Agenda

• Welcome
• Guest Speakers
• Fee Setting Methodology Review Project
• Break
• Program performance, status update, 2016 budget and fee schedule:
  – Multi-Material BC (MMBC)
  – Multi-Material Stewardship Western (MMSW)
  – Multi-Material Stewardship Manitoba (MMSM)
  – Stewardship Ontario (SO)
• Q&A
• Wrap-up
Information for webcast participants

• In person attendees – 130
• Webcast audience – 400+
• Speaker advances slides
• Sound slider ①
• Questions/comments at ‘Ask a Question’ ②
  – Click ‘submit’
• If you have technical issues also let us know via the “Ask A Question” box
The Evolving Tonne of Recyclables and How This Impacts on Recycling Program Costs

Maria Kelleher, Kelleher Environmental

29th October, 2015
Presentation Outline

First 20 years of recycling and what we have seen since 2008/2009
Reasons for the evolving tonne - changing ratio of paper to plastic
How the evolving tonne impacts on recycling program costs
Residential Recycling in 1980’s and 1990’s

Many original residential recycling programs developed in Canada and the US late 1980’s and 1990’s

Provinces and states set recycling targets and encouraged recycling

For 20 years, efforts focussed on:
- Collecting paper, glass, metals, plastics (PET/HDPE)
- Expanding materials collected
- Stabilizing markets for processed materials
- Increasing participation and capture of materials
- Driving recovery up and driving costs down
- Making the system more efficient
- Meeting recycling and diversion targets
Recycling Systems Began to Change in 2005

More materials added to residential recycling programs

Boxes were replaced by Bins
  ◦ increased recycling 30%, addressed litter and lowered worker injury

Green Bin programs added to complexity of collection

More single stream recycling systems
  ◦ MRFs became more complex

More user pay systems and container limits
  ◦ Incentive for recycling but more contamination in Blue Bins

Less garbage
  ◦ some communities moved to bi-weekly garbage collection

Composition and amounts of recyclables stayed approximately the same
Fundamental Change Started 2008/2009

Ratio of plastic to paper changed – more plastic, less paper, more small packages...

Residue rates increased

Markets began to complain about quality of materials from MRFs

MRF operators noticed a drop in newsprint (ONP) and increase in cardboard (OCC)

Evolving Tonne –
More Plastic, Less Paper..

Recyclers are used to cyclic nature of markets, cost of fuel, US$ up and down

The paper/plastic evolving tonne issue is new...and permanent...and is still changing and evolving

Evolving tonne has significant impacts on costs – going up and will continue to go up

Other factors are also impacting recycling program costs:
  China’s Green Fence – markets for mixed paper and mixed plastics impacted
  Softening Chinese economy – lower demand/revenue for secondary materials from recycling programs

Toronto (2010) and Calgary (2014) both completed studies on impacts of evolving tonne on diversion targets and business planning
Changing Demographics and Lifestyles
Demographic and Lifestyle Trends Impacting on Recycling Materials

“Greying” of Canadian Population - we are living longer
- over 65’s expected to double in next 20 years
- By 2018, 25% of US population will be over 55

Smaller Households
- fewer children
- more 1-person households – first marriage later, divorce, single

Design of packaging and products to suit changing demographics
- Convenience is king – more take-away food and prepared meals
- Complicated packaging (to accommodate arthritic hands)
- Small portion, re-sealable packaging
The Internet Changed Everything

Handheld and mobile devices changing the way we live and communicate

PAPER newspapers decreasing
  ◦ less newspaper in recycling programs

Internet shopping increasing
  ◦ Purchases are delivered by corrugated or boxboard container
  ◦ More OCC and OBB showing up in residential recycling programs
  ◦ OCC – bulky in collection systems – increases costs
Impact of Internet On Newsprint..

Less/smaller newspapers
- Decreased circulation or closure of newspapers...
- Decisions to drop Sunday edition
- Move to 3 editions per week rather than 6
- Smaller format...from broadsheet to tabloid
- Lighter/thinner paper, fewer pages

La Presse, Montreal
- dropping weekday print edition completely, only Saturday print edition 2016

Paper directory format phonebooks - Toronto alone – 3,500 tonnes of directory paper gone
The Death of Paper Newspapers...
Lifestyle Trends
Convenience is King

More ready to eat meals
- salads, cooked food from grocery stores, etc
- Convenience food growth rate of 3% to 5% from 2013 to 2018
- More plastic and paper take away packaging

Re-sealable packages

Single serve packages

Smaller portion packaging

Customized single serve packaging
- Coffee-pod market expecting dramatic growth

More, smaller pieces to process at a MRF to get one tonne
- Do more work to sell the same amount of material
Packaging Design Changes, Substitution, Lightweighting

Plastics have **doubled** in Ontario MRFs over last 10 years (lightweighting, multi-layer, etc)
- Plastics is 6% of weight but 23% of the volume of a tonne of recyclables

Some glass packaging moving to plastic multi-layer pouches

Lightweighting – PET bottles now weights ½ of weight 20 years ago
- One tonne was 35,000 PET bottles; now 70,000
- This means twice as much processing cost to get one tonne to sell

More multi-layer non-recyclable packaging
- Granola bars

More vegetables/products in thermoform PET
- Clamshells increase dramatic in last 2 years
Why Are Recycling Costs Going Up
Recycling Costs: Collection + Processing - Revenue

Collection Cost Impacts of Evolving Tonne:
- Less heavier material
- More lightweight and low density material
- Truck will cube out sooner
- Increases collection costs

Processing Cost Impacts of Evolving Tonne:
- MRF designs need to change to accommodate different material mix – MRFs are more expensive; processing is more expensive

Material Revenue Impacts of Evolving Tonne:
- Affected by poor quality/higher contamination
- No markets for some materials
- China’s “Green Fence” – impacted market for lower quality paper and plastics
Ontario Blue Box Costs Going Up But Diversion Has Stalled

<table>
<thead>
<tr>
<th>Year</th>
<th>Blue Box Diversion Rate</th>
<th>Blue Box Net Cost in PIM (Pay In Model) ($ millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>46.0%</td>
<td>$62</td>
</tr>
<tr>
<td>2004</td>
<td>53.0%</td>
<td>$82</td>
</tr>
<tr>
<td>2005</td>
<td>55.0%</td>
<td>$118</td>
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<tr>
<td>2006</td>
<td>57.0%</td>
<td>$111</td>
</tr>
<tr>
<td>2007</td>
<td>64.0%</td>
<td>$109</td>
</tr>
<tr>
<td>2008</td>
<td>63.0%</td>
<td>$130</td>
</tr>
<tr>
<td>2009</td>
<td>66.0%</td>
<td>$155</td>
</tr>
<tr>
<td>2010</td>
<td>67.6%</td>
<td>$170</td>
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<tr>
<td>2011</td>
<td>64.2%</td>
<td>$190</td>
</tr>
<tr>
<td>2012</td>
<td>62.8%</td>
<td>$187</td>
</tr>
<tr>
<td>2013</td>
<td>65.8%</td>
<td>$197</td>
</tr>
</tbody>
</table>
Reasons For Increasing Ontario Blue Box Costs 2010, 2011

2010 - Ontario Blue Box net costs $170 million, diversion 67.6%
  ◦ Until 2010, Ontario Blue Box costs going up each year but could be explained
    - adding more materials, diversion increasing

2011 - Ontario Blue Box net costs up $20 million, diversion down from 67.6% to 64.2%
  ◦ First year impacts of evolving tonne kicked in...
  ◦ Paper dropping, plastic increasing
  ◦ More light material (plastics), less heavy material (glass, paper) – lower diversion
Reasons For Increasing Ontario Blue Box Costs 2012, 2013

2012 - Ontario Blue Box net costs (PIM) up another $3 million; while diversion has stalled down

Revenues impacted by recycling market collapse 2008/09
  ◦ Impact of evolving tonne reflected in much higher prices for some large, newly awarded contracts (Durham, Toronto, others)
  ◦ Prices playing “catch-up” with market reality
  ◦ China Green Fence beginning to lower value of mixed paper and mixed plastic

Blue Box began to have more “expensive to recycle” materials (plastics) and less “cheap to recycle” materials (paper)
Relative Cost Per Tonne To Recycle Materials in Ontario Blue Box

**Net Recycling Cost by Material Type in Ontario’s Blue Box Programs**
(Collection, Processing minus revenues)

- Glass
- Aluminum Cans
- Steel
- Plastic Laminants
- Plastic Film
- HDPE Bottles
- PET Bottles
- Aseptic Containers
- Paper Laminants
- Corrugated Cardboard
- Printed Paper

**NET COST IN ONTARIO**

From the graph, it is evident that the relative cost per tonne to recycle materials varies significantly. Glass and Aluminum Cans have the highest cost, followed by Steel and Plastic Laminants. Printed Paper has the lowest cost.
Change #1: Newsprint Down

Newsprint used to be the backbone of all recycling programs

- Lots of newsprint, good reliable markets, good solid source of revenue, easy to collect and process
- Newsprint was 80% of what a MRF handled in the early Blue Box days: now 38% and dropping
- In one MRF in SW Ontario, newsprint was 45% of Blue Box; now only 5% of Blue Box materials
Impacts of Lower Newsprint On Recycling Costs

Harder/impossible to create #8 News bale which had a higher revenue

MRFs now produce #6 News bale, lower revenue, but less effort to meet specs

Mills are getting used to this change (as they need the fibre)

Pay lower revenue for lower grade bale with less newsprint and spend more money getting contaminants out

Used to think this was a single stream system issue – now understand it is a complex combination of factors at play
Newspaper extinction timeline
When newspapers in their current form will become insignificant

USA 2017
UK, Iceland 2019
Canada, Norway 2020
Finland, Singapore, Greenland 2021
Australia, Hong Kong 2022
Denmark 2023
New Zealand, Spain, Czech, Taiwan 2024
Poland, Sweden, Switzerland 2025
South Korea, Metro Russia, Belgium 2026
Netherlands, Ireland, Metro Brazil, Italy 2027
Austria, Slovakia, Greece, Portugal, U.A.E. 2028
France, Israel, Malaysia, Croatia 2029
Germany, Estonia 2030
Japan, Metro China 2031
Hungary, Lithuania 2032
Latvia, Metro Mexico 2033
Serbia, Saudi Arabia 2034
Bulgaria, Chile, Uruguay 2035
Russia, Turkey 2036
Metro South Africa, Thailand 2037
Mongolia 2038
Argentina 2039
Rest of the world 2040+

---stripes indicate that newspapers will be extinct in metropolitan areas before regional areas

www.futureexploration.net

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Change #2: Paper vs Packaging
Proportions Changing

Paper used to make up 82% of material in MRF, packaging was 18%

Some processors report paper is down to 62%, packaging up to 38%

Paper is cheap to recycle; packaging is expensive. Changing proportions, less paper recycling, costs go up
Change #3: More Plastics

More plastic packaging – some high value (PET, HDPE) with good markets, other material low/no value – markets need to be developed but that takes time

In the interim - lots of money to process lighter materials with low/no value

Technology (screens, optical sorters) catching up, but always a lag of a few years

PET bottles now so light, they flatten in MRF
  ◦ Confused with paper in optical sorters (flat vs round sort)
  ◦ End up in paper bales, lowering quality and value

Plastic film a real hassle in MRFs - winds around machinery, causes work stoppages, costs money
Change #4: Lower Density (Lighter Fluffier Materials)

DENSITY (relationship between weight and volume) of recyclable material is decreasing.

Collection costs are 2/3 of recycling costs.

1 cubic metre (m$^3$) of recyclables used to weight 107kg, now weights 57kg.

Now takes 140 trucks to deliver material that used to only need 100 trucks.

Higher collection costs.

One MRF - weight up by 20%, volume up by 70%.
Plastics 6% of weight, 23% of volume – expensive to collect...more trucks, more fuel, more drivers and labour cost

Newspaper 36% of weight, only 13% of volume – cheap to collect
We Are Not Alone.. A Perfect Storm

- Wall Street Journal 29th April, 2015: *Unprofitable Recycling Weighs On Waste Management* Serena Ng and Angela Chen

- Fortune Magazine 3rd September, 2015: *The American recycling business is a mess: Can Big Waste fix it?* Claire Groden

- New York Times 23rd October, 2015: *A Global Chill in Commodity Demand Hits America’s Heartland*”
A Perfect Storm

David Steiner, Waste Management Inc, various interviews Spring, 2015

- WMI – largest recycler in US (15 million tons) losing significant $
- Tumbling prices of recycled materials (down 14% Jan-March, 2015) - “its as low as it has ever been and we have seen no indication of a bottom”
- Lost $13 million Q1/2015, closed 4 recycling plant, may close more
- Recycled plastics prices down with low oil price
- Worsening economics around handling glass – lost $6 million recycling glass 2014
- Slower economic growth in China – lower demand for used paper and other materials
Conclusions

The world is changing at a rapid rate:
- Lifestyles are changing
- Packaging formats are changing
- Printed paper is going down

All of these changes impact on recycling costs

Packaging decisions impact on recycling program costs

There is a need to monitor changes in paper to plastics ratio, and composition of recycling program materials

Estimate impacts of new materials in recycling programs

Plan for a future of increasing recycling costs
CSSA Annual Steward Meeting

Smart Design for Recycling Supply Chains

October 29th, 2015
The Cascades ‘Closed Loop’ family

21 Processing Facilities & 200+ Trucks

Cascades
- Containerboard
Cascades
- Specialty Products
Cascades
- Tissue & Towel

GREEN by Nature EPR®
Typical Post Collection System

Curbside Collection
- Containers
- Fibre
- Single Stream

Multi-Family Building Collection
- Containers
- Fibre
- Single Stream

Material Recovery Facility
- Sort and prepare for shipment to downstream processors or end-markets
- Facilities that process:
  - All PPP into marketable end market grades

Recycling End Markets
- Examples include:
  - Paper Mills
  - Aluminum smelters
  - Steel smelters
  - Plastic blow or injection molders
  - Glass Kilns
  - Fibreglass manufacturers

Disposal at Landfill
- Residue
  - Fibre OCC
  - Fibre Mix
  - Fibre ONP
  - Aluminum
  - Tin
  - Glass
  - Polycoat
  - HDPE
  - Tetrapak
  - PET
  - EPS
  - Mix Plastics
  - Residue
  - PET
  - Mix Plastics
  - Residue
  - Disposal at Landfill
Challenges facing Post Collection

1. **Material Composition** has changed and will continue to change.

2. **Recovering More** materials; waste management mentality, lower commodity prices, lower oil prices.

3. **No Standardization** – every program is custom.

4. **Foreign Markets** – decreasing demand, Green Fence.
Are we designing packaging for the ‘supply chain’ or designing the ‘supply chain’ for the packaging?
What EPR brought to B.C.

- 75% Recovery Rate
- Province Wide Consistency
- Fund Operations & Management
- Under BC Recycling Regulation, Producers assume responsibility for the recycling of printed paper and packaging (PPP) – 100% EPR
- No Cost to Householder
- No Interruptions
- Mandatory Compliance
Green By Nature EPR

GREEN by Nature ePR®

Cascades Recovery Inc.

EMTERRA Environmental

MERLIN PLASTICS
The Role GBN Plays in BC
BC’s Post Collection System

31 RCTs
Receiving, Consolidation & Transfer

15 PCFs
Pre-Conditioning Facilities

1 CRF
Container Recovery Facility
Post Collection Design

Scope of Post-Collection Services

Pre Conditioning Facility
Sort and prepare for shipment to downstream processors or end-markets

Plastic Recovery Facility
Sort and prepare plastic and containers for shipment to end-markets.

Film Plastic
Fibre (Cat 1, 2 & 3b)
Tin/Aluminum
Glass
EPS
Deposits

Schedule 1 Return Depot

Final Disposition

GBN Marketing
Processed PPP Meeting
Commodity Market Specifications

Recycling End-Market
Examples include:
> Paper Mills
> Aluminum smelters
> Steel smelters
> Plastic blow or injection molders
> Glass Kilns
> Fiberglass manufacturers

Processed Residual Materials to meet Alternate Fuel Specifications

Recovery End-Market
Examples include:
> Cement plants
> Pulp mills

Processed Residual Materials

Residue
Disposal at Landfill

Composition Audits

Transportation

Transfer Facility (as required)
Aggregate into larger loads for transport to processor

Containers
Fibre
Glass
Single Stream

Containers
Fibre
Glass
Single Stream

Containers
Glass
Film Plastic
EPS

Containers
Fibre
Glass
Single Stream

Containers
Fibre
Glass
Single Stream
Film Plastic

Curbside Collection Service Providers
Multi-Family Building Collection Service Providers
Depot Collection Service Providers
Other Sources of PPP

Residential PPP from collectors not participating in MMBC program and/or ICI PPP managed at facilities operated by MMBC's contracted post-collection service providers

GBN Marketing                                   
Processed PPP Meeting 
Commodity Market 
Specifications
Recycling... 
Stream
Composition Audits
Film Plastic
EPS
EPS
Deposits
Fibre
Glass
Single 
Stream
Transportation

Collection

Final Disposition
Smart Design & the Blue Box Business

**Defined Objective**
- A centralized management approach allows for standardization
- Builds confidence & encourages investment
- Supports a consistent and coordinated service delivery

**Re-Engineer Recycling Supply Chain**
- Facilities perform the same tasks
- Flexibility - outputs designed based on inputs
- Data collection and reporting
- Applicable to new program start-ups

**Maximize Efforts**
- Drive innovation and cost effectiveness
- Leverage volumes to command best prices
- Promote best practices
The Impact of EPR on the Supply Chain

- Municipalities, haulers, processors and end markets carry on business as usual
- Standardized feedstock and output
- Able to receive and manage a wider range of PPP with minimal investment
- Addresses processing challenges
- Minimize # of Sorts - focus is on executing the sort well
- No Market Risk
- Much higher levels of reporting and accountability
In the Works with MMBC

- Automating data collection – MOM
- Addressing contamination – i.e., curbside glass, residue
- Minimizing the handling efforts at all collection points - depot
- Working with Producers on packaging decisions
- Utilizing data collected from the system and from the central audit centre to provide Producers with customized data
- Begin planning the addition of more materials
“We care so much about printed paper and packaging, when the consumer is done with it, We want it back”!

*Every Package Recycled*

One Process, One Set of Rules, For All
Al Metauro
President & CEO Green By Nature EPR
President & CEO Cascades Recovery Inc.

E: ametauro@recoverycascades.com

Thank You

Cascades Recovery Inc.

GREEN by Nature EPR®
INSIGHTS INTO RECYCLING
COMMODITY MARKETS
Jerry Powell, Resource Recycling
Steward Consultation Committee Members

**Co-Chairs:** Neil Antymis and Scott Tudor

**SCC Steward Members:**

<table>
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<tr>
<th>A. Lassonde Inc.</th>
<th>PepsiCo Beverages Canada</th>
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<tr>
<td>Costco Wholesale</td>
<td>Procter &amp; Gamble Canada</td>
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<td>Coca-Cola Refreshments Canada</td>
<td>Sobeys Inc.</td>
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<td>Groupe TVA</td>
<td>Tim Hortons Inc.</td>
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<td>Loblaw Companies Ltd</td>
<td>Unilever Canada Inc.</td>
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<td>McCain Foods</td>
<td>Walmart Canada Corp.</td>
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<td>Mondelēz International</td>
<td>Canadian Tire</td>
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<td>Nestle</td>
<td>Staples</td>
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<td></td>
<td>Home Hardware</td>
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<td>Parmalat</td>
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**CSSA & Program Staff**
Laurie Simpson, Catherine Abel, Alastair Harris-Cartwright, Alex Chan, Chris van Rossem, David Pearce, Karen Melnychuk, Allen Langdon

**External Consultants:**
Guy Perry – GP & Assoc.  
Rick Findlay – RFCL Innovations
The SCC is a meaningful forum through which stewards that represent key blue box material sectors can explore alternatives for a fee setting methodology that can be applied to packaging and printed paper programs across Canada (as legislation permits).

SCC members are asked to:

• Validate a set of guiding principles for fee setting
• Listen to and consider the view of interested stakeholders
• Develop options for consideration by the Boards and broader stakeholder community
## Five Phases of the Fee Project

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
<th>Status</th>
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<tr>
<td>1</td>
<td>Phase 1 – Charter the project</td>
<td>Complete</td>
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<tr>
<td>2</td>
<td>Phase 2 – Prepare materials and plans</td>
<td>Complete</td>
</tr>
<tr>
<td>3</td>
<td>Phase 3 – Involve Stewards – Develop options and business cases</td>
<td>In progress</td>
</tr>
<tr>
<td>4</td>
<td>Phase 4 – Consult with broader steward community</td>
<td>Early 2016</td>
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<tr>
<td>5</td>
<td>Phase 5 – Implement change</td>
<td>Not Started</td>
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## Stakeholder Input

<table>
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<tr>
<th>Written Submissions Received from:</th>
<th>Presentations During Workshops 3&amp;4</th>
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<tr>
<td>Carton Council</td>
<td>PPEC</td>
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<td>Canadian Beverage Association</td>
<td>Magazines Canada</td>
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<td>Food &amp; Consumer Products of Canada</td>
<td>Carton Council</td>
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<td>ICBC in British Columbia</td>
<td>Éco Entreprises Québec (EEQ)</td>
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<tr>
<td>McDonald’s</td>
<td>Canadian Beverage Association</td>
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<td>Magazines Canada</td>
<td>Newspapers Canada</td>
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<td>Newspapers Canada</td>
<td>Retail Council of Canada</td>
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<tr>
<td>Paper &amp; Paperboard Packaging Environmental Council (PPEC)</td>
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</table>
The Case for Change

• **Steward Feedback**: Stewards tell us that the current fee setting methodology is complex, difficult to understand and difficult to explain to company colleagues

• **Three-Factor Formula** not functioning as intended:
  – As the material mix in the system changes and more materials achieve target recovery rate the third factor of the Three-Factor Formula is weakening
Objectives of the Project

• Produce a harmonized fee setting that is easier to explain to stakeholders.

• Define material fee rates that align with the objectives of the new methodology

• Identify options to fairly allocate recycling system costs to materials.

• Determine the appropriate level of reliance on waste system studies needed to inform cost and revenue allocations.
Scope of Fee Project

In Scope:
• Validation/ refinement of guiding principles for fee setting
• Examination for sharing costs and commodity revenue
• Preparation of business cases for valid options

Out of Scope:
• New EPR Legislation
• Determining recycling systems costs
• Benchmarking costs
SCC Workshop Schedule

1. Workshop 1 - History & Current Situation
2. Workshop 2 - Fee Setting Principles 1
3. Workshop 3 - Stakeholder Presentations 1
4. Workshop 4 - Stakeholder Presentations 2, Fee Setting Principles 2
5. Workshop 5 - Cost Allocation Options for Fee Setting
6. Workshop 6 - Options for Fee Setting 2
7. Workshop 7 - Reviewing Methodology Options & Business Cases
8. Workshop 8 - November 18
• Having been presented with information about the activities and costs drivers within the supply chain, the SCC has been identifying valid options for how to allocate those costs in the fee calculation.
• Business case for each option will be developed for further review.
• Once the review process is complete, the project outcomes will be shared with steward community for consideration – targeted for Q1 2016.
2015 -2016 Stakeholder Engagement Schedule

Steward Consultation Committee Convened

Industry Advisory Committee Check-In

Stakeholder Consultation and Feedback

Webinar and Call for Stakeholder Submissions

Stakeholder Update Communiqué

Industry Advisory Committee Check-In

Stakeholder Update Communiqué

Industry Advisory Committee Check-In

Stakeholder Update Communiqué

Industry Advisory Committee Check-In

Stakeholder Update Communiqué

Board update
Overview

• 2014 Year in Review
• 2014 Recycling and Accessibility Performance
• 2014 Financial Program Performance
• 2015 Status Report
• 2016 Budget
• Fee Schedule
• Look Ahead
2014 – A Year in Review

• Program launched on **May 19, 2014**

• The MMBC program is the first fully financed and managed EPR program for packaging and printed paper in North America.

• MMBC introduced a standardized list of packaging and printed paper that is accepted for recycling in BC
2014 Achievements

– 116,457 tonnes of collected material
– 80.1% recovery rate
– 27.5 kg recovered per capita
– 96% of households with access to depot services
– 1,240,000 households serviced by curbside or multi-family collection
– 20 communities receiving curbside recycling services for the first time
## 2014 Recycling and Accessibility Performance

Representative of 7.5 months of operation

<table>
<thead>
<tr>
<th>Metric</th>
<th>British Columbia 2014</th>
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</thead>
<tbody>
<tr>
<td><strong>Recycling Performance</strong></td>
<td></td>
</tr>
<tr>
<td>Recovered Tonnes</td>
<td>116,457</td>
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<tr>
<td>Supplied Tonnes</td>
<td>145,351</td>
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<tr>
<td>Recovery Rate</td>
<td>80.1%</td>
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<tr>
<td>Population Serviced by PPP Program</td>
<td>4,232,061*</td>
</tr>
<tr>
<td>Recovered kg per capita**</td>
<td>27.5</td>
</tr>
<tr>
<td><strong>Accessibility Performance</strong></td>
<td></td>
</tr>
<tr>
<td># Households Serviced</td>
<td>1,694,258*</td>
</tr>
<tr>
<td>% Households with Access to PPP Program</td>
<td>96%*</td>
</tr>
<tr>
<td>P&amp;E Cost per capita</td>
<td>$0.36</td>
</tr>
<tr>
<td>% of residents aware and using recycling services</td>
<td>98%</td>
</tr>
</tbody>
</table>

* Represents access to curbside, multi-family, and/or depot services

** Based on 7.5 months of recovery for entire BC population
### 2014 Financial Program Performance

<table>
<thead>
<tr>
<th>Cost Performance</th>
<th>British Columbia 2014 (representative of 7.5 months)</th>
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<tbody>
<tr>
<td>Recovered Tonnes</td>
<td>116,457</td>
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<tr>
<td>Net Cost*</td>
<td>$45,939,463</td>
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<td>Net Cost per Tonne</td>
<td>$394</td>
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<td>Net Cost per Capita</td>
<td>$11</td>
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<tr>
<td>Recovered kg per capita**</td>
<td>27.5</td>
</tr>
</tbody>
</table>

*Net cost includes supply chain costs, commodity revenues, P&E, regulatory and program management costs + program development?.

**Based on 7.5 months of recovery for entire BC population.
2015 Status Report

• First year of operations celebrated on May 19, 2015
• First Annual Report released on June 30, 2015
• Second Life promotion and education (P&E) campaign encouraged consumers to find out what happens to material once it’s collected
• MMBC launched a streetscape pilot program
Promotion & Education

• Market research showed that consumers are sceptical that the materials they leave out for collection are actually recycled
• MMBC developed an engaging campaign to address this issue, as well an infographic video that walked consumers through the recycling process
• Campaign utilized TV, print, radio and online media
Promotion & Education

https://youtu.be/w1OcgVVUZAo
Streetscape Pilot Program

• As per the program plan, MMBC completed a baseline study and began piloting various collection containers and signage.

• MMBC will review data from the pilot and consult with stakeholders to determine the preferred approach to streetscape collection services when available.
# 2016 Budget

<table>
<thead>
<tr>
<th></th>
<th>BC 2016 Obligation (forecast)</th>
<th>BC 2015 Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obligation Share</strong></td>
<td>100% industry managed</td>
<td>100% industry managed</td>
</tr>
<tr>
<td><strong>Share of supply chain costs</strong></td>
<td>$70,189,611</td>
<td>$74,779,210</td>
</tr>
<tr>
<td><strong>Promotion &amp; education</strong></td>
<td>$1,350,000</td>
<td>$1,250,000</td>
</tr>
<tr>
<td><strong>Program management</strong></td>
<td>$7,584,646</td>
<td>$7,862,379</td>
</tr>
<tr>
<td><strong>Program Management as % of total fee obligation less one time expenses</strong></td>
<td>9.6%</td>
<td>9.4%</td>
</tr>
<tr>
<td><strong>Program start-up</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Working Capital Accumulation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total fee obligation</strong></td>
<td>$79,124,257</td>
<td>$83,891,589</td>
</tr>
<tr>
<td><strong>YoY fee change %</strong></td>
<td>-5.7%</td>
<td></td>
</tr>
</tbody>
</table>
## 2016 Fee Schedule – no changes

<table>
<thead>
<tr>
<th>Category</th>
<th>Material</th>
<th>Fee rates 2016</th>
<th>Fee rates 2015</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRINTED PAPER</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printed Paper</td>
<td>Corporate business forms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newsprint</td>
<td>20.00 ¢/kg</td>
<td>20.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Magazines and Catalogues</td>
<td>24.00 ¢/kg</td>
<td>24.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Telephone books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Printed Paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PACKAGING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper Based Packaging</td>
<td>Corrugated Cardboard</td>
<td>29.00 ¢/kg</td>
<td>29.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Boxboard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Paper Packaging</td>
<td>Gable Top Cartons</td>
<td>52.00 ¢/kg</td>
<td>52.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Paper Laminates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aseptic Containers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Grade Plastics Packaging</td>
<td>PET Bottles</td>
<td>31.00 ¢/kg</td>
<td>31.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>HDPE Bottles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Grade Plastics Packaging</td>
<td>Plastic Film</td>
<td>54.00 ¢/kg</td>
<td>54.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Polystyrene</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic Laminates</td>
<td>Plastic Laminates</td>
<td>70.00 ¢/kg</td>
<td>70.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td>Steel Packaging</td>
<td>Steel</td>
<td>52.00 ¢/kg</td>
<td>52.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td>Aluminum Packaging</td>
<td>Aluminum Food &amp; Milk Containers</td>
<td>45.00 ¢/kg</td>
<td>45.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td>Glass Packaging</td>
<td>Clear Glass</td>
<td>25.00 ¢/kg</td>
<td>25.00 ¢/kg</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>Coloured Glass</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Look Ahead

Expanding Communities

• MMBC strives to provide producer-funded recycling services to all BC residents, but until more stewards join the program, MMBC is unable to expand services to additional communities.
Questions?
MULTI-MATERIAL STEWARDSHIP WESTERN

Allen Langdon
Overview

- Program Update
- 2016 Budget
- 2016 Fee Schedule
Program Update

• Revised Program Plan submitted to Saskatchewan government on September 25
  – Government announced approval of plan on Wed Oct 28
• MMSW program will launch on January 1, 2016
Why a Revised Program Plan?

In response to government’s introduction of exemptions and flat fees for some businesses:

- Permanent exemption for any business that generates less than $2 million in gross annual revenue, or less than one tonne of WPP, or operates a single retail store.
- Two-year transition exemption from reporting and paying fees, with the exception of payment of an annual $500 flat fee, for all newspaper publishers with annual revenue over $2 million, and all other businesses with annual revenue of between $2-5 million.
MMSW’s Revised Program Plan

• Submitted to government on September 25, 2015
• Government announced approval of the plan on October 28
• During the two-year transition exemption period, MMSW will:
  – Accept the registration of newspapers, regardless of their size, and businesses with annual revenue between $2-5 million for a payment of $500 per year
  – Execute Membership Agreements with businesses with annual revenue of above $5 million
Key Differences in Revised Program Plan

• Key differences for stewards:
  – Exemptions create a smaller base of obligated stewards
  – MMSW is operating its stewardship plan only on behalf of its Members:
    • Municipalities are paid by MMSW to recycle 60% of PPP supplied by MMSW members
    • Fee rates for stewards are included in the approved Program Plan and will remain fixed until December 31, 2016
Paying for MMSW members tonnes only

• Revised plan pays municipalities to only to collect and recycle 60% of the packaging and printed paper supplied by MMSW Members (i.e. those that have signed membership agreements with MMSW)

• Payments to municipalities are calculated on the basis of capturing 60% of the packaging and printed paper reported by MMSW members only

• Based on the 57,000 tonnes reported by MMSW members in 2015, MMSW will base its budget on payments to manage 34,200 tonnes of WPP (60% of 57,000), yielding a $5.6M fund for payments to Saskatchewan municipalities.
2016 Budget
## 2016 Budget

<table>
<thead>
<tr>
<th></th>
<th>MMSW 2016 Obligation</th>
<th>Budget Developed for Original 2015 Stewardship Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steward obligation</td>
<td>75.0%</td>
<td>75.0%</td>
</tr>
<tr>
<td>Share of supply chain costs</td>
<td>$5,668,202</td>
<td>$4,869,652</td>
</tr>
<tr>
<td>Promotion &amp; education</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td>Program management</td>
<td>$1,516,356</td>
<td>$1,487,608</td>
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<tr>
<td>Program management (as % of total fee obligation less one-time start-up costs)</td>
<td>21%</td>
<td>23.2%</td>
</tr>
<tr>
<td>Program start up</td>
<td>$0</td>
<td>$600,000</td>
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<tr>
<td>Working capital accumulation</td>
<td>$1,417,051</td>
<td>$721,875</td>
</tr>
<tr>
<td>Total fee obligation</td>
<td>$8,651,609</td>
<td>$7,729,135</td>
</tr>
</tbody>
</table>
2016 Budget – Notable Information

• MMSW’s 2016 budget reflects the original budget presented last year, minus the start-up costs which were recovered through the Cost Recovery Invoice issued in January 2015

• A one-off amount of $1.4M is included in 2016 budget to start building up a working capital reserve

• Program Management at 21% is comparatively higher than other programs because same level of program management needed, yet costs spread over smaller scale program
# 2016 Fee Schedule – No Changes

<table>
<thead>
<tr>
<th>Category</th>
<th>Material</th>
<th>2016 Fee Rates</th>
<th>2015 Fee Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINTED PAPER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printed Paper</td>
<td>Newsprint</td>
<td>7.15 ¢/kg</td>
<td>7.15 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Magazines and Catalogues</td>
<td>7.15 ¢/kg</td>
<td>7.15 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Telephone books</td>
<td>7.15 ¢/kg</td>
<td>7.15 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Other Printed Paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACKAGING</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper Based Packaging</td>
<td>Corrugated Cardboard</td>
<td>12.92 ¢/kg</td>
<td>12.92 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Boxboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composite Paper Packaging</td>
<td>Gable Top Cartons</td>
<td>22.47 ¢/kg</td>
<td>22.47 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Paper Laminates</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aseptic Containers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Grade Plastics Packaging</td>
<td>PET Bottles</td>
<td>17.54 ¢/kg</td>
<td>17.54 ¢/kg</td>
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<tr>
<td></td>
<td>HDPE Bottles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Grade Plastics Packaging</td>
<td>Plastic Film</td>
<td>24.62 ¢/kg</td>
<td>24.62 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Polystyrene</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Other Plastics</td>
<td></td>
<td></td>
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<tr>
<td>Plastic Laminates</td>
<td>Plastic Laminates</td>
<td>33.76 ¢/kg</td>
<td>33.76 ¢/kg</td>
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<tr>
<td>Steel Packaging</td>
<td>Steel</td>
<td>15.76 ¢/kg</td>
<td>15.76 ¢/kg</td>
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<tr>
<td>Aluminum Packaging</td>
<td>Aluminum Food &amp; Milk Containers</td>
<td>24.32 ¢/kg</td>
<td>24.32 ¢/kg</td>
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<tr>
<td></td>
<td>Other Aluminum Packaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass Packaging</td>
<td>Clear Glass</td>
<td>13.80 ¢/kg</td>
<td>13.80 ¢/kg</td>
</tr>
<tr>
<td></td>
<td>Coloured Glass</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overview

• 2014 Year in Review
• 2015 Status Report
• Recycling and Accessibility Performance
• Financial Program Performance
• 2016 Budget
• 2016 Fee Schedule
• 2016 Look Ahead
2014 Year in Review

• 2014 marks the fifth year of operations for MMSM

• In 2014, MMSM achieved the following:
  - 9.5% increase in the amount of packaging and printed paper recycled per capita since program launch in 2010
  - 5% reduction in the amount of tonnes sold or distributed by stewards, 2014 compared to 2010
  - 64.9% recycling rate in 2014, up from 52% in 2011
New Waste Legislation

• In 2014, Government of Manitoba issued a Recycling and Waste Reduction discussion paper to gather input on how to improve recycling in the province
• MMSM applied for a one-year extension to its current five-year plan while consultations continue
• MMSM will be consulting with stewards and stakeholders prior to submitting its renewal plan in 2016
2014 Promotion & Education
Reducing Single-Use Plastic Bag Use

• Continued work in 2014 with the Bag Up Manitoba campaign to meet government’s 50% reduction target on plastic bags
• Waste audits show that close to 60% of Manitobans are reusing their plastic bags
Ad Campaign

“I’m looking for something more long term.”

It’s okay to leave labels and lids on your containers. They’ll get recycled either way.

SimplyRecycle.ca
Other P&E Activities

• School programs
• Environmental expos
• We Day
• Funding for post-secondary education institutions
2015 Status Report

• Bag it Forward Program – encouraging further reduction of plastic bag use
• MMSM recognised for recycling initiatives with remote First Nations communities
# Recycling and Accessibility Performance

<table>
<thead>
<tr>
<th>Metric</th>
<th>Manitoba 2014</th>
<th>Manitoba 2013</th>
<th>YOY Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recycling Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible Recycled Tonnes</td>
<td>81,141</td>
<td>81,122</td>
<td>0.0%</td>
</tr>
<tr>
<td>Generated Tonnes</td>
<td>125,110</td>
<td>128,864</td>
<td>-2.9%</td>
</tr>
<tr>
<td>Recycling Rate</td>
<td>64.9%</td>
<td>63.0%</td>
<td>3.0%*</td>
</tr>
<tr>
<td>Population Serviced by PPP Program</td>
<td>1,129,772</td>
<td>1,119,436</td>
<td>0.9%</td>
</tr>
<tr>
<td>Recycled kg per capita</td>
<td>71.8</td>
<td>72.5</td>
<td>-0.9%</td>
</tr>
<tr>
<td><strong>Accessibility Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Households Serviced</td>
<td>498,146</td>
<td>498,007</td>
<td>0.0%</td>
</tr>
<tr>
<td>% Households with Access to PPP Program</td>
<td>94%</td>
<td>93%</td>
<td>0.5%</td>
</tr>
<tr>
<td>P&amp;E Cost per capita**</td>
<td>$0.69</td>
<td>$0.47</td>
<td>46.4%</td>
</tr>
<tr>
<td>Consumer Awareness</td>
<td>93%</td>
<td>93%</td>
<td>-</td>
</tr>
</tbody>
</table>

*The 3.0% variance represents an 1.9 point increase YOY.

**Total municipal and MMSM P&E costs.
2014 Financial Program Performance
Financial Program Performance

<table>
<thead>
<tr>
<th>Cost Performance</th>
<th>Manitoba 2014</th>
<th>Manitoba 2013</th>
<th>YOY Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligible Recycled Tonnes</td>
<td>81,141</td>
<td>81,122</td>
<td>0.0%</td>
</tr>
<tr>
<td>Net Cost*</td>
<td>$22,528,271</td>
<td>$22,293,812</td>
<td>1.1%</td>
</tr>
<tr>
<td>Net Cost per Tonne</td>
<td>$278</td>
<td>$275</td>
<td>1.0%</td>
</tr>
<tr>
<td>Net Cost per Capita</td>
<td>$20</td>
<td>$20</td>
<td>0.1%</td>
</tr>
<tr>
<td>Recycled kg per capita</td>
<td>71.8</td>
<td>72.5</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

*Net costs include 100% of municipal costs and 100% of commodity revenues. Also included are MMSM’s Promotion & Education, regulatory, market development and all other program management costs.
2016 Budget
## 2016 Budget

<table>
<thead>
<tr>
<th>Category</th>
<th>MB 2016 Obligation</th>
<th>MB 2015 Obligation</th>
<th>YOY Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steward obligation</td>
<td>80.0%</td>
<td>80.0%</td>
<td></td>
</tr>
<tr>
<td>Share of supply chain costs</td>
<td>$13,996,700</td>
<td>$12,075,900</td>
<td>15.9%</td>
</tr>
<tr>
<td>Promotion &amp; education</td>
<td>$650,000</td>
<td>$650,000</td>
<td>0%</td>
</tr>
<tr>
<td>Program management</td>
<td>$1,797,363</td>
<td>$1,652,152</td>
<td>8.8%</td>
</tr>
<tr>
<td>Regulatory</td>
<td>$100,000</td>
<td>$50,000</td>
<td>100%</td>
</tr>
<tr>
<td>Total fee obligation</td>
<td>$16,544,063</td>
<td>$14,428,052</td>
<td>14.7%</td>
</tr>
<tr>
<td>Program Management as % of total fee obligation</td>
<td>10.9%</td>
<td>11.5%</td>
<td>-5.1%</td>
</tr>
<tr>
<td>Surplus drawdown</td>
<td>-$1,000,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total fee obligation</td>
<td>$15,544,063</td>
<td>$14,428,052</td>
<td>7.7%</td>
</tr>
<tr>
<td>YoY fee change % before surplus draw down</td>
<td></td>
<td>14.7%</td>
<td></td>
</tr>
</tbody>
</table>
2016 Budget – Notable Information

• Increase in obligation of $2.1M, or 14.7% YoY
  - $1M drawdown of surplus to offset increase – resulting in $1.1M or 7.7% YoY increase

• Increase in overall budget because:
  - Decrease in supplied tonnes reported in 2015 by 5% YoY
  - Increase in program management costs – result of fee increase by Green Manitoba Eco Solutions
  - Program plan renewal consultation expenses
2016 Fee Schedule
<table>
<thead>
<tr>
<th>Category</th>
<th>Material</th>
<th>2016 fee rates before surplus drawdown</th>
<th>2016 fee rates after surplus drawdown</th>
<th>2015 fee rates</th>
<th>YOY Change against 2015 fees, % (before drawdown)</th>
<th>YOY Change against 2015 fees, % (after drawdown)</th>
<th>YOY Change against 2015 fees, $/kg (after drawdown)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINTED PAPER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printed Paper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Newsprint</td>
<td></td>
<td>7.82 $/kg</td>
<td>7.36 $/kg</td>
<td>5.66 $/kg</td>
<td>38%</td>
<td>30%</td>
<td>1.70 $/kg</td>
</tr>
<tr>
<td>Magazines and Catalogues</td>
<td></td>
<td>17.85 $/kg</td>
<td>16.73 $/kg</td>
<td>14.11 $/kg</td>
<td>27%</td>
<td>19%</td>
<td>2.62 $/kg</td>
</tr>
<tr>
<td>Telephone Books</td>
<td></td>
<td>17.85 $/kg</td>
<td>16.73 $/kg</td>
<td>14.11 $/kg</td>
<td>27%</td>
<td>19%</td>
<td>2.62 $/kg</td>
</tr>
<tr>
<td>Other Printed Paper</td>
<td></td>
<td>17.85 $/kg</td>
<td>16.73 $/kg</td>
<td>14.11 $/kg</td>
<td>27%</td>
<td>19%</td>
<td>2.62 $/kg</td>
</tr>
<tr>
<td>PACKAGING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper Based Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Corrugated Containers</td>
<td></td>
<td>14.98 $/kg</td>
<td>14.10 $/kg</td>
<td>12.97 $/kg</td>
<td>15%</td>
<td>9%</td>
<td>1.13 $/kg</td>
</tr>
<tr>
<td>Polycoat &amp; Laminates</td>
<td></td>
<td>40.39 $/kg</td>
<td>37.86 $/kg</td>
<td>39.09 $/kg</td>
<td>3%</td>
<td>-3%</td>
<td>-1.23 $/kg</td>
</tr>
<tr>
<td>Old Boxboard</td>
<td></td>
<td>14.98 $/kg</td>
<td>14.10 $/kg</td>
<td>12.97 $/kg</td>
<td>15%</td>
<td>9%</td>
<td>1.13 $/kg</td>
</tr>
<tr>
<td>Plastic Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PET bottles</td>
<td></td>
<td>17.78 $/kg</td>
<td>16.80 $/kg</td>
<td>14.46 $/kg</td>
<td>23%</td>
<td>16%</td>
<td>2.34 $/kg</td>
</tr>
<tr>
<td>HDPE bottles</td>
<td></td>
<td>20.29 $/kg</td>
<td>19.21 $/kg</td>
<td>17.09 $/kg</td>
<td>19%</td>
<td>12%</td>
<td>2.12 $/kg</td>
</tr>
<tr>
<td>Plastic Film</td>
<td></td>
<td>43.73 $/kg</td>
<td>41.18 $/kg</td>
<td>34.77 $/kg</td>
<td>26%</td>
<td>18%</td>
<td>6.41 $/kg</td>
</tr>
<tr>
<td>Other Plastics</td>
<td></td>
<td>43.73 $/kg</td>
<td>41.18 $/kg</td>
<td>34.77 $/kg</td>
<td>26%</td>
<td>18%</td>
<td>6.41 $/kg</td>
</tr>
<tr>
<td>Steel Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Food &amp; Beverage Cans</td>
<td></td>
<td>14.58 $/kg</td>
<td>13.85 $/kg</td>
<td>13.66 $/kg</td>
<td>7%</td>
<td>1%</td>
<td>0.19 $/kg</td>
</tr>
<tr>
<td>Steel Aerosols</td>
<td></td>
<td>14.58 $/kg</td>
<td>13.85 $/kg</td>
<td>13.66 $/kg</td>
<td>7%</td>
<td>1%</td>
<td>0.19 $/kg</td>
</tr>
<tr>
<td>Other Steel Containers</td>
<td></td>
<td>14.58 $/kg</td>
<td>13.85 $/kg</td>
<td>13.66 $/kg</td>
<td>7%</td>
<td>1%</td>
<td>0.19 $/kg</td>
</tr>
<tr>
<td>Aluminum Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum Food &amp; Beverage Cans</td>
<td></td>
<td>-8.00 $/kg</td>
<td>-8.98 $/kg</td>
<td>-7.13 $/kg</td>
<td>-12%</td>
<td>-26%</td>
<td>-1.85 $/kg</td>
</tr>
<tr>
<td>Other Aluminum Packaging</td>
<td></td>
<td>27.04 $/kg</td>
<td>26.09 $/kg</td>
<td>10.14 $/kg</td>
<td>167%</td>
<td>157%</td>
<td>15.95 $/kg</td>
</tr>
<tr>
<td>Glass Packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td>7.58 $/kg</td>
<td>7.14 $/kg</td>
<td>6.65 $/kg</td>
<td>14%</td>
<td>7%</td>
<td>0.49 $/kg</td>
</tr>
</tbody>
</table>
2016 Fee Schedule – Notable Information

• The overall fee rate increased by 12.9%
• The materials with the most noticeable variances included:
  - Newsprint and printed paper
  - Plastics
  - Aluminum Food & Beverage Cans
  - Other Aluminum Packaging
Upcoming Activities in 2016

• New voluntary steward policy – harmonized with other programs
• New report adjustment policy – 2 year adjustment time limit to mitigate impact on wider steward community
• Program Plan renewal – 2016 consultations
• Manitoba MRF upgrade
Questions and Feedback

Please send questions or provide feedback before November 20th to:
KMelnychuk@stewardshipmanitoba.org
STEWARDSHIP ONTARIO

David Pearce
Overview

• 2014 – A Year in Review
• 2015 Status Report
• 2014 Recycling and Accessibility Performance
• Financial Program Performance
• 2016 Budget
• Fee Schedule
• Look Ahead
2014 - A Year in Review

• Stewardship Ontario achieved a **recycling rate of 64.9%**, well above the 60% government mandated recycling target

• Arbitration set stewards’ 2014 obligation at $115M
  • SO drew on $9.7M of reserves and raised $7.7M levy from stewards to address the shortfall
• Municipal Industry Program Committee (MIPC) could not reach agreement on the 2015 obligation
• WDO Board set the 2015 obligation at $114.6M
• Established a Cost Containment Panel charged with making recommendations on:
  • How cost containment principles should be applied to determine annual steward obligation
  • Future of In-Kind Program for newspaper publishers
• Panel submitted its report at the end of September
## 2014 Recycling and Accessibility Performance

<table>
<thead>
<tr>
<th>Province</th>
<th>Ontario 2014</th>
<th>Ontario 2013</th>
<th>YoY Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recycled Tonnes</td>
<td>884,504</td>
<td>900,135</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Generated Tonnes</td>
<td>1,361,930</td>
<td>1,368,160</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Recycling Rate</td>
<td>64.9%</td>
<td>65.8%</td>
<td>-1.3%</td>
</tr>
<tr>
<td>Provincial Recycling Target</td>
<td>60.0%</td>
<td>60.0%</td>
<td>-</td>
</tr>
<tr>
<td>Population Serviced by PPP Program</td>
<td>13,358,776</td>
<td>13,178,310</td>
<td>1.4%</td>
</tr>
<tr>
<td>Recycled kg per Capita</td>
<td>66.2</td>
<td>68.3</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Accessibility Performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Households Serviced</td>
<td>5,365,378</td>
<td>5,222,058</td>
<td>2.7%</td>
</tr>
<tr>
<td>% Households with Access to PPP Program</td>
<td>97%</td>
<td>97%</td>
<td>-</td>
</tr>
<tr>
<td>P&amp;E Cost per Capita</td>
<td>$0.52</td>
<td>$0.59</td>
<td>-11.4%</td>
</tr>
<tr>
<td>Consumer awareness</td>
<td>97%</td>
<td>97%</td>
<td>-</td>
</tr>
</tbody>
</table>

*Please note that the population and per capita values for 2013 and 2014 have been updated to reflect the most recent Census data.*
2014 Financial Performance
## 2014 Financial Performance

<table>
<thead>
<tr>
<th>Province</th>
<th>Ontario 2014</th>
<th>Ontario 2013</th>
<th>YoY Variance %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost Performance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycled Tonnes</td>
<td>884,504</td>
<td>900,135</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Net Cost*</td>
<td>$252,936,907</td>
<td>$246,718,476</td>
<td>2.5%</td>
</tr>
<tr>
<td>Net Cost per Tonne</td>
<td>$286</td>
<td>$274</td>
<td>4.3%</td>
</tr>
<tr>
<td>Net Cost per Capita</td>
<td>$19</td>
<td>$19</td>
<td>1.3%</td>
</tr>
<tr>
<td>Recycled kg per capita</td>
<td>66.2</td>
<td>68.3</td>
<td>-3.1%</td>
</tr>
</tbody>
</table>

*Net cost includes supply chain costs, commodity revenues, P&E, regulatory, market development and program management costs.
2011 dropped from 3-year calculation
## 2016 Budget

<table>
<thead>
<tr>
<th></th>
<th>ON 2016 Obligation (Reported Net Cost)</th>
<th>ON 2015 Obligation (Reported Net Cost)</th>
<th>YOY Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steward obligation</td>
<td>50.0%</td>
<td>50.0%</td>
<td></td>
</tr>
<tr>
<td>Share of supply chain costs</td>
<td>$128,083,573</td>
<td>$114,117,621</td>
<td>12.2%</td>
</tr>
<tr>
<td>Promotion &amp; education</td>
<td>$200,000</td>
<td>$200,000</td>
<td>0.0%</td>
</tr>
<tr>
<td>Research &amp; market development</td>
<td>$350,000</td>
<td>$275,000</td>
<td>$27.3%</td>
</tr>
<tr>
<td>Program management</td>
<td>$4,214,003</td>
<td>$4,182,897</td>
<td>0.7%</td>
</tr>
<tr>
<td>Regulatory</td>
<td>$800,000</td>
<td>$978,000</td>
<td>-18.9%</td>
</tr>
<tr>
<td>Total fee obligation</td>
<td>$133,647,576</td>
<td>$119,753,518</td>
<td>11.6%</td>
</tr>
<tr>
<td>PM as % of total fee obligation</td>
<td>3.2%</td>
<td>3.5%</td>
<td>-9.9%</td>
</tr>
</tbody>
</table>
2016 Fee Schedule
## 2016 BB Fees Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Material</th>
<th>Fee rates 2016 (cents/kg)</th>
<th>Fee rates 2015 (cents/kg)</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINTED PAPER</td>
<td>Printed Paper</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newsprint - CNA/OCNA</td>
<td>0.44</td>
<td>0.38</td>
<td>15.8%</td>
</tr>
<tr>
<td></td>
<td>Newsprint - Non-CNA/OCNA</td>
<td>5.24</td>
<td>4.72</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>Magazines and Catalogues</td>
<td>7.16</td>
<td>7.74</td>
<td>-7.5%</td>
</tr>
<tr>
<td></td>
<td>Telephone Books</td>
<td>8.71</td>
<td>7.54</td>
<td>15.5%</td>
</tr>
<tr>
<td></td>
<td>Other Printed Paper</td>
<td>17.68</td>
<td>16.00</td>
<td>10.5%</td>
</tr>
<tr>
<td>PACKAGING</td>
<td>Paper Based Packaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Cardboard</td>
<td>9.28</td>
<td>8.46</td>
<td>9.7%</td>
</tr>
<tr>
<td></td>
<td>Boxboard</td>
<td>9.28</td>
<td>8.46</td>
<td>9.7%</td>
</tr>
<tr>
<td></td>
<td>Gable Top Cartons</td>
<td>24.93</td>
<td>21.29</td>
<td>17.1%</td>
</tr>
<tr>
<td></td>
<td>Paper Laminates</td>
<td>24.93</td>
<td>21.29</td>
<td>17.1%</td>
</tr>
<tr>
<td></td>
<td>Aseptic Containers</td>
<td>24.93</td>
<td>21.29</td>
<td>17.1%</td>
</tr>
<tr>
<td></td>
<td>Plastic Bottles</td>
<td>17.50</td>
<td>15.19</td>
<td>15.2%</td>
</tr>
<tr>
<td></td>
<td>HDPE Bottles</td>
<td>13.81</td>
<td>13.12</td>
<td>5.3%</td>
</tr>
<tr>
<td></td>
<td>Plastic Film</td>
<td>33.32</td>
<td>28.10</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>Plastic Laminates</td>
<td>33.32</td>
<td>28.10</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>Polystyrene</td>
<td>33.32</td>
<td>28.10</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>Other Plastics</td>
<td>33.32</td>
<td>28.10</td>
<td>18.6%</td>
</tr>
<tr>
<td></td>
<td>Steel Food &amp; Beverage Cans</td>
<td>6.21</td>
<td>5.77</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>Steel Aerosols</td>
<td>6.21</td>
<td>5.77</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>Steel Paint Cans</td>
<td>6.21</td>
<td>5.77</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>Aluminum Food &amp; Beverage Cans</td>
<td>4.11</td>
<td>3.98</td>
<td>3.3%</td>
</tr>
<tr>
<td></td>
<td>Steel Packaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aluminum Packaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Aluminum Packaging</td>
<td>11.08</td>
<td>8.55</td>
<td>29.6%</td>
</tr>
<tr>
<td></td>
<td>Glass Packaging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clear Glass</td>
<td>3.78</td>
<td>3.37</td>
<td>12.2%</td>
</tr>
<tr>
<td></td>
<td>Coloured Glass</td>
<td>5.63</td>
<td>3.65</td>
<td>54.2%</td>
</tr>
<tr>
<td><strong>Total (excl. in-kind)</strong></td>
<td><strong>11.98 c/kg</strong></td>
<td><strong>10.41 c/kg</strong></td>
<td><strong>15.1%</strong></td>
<td></td>
</tr>
<tr>
<td>In-Kind</td>
<td>$6,857,061</td>
<td>$6,879,384</td>
<td>-0.3%</td>
<td></td>
</tr>
</tbody>
</table>

Refer to page 35 in your pre-read for the 2016 Fee Schedule
• Of the 23 materials, 22 have fee rate increases
• Average fee rate increase of 15% over last year primarily because:
  • Drop in the three-year rolling revenue
  • Decrease in steward-reported tonnes
• The total amount **by weight** reported by stewards decreased by 2.5% year over year, but costs are increasing as more material **by volume** is being managed by the program
• Over the last 5 years, steward-reported quantities (**by weight**) have declined an average of 3.1% each year
Notable changes in fee rates

• CNA/OCNA newsprint fee rate increased by 15.8% because:
  • Decrease in steward-reported tonnes (fewer tonnes against which to spread the cost)

• Low-grade plastics rates increased by 18.6% because:
  • Decrease in steward-reported tonnes (fewer tonnes against which to spread the cost)

• Magazine and catalogues rates decreased by 7.5% because:
  • Recovered tonnes decreased by 12% resulting in less cost
  • Steward-reported tonnes increased by 16% increasing tonnes against which to spread the cost
  • Partial aggregation to ensure they do not pay more than cost to manage material

• Coloured Glass rates increased by 54.2% because:
  • Recovery rate decreased by 15%
  • Steward reported tonnes decreased by 9%
• New waste legislation is expected to be introduced this fall. We will work with stewards to help them understand the impacts of new legislation on Stewardship Ontario and ensure their interests are represented in transition planning.

• As soon as more information on the new legislation is known, Stewardship Ontario will be in touch with stewards.
Questions?
More Questions?

• CSSA’s National Steward Services team are always on hand to answer any questions or queries you may have. You can reach them on 1-888-980-9549 or stewards@cssalliance.ca.

• If you have any general comments or questions, you can call 416-921-9661 or email info@cssalliance.ca.

• The CSSA and program teams would like to thank you for your support and contribution to stewardship programs over the past year, and we all look forward to working with you over the coming year.