Fact Sheet: Eco-Efficiency in the Accommodations & Lodging Industry

Introduction
According to the most recent Statistics Canada "Traveler Accommodation Statistics", there are 15,571 accommodation facilities in Canada. The majority of hotels/motels operate as independents (77% of hotels and motor hotels, and 64% of motels).

Throughout the country there are approximately 7,800 hotels, motels, inns and resorts. This translates into about 346,000 guestrooms. The environmental impact of this industry is significant and so are the possible savings for large and small companies.

Increasingly consumer attitudes are favouring environmentally responsible businesses. This has extended to traveling where consumers are considering environmental issues when making travel plans and purchases. A reflection of this is seen in the growth of ecotourism, which has grown by 30% worldwide in recent years compared to 8% for traditional tourism. The Conference Board of Canada's long term forecast shows that the accommodation industry will experience an annual growth of approximately 3% between now and 2015.

This fact sheet has been developed to provide businesses in the accommodations industry in Nova Scotia with suggestions on implementing pollution prevention and improving their environmental performance. For the purposes of this fact sheet we include hotels, motels, inns, resorts and small accommodation operations such as cottages, cabins, and bed and breakfasts, but not campgrounds.

Eco-Efficiency
What is Eco-Efficiency?
Eco-efficiency is a practical and systematic approach that businesses can adopt in setting and achieving environmental and business performance objectives. It is very closely associated with and complementary to other concepts such as Occupational, Health and Safety (OHS), Total Quality Management (TQM), and Pollution Prevention (also known as source reduction). It involves changing processes, finding alternatives, and reducing or eliminating the generation of toxic wastes instead of dealing with problems of cleanup or disposal after the fact. It also includes extending product liability, enhancing material recyclability and maximizing the use of renewable resources. Eco-efficiency means doing more with less, creating and providing quality products and services while reducing resource use, waste and pollution along the entire value chain. It is not only about managing waste after it is created, but strives towards preventing and minimizing waste in the first place.

Did you know?
The average hotel purchases more products in one week than 100 families will typically purchase in one year.

Issues of Concern
There are a variety of environmental issues that are of concern in the industry, even among small operations:
• energy and water use, and wastewater discharges
• non-hazardous waste management (from organics, packaging, used furniture to guest room amenities)
• chemical use (cleaning, maintenance, landscaping, pool maintenance)

This fact sheet was prepared by the Eco-Efficiency Centre - a non-profit, non-government educational and environmental management support centre for small and medium-sized enterprises in Nova Scotia. The Eco-Efficiency Centre was established in 1998 as a partnership between Dalhousie University and Nova Scotia Power Inc., and is supported by private corporations, governments and foundations. The Centre assists companies to achieve better environmental and economic performance through resource conservation, pollution prevention, recycling, reuse, and general good environmental practices.
Why Should I "Green" My Operation?
The following are some good reasons for implementing pollution prevention in the accommodation industry and ways to accomplish it.

Lower Operating Costs
- According to the U.S. Environmental Protection Agency (EPA), hotels and motels investing in energy-efficient lighting upgrades can expect to yield a profit of $6.27 on each dollar invested.
- Simple waste audits of your facilities can help you identify opportunities for reducing wastes, recycling or reusing materials.

Increased Customer Satisfaction
- The Travel Industry Association of America estimates that 43 million Americans are self-proclaimed "eco-tourists" - willing to pay 8.5% more to environmentally sensitive travel suppliers.
- A survey of U.S. travelers found 87% would be more likely to stay at "green" properties. By demonstrating that you care for the environment, as well as for the visitor's comfort, you can earn respect and customer loyalty and enhance your company's competitiveness.

Reduced Environmental Impact
- Accommodations are the fourth most intensive user of energy in the United States commercial sector. Improving energy efficiency in the accommodations industry will help reduce energy consumption, thereby reducing Nova Scotia's greenhouse emissions and global climate change.
- Reductions in the use of hazardous cleaning materials, water consumption and waste disposal will all contribute to protecting the World's, air and water resources.

Enhanced Marketability
- Organizations like the Hotel Association of Canada (HAC) Green Leaf™ Eco-Rating Program can help green hotels and motels share their stories through positive public recognition.
- Green accommodations may be recognized through awards events, self-promotion, articles and news releases.

Improved Employee Morale
- Incorporating environmentally sound practices in a business operation can help improve employee morale. Employees feel proud to be a part of a company that cares about employees, customers, the community and the environment.

Opportunities to Minimize Waste
Pollution prevention opportunities for improving the environmental performance of accommodation operations exist through water conservation, energy efficiency, environmentally preferable purchasing, material substitutions and process improvements.

Greening the Guestroom
- Install water-efficient fixtures, such as showerheads, aerators and low-flow toilets in each room.
- Use refillable soap and shampoo dispensers.
- Install energy-efficient lighting fixtures in each room. Compact fluorescent fixtures can be screwed into many existing lamps and ceiling fixtures. (To prevent theft, many hotels are installing new fixtures with the compact fluorescent lamps hard-wired into the fixture.)
- When replacing old TVs and other appliances, purchase Energy Star models.
- Clean rooms with environmentally friendly cleaners to improve indoor air quality and reduce emissions of Volatile Organic Compounds (VOCs). You also reduce risk to cleaning staff when you use safer cleaning products.
- Wait to replace tissues in bathrooms until dispensers are almost empty. Leave new rolls or boxes for guests to replace.
- Reduce unwanted or under-used items such as shower caps and shoeshine cloths and offer them by request only.
- Donate partially-used products to charities or allow employees to take home.
- Encourage staff to close drapes and turn off lights and air conditioning when rooms are unoccupied.
- Give guests an option to have towels and linens changed every other day or longer, rather than every day. Surveys have shown that more than 90% of guests like the option.
- Encourage guests to recycle by providing recycle containers for newspaper, white paper, beverage containers, and plastic.
- Use placards in the room to inform your guests about your "green" efforts.
- Provide a video segment on the in-room hotel/motel channel that highlights your environmental efforts.
- Provide your guests with bicycles, walking maps and information on your environmental services and public transportation.

Hotel Fact
You can save 55 litres of freshwater daily by choosing not to replace bath towels and linens in each room.

Assuming a 50% occupancy rate, a 200-room hotel uses almost eight million gallons of water in a year. Using water-efficient fixtures could save nearly 2.5 million gallons of water a year.

Did you know?
Each month, the Ritz-Carlton in Naples, Florida, avoids discarding 150 pounds of worn bath towels by converting them into cleaning rags and dishwells for kitchen staff. Each year, the hotel makes about 800 aprons from used table linens.

Greening Laundry Areas
- Sort your laundry according to weight and thickness for more efficient operation.
- Substitute less toxic cleaning products for hazardous cleaning chemicals. Use biodegradable, phosphate free detergents whenever possible. Minimize the use of bleaches and other detergents and chemicals. Train your staff in the proper storage, use and safe
disposal of these hazardous substances to avoid risks to both staff and the environment.

- Use the minimum detergent necessary to do the job. Too many suds hamper the effectiveness of washing. More energy is also required during the rinse cycle because of the excess detergent. A programmable system is an excellent way to minimize the amount of detergent that is used.
- Set the temperature for your hot water at the lowest practical setting for clothes washing. Use warm or cool water whenever possible. Use cold water for the rinse cycle.
- Whenever possible wait until the loads are full before starting the machine, this will conserve water, but it will also save energy. If there happens to be a small load, set your washing machine level for the size load you are using.
- Do not over wash. A 10 minute wash cycle is usually enough for very even soiled clothes.
- Use a soak cycle. This can save you money and extra work.
- Always wait for a full load to use your dryer but do not overload. An overloaded dryer is less efficient and more costly to run. Use warm or cool settings on your dryer whenever possible.
- Always keep the lint filter clean. Poor air circulation through your dryer will make it less efficient.
- Do not over-dry laundry.
- Preventative maintenance more than pays for itself by helping to extend equipment life.
- Replace old washing machines with water and energy conserving models.

“A Question of Balance”
Sustainable Tourism Self-Audit Workbook
The Tourism Industry Association of NS (TIANS) has developed a self-audit workbook “A Question of Balance”. It is a comprehensive, step-by-step practical guide on how to conduct an audit of their business and how to implement eco-efficient strategies, which leads to cost savings and environmental improvements. For more information, visit http://www.tians.org/ST_workbook.html or email tians@tourism.ca

Greening Your Landscaping
Lawn care can be pesticide, fertilizer and water intensive, all of which have environmental effects. Efficient use of these three items will result in a quality lawn. Here are some suggestions to consider:

- Water your lawn at appropriate intervals, when it is needed. It is best not to have the sprinklers on a timer; water will be wasted if the plants don’t require it.
- Water your lawn during the early morning or late evening; this reduces the amount of water that will be lost to evaporation during the day.
- To reduce water use, you may consider more effective watering systems, such as soaker hoses, which will direct the water to the area where it is required and in proper quantities.
- Always repair faulty sprinkler heads and facets, and replace leaky hoses.

- Put down bark mulch on exposed soils in flowerbeds. This reduces water lost due to evaporation.
- When cutting your lawn do not cut the grass close to the ground (approximately 2 inches or more). Leave cuttings on the lawn, this provides additional nutrients.
- Do not over fertilize, only use the recommended amount for the area and at the proper time of the year. Investigate organic fertilizers.
- Only use pesticides as a last alternative and if pesticides are required use biologically safe plant soaps (available at your local garden centre). The best practice is to remove weeds manually.
- Use of pesticides and all lawn and garden chemicals should be kept to the absolute minimum necessary. The detrimental effects of these chemicals are multiplied as they are washed by rainwater into our sewers and then into our waterways.
- Use native plants particularly native vegetation that requires little water or maintenance.
- Ensure that you leave buffer strips around all water bodies.

Did you know?
After the winter holiday season, Chateau Whistler, in British Columbia, replants its live (potted) Christmas trees on the resort’s golf course.

Greening Your Building and Staff
- Use glazing on windows throughout the hotel to prevent heat from building up, while still allowing light through. Consider purchasing energy-efficient windows if you need to upgrade.
- Donate used furniture, linens and equipment to local non-profit or charitable organizations. Use old towels and linens as rags for cleaning, laundry bags, and aprons.
- Buy reusable cups, mugs, dishes and silverware for employee use. Consider including your company logo and employee names on the mugs.

Greening Lobbies and Public Areas
- Install energy-efficient light bulbs in hallway, lobby and bathroom lighting fixtures. Compact fluorescent bulbs last 10 times as long as incandescent bulbs and use 75% less energy. At today’s electrical rates, this represents saving $25 over the lifetime of the bulb.
- Reduce or eliminate the number or wattage of bulbs and lamps in vending machines and lighted signs.
- Place ice and soft drink vending machines in shaded areas.
- Replace all exit signs with Light Emitting Diode (LED) exit signs. High-efficiency exit signs are almost maintenance free and last 20 years.
- Monitor the performance of all heating and cooling systems and perform maintenance as needed. Install high-efficiency heating and cooling equipment.
- Use water-efficient devices like low-flow toilets and faucet aerators in public bathrooms. Install cloth roll towels or hand dryers.
Greening Dining Rooms and Kitchens

- Reduce dining room waste by eliminating the source. For example, serve cream from a pitcher, sugar from a sugar holder and condiments from reusable containers. Serve soft drinks from a dispenser rather than individual cans. Use cloth napkins and reusable flatware.
- Buy your food and cleaning supplies in bulk and eliminate as much packaging from these purchases as possible.
- Check with your supplier about taking back packaging or using recyclable packages. Ask your vendor to take back empty two and a half, five, and thirty-gallon plastic containers. If they are unable, clean them out and reuse them or give them to employees.
- Buy organic and locally grown food for your kitchen whenever possible.
- Offer half-orders for small eaters and children at a reduced price.
- Donate leftover food to a local food bank.
- Donate retired dishware, utensils and glasses to charities.
- Be sure to scrape excess food off dishes rather than rinsing it off with water. If rinsing dishes as well put the plug in the sink. Rinsing dishes under running hot water can waste several litres of water per minute.
- Never “hot flush” (continuously run hot water) through a grease trap.
- Avoid sending food waste down the garbage disposal as this waste is only transferred from the landfill to the wastewater treatment plant.
- Set the temperature for your hot water at the lowest practical setting for dishwashing (e.g., 140°F supply to dishwasher).
- Fully load dishwashers and pack efficiently to use their capacity effectively.
- Washing up in a domestic sink uses around 15 litres of water. Larger commercial sinks may require 40 litres per fill. In comparison, water-efficient dishwashers use as little as 15 litres on economy cycles (generally to wash more dishes than can be washed in a sink).
- Different dishwashers and wash programs use very different amounts of water and energy. Choose the most water-efficient dishwasher and use a water-efficient cycle. For commercial models, ask the manufacturer about energy and water consumption.
- Turning appliances off when they are not in use (e.g., unneeded sections of griddles and broilers during slow periods, ovens after baking) results in economic benefits. Turn exhaust hoods off when the appliances below are turned off.
- Install low temperature occupancy sensors or timed switches in walk-in coolers and freezers to control lighting. Not only does this save lighting energy, it reduces the load on the compressor.
- Replace worn door gaskets on walk-in coolers and freezers.
- Keep evaporator fan in walk-in coolers and freezers free and clear of debris.
- Lubricate refrigerator and freezer hinges and latches. Tighten loose hinges to prevent air leaks.
- Maintaining appliance boilers will reduce equipment failure and ensure good performance.

Food Waste Disposal

Many food service businesses are struggling to comply with Nova Scotia’s regulations around separation and collection of organic materials. In some cases, this is a costly undertaking. In addition to this, there have been changing restrictions around food waste that is permitted to be fed to animals, making disposal options even more limited. For example, many restaurants have had pig farmers collect all of their food waste at no cost - this is now restricted. If your business is having some trouble, keep in mind the following suggestions:

- Remember, it is most important (and most cost effective) to continue to improve the efficiency of your operation through better purchasing, product storage and handling, and other practices. Work to reduce the amount of waste generated.
- There may be fewer restrictions around feed for animals that will not be consumed by humans, e.g., animals farmed for fur such as mink and fox, animals at zoos or wildlife parks, and pets. There may be opportunities to get rid of product through these types of avenues.
- Consider setting up your own composting system. Appropriate outdoor space is required, as is a good deal of maintenance. There are regulations regarding the operation of these systems, however, there are several organizations in the province using on-site systems.
- Establish strict maintenance schedules for heating, cooling and appliances throughout your facility.
- Educate staff on your "green" programs and encourage their participation. Provide incentives for employee "green" suggestions.

Greening Your Pool

- Ensure you are complying with all regulations as you look for ways to "green" your pool.
- Water removed from the pool must always be directed to the sanitary sewer or to an on-site water treatment facility.
- Do not use chemical quantities in excess of the recommended dosage on the label.
- Keep all chemicals out of the reach of children.
- Containers should always be kept closed when not in use.
- Do not use contents of unlabeled containers.
- Never mix chemicals together. Add them to the pool separately.
- Never add water to chemicals. Always add chemicals to water.
- Wash out the container when empty; then dispose of it.
- Wash your hands thoroughly after handling any chemicals.
- Store chemicals in a cool, dry, clean place; maintain good housekeeping procedures.
- Use only clean utensils to handle chemicals.
- Use separate, clean metal or plastic measuring cups for each chemical.
- Install a solar water heating system and use pool covers when the pool area is closed.
How Do You Measure Up?
Canada's Green Leaf™ Eco-Rating Program is a graduated rating system designed to recognize accommodation establishments committed to improving their environmental and economic performance. The program recognizes a facility's achievement by the awarding of 1 to 5 Green Leafs. The benefits of certification include improved guest services, higher eco-efficiency, cost savings and increased market share. At least 11 establishments in Nova Scotia have achieved this designation. For more information on the program, visit http://www.terrachoice.ca/hotelwebsite/indexcanada.htm.

The Energy Innovators Initiative (EII) encourages commercial businesses and public institutions to make investments in energy efficiency. As part of Natural Resources Canada’s Office of Energy Efficiency, the EII offers members access to tools and financial incentives. Hundreds of organizations including hotels have already joined to make energy efficiency a priority.

Benefits of joining the Energy Innovators Initiative include:
• Up to $25,000 for Retrofit Planning (50% of eligible costs for energy audits, feasibility studies, energy management plans)
• Up to $250,000 for Retrofit Projects (25% of eligible costs for project development and management, lighting, heating, controls, monitoring, training and other energy-saving measures)

References and Resources
We would like to acknowledge these companies, organizations, and agencies, and refer you to them and their websites/publications for additional information:
• Human Resources Development Canada
• Natural Resources Canada
  http://oee.nrcan.gc.ca/eii/
• NS Department of Environment and Labour
  Integrated Pest Management
  http://www.gov.ns.ca/enla/dept/
• Global Stewards - www.globalstewards.org/links.htm
• Green Leaf™ Eco-Rating Program
  www.terrachoice.ca/hotelwebsite/indexcanada.htm
• Green Hotels Association
  www.greenhotels.com/
• INFORM - Less Garbage Overnight: A Waste Prevention Guide for the Lodging Industry
  http://www.informinc.org/
• International Hotels Environmental Initiative (IHEI) www.hospitalitynet.nl/news/home.htm
• Inter American Program For Environmental Technology Cooperation In Key Industry Sectors
  http://www.idrc.ca/en/ev-1-201-1-DO_TOPIC.html
• Minnesota Office of Environmental Assistance
  Green Ideas for Hotels
  www.moea.state.mn.us/p2week99/gmrhotel.cfm
• North Carolina Department of Environmental and Natural Resources - Waste Reduction in Hotels and Motels: A Guide for Hotel and Motel Managers
  http://www.p2pays.org/water/
• Pacific Northwest Pollution Prevention Resource Center (PPRC) - Pollution Prevention in the Hospitality Sector
  http://www.pprc.org/
• Tourism Industry Association of Nova Scotia
  http://www.tians.org/sustainable/
• University of Missouri and Lincoln University - Pollution Solutions: Hotels/Motels
  http://outreach.missouri.edu/polsol/hotel.htm

Solid Waste Management in Nova Scotia
Every business in Nova Scotia is required to eliminate banned items, including organics, from entering the regular garbage stream though reducing, reusing, and recycling. Once you’ve exhausted pollution prevention efforts of reducing and reusing, make sure you put effective recycling programs into place. There are differences in how recyclables are handled by municipalities across the province - not all areas are currently able to participate in all programs. Some businesses may be able to participate in curb-side programs and must follow the guidelines for residential separation and collection. And, programs are always changing. Businesses should inquire at municipal office or with regional waste coordinators/waste authorities for the most up-to-date details. Here are some tips:
• Label and/or colour-code bins appropriately. Post “easy to understand” signs on bins - list the specific materials that can (and cannot) go into the bins.
• Ensure that it is convenient for staff to compost and recycle - identify appropriate locations in your business to collect (for example, ensure that compost bins for food scraps are conveniently located for employee use next to preparation areas and sinks). Ensure containers are appropriately sized.
• If you have the time and resources to transport your recyclables, and if the volume is manageable, employees may be able to drop off materials to recycling/waste management facilitates at no charge. Contact local Enviro-Depots®, haulers, or your municipal/waste authority office for specifics. Some municipal programs are limited to residential recyclables and there may be fees to drop off these materials.
• Contact a rendering service to use your waste greases, fat or used cooking oil or check with an organics hauler.
• Plan to spend some time educating everyone about the improvement to your waste management system. Be sure to offer assistance and resources.
• Designate an environmental champion to do regular checks on the system's effectiveness and employee compliance. Be sure that all employees are heeding the new program. Check the bins frequently to ensure that material is being separated properly, and that the bin size is appropriate.
• Ensure that your haulers are disposing of your materials in the proper way. Ask questions to determine to which facilities they take your materials.

Hospitality Sector http://www.pprc.org/
Pacific Northwest Pollution Prevention Resource Center (PPRC) - Pollution Prevention in the Hospitality Sector http://www.pprc.org/
University of Missouri and Lincoln University - Pollution Solutions: Hotels/Motels http://outreach.missouri.edu/polsol/hotel.htm
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<th><strong>Telephone and Website Guide</strong></th>
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<td><strong>Eco-Efficiency Centre</strong></td>
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<td>Tel - 902-461-6704</td>
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<td>Website - <a href="http://www.dal.ca/eco-burnside">www.dal.ca/eco-burnside</a></td>
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<td><strong>Atlantic Canada Opportunities Agency</strong> (ACOA)</td>
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<td>Tel - 902-426-6743</td>
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<td><strong>Atlantic Region, Environment Canada, P2</strong></td>
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<td>Tel - 902-426-7231</td>
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<td>Website - <a href="http://www.atl.ec.gc.ca/epb/pollprev/">www.atl.ec.gc.ca/epb/pollprev/</a></td>
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<td><strong>NS Dept of Environment and Labour</strong></td>
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<td>Tel - 902-424-5300</td>
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<td>Website - <a href="http://www.gov.ns.ca/enla">www.gov.ns.ca/enla</a></td>
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<td><strong>NS Materials Exchange</strong></td>
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<td>Website - <a href="http://www.nsmaterials.com">www.nsmaterials.com</a></td>
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<td><strong>RRFB Nova Scotia</strong></td>
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<td>Tel - 1-877-313-7732 (toll-free)</td>
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<td>Website - <a href="http://www.rrfb.com">www.rrfb.com</a></td>
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<td><strong>Directory of Solid Waste, Reuse, Recycling and Composting</strong></td>
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<td><strong>Contacts in Nova Scotia</strong></td>
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**For more information, contact:**

The Eco-Efficiency Centre
Burnside Industrial Park
Dartmouth, NS B3B 1P9
902-461-6704 (telephone)
902-461-6703 (fax)
eecentre@dal.ca (email)

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