



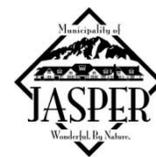
2009

## Environmental Stewardship Program Annual Report

Environmental Services | Municipality of Jasper

Parks Canada | Jasper National Park

February 2010



Parks  
Canada

Parcs  
Canada

## **Mandate and guiding principles of Jasper's Environmental Stewardship Program**

The Municipality of Jasper and Jasper National Park, recognizing their common interest in promoting environmental sustainability and stewardship in Jasper National Park, established the Environmental Stewardship program in 2004.

The Stewardship Program is jointly funded by Parks Canada and the Municipality of Jasper. This initiative has moved stewardship programming and public awareness strategies forward – continually improving environmental sustainability in the community.

Program implementation is the responsibility of the Environmental Stewardship Coordinator. The role of the Environmental Stewardship Coordinator is to:

- Ensure the activities and programs of the Municipality of Jasper and Parks Canada meet identified strategies and goals in the area of environmental community sustainability.
- Develop and manage an environmental stewardship program that establishes procedures and methods by which the Municipality of Jasper and Jasper National Park meet or exceed legal and policy requirements.
- Work with the community of Jasper, the Municipality of Jasper and Parks Canada to establish short and long term strategic goals and actions, directing work towards a high level of environmental performance.
- Research alternatives, offer creative environmental solutions, and instil an understanding of how our actions can affect the national park community.

The Environmental Stewardship Coordinator also works with the Environmental Stewardship Advisory Committee (ESAC) to establish and implement the goals of the stewardship program. The ESAC acts as a cooperative link between citizens, Parks Canada and local government to provide leadership and guidance to the program. Enhancing quality of life in Jasper National Park through effective environmental stewardship is a key priority. The committee provides a public perspective, leadership and constructive contributions to environmental stewardship initiatives.

Accountability reporting on the program is required within 60 days of the municipal year end of December 31. This report is prepared for both partners (the Municipality of Jasper and Parks Canada) and for the community of Jasper.

Early in 2009, the Environmental Stewardship Advisory Committee, in consultation with the Environmental Stewardship Coordinator, established the 2009 program priorities. Programming priorities were identified as follows and are detailed in the following report:

- Education and communication
- Waste reduction
- Public transportation

A financial statement for 2009 follows the report, attached as Appendix 1.

**Education and communication**

Ongoing work to educate and communicate stewardship programs to the community was identified as a priority by the ESAC. In an effort to raise the profile of Jasper’s stewardship programs and therefore increase participation, members of the committee and the Environmental Stewardship coordinator participated in the following public education and communication activities in 2009 (Table 1):

**Table 1**

Date	Event	Activity	Audience	Key message/impact
March 27	Earth Hour	“lights off” campaign and consumption monitoring by ATCO Electric	Entire community	<ul style="list-style-type: none"> <li>• build awareness of local energy consumption</li> <li>• encourage energy conservation</li> <li>• encourage awareness of global climate change campaigns</li> </ul>
April 14	Hotel Association bi-monthly meeting	Presentation of the 2008 Waste Audit	Jasper Hotel Association	<ul style="list-style-type: none"> <li>• presentation of 2008 waste audit</li> <li>• focus on current status of waste management in commercial facilities</li> <li>• recommendations on how to improve waste diversion at participating hotels</li> </ul>
April 22	Earth Day	“Pitch In Canada” community clean up	Jasper Elementary School Ecole Desrochers Jasper Jr/Sr High School	<ul style="list-style-type: none"> <li>• collected 198 lbs of waste in the community</li> </ul>
		School presentation	Grade 4 students from Jasper Elementary School	<ul style="list-style-type: none"> <li>• waste reduction</li> <li>• impacts of consumption and waste generation both locally and regionally</li> </ul>
May 30 to June 6	Environment Week	EnviroFair	Entire community (approximately 400 in attendance)	<ul style="list-style-type: none"> <li>• raise profile of Jasper’s environmental stewardship program including composting and recycling</li> <li>• native landscaping</li> <li>• green building technologies</li> <li>• endangered species awareness</li> <li>• Green cup hockey tournament</li> <li>• announcement of 2009 Biketown winners</li> </ul>
		Jasper Ski team spring gear swap	Entire community	<ul style="list-style-type: none"> <li>• reuse event for gently used sports equipment</li> </ul>
		Solar hot water heater open house	Community members interested in green technologies	<ul style="list-style-type: none"> <li>• demonstrate installation of solar hot water heater</li> <li>• opportunity to discuss technical aspects of installation</li> </ul>
		Environmental Stewardship Advisory Committee Awards	Winners of the 2009 ESAC awards, Municipal Council and the community	<ul style="list-style-type: none"> <li>• recognition of leadership in environmental stewardship by individuals, business and groups in our community</li> </ul>
		Wild Wacky Walking Wednesday	Jasper Elementary School Ecole Desrochers Jasper Jr/Sr High School	<ul style="list-style-type: none"> <li>• promote alternative modes of transportation</li> <li>• climate change and air quality awareness</li> </ul>
		Carbon Busting	Entire community	<ul style="list-style-type: none"> <li>• strategies to reduce your carbon output while saving money</li> </ul>
		Stewardship Day	Parks Canada and Municipality of Jasper employees (approximately 110 participants)	<ul style="list-style-type: none"> <li>• garbage clean up along main Jasper roadways</li> <li>• Stewardship project – installation of interpretive signs along the Discovery Trail</li> </ul>
		Take it or Leave it Event	Entire community	<ul style="list-style-type: none"> <li>• waste reduction with a focus on reuse</li> </ul>
		Toxic/EWaste Roundup	Entire community	<ul style="list-style-type: none"> <li>• waste reduction with a focus on recycling</li> </ul>
		Chaba Theatre screening of “EARTH”	Entire community	<ul style="list-style-type: none"> <li>• global awareness of how are actions and choices impact species all over the world</li> </ul>
June 9	New Employee Orientation	Booth and poster presentation	New community employees, primarily young adults	<ul style="list-style-type: none"> <li>• waste diversion programs in Jasper, specifically recycling and composting</li> <li>• locations of recycling and composting bins in Jasper</li> <li>• education on where our waste goes</li> </ul>

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<b>June 12</b>	Transfer Station tour		Grade 4 students from Jasper Elementary School	<ul style="list-style-type: none"> <li>• how the transfer station operates</li> <li>• environmental issues at the transfer station</li> <li>• waste reduction programs</li> </ul>
<b>June 17</b>	Federation of Canadian Municipalities webinar on waste audits	Presentation of 2008 waste audit	Municipal staff across Canada	<ul style="list-style-type: none"> <li>• scope of our waste audit and how it was defined</li> <li>• challenges and lessons learned for other municipalities</li> </ul>
<b>June 20</b>	Community Safety Fair	Booth and poster presentation	Entire community	<ul style="list-style-type: none"> <li>• safety of Jasper's municipal water supply</li> <li>• promotion of "Back to the tap" campaign</li> <li>• reduction of use of bottled water</li> </ul>
<b>July 1</b>	Canada Day Pancake breakfast	Toward Zero Waste Event	Entire community and visitors	<ul style="list-style-type: none"> <li>• strategies to minimize waste at public events</li> <li>• promotion of Toward Zero Waste Event Guidelines</li> </ul>
<b>August 20</b>	Jasper Fall Fair	Booth and poster presentation	Entire community	<ul style="list-style-type: none"> <li>• promotion of "low carbon diet" – how are food choices impact our carbon footprint</li> </ul>
<b>October 24</b>	Waste Reduction Week	Curbside Take it or Leave it Event Dinner and A Movie Event	Entire community Entire community	<ul style="list-style-type: none"> <li>• waste reduction with a focus on reuse</li> <li>• waste reduction programs in Jasper</li> <li>• screening of the movie "Garbage, the revolution starts at home"</li> </ul>
<b>October 30</b>	Transfer Station tour		Grade 4 students from Jasper Elementary School	<ul style="list-style-type: none"> <li>• how the transfer station operates</li> <li>• environmental issues at the transfer station</li> <li>• waste reduction programs</li> </ul>
<b>November 19</b>	Ride for the Planet	Lunch and learn with Jasper High School Action Team and Ecole Desrochers	Action team members Students from Ecole Desrochers	<ul style="list-style-type: none"> <li>• profile of the Ride for the Planet program</li> <li>• Jasper's GHG inventory and reduction strategies</li> </ul>



In addition to the above public engagement opportunities, key accomplishments to increase the profile of environmental stewardship programs within the community included:

- Development of the new environmental stewardship program pages on the municipal website (<http://jasper-alberta.com/default.aspx?pageid=361>).
- 16 media pieces profiling various aspects of Jasper's environmental stewardship program in *The Fitzhugh*.

- Paid advertising in *The Fitzhugh* of various environmental stewardship programs.
- Utility bill inserts in May, August and November profiling environmental stewardship programs.
- Development of key environmental stewardship messaging in the *2010 Mountain Guide*.
- Development of key environmental stewardship messaging in *The Fitzhugh* phone book.
- Development of key environmental stewardship messaging in *The Jasper map*.
- Development and distribution of the *2010 Jasper Waste Reduction and Recycling Calendar*.

## Waste Reduction

Waste reduction efforts within the community of Jasper have a foundation in the waste management philosophy of the 3Rs – reduce, reuse, recycle. This strategy, with the addition of composting, is used to work toward our strategic goal of 50% waste diversion. Solid waste diversion programs are funded through the municipal tax system, the commercial user pay system and from the sale of recyclable materials. Strategies used to help divert waste from the Hinton Regional Landfill include:

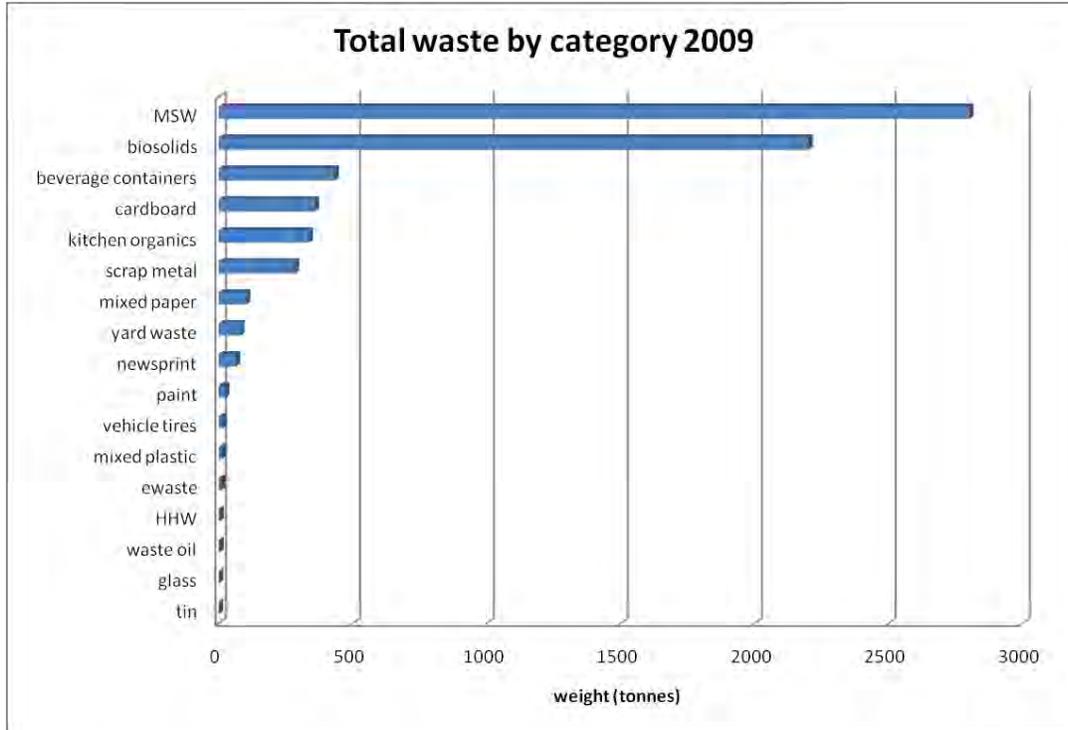
- recycling programs
- composting programs (kitchen organics, biosolids and yard waste)
- education and outreach programs
- product stewardship programs
  - refundables
  - household hazardous waste
  - Ewaste
  - paint
  - vehicle and bicycle tires
- other programs
  - Curbside take it or leave it
  - Christmas tree recycling
  - Promotion of Toward Zero Waste Event Guidelines



Through these programs the community of Jasper was able to achieve a waste diversion rate of 58% (including biosolids); or 38% (excluding biosolids) in 2009.

Table 2 identifies by category, solid waste generated by the community of Jasper during 2009.

Waste category	weight (tonnes)
tin	1.00
glass	1.80
waste oil	3.40
HHW	4.22
ewaste	10.58
mixed plastic	11.75
vehicle tires	15.87
paint	24.40
newsprint	64.67
yard waste	82.10
mixed paper	102.70
scrap metal	284.32
kitchen organics	335.97
cardboard	359.59
beverage containers	433.50
biosolids	2,202.00
MSW	2,802.27
<b>total</b>	<b>6,740.14</b>



By recycling and composting our waste rather than sending it to landfill, the community of Jasper saved 3,505 tonnes of greenhouse gas (GHG) emissions in 2009, the equivalent of removing 779 passenger cars off the road.

### **Toward Zero Waste Events**

2009 saw the development of Toward Zero Waste Event Guidelines for the community of Jasper. The guidelines, developed for event planners, will minimize waste going to landfill and increase the volume of material recycled and composted during special events in the community. Currently this is a voluntary program to encourage event planners to decrease their event's ecological footprint. Special events utilizing municipal facilities are encouraged to implement the guidelines. Wider promotion of the guidelines is planned for 2010. The following special events in 2009 followed the Toward Zero Waste Event Guidelines:

- Taste of the Town
- Chili Cook Off
- Canada Day Breakfast
- Jasper EnviroFair

### **Compost technology and site selection review**



Jasper's strategic plan for increasing waste diversion includes improving how we currently process our organic waste and increasing collection of organic waste throughout the community. To support future decisions regarding organics processing, a Request for Proposal process was initiated in 2009 to determine a) which processing technology is most appropriate for Jasper given our feedstock and local climate b) the preferred location for an organics processing facility and c) market opportunities for our finished compost. Contestoga-Rovers & Associates along with Sylvis Environmental Consulting were awarded the contract. The final report is due February 28, 2010. Construction and operation of the new organics processing facility is expected in 2011 and included in the 2011 capital budget.

Deployment of an additional 50 compost bins throughout the community is expected in 2010.

### **Public transportation**

The community of Jasper expressed a desire to see more opportunities developed under the umbrella of sustainable transportation. As such, in October 2007, a proposal was submitted to the Federation of Canadian Municipalities' (FCM) Green Municipal Fund for a public bike share project. The public bike share project, if successful, would see 6 docking stations and 160 bikes strategically placed throughout the



community (e.g. in the central business district, at Whistlers and Wapiti campgrounds, at the train station). Bikes would be available for transportation from point A to point B within the community thus allowing users to park their cars for the duration of their visit to Jasper. The bikes would also be available to local residents. The intent is for bikes to be used as an alternative, sustainable means of transportation, not for recreation. Use of the public bike share system will improve air quality in Jasper, lower our GHG emissions and reduce vehicle congestion in the downtown core.

Efforts were focused in 2009 to revise and modify this proposal to the satisfaction of FCM. A response from FCM is expected in early 2010 as to whether or not the proposal will be supported. In anticipation of a positive response, BIXI of Montreal (provider of the public bike system) is looking forward to working with the Municipality of Jasper on implementation of the program. Should the proposal be accepted, project launch is expected in 2011 and is included in the 2011 capital budget.

Completion of a Sustainable transportation plan is scheduled for 2010.

### **Additional work accomplished in 2009**

#### **Partners for Climate Protection program**



Municipal governments currently have direct or indirect control over approximately 44 per cent of GHG emissions in Canada. In 2006, this represented control over 315 megatonnes (Mt) of carbon dioxide equivalent (CO<sub>2</sub>e), of a national

718 Mt. As such, municipalities play a key role in helping Canada meet commitments for both significant and long-term GHG emission reductions.

Having joined the Partners for Climate Protection Program in 2006, the Municipality of Jasper completed Milestone One in 2009. This five milestone framework helps municipalities define and reduce their GHG emissions. Milestone One, the greenhouse gas inventory, details the total emissions produced by buildings; transportation; water and wastewater facilities; and solid waste, for both municipal operations and the community for the baseline year of 2005.

The GHG inventory for the community of Jasper was found to be a realistic profile of emissions. The inventory is the first step toward reducing GHG emissions in the community of Jasper.

Table 3 illustrates the emissions generated by both municipal operations and the community as identified through the Milestone One framework.

**Table 3 Emissions Summary (for the baseline year 2005)**

<b>Emissions Source</b>	<b>Total CO<sub>2</sub>e (t)</b>
<b>Municipal Operations Inventory</b>	<b>4,597</b>
Buildings	2,691
Vehicle Fleet	187
Outdoor Lights	261
Water & Sewage	1,458
<b>Community Inventory</b>	<b>159,079</b>
Buildings	72,241
Transportation	85,302
Solid Waste	1,536
<b>Total</b>	<b>163,676</b>

The full inventory is available by request. Data will be used to move forward in 2010 with Milestone Two, establishing an emissions reduction target for the community. A brief look at Table 3 identifies where the bulk the community's emissions are generated and where we should focus our strategies for reduction in the future. For municipal operations, GHG reduction strategies should focus on buildings; for the community, efforts should focus on reducing GHG emissions associated with transportation.

#### **Sustainable building strategy**

In 2009 Jasper Municipal Town Council recognized the limitations of the existing Offsite Levy By-law to encourage green building in the community and requested investigation of alternative incentive programs. Development of a Request for Direction to address this issue will continue in 2010. The Request for Direction will present various incentives, by-laws, rebate programs and tax credits used by other communities to promote sustainable building practices. Municipal Council will decide which of the various programs is most appropriate for Jasper and a strategy will be developed by the Environmental Stewardship Coordinator and Director of Corporate and Legislative Services.

#### **Issues analysis and policy development**

The Environmental Stewardship Coordinator and the ESA committee reviewed several important issues during 2009 and in response prepared reports and/or comments on the following:

- Environmental Statement on single use bottled water
- Position paper on proposed revisions to the Municipality of Jasper's herbicide policy
- Toward Zero Waste Event Guidelines
- The Jasper Community Sustainability Planning Process
- Activity Centre renovations – consultation on LEED (Leadership in Energy and Environmental Design) and sustainable design
- Library renovations – consultation on LEED (Leadership in Energy and Environmental Design) and sustainable design
- Proposed changes to Jasper transfer station operations

### **Compost credit aggregation**

In May 2009 the Municipality of Jasper was approached to aggregate and sell their compost tonnages with several other municipalities under Alberta Environment's climate change regulatory framework. Both Municipal Council and the ESA committee reviewed this opportunity and considered the implications of Jasper's participation. Jasper Municipal Council approved of aggregation at the January 12, 2010 municipal council meeting. Aggregation, verification and submission of credits to Alberta Environment will continue in 2010 and the Environmental Stewardship Coordinator will continue to participate in stakeholder consultations to revise the legislation.

### **Professional development**

The Environmental Stewardship Coordinator participated in the following professional development opportunities in 2009:

- International Society of Sustainability Professional GHG inventory course, Jasper AB (June 2009)
- Federation of Canadian Municipalities webinar on sustainable transportation, Jasper AB (June 2009)
- Composting Council of Canada Annual Conference, Vancouver BC (September 2009)
- Recycling Council of Alberta Conference, Calgary AB (also attended by an ESA committee member) (October 2009)

## Appendix 1: Financial statement

<i>Environmental 2009 Services</i>		<b>ACTUAL</b>	<b>BUDGET</b>
<b>Stewardship</b>			
1-44-03-00-410	EnvSer-Sales Enviro Week (Rain Barrels, etc.)	(195)	-
1-44-03-00-415	EnvSer-Sales/Recoveries Compostable Foodware	(20)	-
1-44-03-00-830	EnvSer-Recy Fed.Cond Grant	(69,000)	(69,000)
1-44-03-00-593	EnvSer-Recy-Stewardship Other Revenue	(250)	-
1-44-03-00-920	Transfer From Reserve	-	-
<b>Total Revenue</b>		<b>-69,465</b>	<b>(69,000)</b>
2-44-03-00-110	EnvSer-Recy-Salaries	55,975	55,000
2-44-03-00-130	EnvSer-Recy-Benefits	9,775	11,550
2-44-03-00-201	EnvSer-Recy-Contracted & General Services	2,310	38,000
2-44-03-00-210	EnvSer-Recy-Travel & Subsistence	2,713	4,000
2-44-03-00-211	EnvSer-Recy-Postage Costs	423	-
2-44-03-00-215	EnvSer-Recy-Travel & Subsistence Committee Members	508	500
2-44-03-00-212	EnvSer-Recy-Telephone/Fax/Web/Internet Costs	37	-
2-44-03-00-214	EnvSer-Recy-Training & Development	1,529	1,000
2-44-03-00-220	EnvSer-Recy-Advertising Costs	7,597	11,000
2-44-03-00-225	EnvSer-Recy-Advertising Committee Members	-	235
2-44-03-00-230	EnvSer-Recy-Contract Toxic Round-Up	-	2,000
2-44-03-00-231	EnvSer-Recy-Contract Env Stewardship Prog	2,242	-
2-44-03-00-252	EnvSer-Recy-Contract Mtn & Rep Computers	509	500
2-44-03-00-501	EnvSer-Recy-Materials, Goods & Supplies	6,692	1,000
2-44-03-00-515	EnvSer-Recy-Supplies Env Stewardship Prog	1,710	5,000
2-44-03-00-516	EnvSer-Recy-Supplies Enviroment Week	527	500
2-44-03-00-517	Supplies-Toxic Roundup	-	-
2-44-03-00-518	Supplies-Printing Costs	-	-
2-44-03-00-525	EnvSer-Recy-Supplies Committe Member Programs	14	500
2-44-03-00-762	EnvSer-Transfer to Reserves	38,762	-
2-44-03-00-832	Debenture Principal-Solar	-	-
2-44-03-00-910	EnvSer-Recy-Rebate Solar Hot Water Heater	1,000	-
2-44-03-00-962	EnvSer-Recy-Reallocation of Enviro Bldg Expenses	3,742	5,700
2-44-03-00-964	EnvSer-Recy-Reallocation of Enviro Bldg Utilities	2,401	1,600
2-44-03-00-965	EnvSer-Recy-Internal Equip Rental Costs	-	-
<b>Total Expenses</b>		<b>138,465</b>	<b>138,085</b>
<b>Net expenditure</b>		<b>69,000</b>	<b>69,085</b>
<b>Revenue Summary</b>		<b>(69,465)</b>	<b>(69,000)</b>
<b>Expenses Summary</b>		<b>138,465</b>	<b>138,085</b>
<b>Net operating expenditure</b>		<b>69,000</b>	<b>69,085</b>