

## Table of Contents

<b>1.0 Introduction</b>	<b>2</b>
1.1 Background	2
1.2 Additional Sources of Information	2
<b>2.0 60% Blue Box Target</b>	<b>3</b>
2.1 The Blue Box Program Plan	3
2.2 Considerations re Setting Targets	4
2.3 Policies and Practices for Achieving Material – Specific Targets	5
2.4 Evaluating Target Options	7
2.5 Roles and Responsibilities	7
<b>3.0 Municipal Benchmarks</b>	<b>8</b>
3.1 Principles, Policies and Practices for Setting and Measuring Benchmarks	8
3.2 Roles and Responsibilities for Municipal Benchmarks	10
<b>4.0 Questions for Public and Stakeholder Comment</b>	<b>10</b>

## List of Appendices

<b>Appendix A</b> Excerpts from Blue Box Program Plan Targets Municipal Benchmarks	i
<b>Appendix B</b> Summary of Blue Box Recovery Rates	v

## **1.0 Introduction**

This Discussion Paper has been prepared by Waste Diversion Ontario (WDO), in co-operation with Stewardship Ontario. The Paper is intended to highlight issues and provoke discussions at the consultation workshops and solicit comments through written submissions. Given time constraints with the Minister's request, the Paper has not been prepared to set out exhaustive lists of options nor has the Paper been comprehensively supported with research data.

Earlier drafts of this Paper have been reviewed by the WDO's Municipal-Industry Programs and Municipal Affairs Committees, although both Committees had limited time for review.

### **1.1 Background**

On December 22, 2003, Minister Dombrowsky informed WDO that she had approved the Blue Box Program Plan (BBPP). In her letter, the Minister also 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". Three of these detailed program requirements deal with targets and benchmarks:

- 1) Policies and practices that lead to at least 60% diversion of all Blue Box wastes by 2008 through reduction, reuse and recycling.
- 2) Target percentages for each Blue Box material that will be diverted annually in the program. Policies and practices to ensure that the proposed material diversion targets are met.
- 3) Benchmark targets for municipal diversion rates.

WDO forwarded these program requirement requests to its Municipal – Industry Program Committee (MIPC). MIPC has prepared a series of background papers on these (and other issues) for public input. Consultations are being held with the general public, community and environmental groups, industry stewards, small businesses, municipal officials and other interested stakeholders in developing these program requirements, including requirements regarding targets and municipal benchmarks. It was decided by MIPC that the issue of targets and benchmarks should be dealt with in the same paper since the two issues are so closely linked.

### **1.2 Additional Sources of Information**

Additional background material related to targets and municipal benchmarking can be found in the following documents:

Discussion Paper # 1  
Blue Box Targets and Municipal Benchmarks

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- The Blue Box Program Plan (BBPP) on the Stewardship Ontario website at [www.stewardshipontario.ca](http://www.stewardshipontario.ca);
- Discussion paper on Targets prepared by the Recycling Council of Ontario for earlier consultations held on the Blue Box Program in January 2003 located on RCO's website at [www.rco.on.ca](http://www.rco.on.ca); and
- Ontario Centre for Municipal Best Practices (OCMBP) for documents on best practices for solid waste diversion located on OCMBP's website at [www.ocmbp.ca](http://www.ocmbp.ca).

The issues of Blue Box Targets and Municipal Benchmarks should also be considered in the context of the issues raised in Discussion Paper # 2, Cost Containment Principles, Policies and Practices and Effectiveness and Efficiency Policies and Practices, and in Discussion Paper # 3, Impacts of the Blue Box Program on Small Businesses & Incentives for Small Business to Improve Diversion of their Blue Box Wastes.

## **2.0 60% Blue Box Target**

### **2.1 The Blue Box Program Plan**

Blue Box Waste is defined as printed materials and packaging that are made of paper, glass, metal, plastics, textiles or any combination of these materials that are used by consumers and households and **that** make their way into municipal waste management systems. For further clarification, the steward is required to report on all packaging and printed materials that are primarily destined for Ontario households and therefore managed by municipal waste management systems. This includes consumer packaging and printed material sold through all distribution channels that may subsequently find its way into the municipal waste stream such as from retail and take out food service. The target does not include Blue Box Waste that is generated in or recovered from large and small businesses, hospitals, governments, and other institutional generators. The target does include Blue Box Waste generated from public and secondary schools and permanently placed public space recycling containers where they are collected as part of a residential collection route.

The BBPP established measuring performance by annually measuring the Ontario Recycling Rate (along with other performance measures such as participation and capture rates). The Recycling Rate measurement focuses on reducing the amount of residential recyclable material that goes to disposal (i.e. through recycling, reuse and waste reduction). A description of how this Rate was developed and more detail on the materials to be measured are contained in the Blue Box Program Plan and in Appendix A.

Minister Dombrowsky's request for enhanced material-specific targets and performance benchmarks for achieving 60% diversion by 2008 requires further consideration of how the targets will be defined and how progress will be measured.

For example, approximately 1.035 million tonnes of Blue Box material will need to be recovered from the residential sector in 2008 to meet a 60% target (assuming a population growth of 1.5% a year over the next five years). This compares against the 725,000 tonnes that were recycled from Ontario households in 2002 (the most recent year for which data are available). This represents about a 43% *increase* against 2002 performance.

## **2.2 Considerations re Setting Targets**

There are different ways that 60% Blue Box material targets can be defined and potentially achieved. Different approaches can lead to higher or lower costs and will require different roles and responsibilities for the stakeholders involved. WDO is considering different options and will ultimately be responsible for recommending to the Minister a preferred approach to achieve the 60% Blue Box target. Targets should be established within the context of three key considerations:

- ⇒ 60% diversion of all Blue Box wastes by 2008;
- ⇒ Cost containment; and
- ⇒ Effectiveness and efficiency.

WDO's Cost Effectiveness Committee, during its deliberations, has noted that the need to achieve diversion targets must be balanced with the need to contain Blue Box system costs. Similarly, the potential to increase material revenues may often be balanced against the potential to reduce program costs. A natural tension exists between increasing recovery, increasing revenues and reducing costs. This tension must be managed effectively to ensure that the Blue Box system is both effective and sustainable. Additional information on measures, policies and practices can be found in the Cost Containment/E&E Paper and in the Blue Box Program Plan (sections of which are appended to this paper), addressing this issue of balance. There is an overall need to achieve significant gains in terms of waste diversion for the least cost in terms of financial and other impacts on governments, industry and consumers.

A preliminary list of possible approaches for setting material specific targets within the framework of the 60% diversion of Blue Box waste target has been developed for discussion. The list is presented in Table 1 together with a brief description of the key elements of each possible approach.

Discussion Paper # 1  
Blue Box Targets and Municipal Benchmarks

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Table 1  
Preliminary List of Approaches for Setting Material – Specific Targets  
to Reach the 60% Blue Box Diversion Goal

<b>Approach</b>	<b>Description or Intent</b>
<b>1. All materials reach 60%</b>	<ul style="list-style-type: none"> <li>⇒ All materials tracked must reach 60% diversion</li> <li>⇒ Equity across all materials</li> </ul>
<b>2. Each material group reaches 60%</b>	<ul style="list-style-type: none"> <li>⇒ Each material <i>category</i> must reach 60% diversion, relying on higher than 60% capture of traditional materials</li> <li>⇒ Equity across material categories, e.g. paper, metals, glass, plastics</li> <li>⇒ Builds on current systems, deepening capture of traditional materials within each material group</li> <li>⇒ Diversion of less traditional materials can be less than 60%</li> </ul>
<b>3. Differential targets by material group</b>	<ul style="list-style-type: none"> <li>⇒ Each material category must achieve target diversion, but relies on higher capture of traditional materials</li> <li>⇒ Establish minimum performance thresholds for materials (similar to European targets)</li> <li>⇒ European standards are 55% overall; glass and paper - 60%; metals - 50%; plastics - 22.5%</li> </ul>
<b>4. The “next least cost tonne” approach</b>	<ul style="list-style-type: none"> <li>⇒ Rely on increasing recovery of traditional materials that have high value and are readily managed in the current infrastructure</li> <li>⇒ Attempt to minimize the cost of achieving 60% diversion</li> <li>⇒ Some materials would achieve higher than 60% diversion</li> </ul>
<b>5. Regional targets</b>	<ul style="list-style-type: none"> <li>⇒ Set 60% or higher diversion target for regions in which programs are close to markets, are large or have high population density</li> <li>⇒ Minimize the cost of achieving 60% diversion</li> <li>⇒ Set lower diversion targets for regions in which programs are farther from markets, are small or have low population density</li> </ul>

### 2.3 Policies and Practices for Achieving Material –Specific Targets

After defining possible approaches to targets, a range of policies and practices can then be defined to meet these targets. A selection of possible measures is provided in Table 2 below. It should be noted that the policies and practices considered in this paper and the consultation sessions relate specifically to the

Discussion Paper # 1  
Blue Box Targets and Municipal Benchmarks

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Minister's program requirement request – i.e. how to divert 60% of all Blue Box Waste by 2008 through reduction, reuse and recycling. Table 2 represents a preliminary list for the purposes of generating discussions at the workshops and soliciting written submissions.

Table 2  
Preliminary List of Policies & Practices to  
Support Achieving Material – Specific Targets

<b>Scenario</b>	<b>Description or Intent</b>
<b>1. Implement green bin systems for organic wastes with reduced collection frequency for waste</b>	<ul style="list-style-type: none"> <li>⇒ Introduction of Green Bin systems for organics typically increases capture rates for Blue Box Wastes</li> <li>⇒ Reduce collection frequency of residual waste to every two weeks to create incentive to separate Blue Box Waste</li> <li>⇒ Provide larger volume container options for Blue Box Waste to address increased recovery of Blue Box Waste</li> </ul>
<b>2. Mechanisms to limit waste set out e.g. user pay, bag limits</b>	<ul style="list-style-type: none"> <li>⇒ Implement user fees and bag limits for garbage</li> <li>⇒ Provides incentive for consumer to increase diversion</li> <li>⇒ Relies on the behaviour and decisions of the householder regarding purchase and waste management to affect diversion rates for materials</li> </ul>
<b>3. Material substitution</b>	<ul style="list-style-type: none"> <li>⇒ Change packaging materials and design to be more readily recyclable</li> <li>⇒ Change packaging to lighter-weight plastics such that, overall, a greater proportion by weight of materials generated are recycled</li> <li>⇒ Relies on changes to packaging design and consumer purchasing behaviour</li> </ul>
<b>4. Market pull</b>	<ul style="list-style-type: none"> <li>⇒ Market development can be used to provide capacity, enhance the value of recovered materials, reduce overall costs for recycling and enhance recovery</li> <li>⇒ Market development is to be separately funded by material stewards (e.g. 2004 glass market development program)</li> <li>⇒ Market development is directly tied to targets that are established</li> </ul>

Discussion Paper # 1  
Blue Box Targets and Municipal Benchmarks

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Scenario	Description or Intent
<b>5. Provincial landfill ban and/or mandatory recycling</b>	<ul style="list-style-type: none"> <li>⇒ Ban from landfill all Blue Box Waste from the residential waste stream</li> <li>⇒ Implement mandatory recycling e.g. modify Regulation 101/94</li> <li>⇒ Develop enforcement procedures and programs</li> </ul>
<b>6. Implement high profile advertising campaign</b>	<ul style="list-style-type: none"> <li>⇒ Rigorously promote Blue Box programs using high profile media such as television, radio, bill boards, newspapers etc. to raise awareness, participation and capture of Blue Box Wastes in municipal programs</li> </ul>
<b>7. Deposit system</b>	<ul style="list-style-type: none"> <li>⇒ Replicate deposit systems for containers in other jurisdictions</li> <li>⇒ Increase recovery of some materials by implementing a refundable deposit</li> <li>⇒ Maintain existing infrastructure for remaining materials</li> <li>⇒ Should deposits apply to all containers rather than only beverage containers? Should printed papers also be considered for deposits?</li> </ul>

### 2.4 Evaluating Target Options

Considering input at the public consultation sessions and written submissions, it is proposed that from this list of approaches and any additional approaches that stakeholders suggest warrant consideration, a shortlist will be selected by WDO's Municipal-Industry Programs Committee for detailed evaluation (i.e. with a view to carrying forward a recommendation to the WDO Board on targets). It should be noted that some of these approaches could be combined, while others are mutually exclusive – i.e. resources devoted to one system would not be available to finance other scenarios or options. The next step will be to rigorously define each of the short-listed approaches according to its *policy rationale, costs and benefits* and a summary of the *key underlying assumptions*, and then to evaluate each scenario according to a set of criteria.

### 2.5 Roles and Responsibilities

The various stakeholders in the Blue Box Program have different roles and responsibilities and these will be affected by the specific targets approved and by the policies and practices adopted to achieve them. These roles and responsibilities relate to:

- ⇒ Generation of Blue Box wastes – the “denominator” in percentage-based targets

- ⇒ Collection and processing of recovered materials
- ⇒ Markets
- ⇒ Policies governing the Blue Box Program
- ⇒ Paying for the Program, and
- ⇒ Measuring Performance

In order to evaluate possible target approaches, the impact on each of these roles will have to be determined.

There are three primary stakeholders:

1. **Steward companies**, through the Blue Box Program Plan, set targets for Blue Box Waste and provide funding support for municipal programs to manage these materials. These companies also have a central role to play in developing markets for materials, promoting/adopting procurement practices and reducing packaging and printed materials.
2. **Municipalities** play a central role in achieving a 60% target as they are ultimately responsible for providing residential waste management services, within guidelines set by the province.
3. **The Province** regulates the level of Blue Box services that must be provided and the materials that must be collected. The province will ultimately approve the targets for the Blue Box program and plays a key role in system financing decisions.
4. **The Public** has a key role in meeting waste diversion targets, as both residents of municipalities and as consumers of printed papers and packaging. Effective public participation in Blue Box programs is essential to achieve a 60% Blue Box target.

### 3.0 Municipal Benchmarks

#### 3.1 Principles, Policies and Practices for Setting and Measuring Benchmarks

Benchmark targets for municipal diversion rates are required for the following reasons:

1. Defining the target;
2. Measuring performance and progress toward the target – continuous improvement; and
3. Focusing measures on the most critical areas to encourage achievement of the targets.



Discussion Paper # 1  
Blue Box Targets and Municipal Benchmarks

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As such, benchmark indicators - the units and the levels - should be established in accordance with the targets selected. That is, they are specific to the targets and the systems adopted to achieve them. In addition, benchmarks should be established within the context of the Minister's overall request for new measures or enhancements, and relate not only to diversion, but also to cost effectiveness and cost efficiency.

Currently WDO gathers a range of detailed program information and the quantity of each material diverted by municipalities as part of its annual municipal datacall. The current average Blue Box diversion rate among the province's large programs is about 170 kg per household per year. The estimated 4.7 million households that are expected to be served with Blue Box recycling by 2008 (up from 4.4 million today) would need to divert about 220 kg of Blue Box material per household to reach 60%.

If "kg per household per year" were to be considered as a useful method for setting municipal benchmarks, differential targets could be set by program size. For example, municipalities with over 50,000 households served (there are about 17 such programs currently in the province) could have a performance standard of perhaps 20% higher than "mid-sized" communities to reflect such factors as heavier daily newspapers. Similarly, smaller communities might have a target 20% lower. Performance standards would also need to take into consideration the proportion of multi-family housing units in comparative municipalities.

Alternatively, a municipal benchmark could be set by utilizing comprehensive waste audit information consistently collected year over year in each community. By considering the quantity of Blue Box Waste in the Blue Box program and the quantity remaining in the disposal system, the amount of materials in the Blue Box system can be calculated as a percentage of total Blue Box materials set out for collection. A 60% target could be set for all communities, as factors such as regional differences in printed papers and packaging will be reflected in the waste audit data. The 60% target could be for all Blue Box Waste or could be material specific.

For discussion, Appendix B provides a sample of the type of information that can be assembled from the municipal datacall that could contribute to the setting and measuring of municipal benchmarks. At present, the "kg per household per year of Blue Box waste diverted" is the most reliable performance measure available to WDO. WDO is expanding the datacall and verification process to include municipality by municipality waste disposal and "beyond blue box" waste diversion information (e.g. tonnes recycled from the industrial /institutional and commercial sectors, organics diversion programs, etc).

On a go forward basis (i.e a great deal of work is needed in the bench mark area), four specific benchmark indicators need to be considered:

- i) kg of materials diverted on a per household and per community basis;
- ii) the range of materials to be collected (i.e. high targets cannot be set on materials that municipalities consider too expensive to collect);
- iii) financial benchmarks to compare costs of programs of similar size and circumstances; and
- iv) overall diversion benchmarks (also known as the GAP measurement) to measure Blue Box materials diverted against municipality by municipality waste disposal reports.

Benchmarking has been and will continue to be an important activity area at the WDO's Cost Effectiveness and Municipal-Industry Programs Committees. The discussion paper on Cost Containment and Effectiveness and Efficiency makes several references to the on-going focus on establishing municipal benchmarks through the life of the Blue Box program plan's implementation. Specifically, WDO anticipates working in collaboration with the Ontario Centre for Municipal Best Practices on benchmarking related to waste diversion and Stewardship Ontario has identified benchmark studies as an immediate priority under the E&E fund.

### **3.2 Roles and Responsibilities for Municipal Benchmarks**

Municipalities have a central role in setting, measuring and meeting municipal benchmarks as they are ultimately responsible for providing residential waste management services. Within guidelines set by the province, municipalities effectively decide what materials to collect through their Blue Box system.

The province regulates the level of Blue Box service provided by municipalities and materials that must be collected. The province will ultimately approve municipal benchmarks for the Blue Box program and plays a key role in system financing decisions.

Steward companies, and Stewardship Ontario as the Industry Funding organization for Blue Box Waste, have a role to play in developing markets for materials, promoting/adopting procurement practices and reducing packaging. They also have an interest in municipal benchmarks to help ensure continuous program improvements.

As residents of municipalities, members of the public play a central role in meeting municipal benchmarks. Effective public participation in Blue Box programs is essential to achieve municipal benchmarks.

#### **4.0 Questions for Public and Stakeholder Comment**

The following questions have been identified as a focus for the consultation process on targets and benchmarks:

- 1) *Who is responsible for meeting the 60% target?*
- 2) *What is the proper balance between increasing waste diversion through the Blue Box and containing overall additional system costs? (i.e. Blue Box costs, costs to municipalities and industry and costs/inconvenience to consumers as a result of the new targets)?*
- 3) *What sanctions might be assessed if the target is not met?*
- 4) *By what set of principles are targets and benchmarks to be established?*
- 5) *What is the role of municipal benchmarks in meeting a 60% target?*

WDO and Stewardship Ontario invite your comments on these issues by written submission by April 2, 2004:

- By email to Stewardship Ontario at [chair@stewardshipontario.ca](mailto:chair@stewardshipontario.ca)
- By fax to Stewardship Ontario at 416 594 3463
- By mail to Stewardship Ontario, 26 Wellington Street East, Suite 601, Toronto, Ontario M5E 1S2