



Waste Paper Recycling in Canada

Paper and paper products account for more than one third of the materials discarded into Canada's municipal waste stream. Today, it is widely recognized that the volume of paper products we discard must be dramatically reduced — and soon. Not only are many communities facing a critical shortage of landfill space, but the sustainability of the forest resource is also a concern.

One obvious way to reduce the amount of paper waste being discarded, and to conserve our forest resources, is to recycle more of our waste paper. It is estimated that less than one quarter of the 6 million tonnes of paper and paperboard used annually in Canada is recycled.

Of course, not all the paper we use can be recycled: approximately 20 percent is unavailable for recycling, for a number of reasons. Some is destroyed through fire or permanently conserved (e.g. as books, roofing materials, etc.), and some is so severely contaminated that recycling is impossible or impractical. However, a substantial proportion of the millions of tonnes of paper products entering Canada's waste stream every year could be recycled.

Waste management is everyone's responsibility: we all have a role to play in encouraging the recycling of waste paper and the reduction of waste in general. By changing our habits and attitudes, at home and at work, Canadians can substantially reduce the amount of waste paper that is simply thrown away.

Goal of 50% Waste Reduction

In April 1989, the then Canadian Council of Resource and Environment Ministers — now the Canadian Council of Ministers of the Environment — agreed that targets and schedules for waste minimization be established including a fifty percent (50%) reduction in waste generation by the year 2000.

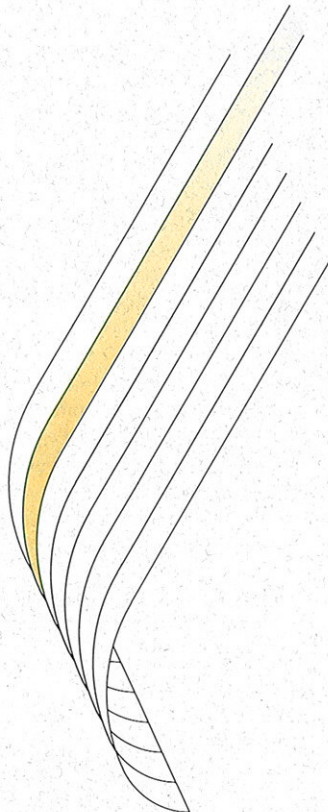
Increasing the recycling of waste paper is one way to help meet this ambitious goal.

The 4Rs of Waste Management

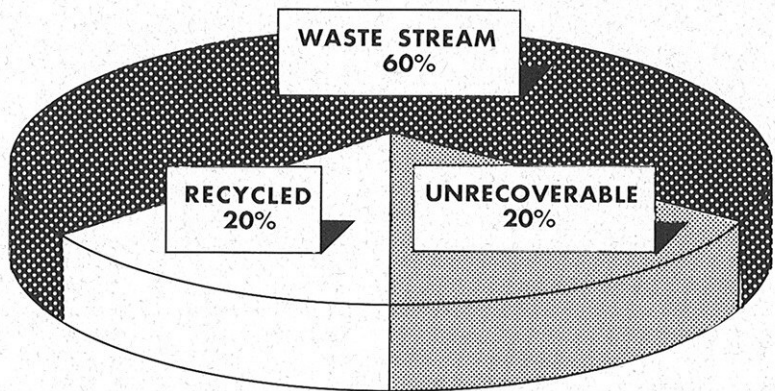
Although this factsheet focusses on waste paper recycling, it is important to realize that recycling is only one of several strategies for reducing waste. The so-called 4Rs of waste minimization, in order of preference, are:

- (1) Reduction,
- (2) Reuse,
- (3) Recycling, and
- (4) Recovery.

Where possible, it is best not to produce waste at all. If waste is produced, it should be reused if at all practical. The third-best alternative is recycling. Finally, it may be possible to recover materials or energy from waste which cannot be reduced, reused or recycled.



Paper and Paperboard Consumption in Canada (1988)
(6 MILLION TONNES)



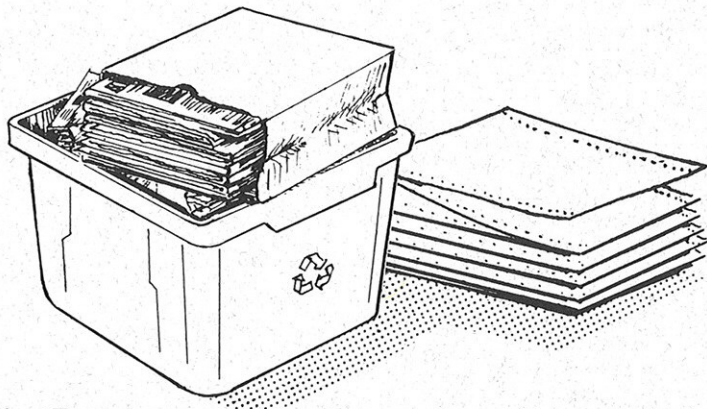
The Players

A number of different groups are involved in the paper recycling process.

- Generators are the producers of the waste paper. They range from small generators, such as individual households, to large generators such as print shops.
- A variety of small businesses, waste management companies, volunteer organizations and municipalities act as waste paper collectors.
- Waste paper dealers collect, store and process waste paper. In some cases, the dealer may also be a broker.
- Waste paper brokers act on behalf of end-users or suppliers, to match available supplies to existing demand.
- The end-user of the waste paper uses the paper in a manufacturing process. Most of the waste paper is used to make new paper products. Old corrugated cardboard is used to make new corrugated cardboard, or combined with mixed papers to make boxboard. Recycled, de-inked newspapers are used in newsprint manufacture. Waste "fine" paper from printers and paper "converters" (such as envelope manufacturers), and some office paper waste, is used in the production of a variety of products; these include sanitary papers such as bathroom tissues and hand towels, and some office papers. Various grades of paper are used to make roofing materials. Small amounts of waste paper are also used in the manufacture of moulded pulp items (such as egg trays), packing materials, cellulose insulation, mulch and animal bedding.

Collecting "Post-Consumer" Waste

For years, paper manufacturers have routinely recycled waste paper from paper-making processes ("mill waste"), and from converters and printers. The real challenge today is to collect and recycle "post-consumer" waste — paper products which have been used and discarded by consumers and businesses. Across the country, recycling activity is increasing as waste disposal costs climb.



Fine Paper

- The federal government's Papersave program in the National Capital Region recycles more than 10,000 tonnes of office paper annually; in 1989, savings in avoided waste disposal charges were in excess of \$350,000. This program, which has been operating since 1976 and currently services more than 80 buildings, is the largest fine paper recycling program in Canada. It is now being upgraded with new equipment (desk-side "blue baskets") and desk-to-desk collection service; these improvements are expected to significantly increase yields and revenues. Other agencies, such as Ontario Hydro, are adopting similar programs, reflecting a growing consensus that with proper equipment, desk-to-desk service and strong management commitment, fine paper recycling programs can greatly reduce office waste, in a cost-effective manner.

Newspapers

- Substantial quantities of old newspapers are being recovered through curbside and depot collection programs across the country. In 1989, Ontario's blue box program collected approximately 170,000 tonnes of old newspapers from 1.8 million households.
- Telephone directories have traditionally been printed on low-grade paper, and have been difficult to recycle because of their glued binding and glossy covers. Some are used to make products like egg flats and asphalt shingles, but the supply of discarded directories is greater than the demand. The city of Guelph, Ontario has taken an innovative approach by giving telephone directories collected by its blue

box recycling program to a local firm, which will use the directories to make padding for "do-it-yourself" movers. Bell Canada is also investigating other uses for discarded directories.

Old Corrugated Cardboard

- Old corrugated cardboard (OCC) has traditionally been collected by private brokers and haulers from large manufacturing plants, retail businesses and wholesalers, where volumes and disposal costs have been high enough to justify in-house waste separation programs. As waste disposal costs climb, municipalities such as Ottawa, Ontario have established curbside programs to collect OCC from smaller commercial facilities.

Markets: Closing the Loop

These innovative programs for collecting waste paper are helping to reduce the amount of waste paper burdening our landfill sites. However, to develop sustainable paper recycling systems, it is necessary to do more than simply collect more waste paper. Increasing the supply of waste paper without correspondingly increasing the demand for products manufactured from that waste will eventually result in a glut in the waste paper market. According to the basic laws of supply and demand, this will lead to lower prices for the paper, and lower revenues for paper collection programs. Without sufficient revenues, paper collection programs will be difficult to sustain.

In order to build sustainable recycling systems, it is necessary to "close the loop" — by increasing the demand for products containing recycled paper. A number of government and private-sector

organizations have been helping to do this, by implementing policies to encourage the purchase of products containing recycled paper.

- Environment Canada's "Environmental Choice" program is developing guidelines for products which are characterized by a high degree of environmental soundness while also meeting performance and safety standards. Products which meet the guidelines will be eligible to display the Environmental Choice logo. A board appointed by the federal Minister of the Environment — made up of consumer and industrial representatives, scientists and specialists in environmental law — guides the development of performance standards for Environmental Choice products. Among others, Environmental Choice guidelines are being developed for fine paper from recycled paper, sanitary papers from recycled paper and miscellaneous papers from recycled paper.
- Environment Canada encourages the use of post-consumer paper fibre in many of its offices and stationery papers. As well, the federal government currently purchases, for distribution and use, items containing recycled paper and fibres; these items include MP "householders", newsletters, envelopes, employee business cards, kit folders, stationery, paper towels, cardboard boxes and packaging material. The government is planning to introduce additional recycled paper products in the near future. As well, Canadian-made photocopy paper that contains 50 percent recovered waste from collection programs is being used by several departments and is being stocked in the government's Stocked Item Supply.
- Many provincial governments are also introducing policies to encourage the purchase of products made from recycled materials. The governments of Manitoba and Ontario, for example, have both announced such policies.
- In Ontario, all levels of government are working together through the GIPPER (Governments Incorporating Procurement Policies to Eliminate Refuse) Committee, to develop government purchasing policies that will help reduce waste and encourage the purchase of products made from recycled materials. Members of this

committee include representatives from federal and provincial environment and supply departments, municipal governments in Metropolitan Toronto, the greater Toronto regional governments, the Canadian Standards Association, and the Federation of Canadian Municipalities.

- In 1991, the city of Toronto, Ontario plans to restrict the use of street vending machines to newspapers containing a minimum of 50 percent recycled fibres.

Canadian paper mills are beginning to respond to the growth in paper collection and the increasing demand for paper products containing post-consumer fibre. Several new plants capable of de-inking and recycling old newspapers are being built, and paper manufacturers are beginning to experiment with producing fine papers from recycled paper. There will probably always be some lags between supply and demand for waste paper, simply because of the long lead times required to bring on-stream new paper mills and de-inking facilities. However, developing a strong demand for products containing recycled paper is one of the best ways to ensure that paper recycling will be a sustainable part of our future.

To Ban or Not to Ban

Some municipalities, alarmed by shortages of landfill space, have responded by banning materials such as old corrugated cardboard and office fine paper from disposal sites. At first glance this might seem a reasonable way to encourage recycling. However, implementing bans without sufficiently developing markets for the banned materials can work against the long-term viability of recycling, by disrupting materials markets. Buyers, aware that generators of a banned waste material have nowhere else to turn, often respond by paying much lower prices for the material than the true market value.

The repercussions of such market disruptions can extend far beyond the municipality or region which implemented the ban, adversely affecting the economics of recycling programs elsewhere. In the long term, a more effective approach is to encourage voluntary recycling of waste papers while simultaneously encouraging the purchase of products containing recycled paper.

This factsheet is part of the Office of Waste Management's "Rainbow Series". Each colour in the rainbow represents one waste management activity as follows:

- 1) Pink - Classification
- 2) Orange - 4Rs (Reduction, Reuse, Recycling, Recovery)
- 3) Yellow - Transportation
- 4) Light Green - Storage
- 5) Dark Green - Treatment
- 6) Blue - Disposal
- 7) Purple - Waste Types

Further information can be obtained from:

Office of Waste Management
Conservation and Protection
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Ottawa, Ontario
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(819) 997-2800

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