

BLUE BOX PROGRAM

End Markets for Recycled Newsprint

Q&A

Sustainable Waste Management
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Table of Contents

1.0 **International Markets**.....2

1.1 What trends are we seeing in China and India on paper use and are we seeing similar trends in North America?2

1.2 Why is there no domestic market for paper? What happens to newspapers in Canada?3

1.3 Why have China and India implemented such highly restrictive contamination rates?3

2.0 Blue Box Program.....4

2.1 Should we move to a dual stream blue box program and separate fibres from containers at the curb?4

2.2 Can black plastics be recycled?5

2.3 Why are take-out coffee cups and lids not recyclable?6

2.4 What are the newspaper and paper producers doing to help?6

1.0 International Markets

1.1 What trends are we seeing in China and India on paper use and are we seeing similar trends in North America?

Declining newspaper readership and a shift to digital news in Europe and North America has decreased paper consumption (magazines, catalogs, newspapers, printed advertising, flyers and mail) limiting the amount of paper that can be recovered. However, Asia is seeing an increase in paper consumption due to an increase in literacy rates, rising household incomes, a growing urban population and consumerism.

China's economic growth over the last 25 years has increased demand for paper products. Similar to the rest of Asia, demand for paper products in China can be attributed to rising household incomes, an increase in consumption and an increase in printed advertisement and commercial printing. Increased household incomes make newspapers more affordable and higher literacy rates have increased the demand for newsprint. Currently, China has about 2,000 newspapers, up from about 70 newspapers 15 years ago.

On a global level, paper consumption is growing. India is the fastest-growing paper market globally. Advances in education, a fast-growing middle class, strong growth in a number of industry sectors and organized retailing are the main drivers of demand for paper and packaging products. India relies on recovered paper from other parts of the world as much of the paper consumed within India is being disposed of or reused rather than recycled (e.g. newspapers are used as food or fruit wrapping while cardboard boxes tend to be reused in households and shops). Consumerism is rapidly growing in India, resulting in rapid growth in the paper packaging sector and increased demand for paper and paper board to create paper-based packaging. The Indian Paper Manufacturers Association expects demand in that country to reach 20 million tonnes by 2020.

1.2 Why is there no domestic market for paper? What happens to newspapers in Canada?

Since 2000, the demand for newsprint in North America has dropped by 75 per cent with a negative effect on domestic paper mills. Domestic processors and mills required high quality recovered paper free of contaminants such as food, plastics, metals and wax/polyethylene liners while China offered an attractive overseas end market with fewer restrictions. Some domestic newsprint mills converted to producing other more profitable paper products with the decreasing demand for newsprint.

Unfortunately, many Ontario and North American paper mills have closed in the last decade as exports of paper fibres, particularly newspapers from Ontario programs, have significantly increased to overseas markets in China, India, Vietnam and South Korea. Asian mills close to ocean ports started importing recovered paper paying very little for marine transport, as the containers used to export merchandise such as televisions and computers abroad were being returned in any case.

The overseas market, combined with declining newspaper readership and a shift to digital news, negatively impacted paper mills across North America. The paper industry has exploded overseas and China is now the world's largest paper importer and manufacturer.

1.3 Why have China and India implemented such highly restrictive contamination rates?

China is the largest importer of plastic and paper for recycling, responsible for 55 per cent of global recovered fiber imports and 51 per cent of scrap plastic imports, according to data from Institute of Scrap Recycling Industries (ISRI).

On January 1, 2018, China began to enforce restrictions under its National Sword policy, which limits the import of contaminated recyclables to address growing environmental and health issues in China. From an environmental perspective, recycled materials that China imported were contaminated and could not be recycled, contributing to China's landfills and polluted waterways. Imported materials were also found to contain hazardous waste which exposed workers to toxic chemicals and subjected them to dangerous working conditions. These issues were exposed in the documentary *Plastic China*,

which screened at the 2017 Sundance Film Festival. Public outcry following the documentary is also thought to have influenced the Chinese government to crack down on imported waste materials.

These restrictions are actively enforced through increased inspections of all imported recyclables. This policy has resulted in huge impacts to global markets as recyclers are currently working to find new places to sell their recyclable materials.

The loss of the available Chinese end market has led to saturation in India and other overseas inbound recycling material markets. India is also imposing restrictions to minimize inbound contamination and ensure only high quality recyclables are being imported. China's import policies will continue to affect global flows of paper and fibre until overall quality is improved or alternate markets become available.

2.0 Blue Box Program

2.1 Should we move to a dual stream blue box program and separate fibres from containers at the curb?

Most large urban Ontario municipalities have shifted to a single stream blue box collection program. Single stream blue box collection offers collection efficiencies and reduced collection costs, resulting in higher program participation by offering a convenient recycling program to residents.

Dual stream collection (typically delivered through a blue box for containers and grey box for fibres) allows for greater quality recyclables through source separation of fibres from all other recyclables and less contamination. At the same time dual stream programs recover smaller quantities due to lower program participation. Although dual stream collection offers improved quality, it does not guarantee an acceptable level of contamination given the strict contamination limits imposed by China.

Shifting back to a dual stream collection program in York Region would be complex and require coordination with local municipal collection contracts. For example:

- Current collection vehicles would need to be replaced with dual collection trucks
- Co-collection of blue box and organics practiced in all nine municipalities would need to be re-considered
- An extensive promotion and education campaign would be required in concert with a curbside enforcement strategy

Due to long-term local municipal waste collection contracts recently implemented in the northern six municipalities and already procured in the City of Vaughan and Town of Richmond Hill, it would not be feasible to implement a dual stream system at this time. York Region's Material Recovery Facility would also require upgrades and re-design of infrastructure to accommodate two streams entering the facility. The current tip floor where blue box materials are dropped off includes only one conveyor.

2.2 Can black plastics be recycled?

Material recovery facilities operate with manual and automated processes and materials are separated based on shape and size. Most plastics are sorted by an optical sorting technology that uses the reflection of light to identify plastics. However, black plastics cannot be identified by the optical sorter because they do not reflect light and must be manually sorted to be captured properly. Black plastic such as food trays often contaminates the paper stream as their flattened shape cause them to act like paper as they travel through the automated equipment at the Material Recovery Facility. Prior to China and India's contamination restrictions, a small amount of black plastic was tolerated in paper bales. Black plastic has a limited end market; it is considered low quality and indicates the end of the plastic's life and diminishes the quality of the final recycled product. There are few uses for black plastics as it doesn't provide the versatility clear plastics and other coloured plastics provide as they can be mixed to create new coloured plastic. For these reasons, many plastic end markets consider black plastic as a contaminant.

2.3 Why are take-out coffee cups and lids not recyclable?

Take-out coffee cups are lined with a plastic or wax coating so they cannot be recycled with other mixed paper products. Coffee cup lids are difficult to capture in the recycling process as they are small, lightweight and flat so tend to act like paper. Coffee lids placed in the blue box may be captured in the material recovery facility by automated fibre screens due to their size, shape and weight and end up in the paper bales where they are considered a contaminant, lowering the overall quality and value of the bale. Prior to China and India's increased contamination restrictions, small amounts of coffee cups and coffee lids were tolerated in paper bales. Coffee cups not captured by fibre screens end up on the material recovery facility's container sort lines as a contaminant and are managed as residue.

2.4 What are the newspaper and paper producers doing to help?

Since November 4, 2005, the Blue Box Program Plan has allowed members of the Canadian Newspaper Association (CNA) and the Ontario Community Newspapers Association (OCNA) to contribute newspaper linage (i.e. advertising space) to municipalities in lieu of cash funding to satisfy their obligations under the Waste Diversion Act, 2002, now under the Waste Diversion Transition Act, 2016. In short, currently newspaper producers do not financially support the 50 per cent steward obligation to fund the blue box, even though these materials are about half the tonnage in the blue box.

Newspaper companies in Ontario are not mandated to use recycled fibre content in their newspapers. While most Canadian newspapers encourage the use of recycled content in their newsprint, in order to make newspapers a high quality recycled paper source is required and municipal blue box programs have not been considered a suitable source.