



**Multi-Material
British Columbia**

**Packaging
and Printed Paper
Stewardship Program**

**February 14, 2012
Workshop and Webcast**

Workshop/Webcast

- Housekeeping Information
- Welcome
 - Allen Langdon, MMBC
- Current System for Managing Residential Packaging and Printed Paper (PPP)
 - Glenda Gies, Maura Walker, Geoff Love
- Program Design Options
 - Glenda Gies, Usman Valiante

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Workshop/Webcast Format

- Breaks for questions of clarification following
 - Current System for Managing Residential PPP
 - At approximately 11 am
 - Program Design Options
 - At approximately 3 pm
- 90 minute lunch break – noon to 1:30 pm
- Workshop/webcast scheduled to end ~4 pm
- Written submissions until February 28, 2012 to consultation@multi-materialbc.com

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Information for Webcast Participants

- Speaker advances slides
- Click title to view reports ❶
- Use slider to enhance sound ❷
- For technical assistance: click support@thestreamingnetwork.com ❸
- Questions/comments, click 'Ask a Question' ❹
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 - Via RCBC and BCStewards.com websites
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- Comments will be
 - Compiled into consultation report for MMBC
 - Organized by topic
 - Including name of person or organization
 - Considered by project team while preparing final reports due to MMBC by mid-March

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Welcome

- Workshop with simultaneous webcast to present information compiled during Phase 1 project
 - Current System for Managing Residential Packaging and Printed Paper (PPP)
 - Program Design Options
- ~100 participating in person
- ~150 participating via webcast

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Multi-Material British Columbia

- Multi-Material British Columbia (MMBC) is a not-for-profit agency established under the BC Society Act
- Formed in anticipation of the government adding packaging and printed paper as a new product category under its Recycling Regulation
- MMBC represents the producers (i.e. brand owners and first sellers) of PPP in British Columbia

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MMBC Founding Members

- Retail Council of Canada (RCC)
- Food and Consumer Products of Canada (FCPC)
- Canadian Federation of Independent Grocers (CFIG)
- Canadian Restaurant and Food Services Association (CRFA)
- Canadian Newspaper Association (CNA)

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BC Regulatory Context

- July 2004 – BC enacted Environmental Management Act (EMA)
- October 2004 – BC filed Recycling Regulation (RR)
- May 2011 – BC amended RR to include Schedule 5
 - Defines packaging and printed paper (PPP) product category
 - PPP producers became obligated to submit stewardship program plan for approval by director or to comply with specified program requirements

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MMBC Activities

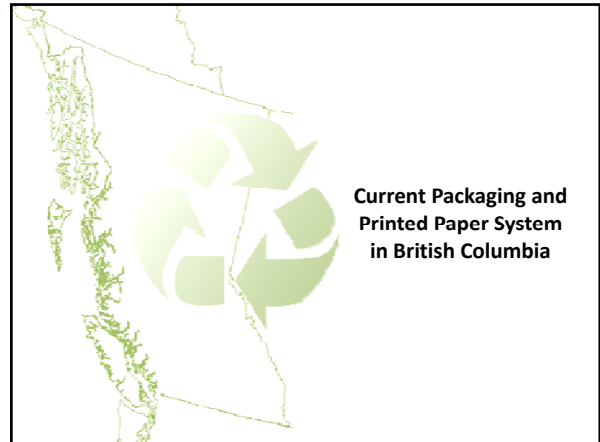
- Incorporated MMBC with interim Board of Directors
- Informal meetings and discussions with local governments, private sector companies, and other organizations currently involved in residential recycling
- Issued RFP in July 2011 to
 - Assess current system capacity and cost
 - Identify potential options for developing program plan
- Selected consulting team late October
 - Project launched November 1, 2011

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Summary

- MMBC has been established to represent obligated stewards and develop a program plan to meet their obligations under the new PPP regulation
- Current focus is to determine the existing state of the recycling system in BC and identify possible options for development of a program plan
- As we move forward, MMBC is committed to an ongoing dialogue with key stakeholders to address concerns, provide information and ensure the process remains as transparent as possible

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Current System Presentation Overview

- Who is doing what
 - Local government, not-for-profit, private services
- System performance
 - Estimated PPP supplied
 - Estimated tonnes collected and collection rate
 - Estimated tonnes recycled and recycling rate
- Comments on data reliability
- Recommendations on new/shared infrastructure
- Soliciting stakeholder comments

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Local Government Collection Services

- Curbside collection for single-family (SF) households
- Curbside collection for multi-family (MF) households
 - Where recyclables are placed at curb
- Collection from multi-family buildings
 - Larger/high-rise buildings via on-site storage containers
- Depot collection
- Streetscape collection
- Soiled paper packaging in food waste collection

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Single-Family Curbside Collection

- 56 local governments serving ~973,000 households including
 - Single-family residences
 - Residential buildings typically with <6 units
 - Townhouse complexes
 - Mobile home parks
- Both multi- and single-stream collection services
 - Multi-stream typically includes 3 streams
 - Old corrugated cardboard (OCC), other papers, containers

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Single-Family Curbside Collection

Single-Family Households (HH)	# of SF HH	# of SF HH Served by Single-Stream	# of SF HH Served by Multi-Stream	# of SF HH Served	% of Total SF HH Receiving Collection
Totals	1,225,303	437,433	535,588	973,022	79%
% of HH Served		45%	55%		

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Single-Family Curbside Collection



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Multi-Family Collection

- ~373,000 MF HH served by 19 local governments
 - 3 regional districts
 - 16 municipalities including 13 in Metro Vancouver
- Both multi- and single-stream collection services
 - Multi-stream typically includes 3 streams
 - OCC, other papers, containers
 - Using plastic carts, bulk-lift bins
- Where no municipal service
 - Considered commercial requiring private waste service
 - Some local governments have mandated multi-family recycling or banned PPP at disposal

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Multi-Family Collection

Multi-Family Households (HH)	# of MF HH	# of MF HH Served by Single-Stream	# of MF HH Served by Multi-Stream	# of MF HH Served	% of Total MF HH Receiving Collection
Totals	474,460	60,261	313,065	373,326	79%
% of HH Served		16%	84%		

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Local Government Depot Collection

- Provided by 52 local governments
 - 24 provide both depot and curbside collection service
 - 28 provide only depot collection service
- Unstaffed bins
 - Typically in high traffic areas e.g. mall parking lots
 - Where curbside provided, depots typically accept same materials
- Staffed depots
 - Areas at landfills and transfer stations
 - Generally accept broader range of materials
 - Including more challenging materials e.g. glass
 - 4 regional districts accept foam polystyrene

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Local Government Depot Collection



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Streetscape Collection

- Provided by
 - 2 regional districts
 - 10 municipalities including 8 in Metro Vancouver
- Often managed by parks or roads staff rather than waste staff
- Survey respondents commented on high level of contamination in streetscape collection systems

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Local Government Streetscape Collection



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Soiled Paper Packaging in Food Waste Collection

- Provided through curbside collection by
 - 1 regional district
 - 7 municipalities including 4 in Metro Vancouver
- Provided through depot collection by
 - 1 regional district, 2 municipalities
- All located in the southwest of province
- No food waste collection programs for MF identified
- PPP targeted include pizza boxes, compostable paper cups, take-out food packaging

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Soiled Paper Packaging in Food Waste Collection



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Local Government Public Education Activities

Public Education Activities	In-House	Through Contractors
Collection calendar	5%	16%
Media kits, releases, events	47%	26%
Outdoor signage	42%	16%
Paid electronic media	32%	32%
Presentations, booths,	53%	32%
Print media	58%	37%
Promotional items, hand-outs	58%	26%
PSAs	32%	26%
School curriculum/educators	11%	11%
System website	68%	26%
Telephone hotline	32%	26%

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First Nations

- First Nations collection services identified
 - Cowichan First Nation (Duncan)
 - 410 households with curbside collection
 - Namgis First Nation (Alert Bay)
 - > 200 households with depot collection
 - Okanagan First Nation (Vernon)
 - 2,265 households with curbside collection
 - Sechelt First Nation (Sechelt)
 - 350 households with curbside collection
 - Tseshah First Nation (Port Alberni)
 - Alberni Clayoquot RD provides service to 135 households
- Other First Nations communities may have services

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Private Collection Services

- Subscription collection services
 - Single-family and multi-family
- Depots
 - Not-for-profit
 - Beverage container return locations accepting PPP
 - Other locations accepting PPP
 - Retailers accepting packaging

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Subscription Collection Services

- For single-family households
 - Available in limited number of communities
 - Typically provided by local business to service small geographic area
 - 15 companies, each operating in 1 regional district
- For multi-family households
 - Typically companies also offering recycling collection services to ICI
 - 28 companies, some operating in multiple regional districts

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Not-for-Profit Depots

- 18 not-for-profit depots
 - Often established by residents to provide local recycling
 - 14 in ferry-accessed communities
 - Typically accept wide range of materials
 - Some process materials to minimize transportation costs

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Not-for-Profit Depots



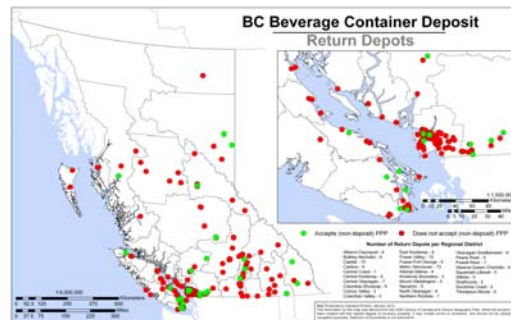
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Beverage Container Depots

- >200 beverage container deposit return depots
 - All likely receive non-deposit packaging that accompanies beverage containers when returned by residents
 - Such as corrugated/boxboard flats, overwrap
- Identified ~30 depots that accept other types of PPP
 - Typically materials with positive value

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Beverage Container Depots

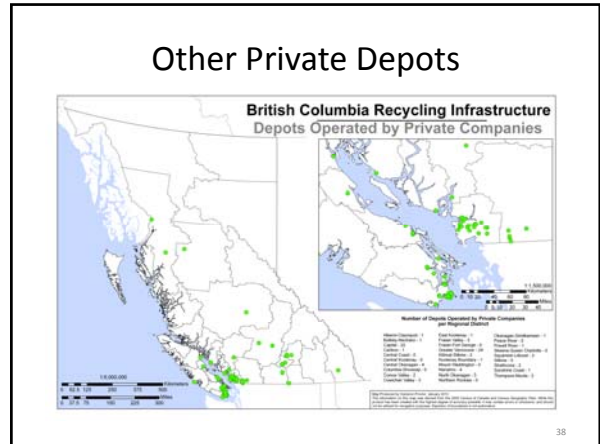


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Other Private Depots

- 81 other private depots identified
 - Majority associated with processing facility
 - Often operated by company providing local curbside collection services
 - Generally accept same types of PPP as curbside program

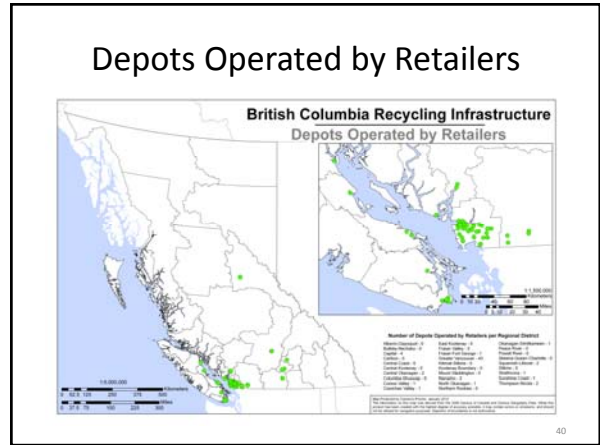
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Depots Operated by Retailers

- Most large retailers accept carrier bags
- 49 London Drugs locations
 - Accept PPP associated with products they sell
 - Typically large packaging left behind by customers and packaging not accepted in local government programs
- 11 Changes locations operated by Overwaitea
 - Accept packaging with Overwaitea brand
 - Also accept packaging with certain other brands
 - Sold through Overwaitea
 - Under arrangements with those brand owners

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PPP Transfer Facilities

- 7 facilities identified
- Operated by
 - Regional districts – 4 locations
 - Municipality – 1 location
 - Private company – 2 locations

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Material Recovery Facilities

- 39 material recovery facilities (MRFs) operated by
 - 20 organizations/companies each operating 1 MRF
 - 4 local governments
 - 9 not-for-profit organizations
 - 7 private companies
 - 4 private companies operating total of 19 MRFs

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MRFs by Ownership



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Insights into MRF Capacity

- 9 MRFs provided data that allowed calculation of capacity
 - 15% of total capacity used for residential PPP
 - 15% of total capacity used for ICI PPP
 - Suggests significant surplus capacity available
- Those 9 MRFs plus additional 4 MRFs provided data that allowed calculation of residential portion of total PPP received
 - 44% residential PPP
 - 56% ICI PPP
- Number of MRFs reported accepting only ICI PPP

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MRFs by Residential and ICI PPP

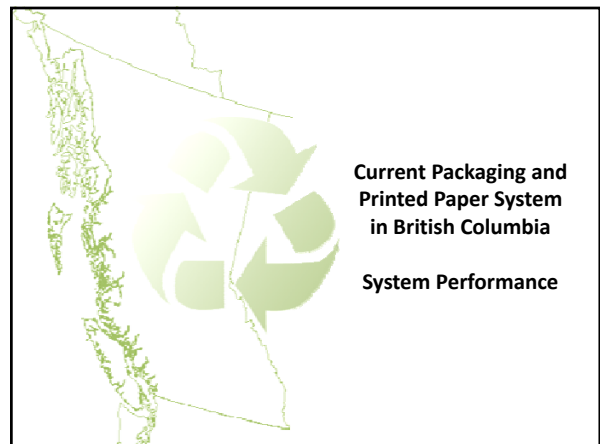


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Processing Activities and Markets

- Newspapers – sorted to old newspapers (ONP) #6 or #8 for shipment to US/Asia
- OCC – sorted or in mixed waste paper shipped to US/Asia
- Mixed waste paper – shipped overseas
- Glass – BC for abrasives/aggregate, US/Alberta for insulation
- Aluminum – sorted for shipment to US
- Steel – sorted for shipment to US
- Plastics
 - MRFs sort higher value for use in BC and shipment to US
 - Remaining mixed plastics shipped to BC reprocessors or to Asia

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Estimated Residential PPP Supplied

- PPP supplied to marketplace assumed to be available for collection as PPP not consumed in use or typically stored
- Calculations based on three sources of data
- BC data
 - Recycling stream composition data (limited data points)
 - Garbage stream composition data
 - Dairy containers collected by BC Dairy Council
- Average PPP reported by producers in Manitoba and Ontario
 - Added packaging in Manitoba and Ontario deposit systems to yield total residential PPP supplied in Manitoba and Ontario
 - Then deducted residential containers collected in BC deposit system to yield estimated non-deposit residential PPP supplied in BC

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Estimated Residential PPP Supplied

Category	Based on BC Waste Audit Data	Based on Average of Manitoba and Ontario Producer Reported Data
	Tonnes	Tonnes
Printed Papers	155,000	154,000
Paper Packaging	71,000	115,000
Plastic Packaging	65,000	71,000
Steel Packaging	22,000	22,000
Aluminum Packaging	15,000	11,000
Glass Packaging	22,000	27,000
Total	350,000	400,000

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PPP Collected by Local Governments (1)

- Surveys yielded data on quantity of PPP collected from 20 regional districts – representing 90% of total
 - Calculated average kilograms/household (kg/hh) served in reporting areas
- To estimate PPP collected from remaining areas
 - For single-family households receiving curbside collection
 - By average kg/hh served in 3 types of municipalities organized by population density
 - 10 or more people per square kilometer
 - 2 or more to less than 10 people per square kilometer
 - Less than 2 people per square kilometer
 - For multi-family households receiving collection
 - By average kg/hh served in reporting areas

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PPP Collected by Local Governments (2)

- To estimate PPP collected from remaining areas served by depots
 - As depots accept both residential and ICI PPP, assumptions applied to remove ICI PPP
 - Where data reported by material
 - Removed 80% of OCC
 - Removed 50% of other materials
 - Where commingled data reported
 - Removed 50%
 - Applied resulting kg/hh to households served by depots

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Local Government Reported/Estimated PPP Collected

	Single-Family Service	Multi-Family Service	Depot Service	Total
Reported tonnes	153,131	19,893	20,017	193,040
% for HH type	90%	93%	90%	90%
Estimated tonnes	17,206	1,517	2,229	20,951
% for HH type	10%	7%	10%	10%
Total	170,336	21,409	22,246	213,992
Kg/HH Served	175	57	75	130

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PPP Collected by Others

- Collected by not-for-profit organizations
 - Often included in data reported by local governments
 - Where not included in local government data, estimated ~2,000 tonnes of residential PPP collected
- Collected by private companies
 - Not possible to estimate PPP collected by private companies
 - Depot operators do not track residential PPP separately
 - Uncertain service areas and number of households
 - e.g. private collectors know # of multi-family buildings serviced but typically not # of household units
 - Private companies reluctant to share data considered commercially sensitive

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Estimated PPP Collection Rate

Range of Estimated PPP Available for Collection	Reported and Estimated PPP Collected	Collection Rate Range
Tonnes	Tonnes	%
400,000	~216,000	54%
350,000		62%

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- ### PPP Recycled
- Most local governments do not have data on quantity of PPP marketed following processing
 - Utilized data on quantities received and marketed from 16 MRFs to calculate quantity marketed as % of quantity received
 - Applied these % to reported/estimated tonnes collected to yield tonnes of PPP marketed by material
 - ~205,000 tonnes marketed
 - ~11,000 tonnes residue or ~5%
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Reported/Estimated PPP Recycled

Range of Estimated PPP Available for Collection	Reported and Estimated PPP Recycled	Recycling Rate Range
Tonnes	Tonnes	%
400,000	~205,000	51%
350,000		59%

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Current Packaging and Printed Paper System in British Columbia

Comments on Data Reliability

- ### Data Reliability
- Reported data
 - ~90% of collected tonnes were reported
 - Reported data not verified
 - Residential and ICI PPP commingled in collection systems
 - Different data tracking systems and methodologies in use
 - Inconsistent types and level of data provided
 - Estimated PPP supplied and available for collection
 - Data on composition of BC PPP recycling stream very limited
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Current Packaging and Printed Paper System in British Columbia

Recommendations on New or Shared Infrastructure

New or Shared Infrastructure

- Modify collection infrastructure to
 - Accommodate consistent collection of PPP across BC
 - Provide 'reasonable access' where not currently provided
- Modify processing infrastructure to
 - Accommodate consistent collection of PPP across BC
- Consider implementing transfer capacity to move PPP from remote areas for sorting/marketing where more cost-effective

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Current Packaging and Printed Paper System in British Columbia

Stakeholder Comments Welcome

Stakeholder Review

- Seeking accurate description of current system
 - For use by MMBC when developing stewardship program
- Please identify errors or omissions in
 - Appendix A – services available
 - Appendix A – depots, transfer facilities, MRFs
 - Appendix B – households receiving service
 - Appendix C – PPP accepted in local government programs
- Submit corrections until February 28, 2012 to consultation@multi-materialbc.com

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Current Packaging and Printed Paper System in British Columbia

Questions?

Lunch Break

- In-person participants
 - List of local eateries available at registration desk
 - Members of project team present
 - Maura Walker, Geoff Love, Usman Valiante
 - Please return by 1:20 pm
 - Workshop will resume promptly at 1:30 pm
- Webcast participants
 - Can remain connected
 - Can log out and re-login at 1:20 pm
 - Webcast will resume promptly at 1:30 pm

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Multi-Material British Columbia

Packaging and Printed Paper Stewardship Program

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Options Presentation Overview

- What is a program design option?
- Program design options – system requirements
 - Defining recycling, recovery, residential premises, streetscape, reasonable access, materials to be accepted
- Program design options – financial transactions
 - Contracts, incentives, direct delivery, combinations
 - Evaluation methodology and results
- Next steps
- Soliciting stakeholder comments

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Packaging and Printed Paper Stewardship Program Design Options

What is a Program Design Option?

Program Design Option

- Set of actions that MMBC could take to deliver recovery performance objective on behalf of producers that choose to participate in MMBC
- Set of actions include
 - **System requirements** for MMBC's program
 - **Financial transactions** which form the basis for commercial arrangements between MMBC and its service providers

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Packaging and Printed Paper Stewardship Program Design Options

System Requirements

Legislative Context - Definitions

- **Packaging** – defined in Environmental Management Act
 - Material, substance or object that is used to protect, contain or transport a commodity or product, or attached to a commodity or product or its container for the purpose of marketing or communicating information about the commodity or product
 - Beverage containers, with the exception of milk containers, are managed under deposit return program
- **Printed Paper** – defined in Schedule 5 of Recycling Regulation
 - Paper that is not packaging, but is printed with text or graphics as a medium for communicating information, and includes telephone directories, but does not include other types of bound reference books, bound literary books, or bound text books

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Defining Recycling

- MOE's Recycling Regulation Guide defines recycling
 - Series of activities by which products are collected, sorted, processed and converted into raw materials and used in the production of new products
- Assumed, for Phase 1 project, that recycling includes
 - Use of packaging or printed paper, when sorted and processed to meet end-market specifications, as raw materials in an activity that produces a new product, and
 - Use of packaging or printed paper for which there are no recycling markets, when sorted and processed to meet end-market specifications, as raw materials in an activity that produces compost or soil amendment
 - Refer to Program Design Options Report Section 3.1.1 (page 5)

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Defining Recovery

- MOE's Recycling Regulation Guide defines recovery
 - Use of products that are collected, sorted, processed and converted into a fuel substitute or for energy production
- Assumed, for Phase 1 project, that recovery includes
 - Processing residues from primary or downstream processors comprised of PPP, and PPP
 - For which there are no recycling markets or that cannot meet recycling end-market specifications
 - Processed to meet specifications as an engineered fuel to replace conventional sources of energy in industrial processes
 - Refer to Program Design Options Report Section 3.1.2 (page 5)

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Defining PPP Sources

- Residential premises
 - Single-family dwellings inhabited year round or seasonally
 - Multi-family dwellings including rental, co-operative, fractional ownership, time-share, condominium and seniors residences
- Municipal property that is not industrial, commercial or institutional property - referred to as 'streetscape'
 - Sidewalks which are municipal property, which adjoin buildings in an urban commercial area and which are used for pedestrian traffic
 - Plazas or town squares which are municipal property and which are available to the public
 - Parks which are municipal property
- Refer to Program Design Options Report Section 3.2.1 (pg 7)

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Defining Reasonable Access (1)

- For single-family households through
 - Curbside collection for packaging and printed paper in areas receiving curbside collection of garbage
 - Depot collection for packaging and printed paper in other areas
- For multi-family households through
 - Curbside collection for packaging and printed paper where the PPP is placed in public easements for collection on regular curbside routes
 - Collection services where the municipality has a population of 15,000 or more and the number of multi-family households represents 15% or more of total households in a municipality
 - Of 40 municipalities with population of 15,000 or more, 35 contain MF representing 15% or more of total households
- Refer to Program Design Options Report Section 3.5.1 (pg 13)

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Defining Reasonable Access (2)

- For streetscapes
 - Subject to proof of concept through testing effective delivery of streetscape collection systems
 - Through collection where the municipality has
 - An existing litter collection system
 - A population of 20,000 or more, and
 - A population density of 200 or more people per square kilometre
- 28 municipalities have population of 20,000 or more and 200 or more people per square kilometer
- Refer to Program Design Options Report Section 3.5.1 (pg 13)

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Defining PPP Accepted (1)


- Materials that could be included in PPP collection programs for single-family and multi-family households and depots
 - Compatible with current processing infrastructure
 - End-markets available
 - Listed in table on page 14 of Program Design Options Report
- Materials that present problems if included in single-stream and multi-stream collection systems
 - LDPE/HDPE film, polystyrene foam, PVC
 - Require technical solutions to single/multi-stream collection problems
 - Could be collected at depots as materials can be segregated when received
- Refer to Program Design Options Report Section 3.5.2 (pg 13)

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Defining PPP Accepted (2)

- Non-recyclable materials that could be included if sorted and processed to meet end-user specifications as an alternate fuel
 - Such as paper/plastic laminates, multiple resin laminates, some films
 - Alternate fuel end-user specifications typically include
 - Types of materials accepted, maximum particle size and moisture content, maximum chemicals and other contaminants in the industrial process, minimum energy value
- Materials that could be included in food waste collection systems
 - Soiled paper packaging
 - Biodegradable packaging meeting accepted industry biodegradability standards e.g. ASTM D6400-04 and EN 13432 Standards
- Refer to Program Design Options Report Section 3.5.2 (pg 13)

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Packaging and Printed Paper Stewardship Program Design Options
Financial Transactions

Identifying Program Design Options

- Intended to
 - Identify and describe range of possible options
 - Identify pros, cons, opportunities, risks, transition issues, stakeholder implications within context of current system
 - Inform MMBC about options that could be utilized to implement stewardship program for residential PPP
- Using guiding principles and evaluation criteria
 - Preferred program design likely involves trade-offs
 - Best set of benefits with drawbacks that can be managed

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Guiding Principles

1. Deliver pollution prevention performance to achieve regulatory compliance
2. Drive economic efficiency – which encompasses the concepts of
 - Initial cost effectiveness and opportunity to reduce costs to producers and their consumers over time
 - Continuous improvement – ability for program to evolve, adapt and innovate thereby increasing diversion while continuously driving down system cost
 - Reliance on competitive markets as mechanism of continuous improvement
3. Be transparent and accountable
 - To producers in terms of what they get for what they pay
 - To regulators on pollution prevention results
 - To the public in terms of environmental performance
 - To commercial actors, local governments and other parties with whom MMBC's program may interact

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Evaluation Criteria: Program Performance

- Meeting the 75% recovery rate target and managing recovered materials in accordance with the pollution prevention hierarchy for materials that MMBC producers supply into the BC market
- Providing reasonable and free consumer access to collection facilities and for collection from residential premises, and from municipal property that is not industrial, commercial or institutional property
- Actions by residents to access the collection facilities that can be easily communicated and that are reasonably convenient

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Evaluation Criteria: Economic Efficiency

- Ability to deliver the recovery target at least cost to producers
- Likelihood to engage entities across BC that can most efficiently deliver collection and recovery rate results
- Fosters innovation in PPP collection, diversion and recovery that results in greater efficiency over time
- Harnesses competitive end-of-life services and markets
 - Does the program design option (PDO) limit the number or range of suppliers?
 - Does the PDO limit the ability of service suppliers to compete?
 - Does the PDO reduce the incentive of service suppliers to compete vigorously?
- Minimizes MMBC transaction costs by driving activities that further MMBC's performance objectives without having to administer each interaction
- Minimizes bureaucracy and institutional complexity
- Sets procedural framework and commercial terms/conditions for program services that are clear/reasonable for service providers, simple to administer

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Evaluation Criteria: Transparency/Accountability

- Provides opportunities to efficiently and effectively oversee and audit market transactions to ensure producer value for money and financial and environmental performance integrity of program
- Provides financial data that allows costs to be allocated to producers without cross-subsidization
- Ensures that key indicator information on environmental performance (i.e. collection, recycling and recovery by material) can be easily collected, collated and communicated to regulators and the public
- Minimizes potential for commercial disputes resulting from lack of communication or poor dissemination of information
- Ensures MMBC is perceived as treating the market fairly without causing undue market impacts
- Addresses local government concerns whether arising from their role as service providers, or, on behalf of their citizens, with regard to recovery services delivered to residences on behalf of MMBC

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Range of Options

- Contracting for services
 - With either collectors, processors or markets for all services
 - With both collectors and processors
 - With collectors, transporters and processors
- Market incentives
 - For either collectors, processors or markets for all services
 - For both collectors and processors
 - For collectors, transporters and processors
- Direct service delivery
 - Either collection, processing or marketing services
 - All services or partial e.g. collect in defined area, market problem PPP
- Possible combinations of contracts, incentives, direct delivery

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Contracting and Incentives

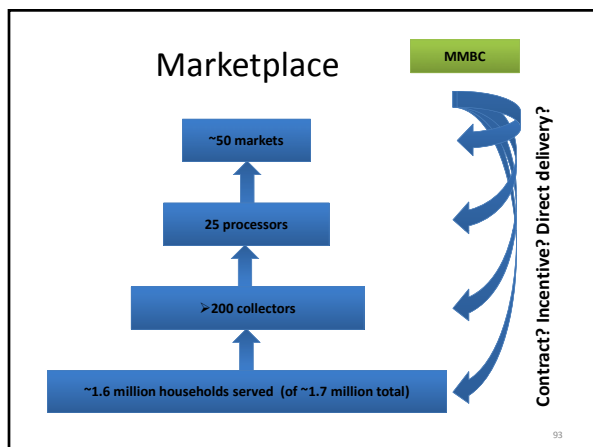
- Contracting for services
 - Service agreement with one or more parties selected through a competitive process to perform MMBC's defined service
 - Selection of a limited number of winners from service providers
 - Winners granted exclusive rights to perform service on behalf of MMBC for payment
- Market incentives
 - Service agreement available to approved service providers (able to meet performance standard) with payment contingent on delivering service for which incentive is provided
 - All approved service providers able to compete with one another to maximize their financial return while delivering service for which incentive is provided

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Considering Options

- Contracting and incentives are either/or options e.g.
 - Either contracting or incentives for collection
 - Either contracting or incentives for processing
- Could be implemented in parallel for different system components e.g.
 - Contracts with collectors and incentives for processors
 - Incentives for collectors and contracts with processors
- Could be implemented in parallel with partial direct service delivery e.g.
 - MMBC could deliver collection and/or processing services in specific geographic area with contracts or incentives in remaining areas

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Evaluation Methodology

- Where criteria questions can be answered
 - By 'yes' or 'no'
- Where criteria questions require relative response
 - High (H) meaning 'highly likely'
 - Medium/high (MH) meaning 'potential with minimal effort'
 - Medium (M) meaning 'potential with effort'
 - Medium/low (ML) meaning 'unlikely but great effort can mitigate'
 - Low (L) meaning 'highly unlikely'
- Explanation of assigned evaluation included with each option description in appendices
- Summary of evaluation for all options in Program Design Options Report on page 34

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Reviewing Options

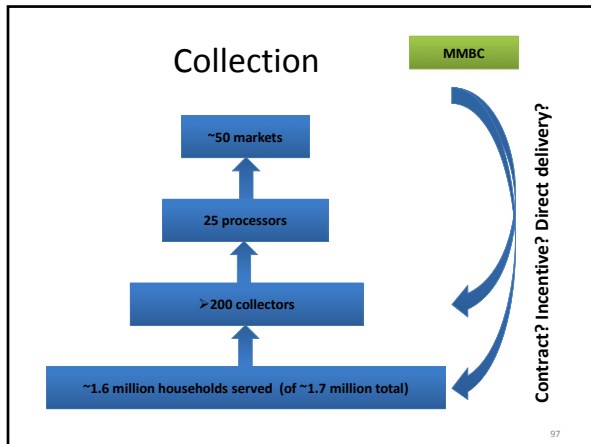
- Appendices A through P contain
 - Description of option
 - Operating example (where identified)
 - Description of roles – MMBC, householders, local governments, private collectors, processors, material marketing companies
 - Transition issues
 - Stakeholder implications
 - Pros, cons, opportunities, risks
 - Evaluation results

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Next Slides

- Review optional approaches to financial transactions
 - By PPP system component
 - Collection
 - Processing
 - Marketing
 - Describing how option would operate
 - Highlighting key differences
 - Summarizing evaluation results in relation to principles

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Contracting with Collectors for All Services (Option 1A)

- MMBC
 - Establishes contracts with collectors to ensure appropriate collection service levels for each community
 - Pays collectors for services delivered
- Collectors
 - Implement collection services as specified in contract terms
 - Make arrangements with transporters (if required) to transport collected materials to processors
 - Make arrangements with processors to process/market materials
 - Track tonnages collected by geography, by source to prove reported material came from residential sources, recycled and recovered to satisfy requirements of contracts with MMBC
- See Program Design Options Report Appendix A for details (page 38)

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Offering Incentives to Collectors for All Services (Option 2A)

- MMBC
 - Establishes financial incentive payable to collectors for each tonne of residential PPP delivered to an MMBC approved processor
 - Incentive can be tiered by geographic area from which residential PPP was collected, source within the geographic area
- Collectors
 - Implement collection services to be eligible for incentives
 - Make arrangements with transporters and processors and track tonnages as in Option 1A
- See Program Design Options Report Appendix F for details (page 75)

99

Direct Delivery of Collection Services (Option 3A)

- MMBC
 - Creates an operating business to collect PPP from single family and multi-family households and streetscapes
 - Would be responsible for costs incurred by its collection operating business
 - Delivers collected PPP to processors with whom MMBC establishes commercial arrangements
- See Program Design Options Report Appendix K for details (page 111)

100

Key Differences

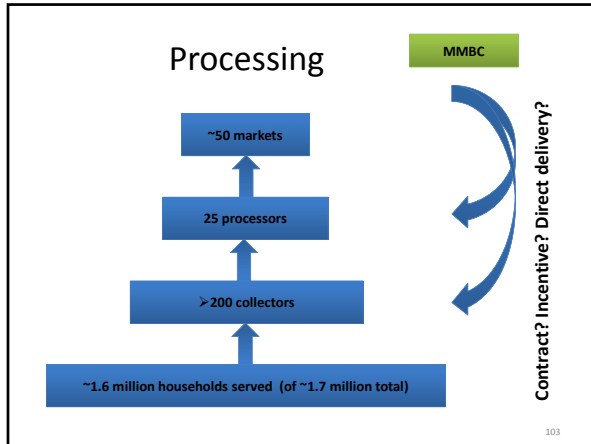
- Contracting with collectors for all services will
 - Allow MMBC to define consistent collection service in contracts
 - Limit number of collectors
 - Allow MMBC to negotiate with municipalities providing collection services using public sector staff based on average contracted cost
 - Provide data for collection rate but not recycling rate
- Offering incentives to collectors for all services will
 - Limit MMBC's ability to confirm delivery of collection services
 - Allow collectors to operate and compete, including municipalities providing collection services using public sector staff
 - Provide data for collection rate but not recycling rate
- Providing collection services directly will
 - Allow MMBC to deliver consistent collection service
 - Put existing collectors depending on residential PPP out of business
 - Provide data for collection performance and costs from own operation and for recycling performance and costs via commercial arrangements

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Evaluation Results

- Program performance
 - Higher where MMBC can define services through contracts or direct delivery and then communicate these services to residents
 - Higher where collectors and processors are competing to deliver services
 - Lower where limited influence over processing/marketing i.e. recycling rate
- Economic efficiency
 - Higher where collectors and processors are competing to deliver services
 - Lower where MMBC establishes commercial relationships with collectors which are more numerous than processors/markets i.e. more admin
- Transparency and accountability
 - Higher where MMBC can audit services through contracts or directly deliver service
 - Higher where MMBC can access both collection and recycling data for performance reporting and associated costs for setting stewards fees

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Contracting with Processors for All Services (Option 1B)

- MMBC
 - Establishes contracts with processors to process residential PPP delivered by collectors
 - Pays processors for PPP processed
- Processors
 - Make arrangements with collectors (and transporters if required) to secure residential PPP feedstock
 - Process PPP received from collectors and ship to downstream processors or markets
 - Track tonnages collected by geography, by source to prove reported material came from residential sources, recycled and recovered to satisfy requirements of contracts with MMBC
- See Program Design Options Report Appendix B for details (page 45)

104

Offering Incentives to Processors for All Services (Option 2B)

- MMBC
 - Establishes financial incentive payable to processors for each tonne of residential PPP processed to a recycling efficiency rate and marketed to a user for specified recycling uses
 - Incentive can be tiered by geographic area from which residential PPP was supplied to the processor, source within the geographic area
- Processors
 - Process PPP received from collectors and ship to downstream processors or markets to be eligible for incentives
 - Make arrangements with collectors and transporters and track tonnages as in Option 1B
- See Program Design Options Report Appendix G for details (page 82)

105

Direct Delivery of Processing Services (Option 3B)

- MMBC
 - Creates an operating business to process PPP collected from single family and multi-family households and streetscapes
 - Establishes commercial arrangements with collectors to access feedstock including payment for residential PPP delivered
 - Sells processed PPP to recycling markets with whom MMBC establishes commercial relationships
 - Would be responsible for costs incurred by its processing operating business and would retain material revenues
- See Program Design Options Report Appendix L for details (page 118)

106

Key Differences

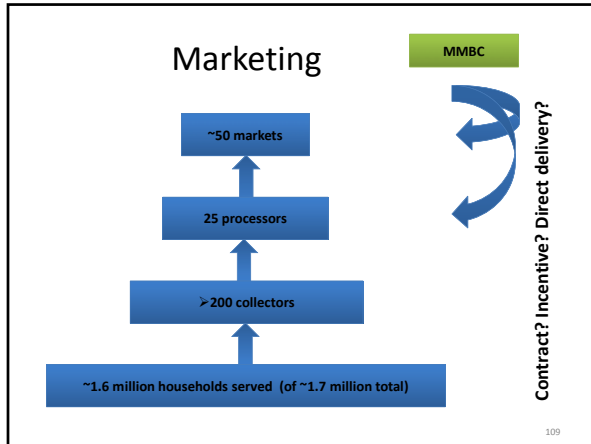
- Both contracting with processors and incentives for processors will
 - Limit MMBC's ability to confirm delivery of collection services
 - Require that processors negotiate with collectors including municipalities providing collection services using public sector staff
 - Reduce administration due to smaller number of processors
- Contracting with processors for all services
 - May limit number of processors (already small number)
- Offering incentives to processors for all services will
 - Allow processors to operate and compete
- Providing processing services directly will
 - Require that MMBC negotiate with collectors including municipalities providing collection services using public sector staff
 - Force existing processors to depend on ICI PPP to sustain business
 - Provide data for recycling performance and costs from own operation and for collection performance and costs via commercial arrangements

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Evaluation Results

- Program performance
 - Lower where MMBC has indirect influence over collection service
 - Higher where MMBC is delivering processing services and able to deal directly with collectors to define collection services
 - Higher where collectors and processors are competing to deliver services
- Economic efficiency
 - Higher where collectors and processors are competing to deliver services
 - Higher where MMBC establishes commercial relationships with processors which are fewer than collectors i.e. less admin
- Transparency and accountability
 - Higher where MMBC can audit services through contracts or directly deliver service
 - Higher where MMBC can access both collection and recycling data for performance reporting and associated costs for setting stewards fees

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Contracting with Markets for All Services (Option 1C)

- MMBC
 - Establishes contracts with markets to purchase PPP collected from residential sources and streetscapes in BC, following processing to meet market specifications
 - Pays markets for materials marketed and markets use this additional income to adjust prices for material purchased from processors so that processors are able to pay collectors as required
- Markets
 - Make arrangements with processors to secure residential PPP feedstock and processors make their own arrangements with collectors to secure feedstock
 - Track tonnages collected by geography, by source to prove reported material came from residential sources, recycled and recovered to satisfy requirements of contracts with MMBC
- See Program Design Options Report Appendix C for details (page 52)

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Offering Incentives to Markets for All Services (Option 2C)

- MMBC
 - Establishes financial incentive payable to markets for each tonne of residential PPP received from MMBC approved processors
 - Incentive can be tiered by geographic area from which residential PPP was supplied to the market, source within the geographic area
- Markets
 - Receive PPP from processors and utilize in manufacturing process or new product to be eligible for incentives
 - Make arrangements with processors and track tonnages as in Option 1C
- See Program Design Options Report Appendix H for details (page 89)

111

Direct Delivery of Marketing Services (Option 3C)

- MMBC
 - Creates an operating business to purchase PPP from processors
 - That are able to prove that the PPP was collected from single family and multi-family households and streetscapes
 - At prices that allow processors to operate the processing system and purchase collected PPP
 - Sells processed PPP to recycling markets with whom MMBC establishes commercial relationships
 - Retains revenues from sale of materials
- See Program Design Options Report Appendix M for details (page 125)

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Key Differences

- Contracting with markets, incentives for markets and providing marketing services directly will all
 - Limit MMBC's ability to confirm delivery of collection services
 - Allow collectors and processors to operate and compete
 - Provide information on PPP recycled but not collected
 - Reduce administration due to smaller number of markets
 - Involve arrangements with and payments to markets in US and Asia
- Neither contracting with markets or incentives for markets will provide
 - Collection and processing cost information for setting stewards fees
- Providing marketing services directly will
 - Disrupt processors' relationships with markets
 - Provide opportunity to access processing costs for steward fee setting via commercial arrangements with processors

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Evaluation Results

- Program performance
 - Higher where MMBC has direct influence over recycling performance
 - Lower where MMBC has indirect influence over collection service
 - Higher where collectors and processors are competing to deliver services
- Economic efficiency
 - Higher where collectors and processors are competing to deliver services
 - Higher where MMBC establishes commercial relationships with markets which are fewer than collectors i.e. less admin
- Transparency and accountability
 - Higher where MMBC can access data through contracts with markets or through relationships with processors as part of directly marketing materials
 - Lower where MMBC has no access to collection data or collection and recycling costs for steward fees

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Adding Transportation Services

- Also contracting with transporters or providing incentives for transporters will
 - Allow MMBC to organize transfer from remote areas to larger, more mechanized MRFs
 - Avoid variable contract or incentive payments for collectors or processors intended to reflect differing shipping distances and challenges
 - Provide information for transportation cost allocation
 - Increase administration due to adding transactions with transporters

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Combining Elements

- Possible to combine contracts, incentives, direct delivery
- Some examples provided in report
 - Option 4A: Contract with Processor and Incentive for Collectors
 - Option 4B: Contract with Processor and Direct Delivery of Partial Processing Services
 - Option 4C: Contracts with Collectors, Transporters and Processors and Direct Delivery of Partial Collection, Processing and Marketing Services
- Other combinations possible

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Phase 1 Project – Next Steps

- Written submissions from stakeholders until February 28, 2012
- Comments will be
 - Compiled into consultation report for MMBC
 - Considered by project team while preparing final reports
 - Corrections to data in Current System Report
 - Comments that enhance Program Design Options Report
- Final reports due to MMBC by mid-March

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MMBC – Next Steps

- Consider information in both reports
- Determine preferred approach to program design
 - System requirements
 - Financial transactions
- Select consultant for Phase 2 and proceed to
 - Develop stewardship program plan for submission to director in November 2012
 - Including consultation with stakeholders

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Packaging and Printed Paper Stewardship Program Design Options

Stakeholder Comments Welcome

Stakeholder Review (1)


- Seeking your views on proposed definitions of
 - Recycling and recovery
 - Residential premises and streetscape
 - Reasonable access for single-family, multi-family, streetscape collection services
 - Materials to be accepted
- Submit comments until February 28, 2012 to consultation@multi-materialbc.com

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Stakeholder Review (2)

- Seeking your comments on Appendices A through P
 - Stakeholder roles and implications, transition issues
 - Pros, cons, opportunities, risks
- To ensure comprehensive description of financial transaction options
 - For use by MMBC when determining preferred approach
- Submit comments until February 28, 2012 to consultation@multi-materialbc.com

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Packaging and Printed Paper Stewardship Program Design Options

Questions?

Submitting Your Comments

- Submit comments until February 28, 2012 to consultation@multi-materialbc.com
- Comments will be
 - Compiled into consultation report for MMBC
 - Organized by topic
 - Including name of person or organization
 - Considered by project team while preparing final reports due to MMBC by mid-March

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Multi-Material British Columbia

Packaging and Printed Paper Stewardship Program

February 14, 2012 Workshop and Webcast

Thank You