



# Canadian Coalition for Green Healthcare

## Resource Paper #1: Waste Reduction & Recycling Resource

### Founding Members

Baycrest Centre for Geriatric Care, Toronto  
 Cambridge Memorial Hospital, Cambridge  
 Canadian Association of Physicians for the Environment (CAPE)  
 Canadian Centre for Pollution Prevention (C2P2)  
 Canadian College of Health Service Executives (CCHSE)  
 Canadian Healthcare Engineering Society (CHES)  
 Canadian Medical Association (CMA)  
 Canadian Nurses Association (CNA)  
 Canadian Public Health Association (CPHA)  
 Canadian Society for Environmental Medicine (CSEM)  
 College of Family Physicians of Canada (CFPC)  
 Great Lakes United  
 Hospital for Sick Children, Toronto (HSC)  
 Ontario College of Family Physicians, Environmental Health Committee  
 Pollution Probe  
 RiverSides Stewardship Alliance  
 St. Mary's General Hospital, Kitchener  
 Sunnybrook and Women's College Health Sciences Centre, Toronto  
 Toronto Environmental Alliance  
 University of Alberta Hospitals  
 University Health Network, Toronto  
 Winnipeg Regional Health Authority - Laboratory Medicine Program

*While recycling programs have grown in popularity in recent years, recycling materials still presents a significant environmental impact through the use of resources for transporting and processing recyclable items. Because of this, recycling programs should be considered in conjunction with strong reduction and reuse programs that minimize the number products and supplies being produced and, in turn, disposed.*

*Most items can be recycled or re-used in some way, however, practical implementation of recycling programs depends on the availability of local recycling companies and markets and the ability of waste generators to co-mingle or source separate waste materials. Some commonly re-used and recycled items, as well as waste reduction options, and key points for consideration are listed below.*

*It is essential that facilities work with local agencies to determine the most cost-feasible method of re-using and recycling wastes, including investigation into the sale of collected recyclable materials. Consideration should also be given to donating products for re-use. In rural settings, the cost of transportation of recyclable materials can reduce the feasibility of successful recycling programs. Working together with local agencies may make a joint recycling program feasible.*

Items	Reuse and Reduction Consideration	Recycling Considerations
paper	» Awareness campaign to encourage: ♦ "think before you print" ♦ print only what is necessary ♦ double sided print & copy ♦ re-use of single sided printed sheets as scrap, for printing drafts, etc.	» may be sorted by grade or co-mingled – check with local recycling companies, » special consideration needed for recycling confidential materials after shredding or other form of destruction
corrugated cardboard	» encourage suppliers to use re-usable containers and totes for the deliver of supplies	» use of a compactor will facilitate the collection and storage of cardboard » may be co-mingled with paper – check with local recycling companies » inquire with local recycling companies on rebates for the sale of cardboard collected for recycling; co-mingling may affect rebate for recyclables

Items	Reuse and Reduction Consideration	Recycling Considerations
metal cans		<ul style="list-style-type: none"> <li>» may be co-mingled with plastic and glass – check with local recycling companies</li> <li>» inquire with local recycling companies on rebates for the sale of metal cans collected for recycling; co-mingling may affect rebate for recyclables</li> </ul>
glass containers		<ul style="list-style-type: none"> <li>» may be co-mingled with plastic and glass – check with local recycling companies</li> <li>» local hazardous waste requirements and recycling companies should be consulted when considering the recycling of empty chemical bottles</li> <li>» inquire with local recycling companies on rebates for the sale of glass collected for recycling; co-mingling may affect rebate for recyclables</li> </ul>
plastic, including hard, soft and mixed composition	<ul style="list-style-type: none"> <li>» encourage vendors to deliver supplies in re-usable containers (e.g., milk crates, bread trays, buckets and drums, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>» check with local recycling companies as to which plastics can be recycled and which can be co-mingled together for collection,</li> <li>» may be co-mingled with metal and glass – check with local recycling companies</li> <li>» inquire with local recycling companies on rebates for the sale of glass collected for recycling; co-mingling may affect rebate for recyclables</li> </ul>
scrap metal		<ul style="list-style-type: none"> <li>» inquire with local recycling companies on rebates for the sale of scrap metal collected for recycling</li> </ul>
construction & demolition waste	<ul style="list-style-type: none"> <li>» where possible, fixtures, fittings, doors, etc. should be salvaged for re-use, sale or donation</li> <li>» check with local charities for their interest in accepting some demolition items</li> <li>» to maximize the re-use and recycling of demolition and construction waste, processes for the re-use and recycling should be worked into the project scope at time of contract planning/tendering</li> </ul>	<ul style="list-style-type: none"> <li>» check with local demolition and recycling companies as to options for recycling</li> <li>» can include metal, wood, drywall and concrete</li> </ul>

**Collection**

Where possible, co-mingling of wastes may facilitate the collection and storage of items within Hospitals, but may result in sorting charges and/or the reduction of rebates for the sale of collected recyclables, if applicable.

**Packaging**

Bins used to collect items normally collected under municipal recycling programs should be colour coded, normally blue.

Use of transparent containers, bags and wrapping should be used for other items for re-use or recycling so that waste handlers can clearly identify the contents

**Labelling**

Containers used for collecting items for re-use or recycling should be clearly labelled with their contents and that they are intended for re-use or recycling.

Use of pictures and the recycling triangle on labels will facilitate identification of items as being recyclable.

Hazardous waste and TDG labelling should be used where required.

Items	Reuse and Reduction Consideration	Recycling Considerations
wooden pallets	<ul style="list-style-type: none"> <li>» pallets re-used in-house</li> <li>» some companies provide service to pick-up pallets for re-use</li> </ul>	
fluorescent bulbs	<ul style="list-style-type: none"> <li>» use of longer life bulbs will reduce the number of bulbs being disposed</li> </ul>	<ul style="list-style-type: none"> <li>» local hazardous waste requirements should be consulted</li> </ul>
batteries	<ul style="list-style-type: none"> <li>» use of rechargeable batteries</li> </ul>	<ul style="list-style-type: none"> <li>» local hazardous waste requirements should be consulted</li> </ul>
electronic waste	<ul style="list-style-type: none"> <li>» include end-of-life responsibility in purchase contract</li> <li>» consider leasing electronic items</li> </ul>	<ul style="list-style-type: none"> <li>» local hazardous waste requirements should be consulted</li> <li>» “responsible e-cycling” as described by the Basel Action Network should be taken into consideration when assessing recycling companies</li> </ul>
food waste/organic	<ul style="list-style-type: none"> <li>» if applicable, donate leftover foods to local “second harvest” charities</li> </ul>	<ul style="list-style-type: none"> <li>» check with local composting companies to see if only food waste or all organic materials can be accepted</li> </ul>
waste food oils and grease		<ul style="list-style-type: none"> <li>» look for local rendering facilities and some biodiesel companies to recycle waste food oils and grease</li> </ul>
ink jet and toner cartridges	<ul style="list-style-type: none"> <li>» purchase refillable cartridges,</li> <li>» “think before you print”</li> <li>» print only what is necessary</li> </ul>	<ul style="list-style-type: none"> <li>» can be refilled</li> <li>» some local charities collect free of charge</li> </ul>
waste industrial oils		<ul style="list-style-type: none"> <li>» local hazardous waste requirements should be consulted</li> </ul>
solvents	<ul style="list-style-type: none"> <li>» use of xylene extenders</li> <li>» in-house recycling of some solvents</li> </ul>	<ul style="list-style-type: none"> <li>» local hazardous waste requirements should be consulted</li> </ul>
mercury		<ul style="list-style-type: none"> <li>» recycling as an alternative to disposal</li> <li>» local hazardous waste requirements should be consulted</li> </ul>
furniture and medical equipment	<ul style="list-style-type: none"> <li>» process to reallocate furniture within Hospital</li> <li>» possible avenues for re-use include sale and donation, both to charities and hospital staff,</li> <li>» liability of donating used medical equipment should be taken into consideration and appropriate protections (e.g., signed waivers) developed</li> </ul>	

### Movement

Normal personal protection equipment should be used, as applicable, when moving recyclables:

- » gloves
- » goggles
- » safety shoes

Movement of recyclables should be done in such a way as to minimize patient/visitor exposure and in accordance with all applicable fire and safety requirements (e.g. the transportation of solvents in elevators).

### Storage

Consideration should be given to the following when storing items for re-use or recycling:

- » flammability of materials and Fire Code requirements
- » spill containment for liquid wastes
- » theft deterrence, where applicable

Storage areas should be clearly labelled with their contents and kept tidy in order to avoid confusion and cross contamination of materials.

### Disposal

N/A

### Record Keeping

Weights of recycled materials and waste sent to landfills should be obtained from waste haulers and recycling companies in order to determine correct diversion rates.

Local requirements around documentation and record keeping associated with transportation and recycling of hazardous materials should be followed.

Items	Reuse and Reduction Consideration	Recycling Considerations
office supplies	<ul style="list-style-type: none"> <li>» opportunities for in house re-use should be considered (e.g. swap room)</li> <li>» donation to schools, libraries, should be investigated</li> </ul>	
sterile wrappers	<ul style="list-style-type: none"> <li>» use of re-usable hard containers</li> </ul>	<ul style="list-style-type: none"> <li>» only clean, pre-case wrappers to be considered for recycling</li> <li>» can be used as packaging for shipping/receiving and by moving companies</li> </ul>
sheets, bedding, curtains and other fabrics	<ul style="list-style-type: none"> <li>» opportunity for re-use as rags, either in-house or by a third party</li> </ul>	

Tracking the financial implications of recycling may be considered for use in recycling communication and awareness programs, developing business cases, etc.

Items for consideration include:

- » disposal/recycling costs
- » cost avoidance from re-use and recycling
- » revenue generated through sale of recyclables

**NOTE:** This Coalition *Resource Paper* is a work in progress and as such we invite you to contact us should you have any ideas or suggestions that might improve future editions. Send your suggestions to [feedback@greenhealthcare.ca](mailto:feedback@greenhealthcare.ca)



The Canadian Coalition for Green Health Care  
 Coalition canadienne pour un système de santé écologique  
[www.greenhealthcare.ca](http://www.greenhealthcare.ca)

This Resource Paper prepared on behalf of the Canadian Coalition for Green Health Care by Sue Maxwell, Ed Rubinstein, and Kent Waddington.  
 Your comments are encouraged at [feedback@greenhealthcare.ca](mailto:feedback@greenhealthcare.ca)

*The Canadian Coalition for Green Health Care is committed to encouraging the adoption of resource conservation and pollution prevention principles and effective environmental management systems, without compromising safety and care, so as to protect human health and reduce the Canadian health care system's ecological impact.*

*The Coalition works with health care organizations and facilities, health care professionals, governments, non-governmental organizations, the private sector and others to raise awareness and to increase the capacity of health care organizations and their staff or members to better address the growing number of climate change issues.*

