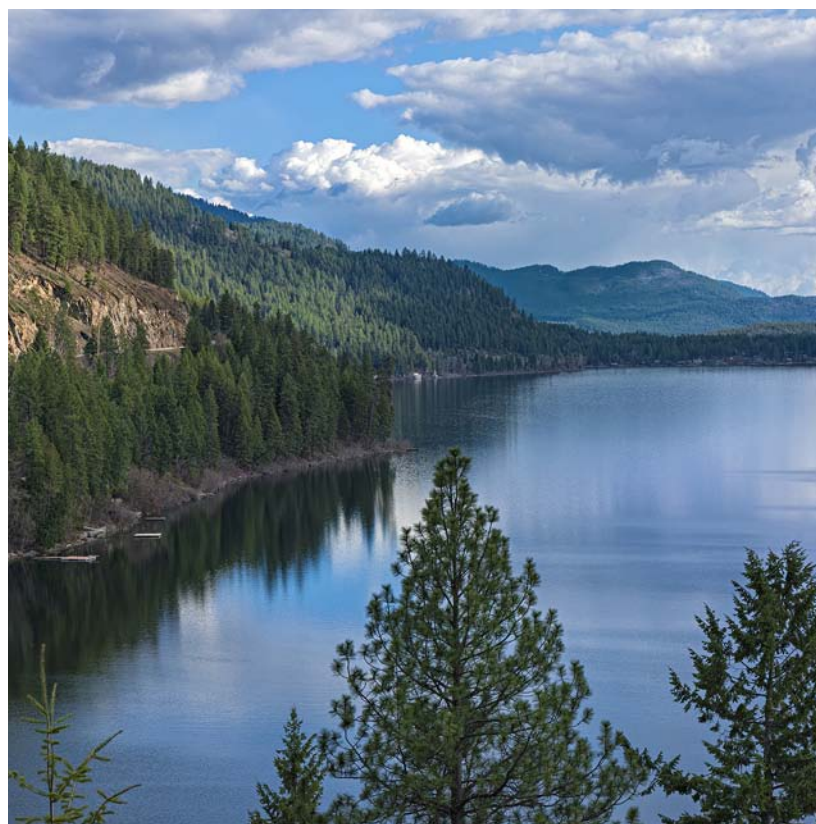





# Annual Report 2015










Multi-Material BC (MMBC) is a non-profit organization launched in May 2014. MMBC is unique within Canada as the **first 100% Extended Producer Responsibility (EPR) program** where industry has assumed full financial and managerial responsibility for residential recycling. Members include over 1,000 retailers, restaurants, financial institutions and other businesses or organizations that supply packaging and printed paper to the BC market. This made-in-BC initiative responds to the unique geographic challenges of this beautiful province.

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# 1. Executive Summary

<p><b>Public Education Materials &amp; Strategies</b></p> 	<ul style="list-style-type: none"> <li>• <b>Second Life</b> advertising campaign ran in 2015 to raise awareness with BC residents of what happens to their recyclables after they are collected.</li> <li>• Launched a <b>travelling events team</b> to conduct public outreach and engagement in communities across BC.</li> <li>• <b>Recycling guides</b> updated and delivered to residents in communities directly served by MMBC.</li> <li>• Resident <b>website, depot list and address search</b> updated and available at <a href="http://www.recyclinginbc.ca">www.recyclinginbc.ca</a>.</li> <li>• Recycling guide templates and sign artwork updated and <b>made available to all collectors</b>.</li> </ul>		
<p><b>Collection System &amp; Facilities</b></p> 	<ul style="list-style-type: none"> <li>• <b>1,255,000 single-family and multi-family households</b> received curbside or multi-family collection services from 74 local governments, First Nations, or private collectors.</li> <li>• Residents in <b>151 incorporated municipalities, electoral areas, and First Nations</b> communities have access to curbside and/or multi-family collection services under the MMBC program.</li> <li>• <b>204 depots</b> throughout BC accept MMBC materials, operating in <b>27 regional districts</b>.</li> </ul>		
<p><b>Product Environmental Impact Reduction, Reusability &amp; Recyclability</b></p> 	<p><b>MMBC members explored opportunities to design packaging for the environment while achieving that perfect balance between maintaining the product's integrity, improving its recyclability and meeting the needs and expectations of changing consumer lifestyles.</b></p> <ul style="list-style-type: none"> <li>• MMBC members were able to easily and efficiently test the adoption and recyclability of new packaging designs by working with MMBC and its integrated supply chain.</li> <li>• MMBC participated in an international effort on behalf of its members, along with the World Economic Forum and the Ellen McArthur Foundation, to examine how governments and businesses can collaborate across supply chains to encourage the circular flow of materials maximizing value extraction and reducing waste.</li> <li>• MMBC members continue to innovate and explore new technologies to reduce the environmental impact of the materials they distribute to BC consumers.</li> </ul>		
<p><b>Pollution Prevention Hierarchy and Product/Component Management</b></p> 	<p><b>178,583</b> Tonnes of packaging and printed paper managed by recycling</p>	<p><b>0</b> Tonnes of packaging and printed paper managed by recovery (material or energy from the product as per Pollution Prevention Hierarchy)</p>	<p><b>13,454</b> Tonnes of packaging and printed paper managed by disposal</p>
<p><b>Product Sold, Collected and Recovered</b></p> 	<p><b>243,191</b> Amount of product sold (te)</p>	<p><b>186,509</b> Amount of product collected (te)</p>	<p><b>77%</b> Recovery Rate</p>

## Key Performance Targets



**Maintain at a minimum single-family and multi-family household service levels where these households currently receive packaging and printed paper collection.**

871,000 single-family households and 384,000 multi-family households received curbside and multi-family collection services from MMBC. The adjusted targets (less local governments that did not participate) are 793,000 single-family households and 364,000 multi-family households.



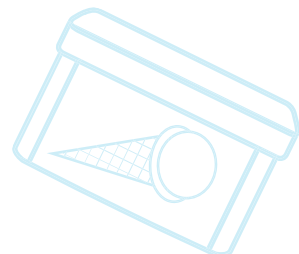
**Provide curbside collection of packaging and printed paper to the approximately 102,000 households currently receiving garbage collection service.**

MMBC provided curbside collection of packaging and printed paper to 38,000 households that previously only received curbside garbage collection service from local governments/First Nations.



**Maintain depot collection of packaging and printed paper for the approximately 165,000 single-family households and the approximately 91,000 multi-family households without collection services.**

MMBC added 24 new depot sites in 2015. Collectively, the 204 depots serve in total close to 460,000 households to which MMBC does not provide single-family or multi-family curbside collection services.



## 2. Message from the Managing Director

Multi-Material BC (MMBC) is a non-profit organization launched in May 2014. MMBC is unique within Canada as the **first 100% Extended Producer Responsibility (EPR) program** where industry has assumed full financial and managerial responsibility for residential recycling. Members include over 1,000 retailers, restaurants, financial institutions and other businesses or organizations that supply packaging and printed paper to the BC market. 2015 marked MMBC's first full year of operation.

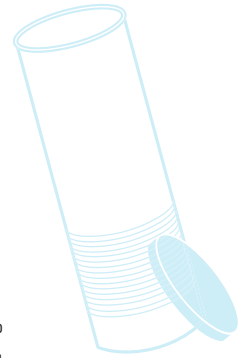
### Delivering Results

Following a successful program launch in 2014, MMBC's **primary 2015 focus** was on ensuring operations were stable. A **strong foundation** and **demonstrated results** means that local governments, First Nations and other collection and post-collection partners could count on the MMBC program's **long-term viability** and **consistency** in the delivery of residential recycling service to BC residents. Operational stability requires strong processes, procedures, and systems, and also sufficient operating reserves to allow MMBC to respond to economic challenges, including volatile commodity markets, without jeopardizing the program or disrupting service to residents.



### Reliable and Convenient Access to Services

1,255,000 BC households are now receiving curbside or multi-family recycling service, a 15,000 household increase over 2014, and 97% of BC residents, or more than 4.2 million people, have access to depots, with 24 depot locations added in 2015.



### Reduced Cost for Government, Residents

In most areas of the province, MMBC provides a financial incentive to local governments. In turn these local governments deliver recycling services and resident education, under contract to MMBC. Under this model, local government's solid waste management costs are offset, transferring the cost of recycling from taxpayers to industry.

To date, **ten communities have elected to have MMBC directly manage their recycling service**, including the Cities of Langley, Revelstoke, Prince George, Quesnel and Coquitlam; Regional Districts of North Okanagan, Central Kootenay and Kootenay Boundary; the Village of Anmore; and the University Endowment Lands. Eight of these local governments transitioned existing recycling programs to MMBC, which means they are no longer responsible for oversight of recycling services. Two of these communities (Prince George and Quesnel) received curbside recycling services for the first time. For all of them, financial and operational accountability for residential packaging and printed paper recycling sits with MMBC. In addition, the Cities of Vancouver and Pitt Meadows approved plans to transition recycling services to MMBC, beginning in the Fall of 2016. Both communities were already part of the MMBC program when it launched in 2014.

## Powerful Partnerships

With a network of **more than 160 collection and post-collection partners**, relationships with First Nations, local governments, non-profits and private companies are an important part of MMBC's work to deliver an efficient and effective recycling system. National and international partnerships serve to further enhance MMBC's work, and to create opportunity for innovation around environmental, business, and social objectives. At the provincial level, MMBC began work with local environmental organizations to further shared objectives around recycling promotion and education, and conducted pilot projects in several municipalities to explore the feasibility of expanding the program to include recycling in public spaces, also known as streetscape recycling.

Nationally, MMBC had the opportunity to partner with a member business to explore a single-use coffee pod design that would be more convenient to recycle. At the international level, we contributed to important initiatives led by the Ellen MacArthur Foundation on the topic of global plastics. This work has just begun and MMBC looks forward to participating in further innovations and solutions in this area.

## Industry Leadership

MMBC's systems-based approach is proving to be a successful model for managing recycling on behalf of producers, drawing attention from audiences in Canada, the United States and Europe. They are interested in how MMBC's **harmonized and flexible system** has allowed for **cost-effective delivery** of packaging and printed paper recycling.

We have much to be proud of and 2016 will be a year of furthering these principles of leadership, partnership, and results to deliver a best-in-class recycling system that supports local, provincial, national and international environmental commitments.



**Allen Langdon,**  
**Managing Director, MMBC**



*Photo (right): Plastic pellets created from recycled plastic are turned into new products and packaging.*





### 3. Program Overview



**Canadian Stewardship  
Services Alliance**

Multi-Material BC (MMBC) is a non-profit organization that is fully financed by industry to manage residential packaging and printed paper recycling programs in communities across British Columbia. MMBC provides recycling services either directly to communities or by working in partnership with local governments, First Nations, private companies, and other non-profit organizations to ensure households across BC are receiving best-in-class recycling services.

MMBC is located in BC with BC-based staff members that manage all program operations, including the supply chain and promotion and education activities to engage residents. MMBC's work is supported by Canadian Stewardship Services Alliance (CSSA), a national, non-profit organization which provides MMBC with administrative expertise with particular focus on administrative services that assist stewards in fulfilling their printed paper and packaging stewardship obligations. To date, MMBC has been governed by the CSSA board of directors but is looking forward to evolving to an independent organization in 2016 with its own board of directors made up of MMBC stewards.





## MMBC Advisory Committee

The MMBC Advisory Committee includes representatives from stakeholders interested in the success of the MMBC program, including local governments (appointed by the Union of BC Municipalities), the waste management industry (represented by the Coast Waste Management Association), steward industry associations (represented by dairy and landscaping associations), and the Recycling Council of BC. The Committee is consulted on core elements of MMBC's program to identify issues and suggest how they might be addressed, foster collaborative problem-solving and increased communication, and to provide feedback to MMBC on its packaging and printed paper program.

### **Brock Macdonald, Advisory Committee Chair**

CEO, Recycling Council of BC

### **Will Burrows**

Executive Director, Coast Waste Management Association

### **Mike Dick**

Vice President Western Canada for Agropur, Division Natrel  
– appointed by the British Columbia Dairy Council

### **Andrew Doi**

Environmental Planner, Metro Vancouver  
– observer appointed by Union of British Columbia Municipalities

### **Rob Gay**

Regional District of East Kootenay Board Chair  
– appointed by Union of British Columbia Municipalities

### **Gay Hahn**

CEO, Avalon Dairy Ltd.  
– appointed by the BC Food Processors Association

### **Bill Hardy**

Co-Owner, Grow and Gather Garden Centre  
– appointed by the BC Landscape & Nursery Association

### **Paul Ives**

Mayor, Town of Comox  
– appointed by Union of British Columbia Municipalities

### **Dan Rogers**

Greater Vernon Chamber of Commerce  
– appointed by BC Chamber of Commerce

## MMBC Members

MMBC members, or stewards, are businesses or organizations that supply packaging and printed paper into the BC residential marketplace, as defined in the BC Recycling Regulation. In becoming members of MMBC, these organizations exemplify their commitment to environmental sustainability by taking responsibility for the management of their packaging and printed paper at the end of its useful life. MMBC operates the residential recycling system on its member's behalf.

MMBC members span a breadth of sectors, including:

- Food manufacturers
- Consumer packaged goods (e.g., cosmetics, electronics, toys, etc.)
- Retail businesses (e.g., grocery, general merchandise, convenience, drug store)
- Banks and credit unions
- Municipal governments
- Quick service restaurants
- Magazine publishers
- Paper manufacturers
- And more...

For a full list of members, or for more information about becoming an MMBC member, visit:  
[www.multimaterialbc.ca/stewards/](http://www.multimaterialbc.ca/stewards/).



## 4. Public Education Materials & Strategies

An important part of MMBC's commitment to recycling includes investing in a wide variety of promotion and education campaigns to raise consumer awareness and encourage recycling of packaging and printed paper. In 2015, these efforts included advertising, community outreach, communications collateral, and publishing an extensive library of online and social content. Some outreach strategies are designed to communicate directly with BC residents, at home and in their communities, while other efforts are in support of local governments, non-profits and private companies, providing education materials to be used when communicating with their residents about the MMBC program.

### Advertising

In 2015, MMBC launched a new advertising campaign highlighting what materials become after they are recycled. The "Second Life" campaign featured a steel can creating the possibility of new appliances, a plastic bottle producing fleece jackets, and park benches being sprayed out of a plastic spray bottle. "Second Life" advertising ran during the spring and fall, and included TV, radio, online, social media, and out-of-home advertising. The campaign was supported by an infographic and video that answers the question "[What happens to my recycling?](#)" 

As part of their MMBC collection agreements, local government collectors retain responsibility for promotion and education, and receive some funding from MMBC for this purpose. Accordingly, MMBC shares advertising creative with collectors who wish to use it in their own communities.





## Connecting with Communities

From June to September, MMBC’s events team visited nine community events throughout seven regional districts. Even though 2015 was the first year MMBC conducted community outreach through a travelling events team, the effort was a huge success. Hands-on displays, interactive games and branded giveaways allowed MMBC an opportunity to speak with residents about their recycling program, and to answer questions or address confusion associated with changes that had come into effect in 2014. Residents walked away with a greater understanding of MMBC’s role in managing BC’s residential recycling system. It is estimated that close to 250,000 BC residents visited MMBC’s travelling display, and the team had more than more than 46,000 unique interactions with event attendees. At the end of the 2015 summer tour, MMBC donated a made-in-BC recycled plastic bench to the City of Armstrong.

## Canada Winter Games Sponsorship

Multi-Material BC (MMBC) was pleased to be an official sponsor of the 2015 Canada Winter Games held in Prince George, BC. MMBC provided 550 receptacles that were used to collect recycling for the duration of the event. After the games, the receptacles were donated to be used for recycling collection at multi-family units in Prince George as a tangible legacy from hosting the Winter Games.

## Consumer Research

MMBC continues to measure public awareness of the program through consumer research and by measuring the number of people visiting the resident-facing website. In 2015, 128,630 people visited [RecyclingInBC.ca](http://RecyclingInBC.ca) which generated 293,993 page views.

In June 2015, MMBC leveraged a second wave of research to gauge consumer behaviour, perceptions and attitudes towards recycling, and to determine the impact that MMBC has had on perceptions of recycling services delivered in participating communities.

### Results showed that:

- 99% of people are aware of the availability of packaging and printed paper recycling and claim to recycle;
- 74% make an effort to recycle, and 25% recycle only if it is convenient; and
- 86% of respondents find the recycling services unchanged or better than in 2014.

When MMBC launched the program in 2014, the objective was to ensure that from a resident’s perspective there were no service disruptions. MMBC is therefore very pleased that such a high majority of respondents are seeing no change or better service compared to the previous year. MMBC will conduct consumer research in 2016 to continue to compare and measure program awareness and the recycling behaviour of BC residents.

### 2015 Research Methodology:

2,522 residents from BC were sent a 20-minute online quantitative survey. Regional representations included:

Northern BC .....	103
Vancouver Island .....	563
Lower Mainland (excluding Greater Vancouver Area) ....	519
Greater Vancouver Area .....	1,016
Thompson-Okanagan .....	265
Kootenay.....	56

The data was weighted to the 2011 Census by age, gender and region (excluding census data for municipalities in which MMBC does not operate) to ensure that the results are representative of the options of BC’s general public 18 years of age and older.



## 5. Collection Systems and Facilities

The MMBC program uses three collection methods: curbside collection from residences that set out material individually for pick up, multi-family collection from a central location in buildings with five or more residential units, and depot collection where residents drop off packaging and printed paper. Together, MMBC has over 160 collection partners throughout BC.

### Collectors' Conference

MMBC held its first-ever Collectors Conference, March 4-5, 2015, bringing together 125 delegates representing more than 160 collection and post-collection partners from across the province. Participants included representatives from local government and First Nations, private recycling haulers and processors, depot operators and non-profit organizations. The conference provided a valuable forum for MMBC to share information and updates with communities and contracted collectors, for MMBC to hear questions and concerns, and for collectors to network and learn from their peers and others in the industry. A Plastic Film Panel exploring the opportunities and challenges with recycling certain categories of plastics included Dr. Mike Biddle, Founder, MBA Polymers; Krista Friesen, Vice-President, Sustainability, Canadian Plastic Industry Association; and Tony Moucachen, CEO, Merlin Plastics.



### Location of Collection Facilities

The MMBC program uses three types of collection methods:

1



#### Curbside collection

Collection from households that set out material individually for pick-up

2



#### Multi-family collection

Collection from a central location in residences with five or more units

3



#### Depot collection

Residents drop off their materials



1,255,000 households in 151 incorporated municipalities, electoral areas and First Nations communities have access to curbside and/or multi-family collection services under the MMBC program.



In 2015, 97% of households in BC had access to the MMBC program through its extensive depot network. MMBC added 24 depots in 2015 for a total of 204 depots in 27 regional districts.

## Curbside / Multi-Family Service Areas and Depot Facilities

REGIONAL DISTRICT	CURBSIDE	DEPOT	MULTI-FAMILY	GRAND TOTAL
Alberni Clayoquot	2	5	1	8
Bulkley-Nechako	3	3	1	7
Capital	1	11	1	13
Cariboo	4	13	1	18
Central Coast		1		1
Central Kootenay	5		1	6
Central Okanagan	5	9		14
Columbia Shuswap	3	18	1	22
Comox Valley	3	4	1	8
Cowichan Valley	6	5	2	13
East Kootenay		1		1
Fraser Fort George	1	2	1	4
Fraser Valley	1	7	3	11
Kitimat-Stikine	1	4		5
Kootenay Boundary	2	6	3	11
Metro Vancouver	17	43	16	76
Mount Waddington	4	10	1	15
Nanaimo	2	7	3	12
North Okanagan	1	4	4	9
Northern Rockies		1		1
Okanagan Similkameen	7	9	3	19
Peace River		11		11
Powell River		7		7
Skeena Queen Charlotte	1	4		5
Squamish-Lillooet	2	6	3	11
Strathcona	3	7	1	11
Sunshine Coast		3		3
Thompson-Nicola	1	3		4
<b>Grand Total</b>	<b>75</b>	<b>204</b>	<b>47</b>	<b>326</b>

## Receiving Network

Merlin Plastic's new Container Recovery Facility (CRF) began operations on January 12, 2015. The plant is located in New Westminster, BC and receives more than 50% of its material from communities within a 50km radius of the plant.

The first of its kind in North America, the new CRF represents the cornerstone of the **Green by Nature** proposal which eliminated the traditional, expensive Material Recovery Facility (MRF) infrastructure and replaced it with a series of Receiving, Consolidation and Transfer facilities (RCTs) and Pre-Conditioning Facilities (PCFs).

The RCTs segregate the two streams of residential printed paper and packaging collected from curbside, multi-family or depots, baling the fibres separately from the containers. The containers are shipped to the CRF for sorting into each of the materials found within the stream.

In the PCFs, fibres are segregated from containers. The containers stream is "pre-conditioned" to remove the residue, steel and glass. The remaining containers are baled and shipped to the CRF for sorting. This approach eliminates the unnecessary redundancy and added cost

## The Green by Nature Partnership

Green by Nature EPR (GBN) is contracted by MMBC to manage residential packaging and printed paper recycling post-collection. GBN is a partnership of three key organizations:

- **Cascades Recovery**, one of Canada's largest collectors, processors and marketers of recyclable materials.
- **Emterra Environmental**, one of Canada's largest waste resource management companies that specializes in recyclables collection, processing and marketing services, as well as organics and solid waste collection.
- **Merlin Plastics**, a North American pioneer in plastics recycling and marketing.

associated with putting optical sorting technology into each PCF (formerly MRF) across the province. The new approach is both technologically more efficient and financially more prudent.



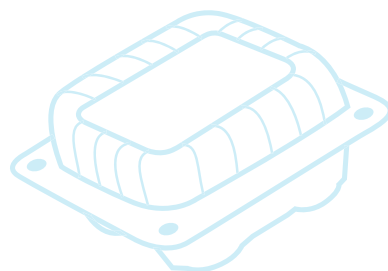
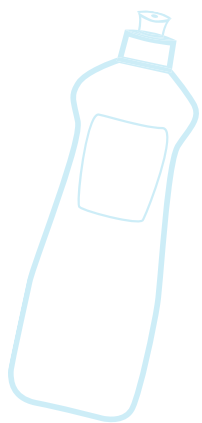




By year end all plastic/container streams in baled form from across British Columbia were incrementally added to the delivered loose materials. With all container materials added to the production process, the final quarter of the year was spent identifying opportunities to improve recovery rates and product quality, thereby minimizing the amount of material that is being sent for disposal. Additional operational changes were made over the course of the first year of operation, with Merlin's investment in the plant now in excess of \$20 million.

The new state-of-the-art CRF uses the following technologies:

- Bale breaker to get the baled materials shipped in from across the province back into single containers allowing for sorting;
- Ballistic separation technology to separate the plastic film and fibres from the 3-D containers;
- Size separation to direct oversized plastic containers to a shredder which reduces their size so they can be optically sorted into various plastic resins;
- Near infrared and visible spectrum optical sorters that can identify each of the plastic resins and efficiently sort each, generating a higher quality product for use by the end market;
- Air separation technology to clean glass fine (plastics and shredded paper) from the mixed glass stream;
- Eddy current separators to separate aluminum;
- Ferrous magnets to separate steel cans; and
- Recirculation conveyor system to send all product missed in the first pass through the optical sorting process a second time to maximize the recovery potential.



In addition to the capital equipment in place, strategically placed quality control staff are used to:

- Remove any materials that could cause processing problems for equipment within the overall system (e.g. bulky residue);
- Separate materials, where required, to maximize product value;
- Redirect missorted materials inadvertently ejected to the wrong line or optically sorted according to the label resin rather than the bottle resin; and
- Remove any unwanted non-PPP from the final sorts that could contaminate the final product going to market.

**The result of the entire process is a system that generates more value-added products than are typically found in a traditional MRF process.** The quality of the outbound materials is higher than in typical programs providing a better feedstock for downstream processors. This ensures higher market prices are received for finished products.

The plastics generated from the facility are all shipped to an **end market located within 10 kilometres** of the CRF, supporting local business and reducing the carbon footprint associated with the management of plastics which, in many jurisdictions outside of BC, are shipped to overseas markets for processing. The metal products are all shipped to markets within North America. The aseptic/polycoat containers are shipped to markets in North America or South Korea (an OECD country in keeping with MMBC and BC Ministry of Environment expectations for end market due diligence).

## 6. Pilot Project: Decreasing Contamination in Streetscape PPP

As part of the program plan commitment, MMBC initiated a series of pilot projects to study the feasibility of collecting packaging and printed paper (PPP) in streetscape bins.

Streetscape venues, as defined in Section 3.3. of the MMBC Program Plan, refer to municipal property that is not industrial, commercial or institutional property and comprises the following:

- sidewalks on municipal property, which adjoin buildings in an urban commercial area and are used for pedestrian traffic;
- plazas or town squares that are municipal property and are available to the public; or
- parks that are municipal property.

Between 2014 and 2015, MMBC conducted two pilot studies with streetscape locations in North Vancouver, Richmond and Penticton. After studying capture rates from a variety of different streetscape bin types, results indicate that streetscape PPP is highly contaminated because of a high incidence of waste being placed in the recycling containers. In addition, a significant volume of recyclables are not recovered because they have been deposited in a garbage bin.

Based on the first two pilots, MMBC has determined that due to high contamination of the streetscape PPP, it should not be collected with residential PPP. Residential PPP contamination rates are lower than streetscape indicating residents are much better at separating recyclables from waste in their homes. The pilot project also indicated that streetscape PPP remains highly contaminated with organics and other waste, posing a challenge to effectively recovering this recyclable material.

In response to these findings, a third, nine-month long pilot project will launch in 2016 in the City of Vancouver. This pilot project will be aimed at determining if different types of streetscape bins, different types of signage, or the quantity of bins can help improve streetscape recycling results.

A full report on the 2014-2015 study can be found at: [multimaterialbc.ca/announcement/streetscape](http://multimaterialbc.ca/announcement/streetscape)







## 7. Environmental Impact Reduction, Reusability and Recyclability

Producers work in a wide variety of ways to build sustainability into their organizations. One particular area of focus is producers' desire to meet consumer expectations for packaging and printed paper (PPP) that has a minimal impact on the environment while also reflecting changing consumer lifestyles and behaviour such as:

- An aging population – people are living longer and packaging designs must provide necessary safety features while also being accessible to older consumers;
- Increasing number of smaller households – more households with fewer children and an increasing number of one-person households means smaller packaging formats;
- Changing eating/mealtime behaviours – a shift to fewer sit-down family meals and more snacking and on-the-go, prepared meal options;
- Demand for packaging formats that provide additional attributes such as portion control, space saving and re-sealable features;
- Increasing awareness and concern about food waste – a desire for packaging with improved dispensing and other features designed to minimize waste; and
- A shift to digital platforms for accessing information – a reduction in distribution of printed materials as consumers increasingly rely on online sources for information.

All of these factors play a role in the way in which MMBC members innovate and build eco-efficiency in the packaging and printed paper products distributed to British Columbians.

### Improving Tea and Coffee Single Serve Packaging and Recyclability with Mother Parkers



In 2015, Mother Parkers approached MMBC for assistance testing the flow of their single-use beverage capsules within the BC recycling system. The results of this project have fed into a new recyclable packaging design for their many brands in the Keurig®K-Cup® format, including Tim Horton's coffee capsules.\*

Early results indicate that through promotion and education, many consumers are willing to separate the capsule lid and attached filter prior to recycling and that the separated cups move well through the MRF. The report points to further improvements to communication and design that will increase the value in the recycling stream. The study was funded by Mother Parkers.

\*Mother Parkers has no affiliation with Keurig® or K-Cup®. Keurig® and K-Cup® are registered trademarks of Keurig Green Mountain, Inc.



## MMBC Participates in International Project on Plastics Recycling

In 2015, MMBC was invited to participate in *Project MainStream: Global Plastic Packaging Roadmap*, a project led by the World Economic Forum and the Ellen McArthur Foundation. The vision for this project is “an economy where plastic packaging never becomes waste but re-enters the economy as defined, valuable, biological or technical nutrients.”

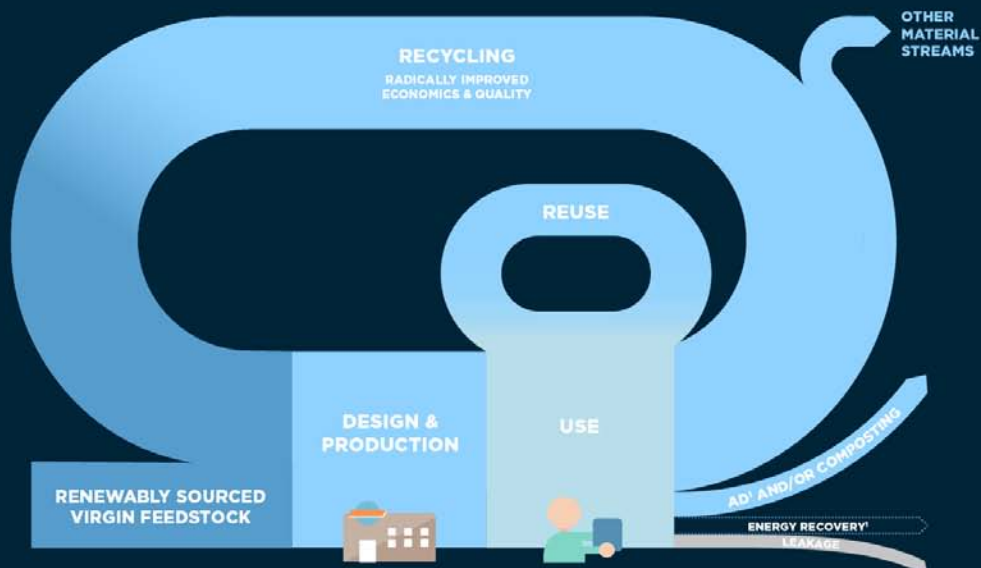
Because the flow of materials from manufacturer through to collection and processing involves a large and varied number of players there is often minimal collaboration across this supply chain meaning that the value of these materials is not being captured at an adequate rate. Project MainStream brings together a group of influential municipalities and manufacturing companies to work towards a roadmap that integrates packaging design thinking with municipal recycling systems aimed at moving from a linear to a circular flow of materials.

Involvement in this project allows MMBC to not only learn from the experience of other participants from around the world but also to share MMBC’s experience in managing an integrated supply chain for the recovery of packaging and printed paper and how the model is successfully capturing a significant proportion of its members’ materials.

Based on the work carried out in 2015, The Ellen McArthur Foundation and the World Economic Forum issued a report, [The New Plastics Economy: Rethinking the Future of Plastics](#), calling for industry and governments to apply circular economy principles to global plastic packaging flows. MMBC was highlighted in the report and noted for its success in harmonising and redesigning collection and post-collection activities in British Columbia. Providing recycling services across the province as a single waste-shed allows the province to achieve productivity previously unavailable to residential recycling programs.

## THE NEW PLASTICS ECONOMY

### 1 CREATE AN EFFECTIVE AFTER-USE PLASTICS ECONOMY



### 3 DECOUPLE PLASTICS FROM FOSSIL FEEDSTOCKS

### 2 DRASTICALLY REDUCE THE LEAKAGE OF PLASTICS INTO NATURAL SYSTEMS & OTHER NEGATIVE EXTERNALITIES

WORLD ECONOMIC FORUM, ELLEN MACARTHUR FOUNDATION, MCKINSEY & COMPANY, A NEW PLASTICS ECONOMY: RETHINKING THE FUTURE OF PLASTICS (2016) WWW.WEFORUM.ORG/REPORTS

1 Anaerobic digestion  
2 The role of, and boundary conditions for, energy recovery in the New Plastics Economy needs to be further investigated.  
Source: Project Mainstream analysis



## 8. Pollution Prevention Hierarchy and Product / Component Management

The chart below represents how material collected through the MMBC packaging and printed paper program is managed.

Collected material in MMBC's packaging and printed paper program in relation to the pollution prevention hierarchy:

Tonnes of material managed by recycling	178,583
Tonnes of material managed by recovery (material or energy from the product as per Pollution Prevention Hierarchy)	0
Tonnes of material managed by disposal	13,454

\*Data above represents audited data from processor on quantities of materials shipped. Prior year-end inventory shipped in the current year and unprocessed and unshipped inventories at year end are both considered.

### About our Recycling End Markets

When selecting end-markets for materials, MMBC gives priority to those located in countries that are members of the Organization for Economic Co-operation and Development (OECD). MMBC will allow marketing to packaging and printed paper end-markets located in countries that are not members of OECD only if the end-market meets or exceeds environmental, health and safety standards equivalent to OECD standards.

- Plastics – Sold to end-markets in BC
- Paper/Fibres (including aseptic/polycoat containers) – The majority is sold to end-markets in China, with the rest either remaining in BC or going to end-markets in the United States and South Korea
- Glass – Sold to end-markets in BC
- Metals – Largely sold to end-markets in Ontario, with the rest either remaining in BC or going to end markets in the United States

### Packaging and Printed Paper Sold and Collected and Recovery Rate

2015 Operation year	(ANNUALIZED*)	
	2015	2014
Amount of Product Sold (supplied by MMBC members)	243,191	232,562
Amount of Product Collected	186,509	186,331
Recovery Rate	77%**	80%

\*MMBC's 2014 Annual Report was based on 7.5 months of operation. For ease of year-over-year comparison, 2014 performance has been annualized in the table above.
















\*\* MMBC's recovery rate is determined by dividing collected tonnes by steward-reported tonnes. The year-over-year change in recovery rate from 80% in 2014 to 77% in 2015 reflects an increase in steward-reported tonnes in 2015 due to new stewards having joined MMBC – not a decline in recovery performance. The amount of collected tonnes in 2015 did not substantially change from 2014.



The below table outlines the amount of packaging and printed paper collected in BC by each regional district.

<b>REGIONAL DISTRICT</b>	<b>TONNES</b>	<b>SERVICED POPULATION</b>	<b>KG PER CAPITA (SERVICED)</b>
Alberni-Clayoquot	1,172	31,061	37.7
Bulkley-Nechako	422	36,613	11.5
Capital	21,438	348,389	61.5
Cariboo	1,540	59,915	25.7
Central Coast	29	1,889	15.3
Central Kootenay	597	36,594	16.3
Central Okanagan	11,649	179,839	64.8
Columbia-Shuswap	2,123	50,464	42.1
Comox Valley	2,831	63,538	44.6
Cowichan Valley	5,175	80,332	64.4
East Kootenay	77	41,594	1.8
Fraser Valley	717	276,950	2.6
Fraser-Fort George	1,944	72,499	26.8
Kitimat-Stikine	475	33,976	14.0
Kootenay Boundary	598	31,076	19.3
Metro Vancouver	113,560	2,295,900	49.5
Mount Waddington	379	11,395	33.3
Nanaimo	8,319	146,574	56.8
North Okanagan	3,848	81,237	47.4
Northern Rockies	30	5,270	5.7
Okanagan-Similkameen	4,319	80,742	53.5
Peace River	202	53,551	3.8
Powell River	742	19,872	37.3
Skeena-Queen Charlotte	512	18,597	27.5
Squamish-Lillooet	1,184	38,060	31.1
Strathcona	1,349	43,138	31.3
Sunshine Coast	1,103	28,617	38.5
Thompson-Nicola	176	114,536	1.5
<b>Grand Total</b>	<b>186,509</b>	<b>4,282,219</b>	<b>43.6</b>

## 9. Highlights / Metrics

<p><b>Recycling Performance</b></p> 	 <p><b>243,191</b> Tonnes reported by stewards</p>	 <p><b>186,509</b> Tonnes collected</p>	
	 <p><b>97%</b> Percentage of households with access to depot services</p>	 <p><b>24</b> Number of new depots in 2015</p>	 <p><b>1,715,000</b> Number of households serviced <small>*Includes curbside, multi-family &amp; depot collection</small></p>
	 <p><b>151</b> Number of communities benefiting / participating in the program (curbside &amp; multi-family) <small>*Klahoose First Nation contract was voluntarily terminated in 2015, resulting in one less community from 2014 **Communities include incorporated municipalities, electoral areas and First Nations</small></p>	 <p><b>3,137,500</b> Population served by curbside and multi-family collection</p>	
<p><b>Stewards</b></p> 	<p><b>1,036</b> Number of stewards (up 117 stewards from 2014)</p>		
<p><b>Financial Performance</b></p> 	 <p><b>\$396</b> Cost per tonne</p>	 <p><b>\$43</b> Cost per household <small>*2014 numbers were over a 7.5-month period. When normalized, 2015 costs went down slightly by 0.40 cents per household</small></p>	

# 10. Year Over Year Program Performance

Year Over Year Performance	2015	2014 (Annualized*)	YoY Variance %
Recycled Tonnes	178,583	155,081	15.2%
Collected Tonnes	186,509	186,331	0.1%
Recovery Rate	77%**	80%	-3.8%
Provincial Recycling Target	75%	75%	0.0%
Population Served by PPP Program	4,282,219	4,232,081	1.2%
Recovered KG per Capita	43.6	44.0	-1.1%
Number of Households Served (Single-Family & Multi-Family)	1,255,000	1,240,000	1.2%
Percent of Households with Access to Depots	97%	96%	1.0%
Number of Stewards	1,036	919	
Consumer Awareness of MMBC Program	11%	N/A	

\*MMBC's 2014 Annual Report was based on 7.5 months of operation. For ease of year-over-year comparison, 2014 performance has been annualized in the table above.

\*\*MMBC's recovery rate is determined by dividing collected tonnes by steward-reported tonnes. The year-over-year change in recovery rate from 80% in 2014 to 77% in 2015 reflects an increase in steward-reported tonnes in 2015 due to new stewards having joined MMBC – not a decline in recovery performance. The amount of collected tonnes in 2015 did not substantially change from 2014.







# 11. Financial Performance

## **MMBC Delivers Stable Financial Performance in its First Full Year of Operation**

In 2015, MMBC's incurred \$73.8M in net operating expenses to manage 186,509 tonnes of packaging and printed paper material. Material management, the cost to collect and process the material net of commodity revenues, accounted for 86.9% of the annual expense. The remainder of MMBC's operating expenses were used to deliver promotion and education and program management oversight of MMBC's first full year of operation. (MMBC launched on May 19, 2014.) (See material management, shared promotion and education, and program management costs in the Statement of Operations.)

The total cost per tonne increased slightly by \$1.20 in 2015 due primarily to a small increase in households being served by MMBC over the course of the year. However, collected tonnes remained flat over 2014 (on an annualized basis).

MMBC also achieved a significant financial objective in 2015 in accumulating its reserve goal of \$40M, which is needed to maintain the equivalent of 50% of its annual operating expenses in reserve. Operating reserves are designed to meet MMBC's cash flow requirements and ensure that there are always sufficient funds to pay the hundreds of local governments, small businesses and other private operators who rely on us to pay promptly and regularly for their services. (See Net Assets on the Balance Sheet of the Financial Statements.)







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## Independent Auditor's Report

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### To the Members of Multi-Material BC Society

We have audited the accompanying financial statements of Multi-Material BC Society, which comprise the balance sheet as at December 31, 2015 and the statements of changes in net assets, operations and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, these financial statements present fairly, in all material respects, the financial position of Multi-Material BC Society as at December 31, 2015, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

*BDO Canada LLP*

Chartered Professional Accountants, Licensed Public Accountants

March 24, 2016  
Toronto, Ontario



## Multi-Material BC Society Balance Sheet

**December 31** **2015** **2014**

### Assets

#### Current

Cash	\$ 43,738,145	\$ 4,630,264
Investments	-	25,210,788
Accounts and other receivables (Note 2)	4,902,130	7,889,372
Prepaid expenses	71,834	6,960

**48,712,109** **37,737,384**

#### Capital assets (Note 3)

**26,270** **35,027**

**\$ 48,738,379** **\$ 37,772,411**

### Liabilities and Net Assets

#### Current

Accounts payable and accrued liabilities	\$ 6,646,640	\$ 6,535,066
Due to CSSA (Note 4)	667,153	1,142,626

**7,313,793** **7,677,692**

#### Net Assets

Invested in capital assets	26,270	35,027
Unrestricted	1,398,316	10,059,692
Internally restricted (Note 5)	40,000,000	20,000,000

**41,424,586** **30,094,719**

**\$ 48,738,379** **\$ 37,772,411**

On behalf of the Board:

 Director

 Director

The accompanying notes are an integral part of these financial statements.

## Multi-Material BC Society Statement of Changes in Net Assets

**For the year ended December 31, 2015**

	Invested in Capital Assets	Unrestricted	Internally Restricted	Total
<b>Balance, beginning of year</b>	<b>\$ 35,027</b>	<b>\$ 10,059,692</b>	<b>\$ 20,000,000</b>	<b>\$ 30,094,719</b>
<b>Excess (deficiency) of revenue over expenses for the year</b>	<b>(8,757)</b>	<b>11,338,624</b>	<b>-</b>	<b>11,329,867</b>
<b>Transfer to operating reserve (Note 5)</b>	<b>-</b>	<b>(20,000,000)</b>	<b>20,000,000</b>	<b>-</b>
<b>Balance, end of year</b>	<b>\$ 26,270</b>	<b>\$ 1,398,316</b>	<b>\$ 40,000,000</b>	<b>\$ 41,424,586</b>

**For the year ended December 31, 2014**

	Invested in Capital Assets	Unrestricted	Internally Restricted	Total
<b>Balance, beginning of year</b>	<b>\$ -</b>	<b>\$ (2,983,182)</b>	<b>\$ -</b>	<b>\$ (2,983,182)</b>
<b>Excess (deficiency) of revenue over expenses for the year</b>	<b>(8,757)</b>	<b>33,086,658</b>	<b>-</b>	<b>33,077,901</b>
<b>Investment in capital assets</b>	<b>43,784</b>	<b>(43,784)</b>	<b>-</b>	<b>-</b>
<b>Transfer to operating reserve (Note 5)</b>	<b>-</b>	<b>(20,000,000)</b>	<b>20,000,000</b>	<b>-</b>
<b>Balance, end of year</b>	<b>\$ 35,027</b>	<b>\$ 10,059,692</b>	<b>\$ 20,000,000</b>	<b>\$ 30,094,719</b>

The accompanying notes are an integral part of these financial statements.

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## Multi-Material BC Society Statement of Operations

For the year ended December 31	2015	2014
<b>Revenue</b>		
Fee revenue	\$ 84,755,101	\$ 78,805,305
Investment income	<b>376,502</b>	212,059
	<hr/> <b>85,131,603</b>	<hr/> 79,017,364
<b>Expenses</b>		
Bad debt	451,160	3,006
Material management costs (Note 6)	<b>64,143,095</b>	36,083,190
Shared promotion and education	<b>946,257</b>	359,527
Program development and start-up (Notes 4 and 7)	<b>160,437</b>	4,765,501
Program management (Note 4)	<b>8,100,787</b>	4,728,239
	<hr/> <b>73,801,736</b>	<hr/> 45,939,463
<b>Excess of revenue over expenses for the year</b>	<b>\$ 11,329,867</b>	<b>\$ 33,077,901</b>

The accompanying notes are an integral part of these financial statements.



## Multi-Material BC Society Statement of Cash Flows

For the year ended December 31	2015	2014
<b>Cash provided by (used in)</b>		
<b>Operating activities</b>		
Excess of revenue over expenses for the year	\$ 11,329,867	\$ 33,077,901
Adjustments to reconcile excess of revenue over expenses for the year to cash provided by operating activities		
Amortization of capital assets	8,757	8,757
Non-cash component of investment income	-	(210,788)
Changes in non-cash working capital balances:		
Accounts and other receivables	2,987,242	(7,889,372)
Prepaid expenses	(64,874)	(6,960)
Accounts payable and accrued liabilities	111,574	6,535,066
Due to CSSA	(475,473)	(1,840,556)
	<b>13,897,093</b>	<b>29,674,048</b>
<b>Investing activities</b>		
Purchase of investments	-	(25,000,000)
Proceeds from investments	25,210,788	-
Purchase of capital assets	-	(43,784)
	<b>25,210,788</b>	<b>(25,043,784)</b>
<b>Increase in cash during the year</b>	<b>39,107,881</b>	<b>4,630,264</b>
<b>Cash, beginning of year</b>	<b>4,630,264</b>	-
<b>Cash, end of year</b>	<b>\$ 43,738,145</b>	<b>\$ 4,630,264</b>

The accompanying notes are an integral part of these financial statements.

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# Multi-Material BC Society Notes to Financial Statements

December 31, 2015

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## 1. Significant Accounting Policies

The following is a summary of significant accounting policies of the Organization:

### (a) Business Organization and Operations

Multi-Material BC Society (the "Organization") was incorporated under the British Columbia Society Act on May 4, 2011 to undertake responsibility for the stewardship of the packaging and printed paper environmental management program under provincial legislation. The Organization is a not-for-profit organization and as such is not subject to income taxes.

The Packaging and Printed Paper Stewardship Plan ("Program Plan") was approved by the BC Ministry of Environment in April 2013 and the program was launched in May 2014.

### (b) Basis of Accounting

The financial statements have been prepared using Canadian accounting standards for not-for-profit organizations.

### (c) Revenue Recognition

Fee revenue is based on reported tonnages for members with signed Membership Agreements with the Organization. Revenue is recognized when tonnage is reported, fees are received or receivable and collection is reasonably assured. Revenue arising from member reported tonnages or adjustments for prior years' obligations and revenues resulting from compliance and enforcement activities are recognized when the amount can be reasonably estimated and collection is reasonably assured.

### (d) Financial Instruments

Guaranteed investment certificates are valued at year-end quoted market prices. Realized and unrealized gains (losses) are recorded in the statement of operations. The Organization accounts for these investments on a settlement date basis and transaction costs associated with these investment activities are included in the statement of operations. These investments have been presented according to their contractual maturity dates.

Unless otherwise noted, the Organization initially measures its financial assets and liabilities at fair value and subsequently measures its financial assets and liabilities at amortized cost.

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## Multi-Material BC Society Notes to Financial Statements

**December 31, 2015**

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### 1. Significant Accounting Policies - (Continued)

(e) Capital Assets

Property, plant and equipment is recorded at cost less accumulated amortization and is amortized on the following basis:

Furniture            -        5 years straight line

(f) Impairment of Long-Lived Assets

When a long-lived asset no longer has any long-term service potential to the Organization, the excess of its net carrying amount over any residual value is recognized as an expense in the statement of operations.

(g) Use of Estimates

The preparation of financial statements in accordance with Canadian accounting standards for not-for-profit organizations requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Accounting estimates include estimates of unreported tonnages and collectability of steward fees, accrued post collection costs and the valuation of accounts receivable. Actual results could differ from management's best estimates as additional information becomes available in the future.

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### 2. Accounts and Other Receivables

	2015	2014
Fee revenue	\$ 2,746,113	\$ 2,796,541
Outstanding credits for indexed value of commodities processed, net	1,731,582	4,305,307
Other	427,985	787,524
Allowance for doubtful accounts	(3,550)	-
	\$ 4,902,130	\$ 7,889,372



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## Multi-Material BC Society Notes to Financial Statements

**December 31, 2015**

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### 3. Capital Assets

	2015		2014	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Furniture	\$ 43,784	\$ 17,514	\$ 43,784	\$ 8,757
Net carrying amount		\$ 26,270		\$ 35,027

---

### 4. Due to CSSA and Related Party Transactions

Effective June 2013, the Organization entered into a 5 year Management Service Agreement with Canadian Stewardship Services Alliance Inc. ("CSSA") for management services including administrative and technical support, other services and facilities for administrative, technical and reporting activities. During the year, charges totaling \$5,977,226 (2014 - \$5,530,016) were paid to CSSA pursuant to this contract, which includes reimbursement of costs paid by CSSA on behalf of the Organization.

During 2013 and 2014, CSSA provided the Organization access to funds to finance start-up and Program Plan implementation activities. Interest was charged on monthly balances outstanding. During the year, interest expense totaling \$Nil (2014 - \$170,618) was paid to CSSA. The amounts due to CSSA at year end are non-interest bearing and due on demand.

The Organization's board of directors are all members of the CSSA board of directors; therefore, the CSSA board of directors has control over the Organization.

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### 5. Internally Restricted Net Assets

The directors authorized the establishment of the Operating Reserve to provide for an appropriate level of working capital and to satisfy all of its obligations for a reasonable period of time. During the year, the Organization internally restricted \$20,000,000 (2014 - \$20,000,000) for this purpose.

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### 6. Material Management Costs

Material management costs include all costs related to the collection, transportation and processing of materials managed through the program, net of credits for indexed value of commodities processed.

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## Multi-Material BC Society Notes to Financial Statements

December 31, 2015

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### 7. Program Development and Start-up

Program development and start-up costs incorporate all costs incurred in relation to the research, writing, consultation and implementation of a program plan once that plan is approved. These costs include costs to engage stakeholders, identify and manage stewards through reporting, development and implementation of a service provider network, development and implementation of systems and business processes, development of governance framework and the opening of an office and associated office and staff costs.

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### 8. Commitments

Under the terms of a realty lease agreement, the Organization is committed to pay basic rent approximately as follows:

2016	\$ 45,400
2017	47,700
2018	48,100
2019	<u>8,000</u>
	<u>\$ 149,200</u>

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### 9. Financial Instrument Risk Exposure and Management

Management has established policies and procedures to manage risks related to financial instruments, with the objective of minimizing any adverse effects on financial performance. Unless otherwise noted, it is management's opinion that the Organization is not exposed to significant interest rate, currency or credit risks arising from its financial instruments. A brief description of management's assessments of these risks is as follows:

(a) Credit Risk:

Financial instruments potentially exposed to credit risk include cash and accounts and other receivables. Management considers its exposure to credit risk over cash to be remote as the Organization holds cash deposits at a major Canadian bank. Accounts and other receivables are monitored regularly for collections and the carrying amount represents the maximum credit risk exposure. The Organization's provision for uncollectable accounts receivable is \$3,550 (2014 - \$Nil).

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### 10. Comparative Amounts

Certain comparative amounts presented in the financial statements have been restated to conform to the current year's presentation.

## 12. Plan Performance

The table below summarizes MMBC's 2015 performance against its Packaging and Printed Paper Stewardship Plan.

PLAN TARGET	2015 RESULT	STRATEGIES FOR IMPROVEMENT
1. Maintain at a minimum the overall provincial collection rate of 208,700 tonnes.	MMBC collected 186,509 tonnes of material in 2015, which represents 77% of the tonnes supplied into the residential marketplace by our member-stewards.	MMBC will add more communities as more stewards join the program.
2a. Maintain at a minimum single-family and multi-family household service levels where these households currently receive PPP collection.	871,000 single-family households and 384,000 multi-family households received curbside and multi-family collection services from MMBC. The adjusted targets (less local governments that did not participate) are 793,000 single-family households and 364,000 multi-family households.	MMBC will add more communities as more stewards join the program.
2b. Provide curbside collection of PPP to the approximately 102,000 households currently receiving garbage-only collection service.	MMBC provided curbside collection of PPP to 38,000 households previously only receiving curbside garbage collection service through both RFPs and service via local governments/ First Nations.	Local governments representing the remaining households either: i) Did not respond by the deadline; ii) Indicated they prefer depot collection; or iii) The bid price received by MMBC was higher than MMBC's offer.
2c. Maintain depot collection of PPP for the approximately 165,000 single-family households and the approximately 91,000 multi-family households without collection services.	MMBC added 24 new depot sites in 2015. Collectively, the 204 depots serve in total close to 460,000 households to which MMBC does not provide single-family or multi-family curbside collection services.	MMBC will add more depots as more stewards join the program.
2d. Provide depot collection of PPP for the approximately 17,000 multi-family households currently without depot collection service.	MMBC added 24 new depot sites in 2015. Collectively, the 204 depots serve in total close to 460,000 households to which MMBC does not provide single-family or multi-family curbside collection services.	MMBC plans to add 5 additional depots in 2016.
2e. Implement streetscape pilot project.	MMBC completed a streetscape pilot in three communities in 2015 to better understand residents' streetscape recycling behaviour.	In 2016, MMBC will undertake a nine-month streetscape pilot in the West End of the City of Vancouver to inform future strategies.



PLAN TARGET	2015 RESULT	STRATEGIES FOR IMPROVEMENT
2f. Single-family and multi-family households receiving household collection services, and number and location of depots accepting PPP.	871,000 single-family households and 384,000 multi-family households received curbside or multi-family collection services from MMBC. 204 depots accepted PPP.	
3. Conduct resident awareness research.	MMBC carried out post-launch consumer research in 2015.	MMBC intends to embark on new consumer research in 2016 to continue to inform promotion and education strategies.
<p>3a. Consumer awareness reporting.</p> <ul style="list-style-type: none"> <li>• Percentage of residents aware of PPP stewardship program</li> <li>• Percentage of residents reporting use of available collection services</li> <li>• Visits to the 'resident' section of the MMBC website</li> </ul>	<p>Percentage of residents aware of PPP stewardship program:</p> <ul style="list-style-type: none"> <li>• 99% of people are aware of the availability of packaging and printed paper recycling and claim to recycle.</li> </ul> <p>Percentage of residents reporting use of available collection services:</p> <ul style="list-style-type: none"> <li>• 74% make an effort to recycle, and 25% recycle only if it is convenient.</li> </ul> <p>Visits to the 'resident' section of the MMBC website:</p> <ul style="list-style-type: none"> <li>• In 2015, 128,630 people visited <a href="http://RecyclingInBC.ca">RecyclingInBC.ca</a>.</li> </ul>	
4a. Target PPP for which recycling end-markets exist for collection.	MMBC uses promotion and education materials today to highlight for residents those PPP materials for which sustainable and/or commercially viable recycling end-markets exist.	MMBC will continue to provide promotion and education materials to educate residents on the materials accepted in its program.
4b. Direct 85% to 90% of collected PPP to recycling commodity markets.	In 2015, 178,583 tonnes of MMBC's material were shipped to recycling end markets while 186,509 tonnes were collected (96%).	

PLAN TARGET	2015 RESULT	STRATEGIES FOR IMPROVEMENT
<p>4c. Pollution Prevention Hierarchy Reporting.</p>	<ul style="list-style-type: none"> <li>• Tonnes of material managed by recycling: 178,583</li> <li>• Tonnes of material managed by recovery (material or energy from the product as per the Pollution Prevention Hierarchy): 0</li> <li>• Tonnes of material managed by disposal: 13,454</li> <li>• Examples of environmental impact measures to characterize actions intended to reduce the environmental impacts of PPP by producers, members of MMBC, and by MMBC:               <ul style="list-style-type: none"> <li>- project to improve K-Cup Packaging recyclability with Mother Parkers ; and</li> <li>- MMBC was invited to participate in <i>Project MainStream: Global Plastic Packaging Roadmap</i>, a project led by the World Economic Forum and the Ellen McArthur Foundation.</li> </ul> </li> </ul>	
<p>5. Conduct research and develop a data tracking and modelling system for greenhouse gas emissions (GHG).</p>	<p>MMBC is responsible for completing its research and development of a data tracking and modelling system for greenhouse gas emissions by the end of 2016. No work was completed on this initiative during 2015.</p>	<p>MMBC will complete research and development of a data tracking and modelling system for greenhouse gas emissions by December 31, 2016.</p>
<p>6. Other reporting metric: program cost.</p>	<ul style="list-style-type: none"> <li>• Total program cost (net) per tonne recovered: \$395.7</li> <li>• Total program cost per household (SF and MF only): \$43.0</li> </ul>	

# 13. Appendices / Additional Information and Third Party Assurance

## Operational Effectiveness Indicators

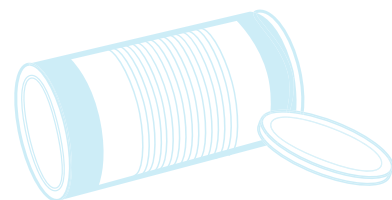
KG per capita of material recycled and recovered for the province:

Material recycled per capita	41.7
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## Operational Efficiency Indicators

Total program cost (net) per tonne recovered	\$395.7
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Total program cost per household	\$43.0
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MULTI  
MATERIAL  
**BC**

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