

RECYCLING AND REUSE GUIDE



Department of Environment



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR

Version 1
April, 2002

ACKNOWLEDGEMENTS

This guide was compiled with the assistance of the Department of Environment professional staff and managers who contributed in various aspects to the technical content, presentation, and design.

Waste Management Staff extend appreciation to the department's executive and Minister, Honorable Kevin Aylward for their support of this most worthwhile project.

This document is a helpful reference guide for waste diversion and provides good information for homeowners and consumers. The goal of our collective efforts is to promote and expand waste recycling and reuse alternatives; and to better manage proper disposal of all forms of waste, including hazardous materials.

It is anticipated that the guide will provide valuable assistance to educators and the public for projects and undertakings.

The diversion of waste away from landfills is an objective each of us should share. The information contained within this recycling and reuse document will assist in achieving this objective.

Waste diversion, recycling, and reuse businesses require public involvement and support if they are to become successful and sustainable.

The benefits of waste recycling and reuse become self-evident in that a litter free and healthy environment is provided to current and future generations.

Many thanks to Aqua Kennels, Flat Rock for providing the photos contained within this guide.

Manager,
Waste Management
Pollution Prevention Division

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
TABLE OF CONTENTS	ii
PREFACE	iii
TEMPLATES :	
Animal Waste Products.....	1
Antifreeze (Glycols).....	2
Asbestos.....	3
Batteries	
Dry Cell	4
Lead - Acid.....	5
Rechargeable.....	6
Books/Magazines.....	7
Compost.....	8
Computers.....	10
Expired Medications.....	11
Eyeglasses.....	12
Fish Offal.....	13
Furniture.....	14
Household Cleaners.....	15
Household Items.....	16
Mercury.....	17
Metals.....	18
Musical Instruments.....	19
Ozone depleting Substances (CFC's).....	20
Paints and Paint Chips	21
Paper/Cardboard.....	22
Pesticides.....	23
Petroleum Contaminated Soil.....	24
Plastics.....	25
PCB's.....	26
Printer Cartridges.....	27
Propane Tanks.....	28
Sewage and Sewage Sludges.....	29
Solvents.....	30
Used Oil and Associated Products.....	31
Used Oil Filters.....	32
Wood Preservatives.....	33
 APPENDIX	 34



Preface

Waste reduction, recycling and reuse (the 3 R's) form one of the baseline principles in the improved management of waste in the Province. The guide provides the public, stakeholders and government agencies an index of waste items or groups which leads the user to specific health and environmental information for listed waste materials. This guide is not intended to be inclusive of all recyclable materials generated in the province. It provides information on those items for which information is most currently reported by commercial and industrial site operators, as well as by the general public. Further, information is presented in form and in text to inform the public of services and groups currently active in waste management within the province.

The information contained in the guide may be considered a “work in progress” and is subject to update on an annual basis, or as may be determined based upon need or demand.

Use of Departmental website, fax and other forms of electronic communication will facilitate wide and efficient access and distribution of this guide. The printed version of the guide, in whole or in part, is available upon request.

The guide does not replace nor should it be interpreted to replace statutory provisions of environmental legislation, policy and guidelines. It is intended to supplement these statutory provisions.

Through improved awareness and information as provided through the guide, baseline principles of the 3 R's (reduction, recycling, reuse) may be realized.

Information, additions, corrections, suggestions may be directed to:

Pollution Prevention Division
Department of Environment
P.O. Box 8700
St. John's, NF
A1B 4J6

Fax (709) 729-6969

Email: tmatthews@mail.gov.nf.ca

ANIMAL WASTE PRODUCTS	
PRODUCT:	<ul style="list-style-type: none"> • chicken and hog offal • dead cows and horses • animal waste <ul style="list-style-type: none"> • offal from local butchers • grease from restaurant kitchens • domestic animal carcasses
<p>HEALTH EFFECTS: Animal waste and carcasses near a water supply and/or near drinking water wells are of great concern due to their potential to spread disease. Animal waste is also of concern because the nutrients and bacteria from these waste can cause fish and shellfish contamination in the aquatic environment. Tainted shellfish may be consumed by humans and has caused serious impacts upon human health. Animals and birds that scavenge may be transporters of disease / pathogens.</p>	
<p>ENVIRONMENTAL EFFECTS: Noxious odor, flies, rodents and disease are commonly associated with animal carcasses and various forms of animal waste. Improper disposal may result in fish kills, shellfish poisoning, and threatens bird and wildlife ecosystems.</p>	
DO'S	DON'Ts
<p>Do dispose of animal carcasses in a rendering plant, if possible (excluding oily birds, fishes, and marine mammals).</p>	<p>Don't dispose or landfill animal waste and/or carcasses less than 150 m from a well or water supply or 30m from any water body.</p>
<p>Do incineration of oiled birds and small mammals is subject to approval of the Government Services Centre for Department of Environment.</p>	<p>Don't incinerate whale carcasses. Ocean dumping is an acceptable alternative for disposal of marine carcasses with the permission of Environment Canada.</p>
<p>Do collect carcasses and transport them in puncture proof polyethylene bags. Collect bulk waste in covered leak proof bins or containers.</p>	<p>Don't dispose of road kill less than 650 m from cottages or residential areas.</p>
<p>Do treat diseased animal carcasses with <i>hydrate of lime</i> to disinfect before landfilling, or incinerate in a combustion system at 850 ° C for at least one second.</p>	<p>Don't transport animal carcasses without using leak proof enclosed containers.</p>
<p>RECYCLING OPPORTUNITIES:</p> <p>Rothsay A Rendering Division of Maple Leaf Mills Ltd. East Coast Recycling, Foxtrap; 834-2181</p>	
<p>DISPOSAL: Disposal of animal carcasses are the responsibility of the owner. The municipality is responsible for the transport and disposal of non-domestic animals within municipal boundaries. Provincial Wildlife staff have assisted RNC /RCMP in the removal and disposal of large animal road-kill on highways.</p> <p>Animal carcasses may be safely disposed of in a number of different ways. Incineration, rendering (plant), landfill, burial, and ocean dumping for select marine mammals are all considered environmentally acceptable methods of disposal. When landfilling animal products, at least 1m compacted backfill material must be used to cover the waste. Prior to backfill, sufficient lime in the form of quicklime or hydrated lime, must be used to minimize odors, to control pests, and to promote microbial decay. The consent of the disposal site owner/operator is required prior to disposal of animal waste.</p> <p>An approved pet cemetery is an acceptable final resting place for domesticated animals.</p> <p>NOTE: When using any form of lime or liming agent, <i>CAUTION</i> should be exercised to avoid skin and eye contact. Inhalation must be avoided. The amount of lime used is dependent on the type and volume of waste. Manufacturers directions for use should be followed.</p>	

ANTIFREEZE (glycols)

PRODUCT:	• Antifreeze	• Window washing fluids
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USES:
Coolant for automobile engines. Winterizing cottage / cabin plumbing.

HEALTH EFFECTS:

Inhalation/ Ingestion: Do not consume! Ingestion of antifreeze and its derivatives may lead to kidney failure and harmful effects to the liver.

Exposure: Causes eye and skin irritation. Rinse and wash with water any exposed surface. Always consult with a physician if adverse health effects persist.

ENVIRONMENTAL EFFECTS:

A sudden release of ethylene / propylene glycol into a waterway can produce adverse impacts upon fresh water and marine environments. Glycol degradation in the environment has a high oxygen demand and as a result threatens or negatively impacts aquatic life. Ammonia gas is also released to the environment by the degradation of glycols.

DO'S	DON'Ts
Do Recover used antifreeze.	Don't pour down the drain. Catch basins and floor drains are part of storm drain systems which lead to water bodies.
Do Store antifreeze in containers that are clearly marked and sealed. Storage areas should be secured to limit or prevent access by children.	Don't leave unattended near children or pets. Antifreeze has a sweet taste and is potentially fatal if consumed.
Do Use separate drain pans to avoid contamination when servicing your car.	Don't mix with other waste.

RECYCLING OPPORTUNITIES:

Some waste management and industrial service companies provide glycol collection services. Collected glycols are treated and recycled by these service companies:

- | | | |
|--|------------|-------------------------|
| • Crosbie Industrial Services Limited | St. John's | 722 - 8212 / 782 - 2003 |
| • Crosbie Industrial Services Limited | Pasadena | 686 - 5665 |
| • Pardy's Waste Management and Industrial Services | Pasadena | 686 - 2012 |

DISPOSAL: Household hazardous waste days provide consumers an opportunity for disposal / recycling of such waste.

Multi Material Stewardship Board coordinates household hazardous waste collection events.

CONTACT INFORMATION:

Telephone: (709) 753-0948
 Fax: (709) 753-0974
 Website: <http://www.mmsb.nf.ca>

ASBESTOS		
PRODUCT:	<ul style="list-style-type: none"> • Roofing and Flooring • Fireproofing Products • Cement Pipes/Structures 	<ul style="list-style-type: none"> • Textiles • Brake Pads • Insulation (Thermal/Acoustical)
USES:		
Asbestos has been added to a variety of products in order to strengthen them, provide heat insulation and as a fire retardant.		
HEALTH EFFECTS:		
In most products, asbestos is combined with a binding material and poses no risk. If asbestos fibres become loose and /or airborne, they may enter the body through inhalation or ingestion. Inhaled fibres may cause asbestosis, a scarring of the lungs that leads to breathing problems and heart failure. Inhalation of asbestos fibres can also cause lung cancer and mesothelioma (a rare cancer of the lining of the chest and abdomen), and has been linked to cancer of the stomach, intestines and rectum.		
DO'S	DON'Ts	
Do have dust and debris samples from your home analyzed if you suspect asbestos has been released.	Don't attempt asbestos removal yourself. Leave it to a professional.	
Do sample all building materials suspect to contain asbestos prior to removal. Trained professionals can assist with sampling.	Don't attempt to clean asbestos wastes yourself. An example of this would be sprayed-on asbestos insulation being knocked off a wall.	
Do involve trained contractors if you intend to remodel, dismantle, or demolish part of your home and where asbestos containing materials (ACM's) are known or suspected.	Don't replace brake pads or linings which contain asbestos in an enclosed space such as a home garage. Work on clutches and brakes should only be done by professionals. Replace the equipment with non-asbestos containing materials.	
Do Replace all ACM's that are damaged or represent an exposure risk. Always use trained professionals for removal/disposal.	Don't expose yourself to asbestos dust or other ACM's unless you are wearing appropriate personal protective clothing and equipment.	
DISPOSAL: Asbestos is considered hazardous and must be landfilled with consent of the disposal site owner/operator and the agents of the Department of Environment. There are environmental consultants, contractors, and transporters of ACM's. Refer to Appendix for listings of contractors and transporters.		
For more information CONTACT:		
Department of Environment:	Http://www.gov.nf.ca/env/env/PollPrev/waste_management.asp	
Government Service Center:	Http://www.gov.nf.ca/gsl/gsgsc	

DRY CELL BATTERIES	
PRODUCT:	<ul style="list-style-type: none"> • Alkaline Batteries • Zinc Carbon & Zinc Chloride Batteries
<p>USES:</p> <p><u>Alkaline</u> batteries are primary and /or non rechargeable. They contain potassium hydroxide or sodium hydroxide; both are strong alkalis. Alkaline batteries are high performance batteries and are used in applications with a high current demand, or applications that use current over a long period of time. They are often used in children's toys and portable appliances.</p> <p><u>Zinc Carbon/Chloride</u> contain zinc, manganese, and solutions of ammonium and zinc chloride. These batteries are the least powerful of household batteries. They are used in low power output devices such as flashlights and radios.</p>	
<p>HEALTH & ENVIRONMENTAL EFFECTS:</p> <p>Chemical burns can result from exposure to damaged or leaking dry cell batteries. The metals contained in batteries are toxic to humans and ecological receptors under certain exposure conditions. Batteries in landfills may cause groundwater contamination. Incineration of dry cell batteries may result in release of toxic fly ash. In humans, inhalation of manganese fumes causes adverse effects to the liver and nervous system, and may cause manganese pneumonia. While zinc is a naturally occurring element it poses a threat to human health and environment if not properly managed. Mercury use in battery production has been significantly reduced by manufacturers due to health and environmental concerns.</p>	
DO'S	DON'Ts
Do remove the batteries from equipment immediately after they fail to operate the equipment.	Don't incinerate dry cell batteries.
Do decrease the amount of batteries sent to the landfill by purchasing long life batteries.	Don't handle damaged or leaking batteries without wearing protective gloves.
Do promote recycling to vendors and distributors.	
<p>RECYCLING OPPORTUNITIES:</p> <p>Support battery industry stewardship initiatives and recycle whenever possible.</p>	
<p>DISPOSAL: Landfill disposal is the only option at this present time in Newfoundland.</p>	
<p>For more information CONTACT:</p>	
<p>LINK: http://www.afcee.brooks.of.mil/pro-act/factsheet.asp?list=cell</p>	

LEAD - ACID BATTERIES

PRODUCT: • Automobile, Truck, Motorcycle, Snowmobile, ATV batteries

USES:
 Lead -acid batteries are either starting batteries or deep - cycle batteries. The batteries which start cars are starting batteries. They deliver a short burst of high power in order to start the engine. Deep - cycle batteries are found on boats and campers. They power trolling motors, winches, and lights. The power level is lower and delivered at a steady pace for a longer period of time. Lead -acid batteries are rechargeable. They are 98% recyclable and should be recycled in order to keep lead and other toxic metals out of the environment.

HEALTH & ENVIRONMENTAL EFFECTS:
 Lead -acid batteries pose certain hazards if they are handled improperly. They contain both lead and sulfuric acid which are toxic constituents and that can contaminate soil, air and water. Direct contact with sulfuric acid can burn the skin and eyes. Exposure to lead in the environment can pose a serious health hazard to children. Lead is also extremely toxic to aquatic life. Lead -acid batteries must be properly handled and stored in order to reduce risks. Landfill disposal is not an option. Lead-acid batteries must be recycled. If they are not recycled, they are subject to hazardous waste regulations and must be disposed by a licensed special waste handler.

DO'S	DON'Ts
<u>Do</u> recycle or bring back to point - of - purchase.	<u>Don't</u> dispose of lead-acid batteries with regular trash.
<u>Do</u> store batteries in an upright, secure place and check for leaks weekly. Make sure area is covered from rain.	<u>Don't</u> store lead-acid batteries for more than 6 months. Never store them on top of each other.
<u>Do</u> treat spilled acid and broken lead-acid batteries as hazardous waste. Contact a permitted facility for proper disposal.	<u>Don't</u> drain batteries or crack the covers. Be sure to wear gloves or protective clothing when handling used lead-acid batteries.

RECYCLING OPPORTUNITIES:
 Used lead-acid batteries should be recycled. Retailers who sell the batteries will take back old ones for recycling. Metal recyclers will also accept them. Refer to the Appendix.

DISPOSAL: Do not dispose of used lead - acid batteries in the landfill or incinerate. This is hazardous to the environment and to the health of others.

For more information CONTACT:

Environment Canada: [Http://www.ec.gc.ca](http://www.ec.gc.ca)

RECHARGEABLE BATTERIES

PRODUCT:	<ul style="list-style-type: none"> • Nickel Cadmium Batteries • Lithium Ion Batteries 	<ul style="list-style-type: none"> • Small Sealed Lead Batteries • Nickel Metal Hydride Batteries
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USES:
Nickel Cadmium (Ni-Cd) batteries are found in cellular and cordless telephones, video cameras, portable power tools and laptop computers. Small sealed lead acid (SSLA) batteries are used in emergency lighting, security and alarm systems, computer and backup devices, and hospital equipment. Lithium Ion batteries are used in video cameras, cellular phones, and laptop computers. Nickel Metal Hydride (NiMH) batteries have been developed to meet the requirement for increasingly higher levels of energy demanded by the electronic products of today. They are used in digital cameras, cordless vacuums and power tools, cell phones, and personal digital assistants. Rechargeable batteries may initially be more expensive than single use batteries, and they usually require the cost of an adaptor. However, the up-front costs are often outweighed by the long-term savings and environmental benefits of re-use.

HEALTH & ENVIRONMENTAL EFFECTS:
 Ni-Cd and SSLA batteries contain toxic constituents such as cadmium and lead which perform critical functions within the battery. These heavy metals do not pose a real risk while the battery is in use and is contained within the battery casing. However, neither landfill or incineration is a good option due to heavy metal content. Heavy metals have the potential to leach slowly into the soil, ground water and surface water. When incinerated, the metals can concentrate in the ash produced by combustion and enter the atmosphere through incinerator smokestack emissions. Cadmium is known to be a carcinogen. There are possible health effects associated with ingesting or inhaling a number of heavy metals. These may range from headaches and abdominal discomfort to seizures, cancer, comas, etc. Ni MH are more environmentally friendly due to the fact that they don't contain cadmium and they have a higher energy density than nickel cadmium. Lithium ion batteries do not contain lithium metal. They utilize an ionic form of lithium that moves between positive and negative electrodes depending on the state of charge. If the batteries are exposed to high temperatures or fire, the electrolyte may be released. Electrolytes and other cell components can burn.

DO'S	DON'Ts
<u>Do</u> Recycle rechargeable batteries.	<u>Don't</u> place the battery in fire or heat the battery.
<u>Do</u> check the batteries for any irregularities. If there is any damage to the casing, replace the battery.	<u>Don't</u> attempt to disassemble, remodel or destroy the battery as it may cause injury or environmental damage.
<u>Do</u> supervise children using batteries and thoroughly instruct them on proper use.	<u>Don't</u> overcharge the battery.
<u>Do</u> remember to never solder a lead wire or other products directly to the battery.	<u>Don't</u> install the battery backwards so that the polarity is reversed. Never connect the terminals with metal.

RECYCLING OPPORTUNITIES:
 Many electronics retail outlets take old rechargeable batteries for recycling. Rechargeable Battery Recycling Corp (RBRC) boxes are located in Government buildings, Radio Shack stores, Canadian Tire stores and many other point of purchase retail stores.

DISPOSAL: Landfill should not be an option. Recycling is available across the province.

For more information CONTACT:

Department of Environment: <http://www.gov.nf.ca/env>

Rechargeable Batter Recycling Corp(RBRC): <http://www.rbrc.org/rbrc/> 16 Northumberland
 Toronto, ON
 M6H 1P7

BOOKS/MAGAZINES									
PRODUCT:	<ul style="list-style-type: none"> Used hard cover & paperback books of all kinds: textbooks, novels, encyclopedias, magazines, comics, etc. 								
USES:									
<p>Your trash may be somebody else's treasure and this is usually the case with books. Some people are collectors, some are avid readers and browsers, while others chose to buy and resell used printed material. Printed materials may even be used as raw materials for art works and projects. Whatever the case, the landfill is no place for a good book, booklet, magazine. There are many bookstores which trade books or buy used books. Many charitable organizations accept donations of books. Books may be sold for charity, given to children's hospitals, used by educators as resource material, or given to those in need as part of continuing education within the province or worldwide. Daycares and preschools accept donations of old coloring books and children's books. Doctor's offices accept used magazines for their waiting areas. Libraries accept donations - particularly community based and volunteer driven libraries and school libraries.</p>									
DO'S	DON'Ts								
Do donate books to a charitable organizations.	Don't throw books into the trash.								
Do bundle your papers / books into manageable size parcels prior to transport to recycling facilities.									
Do recycle your old newspapers.									
Do sell or donate your books to used bookstores.									
RECYCLING OPPORTUNITIES:									
Reuse or charitable donations are an option.									
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"><u>ST. JOHN'S AREA:</u></td> <td style="width: 25%;"> Afterwards Bookstore 245 Duckworth St. 753 - 4690 </td> <td style="width: 25%;"> The Book Closet 7 Commonwealth Ave 368 - 7323 </td> <td style="width: 25%;"> Wordplay 221 Duckworth St. 726 - 9193 </td> </tr> <tr> <td> Fine Line Book Store Ltd. 664 Topsail Rd. 364 - 7750 Fall River Plaza 579 - 5257 </td> <td> Second Page Bookstore 363 Water St. 722 - 1742 655 Topsail Rd. 364 - 8154 38 Pearson Street 722 - 3638 </td> <td> Time Masters Inc. 183 A Duckworth St. 754 - 3654 </td> <td> Penney Gerald Associates Ltd. <u>(Nf & Labrador Books Only)</u> 29 Smith Avenue 739 - 7227 </td> </tr> </table> <p>* Value Village and Salvation Army Thrift Stores also accept and sell used books of all types.</p>		<u>ST. JOHN'S AREA:</u>	Afterwards Bookstore 245 Duckworth St. 753 - 4690	The Book Closet 7 Commonwealth Ave 368 - 7323	Wordplay 221 Duckworth St. 726 - 9193	Fine Line Book Store Ltd. 664 Topsail Rd. 364 - 7750 Fall River Plaza 579 - 5257	Second Page Bookstore 363 Water St. 722 - 1742 655 Topsail Rd. 364 - 8154 38 Pearson Street 722 - 3638	Time Masters Inc. 183 A Duckworth St. 754 - 3654	Penney Gerald Associates Ltd. <u>(Nf & Labrador Books Only)</u> 29 Smith Avenue 739 - 7227
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DISPOSAL:	<p>Landfill or incineration at the municipal disposal site should be your last resort for disposal. If there are no secondhand book stores in your community then feel free to donate your old books to the local school or public library.</p>								

THE COMPOSTING COUNCIL OF CANADA

Composting is nature's way of recycling. Composting decomposes and transforms organic material such as food scraps, leaves and yard trimmings, paper, wood, manures, and the remains of agriculture crops, into a soil-like product called humus.

The composting process uses micro-organisms such as bacteria and fungi to break down the organic materials. For the process to work best it is important for the micro-organisms to have a continuous supply of food, water and oxygen. Managing the temperature of the compost is also an important step.

Composting is an easy way to recycle at home. It can reduce the amount of household garbage by about one third, and it produces a valuable soil amendment for use in gardening and landscaping.

WHAT TO ADD:

- ✓ FROM THE GARDEN
 - ✓ Leaves (chopped - to speed the breakdown),
 - ✓ Grass (not wet),
 - ✓ Plants and weeds (without ripe seeds),
 - ✓ Old potting soil, and
 - ✓ Soft plant stems.
- ✓ FROM THE KITCHEN
 - ✓ Fruit scraps,
 - ✓ Vegetable trimmings,
 - ✓ Egg shells (crushed),
 - ✓ Tea bags,
 - ✓ Coffee grounds with filters, and
 - ✓ Shredded paper.

WHAT NOT TO ADD:

- ✗ Meat, fish and bones,
- ✗ Plastics,
- ✗ Metals,
- ✗ Fats and oils,
- ✗ Dairy products,
- ✗ Pet waste, and
- ✗ Cheese, meat or other sauces.

HOW TO COMPOST:

Home composting can be done with a "build your own" or with a commercial unit. The first step, which is very important, is to place your composter in a sunny area with good drainage. Make sure the location is convenient and accessible year round.

GETTING STARTED:

1. Turn the soil in the location where the composter will be.
2. After placing the composter, cover the floor of it with a layer of small branches. This will allow for air movement and drainage.
3. Alternate wet (e.g. kitchen scraps) and dry (e.g. yard material) waste.
4. If available, add some "finished" compost, garden soil or a compost starter (available at most garden centres) to the pile. This helps to speed up the start of the composting process.

HELPFUL HINTS:

- Weeds and trimmings should be shredded because the composting process works best when the organic pieces are small.
- Don't add thick layers of any kind of waste. Grass should not be more than 6 cm deep, leaves up to 15 cm deep (cut or chop or dry and crumble them). If you can, let grass dry first or mix it with dry, coarse material such as leaves to prevent compacting.

- The composter contents should be moist like a wrung-out sponge. If the contents are too dry, it will take overly long to compost; and if too wet, the contents may begin to smell.
- Turn or mix the contents every couple of weeks or each time you add new material. This keeps the contents well aerated.
- Composting can be done in the winter. You can add materials to your composter all winter long. The breakdown process slows down or stops when the pile is frozen, but it will start up again in the spring. Thorough turning in the spring will reactivate the pile. Empty the composter in the fall to make plenty of room.

SOLUTIONS TO CORRECT SITUATIONS THAT MIGHT OCCUR:

- If the pile does not reduce in size or generate heat, composting may need a boost. If the pile is dry, add water and mix thoroughly.
- If the pile is wet and muddy, spread it in the sun and add dry material.
- If the center of the pile is damp and warm, but the rest is cold, the pile may be too small. Try to keep your composter as full as possible. Mix new with old, dry with wet, breaking up mats and clumps.
- If the pile is sweet smelling but not heating, it may need nitrogen. Add grass clippings, table scraps or a sprinkle of organic fertilizer from the garden centre.
- If the compost pile develops a foul odour, it may not be getting enough air. Loosen up the pile, break up clumps, unblock vents and perhaps add some wood chips to help the pile “breathe.” Turning the pile always helps aeration.
- Compost in a container with a cover to prevent animals from getting into the composting materials. A wire mesh around the base can help to prevent pests from digging under the pile. Dig in or cover food waste immediately.

HOW TO KNOW WHEN THE COMPOST IS READY

The composting process can take from 2 months to 2 years, depending on the material used and the effort involved. To speed up the process, the pile should be a balance between wet and dry material, it should also be turned frequently and the waste should be shredded or in small pieces. Compost is ready to be used when it is dark in color, crumbly and has an “earthy” smell. You can shift the compost to eliminate material which has not yet finished composting. Return this back into the pile to complete its transformation into humus.

USES FOR COMPOSTED MATERIAL:

- It can benefit soil and plants in many ways,
- It increases the soil’s organic matter content and its moisture-holding capacity,
- It improves soil porosity and helps to control soil erosion, and
- It enhances plant and flower growth and helps plants to develop a sound root structure.

* For more information contact The Composting Council of Canada at 16 Northumberland Street, Toronto, Ontario M6H 1P7, Website: <http://www.compost.org/>

COMPUTERS			
PRODUCT:	<ul style="list-style-type: none"> • Computer monitors • Hard drives 	<ul style="list-style-type: none"> • Keyboards • Computer Accessories 	
USES: Corporate and Personal Use.			
HEALTH EFFECTS: Cathode Ray Tubes contain lead which may cause a health hazard if leached into groundwater. Some computers contain hazardous substances such as mercury and cadmium as well.			
ENVIRONMENTAL EFFECTS: Computers represent a rapidly growing waste stream due to advances in technology. The National Safety Council estimates that over 315 million computers will become obsolete by the year 2004. Computers contain hazardous substances such as lead, mercury, cadmium, and chromium. The glass screens, or cathode ray tubes in the monitor can contain as much as 27% lead. Computer products are made of valuable resources, including precious metals, all of which require energy to source and manufacture. Resource recovery is as important as pollution reduction. There are not yet any computer recyclers established in Newfoundland. However, there are many computer businesses which buy second hand computer and/or accept donations. Computers may be resold or sold back for parts or upgrades.			
DO'S		DON'Ts	
<u>Do</u>	donate old computers to schools or a charitable organization.	<u>Don't</u>	throw an old computer into the landfill. It is taking up necessary space.
<u>Do</u>	upgrade your old computer or trade old computer to a Used Computer Store.	<u>Don't</u>	forget that hazardous chemicals may leach into the environment from discarded computers.
RECYCLING OPPORTUNITIES: Recycling is the best alternative for out of date computers. However, recycling is not yet available in Newfoundland..			
DISPOSAL: Landfill should be a last resort. There are other alternatives available.			
<u>USED COMPUTER EQUIPMENT - They provide upgrades and trade - ins!</u>			
The Computer Clinic 50 Mayor Avenue 753 - 3282	The Computer Liquidation Centre 100 Duckworth Street 739 - 4401	The Used Computer Store 1179 Topsail Road 745 - 8733	Computer Renaissance 27 Elizabeth Ave. 726 - 2410
<u>ORGANIZATIONS WHICH ACCEPT DONATIONS - They may provide receipts for tax purposes!</u>			
Computers for Schools 152 Water Street 739 - 3806	The Hub 21 Merrymeeting Road 739 - 4900		
For more information CONTACT:			
Links: http://www.epa.gov/Region2/r3/compute.htm http://www.epa.gov/Region1/topics/waste/swaste.html			

EXPIRED MEDICATIONS	
PRODUCT:	<ul style="list-style-type: none"> • Pills/Medicine • Any Drug Products
USES:	
The uses are variable, depending on the ailment or sickness.	
HEALTH EFFECTS:	
<p>Ingestion: Although most expired prescriptions lose effectiveness as they expire, some do not. Some medications are also toxic after a certain length of time. The safest route is to NOT take any medications which are expired. Prescriptions are meant only for the person whose name is on the label. Do not give them to anyone else. Doctors prescribe them based on your specific medical history. Prescriptions could have dire consequences for unauthorized consumers/patients.</p>	
ENVIRONMENTAL EFFECTS:	
<p>Disposal “down the drain” results in discharge into marine and freshwater environments. Impact upon these environments is difficult to ascertain. Impacts are often observed as fish kills or discoloration of the water column. More subtle, non-lethal adverse impacts occur: effects on reproductive, nervous, muscular, and respiratory systems, etc. Into a landfill expired medications represent an exposure risk to wildlife. Incineration provides the preferred option for disposal of expired, or surplus, medications. Expired medications should be considered special waste. Special handling, transport, and disposal procedures will minimize risk of exposure and/or adverse effect.</p>	
DO’S	DON’Ts
<u>Do</u> bring old and expired prescriptions to your nearest pharmacy.	<u>Don’t</u> throw in the garbage.
<u>Do</u> keep out of reach of children.	<u>Don’t</u> pour down the sink, toilet or sewer systems.
<u>Do</u> use, consume, and apply prescriptions as directed.	<u>Don’t</u> give to another person for use.
RECYCLING OPPORTUNITIES:	
Not Applicable.	
DISPOSAL: Bring to your nearest pharmacy. Landfill or municipal incineration should be considered as a last option for disposal.	

EYEGLASSES

PRODUCT: • Prescription eyeglasses and sunglasses

USES:

Prescribed by optometrists, eyeglasses correct vision. Over time a persons prescription will change and their eyeglasses will no longer be useful. The old eyeglasses should not be thrown in the garbage as they could be the perfect gift for a person in need. Lions Clubs across the province and the CNIB collect used eyeglasses and send them to third world countries. In developing countries, an eye exam can cost up to one month's wages. Collected eyeglasses are cleaned, repaired and measured to determine the prescription. Available glasses are catalogued in a computer database, and matched to people with need. Scratched glasses are reground and made useful again. Eyeglass frames and non-prescription sunglasses are sometimes accepted. Opticians will usually take glasses and frames when you buy a new pair as they are collection agents for the CNIB and the Lion's Clubs. Alternatively, old glasses can be tinted for reuse as sunglasses.

DO'S

DON'Ts

Do give eyeglasses to charity.

Don't throw eyeglasses in the landfill when there are other options available to you.

RECYCLING OPPORTUNITIES:

Not applicable.

DISPOSAL: Donate eyeglasses to the needy instead of throwing them in the landfill. You will feel better and others will see better!

For more information CONTACT:

<p>CNIB Grand Falls- Winsor 709-489-6515</p>	<p>CNIB St.John's 709-754-1180</p>	<p>CNIB Corner Brook 709-639-9167</p>
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For more information about the eyeglasses recycling program, contact your local Lion's Club.

FURNITURE

PRODUCT: • Sofas, Tables, Bookshelves, Beds, Futons, Chairs, Desks, etc.

USES:

Furniture is often thrown into the landfill when a homeowner moves away or makes new purchases. There are many people that could make use of this old furniture. Students are usually on a tight budget and frequently visit used furniture stores looking for a bargain. Many people cannot afford to buy new furniture and often they go without such luxuries. There are many charitable foundations who will help these people in need by accepting donations of old clothing and furniture. People who have lost everything in a fire often look to these charities to help get them back on their feet. With so many alternatives, it is hard to understand why people throw things away. Old couches may be re-upholstered and made to look brand new at a minimal cost. Tables and most other wooden and wood-veneer furniture may be stripped and refinished. The possibilities are fairly limitless.

DO'S

Do lend a helping hand to those in need by donating old furniture.

DON'Ts

Don't throw anything in the landfill which may be reused or refurbished.

RECYCLING OPPORTUNITIES:

Landfill should be a last resort. Consider alternatives such as antique dealers, charitable organizations, and used furniture stores. There are many businesses which can refurbish old furniture and make it as good as new.

USED FURNITURE STORES:

ABBA St. John's 687- 1884	As Good as New Used Furniture 1489 Topsail Road 782 - 4663	Cashin Furniture & Appliances 61 Cashin Avenue 739 - 1919
Value Village 161 Kenmount Rd. 726 - 5200	Curtis Used Furniture & Appliance 205 New Gower Street 754 - 4922	Uptown Furniture & Oddities 572 Water Street 739 - 4800
		Curiosity Shop 148 Gower St. 738 - 2367

ANTIQUE STORES:

Doyle's Older Wood Furniture 384 Dogberry Hill Rd., St. Phillips 895 - 6640	Murray's Antiques & Fine Furniture 414 Blackmarsh Road 579 - 7344	Livyers 202 Duckworth St. 726 - 5650
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* See **Household Items** for more Antique Businesses.

FURNITURE REPAIR:

Coach House Furniture 65 Old Petty Harbour Rd. 364 - 3374	European Furniture Ltd. 422 Old Pennywell Rd. 753 - 7180	Furniture Medic Kelligrews, Long Pond 834 - 7897
Furniture Specialist 1478 Topsail Rd. 782 - 4141	Furniture Works 111 Merrymeeting Rd. 739 - 6757	Ravenwood Millworks Freshwater, Argentia 227 - 7770
Sentimental Heirlooms Restoration Torbay 437 - 4141	Woodpros 414 Blackmarsh Road 579 - 7344	

HOUSEHOLD CLEANERS

PRODUCT: Various cleaning products found in and around the home.

USES:

The average home contains at least a dozen different cleaning products: dish & laundry detergent, toilet bowl cleaner, soap, bleach, floor cleaner, ammonia, oven cleaner, scouring powder, window cleaner, disinfectants and all-purpose cleaners – almost all potentially hazardous to the environment and to your health. Caustic ingredients burn your eyes, skin and lungs. Toxic ingredients are the cause of many accidental poisonings. There are less toxic alternatives available. Environment friendly cleaners may be made from items found around the home. Products are considered hazardous waste if they are listed as: Flammable , Corrosive, Reactive, or Toxic.

HEALTH EFFECTS:

Soaps and detergents are irritating to the stomach and bowels, causing nausea, vomiting and diarrhea. The ingestion of chlorine bleach will cause vomiting. Many products are caustic agents that may cause severe burns. Mixing chlorine bleach with acids or ammonia results in the production of dangerous gases. Fumes can cause watery, burning eyes, a runny nose, a sore throat, and difficulty breathing. Poisoning is a major problem...especially when children are involved. Poisoning may result due to ingestion, inhalation or skin contact with toxic substances. Health effects from household cleaners depend on the concentration of toxic ingredients, how much substance was swallowed, breathed in, or contacted the skin, and the susceptibility of the child or adult. Asthmatics or allergy sufferers should exercise extreme caution.

ENVIRONMENTAL EFFECTS:

Household cleaning products that are landfilled can filter down through the soil and contaminate groundwater, and may poison soil and plants. If poured down the drain, wastes can harm septic systems and be harmful to downstream aquatic life including fish. Burning household hazardous wastes may produce dangerous gases and pollute the air. Many detergents contain phosphates which choke waterways by leading to overabundant algal blooms and reduced oxygenation . Aerosol spray bottles deplete the ozone layer, which ultimately results in an increase in the amount of UV radiation reaching the earth.

DO'S	DON'Ts
Do use up all of the product or give it to someone else who can.	Don't throw hazardous cleaner into the garbage or pour it down the drain.
Do keep out of the reach of young children.	Don't transfer the cleaner to another container. Keep it in the original so you can follow instructions on the label.
Do buy only what you need	Don't ever mix different types of cleaning products.

DISPOSAL: Small amounts of household cleaner may be diluted in water prior to discharge into a sewer system. However, if considered hazardous it has to be stored in its original container until the next household hazardous waste day. Follow manufacturers instructions on label or carton. Contact the Multi Material Stewardship Board (MMSB) for information on household hazardous waste days in your area: <http://www.mmsb.nf.ca/default.html>

ALTERNATIVE CLEANING SOLUTIONS:

- Line the bottom of the oven with foil. Wipe oven with a dampened vinegar/water cloth to retard grease.
- Vinegar and water make an excellent substitute for glass cleaner. 1/4 cup vinegar, 1 quart of water.
- Baking soda can be used as a freshening agent as well as for scouring.
- Pour ½ cup vinegar and ½ cup baking soda down the drain and let it stand for 15 - 20 minutes. Follow up by flushing with boiling water. You may have to repeat for stubborn clogs in the drain.
- For an all-purpose cleaner mix 2 tbsp of Borax with 1 qt. of warm water and 1 tsp. of liquid soap. Vinegar or baking soda may be added to the solution for extra cleaning power.
- Use lemon juice and salt to polish copper, white vinegar to polish chrome, equal parts salt and flour with a little vinegar to polish brass; and soak silver in one quart of boiling water with a piece of aluminum foil.
- Toothpaste rubbed lightly on wood removes water stains; rub wood with walnut (removed from shell) to remove scratch marks. 1 tsp. lemon oil in ½ litre of mineral oil makes a good furniture polish.

For more alternatives check out: <http://www.cedarnet.org> Or <http://www.msue.msu.edu>

HOUSEHOLD ITEMS

PRODUCT:	<ul style="list-style-type: none"> • Clothing/Textiles • Sports Equipment 	<ul style="list-style-type: none"> • Small Appliances (toasters, microwaves, t.v.'s) • Toys & Games, CD's
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USES:

People change their clothes as often as they change their minds. This is evident in the amount of shiny new goods that become trash. Trends change and kids grow out of outfits quickly. The amount of clothing purchases has increased over the years. Compact discs become thrown to the side after a month or two of use. Kids decide they don't enjoy a certain sport, after all of the equipment has been purchased. These scenarios are familiar to a number of people. Household items such as these end up in the landfill all too often. Most of the time the product is in extremely good condition and should be diverted from the landfill. Secondhand stores will accept or purchase small and large appliances, furniture, and other items for resale. Many household items may be reused rather than discarded. There are a number of useful websites which provide helpful hints and reuse ideas.

DO'S	DON'Ts
Do give generously to goodwill organizations.	Don't throw clothing into the landfill.
Do trade in old CD's for music that you enjoy.	Don't forget that many secondhand stores and charitable organizations will accept small appliances.
Do trade in used sports equipment as children grow and interests change.	Don't hesitate to repair useful items to save money and landfill space.

RECYCLING OPPORTUNITIES: Not Applicable. **Reuse** is the best option available.

Value Village 161 Kenmount Rd. 726 - 5200	Salvation Army 11 Waldergrave St. 753 - 5840	Canadian Diabetes Assoc. 217-354 Water St. 754 - 0953	Epilepsy NF & Labrador Previously Loved Clothes & Things 753 - 7283
St. John's Native Friendship Assoc. 112 Casey Street 726 - 5902	Assoc. for New Canadians 144 Military Road 722 - 9680	Emmanuel House 83 Cochrane 754 - 2072	Iris Kirby House 18 Argyle 722 - 8272
St. Vincent de Paul 84 Gower St. 579-3345	Single Parent Association 738-3401		

These businesses accept everything except large appliances. Clothing, bedding, furniture ,books, kitchenwares, small appliances and other household items are accepted.

Play - It - Again Sports 516 Topsail Rd. 745 - 7529	Traders 56 Kenmount Rd. 738 - 2274	Once Upon A Child Coaker's Meadow Plaza 754 - 6200	Precious Beginning 446 Newfoundland Dr. 738 - 4214	Second Time Kid's Stuff 26 Freshwater Rd., 753 - 0303
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Traders will not accept clothing, furniture or books. Once Upon A Child will accept all items related to children. Precious Beginnings accepts children's and maternity clothing.

Central Collectables 184 Merrymeeting Rd. 738 - 1261	The Curiosity Shop 148 Gower St. 738 - 2367	Rosemill Antiques & Collectibles 556 Water St. 754 - 8224	A Treasure Trove Antiques & Collectibles 371 Torbay Road 437 - 1862
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These businesses buy antiques and collectibles such as china, furniture, dolls, glass, silver, etc. See also **Furniture**.

THESE WEBSITES HAVE REALLY COOL REUSE IDEAS FOR HOUSEHOLD ITEMS:

<http://www.geocities.com/RainForest/5002/index.html> & <http://www.stretcher.com/stories/980921a.htm>

MERCURY		
PRODUCT:	<ul style="list-style-type: none"> • Thermometers • Batteries 	<ul style="list-style-type: none"> • Fluorescent Bulbs • Thermostats and Electrical Switches and Dials
USES:		
<p>Mercury is an important industrial metal due to its desirable properties such as: liquidity at room temperature, ability to alloy with most metals and electrical conductivity. However, due to its high toxicity, some industrial use e.g. in paint, has lessened.</p>		
HEALTH EFFECTS:		
<p>Exposure to mercury can occur through inhalation, ingestion or dermal absorption. The amount of mercury absorbed by the body - and thus the degree of toxicity - is dependent upon the chemical form of mercury. Mercury affects the central nervous system, kidneys, and liver. Once in the bloodstream, mercury remains in the system for long periods of time inflicting more damage.</p>		
ENVIRONMENTAL EFFECTS:		
<p>Mercury in the waste stream is of particular concern because bacteria which are vital to the wastewater treatment process can methylate the available mercury. Methyl mercury bioaccumulates and is more toxic to humans and wildlife than inorganic mercury. Mercury levels increase in the aquatic food chain resulting in elevated levels of mercury in fish and in humans who consume these fish. Mercury - contaminated fish eaten by women may affect fetal development and depending on the amount of accumulation of mercury may be fatal. Mercury cleanup is important because when the liquid is spilled, it forms droplets that can accumulate in small spaces; these droplets can emit toxic vapors that we can't see or smell. Small amounts of mercury in thermometers and fluorescent bulbs is not likely to cause serious health problems, but spills should be cleaned up immediately to minimize exposure or release into environment.</p>		
DO'S	DON'Ts	
Do contain and clean up all spills immediately.	Don't use a vacuum to clean up a spill. Vapors may be emitted into the air.	
Do ventilate spill area.	Don't sweep up spills. Mercury will break up into smaller beads and will be dispersed rather than collected.	
Do keep children and pets away from any mercury spill area.	Don't come into contact with mercury or mercury contaminated material. Wear protective clothing such as apron and gloves to avoid exposure.	
Do collect all mercury and mercury contaminated material and place into a leak proof container.	Don't pour down a drain. Mercury is toxic to aquatic life and may bioaccumulate.	
RECYCLING OPPORTUNITIES:		
<p>Mercury is considered a hazardous and requires special handling, transport, and disposal to prevent exposure and protect environmental health.</p>		
DISPOSAL:		
<p>Mercury is restricted for disposal and should be stored and disposed of at household hazardous waste days or collected by licensed service professionals. Multi Material Stewardship Board (MMSB) coordinates household hazardous waste day events within participating municipalities.</p>		
For more information CONTACT:		
Multi Material Stewardship Board (MMSB):	Telephone: (709) 753-0948 Fax: (709) 753-0974 Website: http://www.mmsb.nf.ca	

METALS		
PRODUCT:	<ul style="list-style-type: none"> • Aluminum Cans • Car Wrecks • Plumbing 	<ul style="list-style-type: none"> • Appliances (large and small) • Used Auto Parts • Electric Wiring
<p>METALS:</p> <p>Most scrap metal dealers and/or salvage yards pay money for the following metals/sources of metals: copper, brass, aluminum, catalytic converters, radiators, stainless steel, transmissions, iron, batteries, and car wrecks.</p> <p>Prices are governed primarily by metal markets in the U.S and are subject to change frequently but metals are among the most recycled materials in Canada.</p>		
<p>FACTS & FIGURES:</p> <ul style="list-style-type: none"> • Steel may be recycled over and over again without losing its unique qualities. Magnetic separation makes steel one of the easiest and economic materials to recycle. Tin cans are actually 99% steel, with a thin layer of tin added to prevent rusting. • Recycling steel and tin cans saves 74% of the energy used to produce them from raw materials. 75% of a vehicle by weight is recyclable. There is enough steel and iron discarded to continuously supply all the nations autoworkers. Working auto parts can be refurbished and sold for 20 - 50% less than new parts. • The recycling of aluminum is found even more efficient e.g. 95% less energy is used every time a can is recycled into new aluminum. • Pure copper scrap can be made into a high quality product. If scrap metal is mixed, contaminated, or includes any other materials such as solder then it may be more difficult to recycle into products of specific quality. 		
<p>HEALTH & ENVIRONMENTAL EFFECTS:</p> <p>Many metals are alloys, meaning they are mixtures of different metals or elements. Some of the metals associated with these alloys are generally not in a form that is dangerous. However, fumes released, for example by melting or welding of some metals may pose a health hazard. Metals should not be dumped in waterbodies as they oxidize and contaminate the water. Metals pose a physical hazard to both humans and wildlife. Recycling metals is the best option available to save raw materials, conserve energy and reduce landfill space.</p>		
DO'S	DON'Ts	
<u>Do</u> recycle scrap metals.	<u>Don't</u> illegally dump scrap metals.	
<u>Do</u> sell car parts or bring them to somebody who will.	<u>Don't</u> burn scrap metals openly.	
<u>Do</u> bring old appliances to be recycled. Remember to have a certified contractor remove any CFC's present in an old refrigerator.	<u>Don't</u> dump metals in or near any type of waterbody. This may cause the water to be contaminated.	
<p>RECYCLING OPPORTUNITIES:</p> <p>Do bring any metal parts or appliances to your nearest metal recycler or salvage yard. Please refer to the appendix for listings.</p> <p>Check out the yellow pages for a Used Auto Parts Dealer located close to you.</p>		

MUSICAL INSTRUMENTS

PRODUCT: • Pianos, Violins, Guitars, Brass Instruments, Reed instruments, etc.

USES:

Studies have shown that learning music at a young age results in significant increases in brain development. Music education helps to develop problem - solving skills, teamwork, memory skills, hand - eye coordination, self - confidence and self-esteem. However, many musical instruments are very expensive and parents can't afford to run the risk of the child becoming disinterested in a short period of time. It is therefore appreciated when people donate good musical instruments to schools or other charitable foundations. Secondhand and used instrument stores are also an option as they sell at reduced prices. The instrument may also be repaired if it is damaged. Find a disposal alternative to long-term storage or land filling, especially with items as valuable as these.

DO'S

DON'Ts

Do donate unwanted /surplus musical instruments to schools and programs.

Don't take up landfill space by throwing away pianos, guitars, etc which may be repaired, sold or donated.

RECYCLING OPPORTUNITIES:

Repairs can be made to make instruments as good as new. Many stores will buy and sell used instruments. Schools and other music programs would be very happy to accept donations of musical instruments.

REPAIR STORES:

Griffiths Guitar Works

117 Ropewalk Lane
579 - 3114

The Music Collection Ltd

444 Torbay Road
738 - 2982

Music City

278 Waterford Bridge
739 - 6999

Woodcock's Violin & Guitar Repair

77 King's Rd
753 - 2680

Provincial Music Co Ltd

62 Campbell Ave
579 - 2641

Musicstop

25 Kenmount Rd.
753 - 1885

Pianowise

4 Kieley Drive
745-8127

The Piano Doctor

St. John's
745-3771

USED INSTRUMENT/REPAIR:

String & Things Music

912 - 924 Topsail Road
368 - 6289

Reid Music

835 Topsail Rd.
364 - 2233

A.L. Collis Piano & Organ

556A Topsail Road
364 - 8050

In Tune

50 Mayor
726 - 7030

Organizations: Check with a school in your local area to find out what they will accept. Most schools with music programs would be happy to receive donations. Youth groups such as the Royal Canadian Air Cadets, Girl Guides, Theater Groups may also accept musical instruments. Some examples of some organizations which would welcome donations of instruments are:

Suzuki Talent Education Program

St. John's , NF
738 - 7837

Newfoundland Symphony (and Youth) Orchestra

Prince Phillip Drive
753 - 6492

OZONE DEPLETING SUBSTANCES (CFC'S)

PRODUCT:	<ul style="list-style-type: none"> • Air conditioner coolant • Fire Extinguisher agent 	<ul style="list-style-type: none"> • Refrigerator Coolant • Aerosol Can Propellants
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USES:
 Chlorofluorocarbons (CFC's) are a class of man-made products known by the tradename "Freon". They have been used in a variety of manufacturing steps and products, which include coolants in air conditioners and fridges, solvents in the electronics industry, foaming or blowing agents, aerosol propellants, degreasing agents, and as a key component in making rigid foam insulation for houses and household appliances. Halons are found in hand-held fire extinguishers. The use of CFC's and Halons have decreased due to adverse effects on the environment.

HEALTH EFFECTS:
 Freon does not cause cancer or mutations and does not damage the liver. When it is inhaled, it is rapidly excreted by exhalation, and it does not accumulate in the body. Breathing large amounts of freon for a short time adversely affects the nervous system. Effects range from dizziness to loss of coordination and irregular heart beat. Halons and Freon deplete the ozone layer, the earth's protector from ultraviolet (UV) radiation. Depletion of the ozone layer causes increased incidence of skin cancer and eye cataracts and suppression of the body's immune system.

ENVIRONMENTAL EFFECTS:
 CFC's and Halons are highly volatile compounds, which deplete the ozone layer, contributing to air pollution.

DO'S	DON'Ts
Do have your car air conditioning properly serviced and check for leaks frequently.	Don't dispose of the equipment without having a trained technician remove the CFC's.
Do have refrigerators and air conditioners serviced by a certified contractor who has completed the required environmental awareness course. Ask to see the contractor's wallet card.	Don't mix recovered refrigerants with another type of refrigerant. Make sure that alternative refrigerants are acceptable before using them.
Do reduce the use of CFC's, chlorinated solvents and Halons. Look for other alternatives.	Don't directly or indirectly release a regulated substance or allow the substance to be released.

RECYCLING OPPORTUNITIES:
 A person who services air conditioning or refrigeration equipment shall:
 (a) have available at the job site operational equipment that can recover and contain a regulated substance; and
 (b) recover and reuse, recycle, reclaim or arrange for the destruction of an ozone depleting substance that would otherwise be released during the servicing procedure.
Ozone Depleting Substances Regulations under the Environment Act

Contact fire extinguisher service facilities, refrigerator, and air conditioning service personnel for direction as to freon and halon removal and recycling. They can be found in the yellow pages.

For more information CONTACT:
Environment Canada: <http://www.ec.gc.ca/ozone/>
Provincial Department of Environment(DOE): <http://www.gov.nf.ca/hoa/regulations/rc970120.htm>
 Telephone: (709) 729 - 2555

PAINT AND PAINT CHIPS

PRODUCT: • Water - based and Oil - based Paints & Coatings

USES:

Paint in houses built before 1978 may contain heavy metals such as lead and/or PCB's. Oil based paints, stains and urethanes are classified as flammable due to ignitability. They are volatile and produce noxious toxic fumes when ignited. Latex paints do not require solvents and thinners but may still pose a hazard to the environment. Small amounts of latex paint may be handled as non-hazardous waste

HEALTH AND ENVIRONMENTAL EFFECTS:

Paint, paint chips, and paint dust in older homes that contain lead can pose health hazards if proper care is not taken. Lead can enter the body by inhalation, ingestion, and absorption. Children who play in areas where lead contaminated paint chips are present are at risk of exposure. Any incident involving ingestion of paint chips should be treated immediately (please contact the poison control center or local hospital). Paints contaminated with lead disposed in the environment will leach into soils with pH less than 7. Lead in soil and groundwater may be absorbed by plants and animals. Lead bioaccumulation can be toxic to humans.

Paints contain plasticizers, binding agents and pigments which may be carcinogenic or mutagenic. Each paint product contains information on the contents and precautionary statements on handling and use. Information is also given on proper disposal of residual paints and paint contaminated materials.

DO'S	DON'Ts
Do store paints in a cool, dry place. Wait for hazardous waste day events as an opportunity to dispose of old paint.	Don't store paints in areas where they may be exposed to extremes of heat or freezing conditions.
Do get proper technicians to remove, handle, and dispose of any paint suspected of being contaminated with lead.	Don't handle, remove, or dispose of any paint contaminated with lead. Seek professional assistance and/or advice.
Do use up extra paint or give it to somebody who can.	Don't throw paint down the drain as drains lead to rivers, streams and the ocean. Paint solvent fumes in sewage drains can emit fumes which may enter homes and office buildings.
Do recycle paint to local paint recyclers. Empty paint cans can also be recycled.	Don't put oil or other wastes in paint or paint cans.

RECYCLING OPPORTUNITIES:

Leftover Paint may be given to church groups who assist families in need and to youth or theater groups who may use paints to improve the appearance of a community. Advice for recycling and disposal of paints and paint cans may be attained from the following:

Power's Recycling 26 Alexander St. 738 - 6119	Power's Surplus & Salvage St. John's 722 - 6585/722 - 1720	NEWCO Metal & Auto Recycling Ltd. Robin Hood Bay Road 753 - 3070
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DISPOSAL: Disposal of any paint should only be made on Household Hazardous Waste Days or by trained professionals.

For more information CONTACT:

Multi Material Stewardship Board (MMSB): <http://www.mmsb.nf.ca/default.htm>

PAPER AND CARDBOARD	
PRODUCT:	<ul style="list-style-type: none"> • White & near white paper • Newspaper & Glossy Paper
USES:	
<p>Paper, including newspapers, magazines, corrugated cardboard, paperboard and computer print -outs, make up more than one - third of the garbage landfilled every week. Entire forest ecosystems, watersheds and the homes of thousands of plant and animal species are further at risk when paper is wasted. Curb consumption by :</p> <p>(1) Reducing the total amount of paper used; increased utilization of electronic document format & mail; print only what is necessary in smaller type & on double - sided copies. (2) Reusing paper: eg. using the blank side of old reports for rough work and notes. (3) Recycling paper that is clean and free from contaminants ie. food, adhesive and wax. Food - soiled paper such as napkins, paper towels, paper plates and cups can be recovered as compost. Recycling paper saves trees, landfill space, water, and energy.</p>	
HEALTH & ENVIRONMENTAL EFFECTS:	
<p>Chlorine and chlorine dioxide are used to bleach wood in the paper production process. Adverse health and environmental effects are associated with chlorine and chlorinated compounds. Many chlorinated compounds are toxic and can bioaccumulate in food chains.</p> <p>When paper is recycled, the amount of waste going to landfills is decreased and less timber is destroyed. Making paper from waste paper produces 73% less air pollution and uses 61% less water than when paper is made from virgin pulp. Recycling paper is the best option to reduce pressure on forests, including old growth forests and boreal diversity and ecology.</p>	
DO'S	DON'Ts
Do bring used paper to paper recyclers and buy recycled products to support the recycling industry.	Don't throw paper in the garbage - there are many other options available. Landfills may ban the disposal of paper products.
Do save paper and cardboard products as materials for children's arts and crafts and school projects.	Don't reuse paper that has been contaminated with food, glue, wax or glass. Recycling plants don't accept contaminated paper and paperboard.
Do use small quantities of paper and cardboard as kindling material.	Don't Burn large quantities of paper and cardboard. Paper and cardboard that contain inks and dyes will produce toxic air pollution when burned.
Do reuse cardboard boxes for packing and storage purposes.	
RECYCLING OPPORTUNITIES:	
<p>There are many Green Depots located throughout the province which accept paper and newspaper for recycling. See the Appendix for the listings of Green Depots near your community. Nova Recycling accepts paper as well.</p>	
For more information CONTACT:	
Multi Material Stewardship Board (MMSB): http://www.mmsb.nf.ca/default.htm	

PESTICIDES

- PRODUCT:**
- Herbicides, Insecticides, Fungicides, Rodenticides
 - Other forms of “pest control chemicals”

USES:

Pesticides should be used as alternatives for pest control only. Natural garden predators like spiders, ladybugs and birds help control insect pests. Biological and cultural control methods should be used before pesticide chemical controls are applied to treat insect or weed infestation. Various species of vegetables, flowers, and turfs may attract or repel insect activity and diseases.

When biological and cultural methods are ineffective against pests and weeds products should be chosen which pose a minimal risk to human health and the environment. Pesticides include diatomaceous earth, boric acid, pyrethrins, insecticidal soap, horticultural oils, herbicides, and other chemicals. Whenever a pesticide is purchased follow proper storage, application, and disposal techniques as stated on the label, material safety data sheets, and/or leaflet included with the pesticides’ packaging. Always wear proper protective clothing when mixing and handling pesticides. Pesticides are toxic chemicals and are considered to be hazardous waste.

HEALTH EFFECTS:

Pesticides are easily tracked from the lawn to inside the home and can cause adverse effects if inhaled, ingested, or absorbed. If exposure to pesticides occurs adverse health effects may result. **SERIOUS** harm can result from misuse resulting in short-term and long-term exposure to chemical pesticides. Health effects may range from acute to chronic depending on the pesticide and duration of exposure. If exposure does occur please contact your nearest poison control center and/or a local hospital immediately.

ENVIRONMENTAL EFFECTS:

Pesticides may bind to roots, contaminating vegetables being grown in the soil, or leach through the soil contaminating groundwater. Above soil runoff water may be contaminated by pesticides and spray drift may leave pesticide residues on crops. Pesticides also bioaccumulate and can reach toxic levels in higher organisms. There have been a number of cases in which large amounts of birds were killed by lawn chemicals. The best solution to pesticide exposure is to reduce pesticide use and/or use products and controls that are less toxic.

DO’S	DON’Ts
Do follow the instructions on pesticide labels.	Don’t leave pesticides unattended at any time.
Do pay close attention to the weather conditions. Never apply anything on a windy day so as to minimize spray drift.	Don’t transfer pesticide to another container. Pesticides should be kept in original container so that hazards and instructions are clearly visible.
Do wear protective clothing and wash any exposed parts thoroughly immediately after application.	Don’t smoke or eat during application of pesticides to minimize risks of exposure.
Do purchase only the amount of pesticides you need. Give left over pesticides to people who need them or store them for following year.	Don’t throw pesticides in the landfill or pour down drains. Disposal of empty pesticide containers ... they should be triple rinsed and wrapped in bags or newspaper if there is no pesticide collection / disposal event in your area.

DISPOSAL: There are no recycling opportunities at this time. Storage is recommended and disposal should only be made through hazardous waste facilities or household hazardous waste days. Pesticides no longer registered by the Pesticides Control Products Act should be stored and collected by the Obsolete Pesticides Collection Program (beginning in summer 2002). *For more information on the Obsolete Pesticides Collection Program contact Department of Environment: 709-729-6054.*

For more information CONTACT:

- Department of Environment:** http://www.gov.nf.ca/env/PollPrev/pesticide_control.asp
Multi Material Stewardship board (MMSB): <http://www.mmsb.nf.ca/default.htm>
Environment Canada: <http://www.atl.ec.gc.ca/epb/factsheets/pesticides/altern.html>

PETROLEUM CONTAMINATED SOIL

PRODUCT:

- Soil that has become contaminated by petroleum products. These include diesel, gasoline, kerosene, jet fuel, used oil and lubricating oils.

USES:

Common uses of petroleum products; gas, oils, and lubricants, are household furnaces, motorized vehicles, engine lubricants, and as solvents. Spills and leaks from storage tank systems, fuel lines, and vehicular accidents result in discharge of gas and other petroleum products into the environment.

HEALTH AND ENVIRONMENTAL EFFECTS:

Any incident involving gas and oil spills, or leaks, should be reported immediately. The spill product should be contained in order to minimize adverse impact to human health and environment. Petroleum contaminated soil can release toxic hydrocarbons to surface waters and groundwater aquifers. People can be exposed to these materials by ingestion of contaminated water, and plants which may adsorb/absorb to petroleum products. Once in groundwater and sewer systems noxious fumes may enter buildings and structures. Petroleum product entering the body poses a serious health concern. Petroleum contaminated materials are also a fire hazard and may pose an explosion risk.

Petroleum products are persistent in the environment and may bind to clay particles and roots of plants. Fouling of plants may result by blocking oxygen and water transport to the roots. Its release from the soil column to groundwater may contaminate aquatic environments. Contamination of aquatic environments result in fish kills, the oiling of birds, as well as negative effects to aquatic microorganisms. Indirectly many levels of an ecosystem may be adversely effected by petroleum hydrocarbons.

In addition to impacts on wildlife, social and economic factors must also be considered. The presence of oil slicks on beaches and forest habitats can potentially effect the fishery, regional and areal trade and development, and the tourism industry, all of which are strong sources of revenue in rural and urban centers of Newfoundland.

There is currently a ban on landfill disposal of petroleum contaminated soil in Newfoundland. Those areas of the Island which do not have reasonable access to soil treatment services are exempted from the ban.

DO'S	DON'Ts
Do inspect and test your residential or commercial heating oil tank for signs of leakage.	Don't throw contaminated soil into the landfill or into a water body.
Do check your vehicle regularly for gas tank, fuel line, and lubricant leaks.	Don't let your children play in soil that you suspect is contaminated
Do monitor patterns of usage of all fueled machinery to detect unusual content losses.	Don't incinerate petroleum contaminated soil or other products as this creates greenhouse gases.

RECYCLING OPPORTUNITIES:

There is a landfill disposal ban present in most areas of the province. Petroleum contaminated soil should be brought to soil treatment facilities across the province.

NOTE: Petroleum Contaminated Soil Treatment Facilities in Newfoundland are listed in the Appendix.

For more information CONTACT:

Department of Environment (DOE): http://www.gov.nf.ca/env/env/PollPrev/contaminated_sites.asp

Information Link: <http://www.ucalgary.ca/unicomm/Research/mehta.htm>

PLASTICS

PRODUCT:

- plastic containers
- clear food packaging
- shampoo/detergent bottles
- plastic cutlery

USES:

Plastics are a versatile family of materials that are suitable for a wide range of packaging applications. In many cases, plastics offer the best, most affordable protection and create less waste than alternative materials. New products made from recycled plastics include carpet, sleeping bags, trash cans, office accessories and fencing.

ENVIRONMENTAL EFFECTS:

Unfortunately plastics are non - biodegradable and may persist in the environment for hundreds of years, wasting valuable landfill space. Plastics account for 7% of the total weight of waste material in a typical landfill. Recycling is the most environmentally friendly alternative for plastics. Always avoid incineration of all plastics thereby reducing air pollution.

In order to aid in plastics recycling, each plastic container or bottle has a code imprinted or molded onto its bottom surface. This code uses a triangular - shaped symbol that has a specific number enclosed by three chasing arrows. This coding helps recyclers sort the plastic containers by resin type. In Newfoundland Green Depots, Nova Recycling and the Multi Material Stewardship Board (MMSB) accept all plastics, but only pays for # 1 , # 2 and # 5. Numbered plastics include:



Beverage, food and non - food bottles.



Beverage, food and non - food bottles and containers.



Clear deli food packaging & vegetable oil bottles.



Bread bags, Frozen food bags, grocery bags.



Margarine & dairy tubs.



Trays, foam cups, egg cartons, clear take - out containers and cutlery.

DO'S

DON'Ts

Do keep labels on the containers.

Don't return dirty containers.

Do remove the caps before sending bottles to the recycling depot.

Don't contaminate containers with paint, oil, kerosene or any other waste material.

Do rinse containers before recycling.

Don't return severely damaged containers.

Do reuse any plastic container or material that can be used for re-packaging or storage.

Don't automatically throw plastics in the garbage, or to a landfill. Other options are available.

RECYCLING OPPORTUNITIES:

There are many Green Depots located throughout the province which accept all types of plastic for recycling. See the Appendix for the listings of the depot nearest to you.

For more information CONTACT:

Multi Material Stewardship Board (MMSB):

<http://www.mmsb.nf.ca/default.htm>

Evergreen Recycling:

http://www.waterfordfoundation.nf.ca/ever_green.htm

POLYCHLORINATED BIPHENYLS (PCB's)

PRODUCT:

- | | |
|--|---|
| <ul style="list-style-type: none"> • Transformers • Caulking • Fluorescent light ballasts (before 1980) | <ul style="list-style-type: none"> • Capacitors and electric fuses • Paints • Synthetic resins |
|--|---|

USES:

Polychlorinated biphenyls (PCBs) are stable synthetic chemical compounds that are fire - resistant, do not conduct electricity, and have low volatility at temperatures below 40°C. These properties make them effective for industrial applications. They are principally used as a safe and effective cooling and insulating fluid for transformers and capacitors. PCB's have also been used as fire retardants and in lubricating oils; and to improve the waterproofing qualities of surface coatings (e.g. paints).

HEALTH EFFECTS:

Adverse effects of PCB's on human health occur when PCB's enter the body by ingestion and absorption, and indirectly by inhalation. Health effects range from acute to chronic depending on varying levels of exposure and have the potential to bioaccumulate in higher organisms. Dioxins and furans are produced from incomplete burning of PCB's. Many adverse health effects have been associated with inhalation of trace amounts of these chemicals.

ENVIRONMENTAL EFFECTS:

The chemical stability of PCB's and their persistence in the environment is a property that causes greatest environmental concern. PCB's bioaccumulate in living organisms and may produce wide ranging effects on fish, plants, and wildlife. PCB's concentrate in fatty tissue and in organs of the body. PCB's enter the environment by accidental spills, non-secure landfills, poor use practices, and incomplete incineration.

The long-term solution to the PCB problem is to destroy the remaining chemicals which have not yet entered the environment. Destroying PCB's requires high temperature incineration (greater than 1200°C for 2 seconds). PCB's are not destroyed in our province. Electrical equipment containing PCB's may complete their service life, but are often shipped elsewhere for treatment and destruction. PCB's are regulated substances under federal and provincial legislation.

DO'S	DON'Ts
<p>Do have suspected PCB material tested by certified laboratories.</p>	<p>Don't handle any material suspected of containing PCB's without personal protective equipment.</p>
<p>Do consult professionals and licensed transporters before handling any PCB containing materials.</p>	<p>Don't Burn or Incinerate PCB's! Low temperature incineration can release dioxins and furans to the environment.</p>
<p>Do ensure that any PCB's are transported to a PCB storage facility by a licensed hazardous waste transporter.</p>	

DISPOSAL:

PCB's are regulated and disposal is restricted in Newfoundland. PCB's will be stored at licensed sites and exported by licensed transporters to licensed treatment and destruction facilities. Mobile treatment systems are used to decontaminate equipment and materials contaminated by PCB's. Refer to Appendix for transporters and/or storage sites.

For more information CONTACT:

Environment Canada: http://www.ec.gc.ca/pcb/eng/index_e.htm
Health Canada: <http://www.hc-sc.gc.ca>

PRINTER CARTRIDGES	
PRODUCT:	<ul style="list-style-type: none"> • Laser Printer Toner Cartridges • Inkjet Printer Cartridges
USES:	
Printer cartridges are manufactured by a variety of companies. Many printer cartridges are refillable and most are recyclable.	
ENVIRONMENTAL EFFECTS:	
The main environmental objective is to reduce waste volume going to landfills. This is one example. Refilling or recycling printer cartridges will keep them out of the landfill. Not only does recycling reduce waste but it also conserves precious natural resources. More than three liters of oil are required to produce each new laser printer cartridge. Recycled cartridges are found to be as efficient as new cartridges and may be less expensive. A cartridge can be recycled or recharged up to eight times without loss of print quality. Using a recycled cartridge will not have an effect on the printer's warranty or the print quality. Exposure to printer cartridge ink should be avoided as it will stain skin and clothing.	
DO'S	DON'Ts
<u>Do</u> recycle and buy refitted cartridges.	<u>Don't</u> waste natural resources and add to the landfill problem by throwing cartridges in the trash.
RECYCLING OPPORTUNITIES:	
Printer cartridges may be returned to point of purchase for the purpose of reuse and recycling. Check local listing for these and other outlets that will accept and/or refill used printer cartridges. Many businesses recycle inkjet and laser printer cartridges.	
DISPOSAL: There is no current restriction on the disposal of printer cartridges, but diversion from landfills is strongly encouraged.	

PROPANE TANKS

PRODUCT: • Propane Cylinders

USES:

Propane is a hydrocarbon and is sometimes referred to as liquefied petroleum gas. It is an extremely versatile fuel and can be used to power a number of items. Families use propane to fuel their furnaces, water heaters, air conditioners, outdoor grills, fire places, dryers and range tops. There are Canadian standards for use of propane equipment inside buildings and structures. Propane is colorless and odorless therefore an identifying odor is added so the gas can be readily detected. Propane is shipped as a liquid in compressed cylinders. It is a gas at a pressure of 1 atm and temperature of 20°C; its flashpoint is - 104 °C. Propane tanks and cylinders have a recommended 10 year age limit. Tanks in good condition after 10 years can be sandblasted, painted, re-valved, and reused. Cylinders that are not in good condition must be purged before being recycled as scrap metal.

HEALTH EFFECTS:

Propane contains a foul smelling, warning agent. The odor is certainly distinguishable but the ability of people to detect it varies. This is a concern as propane vapor has greater affinity to the blood than does oxygen. The lack of oxygen intake may cause dizziness, loss of coordination, weakness, fatigue, mental confusion, blurred vision, convulsions, coma and death. Undetected propane leaks in a confined area can pose a serious health and explosion hazard. Skin exposure to the vaporizing liquid may cause frostbite and eye damage.

ENVIRONMENTAL EFFECTS:

Individuals should avoid uncontrolled releases of propane gas. Liquid release may negatively affect plant and animal life. Large liquid releases will quickly vaporize to produce a cloud of vapor. This vapor cloud is extremely flammable and is both a fire and asphyxiation hazard.

DO'S	DON'Ts
Do be alert for propane odor whenever propane is in use.	Don't place propane tanks in areas of high heat, open flame, sparks and strong oxidizing agents.
Do keep combustible products like gasoline, kerosene and cleaners in a separate area remote from propane appliances.	Don't drop or abuse propane cylinders. Cylinders should be stored in an upright position and inspected frequently for leaks and dents.
Do bring propane tanks to an industry service facility so that they will be recycled or re-valved.	Don't throw into the landfill and under no circumstances should propane cylinders be thrown into municipal incinerators.

RECYCLING OPPORTUNITIES:

Used propane tanks should be taken back to point of purchase for refill and reuse. Many businesses reuse and recycle propane tanks. 1-Liter torch type, or camp stove cylinders are not refillable but may be recycled as scrap metal. Some outlets will only accept aluminum propane tanks. A magnet test is used to identify aluminum tanks as aluminum is non-magnetic.

DISPOSAL: There is currently no Newfoundland legislation that bans disposal of propane tanks to landfills. Tanks must be purged prior to disposal if recycling is not an option. There are many service facilities and retailers across the province that will reuse and/or refurbish old propane tanks. Contact local listings for such services in each region of the province.

SEWAGE AND SEWAGE SLUDGES

COMPONENTS:

The nature of sewage and sewage sludge depends on the treatment process and on the source of the sewage. Sewage sludge can contain organic and inorganic matter, bacteria and viruses, oil and grease, nutrients such as nitrogen and phosphorus, heavy metals and organochlorines.

Sources of sewage and sewage sludge are:

- (1) Sewage treatment plant and digester systems
- (2) Domestic and commercial septic tanks
- (3) Spillages and various commercial processing facilities

LEGISLATION:

Environmental legislation prohibits the discharge of sewage/sewage sludge and sets limits for discharge under environmental regulations and policy guidelines. Licensing provides for the collection, handling, transport, storage, treatment, and disposal of sewage wastes in an environmentally acceptable manner. Landfill disposal of sludge is restricted in certain areas. Always contact a licensed collector to drain septic tanks, and contact municipalities to find out about acceptable disposal methods and locations.

HEALTH AND ENVIRONMENTAL EFFECTS:

Sewage and sewage sludge pollute the water and contaminate the land. Noxious odors, flies, and other vermin are associated with the presence of any sewage waste. One of the major problems of sewage sludge in the environment are the pathogens that are associated with it. Pathogens are microorganisms that can cause disease to humans and wildlife. Pathogens may be transmitted in several ways: by inhaling sludge aerosols or dust; by eating contaminated fruits and vegetables; drinking water contaminated by run-off; or eating livestock infected from grazing on sludge - fertilized pastures. Many insects and scavengers are vectors of certain pathogenic illnesses.

Heavy metals contained in sewage sludge may include cadmium, zinc, copper, and lead. They are dangerous as they can bioaccumulate in food chains. Some sewage runoff may also contain pesticides. All toxic organic substances (i.e. pesticides) can build up in the fatty tissues of animals and can persist for a long time and can become present in harmful concentrations.

The management and control of sewage and sewage sludge is essential for protection of human health and the environment. The objective for the province is to prevent organic waste and other contaminants of concern from entering the environment.

DO'S	DON'Ts
<u>Do</u> pump out your septic system regularly; every 3 to 4 years or more frequently as required.	<u>Don't</u> use toilets as trash cans. Excess solids may clog sewer lines and drain fields resulting in costly maintenance and repair.
<u>Do</u> dispose of sewage and sludge through a licensed waste transporter.	<u>Don't</u> dump sewage / sludge into watercourses, ditches, or landfills.
<u>Do</u> decrease the volume of wastewater discharged to septic systems and to sewage treatment plants by exercising water conservation practices.	<u>Don't</u> spread sewage / sewage sludge on agricultural land as fertilizer.

DISPOSAL: Please contact a licensed technician to drain a septic tank. In order to find out the proper disposal methods and regulations for your community, contact your local town council. See the Appendix for a list of sewage and sewage sludge transporters.

SOLVENTS		
PRODUCT:	<ul style="list-style-type: none"> • furniture stripper • turpentine • paint thinner • paint strippers 	<ul style="list-style-type: none"> • nail polish remover • de-greasers • adhesives • metal cleaners.
USES:		
<p>Solvents and thinners include many toxic, corrosive, and ignitable chemicals. A solvent is a substance which dissolves another substance forming a solution. Solvents are used in household maintenance as a carrier, thinner, and remover. Products that contain organic solvents usually have indicator labels such as “<i>Flammable, Combustible, or Contains Petroleum Distillates.</i>” They are hazardous waste and should be treated as such. Hazardous waste should be brought to, or collected by, a licensed hazardous waste disposal contractor, or stored until the next Household Hazardous waste day in your community. Any solvent which is hazardous should not be handled without professional advice.</p>		
HEALTH EFFECTS:		
<p>Paint strippers and thinners may have harmful health effects if ingested, inhaled, or absorbed through the skin. Some chemicals are highly toxic, narcotic, mutagenic, carcinogenic, corrosive, or flammable. Other solvents in the home are harmless, it is important to read warning labels and take precautions when necessary. All solvents should be used in well ventilated areas, and protective clothing should be worn. They irritate the eyes, skin, and mucous membranes when inhaled. Other solvents may cause lung damage, kidney and liver damage, and nervous system disorders. Protective gloves and eye goggles should be worn when handling these products.</p>		
ENVIRONMENTAL EFFECTS:		
<p>Solvents are hazardous to the environment. If disposed of in the landfill, organic solvents in leachate can contaminate ground water and surface water, thus damaging aquatic ecosystems. Pouring solvents down the sink can kill the microbial population responsible for the proper functioning of septic systems. Burning of petroleum distillates results in toxic air emissions.</p>		
DO’S	DON’Ts	
Do use less hazardous products such as water-based rather than organic based cleaners.	Don’t throw solvent into the landfill or down the sink. Use it all or give it away for reuse.	
Do keep solvents in labeled containers.	Don’t store solvents in areas of high heat or flame.	
Do dispose of solvents during household hazardous waste day.	Don’t store in areas that are within the reach of children or areas which are well ventilated.	
Do reuse solvents mixed with paint by letting the solids settle out and pouring off liquid for future use.	Don’t mix known or unknown solvents with other forms of wastes. Mixing of incompatible chemicals may result in a reaction or produce an unstable product.	
DISPOSAL: Keep solvents and other hazardous household waste such as cleaners, paints, etc. for disposal at household hazardous waste days.		
For more information CONTACT:		
Multi Material Stewardship Board (MMSB): http://www.mmsb.nf.ca/default.htm		

USED OIL AND ASSOCIATED PRODUCTS	
PRODUCT:	<ul style="list-style-type: none"> • Lubricants • Metal Working Fluid
	<ul style="list-style-type: none"> • Hydraulic Fluids • Transmission Fluid
USES:	
<p>Used oil can be defined as oil that has been used for lubricating or other purposes, and has become unsuitable due to the presence of impurities or the loss of particular properties. Typical used oils are those collected from vehicles. Highly contaminated used oil that cannot be reused should be disposed by an approved hazardous waste handler. There is presently a ban on the landfill of used oil in Newfoundland. Areas of the island which do not have reasonable access to oil collection and treatment services are exempted from the ban. Interested parties have an opportunity to establish treatment facilities in currently un-serviced areas.</p>	
ENVIRONMENTAL EFFECTS:	
<p>Environmental concern regarding used oil is due to poor oil management practices relating to the techniques of disposal. Throwing oil in the garbage may ultimately result in groundwater contamination. Oil disposed via sewer creates an oily sheen over water which inhibits photosynthesis and has a negative impact on biota. Road oiling may contaminate groundwater and kill plants and animals in the immediate area of use. Burning as fuel in incinerators with inadequate pollution control devices causes air pollution. Oil is a valuable resource and should not be wasted. Recovery, recycling, and reuse of used oil are realistic objectives. Used oil should not automatically be considered as waste oil. Used oil can be returned to the point - of - purchase, or alternate location, where it may be stored and made available to service companies for treatment and reuse.</p>	
DO'S	DON'Ts
Do separate used oils in different categories. Different fuels should be stored in different containers (i.e. gas in one, oil in another).	Don't contaminate used oil or unknown fuels with other fuels, chemicals, or solid waste. This makes used oil more difficult to decontaminate and reuse.
Do store used oil in closed, labeled containers and locate container on an impermeable surface.	Don't neglect to inspect storage containers for leaks and spills.
Do place drip pans under leaking vehicles to collect oil and pour the oil into storage containers until proper disposal is an option.	Don't place gas and oily rags into garbage bags or containers.
RECYCLING OPPORTUNITIES:	
<p>Used oil should be recovered and recycled in order to conserve this precious natural resource. Service stations may provide a drop - off service for used oil. Vacuum truck services provide a means of collection, treatment, and reuse of used oils. See appendix and local listings for such services.</p>	
DISPOSAL:	
<p>Used oil should be stored and brought to return facilities. Landfill disposal is not an option. Incineration should not be an option unless the oil is tested for designated contaminants. Used oil regulations are contemplated for 2002.</p>	
For more information CONTACT:	
Department of Environment:	http://www.gov.nf.ca/env
Multi Material Stewardship Board (MMSB):	http://www.mmsb.nf.ca/default.htm

USED OIL FILTERS

PRODUCT: • Used Oil Filters

USES:

Oil Filters that are plated are considered hazardous due to the lead content. Plated filters are generally used in heavy duty vehicles such as transit buses. Manufacturers of these filters have substantially cut down on the lead content within the last 5 years. Used oil filters can contain 350 to 500 milliliters (12-16 ounces) of oil when they are removed from equipment and must be drained before recycling or disposal.

ENVIRONMENTAL EFFECTS:

The improper disposal of used oil materials contributes to environmental pollution and wastes a valuable non-renewable resource. Used oil materials contain small quantities of substances that may contribute to the contamination of soil, air and ground water. It may contain trace metals, chlorinated solvents, PCB's, glycols, and gasoline. Recycling used oil and associated products protects the environment from needless pollution and demonstrates a commitment to proper waste management. Used oil filters may be stored and should be returned to the point - of - purchase. Filter oil, metal casings, and cores can be recycled.

DO'S	DON'Ts
Do perform oil changes only when necessary to minimize the amount of oil filters generated.	Don't forget to drain oil filters before storing for disposal or recycling.
Do use by-pass filters in addition to a full flow filter. It eliminates the need for oil changes as well as extending the life of the engine.	Don't dispose of drained oil filters in the landfill unless absolutely necessary. Even drained filters may still contain small amounts of used oil.

RECYCLING OPPORTUNITIES:

Used oil filters may be brought to many service stations or point - of - purchase establishments for recycling.

DISPOSAL:

Oil filters should be punctured on the dome end and allowed to "hot-drain" for 12 to 24 hours. Hot draining is simply draining the filters immediately after taking them off a hot engine. Crushing the filter after this process will remove even more oil. After draining, the filters should be stored in a sealed, labeled container. Many recycling operators will provide you with these storage containers. If recycling is not a viable option, drained filters may be landfilled as a nonhazardous waste.

For more information CONTACT:

Environment Canada: <http://www.ec.gc.ca>

Department of Environment: <http://www.gov.nf.ca/env>

WOOD PRESERVATIVES	
PRODUCTS:	<ul style="list-style-type: none"> • Copper chromium arsenate (CCA) • Pentachlorophenol <ul style="list-style-type: none"> • Creosote • Some paints/varnishes
USES:	
<p>There are 3 broad categories of wood preservatives currently in use: creosote, oil-based chemicals, and water-based chemicals. Wood preservatives are found in pressure - treated wood and applied to wood to create a long - lasting building material used in decks, fences, docks, railway ties and elsewhere. The wood preservative protects against rot, insect attack or other forms of bio-deterioration. Some paints and varnishes may also be used as a wood preservative.</p>	
HEALTH AND ENVIRONMENTAL EFFECTS:	
<p>Creosote, used mainly in railway ties, is composed of polyaromatic hydrocarbons (PAH's) which are highly carcinogenic. Skin contact with the preservative should be avoided. Creosote exposure in combination with UV radiation may cause health problems ranging from eczema to an increase in skin cancer risk.</p> <p>The most common oil-based preservative is pentachlorophenol, used mainly in treating utility poles and bridge timbers. It has been shown to cause birth defects and fetal damage, among other health problems.</p> <p>Water-based chemicals such as copper chromium arsenate (CCA) are applied in pressure treatment of wood products. They are commonly used on wood fencing, play ground equipment, animal enclosures and decks. CCA contains arsenic and is poisonous to humans if absorbed by the skin, or ingested. Some studies have shown that small amounts of arsenic can leach into the surrounding soil. Copper and chromium can be toxic to terrestrial and aquatic life.</p> <p>Creosote, pentachlorophenol, and CCA are all considered safe if they remain fixed in the wood.</p>	
DO'S	DON'Ts
Do dispose of small quantities of treated wood to a landfill.	Don't burn treated wood. Harmful, toxic chemicals will be released to create air pollution. Creosote treated wood must never be burned in wood stoves or furnaces.
Do salvage and reuse the wood in another application.	Don't use treated wood in any applications where food may be exposed (i.e. cutting boards).
Do seal treated wood every few years with a waterproof sealant to reduce leaching of wood preservative.	Don't use acid deck wash or brighteners with CCA as these may accelerate the release of arsenic from the wood.
Do take precautions when cleaning up after a CCA fire. Remember that the ash is highly toxic. Wear protective clothing and use preventive measures to avoid direct exposure or contact.	Don't come into contact with sawdust when sawing treated wood. Wear gloves and face shield. Try to chip or saw the wood in a well ventilated area.
RECYCLING OPPORTUNITIES:	
<p>Currently there are no recycling opportunities for wood preservatives. Try to reuse old wood for new projects or offer to others that may reuse such materials.</p>	
DISPOSAL:	
<p>Reuse or landfilling are currently the only option for disposal of treated wood wastes. Residual liquid waste should be treated as hazardous and should be taken to household hazardous waste days. Large volumes may be collected by licensed hazardous waste transporters. Contact local listings in your region.</p>	
<p>For more information CONTACT: Environmental Protection Agency: http://www.epa.gov Multi Material Stewardship Board (MMSB): http://www.mmsb.nf.ca/default.htm</p>	

APPENDIX

Listings below serve as examples and are not meant to be a complete listing of services. Service companies are subject to change without notice. Consult provincial telephone directories and media advertising for local and provincial services. The Department has no direct control over the extent or level of services provided by listed companies and agencies.

ANIMAL PRODUCTS: Supplies of lime and hydrated lime may be obtained from Canadian Tire Stores, Home Hardware, Kent and other building supply stores, gardening retail outlets / stores in your region.

ASBESTOS: a) Abatement and removal contractors
b) Licensed transporters

A) Registered Asbestos Abatement Contractors:

- EFCO Enterprises Stephenville
- Efficient Renovators Ltd. Manuels
- Exploits Welding and Machine Shop Ltd. Grand Falls-Windsor
- Exploits Salvage and Demolition Grand Falls-Windsor
- Friede Goldman Newfoundland Limited Marystown
- G.F. Murley Excavations Corner Brook
- G.S. Hunt Bell Island
- G.T.C. Safety Training & Consulting Services Goulds
- Giant Constuction Mount Pearl
- Greens Asbestos Removal & Waste Disposal St. John's
- Grenfell Regional Heallth Services St. Anthony
- Guild Environmental St. John's
- Guild Construction Specialities Ltd. St. John's
- Hillier's Trades Ltd. Happy Valley-Goose Bay
- J.J.'s Trucking Goose Bay
- Kaman Enterprises Inc. Torbay
- Keystone Development Ltd. Aspen Cove
- Lambe Enterprises Limited Stephenville
- M.J. Hickey Construction Ltd. Dunville
- MAC's Enterprises Port aux Baxques
- Marcus Contracting St. John's
- Mealey Mountain Contracting Ltd. Happey Valley-Goose Bay
- Mongul Incorporated St. John's
- NCH Services Ltd. Carbonear

- Newfoundland & Labrador Hydro Bishop Falls
- NF Enviro Tech St. John's
- NF Asbestos Services Colliers
- Pottle Enterprises Limited Stephenville
- Provincial Environmental Services Limited Harbour Grace
- RALCO Electrical Contractor St. John's
- Rogers Enterprises Ltd. Trinity
- SERVCO Environment Limited St. John's
- ServiceMaster Lawn Care St. John's
- Solid Developments Limited Pasedena
- Sparcott Engineering Ltd. Corner Brook
- Spectrum Paint & Coating St. John's
- Terpstra Engineering Limited Goose Bay
- T.K. Electrical Stephenville Crossing
- Titan Waste Management (1990) Ltd. Mount Pearl
- Total Energy Control Western Bay
- Tristar Mechanical St. John's
- United Contracting Port Blandford
- W & J Construction Limited Happy Valley-Goose Bay

B) Licensed Asbestos Transporters:

- All- Tech Environmental Services Ltd. 34 Pippy Place 754 - 4146
- Archer Industrial Supplies 1124 Topsail Rd. 747 - 3099
- Asbestos Services Inc 64 Pippy Place 579 - 7272
- Collins Contracting Ltd. Jersey side 227 - 5509
- Donalco Atlantic Inc. 782 - 0872
- Envirotech Solutions Ltd. 349 Kenmount Rd. 753 - 6601
- Guild Contracting Specialties Ltd. Donovan's Industrial 368 - 3134
- Hunt Granville Bells Island 468 - 2083
- Keating Insulation Inc. 3 Stephanie Ave. 782 - 8202
- Marcus Contracting Ltd. Ewing's Rd, Manuels 744 - 2195
- Petrell Technologies Ltd. 155 Water St. 739 - 5606
- Pinchin LeBlanc Environmental Ltd. 21 Mews Place 754 - 4490
- Power Vac Services 14 Pearl Place 747 - 3264

BATTERIES:

Dry cell batteries: Landfill is the only present option. Refer to template.

Lead - acid batteries: Retailers which sell the batteries will accept old ones for recycling. Metal recyclers will usually accept lead - acid batteries as well.

- *Central Metals* 53 McCurdy Drive 256 - 7780

- *Dominion Recycling Ltd.* 377 Empire Ave. 753 - 6158
- *Maritime Recycling Ltd* 275 Southside Rd. 753 - 1505
- *Newfoundland Recycling Ltd* Long Pond 834 - 2064

Rechargeable Batteries: Many electronic retail outlets will take spent rechargeable batteries for recycling. RBRC boxes are located in Government buildings, Radio Shack stores, Canadian Tire stores and many other point of purchase retail stores across the province.

BOOKS/MAGAZINES: Refer to template for a listing of bookstores.

CHLOROFLUOROCARBONS:

Air Conditioning & Refrigeration Contractors:

- *Avalon Steamatic Ltd.* Airport Hts. Drive 726 - 0220
- *Baker's Refrigeration & Heating* 36 Paddy DobbinDr. 753 - 3377
- *Bennett's Refrigeration & Air Conditioning* 738 - 2988
- *Black & McDonald* 19A Dundee Ave 747 - 1406
- *Cimco Refrigeration* 42 O'Leary Ave. 753 - 1440
- *C & J Sheet Metal* 368 - 4700
- *Keep Cool Refrigeration & Air Conditioning Limited* 754 - 6180
- *Kool - Rite Refrigeration* 9 Mullock 726 - 7997
- *Provincial Refrigeration Ltd.* 23 Rhodora 726 - 6300
- *Roberts Refrigeration Ltd.* 576 - 2130
- *Shapter Refrigeration* 364 - 3498
- *Standard Mechanical Systems Ltd.* 364 - 3506
- *Whitten Agencies Limited* 28 Eastview Cr 726 - 7761

COMPOSTING:

- *St. John's Clean & Beautiful* 570 - 0350
- *Trouter's Special Worm Farm* 334 - 3531
- *Mt. Pearl Environmental Committee* 748 - 1045

COMPUTERS: Contact local listings for used computer outlets, retailers, and suppliers.

EXPIRED MEDICATIONS: Refer to template for further information.

EYEGLASSES: The CNIB has a program for used eyeglasses. Refer to the template. As well, contact your local Lion's Club. There are over 100 located throughout the province.

FISH OFFAL: Refer to template for disposal information.

FURNITURE: Refer to template for listings or check out the yellow pages.

GLYCOLS: Antifreeze is collected during household hazardous waste days. Participating communities include St. John's, Mount Pearl, Paradise, Gander, Grand Falls, Corner Brook, and Labrador City. Some garages and service stations will also accept used coolant.

GREEN DEPOT LOCATIONS:

Eastern Region

• Nova Recycling	30 O'Leary Ave.	726 - 3515
• Nova Recycling	47 Sagona Ave.	368 - 7466
• Evergreen Recycling	807 Water St. West	758 - 3426
• Evergreen Recycling	Cowan Avenue	758 - 3832
• Evergreen Recycling	92 Elizabeth Ave. East	758 - 3382
• Dal Enterprises Ltd.	Marystown	279 - 2032
• KC Recycling Depot	Clarenville	466 - 4545
• Bonavista Recycling Depot	Bonavista	468 - 7791
• Nova Recycling	Carbonear	596 - 7466
• Hunt's Distributing	Bell Island	488 - 3867
• Southern Shore Recycling Depot	Witless Bay	334 - 3577
• Riverhead Recreation Committee	Riverhead	525 - 2260
• 40 Shades Recycling Depot	Dunville	227 - 5959
• 10576 Newfoundland Inc.	Bay Roberts	786 - 2120
• HFP Limited	Manuels	834 - 5449

Central Region

• Nova Recycling	Gander	256 - 4000
• Nova Recycling	Grand Falls	489 - 1949
• Calypso Recycling	Lewisporte	535 - 2604
• Ernest Guy & Sons Ltd.	Twillingate	884 - 2770
• Sheppard Investments Ltd.	Fogo Island	627 - 3488
• Glovertown & Area Recycling	Glovertown	533 - 2838
• Botwood Recycling Depot	Botwood	257 - 4599
• Lester Spurrell Ltd	Badger's Quay	536 - 2026
• Perry's Wholesale Ltd.	St. Alban's	538 - 3352
• Robert's Arm Volunteer Fire Dept.	Robert's Arm	652 - 3290
• Green Bay Wholesalers Ltd.	Springdale	673 - 3312

Western Region

• Nova Recycling	Stephenville	643 - 5003
• Nova Recycling	Corner Brook	634 - 2025
• Sedler Green Depot	Deer Lake	635 - 3110
• Horizon Venture Ltd.	Port aux Choix	861 - 3348
• Chaytor Agencies	St. Anthony	454 - 2007
• Southwest Coast Env. Committee	Port aux Basques	695 - 7042
• Peninsula Wholesalers 1994	Baie Verte	532 - 8031
• Variety Quik Shoppe Ltd.	Burgeo	886 - 2727

Labrador Region

• B & D Enterprises	Wabush	282 - 2232
• Rodgers Recycling	Happy-Valley Goose Bay	896 - 5979
• Normore Enterprises Ltd.	L'Anse au Loup	927 - 5648

HOUSEHOLD CLEANERS: Small amounts of water soluble household cleaners may be poured down the sink. If the cleaner is considered hazardous it should be stored for collection during household hazardous waste days. Refer to the template for alternatives to household cleaners.

HOUSEHOLD ITEMS: Refer to the template for alternatives to landfilling articles of clothing, small appliances, toys & games, sports equipment and compact discs.

MERCURY: Mercury is a dangerous metal and should not be thrown into the landfill. Homeowners should keep broken thermometers, etc. for disposal at household hazardous waste days that are conducted by the Multi Material Stewardship Board (MMSB).

METALS: Do bring any metal parts or appliances to the metal recycler nearest you.

• Central Metals	Gander	256 - 7780
	Facsimile:	651 - 3212
• Dominion Recycling Ltd.	St. John's	753 - 6158
	Facsimile:	753 - 6136
• Island Auto Salvage	St. John's	579 - 6321
• Maritime Recycling Ltd.	St. John's.	753 - 1505
	Facsimile:	753 - 4218
• Newco Metal & Auto Recycling	St. John's	753 - 3070
• Newfoundland Recycling Ltd.	Long Pond	834 - 2064
	Facsimile:	834 - 5011
• Power's Surplus & Salvage	St. John's	722 - 6585 /
		722 - 1720

MUSICAL INSTRUMENTS: Refer to the template for a listing of charitable organizations, used instrument stores, and repair shops.

PAINT AND PAINT CHIPS: Oil based and leaded paints are hazardous and should be dealt with in such a manner. Surplus paints may be given to church or theater groups and other organizations. The Multi Material Stewardship Board (MMSB) accepts waste paint during household hazardous waste days. Leaded paint chips are considered hazardous waste and may be harmful to health and the environment. Toddlers are at highest risk of exposure. There are no recycling opportunities at this time. Storage is recommended and disposal through hazardous waste facilities is required.

PAPER AND CARDBOARD: There are many Green Depots located throughout the Province that accept paper and newspaper for recycling. Please refer to the Green Depot list in this appendix under ‘G’.

PESTICIDES: Pesticides are regulated chemicals/products under Federal and Provincial legislation. Pesticides should be stored and waste chemical disposed of during municipal household hazardous waste days or taken to the *Obsolete Pesticides Collection Program* (beginning Summer 2002).

PETROLEUM CONTAMINATED SOIL: There is a landfill ban present in most areas of the province.

Petroleum Contaminated Soil Treatment Facilities:

- Cabot Soils St. John’s 368 - 4081
- Ecosoil St. John’s 368 - 4640
- Emerald Construction Grand Falls - Windsor 682 - 3337 / 486 - 4447
- GPH Environmental Stephenville 686 - 2015 / 686 - 5885
- McCurdy Enterprises Gander 256 - 4433
- Newfoundland Soiltec Corner Brook 1 - 877 - 634 - 0033 / 632 - 0154 / 739 - 9381
- Newfoundland Soiltec St. John’s 364 - 7645 / 682 - 7013
- Terra Recycling Inc. St. John’s 687 - 4830 / 334 - 2551

PLASTICS: There are many Green Depots located across the province which accept all types of plastics for recycling. See Green Depot listings in this appendix under ‘G’.

POLYCHLORINATED BIPHENYLS (PCB'S): PCB's are regulated chemicals under Federal and Provincial legislation. Disposal is restricted. Storage sites and treatment systems and facilities are licensed by the Province.

Certified PCB Transporters:

•	Cougar Engineering & Construction	St. John's	782 - 8530
•	Edward Collins Contracting Limited	Placentia	227 - 2119
•	Island Waste Management	St. John's	726 - 0506
•	Mac's Enterprises Limited	Port Aux Basques	
•	NF & Labrador Hydro	St. John's	737 - 1400
•	Servco Environmental	St. John's	722 - 4475
•	Titan Waste Management (1990) Limited	St. John's	
•	Westinghouse Canada Incorporated	St. John's	722 - 7282

PRINTER CARTRIDGES: Consult local listing for suppliers of cartridges and inquire about return and recycling services that may be provided.

PROPANE TANKS: Companies and service outlets that provide propane can advise on refill, re-valve and recycling services provided.

SEWAGE AND SEWAGE SLUDGES: Septic tanks should be cleaned out by a licensed service company. Collected sludges are treated at licensed sites/facilities in the Province.

Sewage Sludge Collection and Transport Services:

•	A.J. Enterprises	Marystown, NF	279 - 1260
•	Argentia Industrial Services	Placentia	227 - 2727
•	City of St. John's	St. John's	576 - 8100
•	Crosbies Industrial Services Ltd.	Pasadena	686 - 5665
•	Crosbies Industrial Services Ltd.	St. John's	722 - 8212
•	D & S Vacuum Truck Services	Flatrock	437 - 1128
•	Disposal Services Limited	Pasadena	686 - 2012
•	Eastern Equipment Ltd.	Musgravetown	467 - 5353
•	Environmental Friends Inc.	Labrador City	282 - 3910
•	Gale's Septic Cleaning Services	South branch	955 - 2642
•	Hynes Plumbing and Heating	Port au Port	648 - 2754
•	Jim Butler Limited	Manuels	834 - 4384
•	Kelloway Construction	Portugal Cove	685 - 1860
•	Kennedy's Disposal Services Ltd.	Marysvale	528 - 4621
•	Pardy's Waste Management &	Pasadena	686 - 2012

	Industrial Services	
•	Sanitation Services Ltd.	Cambellton 261 - 2785
•	Septic Tank Pumper Service	Portugal Cove 895 - 2407
•	Septic Tank Pumping Service	Marystown 279 - 2352
•	Smithy's Septic Pumping	Bishop Falls 258 - 7227
•	Western Trading Ltd.	Pasadena 686 - 2225

SOLVENTS: Solvents are flammable, combustible and/or toxic. Local household hazardous waste day events provide an option for homeowners to properly dispose of waste/surplus solvents.

USED OIL AND ASSOCIATED PRODUCTS: Landfill disposal is restricted for most areas of the Province. Service station and service centers provide for drop off of used oils. Licensed vacuum truck service companies collect and treat used oil generated by service companies and centers.

Certified Used Oil Transporters:

•	Crosbie's Industrial Services Ltd.	St. John's
•	Crosbie's Industrial Services Ltd.	Pasadena
•	East Coast Environmental	Mount Pearl
•	Enviro Safe Fuel Systems Ltd.	Happy Valley-Goose Bay
•	Environmental Friends	Labrador City
•	G.M. Collins	Glovertown
•	Island Waste Management Inc.	St. John's
•	Jim Butler Limited	Manuels
•	Kennedy's Disposal Services	Marysvale
•	Newfoundland Recycling Ltd.	Manuels
•	Pardy's Holdings Limited	Pasadena
•	Safety Compliance Centre Ltd.	St. John's
•	Septic Tank Pumper Service	Portugal Cove
•	Western Trading Ltd.	Pasadena

USED OIL FILTERS: Used oil filters may be brought to service stations or point - of- purchase for recycling.

WOOD PRESERVATIVES: Incineration or combustion in wood stoves and fire places is not recommended. Landfill in small quantities does not represent a significant risk to the environment