



# E-Waste

## **ISSUE**

More than 140 000 tonnes of computer equipment, phones, televisions, stereos, and small home appliances (e-waste) accumulate in Canadian landfills each year. Toxic materials such as lead, mercury, cadmium fire-retardant chemicals and arsenic are used in electronic components. These materials pose a serious risk to human health and the environment if landfilled, with exposure to high levels of these chemicals being linked to adverse effects on human health and wildlife.

## **BACKGROUND**

The computer industry's current benchmark for up-to-date performance is as short as 18 months. Technology advances so quickly that last year's model may not run this year's software, necessitating replacement with an ever-increasing frequency by personal and business users alike. It is common accounting practice to write-off computer components over a three-year period and many firms replace entire computer systems on that basis. Consequently the volume of e-waste produced each year continues to grow at ever-increasing rates.

The manufacturers of consumer products continue to place a greater emphasis on performance and price than on designs that enhance end-of-life management. As a result, society is left with a growing stockpile of toxic discards. Office storage rooms, family basements and even the yards of recyclers are filling up with electronic products that were introduced into the marketplace with no plan for their end of life.

## **CURRENT PRACTICES**

A significant amount of e-waste is being sent offshore to developing nations where worker safety, child protection and environmental standards are non-existent or not enforced. Some overseas countries have now closed their borders to e-waste in an effort to preserve their own environments and protect communities. However, this has compounded the increasing amount of e-waste requiring management in North America, where standards are much higher and more costly.

Canada is a participant of the Basel Convention, which bans the export of hazardous materials, including e-waste, to countries that have banned their import. So while many countries, such as China, have now closed their borders to e-waste in an effort to preserve their own environments, e-waste is still being imported illegally. Since November 1, 2005 Environment Canada's Enforcement Division has intercepted twenty-two shipping containers containing 380 000 kilograms of used CRT monitors, keyboards, and other e-waste from the Port of Vancouver. In the US up to 80% of e-waste is exported to developing countries.

There is an emerging electronics recycling industry in North America, but it is still inadequate to deal the 575 million PCs worldwide (a number that will double by 2010). As a result much of the e-waste generated remains in stockpile while practical and profitable methods of recycling are under development.

Managing e-waste is an expensive process since dismantling a product not designed for recycling is time and labour intensive. To limit these costs, many North American recyclers have turned to sheltered workshops for the developmentally disabled or prison labour rather than market labour. This may be seen as a transitional measure, but a more sustainable solution is needed to deal with the volumes being generated.

## FUTURE DIRECTION

On February 16, 2006 the province of British Columbia passed a modification of the Recycling Regulation to include various electronic products. Materials added to this schedule include desktop computers (with peripherals), desktop servers, desktop printers, portable computers, and TV sets. Excluded items include hand-held devices (cell phones, mp3 players), radios, stereo equipment, and small appliances.

The provincial collection program is managed by the Electronics Stewardship Association of British Columbia (ESABC), an industry led, not-for-profit stewardship agency and is being managed and administered by Encorp Pacific, a federally incorporated not-for-profit product stewardship corporation.

The BC Electronic Stewardship program started collecting e-waste in August of 2007 and operates on a user-pay principle, whereby an environmental handling fee is charged on new electronics, which funds the take back and proper recycling of the electronics. Fees range from \$5 for a notebook computer up to \$45 for a large television. The program, if successful, it is expected to see a 75 percent return rate of obsolete e-waste.

## WHAT YOU CAN DO

The best way to ensure you keep up with the latest developments on electronics recycling and other sustainability issues and have your voice heard is to join RCBC. You will receive the latest RCBC publications *Reiterate* (RCBC's flagship publication) and *Recap* (a monthly electronic newsletter) that explore these issues and more.

Since its inception over 30 years ago, the Council has continued to facilitate the solving of complex environmental issues by providing a wide range of diverse interests with a constructive and respectful forum for discussion. By being a member of RCBC, whether you are a consumer, a retailer, a recycler or a brand owner, you will become part of the made-in-BC solution that fits our province's waste management objectives as we work together for a sustainable future.

## FOR MORE INFORMATION

Ministry of Environment: <http://www.env.gov.bc.ca/epd/epdpa/ips/electronics/index.html>

RCBC: [http://rcbc.bc.ca/resources/hot\\_topics/e-waste\\_end\\_of\\_life\\_electronic\\_equipment.htm](http://rcbc.bc.ca/resources/hot_topics/e-waste_end_of_life_electronic_equipment.htm)

Electronic Product Stewardship Canada: <http://www.epsc.ca/>

Encorp Pacific (Canada): <http://www.encorp.ca/electronics/>

## OR CALL

RCBC Recycling Hotline at 604-732-9253 or 1-800-667-4321

This document was developed with the assistance of RCBC's E-waste Working Group whose members representing consumers, industry, government and environmental perspectives.

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### RCBC Mission Statement

RCBC is a multi-sectoral non-profit organization promoting the principles of Zero Waste through information services, the exchange of ideas and research.

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