Backgrounder to Support a
Review of the Blue Box Program Plan

Table of Contents

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1.0 Background

Waste Diversion Ontario (WDO) is a non-crown corporation created under the Waste Diversion Act (WDA) on June 27, 2002. WDO was established to develop, implement and operate waste diversion programs for a wide range of materials. The WDA empowers the Minister of the Environment to designate a material for which a waste diversion program is to be established. Once the Minister has designated a material through a regulation under the WDA, the Minister may ask WDO to develop a diversion program for that material. WDO is required by the Act to work co-operatively with an Industry Funding Organization (IFO) to develop a waste diversion plan for the designated waste. WDO is further required by the Act to conduct public consultation on any matter referred to it by the Minister.

To date, the Minister has requested diversion programs for Blue Box Wastes, Municipal Hazardous or Special Waste (MHSW), Waste Electrical and Electronic Equipment (WEEE) and Used Tires.

The Blue Box Program Plan (BBPP) was approved by the Minister on December 22, 2003 and commenced on February 1, 2004. Stewardship Ontario is the IFO with whom WDO works co-operatively to implement the Program.

2.0 Waste Diversion Act Review

The Ministry of the Environment is undertaking a five year review of the WDA. The WDA review will engage stakeholders and the public in a discussion on strategic issues that affect waste diversion in Ontario.

The review of the WDA was launched with the posting on the Environmental Registry of the discussion paper, entitled *Toward a Zero Waste Future: Review of Ontario's Waste Diversion Act, 2002*. The discussion paper is available at www.ebr.gov.on.ca (Registry Number 010-4676) and comments can be made until January 15, 2009.

3.0 Blue Box Program Plan Review

On October 16, 2008, WDO received correspondence from the Honourable John Gerretsen, Minister of the Environment, requesting that WDO conduct a review of ten BBPP issues (provided in an addendum to the letter and in Attachment A of this Consultation Plan), using the principles of extended producer responsibility (EPR) to form the review framework. The Minister directed that the BBPP review be completed in a manner that is transparent and incorporates consultation with relevant stakeholders, including members of the public, municipalities, businesses, BBP stewards and environmental non-government organizations.

The Minister requested that WDO submit a report by March 20, 2009 that:

- summarizes the BBPP review process that was completed, including stakeholder consultation,
- makes recommendations regarding the BBPP issues, including the rationale for the recommendations such as key arguments made during stakeholder consultation, and
- indicates how EPR principles shaped the framework of the review and informed the recommendations.

The Blue Box Program review is an examination of waste diversion issues at a program-specific level and provides an opportunity to incorporate the principled approach outlined in WDA review.

4.0 Extended Producer Responsibility (EPR)

The Canadian Council of Ministers of the Environment (CCME), of which the Minister of the Environment for the Province of Ontario is a member, has adopted the following definition for EPR[1]:

> Extended Producer Responsibility means an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle.

CCME has also established a series of principles to support EPR. These principles are provided in Attachment B and will be considered, as a starting point, for the EPR principles to shape the framework of the review.

3.0 Supporting Information

The following sections provide data that pertain to the BBPP review issues set out by the Minister. These data may be of assistance to stakeholders when considering their views and comments on these issues.

Throughout the document, possible approaches have been identified to provide examples of potential direction. The consultation process being implemented by WDO will consider these examples as well as any other examples proposed by stakeholders.

[1] Based on the Organisation for Economic Co-operation and Development (OECD) definition for EPR.

1. Program performance:

The BBPP has reached its 60% waste diversion target. A new target may encourage further increases in waste diversion.

Recommend a new target for the next 5 years of the BBPP that goes beyond the 60% target originally set for the 2004-2008 period.

The BBPP proposed an overall program goal of 50% diversion within the five year planning period. After approving the BBPP, the Minister directed that the Blue Box program "divert at least 60% of Blue Box wastes by 2008".

The Blue Box program achieved and surpassed the 60% objective in 2006 with a diversion rate of 63.5%. The diversion rate declined slightly, to 62.8% in 2007.

The Minister has requested a recommendation on a new program performance target for the next 5 years of the Blue Box program. The target must be high enough to encourage increased diversion, but at the same time realistic so that it may be achieved.

Other programs developed under the WDA have set both collection and diversion targets, recognizing that recycling market capacity may expand after collection systems are implemented. Currently, the Blue Box Program has a single diversion target rather than both collection and diversion targets.

Possible Approaches:

A new program performance target could:

- Be selected to be higher than the existing 60% diversion target by a specific percentage;
- Be selected to be higher than the current 63% diversion rate by a specific percentage; or
- Be the mathematical total of material-specific diversion targets (see point # 2); and
- Also include a collection target.

***2. Material-specific performance*:**

Certain Blue Box wastes are not achieving high diversion rates (e.g., plastics), and may benefit from material-specific diversion targets.

Recommend material-specific diversion targets for Blue Box wastes to encourage further increases in waste diversion for the next 5 years of the BBPP.

An overall program performance target of 60% has been set for the Blue Box Program Plan. However, the Blue Box Program does not include individual targets for each material.

Material-specific performance targets may drive increased collection and diversion, especially for those Blue Box materials that have a lower relative diversion rate, such as plastics.

Other programs developed under the WDA have set both collection and diversion targets, recognizing that recycling market capacity may expand after collection systems are implemented. Material-specific collection targets may allow collection of new materials that could support development of new processing and end market technologies and subsequent capital investments based on reasonable expectations of new feedstock quality and quantity.

The following table provides the amount of Blue Box materials marketed as reported by municipalities through WDO's Municipal Datacall and associated diversion rates based on sales data reported by stewards.

Table: Blue Box Materials Marketed and Diversion Rates - 2005 to 2007

Material	2005		2006		2007	
	Quantity Marketed	Diversion Rate	Quantity Marketed	Diversion Rate	Quantity Marketed[2]	Diversion Rate
	(tonnes)	(%)	(tonnes)	(%)	(tonnes)	(%)
PRINTED PAPER						
Newsprint - CNA/OCNA	215,716	80%	235,716	91%	236,301	88%
Newsprint - Non-CNA/OCNA	103,390	80%	112,976	91%	113,257	88%
Magazines and Catalogues	73,043	75%	79,815	89%	80,013	88%
Telephone Books	16,961	80%	13,105	91%	17,493	88%
Other Printed Paper	47,408	39%	57,232	49%	53,018	44%
PRINTED PAPER TOTAL	**456,519**	**72%**	**498,845**	**82%**	**500,083**	**79%**
PACKAGING						
Old Corrugated Containers	115,230	70%	124,807	77%	125,610	77%
Gabletop	2,100	14%	2,233	15%	2,317	16%
Paper Laminants	377	1%	371	1%	384	1%
Aseptic Containers	456	13%	485	14%	503	13%
Old Boxboard	67,674	53%	73,299	59%	73,931	58%
Paper Packaging Total	**185,836**	**53%**	**201,194**	**59%**	**202,744**	**58%**
PET bottles and jugs	23,192	51%	26,797	57%	26,904	55%
HDPE bottles	13,328	52%	15,272	59%	15,201	57%
Plastic Film	4,995	8%	3,515	6%	4,822	8%
Plastic Laminants	256	1%	268	1%	285	1%
Polystyrene	394	2%	847	4%	417	2%
Other Plastics	3,594	8%	4,385	9%	5,353	10%
Plastics Packaging Total	**45,759**	**20%**	**51,085**	**22%**	**52,982**	**22%**
Steel Cans	31,290	66%	32,313	67%	31,132	63%
Aerosols	1,036	26%	1,075	27%	1,054	24%
Paint Cans	1,159	17%	1,203	23%	1,179	20%
Steel Packaging Total	**33,484**	**58%**	**34,591**	**60%**	**33,365**	**56%**
Aluminum Cans	10,743	48%	11,193	51%	9,925	44%
Other Aluminum Packaging	308	8%	324	9%	301	8%
Aluminum Packaging Total	**11,050**	**42%**	**11,516**	**45%**	**10,227**	**39%**
Clear Glass	45,238	61%	47,383	69%	59,528	85%
Coloured Glass	9,061	60%	6,359	68%	7,041	72%
Glass Packaging Total	**54,298**	**61%**	**53,743**	**69%**	**66,569**	**83%**
PACKAGING TOTAL	**330,429**	**44%**	**352,130**	**48%**	**365,887**	**49%**
TOTALS	**786,947**	**57%**	**850,975**	**64%**	**865,969**	**63%**

[2] Excludes Ontario Deposit Return Program containers remaining in the Blue Box system.

Possible Approaches

Developing material specific targets will require consideration of various factors that may affect the extent to which each of these materials can be diverted, such as convenient collection systems and the existence or development of viable material markets.

A number of possible approaches could be taken to set material-specific performance targets including but not limited to:

- Setting diversion targets for the primary level material categories e.g. printed paper, paper packaging etc.;
- Combining some material categories for purposes of material-specific targets e.g. combining newsprint, magazines and catalogues but keeping separate targets for telephone books and other printed paper; or
- Setting diversion targets for each of the materials in the table above e.g. newsprint, magazines and catalogues, telephone books, other printed paper etc.

3. *Consistency across municipalities*:

The collection of different Blue Box wastes across Ontario municipalities creates public confusion.

Recommend how the program can achieve greater consistency in the Blue Box wastes that are collected across Ontario municipalities to minimize public confusion, facilitate province wide communication and outreach activities, and encourage further increases in waste diversion for the next 5 years of the BBPP.

In 1994, the Province passed Ontario Regulation 101/94 - Recycling and Composting of Municipal Waste. Part II of this Regulation requires that Ontario municipalities with a population of 5,000 or more implement a Blue Box Waste Management System for source separation of recyclable materials.

Municipalities are required to collect five Basic Blue Box Wastes[3] as well as at least two materials chosen from a list of twelve Supplementary Blue Box Wastes[4].

[3] Aluminum food and beverage cans, glass bottles and jars for food or beverages, newsprint (newspapers, flyers, and other publications made from newsprint), PET bottles for food or beverages, steel food or beverage cans

The following table summarizes the number of households that receive collection of items beyond the Basic Blue Box wastes mandated by Ontario Regulation 101 as reported by municipalities in the 2007 Municipal Datacall.

Table: Households Receiving Curbside and Depot Collection of Supplementary Blue Box Waste - 2007

Material	Households Receiving Service	% of Total Households Receiving Blue Box Collection
Paper-Based Packaging		
Corrugated Containers	4,835,585	97.56%
Boxboard	4,794,955	96.74%
Polycoat		
Gable Top Containers	4,019,110	81.08%
Aseptic Cartons	3,962,650	79.94%
Steel		
Aluminum Foil	4,282,020	86.39%
Empty Aerosol Cans	3,707,233	74.79%
Empty Paint Cans	3,712,566	86.70%
Plastics		
HDPE Containers	4,828,140	97.41%
Other Containers	2,427,778	48.98%
LDPE/HDPE Film	3,344,430	67.47%
Tubs & Lids	4,451,873	89.81%
Polystyrene Containers	3,219,896	64.96%

[4] Aluminum foil, boxboard and paperboard, cardboard, PS food or beverage containers, fine paper, magazines, paper cups and plates, plastic film, rigid plastic containers, telephone directories, textiles, polycoat,

Possible Approaches

Collection of certain Blue Box materials is currently being provided to most Ontario households e.g. corrugated containers at 97.56% and HDPE plastic containers at 97.41%. Collection of other materials is less wide spread across Ontario e.g. LDPE/HDPE plastic film at 67.47% and polystyrene plastic containers at 64.96%.

Providing collection service to those households not currently receiving collection for some or all of these materials would achieve greater consistency in Blue Box wastes collected across Ontario and would minimize public confusion, facilitate province wide communication and outreach activities, and encourage further increases in waste diversion.

> ***4. Problematic wastes*:**
>
> Some Blue Box or non-Blue Box wastes create operational inefficiencies for municipal recycling programs and may increase costs. An example of a problematic blue box waste is the 15 litre non-refillable water bottle.
>
> Recommend how problematic Blue Box and non-Blue Box wastes can be addressed through the BBPP or other mechanisms.

Some Blue Box wastes present particular handling problems in Blue Box collection and processing systems. The 15 litre non-refillable water bottle, provided as an example in the Minister's letter, presents the following challenges:

- the large volume of the container consumes a significant amount of space in curbside collection containers and collection vehicles;
- conveyor and sorting equipment in Material Recycling Facilities (MRFs) are typically not designed to handle the large size of these containers resulting in:
    - blockages because conveyor system clearances are too small; and
    - 15 litre containers being mixed in with other types of materials rather than sorted into the PET plastic stream.

The 15 litre non-refillable water bottle was introduced into the marketplace as an alternative option to the returnable and refillable polycarbonate water bottle for which consumers must pay a deposit. The Canadian Bottled Water Association (CBWA) reports that, in 2004, the returnable polycarbonate bottles made 10 million trips in Ontario. In 2005, an estimated 1 million of the 10 million polycarbonate bottle trips were replaced by the 15 litre (or larger) one way non-refillable PET bottles with a projected growth in subsequent years to about 1.2 million bottles in 2007.

The City of Toronto reports receiving approximately 8,500 15 litre PET water bottles in their residential Blue Box system each month. Extrapolating this amount across Ontario results in an estimated 40,000 15 litre PET water bottles being managed in the provincial Blue Box system each month or about 475,000 bottles each year.

Other examples of problematic materials, as identified by the Association of Municipalities of Ontario (AMO), include:

- oversized containers
- uncommonly coloured containers
- biodegradable packaging such as grocery store bags and take out food packaging
- containers manufactured from multiple materials including
  - plastic containers (both PET and HDPE) with metal lids
  - aluminum containers with a PET plastic base
  - laminated containers
  - blister packs
- plastic gardening trays and pots
- take out food containers and drink cups
- items marked with a mobius loop suggesting recyclability but without adequate market capacity or revenue to include in the Blue Box system

Possible Approaches

Problematic wastes could be addressed through a range of possible systems including but not limited to:

- Inclusion in municipal Blue Box curbside and depot programs supported by EPR funding (see point # 10);
- Return to depots established and operated by the private sector (separate from municipal programs);
- Return to retail; and/or
- Return to municipal depots, private depots and/or retail under a deposit return system.

To anticipate and avoid end of life management handling problems, stewards of new products and packages that result in Blue Box wastes could be required to file a waste management plan, including an assessment of the handling method and associated implications for the Blue Box Program, prior to sale of the new product or package in Ontario.

***5. Blue Box wastes from the IC&I sector*:**

The industrial, commercial and institutional (IC&I) sector generates more designated Blue Box wastes than the residential sector, but is not included in the BBPP.

Recommend if, and how, the BBPP could be extended to include Blue Box wastes generated by the IC&I sector.

The Blue Box program addresses Blue Box wastes generated by residences. It does not include Blue Box wastes generated by the industrial, commercial or institutional (IC&I) sector. The Minister has asked for recommendations on whether and how IC&I Blue Box wastes should be handled under the Blue Box program.

Of the nearly 13 million tonnes of waste generated in Ontario in 2006, the IC&I sector (including construction and demolition) was responsible for approximately 7.5 million tonnes of waste with 12% of these materials diverted from disposal. This compares to the residential sector which generated approximately 5 million tonnes of waste with 38% of these materials diverted from disposal.

Ontario Regulation 103/94 requires certain IC&I waste generators to implement source separation programs for specific materials. See Appendix B.

A report titled *IC&I Waste Diversion in Ontario*, prepared by Kelleher Environmental for the Ontario Waste Management Association in December 2007, provides estimates of total materials diverted in Ontario in 2004 as reported by Statistics Canada and deducts residential materials diverted based on data from WDO's Datacall to calculate the quantity of materials diverted from the IC&I sector in 2004, as outlined in the following table. As the Statistics Canada survey categories and WDO Datacall categories do not match exactly, Kelleher Environmental allocated some categories.

Table: Estimated IC&I Waste Diversion - 2004

Material	Total 2004 Ontario Diversion per Statistics Canada (Tonnes)	2004 Residential Diversion per Datacall (Tonnes)	Allocation of 2004 Diversion to IC&I and C&D (Tonnes)
Newsprint (ONP)	500,952	324,976	175,976
Old Corrugated Cardboard (OCC) & Old Boxboard (OBB)	540,791	121,685	419,106
Mixed Paper	187,551	177,486	10,065
Glass	198,861	117,815	81,046
Ferrous Metals	260,315	31,246	229,069
Copper & Aluminum	22,140	10,017	12,123
Mixed Metals	69,780	38,901	30,879
Electronics & White Goods	31,437	15,343	16,094
Plastics	54,306	38,653	15,653
C&D	303,277	61,256	242,021
Other Materials & Tires	91,955	41,704	50,251
Organics	644,586	460,517	184,069
Total Statistics Canada	2,905,951	1,439,600	1,466,351
Total Residential & IC&I			2,905,951

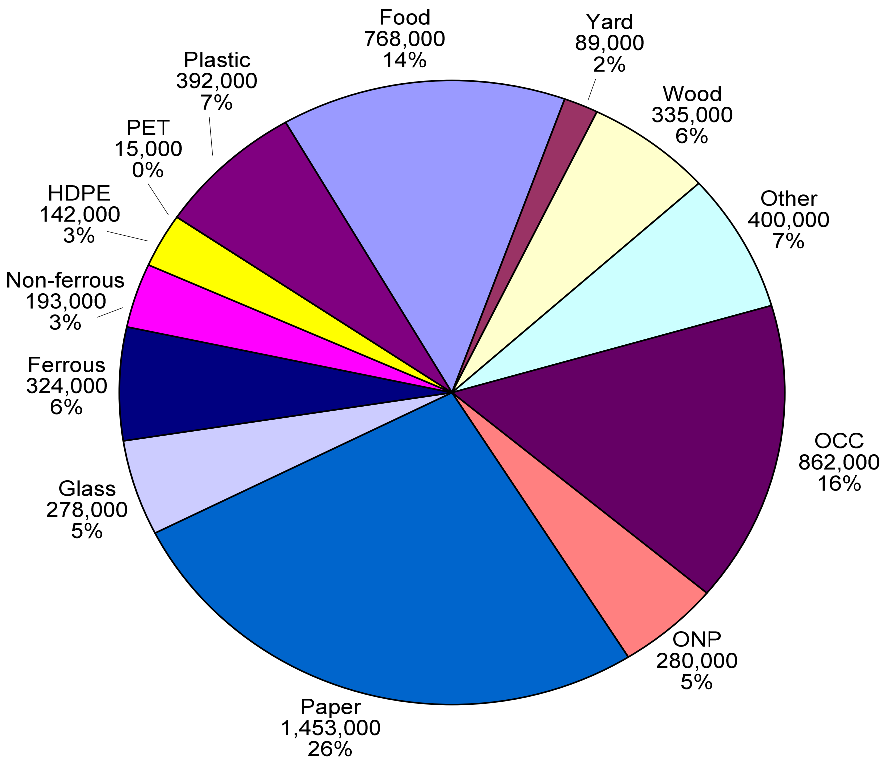
Notes:
1. Other materials include textiles, reuseables such as tools and bulky goods such as furniture.
2. WDO Datacall includes white goods in Waste Electronics and requests data on scrap metals without segregation of copper. Scrap metal has been included in this table under Mixed Metals.

The Kelleher Environmental report also provides the estimated composition of disposed IC&I waste stream in Ontario noting that discarded IC&I waste contains:

- Significant amounts of paper materials (26% paper, 15% cardboard and 5% newspapers);

- 5% glass;
- 10% plastics;
- 9% metals;
- 6% wood;
- 14% food waste and 2% yard waste; and
- 7% other materials.

Chart: Estimated Composition of Disposed IC&I Waste in Ontario - 2004



The quantities of Blue Box materials remaining in the IC&I waste stream, including paper, ONP, OCC, glass, ferrous, HDPE, PET and other plastics, suggest that additional diversion of these materials can be achieved.

Possible Approaches

The BBPP could be extended to include Blue Box waste generated by the IC&I sector for all materials and sectors simultaneously or phased in over time by material and/or by sector.

Given the lack of baseline data, it may be appropriate to first acquire accurate data by requiring stewards to report sales data for products and packaging sold to the IC&I sector that result in Blue Box waste and by establishing a tracking system for waste collection and diversion activities in the IC&I sector. These baseline data could be used to develop diversion targets and determine mechanisms to achieve these targets.

Various mechanisms could be utilized by Blue Box stewards to achieve diversion targets such as:

- A series of incentives, appropriately valued to achieve the program's diversion and other performance objectives, that would provide financial incentives to the following:
  - IC&I businesses to offset costs of source separation in the workplace;
  - Transporters to expand collection services to the IC&I sector;
  - Processors to create a demand for more feedstock, some of which could be sourced from the IC&I sector; and
  - Manufacturers to develop and market new products to absorb the additional processed materials; or
- Provision of collection services to IC&I businesses and subsequent processing of these materials through contracted services.

6. *Blue Box wastes collected outside of the Blue Box*:

Blue Box wastes not captured in the Blue Box are collected as garbage or litter by municipalities, fully at their cost.

Recommend (1) how collection options beyond municipal curbside and depot could be used to increase collection of Blue Box wastes and (2) how steward responsibility can be used to address Blue Box wastes that are collected beyond municipal curbside and depot, or disposed as waste or litter.

Blue Box Wastes in Garbage

The Blue Box program has achieved approximately 63% diversion of Blue Box wastes sold into the residential sector. While some portion of the remaining 37% may be diverted through other programs, such as charitable collections, a substantial amount of Blue Box waste is collected as waste or litter.

Increasing the capture of Blue Box wastes that are currently being collected as waste or litter is necessary if the Blue Box program is to achieve higher diversion targets.

Stewardship Ontario has been completing curbside waste audits since 2004 in order to compile information on the materials in the Blue Box system and to allocate Blue Box system costs among stewards. The audits provide data on materials collected in the Blue Box system as well as in the waste stream.

The following table presents the quantity of Blue Box wastes remaining in the waste stream. The data were derived by extrapolating data from the 2007 waste audits to the total number of households reported by municipalities in the 2007 Municipal Datacall.

Table: Estimated Quantity of Blue Box Wastes in Residential Waste - 2007

Material	Estimated Quantity of Blue Box Wastes in Garbage[5] (tonnes)
PRINTED PAPER	
Newsprint	46,422
Other Printed Paper	82,277
PRINTED PAPER TOTAL	128,698
PACKAGING	
Corrugated Containers	19,259
Boxboard/Cores	49,575
Gabletop & Aseptic Containers	11,642
Other Paper Packaging	37,456
Paper Packaging Total	117,933
PET Containers	20,214
HDPE Containers	9,212
Other Bottles, Jars & Jugs	5,852
Polystyrene	16,220
Tubs & Lids	5,874
Polyethylene Plastic Bags & Film	76,426
Other Rigid Plastic Packaging	17,537
Plastics Total	151,336

[5] The estimated quantity of Blue Box wastes in the garbage stream and the total marketed tonnes of Blue Box wastes reported by municipalities may not total the sales of printed papers and packaging into the residential market as reported by stewards. Reasons for these differences include: imprecision in the extrapolation methodology to estimate the quantity of Blue Box Wastes in the garbage stream; some items remain in circulation e.g. magazines; and, some items are managed in other systems e.g. such as charitable collections of aluminum cans.

Material	Estimated Quantity of Blue Box Wastes in Garbage[6] (tonnes)
Aluminum Food & Beverage Cans	7,525
Aluminum Foil & Foil Trays	5,243
Other Aluminum Containers	501
Aluminum Total	13,268
Steel Food & Beverage Cans	15,911
Aerosols	3,690
Paint Cans	1,694
Steel Total	21,296
Clear Glass Containers	5,170
Coloured Glass Containers	7,119
Other Glass Containers	37,754
Glass Total	50,043
PACKAGING TOTAL	353,876
Grand Total >	482,574

Blue Box Wastes in Litter

In 2006, the City of Toronto undertook a *City of Toronto Streets Litter Audit (October 7, 2006)*. The following tables summarize the small and large litter identified in the audit.

Table: Small and Large Litter Composition - 2006

Small Litter Category	% of Total Small Litter
Gum deposits	30.9%
Paper	17.3%
Glass	15.4%
Cigarette butts	14.8%
Hard plastic	3.6%
Plastic film	2.8%
Other materials	2.5%
Aluminum pieces	2.4%

Large Litter Category	% of Total Large Litter
Beverage containers	8.60%
Cups	7.30%
Bags (plastic & paper)	3.35%
Boxes (plastic & paper)	2.28%
Other containers (non-beverage)	0.58%
Wraps	3.87%
Take out extras	1.26%
Trays	0.14%

[6] The estimated quantity of Blue Box wastes in the garbage stream and the total marketed tonnes of Blue Box wastes reported by municipalities may not total the sales of printed papers and packaging into the residential market as reported by stewards. Reasons for these differences include: imprecision in the extrapolation methodology to estimate the quantity of Blue Box Wastes in the garbage stream; some items remain in circulation e.g. magazines; and, some items are managed in other systems e.g. such as charitable collections of aluminum cans.

Small Litter Category	% of Total Small Litter		Large Litter Category	% of Total Large Litter
Other tobacco	2.4%		Confectionary	6.89%
Polyfoam peanuts	2.3%		Textiles	1.62%
Other polystyrene	1.7%		Other packaging	2.14%
Candy packaging	1.6%		Printed & fibre material	22.00%
Other metal	1.1%		Tobacco	3.80%
Rubber pieces	0.7%		Miscellaneous paper	19.10%
Straws	0.4%		Miscellaneous plastic	10.90%
Bottle caps	0.1%		Miscellaneous other	8.80%
Total	100.0%		Total	102.63%[7]

Possible Approaches

Collection options beyond municipal curbside collection and depots to capture Blue Box materials currently in the waste and litter streams include but are not limited to:

- expanded public space recycling services, such as collection of recyclable materials in parks, public facilities and special events;
- return to private depots;
- return to retail; and
- return to private depots and/or retail supported by deposits or other types of incentives.

Options for requiring Blue Box stewards to assume producer responsibility for Blue Box materials currently in the waste and litter stream include but are not limited to:

- For Blue Box wastes managed by municipalities through expanded public space recycling services, stewards could assume producer responsibility in the same fashion as other Blue Box collection services provided by municipalities (see point # 10);
- For return to retail or private depots, stewards could pay retailers or private companies a fee for collection of Blue Box wastes at a set fee by material per tonne.

Collection options can be supported by implementing incentive systems such as incremental user pay fees, bag limits or mandatory use of clear garbage bags and a province wide advertising campaign.

[7] Total of large litter categories from City of Toronto Streets Litter Audit (October 2006) Sections 3.2.1 to 3.2.14; total above 100% due to accumulated rounding errors.

Options for requiring Blue Box stewards to assume producer responsibility for Blue Box materials remaining in the waste and litter streams include but are not limited to stewards

- Reimbursing municipalities for the portion of waste and litter costs related to Blue Box wastes at 100%, 50% or some other percentage; or
- Paying municipalities a fee for collection and disposal of Blue Box wastes remaining in the garbage and litter streams on the basis of a set fee for service by material per tonne. To create an incentive for increased collection of Blue Box wastes, the fee municipalities receive for managing Blue box materials remaining in the waste and litter streams could be set so that higher fees are paid for lower amounts of Blue Box wastes present in the garbage and litter streams.

7. *Additional Blue Box wastes*:

Some of the designated Blue Box wastes, such as plastic products, are not included in the BBPP.

Recommend how the BBPP can be expanded to include additional wastes already designated by regulation within the program.

The Blue Box program addresses consumer printed papers, such as newspapers and magazines, and packaging such as corrugated cardboard boxes, food and beverage cans made from aluminum or steel, etc. However, a number of designated Blue Box Waste materials are not currently addressed in the program.

Blue Box Waste Regulation

Ontario Regulation 273/02 under the *Waste Diversion Act, 2002* defines Blue Box wastes in the following manner:

> Waste that consists of any of the following materials, or any combination of them, is prescribed as Blue Box wastes for the purpose of the *Act*:
>
> - Glass;
> - Metal;
> - Paper;
> - Plastic; and
> - Textile.

This definition is broad in scope and encompasses packaging and printed materials and a wide range of consumer products.

Definition of Blue Box Wastes in BBPP

Given that municipal Blue Box programs collected primarily packaging and printed materials and did not generally collect consumer products, the current BBPP addressed only consumer packaging material and printed papers using the following definitions.

"'Packaging' shall mean all products made of paper, glass, metal, plastics, textiles or any combination thereof to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. 'Non-returnable' items used for the same purposes shall also be considered to constitute packaging. 'Packaging' for the purposes of the Blue Box Program Plan consists only of:

(a) Sales packaging or primary packaging, i.e., packaging conceived so as to constitute at the point of purchase a sales unit to the final user or consumer;
(b) Grouped packaging or secondary packaging that goes to the household, i.e., packaging conceived so as to constitute at the point of purchase a grouping of a certain number of sales units whether the latter is sold as such to the final user or consumer;
(c) Transportation, distribution or tertiary packaging <u>that is conceived to be distributed to household consumers</u>. For example, household personal computers are packaged in large corrugated boxes similar to transportation packaging. If this packaging is intended for final use or management by the consumer or end user, it is considered obligated packaging under the Blue Box Program Plan. Transportation packaging that is not intended primarily for use or management by the consumer (e.g., removed by the retailer prior to placing products on the store shelf) is not considered obligated packaging under the Stewardship Ontario program; and

The definition of 'packaging' shall also take into consideration the criteria set out below.

(1) Items shall be considered packaging if they fulfil the definition above without prejudice to other functions which the packaging might also perform, unless the item is an integral part of a product and all elements are intended to be consumed or disposed of together. Examples of packaging include, but are not limited to:
- Chocolates box;
- Film over wrap around a CD case;

- Decorative cookie tin;
- Envelopes for goods; and
- Plastic wrap and cores of gift wrap, foil, toilet paper.

(2) Items designed and intended to be filled at the point of sale and 'disposable' items sold, filled or designed and intended to be filled at the point of sale shall be considered packaging provided they fulfil a packaging function. This is known as service or in-store packaging. Examples of service or in-store packaging include, but are not limited to:

- Paper or plastic carry-out bags provided at checkout and provided by retailers;
- Bags filled at the shelves with bulk goods, produce, baked goods, etc.;
- Disposable plates and cups;
- Take-out and home delivery food service packaging such as pizza boxes, cups, bags, folded cartons, wraps, trays, etc.;
- Flower box/wrap;
- Food wraps provided by grocer for meats, fish, cheese, etc.;
- Prescription bottles filler and provided by pharmacist;
- Paper envelopes for developed photographs; and
- Gift wrapping/tissues added by the retailer.

(3) Packaging components and ancillary elements integrated into packaging shall be considered as part of the packaging onto which they are integrated. Ancillary elements directly hung or attached to a product and which perform a packaging function shall be considered packaging unless they are an integral part of this product and all elements are intended to be consumed or disposed of together. Examples of packaging include, but are not limited to:

- Labels hung directly on or attached to a product;
- Mascara brush which forms part of the container closure;
- Sticky labels attached to another packaging item;
- Staples, pins, clips; and
- Device for measuring dosage which forms part of the container closure for detergents.

The BBPP designates all printed paper as Blue Box waste. Printed papers covered by this definition include, but are not limited to:

- Daily, weekly, newspapers including those paid through subscription, provided through free distribution and those purchased through retail channels;
- Daily, weekly, monthly and quarterly glossy magazines including those paid through subscription, provided through free distribution and those purchased through retail channels;

- Product catalogues including those paid through subscription, provided through free distribution and those purchased through retail channels;
- Directories including those paid through subscription, provided through free distribution and those purchased through retail channels;
- Lottery tickets and lottery information;
- Warranty information, assembly instructions, product use instructions and health information, product registration cards and promotional information that is found inside purchased products;
- Envelopes, statements and information inserts from banks, credit companies, utilities, service providers;
- Information, forms and promotional materials distributed by municipal, regional, provincial and federal governments;
- Business, investment and securities information (e.g., annual reports, mutual fund prospectus);
- Promotional calendars, posters that are distributed to consumers free of charge (e.g., real estate calendars);
- Greeting cards;
- Unsolicited promotional information, coupons, handbills and flyers; and
- Transportation and transit schedules."

Examples of Products that Could Meet Definition of Blue Box Wastes in Regulation

Examples of products that would meet the definition of Blue Box Waste in the regulation that are currently excluded from the definition of Blue Box material in the BBPP include:

- Glass
    - Drinking glasses
    - Food preparation, storage and cooking utensils made of glass
    - Mirrored glass
    - Automotive glass
    - Window glass
    - Glass blocks used in construction
    - Scrap glass from transport, industrial, commercial, institutional and construction/demolition activities
- Metal
    - Household metal items[8] such as

[8] Ottawa Valley Waste Recovery Centre (OVWRC) collected 7.48 tonnes of residential scrap metals over a period of two months in late 2006 through the curbside recycling collection program and residential drop-off at the Waste Management Facility. The material was mainly comprised of small residential metal scrap plus some larger self-hauled pieces and a few large appliances. A shredding and sorting operation determined that 70.5% was steel ferrous, 7.1% was nonferrous (~95% aluminum with ~5% copper and brass) and 22.4% was waste consisting primarily of glass, plastic and

        - Door and cupboard hardware
        - Nuts, bolts, screws
        - Toys
        - Household utensils including cutlery
        - Tools
    - Scrap metals from transport, industrial, commercial, institutional and construction/demolition activities
- Paper
    - Hardbound and softbound books
    - Tissues, toweling, wipes
    - Wallpaper
    - Scrap paper from transport, industrial, commercial, institutional and construction/demolition activities
- Plastic
    - Food preparation, storage and cooking utensils made of plastic
    - Household plastic items such as toys and tools
    - Scrap plastics from transport, industrial, commercial, institutional and construction/demolition activities
- Textile
    - Clothing
    - Draperies, linens and towels
    - Upholstered furniture
    - Mattresses
    - Scrap textiles from transport, industrial, commercial, institutional and construction/demolition activities
- Products made of a combination of the above materials such as
    - Diapers, incontinence and sanitary products

Possible Approaches

Options for expanding the BBPP to include additional wastes include but are not limited to:

- revise material definitions in the BBPP;
- where collection, processing and marketing of additional materials can be integrated with existing programs, include these materials in the municipal Blue Box or organics curbside and depot programs, e.g. household scrap metal, plastic toys, tissues and toweling:
- where additional materials cannot be integrated into existing programs, implement alternate collection systems as:
    - periodic bulky goods collection at curbside;
    - household collection upon request;

dirt material. Extrapolated over a 12 month period, residential scrap metal was recovered at a rate of 2.5 kg per household per year or 1.1 kg per capita per year.

- o expanded municipal depot system;
- o private depot system;
- o expanded charities depots and collection;
- o return to retail by consumers and pick up by retailers when delivering new products; and
- o municipal, private and charities depots and return to retail supported by deposits.

***8. Environmentally responsible management*:**

There are concerns that some Blue Box wastes may not be managed in an environmentally responsible manner, including waste marketed in Ontario or sent offshore.

Recommend mechanisms that can be added to the BBPP to assure that Blue Box wastes are managed in an environmentally responsible manner from collection to final market.

Environmentally responsible management involves taking steps to ensure that any impacts to public health and the environment are limited and that materials collected through the Blue Box program are diverted and not disposed. This includes properly managing waste from the point of collection to final end markets.

Disposition of Residential Blue Box Materials, December 2007

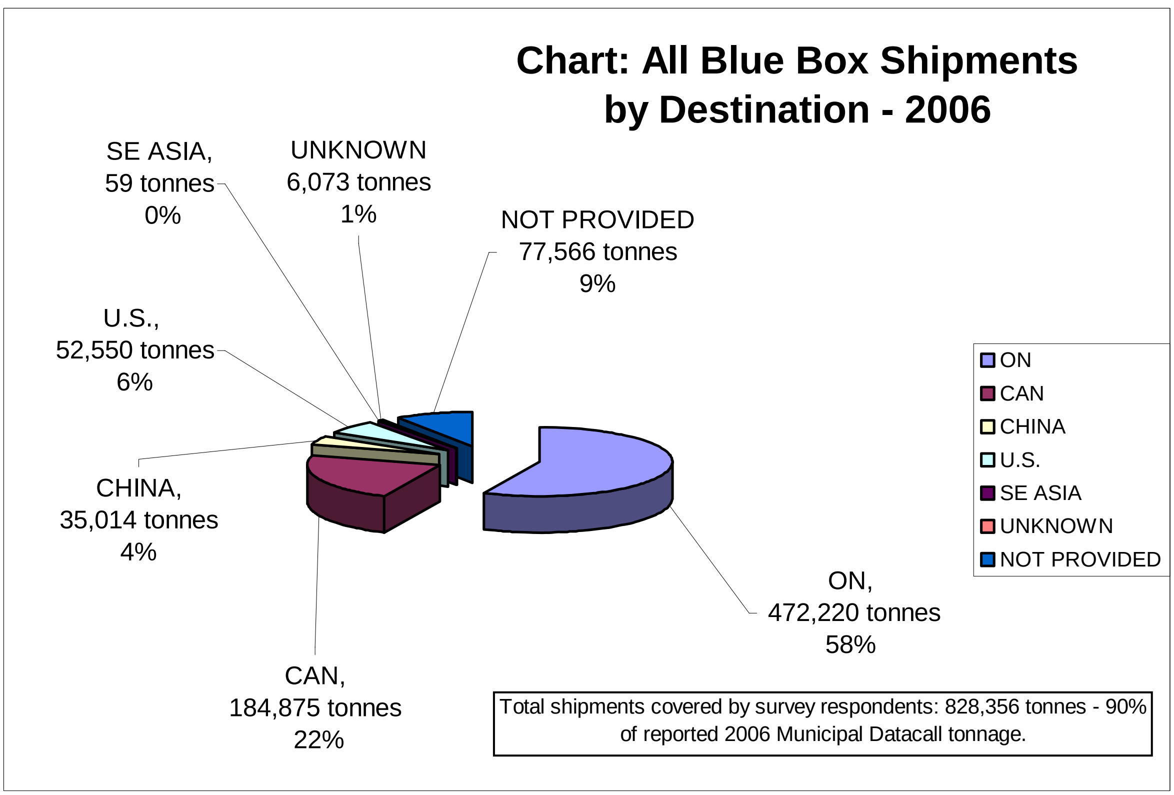
On June 11, 2007, the Minister of the Environment directed WDO to review residential Blue Box materials marketed by or on behalf of Ontario municipalities under the Blue Box Program Plan to ascertain their final destination and identify any concerns, or potential concerns, with the system as currently in place in Ontario. The Minister requested that, in particular, WDO's review ascertain whether these materials are processed in a manner that respects environmental and human health considerations.

The analysis showed that the great majority of materials collected in the province's Blue Box program stayed in Canada and more than half was sold to end users and brokers within Ontario. Ontario receives 58% of those materials and the rest of Canada, primarily Quebec, receives a further 22%. It has been assumed that where Ontario or other Canadian provinces are the final destinations for Blue Box materials marketed by Ontario municipalities, these materials are being managed in compliance with provincial and federal regulations.

Overall, China was a relatively small market for Ontario Blue Box materials, receiving just 4% of the total tonnage. China, was, nevertheless, the largest overseas market for Ontario Blue Box materials and the main destination for exports of low-value plastics such as mixed plastics and film, and the fourth largest market for recyclables after Ontario's largest trading partner, the United States, which buys 6% of the province's Blue Box recyclables.

The study identified the following concerns with the current marketing arrangements for Blue Box materials:

- Final destinations for 10% of the tonnage marketed by Ontario municipalities in 2006 were not identified during preparation of this report;
- Approximately 4% of the tonnage marketed by Ontario municipalities in 2006 was shipped to China or southeast Asia with little information about social and environmental conditions of processing or remanufacturing;
- Approximately 6% of the tonnage marketed by Ontario municipalities in 2006 was shipped to the United States which may be its final destination; however, some materials may be exported to other destinations; and
- It was not possible during the preparation of the report to ascertain whether materials shipped to China and Southeast Asia are processed in a manner that respects environmental and human health considerations.



The study found that some municipalities, although very few, include some information requirements in their purchase agreements about end uses or commitments about how the material will be treated.

Material Tracking Requirements in Other Program Plans

The Program Request Letters for Municipal Hazardous or Special Waste (MHSW), Waste Electrical and Electronic Equipment (WEEE) and Used Tires required the programs to track materials from collection to final destination. The following excerpts from the Program Request Letters describe these requirements:

MHSW:

- identify a tracking mechanism for MHSW from collection at a MHSW depot through to its final destination

WEEE:

- include a set of vendor qualification requirements to ensure WEEE is processed in a safe and environmentally sound manner that satisfies local, provincial, national regulations and international obligations, including the Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal
- include an annual audit of the vendors qualified to process WEEE under the program to establish the disposition of the material
- identify a tracking and auditing mechanism for WEEE from the point of collection through to its final destination, including verification of processing

Used Tires

- include a set of vendor qualification requirements to ensure used tires are stored, handled and processed in a safe and environmentally sound manner that satisfies local, provincial and national regulations and international obligations as they may apply
- identify a tracking and auditing mechanism for used tires from the point of collection through to their final disposition, including verification of processing

Possible Approaches

Mechanisms that can be added to the BBPP to assure environmentally responsible management include but are not limited to:

- vendor qualification standards for collectors, processors, transporters and markets;
- a tracking system from collection to final disposition; and
- measures to avoid contamination of Blue Box materials during collection and processing to minimize residue requiring disposal at MRFs and end markets.

***9. Stewardship fees*:**

Current steward fees for certain Blue Box wastes may be too low to encourage either increased waste diversion or the use of materials in product manufacturing or packaging that can be easily recycled.

Recommend how the steward fee structure can be revised to (1) increase the waste diversion rate for certain Blue Box wastes (e.g., plastics) and (2) encourage stewards to incorporate materials that are easily recycled into their products or packaging.

Steward Fee Structure

The current Blue Box steward fee structure has been designed to meet the requirement under the WDA that a fee paid by a steward should fairly reflect the proportion of the program costs that are attributable to the steward while also considering the policy objectives set by the WDA and the Minister.

A number of changes have been made to the Blue Box program fee structure since program commencement. These changes are described in the following paragraphs.

Material categories used as the basis for setting fees were changed following the period 2004 through 2006 as data were developed on which to base the disaggregation of fee categories. The disaggregation of fee categories allowed separate fees for certain previously combined categories such as PET, HDPE and Other Plastics.

Table: BBPP Material Categories
Comparison of 2004 to 2006 with 2007 to 2009

	2004 – 2006	2007 – 2009
Printed Paper	Newspaper	Newspaper
	Magazines and catalogues	Magazines and catalogues
	Telephone books	Telephone books
	Other printed paper	Other printed paper
Packaging	Paper based packaging	OCC & OBB
		Other paper packaging
	Plastic packaging	PET
		HDPE
		Other plastics
	Steel packaging	
	Aluminum packaging	Aluminum cans
		Other aluminum packaging
	Glass flint	Glass flint
	Glass coloured	Glass coloured

Weightings in the three factor fee-setting formula were adjusted in 2008 to provide an additional incentive for greater diversion of all materials and to support the overall objective of the BBPP. This results in a further shift of cost from materials with high recovery rates to those with low recovery rates.

Table: BBPP Three Factor Fee Setting Methodology
Comparison of 2004 to 2006 with 2007 to 2009

	2004 – 2006	2007 – 2009
Factor	**Weightings**	**Revised Weightings**
Current diversion rate	40%	35%
Net cost to manage	40%	40%
Equalization factor[9]	20%	25%

[9] 20% of costs based on an equalization factor using costs that would have been incurred if all materials were achieving a 60% diversion rate

Survey of Stewards

In December 2005, the Minister requested that WDO assess the impact of the Stewardship Ontario fee setting methodology in terms of actions taken by stewards to minimize the generation of Blue Box materials, choose materials that are less costly to manage and use recovered materials.

Stewards participating in a survey implemented by Stewardship Ontario reported the following:

- 82% have policies or programs to minimize packaging;
- 43% have policies or programs to select packaging materials that are less costly to manage or recycle after use;
- 45% have policies or programs to use recovered materials;
- 14% had implemented these policies and programs directly in response to the fees levied by Stewardship Ontario; and
- 58% indicated that Stewardship Ontario's funding model had little or no influence on their company's packaging decisions with 5% reporting a high level of influence.

Recycled Content

Diversion depends on demand for the secondary materials as feedstock for new production. Policies that create a demand for products with recycled content contribute to stronger and more stable market demand and, potentially, higher material revenues for diversion programs.
Demand for products with recycled content may be encouraged by offering a credit to brand owners and first importers based upon the recycled content in their products and packaging. This credit could be applied against steward fees owed.

Such a system of recycled content credits could:

- Consider only residential and IC&I post-consumer material as eligible recycled content (excluding manufacturing scrap);
- Be available to brand owners and first importers on a voluntary basis;
- Be based on claims, linked to established industry standards and subject to audit, by the brand owners and first importers; and
- Be graduated to create incentives to increase recycled content.

Issues to be considered include:

- What would be the impact on Blue Box materials that are recycled but are not manufactured into Blue Box items?
    - For example, steel cans are often remanufactured into construction materials but Blue Box waste brand owners and first importers would

not be procuring these products and therefore the associated recycled content would not be eligible for a credit under the BBPP.

  - Brand owners and first importers of packaged food products may be prohibited by food safety regulations from using recycled content in their packaging. While relatively recent packaging redesign may allow recycled content in liners that are not in contact with food, many food packages are prohibited from using recycled content.

- Stewards not receiving a credit would have to cover the cost of credits received by other stewards to makeup for shortfalls in net steward payments.

  - Would the application of a recycled content credit meet the requirements of the WDA and BBPP to link stewards fees to the cost of the service provided?

- How would the level of credit be established?

  - Would a credit have a measurable market benefit and could the benefit be linked with the credit?

  - Would a credit be available based on product design specifications or based on application of marketed secondary materials?

  - How would recycled content be measured and verified?

Possible Approaches

Options for revising the Blue Box steward fee structure to increase diversion rates for certain Blue Box wastes include but are not limited to:

- Including the costs of managing Blue Box materials in waste and litter (see point # 6) in stewards fees to:
  - increase the financial incentive to reduce;
  - allow reconsideration of three factor fee setting formula to shift costs of managing Blue Box material in waste and litter to poorer performing materials;
- Levying additional market development, research and development (R&D) and promotion and education (P&E) fees on poorer performing materials; and
- Modifying the three factor fee setting formula to:
  - shift more costs from better performing materials to poorer performing materials; and
  - reward materials that achieve material specific targets (see point # 2) ahead of schedule and penalize materials that miss material specific target dates.

Options for revising the Blue Box steward fee structure to encourage stewards to incorporate recycled content include but are not limited to:

- Establishing a graduated recycled content credit for Blue Box stewards to reflect the percentage of residential and IC&I post-consumer material used in the manufacture of their products and packaging; or
- Levying an additional fee on stewards for Blue Box products not utilizing residential and IC&I post-consumer material in manufacture of their products and packaging.

10. EPR funding:

The BBPP does not reflect full Extended Producer Responsibility (EPR) funding since the WDA requires Blue Box stewards to fund 50% of municipal program costs, with municipalities funding the rest.

Recommend how to move the BBPP towards full EPR funding. Since different collection and processing systems for Blue Box wastes are the result of decisions made by local municipalities, in your review and recommendation, please consider the potential impact to the management of municipal recycling programs as industry moves to full EPR funding.

EPR holds that producers, such as brand owners or first importers of a product, are responsible for the costs associated with the environmental impact of their products throughout a product's lifecycle, including design, manufacturing, packaging, transportation, product use and diversion or disposal.

Moving BBPP from 50% to Full EPR Funding

The Blue Box Program involves a shared responsibility model with Blue Box stewards and municipalities sharing the net program cost. Section 25.(5) of the Waste Diversion Act states:

> A waste diversion program developed under this Act for blue box waste must provide for payments to municipalities to be determined in a manner that results in the total amount paid to all municipalities under the program being equal to 50 per cent of the total net costs incurred by those municipalities as a result of the program.

Municipal funding under the BBPP is comprised of:

- Lineage contributed by brand owners who are members of Canadian Newspaper Association and Ontario Community Newspapers Association;
- Funds provided through an application system:
  - 10% under the Efficiency and Effectiveness Fund from 2004 to 2007;
  - 20% under the Continuous Improvement Fund starting in 2008; and
- Cash disbursements to municipalities.

Due to uncertainty in the accuracy and reliability of data compiled through the Municipal Datacall in its first year (compiling 2002 data), WDO, though MIPC, facilitated an agreement between Stewardship Ontario and Ontario municipalities on a net system cost.

On December 22, 2003, Minister Dombrowsky requested that WDO propose “new measures or enhancements to existing measures that will allow the Blue Box system to divert at least 60 per cent of Blue Box wastes by 2008”. The resulting Cost Containment Plan was approved by the Minister in July 2004 with an accelerated implementation plan approved by the Minister in January 2005.

The Cost Containment Plan included a number of components, including ‘reasonable cost’ bands which were applied to the gross 2004 and 2005 system cost to determine a net system cost for the purposes of stewards fees in 2006 and 2007. Fifty percent of the value of the ‘reasonable cost’ bands shown in the following table represent costs incurred by municipalities for managing Blue Box materials that were not funded by Blue Box stewards.

The following table provides the history of funding to municipalities since the BBPP commenced on February 1, 2004

Table: Steward Funding to Municipalities under BBPP - 2004 to 2009

	2001 Data for Feb – June 2004 Fees	2002 Data for July - Dec 2004 Fees	2003 Data for 2005 Fees	2004 Data for 2006 Fees	2005 Data for 2007 Fees	2006 Data for 2008 Fees	2007 Data for 2009 Fees
Tonnes recovered	693,547	726,726	779,844	823,635	861,313	937,979	902,498
Gross system cost	na	na	na	$194.54 m	$200.97 m	$223.38 m	$248.66 m
Reasonable cost band	na	na	na	$10 m	$14 m	na	na
3 year rolling average revenue	na	na	na	$73.61 m	$76.88 m	$90.34 m	$91.61
Agreed net cost	$62.5 m	$84.0 m	$117.5 m	$110.9 m	$110.1 m	$133.05 m	$157.05 m
Industry funding	$13.0 m	$21.0 m	$58.8 m	$55.5 m	$55.05 m	$66.52 m	$78.53 m
Percent industry funding	21%	25%	50%	50%	50%	50%	50%
Municipal funding	$49.5 m	$63.0 m	$58.7 m	$55.4 m	$55.05	$66.53	$78.52
Percent municipal funding	79%	75%	50%	50%	50%	50%	50%

Possible Approaches

The BBPP could be moved towards full EPR funding by:

- Increasing the percentage of municipal costs reimbursed by stewards incrementally from 50% to 100% over a set number of years;
- Shifting full responsibility for certain activities, such as transfer, transportation, processing, marketing and P&E, from municipalities to Stewardship Ontario with consideration for existing contracts, municipally owned capital equipment (potentially useful vs. redundant) and revenue sharing between municipalities and Stewardship Ontario;
- Shifting full responsibility for all Blue Box program activities except collection to Stewardship Ontario with:
  - Municipalities retaining full responsibility for collection:
    - With cost reimbursement at 50% or some other percentage greater than 50% but less than 100%;
    - With cost reimbursement increasing incrementally from 50% to 100% over a set number of years; or
    - With a set fee for collection services to be reviewed periodically; or
  - Stewardship Ontario and municipalities:
    - co-operatively tendering for collection services where services are contracted; or
    - agreeing on a fee for collection services where services are provided by municipal staff with the fee to be reviewed periodically; or
  - Stewardship Ontario and municipalities agreeing on collection performance standards (complaints due to missed stops, curbside litter, broken boxes, etc) and Stewardship Ontario managing tendering and contracting with municipalities able to bid to provide collection services if they wish; or
- Shifting full responsibility for all activities including collection to Stewardship Ontario with:
  - Stewardship Ontario managing tendering and contracting of all services with municipalities able to bid to deliver services if they wish; and
  - Determination of potentially useful vs. redundant municipal capital equipment.

Potential Impact to Management of Municipal Recycling Programs as Industry Moves to Full EPR Funding

The impact to management of municipal recycling programs will depend on how the BBPP would operate under a full producer responsibility model and the manner in which the shared responsibility program is transitioned to a full producer responsibility program. The following paragraphs provide information to illustrate some issues that may arise depending on the form of a full producer responsibility funding program and the method of transition.

In 1994, the Province of Ontario passed Ontario Regulation 101/94 - Recycling and Composting of Municipal Waste. Part II of this Regulation requires that Ontario municipalities with a population of 5,000 or more implement a Blue Box Waste Management System for source separation of recyclable materials. Municipalities are required to collect Basic Blue Box Waste[10] as well as at least two materials from the list of Supplementary Blue Box Waste[11]. Depending on how the BBPP would operate under a full producer responsibility model, Ontario Regulation 101/94 may require amendment.

Approximately 210 programs, including individual municipalities, upper tier municipalities servicing their lower tier municipal members and associations servicing their municipal members, provide Blue Box services to Ontario residents. Most programs provide residents with curbside service, either weekly or bi-weekly, while some smaller programs provide only depot collection services. The level of service varies across the province as shown in the following table. A full producer responsibility funding program may move to standardized services.

Type of Service	2006		2007	
	Number	% of Total	Number	% of Total
Curbside Weekly	2,216,696	45%	1,826,689	37%
Curbside Bi-weekly	2,435,233	50%	2,902,863	59%
Total Curbside	4,651,929	95%	4,729,552	95%
Depot Only	230,239	5%	227,214	5%
Total	4,882,168	100%	4,956,766	100%

Some municipalities provide Blue Box services with municipal staff while other municipalities provide services by contracting with service providers. The 2007

[10] Aluminum food and beverage cans, glass bottles and jars for food or beverages, newsprint (newspapers, flyers, and other publications made from newsprint), PET bottles for food or beverages, steel food or beverage cans
[11] Aluminum foil, boxboard and paperboard, cardboard, PS food or beverage containers, fine paper, magazines, paper cups and plates, plastic film, rigid plastic containers, telephone directories, textiles, polycoat,

Municipal Datacall provides the value of the services provided by municipalities and by contractors as follows:

- Approximately 75% of total collection costs were charged to municipal programs by contracted service providers[12] with the remaining 25% incurred by municipalities directly providing collection services;
- Approximately 64% of total processing costs were charged to municipal programs by contracted service providers with the remaining 36% incurred by municipalities operating processing facilities with municipal staff;
- Approximately 37% of total depot/transfer costs were charged to municipal programs by contracted service providers with the remaining 63% incurred by municipalities operating depot/transfer facilities with municipal staff; and
- Approximately 69% of total Blue Box services costs were charged to municipal programs by contracted service providers with the remaining 31% incurred by municipalities providing services with municipal staff.

Depending on how the BBPP would operate under a full producer responsibility model, BBPP services may be delivered differently, affecting both municipal staff and service providers.

Some municipalities own their Blue Box collection vehicles, material recycling facilities (MRFs)[13] and depots while others rely on equipment owned and operated by private sector service providers. Use of existing capital assets under a full producer responsibility model would depend on how the BBPP would operate under a full producer responsibility model.

Amortized capital costs for the privately owned MRFs and other capital assets owned by contracted service providers, such as collection vehicles and transfer bins, are included in the contractors' charges to municipal programs. The capital costs of equipment owned by municipalities are reported in the Municipal Datacall. The following table illustrates the value of municipally owned equipment at commissioning and remaining to be amortized.

[12] Where contractors provide multiple services (e.g. collection, processing and/or depot/transfer) under one contract, municipal programs may not have separate costs by type of service. In these circumstances, municipalities report all contract costs under one type of service, most often as collection costs. While the total percentage of contracted costs and municipal costs are reasonably accurate, the relative percentage of contracted and municipal collection costs for collection, processing and/or depot transfer services may therefore be distorted.

[13] Based on a *Report on Ontario Blue Box Material Recovery Facilities*, prepared by WDO in 2006, 52 Ontario material recycling facilities (MRFs) were processing Blue Box material, with 24 of these MRFs owned by the private sector and the remaining 28 MRFs owned by municipalities.

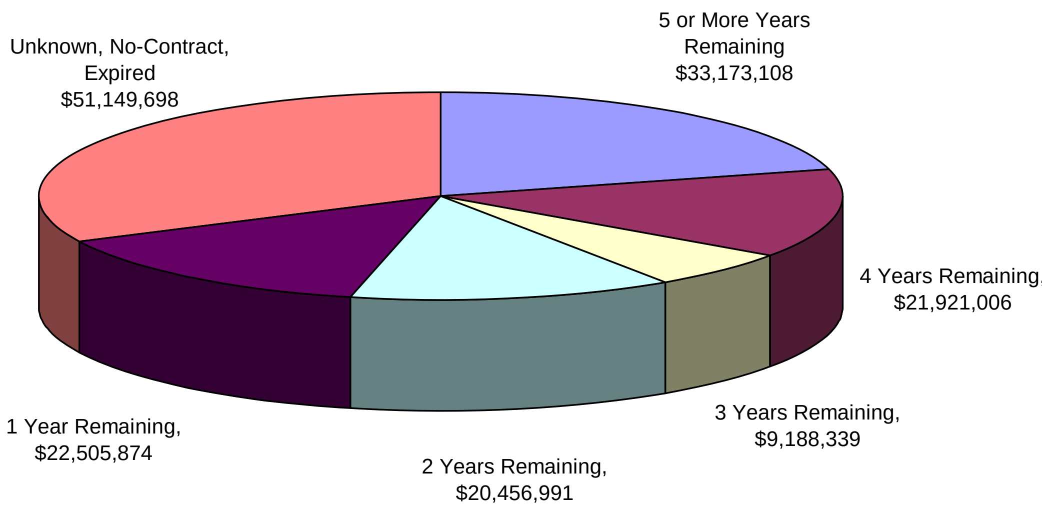
Table: Municipally Owned Capital Equipment

Type of Capital Equipment	Value at Commissioning	Value Amortized to 2007	Value Remaining
Collection Equipment	$7,587,547	$4,143,173	$3,444,374
Processing Equipment	$254,716,993	$126,762,806	$127,954,187
Depot/Transfer Equipment	$33,556,362	$11,305,531	$22,250,831

The actual value of municipal capital equipment is unclear. Some may be outdated, given new collection and processing technologies, and its actual value may be lower than the remaining book value of the asset. Other equipment may have been poorly maintained or experienced heavier wear than the amortization period anticipated, resulting in a lower actual value than the remaining asset book value.

Municipalities that receive collection, processing and/or depot/transfer services from contractors typically do so under a binding contract. The expiry dates and terms of private sector contracts may be a factor in a transition to a full producer responsibility model.

Chart: Municipal Contract Value by Years Remaining in Contract - 2007



Potential Impacts

Potential impacts to management of municipal recycling programs as industry moves to full EPR funding include but are not limited to:

- requirement for repealing or amendment of Ontario Regulation 101/94;
- municipal interest in service for their residents including but not limited to:
  - curbside collection service performance including minimum service standards:
    - for single family, multi-family and seasonal households;
    - for urban, rural, northern areas;
    - weekly vs bi-weekly collection;
    - curbside container types and capacity;
  - householder P&E; and
  - collection service complaint handling and response system;
- steward interest in municipal activities to support diversion programs such as:
  - incremental user pay fees;
  - bag limits; and
  - mandatory use of clear garbage bags;
- management of municipally owned capital assets including:
  - possible write-off of municipal capital assets if not required by the stewards to deliver the BBPP; and
  - possible purchase or lease of municipal assets required by the stewards to deliver the BBPP;
- shift of jobs from municipal waste management departments for administration and/or delivery of Blue Box services to Stewardship Ontario and/or their service providers; and
- transition of existing service provider contracts including possible termination or assignment.

Appendix A – CCME Guiding Principles for the Design and Development of EPR Policies and Programs

I. Environmental Principles

1. To the greatest extent possible, programs seek to reduce the environmental impact of a product.

2. EPR programs are consistent with the 4R waste management hierarchy:
   a. Reduce, including reduction in toxicity and redesign of products for improved
   b. Reusability or recyclability
   c. Reuse
   d. Recycle
   e. Recovery, of materials and/or energy

3. EPR programs encourage producers to incorporate design for environment to minimize impacts to environment and human health.

II. Program Design Principles

4. EPR programs transfer end-of-life responsibility for waste product or materials to producers from municipalities and other waste management authorities.

5. Potential programs undergo a comprehensive analysis to assess whether they are appropriate for EPR and to define the role of the various actors in the product chain.

6. Policy instruments selected are flexible and determined on a case-by-case basis.

7. Local governments and other stakeholders are engaged to discuss environmental goals, objectives, priorities and performance measurement, and to enhance a program’s acceptability and effectiveness.

8. EPR program and policy development and implementation is based on transparency.

III. Implementation Principles

9. Programs and policies are designed and implemented in a way that environmental benefits are maximized while economic dislocations are minimized.

10. A communication strategy is devised to inform participants in the product chain, including consumers, about the program and enlist their support and co-operation.

11. EPR programs undergo periodic evaluations to ensure that they are functioning appropriately, are subject to performance measurement, and include accessible and transparent reporting.

12. Costs of program management are not borne by general taxpayers.

13. Consumers have reasonable access to collection systems without charge, to maximize recovery opportunities.

Appendix B – IC&I Waste Generators and Obligations under Ontario Regulation 103/94

IC&I Sector	Obligation Threshold[14]	Materials to Be Recycled
Retail shopping establishments	10,000 m^2 floor area	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint Steel food or beverage cans (including cans made primarily of steel)
Retail shopping complexes	10,000 m^2 floor area	
Large construction projects	2,000 m^2 floor area	Brick and Portland cement concrete Cardboard (corrugated) Drywall (unpainted) Steel Wood (not including painted or treated wood or laminated wood)
Large demolition projects	2,000 m^2 floor area	Brick and Portland cement concrete Steel Wood (not including painted or treated wood or laminated wood)
Office buildings	10,000 m^2 floor area	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint Steel food or beverage cans (including cans made primarily of steel)

[14] Establishments that meet or exceed obligation threshold must comply with Regulation.

Restaurants	$3,000,000 in annual sales for two prior years	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint Polyethylene terephthalate (PET plastic) for food or beverages (including bottles made primarily of PET) Steel food or beverage cans (including cans made primarily of steel)
Hotels and motels	More than 75 units	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint PET plastic bottles for food or beverages (including bottles made primarily of PET) Steel food or beverage cans (including cans made primarily of steel)
Hospitals	Classified as a class A, B or F hospital in Regulation 964 of the Revised Regulations of Ontario, 1990	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint Steel food or beverage cans (including cans made primarily of steel)

Educational institutions	More than 350 persons enrolled	Aluminum food or beverage cans (including cans made primarily of aluminum) Cardboard (corrugated) Fine paper Glass bottles and jars for food or beverages Newsprint Steel food or beverage cans (including cans made primarily of steel)
Large manufacturing establishments	More than 16,000 employee hours worked each month during two preceding years	Aluminum Cardboard (corrugated) Fine paper Glass Newsprint Polyethylene (high density) jugs, pails, crates, totes and drums Polyethylene (linear low density and low density) film Polystyrene (expanded) foam Polystyrene trays, reels and spools Steel Wood (not including painted or treated wood or laminated wood)