPACITY BUILDING</b>									
<i>building partnerships &amp; st</i>	1		23,231			23,231		n/a	
<i>integrated community sust</i>	1		11,250		41,840	53,090		n/a	
<i>other municipal capacity</i>	3		55,008			55,008		n/a	
<i>research</i>	3		23,833		6,375	30,208		n/a	
<b>MUNICIPAL CAPACITY :</b>	<b>8</b>	<b>2.95%</b>	<b>113,322</b>	<b>0.26%</b>	<b>48,215</b>	<b>161,537</b>	<b>0.29%</b>		
<b>PUBLIC TRANSIT</b>									
<i>ITS</i>	2		431,307		24,412	455,719			
<i>rolling stock</i>	2		285,411			285,411		increased capacity- persons	59
<i>capital sssets</i>	6		4,724,563			4,724,563			
<b>PUBLIC TRANSIT, TOTAL :</b>	<b>10</b>	<b>3.69%</b>	<b>5,441,281</b>	<b>12.42%</b>	<b>24,412</b>	<b>5,465,693</b>	<b>9.83%</b>		
<b>SOLID WASTE INFRASTRUCTURE</b>									
<i>landfill</i>	2		100,877		84,895	185,772		n/a	
<i>waste diversion</i>	4		122,663		25,000	147,663			1,787.280
<b>SOLID WASTE, TOTAL :</b>	<b>6</b>	<b>2.21%</b>	<b>223,540</b>	<b>0.51%</b>	<b>109,895</b>	<b>333,435</b>	<b>0.60%</b>	tonnes/yr diverted	<b>1,787.280</b>
<b>WASTE WATER INFRASTRUCTURE</b>									
<i>storm water mgmt</i>	15		21,447,262		682,306	22,129,569		# of meters of pipe	176,426.960
<i>collection</i>	10		3,342,056		2,306,356	5,648,412		m3/day	91,431.233
<b>WASTE WATER, TOTAL :</b>	<b>25</b>	<b>9.23%</b>	<b>24,789,318</b>	<b>56.60%</b>	<b>2,988,662</b>	<b>27,777,981</b>	<b>49.95%</b>		
<b>WATER</b>									
<i>supply/distribution</i>	16		806,844		1,893,876	2,700,720			
<i>treatment</i>	4		195,135		605,103	800,238		m3/day	1,310.000
<i>demand mgmt.</i>	1		9,229			9,229		# of water meters installed	75.000
<b>WATER, TOTAL :</b>	<b>21</b>	<b>7.75%</b>	<b>1,011,208</b>	<b>2.31%</b>	<b>2,498,979</b>	<b>3,510,187</b>	<b>6.31%</b>		
<b>GTF/PTF COMPLETED PROJECTS, GRAND TOTAL</b>									
	<b>271</b>	<b>100.00%</b>	<b>43,798,715</b>	<b>100.00%</b>	<b>11,814,082</b>	<b>55,612,798</b>	<b>100.00%</b>		

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## Other Infrastructure Programming in Manitoba

**Provincial Initiatives** – Several provincial operating and capital funding programs are specifically targeted to address Manitoba’s water/wastewater, transportation/public transit and recreational infrastructure needs:

- **wastewater treatment** – \$235 million committed to fund 1/3<sup>rd</sup> of the costs to upgrade Winnipeg’s wastewater treatment facilities to address the 2003 Clean Environment Commission recommendations. The province has further committed to cost-share 1/3<sup>rd</sup> of twinning Winnipeg’s sewer system to address the incidence of combined sewer overflows.
- **Rural/Northern Infrastructure** – \$150.0 million committed to address water and wastewater improvements in rural and northern Manitoba.
- **Manitoba Water Services Board** – approximately \$12 million per year allocated to cost-shared initiatives with municipalities to improve water and wastewater services.
- **Manitoba highway and bridge modernization initiative** – approximately \$400 million is committed per year for ten years, an unprecedented investment in Manitoba’s transportation infrastructure.
- **Winnipeg’s transportation infrastructure** – Manitoba is investing \$125 million over five years (2007 – 2011) in Winnipeg’s road infrastructure, including \$6 million for the city’s bike path and active transportation network. This is in addition to \$7 million in provincial funding provided to Winnipeg each year for local street repairs.
- Manitoba has also committed to a \$53.3 million increase in road funding to Winnipeg over the next 10 years, eliminating the need to close the Disraeli Bridge during an upcoming bridge renewal project.
- **transit grants** – approximately \$30 million per year in operating grants are provided to support affordable and accessible municipal transit service through the province’s 50/50 transit funding partnership. An additional \$4 million is provided each year towards the purchase of new transit buses in Winnipeg and Brandon.
- **rapid transit** – Manitoba is partnering with Winnipeg on the initial stage of the Southwest Rapid Transit Corridor, a \$138 million project, and has committed to 1/3<sup>rd</sup> funding for the second stage of this project.
- **Municipal Recreation Fund** – \$16.5 million is being provided to enhance and upgrade recreation facilities across Manitoba – part of the government’s commitment to double funding for rural and northern recreation facility upgrades to \$60 million over four years.

- **Manitoba's Green Building Policy** requires the application of green building standards for government funded projects, including a LEED (Leadership in Energy and Environmental Design) certified standard. This policy applies to projects supported under the Municipal Recreation Fund.
- **Northern Affairs Communities Capital Infrastructure** – Manitoba Aboriginal and Northern Affairs has allocated \$8.2 million in loan act authority to 2009/10 to fund capital projects in northern unincorporated communities. A total of \$46.7 million is planned until 2013/14 – an average of \$9.3 million per year.
- In addition, incorporated Northern Affairs communities received \$1.0 million in capital grants for infrastructure projects in 2009/10.

**Canada-Manitoba Initiatives** – The GTF/PTF are one of several federal-provincial infrastructure initiatives. Overall, approximately \$700 million in federal funding is allocated to Manitoba infrastructure over the next several years. Matching provincial contributions will allow Manitoba to move forward on renewing the province's infrastructure, as well as stimulating the economy and creating jobs in Manitoba.

- **Infrastructure Stimulus Fund (ISF)** – One of several Canada Economic Action Plan Stimulus Programs, ISF is a two-year, stimulus program for shovel-ready municipal infrastructure. Manitoba will receive \$140 million in federal funding.
- **Recreational Infrastructure Canada Program (RinC)** – A Canada Economic Action Stimulus Program under which Manitoba is receiving \$6 million in over two years 2009 – 2011). Manitoba has committed to provide up to \$6 million in matching funds.
- **Knowledge Infrastructure Program (KIP)** – \$71.1 million in federal funding has been allocated over two years to Manitoba university and college projects.
- **Community Adjustment Fund** – \$41.6 million in federal funding for Manitoba targeted to primarily resource/manufacturing dependent communities of under 250,000 people in need of economic adjustment support.
- **Building Canada Fund** – Multi-year program providing \$127 million in federal funding for major large-scale infrastructure and municipal infrastructure. Manitoba and municipalities are providing matching 1/3<sup>rd</sup> cost-shared funding.
- **Gateways and Border Crossing Fund** – Manitoba is receiving \$65.7 in federal funding for strategic trade corridors linking to international gateways.
- **Asia-Pacific Gateway and Corridor Initiative** – \$33.25 million in federal funding has been allocated to Centre Port Canada, a private-sector corporation focused on developing and promoting Manitoba's inland port and building on Manitoba's well-established network of air, rail, sea and trucking routes.

These provincial and federal-provincial initiatives demonstrate the broad mix of infrastructure-related programming in Manitoba and the significance of GTF/PTF funding relative to other Manitoba initiatives. However, there are two distinguishing features of GTF/PTF funding particularly attractive to municipalities:

- GTF provides municipalities with a steady, predictable stream of funding on an annual basis for environmentally sustainable municipal infrastructure, facilitating municipal long term planning.
- Municipalities receive annual GTF allocations up front and can either spend it in current fiscal year or save it until sufficient funds accumulate to undertake a larger project. This is especially important for smaller communities with smaller per capita allocations.

In contrast, the other federal-provincial infrastructure programs are generally application-based and competitive.

## Examples of Manitoba Outcome Measures

Indicators and project outcomes relating to Manitoba’s environmental sustainability and infrastructure priorities are summarized in the table below.

CATEGORY	INDICATOR	OUTCOME
infrastructure and capital asset renewal	annual capital investment in tangible capital investments	\$1 billion in 2007/08
GHG emissions	CO <sub>2</sub> e	9.9 megatonnes in 2007/08
Lake Winnipeg water quality	total nitrogen & phosphorus levels (mg/L)	<i>south basin</i> ; nitrogen - .867 mg/L; phosphorus - .153 <i>narrows</i> ; nitrogen - .756; phosphorus - .107 <i>north basin</i> ; nitrogen - .545; phosphorus - .054
water quality	water quality index (1 – 100)	Prairie Ecozone – 74 (fair) Boreal Plains – 83 (good) Boreal Shield – 94 (good)
geothermal installations	# of geothermal installations; value of industry	since 2000: - installations have quadrupled; - industry has grown from \$3 million to \$30 million annually
protected areas	area of protected lands in Manitoba (hectares)	5.45 million hectares in 2008 – a 5.1 million hectare increase since 1990
water consumption	urban water consumption (liters/per capita/day)	Winnipeg – 333.8 l/c/d in 2007, down from 495.2 l/c/d in 1988
safety of Manitoba’s drinking water	proportion of Manitoba’s public water supply systems in compliance with regulations, etc. (%)	85 percent in 2006

*Infrastructure and Capital Asset Renewal* – Renewal of provincial infrastructure is a priority as inadequate investment results in deterioration, loss of use and inefficiencies. Using Annual Capital Investment as a performance indicator, \$1 billion was invested in tangible capital assets in 2007/08.

*Greenhouse Gas Emissions* – Manitoba’s target is to reduce emissions by 6 percent below 1990 levels by 2012. The Carbon Dioxide Equivalent (CO<sub>2</sub>e) is an internationally accepted measure that expresses the amount of global warming of greenhouse gases. A recent Environment Canada report shows a slight reduction in Manitoba’s CO<sub>2</sub>e from single point sources of emissions to 19.9 megatonnes.

*Lake Winnipeg Water Quality* – In 2003, Manitoba established the Lake Winnipeg Action Plan to reduce nitrogen and phosphorus loads to Lake Winnipeg to pre-1970 levels. Nutrient loading is measured by the total nitrogen and phosphorus levels in the south basin, narrows and north basin of Lake Winnipeg.

*Water Quality* – Manitoba measures water quality using the Canadian Council of Ministers of the Environment's (CCME) Water Quality Index (WQI); comparing levels of nitrogen and phosphorus, salts, trace metals, bacteria and dissolved oxygen against established standards. The Water Quality Index ranges between 0 and 100 with 100 indicating excellent water quality. The 2006 WQI for water bodies in the Prairie, Boreal Plains, and Boreal Shield Ecozones was 74 (fair), 83 (good), and 94 (good), respectively.

*Geothermal Installations* – Manitoba promotes the use of geothermal energy as a means of reducing its GHG emissions and reaching its Kyoto targets. Success is measured by the total number of geothermal installations in Manitoba. Since 2000, Manitoba's domestic geothermal heat pump industry has grown from \$3 million to \$30 million annually and quadrupled its annual installation rate.

*Protected Areas* – Expanding protected areas in the province ensures conservation of biodiversity, maintains natural cycles, provides pristine areas and preserves land for Aboriginal people to maintain traditional activities. Progress is measured in hectares of protected land. Since 1990 the area of protected lands has increased from 350,000 hectares to 5,450,000 hectares in 2008 or 8.4 percent of Manitoba.

*Water Consumption* – Manitoba Water Stewardship currently measures the effectiveness of water conservation programs by measuring urban water consumption in liters/per capita/day (l/c/d). The trend in Winnipeg's overall water consumption (residential and commercial) is declining – from a high of 495.2 l/c/d in 1988 to 333.8 l/c/d in 2007.

*Safety of Manitoba's Drinking Water* – The Office of Drinking Water (ODW) measures the compliance of Manitoba's 400 public water supply systems serving 80 percent of the population in three areas – regulatory testing, report submission and water quality standards. Compliance has improved from 73 percent in 2003 of the systems monitored to 85 percent in 2006 (most recent data).