

# Zero Waste Backgrounder

Transforming municipalities from waste managers to resource managers

## What does Zero Waste Mean?

Zero Waste embodies the notion that the entire concept of waste should be eliminated. Instead, waste should be thought of as a “residual product” or simply a “potential resource” in a continuous, integrated, closed-loop system. Opportunities such as reduced costs, increased profits, and reduced environmental impacts are found when returning these “resources” as inputs to either natural or industrial systems. This may involve redesigning both products and processes in order to eliminate hazardous properties that make them unusable and unmanageable in quantities that overburden both industry and the environment.

### ZERO WASTE SYSTEM



Zero Waste strategies consider the entire life-cycle of products, processes and systems in the context of a comprehensive systems understanding of our interactions with nature and search for inefficiencies at all stages. With this understanding, wastes can be prevented through designs based on full life-cycle thinking. Indeed, we should work to "design" our wastes, if any, so that they have future applications.

A growing number of municipalities are adopting a Zero Waste as a long term goal that drives management decisions. Many municipalities are starting with Zero Waste garbage from the events by reducing the amount of waste brought to the site, avoiding the use of disposable food ware and recovering resources for reuse, recycling, and composting. A few examples are described in the next pages, followed by a list of other resources available from provincial, national and international organizations.

## Municipal Examples

Municipality	Example
<b>Provincial</b>	
<b>Bow Valley Waste Management Commission (BVWaste)</b>	<p><b>Toward Zero Waste (TZW) Events</b></p> <p>BVWaste helps member communities (the Town of Banff, Town of Canmore and Municipal District of Bighorne) plan and execute Zero Waste Special Events. The Commission will supply planning tools and equipment and even attend the event with their special Toward Zero Waste Resource Recovery Stations, Banners, Flags, Volunteer ID vests.</p> <p>Since 2008 BVWaste has applied TZW practices and tracked results for over 50 events and set out recycling equipment at many more. Bow Valley special events have sent almost 30 tonnes of recyclables to a better place for a 6 year average diversion from landfill of 80%. Many events are finding ways to reduce the overall amount of garbage and recyclables they produce.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>City of Edmonton</b>	<p><b>The Way We Green</b></p> <p>The City of Edmonton’s Environmental Strategic Plan The Way We Green has as one of its long term goals, “Edmonton Generates Zero Waste.” Currently, approximately 60% of Edmonton’s residential waste is diverted from landfill. At the same time, most industrial, commercial, institutional, construction and demolition waste generated in Edmonton is landfilled. One of the plan’s objectives is to increase the rates of non-residential landfill diversion to mirror residential rates.</p> <p>Edmonton focuses on helping its businesses and residents reduce, reuse, compost and recycle.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Municipality of Jasper</b>	<p><b>Towards Zero Waste Events</b></p> <p>The Municipality of Jasper and Parks Canada have a Zero Waste goal that aims to divert as much recyclable and compostable material out of the garbage as possible. The Toward Zero Waste (TZW) Event guidelines help organize events that maximize diversion (recycling and composting) and minimize waste. The eight page guide provides straightforward tips organizers can use before, during, and after events.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Regional Municipality of Wood Buffalo</b>	<p><b>Solid Waste Alternative Process</b></p> <p>In a presentation given at TEDx Fort McMurray, Kevin Scoble, director of the environmental services department at the Regional Municipality of</p>

	<p>Wood Buffalo, presented an innovative initiative that will help the municipality achieve its ambitious Zero Waste goal.</p> <p>The S.W.A.P. (Solid Waste Alternative Process) initiative will include:</p> <ul style="list-style-type: none"> <li>• The adoption of new waste diversion processes that will enable new types of waste materials to be diverted from landfill and be used to produce local goods;</li> <li>• The development of an eco-industrial park that will transform the diverted waste materials into new products;</li> <li>• The construction of waste-to-energy facilities that will generate electricity and heat from waste materials that could not be diverted;</li> <li>• The construction of greenhouses that will produce local vegetables and will be powered by waste heat from the waste-to-energy facilities;</li> <li>• The development, in collaboration with the local college, of an integrated centre of excellence that will focus on R&amp;D in waste management.</li> </ul> <p>Click <a href="#">here</a> to watch the presentation.</p>
<p><b>Town of Canmore</b></p>	<p><b>Towards Zero Waste Events Policy</b></p> <p>The Towards Zero Waste Events Policy came out of Town of Canmore’s Environmental Sustainability Action Plan (ESAP) as part of the plan’s resource conservation and waste management goal. The policy mandates special events and internal town events to be a “Towards Zero Waste Event,” requiring a minimum of 70% of waste generated to be diverted from the landfill. These events showcase the community’s desire to move towards a more sustainable Canmore.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Town of Cochrane</b></p>	<p><b>Zero Waste Framework</b></p> <p>The Town of Cochrane Zero Waste Framework, in harmony with the <a href="#">Cochrane Sustainability Plan</a> empowers the town to achieve their Zero Waste goals through continuous planning and flexible and responsive program implementation. Cochrane’s goal is to divert 80% of waste by 2020 with a long-term goal of Zero Waste. Cochrane can achieve Zero Waste by minimizing the amount of landfilled waste through waste reduction, reuse, recycling, redesign, composting, and other activities.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Town of Okotoks</b></p>	<p><b>2020 Waste Management Plan</b></p> <p>Born out of a revision to the 2009 Resource Recovery Plan, the Town of Okotoks’ 2020 Waste Management Plan guides the town in working towards achieving an 80% waste diversion rate by 2020.</p> <p>Key strategies that have been implemented include:</p>

	<ul style="list-style-type: none"> <li>• A residential-wide recycling collection program</li> <li>• A residential-wide organic waste collection program</li> <li>• Developing the Recycling Center in to an Eco Centre, providing a 'one-stop' recycling location</li> </ul> <p>Click <a href="#">here</a> for more information.</p>
<b>YOUR MUNICIPALITY HERE</b>	<b>DOES YOUR MUNICIPALITY HAVE A ZERO WASTE POLICY OR INITIATIVE THAT COULD SERVE AS A MODEL FOR OTHERS TO FOLLOW? IF SO, SEND THE INFORMATION TO RACHEL DE VOS</b> <a href="mailto:rdevos@auma.ca">rdevos@auma.ca</a>
<b>Canadian</b>	
<b>City of Markham, Ontario</b>	<b>Markham's 80% Diversion Strategy</b> <p>In 2008, Markham Council adopted 'Zero Waste' as a sustainable project to change the municipality from being a waste manager to a resource management organization, with a goal of 80% diversion. Zero Waste at the municipal level challenges unsustainable purchasing policies, poor packaging design and inefficiency. In 2015, Markham achieved an 81% diversion rate, exceeding its Zero Waste target for a third consecutive year.</p> <p><a href="#">Markham's Greenprint Sustainability Plan</a> supports and encourages the continuation of Zero Waste initiatives. Markham is committed to setting an example for residents through its own operations and transferring its expertise to assist other governments, businesses and local schools to adopt sustainable waste management practices.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Metro Vancouver, British Columbia</b>	<b>Zero Waste Challenge</b> <p>The Zero Waste Challenge was adopted in 2007, expressing a commitment to reduce solid waste in Metro Vancouver to the absolute minimum. Based on this commitment, the region's board of directors began engaging the community in an examination of the challenges and opportunities that will contribute to realizing a Zero Waste region.</p> <p>The resulting Metro Vancouver 2011 <a href="#">Integrated Solid Waste and Resource Management Plan</a> commits the region to:</p> <ul style="list-style-type: none"> <li>• Minimize waste generation</li> <li>• Maximize reuse, recycling and material recovery</li> <li>• Recover energy from the waste stream after material recycling</li> <li>• Dispose of all remaining waste in landfill, after material recycling and energy recovery</li> </ul> <p>In 2015, nearly 2 million tons or 62% of waste materials were recycled and diverted from disposal in Metro Vancouver. The plan's goal is to divert 80% of solid waste by 2020.</p> <p>Click <a href="#">here</a> for more information.</p>

<p><b>Regional District of Central Kootenay (RDCK), British Columbia</b></p>	<p><b>Resource Recovery Plan</b> RDCK Resource Recovery Services include waste handling facilities, community recycling depots, materials recovery and public education. The goal of resource recovery is to educate people to produce less waste and to encourage healthier environments.</p> <p>RDCK's <a href="#">Regional Resource Recovery Plan</a> is currently being updated. The region's end goal for the Plan is Zero Waste, following the five Rs of reducing, reusing, recycling, recovering, and returning refundable materials.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Regional District of Nanaimo (RDN), British Columbia</b></p>	<p><b>Zero Waste</b> In 2002, the RDN committed to Zero Waste as its long-term waste reduction and diversion target. The RND's goal was to minimize landfilled waste, moving beyond recycling to also incorporate reuse, redesign, and composting.</p> <p>Zero Waste initiatives are part of the region's <a href="#">Solid Waste Management Plan</a>. The region has diverted 68% of its waste for composting and recycling, achieving one of the lowest kilogram per capita landfill disposal rates in Canada. The RND proposed a target of 90% diversion by 2027.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Sunshine Coast Regional District (SCRD), British Columbia</b></p>	<p><b>Solid Waste Management Plan - The Foundation for Zero Waste</b> The SCRCD's road map for waste reduction, diversion and management is guided by the 2011 Solid Waste Management Plan - their goal was 56%-69% diversion by 2016. The SCRCD commits to develop a solid waste management system that works toward Zero Waste. Key objectives for this plan are to maximize the reduction of solid waste disposal in the SCRCD landfill and to enhance and improve reuse, recycling and recovery of resources across the region.</p> <p>Click <a href="#">here</a> for more information.</p>

## Additional Resources

Other Organizations	Resources
<b>Provincial</b>	
<p><b>Alberta Environment and Parks</b></p>	<p><b>Waste Management</b> The Ministry's waste section on their website provides information on:</p> <ul style="list-style-type: none"> <li>• Composting at home</li> <li>• Hazardous waste management</li> <li>• Pollution and prevention</li> <li>• Waste and recycling at home</li> <li>• Waste management and related facilities</li> </ul>



	Click <a href="#">here</a> for more information.
<b>Alberta's Recycling Hotline</b>	<p><b>Questions Answered</b> Operated by the Recycling Council of Alberta in partnership with Alberta Environment, this service answers over 700 calls a month on various recycling and waste management topics from municipalities, businesses, and the general public. A searchable online database has been created to increase access to information.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Recycling Council of Alberta</b>	<p><b>Information and Networking</b> The RCA's mission is to promote and facilitate waste reduction, recycling, and resource conservation in the Province of Alberta. The Council is a valuable resource for municipalities wanting work towards Zero Waste.</p> <p>It acts as an interface for information and dialogue between industries, governments, environmental groups, and consumers. This networking function is facilitated through regular meetings, as well as special events such as seminars and conferences.</p> <p>The council also delivers a variety of educational initiatives, including workshops, training seminars, conferences and public education campaigns. These initiatives cover a variety of topics related to waste reduction and diversion.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Canadian</b>	
<b>Environment Canada</b>	<p><b>Green Meeting Guide</b> Environment Canada's Green Meeting Guide is a practical reference tool for anyone faced with the task of organizing a meeting or conference with the aim of making the event environmentally responsible. It provides information on how to incorporate environmental concerns at every stage of an event.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Federation of Canadian Municipalities (FCM)</b>	<p><b>Green Municipal Fund</b> FCM's Green Municipal Fund website has a page dedicated to waste management and diversion funding which includes information on applying for funding for relevant to waste diversion projects, such as Zero Waste initiatives.</p> <p>Examples of funded initiatives include:</p> <ul style="list-style-type: none"> <li>• <a href="#">Center for Sustainability Excellence Feasibility Study, Waterloo, ON</a></li> <li>• <a href="#">ICI Zero Waste Feasibility Study, District of Mission, BC</a></li> <li>• <a href="#">Manitoba Capital Region Waste Management Rationalization Feasibility Study</a></li> </ul>

	<p>Click <a href="#">here</a> for more information.</p>
<p><b>National Zero Waste Council</b></p>	<p><b>Waste Prevention in Canada</b></p> <p>The National Zero Waste Council is a leadership initiative bringing together governments, businesses and non-government organizations to advance waste prevention in Canada. Founded by Metro Vancouver in collaboration with the Federation of Canadian Municipalities in 2013, the Council has united, among others, six of Canada’s largest metropolitan regions – including Edmonton and Calgary – with key business and government leaders, academia and non-profit organizations in a call for national action and systems change to address waste generation.</p> <p>The National Zero Waste Council website provides information and resources on reaching Zero Waste nationally through four areas of focus:</p> <ul style="list-style-type: none"> <li>• Nation communications campaigns</li> <li>• Product design and packaging</li> <li>• Food</li> <li>• Circular economy</li> </ul> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Recycling Council of British Columbia (RCBC)</b></p>	<p><b>Priorities for Local Governments</b></p> <p>In 2009, RCBC released the report, <a href="#">On the Road to Zero Waste: Priorities for Local Governments</a> providing guidance to municipal and regional governments across BC on the actions, tools and opportunities available to them to increase the 3Rs and move closer to achieving Zero Waste.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Waste Reduction Week in Canada</b></p>	<p><b>Waste Reduction Week</b></p> <p>Waste Reduction Week in Canada is a national environmental campaign that builds awareness around issues of sustainable and responsible consumption, encourages choice for more environmentally responsible products/services, and promotes actions that divert more waste from disposal and conserve natural resources. The event takes place during the third week of October every year. The Waste Reduction Week in Canada website contains tools and resources to help municipalities enhance waste awareness and reduction.</p> <p>Click <a href="#">here</a> for more information.</p>
<p><b>Zero Waste Canada (ZWC)</b></p>	<p><b>Zero Waste Support and Promotion</b></p> <p>ZWC is a non-profit, non-partisan organization promoting solid waste solutions that eliminate the use of landfills and waste-to-energy plants. ZWC works with all levels of government for responsible resource management and policies, legislation, and initiatives that eliminate waste and support continuous reuse of resources.</p>

	<p>Zero Waste Canada offer certification programs for businesses and communities working to achieve Zero Waste as well as resources on Zero Waste initiatives and information.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>International</b>	
<b>A Greener Festival</b>	<p><b>Green Events and Festivals</b></p> <p>A Greener Festival is a not-for-profit company committed to help music and arts events and festivals around the world adopt environmentally efficient practices by providing education resources and by providing a forum for discussion about how the impact of festivals on the environment can be limited at future events. The site is split into sections looking at discrete areas where festivals organizers and festival goers can make a difference.</p> <p>Click <a href="#">here</a> for more information.</p>
<b>Zero Waste International Alliance</b>	<p><b>Promoting Alternatives</b></p> <p>The Zero Waste International Alliance was established to promote positive alternatives to landfill and incineration and to raise community awareness of the social and economic benefits to be gained when waste is regarded as a resource base upon which to build both employment and business opportunity.</p> <p>Click <a href="#">here</a> for more information.</p>