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2013 Statistics on the International Movements of Hazardous Waste and Hazardous Recyclable Material

Waste Reduction and Management Division
Environment 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. 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 Organisation for Economic Co-operation and Development Decision of Council on the Control of Transfrontier Movements of Wastes Destined for Recovery Operations, and the Canada–U.S. Agreement Concerning 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).

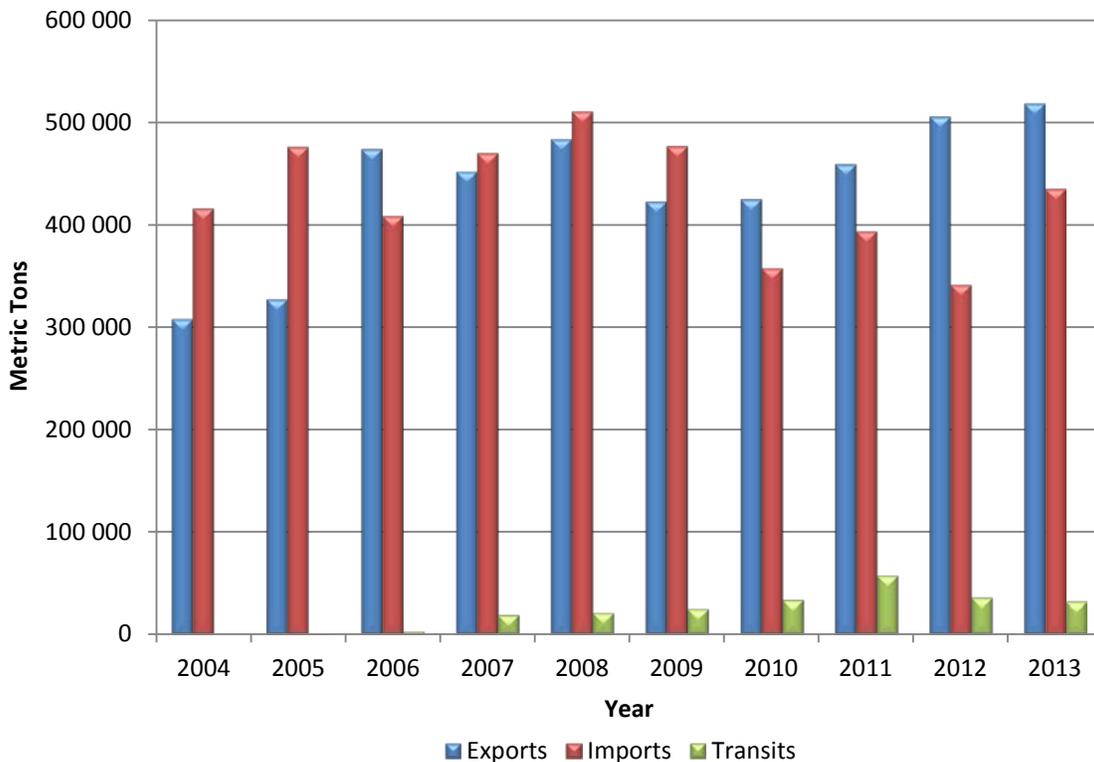
The EIHWRMR regulate international movements of hazardous waste and hazardous recyclable material out of, into and through Canada. The statistics presented below show the status of imports, exports and transits for the year 2013.¹ They also present information on the type of operation to be conducted on the hazardous waste or hazardous recyclable material following the import, export or transit. The disposal and recycling operations described in this document are listed in Schedules 1 and 2 of the EIHWRMR.

¹ Please note that data are revised periodically as new information becomes available. Therefore, information presented here may differ from information published in other reports.

2013 Statistics on the International Movements of Hazardous Waste and Hazardous Recyclable Material

The total quantity of hazardous waste and hazardous recyclable material exported from Canada has been increasing since 2009 (Figure 1). While the annual quantity of imports has varied over the past five years, the total quantity of hazardous waste and hazardous recyclable material imported into Canada in 2013 increased significantly from the quantity imported in 2012. The total quantity of hazardous waste and hazardous recyclable material transiting through Canada in 2013 has remained stable compared with 2012.

Figure 1: Exports, Imports and Transits of Hazardous Waste and Hazardous Recyclable Material 2004–2013

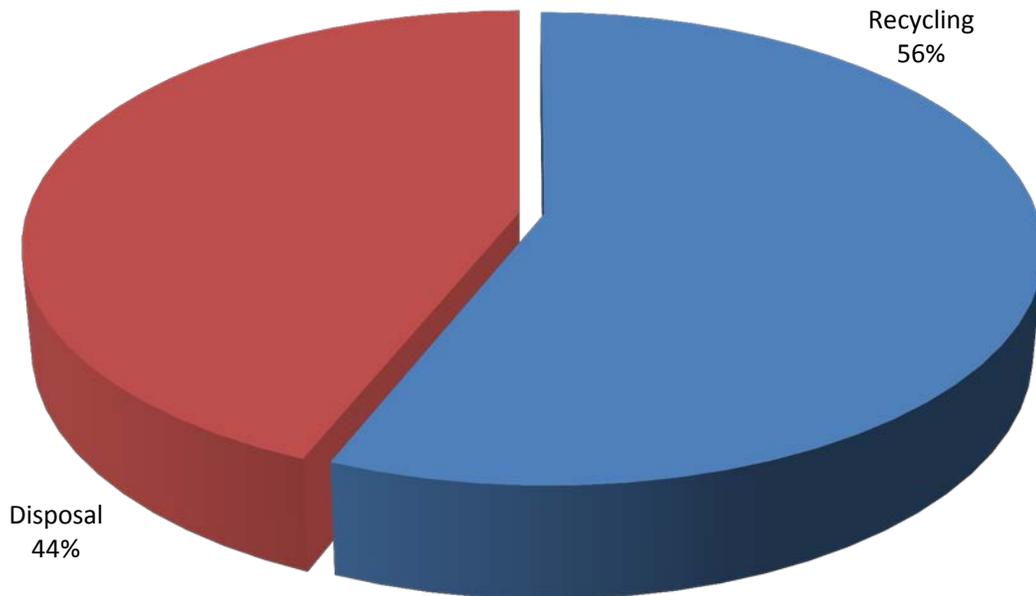


1. Imports

The total quantity of hazardous waste and hazardous recyclable material imported into Canada increased by 27%, from approximately 341 900 metric tons in 2012 to approximately 435 300 metric tons in 2013 (Figure 1).

Of the total quantity of hazardous waste and hazardous recyclable material imported in 2013, 44% was hazardous waste destined for disposal and 56% was hazardous recyclable material destined for recycling (Figure 2). In 2012, the proportions were 30% and 70% respectively.

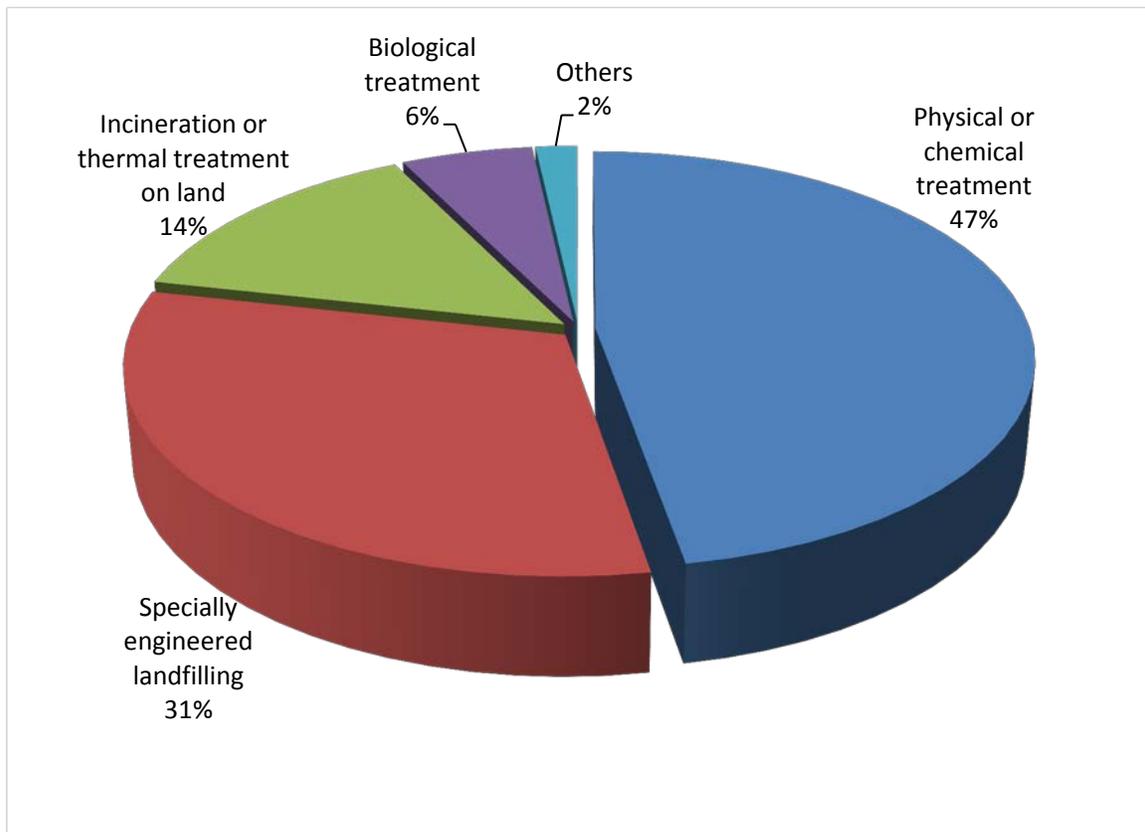
Figure 2: Type of Operation for 2013 Canadian Imports of Hazardous Waste and Hazardous Recyclable Material



Hazardous waste imported for disposal in 2013 included waste that contained metals, organic solvents and waste that contained inorganic cyanides.

Imports of hazardous waste destined for disposal either underwent physical or chemical treatment (47%), were sent to specially engineered landfills (31%), were incinerated or thermally treated on land (14%), or underwent biological treatment (6%) (Figure 3). The remaining 2% included interim operations such as blending or mixing, repackaging and temporary storage, most of the time followed by incineration or thermal treatment on land as final operation.

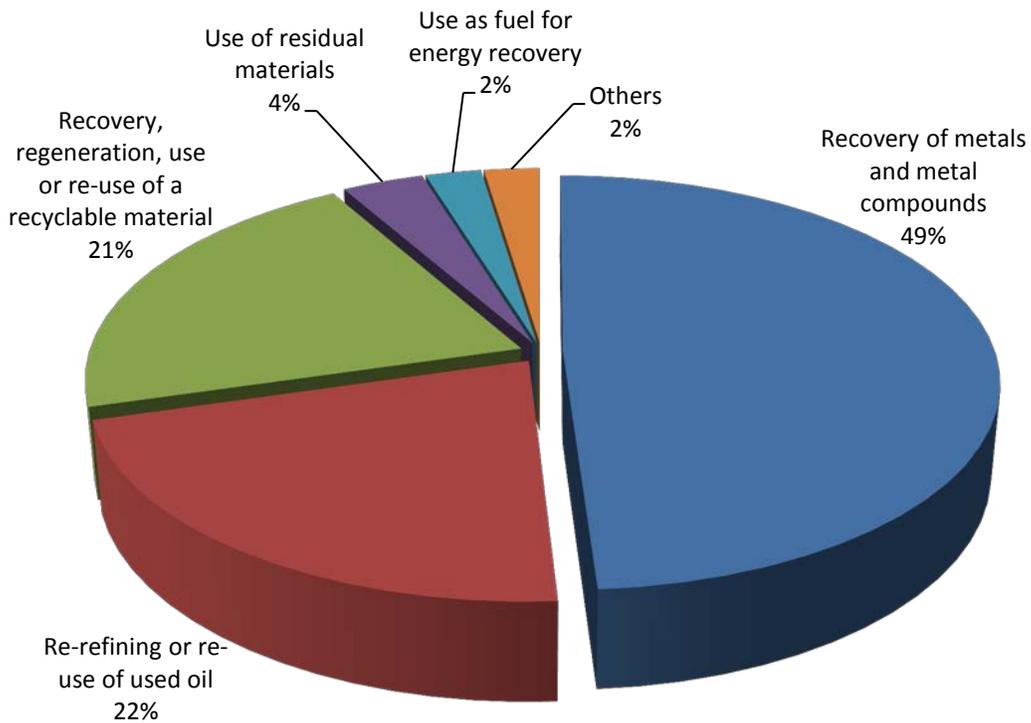
Figure 3: 2013 Canadian Imports of Hazardous Waste by Disposal Operation



Hazardous recyclable material imported in 2013 included mostly lead-acid batteries, hydraulic fluids, waste liquors from the pickling of metals and waste having heavy metal constituents.

Hazardous recyclable material imported in 2013 was destined for various recovery operations such as recovery of metals and metal compounds (49%), re-refining or re-use of used oil (22%) or recovery of a recyclable material (21%) (Figure 4).

Figure 4: 2013 Canadian Imports of Hazardous Recyclable Material by Recycling Operation

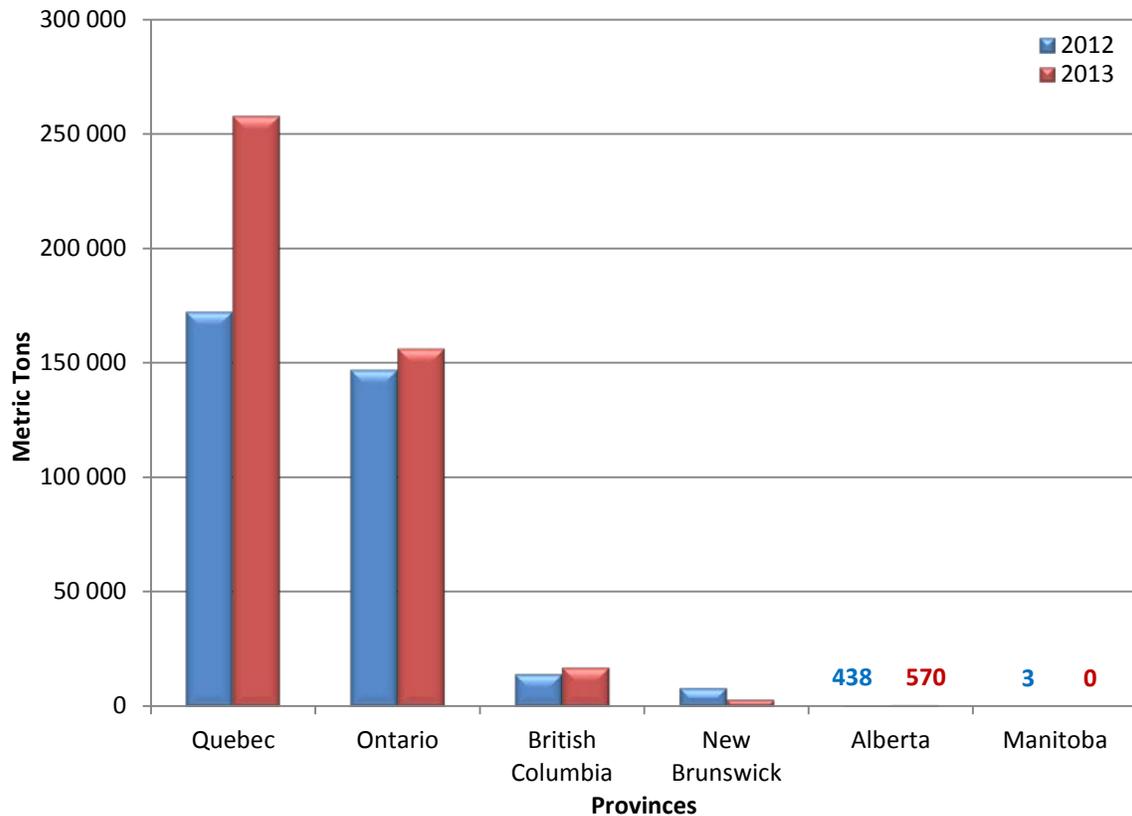


Similar to 2012, more than 99% of the hazardous waste and hazardous recyclable material imported into Canada in 2013 originated from the United States. The majority of the remaining imports came from Nigeria, France and the United Kingdom.

Those imports were destined to five Canadian provinces, with Quebec and Ontario receiving 95% of them. Imports made into Quebec increased by 50% over the last year.

The other three provinces that received imports of hazardous waste and hazardous recyclable material were British Columbia, New Brunswick and, to a lesser extent, Alberta. As opposed to 2012, no imports were received in Manitoba in 2013. No imports of hazardous waste or hazardous recyclable material were made into any of the territories or other provinces (Figure 5).

Figure 5: Comparison of 2012–2013 Canadian Imports of Hazardous Waste and Hazardous Recyclable Material by Province

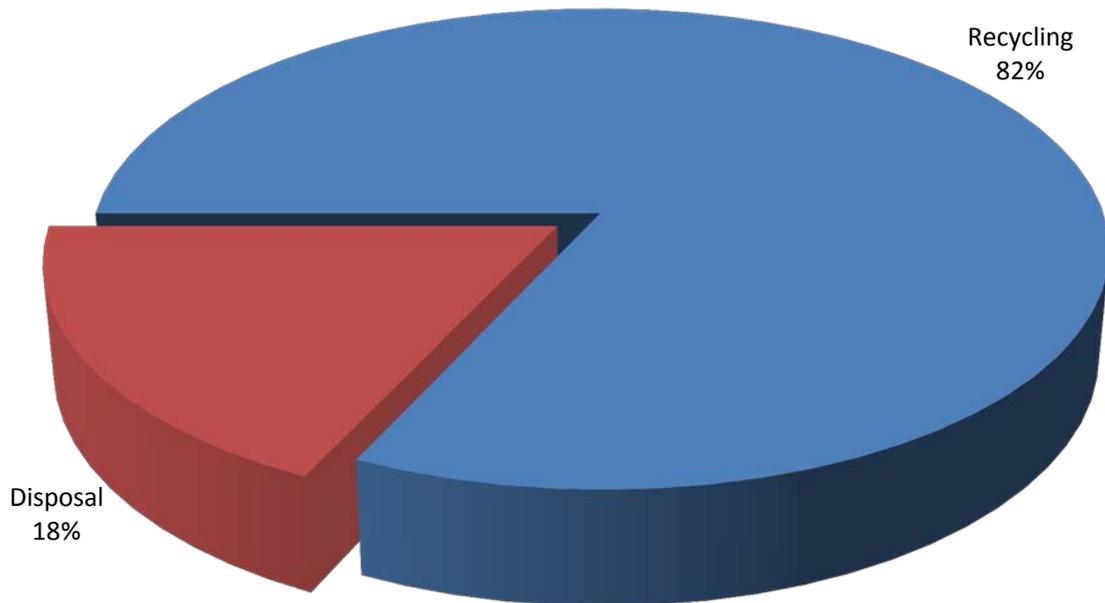


2. Exports

The quantity of hazardous waste and hazardous recyclable material exported from Canada increased by 3%, from approximately 506 300 metric tons in 2012 to approximately 519 100 metric tons in 2013 (Figure 1).

The proportion of hazardous waste and hazardous recyclable material exported in 2013 for disposal and for recycling remained stable from 2012 at 18% and 82% respectively (Figure 6).

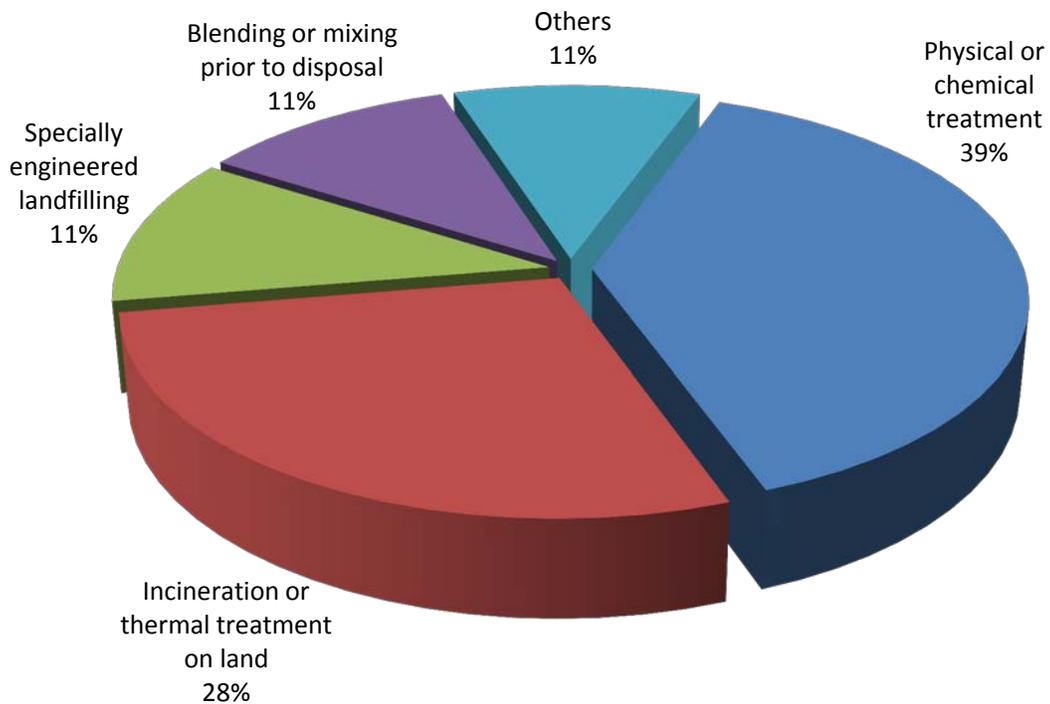
Figure 6: Type of Operation for 2013 Canadian Exports of Hazardous Waste and Hazardous Recyclable Material



Hazardous waste exported for disposal in 2013 included waste acidic and basic solutions, waste oil/water and hydrocarbon/water mixtures, residues from industrial processes, spent aluminum potliners contaminated by cyanide and fluoride, and waste having lead and cadmium as constituents.

The majority of exports of hazardous waste destined for disposal underwent physical or chemical treatment (39%), were incinerated or followed a thermal treatment (28%), were disposed in specially engineered landfill (11%), or were blended or mixed prior to their final disposal (11%) (Figure 7). The remaining 11% included waste that was deeply injected in soil (10%) and waste that was repacked or temporarily stored prior to disposal. Among waste that underwent an interim operation, the majority was finally released into or onto land.

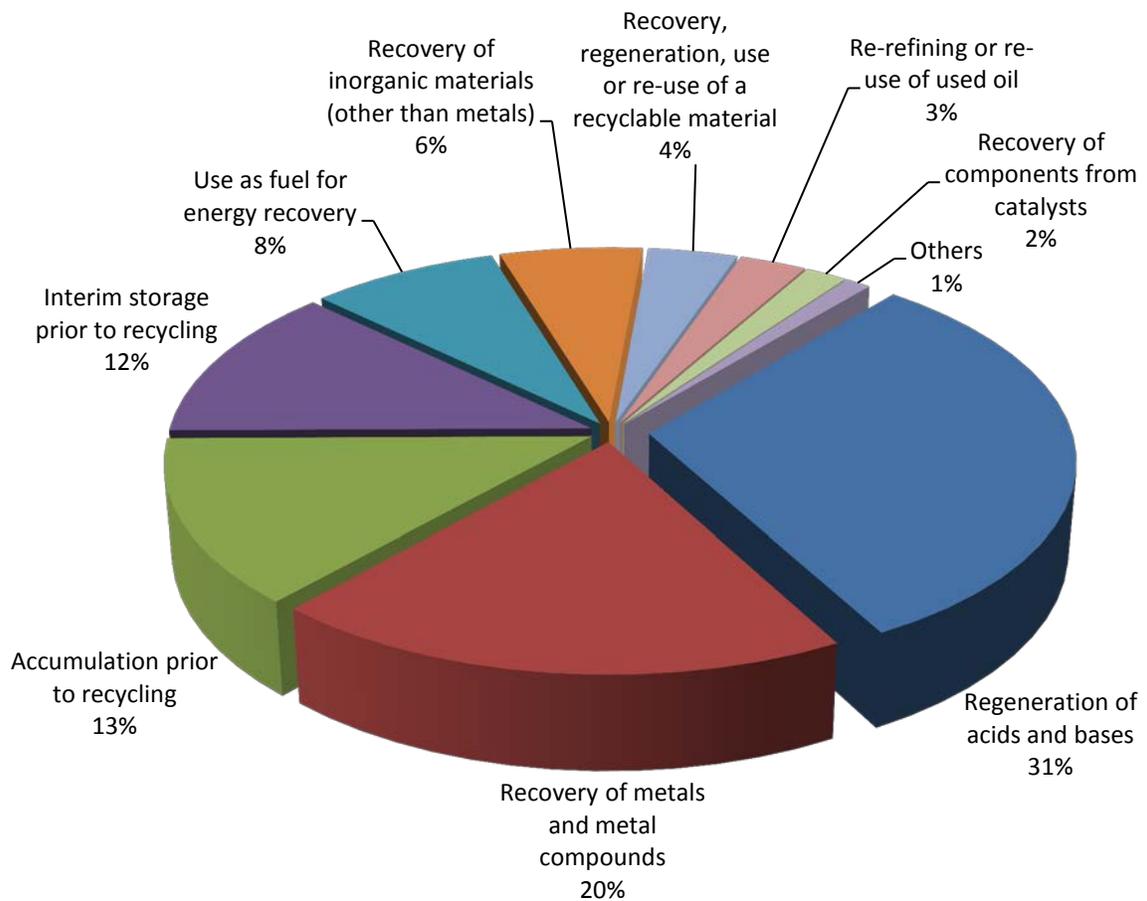
Figure 7: 2013 Canadian Exports of Hazardous Waste by Disposal Operation



Hazardous recyclable material exported in 2013 was mostly spent sulfuric acid, railway ties, waste oil/water and hydrocarbon/water mixtures, lead-acid batteries and spent aluminum potliners contaminated by inorganic fluoride and cyanide.

The majority of hazardous recyclable material exported in 2013 was sent in order to regenerate acids and bases (31%), to recover metals and metal compounds (20%), or for interim operations such as accumulation (13%) and temporary storage (12%) prior to recycling (Figure 8). Among materials that were accumulated or stored, the majority were finally used as fuel in energy recovery systems.

Figure 8: 2013 Canadian Exports of Hazardous Recyclable Material by Recycling Operation

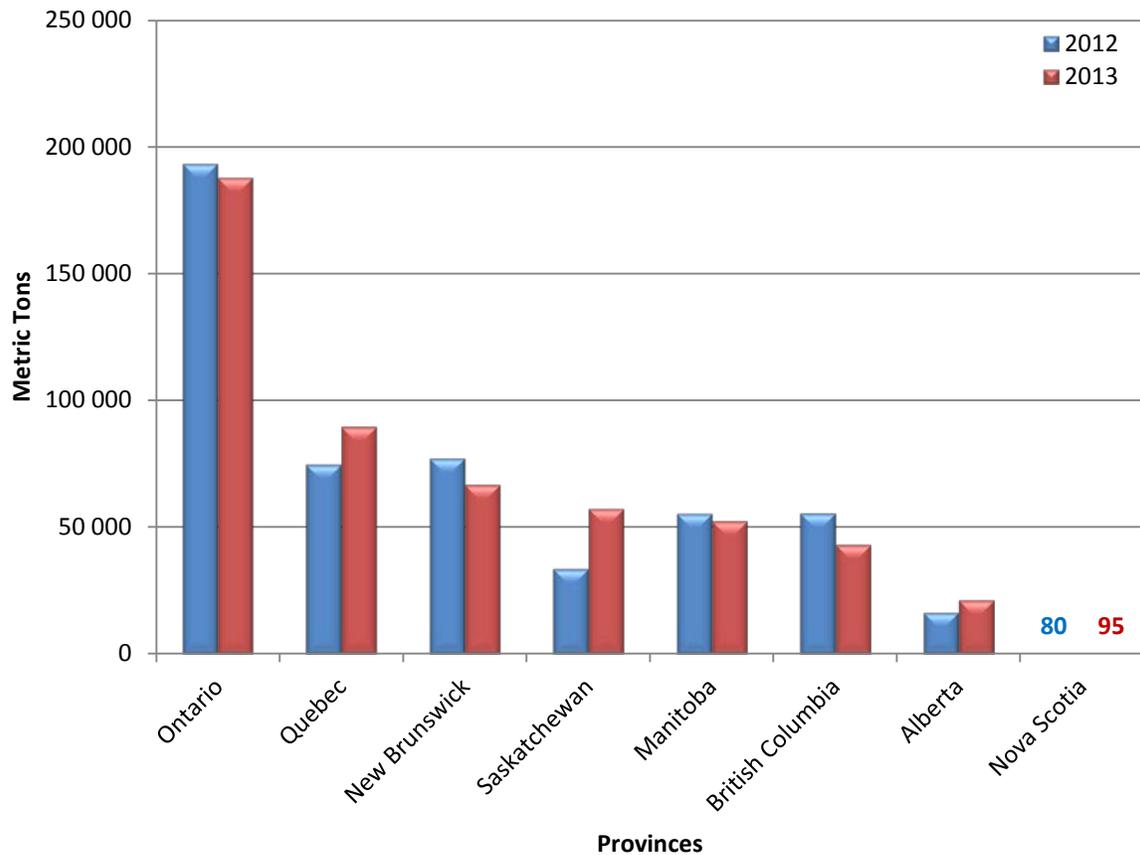


Similar to 2012, 98% of the exports of hazardous waste and hazardous recyclable material made in 2013 were intended for the United States. The remaining hazardous waste and hazardous recyclable material were exported to Germany, Belgium, Republic of Korea and Mexico.

Those exports originated from eight provinces, with Ontario accounting for 36% of the total quantity. Over the last year, exports from Saskatchewan and Quebec increased by 71% and 20% respectively.

No exports of hazardous waste or hazardous recyclable material were made from Prince Edward Island, Newfoundland and Labrador or any of the territories (Figure 9).

Figure 9: Comparison of 2012–2013 Canadian Exports of Hazardous Waste and Hazardous Recyclable Material by Province



3. Transits

In 2013, all transits through Canada were shipments between U.S. states. The quantity of hazardous waste and hazardous recyclable material that transited through Canada was approximately 32 000 metric tons. This is a decrease of 10% from 2012 (Figure 1).

Of all hazardous waste and hazardous recyclable material that transited through Canada in 2013, 98% was destined for disposal while the remaining 2% was recycled.

More than 99% of hazardous waste that transited through Canada in 2013 was waste from the production, formulation, and use of biocides and phytopharmaceuticals that underwent incineration or thermal treatment on land.

The majority (99%) of 2013 transits were shipments between New York State and the State of Michigan. The remaining were shipments from Alaska with a northwestern state as destination.

For more information, please visit [Environment Canada's Pollution and Waste website](#) or contact:

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