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The 2009 Statistics on the International Movements of Hazardous Waste and Hazardous Recyclable Material

Waste Reduction and Management Division
Environment Canada

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Canada 

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General Information

In Canada, the management of hazardous waste and hazardous recyclable material is a shared responsibility between all levels of government. The Government of Canada is responsible for regulating the international movements of hazardous waste and hazardous recyclable material.

International agreements play a key role in responding to environmental issues in Canada and abroad. Implementing the terms of these agreements demonstrates the intention to protect Canada's environment and the health of Canadians from risk posed by the unregulated traffic of hazardous waste and hazardous recyclable material. Canada is party to three international agreements on the transboundary movements of hazardous waste, which are: the United Nations *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, the Organization for Cooperation and Economic Development (OECD) *Decision of Council on the Control of Transfrontier Movements of Wastes Destined for Recovery Operations*, and the *Canada - USA Agreement on the Transboundary Movement of Hazardous Waste*.

In order to implement the terms of these international agreements, Canada relies on regulations made under the authority of *the Canadian Environmental Protection Act, 1999*. In 1992, regulations were introduced to control and track movements of hazardous waste. In 2005, Canada improved and reinforced its former control regime by adopting the *Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations* (EIHWRMR).

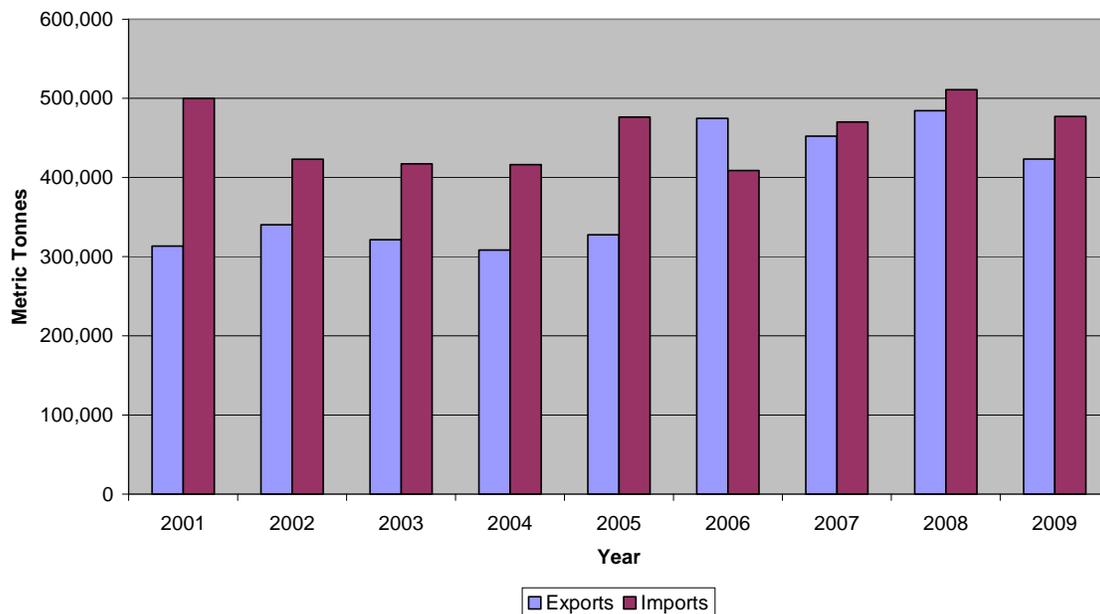
The EIHWRMR regulate international movements of hazardous waste and hazardous recyclable material out of, into, and through Canada. The statistics presented below show the status of imports, exports and transits for the year 2009. They also present information on the type of operation to be conducted on the hazardous waste or hazardous recyclable material following the import, export or transit. The disposal and recycling operations used in this document are listed in Schedules 1 and 2 of the EIHWRMR.

The 2009 Statistics on the International Movements of Hazardous Waste and Hazardous Recyclable Material

In 2009, the total quantities of hazardous waste and hazardous recyclable material imported into and exported from Canada decreased from the previous year (Figure 1).

Figure 1:

Exports and Imports of Hazardous Waste and Hazardous Recyclable Material 2001-2009

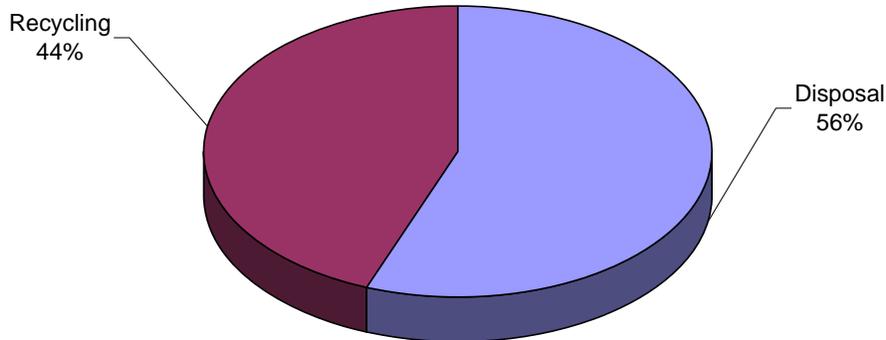


1. Imports

The total imported quantity of hazardous waste and hazardous recyclable material decreased by almost 7%, from approximately 510,951 metric tonnes in 2008 to 477,088 metric tonnes in 2009 (Figure 1). Of the total imported quantity, 44% was hazardous recyclable material destined for recycling, while the remaining 56% was hazardous waste destined for disposal (Figure 2).

Figure 2:

Type of Operation for 2009 Canadian Imports of Hazardous Waste and Hazardous Recyclable Material



More than 99% of the imported quantity of hazardous waste and hazardous recyclable material came from the United States. A significant fraction of the remaining imports came from Great Britain, France, Italy and Norway as hazardous recyclable material destined for metal recovery operations.

Import shipments from other countries destined for recycling may contribute to reducing our reliance on primary resources and may benefit the Canadian industry. Spent or used lead acid batteries, lubricating oils, and metal and mineral wastes made up the majority of the hazardous recyclable material imported in 2009. Other types of hazardous waste and hazardous recyclable material imported in 2009 included used oil and oil by-products, corrosive liquids and other environmentally hazardous substances.

The majority of imports of hazardous waste destined for disposal were sent to specially engineered landfills (49%), underwent physical or chemical treatment (29%) or were incinerated on land (18%) (Figure 3). As for the hazardous recyclable materials imported in 2009, the majority were destined for recovery of metals and metal compounds (58%) and the refining or re-use for used oil (29%) (Figure 4).

Figure 3:

2009 Canadian Imports of Hazardous Waste by Disposal Operation

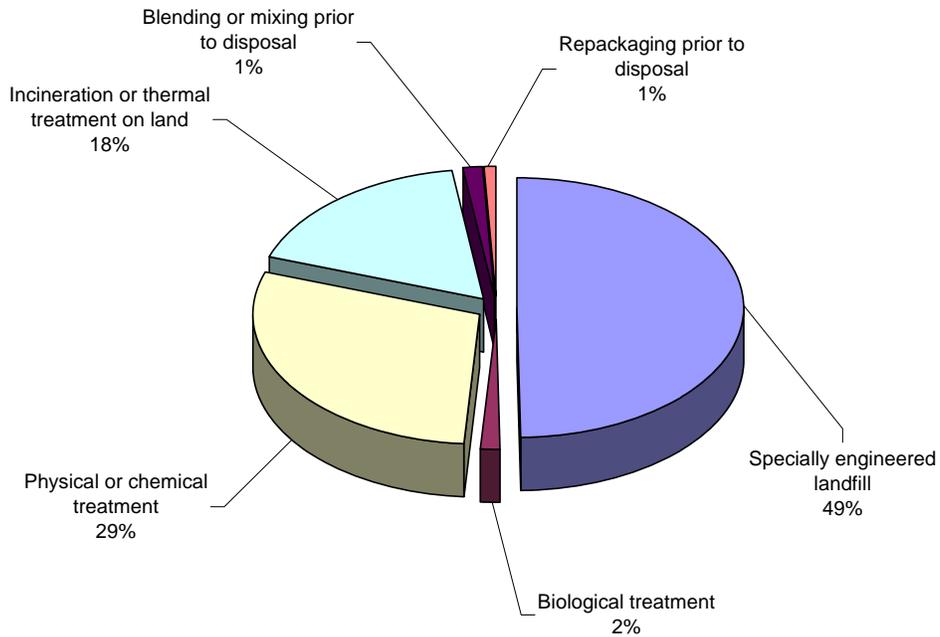
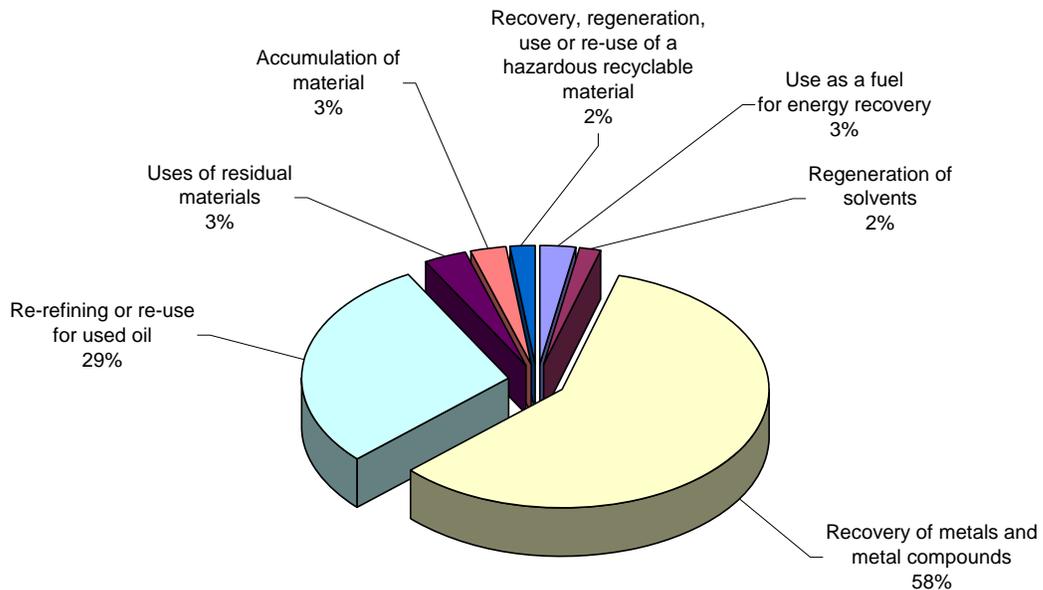


Figure 4:

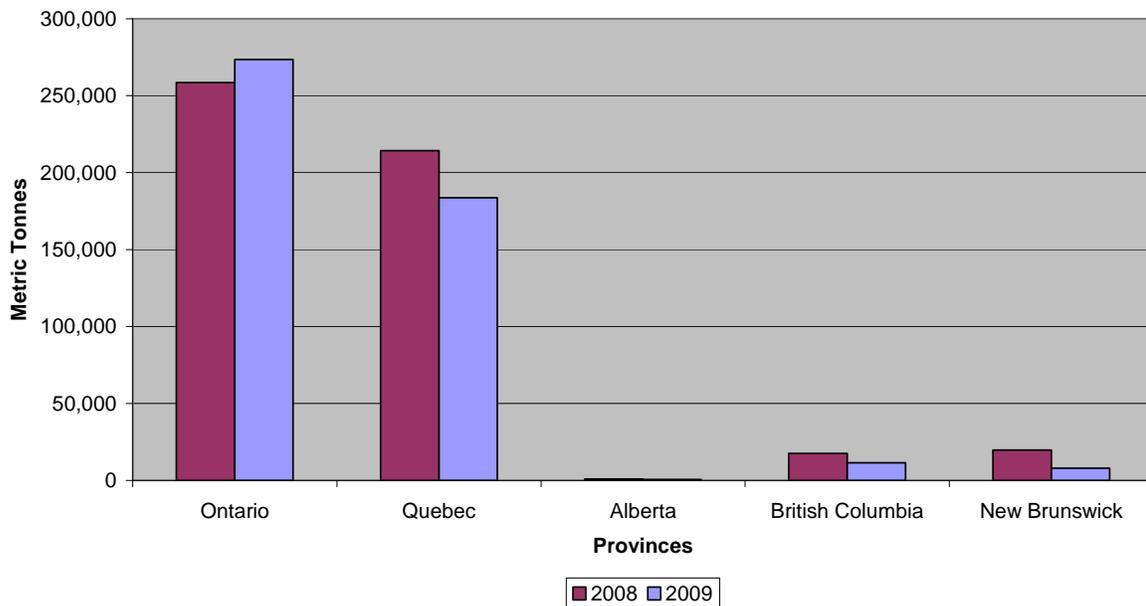
2009 Canadian Imports of Hazardous Recyclable Material by Recycling Operation



In 2009, Canadian imports of hazardous waste and hazardous recyclable material were destined to five Canadian provinces, with Ontario and Quebec receiving 68% of all imports into Canada. The other three provinces that received imports of hazardous waste and hazardous recyclable material were Alberta, British Columbia, and New Brunswick. No international imports of hazardous waste or hazardous recyclable material were made into any of the territories or other provinces (Figure 5).

Figure 5:

Comparison of 2008/2009 Canadian Imports of Hazardous Waste and Hazardous Recyclable Material by Province

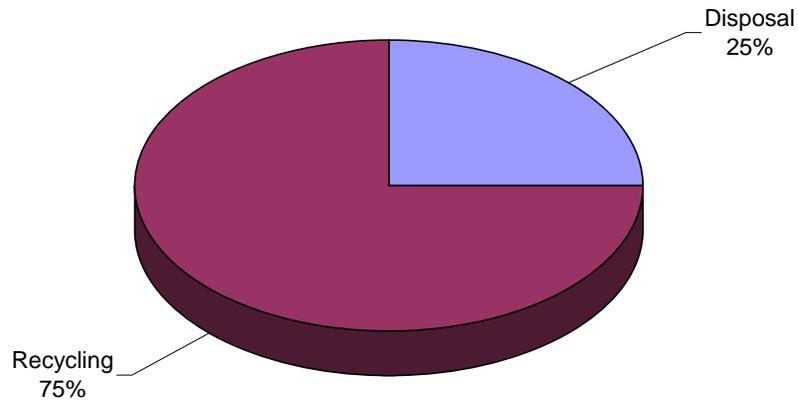


2. Exports

The quantity of hazardous waste and hazardous recyclable material exported from Canada decreased by almost 13%, from 484,170 tonnes in 2008 to 423,254 tonnes in 2009 (Figure 1). The bulk of these shipments were managed by facilities in the Northeastern and Central United States. Of the total quantity exported in 2009, three quarters were destined for recycling while the remaining quarter was destined for disposal (Figure 6). Exports destined for recycling dropped 1%, while those destined for disposal increased by 1%.

Figure 6:

**Type of Operation for 2009 Canadian Exports
of Hazardous Waste and Hazardous
Recyclable Material**



Spent or used lead acid batteries, metal and mineral wastes, and acidic or basic corrosive liquids made up the majority of the exports in 2009. Other types of hazardous waste and hazardous recyclable material exported from Canada included used oil and its by-products, as well as organic solvents.

The majority of exports of hazardous waste destined for disposal underwent physical or chemical treatment (64%) or blending or mixing prior to their final disposal (15%) (Figure 7). As for the hazardous recyclable materials exported in 2009, the majority were sent in order to regenerate acids or bases (35%), to be used as fuel in an energy recovery system (26%), or to recover metals and metal compounds (24%) (Figure 8).

Figure 7:

2009 Canadian Exports of Hazardous Waste by Disposal Operation

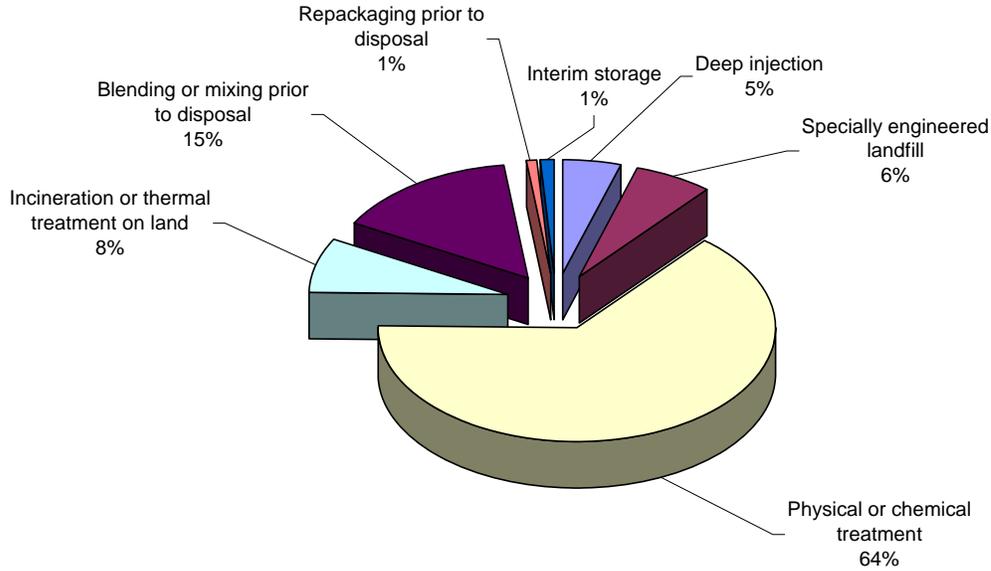
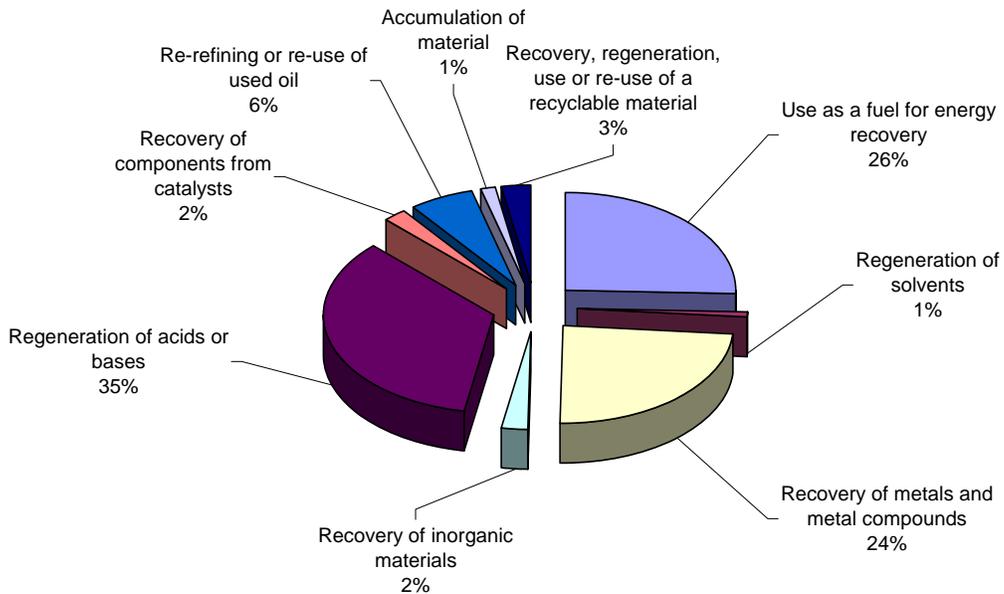


Figure 8:

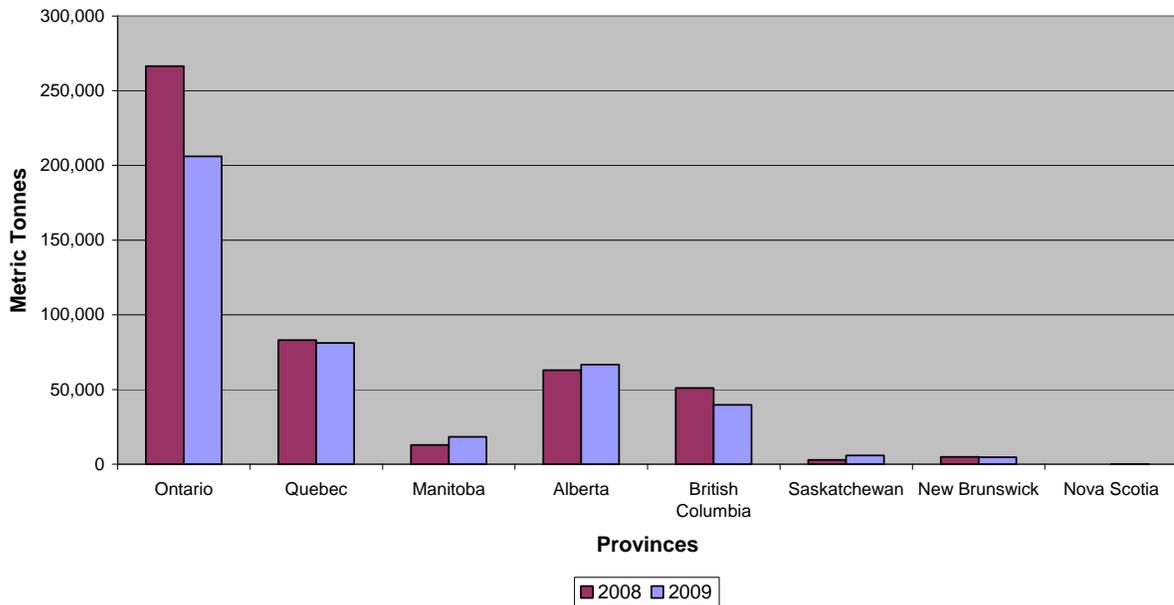
2009 Canadian Exports of Hazardous Recyclable Material by Recycling Operation



In 2009, exports of hazardous waste and hazardous recyclable material originated from eight provinces, with Ontario and Quebec accounting for 68 % of the total quantity (Figure 9). The decline in the quantity of hazardous waste and hazardous recyclable material exported was most visible in Ontario, which saw a reduction of almost 23% from the previous year. Newfoundland, Prince Edward Island and the three territories did not export any hazardous waste or hazardous recyclable material at an international level.

Figure 9:

Comparison of 2008/2009 Canadian Exports of Hazardous Waste and Hazardous Recyclable Material by Province



3. Transits

In 2009, the quantity of hazardous waste and hazardous recyclable material that transited through Canada was 25,197 metric tonnes. Of total quantity transited, over 99% were destined for disposal, with the remaining 0.4% destined for recycling (Figure 10). The majority of hazardous waste that was conveyed in transit through Canada were corrosive liquids destined for disposal by incineration on land (Figure 11). The majority of hazardous recyclable material that were conveyed in transit through Canada were destined to be used as fuel in an energy recovery system (Figure 12). Most transits through Canada occurred between US states that needed or wanted to travel through the country.

Figure 10:

Type of Operation for 2009 Transits of Hazardous Waste and Hazardous Recyclable Material

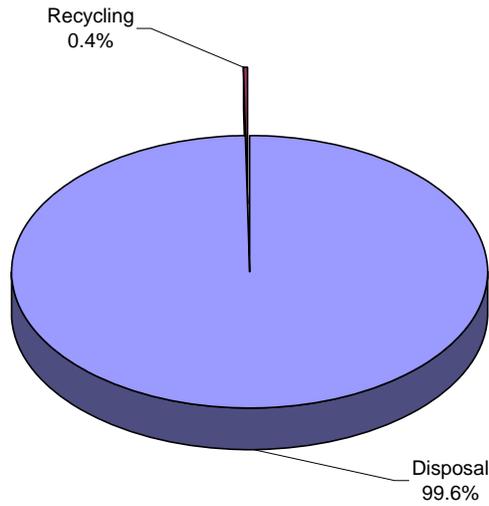


Figure 11:

2009 Transits of Hazardous Waste by Disposal Operation

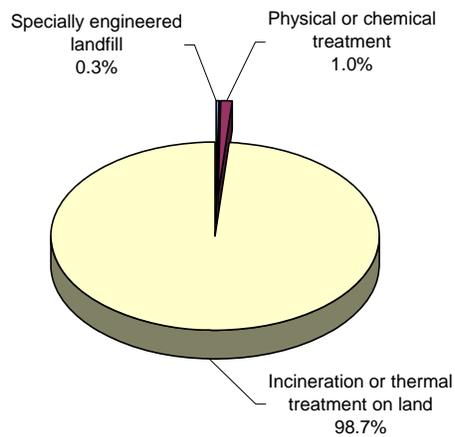
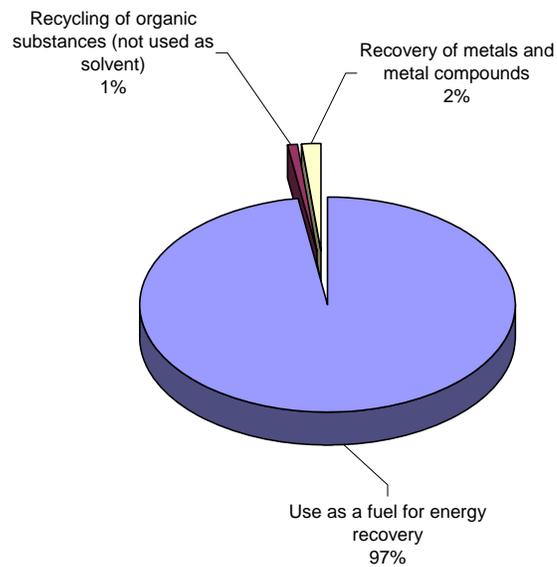


Figure 12:

2009 Transits of Hazardous Recyclable Material by Recycling Operation



For more information, please visit the Environment Canada's Pollution and Waste website at <http://www.ec.gc.ca/gdd-mw/> or contact:

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