

Recycling Council of British Columbia's
Zero Waste Working Group

Zero Waste one step at a time

A working paper addressing the benefits and applications of a Zero Waste goal for retail business businesses in British Columbia

May 2002



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Zero Waste one step at a time

Businesses pride themselves on being economically efficient, but evidence shows that in terms of materials and energy efficiency, we still have much to learn and put into practice. The situation can be summarized as follows:

Industrialism developed in a different world from the one we live in today: fewer people, less material well-being, plentiful natural resources. What emerged was a highly productive, take-make-waste system that assumed infinite resources and infinite sinks for industrial wastes. Industry moves, mines, extracts, shovels, burns, wastes, pumps and disposes of 4,000,000 (four million) pounds of material in order to provide one average, middle-class North American family their needs for a year. Today, the rate of material throughput is endangering our prosperity, not enhancing it.¹

Just as the economy as a whole is inefficient, “waste” represents an inefficient use of our community resources, too. The amount of garbage you send to landfill is a key indicator of the resource efficiency of your business – and you are paying for it.

Zero Waste is a lens through which to analyze your supply chain for efficiency and cost savings. This approach requires a look beyond end-of-pipe solutions, such as the recycling of garbage. It aims to avoid or reduce waste at all points during a product’s life cycle. Zero waste shifts the focus up the production and supply chain to designers, manufacturers, packagers and buyers as well as the policy makers who make it economically viable to use short or long term thinking in meeting consumer needs.

Given the many players involved in keeping our economy rolling, it is imperative that a zero waste policy be adopted at all levels – from individual consumers and retailers all the way up to global economic leaders. Critical dialogues have begun and progress towards Zero Waste is taking place one step at a time.

This discussion paper introduces the concept of zero waste as a tool that will assist retail and other types of businesses to not only increase their economic efficiency but also move towards long term sustainability in our overall economy. -In particular, the following questions are addressed:

- What is Zero Waste?
- What are the benefits of a Zero Waste policy?
- Have other companies adopted a Zero Waste policy?
- How will a Zero Waste policy affect our businesses?
- How will we get there?
- What resources do we have for digging deeper into Zero Waste?

Zero Waste – What is it?

In natural systems, waste does not exist. All waste materials generated by organisms at one level are input or food for organisms at a different level. This fact leads to the important realization: in our

¹ Borrowed from the Interface website at www.interfacesustainability.com.

industrial systems, waste represents misplaced resources, and an important aspect of Zero Waste is the need for a shift in attitude, from waste as a problem to waste as a resource.

There are some examples of such closed loop systems in our industrial processes, such as the water purification systems on space stations or pulping processes in some newsprint plants. But is Zero Waste possible, beyond such specific examples, in a world of planned obsolescence and global trade? The answer is yes, as you will see in company examples provided later in this paper and in the resources section.

Zero Waste, like zero accidents and zero emissions, is a long-term goal achievable through a systematic and incremental approach. Zero Waste encourages continuous improvement, innovation and creativity – the tenets of any successful business. It calls for a life cycle view of your products and business operations. It also supports community economic development, creating local jobs through the recycling and repair of goods, as well as the sustainable harvesting of resources.

Adopting a Zero Waste (ZW) strategy for your business operations means a long-term commitment to getting it right. Zero Waste is a commitment to ensuring all materials flowing through a business have a proper home at the end of the day and will be recycled back into nature or into the marketplace. A life cycle analysis of every product becomes part of the purchasing and manufacturing criteria. In short – a ZW strategy ensures that the supplies used, the products sourced and ultimately sold, and packaging are carefully designed or specified:

- to reduce the total amount of material needed,
- to be used for as long as possible and to provide opportunities for re-use, and
- to be easily and economically recycled when useful product life is complete.

A Zero Waste goal will ensure energy, water, and material flows are operating as efficiently as possible. It will ensure fewer resources are used to deliver comparable or better products and services. In adopting Zero Waste, businesses become more sustainable themselves by reducing costs, while reducing the demands their operations place on the environment.

Zero Waste – What are the benefits?

We all know the old formula for a successful business: maximize income, minimize costs. Zero Waste taps into this conventional wisdom while adding in social and environmental considerations. The following list of benefits is based on actual applications of Zero Waste policies in businesses such as the ones listed in the next section.

- *Cost savings and eco-efficiency:* Operating costs are reduced through decreased garbage collection and disposal costs; potential new revenue sources are identified by marketing what would otherwise be waste materials;
- *Added brand value and customer loyalty:*, Customers, staff, and local media recognize the efforts a business makes to be socially and environmentally responsible;
- *Greenhouse gas emission reductions:* There are reductions in the amounts of organic materials going into landfill, reductions in transportation requirements for moving material goods through their life cycle, and reductions in energy use when recycled materials are used in remanufacturing new products;

- *Innovation and creativity*: There are opportunities to innovate and drive improved performance by identifying new strategies for eliminating waste;
- *Community economic development opportunities and employment generation in local communities*: It is estimated that 1 job is created for every 15,000 tonnes of solid waste landfilled,; when the same amount of material is recycled, up to 9 jobs are created. Remanufacturing from recycled materials creates 25 times as many jobs as landfill disposal; and reuse/repair can create 100 times more jobs²
- *Reduced demand for virgin materials*: When most new products contain recycled materials, the need to mine or log hitherto untouched resources is less.
- *A better understanding of your business operation*: As systems are put into place to measure, monitor and report on environmental performance, it will become easier to identify and implement opportunities for greater efficiency.
- *Pride in an environmentally friendly business*. Business owners can feel proud that they are reducing their impact on the environment

Zero Waste – Who else is doing it?

Zero Waste is a natural fit for business. Zero based goals are common – zero emissions, zero accidents, zero defects. Waste minimization programs for business operations are also widespread. What differentiates a Zero Waste strategy from a 3Rs (Reduce, Reuse, Recycle) program is that within a Zero Waste strategy all products are designed to be recycled back into nature or the marketplace and local job opportunities are emphasized. Here is what some companies have done as they have integrated a Zero Waste target as part of their business culture:

- **Kimberly Clarke** has adopted, in its Vision 2000, a goal to reduce to zero the materials its manufacturing facilities send to disposal, through recycling or by other means. Currently this firm has achieved 80% diversion in its domestic plants.
- **The Body Shop** designs its packaging to be reused or recycled and most of its outlets have refill stations and recycling depots for their customers.
- **Collins Pine** is a US forest products company with a Zero Waste policy. The Collins Pine plant is committed to eliminating waste or putting it back into use. For Collins Pine, the strategy helped save one million dollars in their Klamath Falls plant during the first year of implementation.
- **Hewlett-Packard** in Roseville, CA is reporting successfully diverting 97% of its solid waste
- **Interface Corporation**, an American carpet manufacturing and leasing company with a successful Canadian subsidiary in Belleville, Ontario, provides the ultimate model for a Zero Waste consumer product. All Interface carpets are designed to be recycled through their own manufacturing plant and are installed as tiles to reduce waste. In this way, only those tiles that experience high traffic and wear out sooner need to be replaced. For more information, check out www.interfacesustainability.com.

² Neil Seldman, President of the Institute for Local Self-Reliance, quoted in a press release on their report "Wasting and Recycling in the United States 2000".

Around the world there are many other examples of businesses that are implementing Zero Waste plans, but such plans are found particularly in New Zealand, where a national target of Zero Waste has been adopted. Case studies of interest to smaller companies can be found at www.greengazelles.org and in the many resources listed at the end of this paper.

Zero Waste – How will it affect your business and your partners?

Understanding how adopting new policies will affect your business is a necessary part of the decision making process. A Zero Waste strategy is a natural extension of existing waste minimization and recycling policies, in-store operations and existing work with suppliers and vendors.

Adopting a Zero Waste policy implies you are committed to knowing your business operations inside out. Natural curiosity, a solutions-oriented attitude, and team building skills will be valuable assets in implementing your strategy. A Zero Waste policy invites you to explore how and why every single item comes through the doors, encourages you to discuss packaging and design issues with suppliers, and calls for a systematic review of operations until all sources and final destinations of your waste streams have been identified. This knowledge is key to making incremental progress towards the goal of Zero Waste.

Adopting a Zero Waste strategy will strengthen existing relationships with partners. For example, solutions driven by the retailer often identify cost savings and efficiencies for suppliers. Some of the additional impacts a Zero Waste policy can have via your business partners are listed below:

Staff:

- Clear, measurable targets to work towards and gauge performance;
- Systems to support and guide implementation;
- Opportunities to design innovative solutions and identify system inefficiencies;
- Tangible proof of your company's commitment to be a leader in social and environmental responsibility.

Vendors & Suppliers:

- Opportunities to work with vendors and suppliers to improve efficiencies and identify win-win solutions;
- Opportunities to provide suppliers/vendors with support and expertise that can help them enter new markets (e.g., reusable packaging);
- Clear, well defined, and transparent policy commitments.

Community Stakeholders

- Improved capacity to report on social and environmental performance;
- Added 'value' in products; e.g., 'food with a conscience';
- Increased goodwill and trust as a business enters new markets;

- Mechanisms to be accountable to stakeholder and community expectations;
- Opportunities to create partnerships with community stakeholders.

Zero Waste – How do we get there?

If you have comprehensive 3Rs programs in place, your company is already well on the way toward a Zero Waste future. If you are starting from ground zero, in some ways your task is even easier, since Zero Waste depends on well-designed and integrated systems.

The following outline suggests some steps to take in developing a strategic policy framework to guide future efforts and align existing programs.

1. Develop a Zero Waste policy to be approved by your management team and stakeholders as an organizational goal to guide business operations. A model Zero Waste policy is attached as an appendix.
2. Develop a baseline for waste discharges, recycling rates and energy use.
3. Develop an action plan guided by baseline findings and identify incremental targets to move the organization to a Zero Waste goal.
4. Identify roles, responsibilities and accountability for implementing the policy in functional areas.
 - Survey your shipping and receiving staff for waste reduction ideas and product lines that are excessively or poorly packaged [e.g., goods that arrive damaged].
 - Develop simple guidelines for buyers to support decision making on packaging and product issues. [e.g., ensure that buyers specify packaging that matches your store's recycling capabilities].
5. Communicate expectations to your vendors and suppliers.
6. Provide guidelines and procedures to support staff in implementing the policy in their functional areas.
7. Measure and report on progress annually to staff and stakeholders.

Zero Waste is a compelling framework to drive innovation and efficiency in your business. As an operational framework and policy, it will strengthen your role as a leader in social and environmental responsibility and it will identify cost savings and efficiencies throughout the organization.

Zero Waste: Want to dig deeper?

The following are a few books, websites and short publications that have policies, business models, and inspiration to guide your business in the development and implementation of an integrated Zero Waste policy.

- **Cool Companies: How the Best Businesses Boost Profits and Productivity by Cutting Greenhouse Gas Emissions** by Joseph Romm, Island Press, 1999 - Shows how energy efficiency investments improve productivity, yield high return on investment, and mitigate

climate change. Another important book about the next industrial revolution, which is accelerating Earth toward a better tomorrow.

- **Upsizing, The Road to Zero Emissions: More Jobs, More Income and No Pollution** by Gunter Pauli, Greenleaf Publishing, 1998 - Considered by some to be a utopian target, zero emissions as a concept clearly describes what business and industry of the future must aim to achieve.
- **The Natural Step for Business** by Brian Nattrass and Mary Altomare, 1999 - Explains how The Natural Step provides a simple yet elegant framework to integrate environmental issues into the frame of business reality. Provides detailed case studies of four leading corporations - IKEA, Scandic Hotels, Interface, and Collins Pine - that are using The Natural Step as a central part of their corporate strategies.
- **Natural Capitalism** by Paul Hawken, Amory Lovins, and L.Hunter Lovins, 1999. Praised by business and political leaders as well as economists and environmentalists around the globe as groundbreaking work. Anecdotes and examples reveal how tomorrow's most success businesses will draw profit from environmental responsibility.
- **Green Business Newsletter** www.greenbiz.com An excellent source of information on sustainable business practices. Check out the Business Toolbox.
- **Recycling Council of British Columbia** www.rcbc.bc.ca A nonprofit, multisectoral organization advocating for policies that promote waste minimization. Provides a Materials Exchange Service to match up one company's waste with another's raw materials. Home base for the *Zero Waste Working Group of BC* – visit this site and join our listserv.
- **Target Zero Canada** www.targetzerocanada.org Provides profiles of “Zero Heroes” and resources for learning more about Zero Waste. Invites browsers to join a Canada wide network of companies, organizations, and individuals that support a Zero Waste target.
- **Zero Waste North**, www.zerowastenorth.com Provides on-line resources for communities and businesses in northwestern BC. The site features an on-line directory of Zero Waste products and services, news, events, and tools for local governments, businesses, and citizens.
- **Toenail Environmental Services**, www.toenail.org. Michael Jessen has created a site that is a treasury of information for anyone working in the field of sustainability. Whether you are contemplating a career change, setting up a program for your business, or looking for research to support a new policy direction, this site will inspire you and address your needs.
- **Canadian Business for Social Responsibility** www.cbsr.bc.ca CCSR is a membership organization comprised of Canadian businesses committed to developing and sharing expertise in socially responsible business practices. Based in BC, it provides regular special events with informative guest speakers to profile best practices and challenges, and it promotes networking among members.
- Re-Think Your Bottom Line - A Resource Guide for Alameda County Business to Reduce, Reuse and Recycle - www.stopwaste.org/pdf/businessguide.pdf
- Green Office Guide - A Guide to Greening Your Bottom Line Through a Resource-Efficient Office Environment, City of Portland Office of Sustainable Development - www.sustainableportland.org/Grn_Off_Guide.pdf
- Small Business Recycling, Business and Industry Resource Venture - www.resourceventure.org/
- Preventing Waste in the First Place, Business and Industry Resource Venture, January 2001 - www.resourceventure.org/
- Waste at Work: Prevention Strategies for the Bottom Line, by John Winter and Anne Marie Alonso, INFORM Inc., 1999 - www.informinc.org/wawgate.htm

Appendix – Model Zero Waste Policy for Business

In recognition of the following benefits:

- *Cost savings and eco-efficiency:* Operating costs are reduced through decreased garbage collection and disposal costs; potential new revenue sources are identified by marketing what would otherwise be waste materials;
- *Added brand value and customer loyalty:*, Customers, staff, and local media recognize the efforts a business makes to be socially and environmentally responsible;
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We at (insert organization or company name, and street address, town, BC) hereby (endorse a Zero Waste Goal/support the creation of a Zero Waste Plan) in order to eliminate waste and pollution resulting from the traditional disposal of resources to our common environment (land, air and water).
