

**Dufferin County
Waste Recycling Strategy and
Waste Management Collection Plan**



**Final Report
Part 1: Waste Recycling Strategy
November 2011**

Prepared for:
County of Dufferin
51 Zina Street
Orangeville, Ontario, L9W 1E5

Prepared by:
GENIVAR Inc.
600 Cochrane Drive, 5th Floor
Markham, ON L3R 5K3

Project No. 111-14934-00



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November 29, 2011

Trevor Lewis
Director of Public Works
County of Dufferin
51 Zina Street
Orangeville, Ontario, L9W 1E5

Re: Waste Recycling Strategy Report

Dear Trevor:

Please find attached the final Waste Recycling Strategy (WRS). This final version of this report takes into consideration comments received from County and local municipal staff and the residents of Dufferin County during the public comment period.

Comments, including those from the local municipalities, represent principally operational items anticipating the impacts of the process as the County transitions to assuming responsibility for collection. We expect that these comments will continue to be considered throughout the next part of the process and as the County develops the County-wide collection Request for Proposal. The current practice of regular consultation with the local municipalities will be helpful during future WRS reviews.

The WRS incorporates realistic objectives and targets; assigns implementation steps and addresses various contingencies. All of these will allow the County to realize its goals of maximizing blue box material capture rates, improving diversion performance and increasing participation.

A separate report on the Waste Management Collections Plan (WMCP) has been prepared and it addresses synergy and harmonization opportunities for a County-wide collections program. The WMCP will complement the WRS by identifying the most effective and efficient curbside collection system for the other curbside collected materials (i.e. garbage, food waste, yard waste and bulk items) from the individual municipal programs once the County assumes collection responsibilities in January 2013.

As part of this project, four (4) Open Houses were held alongside an electronic survey. Key observations related to items such as general trends, and service delivery satisfaction is included in this report.

As the County of Dufferin has agreed to assume full responsibility for waste management services (except for the Town's landfills) in January 2013, the local municipalities will continue to manage the blue box program for approximately another year. For this reason a number of Options were identified that could be implemented in the near-term, prior to County assumption, which will serve to strengthen the long-term program after 2013.

The Priority Initiatives that were evaluated and require attention prior to the County's assumption of collection responsibilities, include:

- Harmonizing the Collection Frequency;
- Harmonizing the Garbage Bag Limits and Blue Box Set-out Requirements;
- Implementing Curbside Collection in Melancthon;
- Assessing the Requirements for Curbside Collection on Inaccessible and Private Roads;
- Assessing the Operations of Public Drop-off Depots against Best Practices; and
- Assessing Alternative Promotional and Educational Delivery Methods.

The near-term Options recognized as Priority Initiatives but were not scored or evaluated, are as follows:

- Harmonizing the Recycling Set-out Containers;
- Harmonizing the Recycling Collection Stream;
- Harmonizing the Eligible Blue Box Materials;
- Adopting a County Waste Management By-law;
- Harmonizing the Promotional and Educational Materials;
- Harmonizing the User Fees and Pay-As-You-Throw (PAYT) Policies;
- Reviewing the Capacity of the Blue Box;
- Adopting an Annual per Household Diversion Rate; and
- Adopting a Mandatory Recycling By-law.

Overall, Dufferin County's eight (8) local municipalities have, within their respective "municipal groupings", better than average performance with respect to waste diversion and provide waste management services with reasonably low net costs.

However, the Province of Ontario, through Waste Diversion Ontario, is in the process of modifying the method by which it allocates funding to municipalities as compensation for managing the blue box program. By 2012, 25% of municipal funding will depend on whether or not the municipality is operating to Best Practices. By completing this WRS, the County will be in the position to maximize its funding potential (after 2013) as implementing a blue box recycling plan is a fundamental Best Practice.

Acceptance of this WRS by local municipalities in the County that currently do not have a WRS may also help them improve their recycling funding performance in 2012, the final year for which they report to the WDO.

Yours truly,
GENIVAR Inc.

Phil Jensen
Manager, Waste Diversion and Planning

/PJ

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1. Introduction

This project involved two (2) separate but inter-related components. First, to develop a Waste Recycling Strategy (WRS) to increase the efficiency and effectiveness of its recycling programs and maximize the amount of blue box material diverted from disposal. Second, to develop a Waste Management Collections Plan (WMCP) to complement the WRS by identifying the most effective and efficient curbside collection system for the other curbside collected materials (i.e. garbage, food waste, yard waste and bulk items) from the individual municipal programs once the County assumes collection responsibilities. The WMCP has been prepared as a separate report.

The WRS will enable the County meet the Waste Diversion Ontario's (WDO) Best Practices requirement for establishing recycling targets and to specifically target recycling performance and performance measurement. The WRS, which is funded in part by the Continuous Improvement Fund (CIF), deals only with the blue box recycling component of the County's waste operation.

Currently, the eight (8) local municipalities in the County are responsible for the collection, contract management and for the development and distribution of promotional & educational materials related to curbside collected materials, with the exception of source separated food waste (County responsibility). Similarly, the processing of the collected materials is the responsibility of local municipal collection contractors (again, with the exception of food waste).

Every April, each of the Towns and Townships in the County, along with all other funded municipal recycling programs in Ontario, file a detailed report (Datacall) with WDO that includes cost and recovery information related to waste management programs. From this, WDO calculates recycling program performance and generates a factor, called the E&E (Effectiveness and Efficiency) Factor, which is used to compare performance between municipalities. For comparative purposes, municipalities are "grouped" so that they are measured against others with relatively similar characteristics in terms of size, population density and program delivery. As the characteristics of the individual Towns and Townships within the County currently vary and each provides a separate and unique level of service to their respective residents), the respective "municipal group" that each of the local municipalities belongs to varies.

In September 2010, Dufferin County Council passed *By-law 2010-29* authorizing the County to assume waste collection and processing responsibilities from the local municipalities by December 31, 2012. Contained in the By-law is the statement, "a coordinated waste system in the County will allow for a greater opportunity for effective promotion/education, diversion and cost savings". With this in mind, it is recognized that a number of waste management challenges, and opportunities, exist within the County for which undertaking this process addresses. In particular, increasing program participation and improving the cost effectiveness are main factors in adopting a County-wide system.

After the County has assumed collection responsibilities, it will be County's responsibility to complete the annual WDO Datacall and as such, it is likely at that time that the County, rather than the individual local municipalities will be assigned to a municipal group for program comparison and funding purposes.

The WRS was developed using the CIF's *Guidebook for Creating a Municipal Waste Recycling Strategy*. The standard *Guidebook* approach was used in order to promote a cost efficient and thorough process.

2. Overview of the Planning Process

This report has been prepared through the efforts of Dufferin County staff, staff from the eight (8) local municipalities and GENIVAR via in-depth meetings and public consultations from March and July 2011.

An initial half day meeting consisting of County and GENIVAR staff was held in March 2011. At that time, input was obtained and preliminary data inserted into worksheets 1, 2, 3, 5 and 6. As well, potential strategies on how to engage and consult with the public were examined (worksheet 4).

Following this meeting, GENIVAR analyzed the County's recycling information and defined the current waste management system, projected future needs and reviewed the Options available (worksheets 7 and 8). A second meeting with County and GENIVAR staff was held in April 2011 to review the information gathered and the long list of program Options.

In May 2011, County and GENIVAR staff held a workshop with staff from the eight (8) local municipalities to generate discussion on specific points. The aim of the workshop was to produce a finalized list of goals and objectives (worksheet 6) and evaluate the Options (worksheet 8). Following this meeting, GENIVAR developed a prioritized list (worksheet 9), prepared a draft implementation plan (worksheet 10), developed contingency plans (worksheet 11) and a monitoring and reporting program (worksheet 12).

Following the May workshop, a series of Open Houses were held in an attempt to engage the general public in the process. Notices for the events issued through local media, public events and the various County, Town and Township web sites. In addition to the Open Houses, an electronic survey was prepared and made available for the public. This survey was developed to determine baseline attitudes and perceptions regarding the current and potential waste management service. Comments and input received from the Open Houses and electronic survey have been incorporated into this DRAFT WRS. For further details on the public consultation process, refer to Section 4.

In June, a second workshop involving staff from the County, the local municipalities and GENIVAR was held with the purpose of reviewing and commenting on the DRAFT WRS. This was followed in August by a meeting with members of the Community Development Committee to obtain further input. In early September 2011 County Council approved the DRAFT for the purpose of posting for public comment. Comments received have been be incorporated into, and appended to, this document.

Table 1 - Worksheet 2 Overview of the Planning Process

| | |
|---------------------------------|--|
| ➤ Plan Development Participants | ➤ Dufferin County, local municipality staff, public, GENIVAR |
| ➤ Completed Steps | <ul style="list-style-type: none"> ➤ Meetings with Dufferin County staff (March and April) ➤ Worksheets 1 through 12 ➤ Workshop with local municipal staff (May) ➤ Four (4) Public Open Houses (May 17 through June 2) ➤ Workshop with local municipal staff (June) ➤ Meetings with Dufferin County staff (June and July) ➤ E-survey closed July 18th, 2011 ➤ Presentation of draft WRS to members of the County's Community Development Committee (August 17th, 2011) ➤ Presentation of the draft WRS to County Council (October) ➤ Draft WRS published for public consultation (closed November) ➤ Comments incorporated into the draft WRS (November 2011) |
| ➤ Public Engagement | As a "living document" ongoing comments and input with respect to the strategy were recorded and addressed during WRS review periods. To ensure interested stakeholders were able to participate in the preparation of this WRS, they were advised through the local media, public events as well as through the County/Town/Townships Web sites. |

3. Study Area

The study area for this WRS is confined to the residents within the geographic borders of the County of Dufferin. This includes the Town's of Mono, Mulmur, Orangeville and Shelburne and the Township's of Amaranth, East Garafraxa, East Luther Grand Valley and Melancthon.

In addition, this WRS is applicable to all County residents residing in single family and multi-family homes. However, there are some specific sectors within the County that this Plan will address. These include:

Table 2 - Worksheet 3 Study Area

| | |
|--------------------|--|
| ➤ Geographic Areas | ➤ All Dufferin County local municipalities |
| ➤ Sectors | <ul style="list-style-type: none"> ➤ Single and multi-family residential ➤ Industrial, Commercial and Institutional establishments (limited) ➤ Established farms ➤ Seasonal population (i.e. "weekenders") |

4. Public Consultation Process

Table 3 - Worksheet 4 Public Consultation Options

| | |
|---------------------------|--|
| ➤ Stakeholder Meetings | <ul style="list-style-type: none"> ➤ Meetings were held with staff from the local municipalities to identify key issues, concerns and opportunities. Discussions included: <ul style="list-style-type: none"> ➤ The vision, goals and targets for waste diversion ➤ Identifying barriers and solutions to overcome them ➤ Identifying and prioritizing the WRS options |
| ➤ Open Houses | <ul style="list-style-type: none"> ➤ Four (4) held between May and June and covered: <ul style="list-style-type: none"> ➤ An introduction to the project ➤ An overview of the current level of service across the County ➤ Possible options ➤ May 17, 2011 Tony Rose Memorial Sports Centre, Orangeville ➤ May 19, 2011 Mulmur Municipal Office, Terra Nova ➤ May 31, 2011 Shelburne Agricultural Centre, Shelburne ➤ June 2, 2011, Grand Valley Community Centre, Grand Valley |
| ➤ Web sites | <ul style="list-style-type: none"> ➤ A notice and a link to the electronic survey was posted on each of the County's, Town's and Township's Web sites ➤ The DRAFT WRS was posted on the County and local municipality's Web sites between September and November 2011 for public comment |
| ➤ Newsletters and Notices | <ul style="list-style-type: none"> ➤ Public Notices were posted in local newspapers in advance of the Open Houses; flyers were handed out at waste management events and information was included in the County's waste newsletter ➤ At special event days, residents were asked if they were interested in receiving updates from the County regarding this project and County staff provided updates and information to the receptive residents via email |
| ➤ Social Media | <ul style="list-style-type: none"> ➤ Information regarding the project, the Open Houses and the electronic survey was posted by County staff on their Twitter™ account |
| ➤ Survey | <ul style="list-style-type: none"> ➤ An electronic survey was prepared and made available to all County residents to solicit feedback and input regarding their attitudes and perceptions for the current and future waste management system; 205 responses were received. |
| ➤ Personal Interactions | <ul style="list-style-type: none"> ➤ At various public events, County staff engaged with the public to disseminate information on the WRS and the E-survey |

5. Stated Problem

Management of municipal solid waste, including the diversion of blue box materials, is a key responsibility for all municipal governments in Ontario. The factors that encourage, or hinder, municipal recycling endeavours can vary greatly and depend on a municipality's size, geographic location and population.

The key drivers that led to the development of this Waste Recycling Strategy included:

Table 4 - Worksheet 5 Waste Diversion Factors and Drivers

| | |
|---|---|
| ➤ WDO Requirement | ➤ WDO requires that municipalities have a Recycling Plan in place and that plan have specific targets and be reviewed every five (5) years |
| ➤ Council Direction | ➤ In September 2010, County Council passed <i>By-law 2010-29</i> enabling the County to assume collection responsibilities from the local municipalities (covering only existing services, with some exceptions) |
| ➤ Improving Cost and Service Efficiencies | ➤ The adoption of the County By-law presents an opportunity to achieve economies of scale that may potentially reduce program costs |
| ➤ Restricting Factors | ➤ Currently, collection contractors deliver curbside collected material to various locations and through a County-wide program (i.e. a single contract), these limitations can be addressed |
| ➤ Reducing Mixed Messaging | ➤ Currently, each local municipality provides a separate and unique level of service to its residents; under a County-wide program, uniform and standard promotion and education materials and communications can be developed to prevent mixed messaging |

6. Goals and Objectives

6.1 Recycling Goals and Objectives

This WRS identified a number of recycling goals and objectives for the County of Dufferin, including:

Table 5 - Worksheet 6a Waste Recycling Goals and Objectives

| Goals | Objectives |
|---|--|
| ➤ To maximize diversion of solid waste through the blue box/recycling program | ➤ To increase the tonnes of blue box recyclables recovered by 25% (based on 2009 as the baseline year) |
| ➤ To maximize capture rates materials through existing and future programs | ➤ To increase the blue box recovery rate by 25% (based on 2009 as the baseline year) |
| ➤ To improve the cost-effectiveness of the recycling program | ➤ To harmonize collection service across the County and reduce costs by 15% (based on 2009 as the baseline year) |
| ➤ To manage our waste in our community or as close to home as possible | ➤ To be in line with the DEEP project |
| ➤ To increase participation by residents on un-assumed and inaccessible roads | ➤ To work with all stakeholders to improve the road conditions to address potential collection contractor liability concerns |
| ➤ To demonstrate that the waste diversion efforts are in-line with expectations | ➤ Maximize waste diversion and move forward with the DEEP project |
| ➤ To have a collaborative and County-wide promotion and education system | ➤ To produce a standard format and increase program participation |

6.2 Community Goals and Objectives

In addition to the recycling goals and objectives noted above, this WRS identified a number of broader community goals and objectives; namely:

Table 6 - Worksheet 6b Community Goals and Objectives

| Goals | Objectives |
|--|---|
| ➤ To reduce our emissions and carbon footprint | ➤ To reduce the number of collection vehicles in use across the County and generate electricity from the DEEP project |
| ➤ To enhance the service delivery, increase cost effectiveness | ➤ To achieve lower unit costs by economies of scale through harmonizing service level across the County |
| ➤ To manage our waste in our community or as close to home as possible | ➤ To reduce the travel requirements to the various processing facilities and to be in line with the opening of the DEEP project |
| ➤ Increase participation by residents on un-assumed and inaccessible roads | ➤ Work with the local municipalities and residents to improve road conditions and to address potential collection contractor liability concerns |

7. Current Trends, Practices, System & Future Needs

7.1 Community Characteristics

As reported in the 2009 WDO Datacall, the County of Dufferin (inclusive of all eight (8) local municipalities) had a population of 55,329 and 20,934 total households (all single family, multi-family and seasonal dwellings).

As with all municipalities in the Province, municipalities are grouped based on two primary (population and population density) and two secondary (location, either north or south and by the type of service offered, either curbside collection or depot) criteria. For the 2009 WDO Municipal Groupings, the local municipalities in the County were grouped as either: Rural Collection – South; Rural Depot – South, or Small Urban.

Table 7 - Worksheet 7a Dufferin County Community Characteristics

| | Population | Total Households | Single-Family Households | Multi-Family Households | Total Seasonal Dwellings | Municipal Grouping |
|--------------|---------------|------------------|--------------------------|-------------------------|--------------------------|--------------------------|
| Amaranth | 3,445 | 1,345 | 1,345 | | | Rural Collection - South |
| EG | 2,234 | 906 | 906 | | | Rural Collection - South |
| ELGV | 3,034 | 1,316 | 913 | 71 | 332 | Rural Collection - South |
| Melancthon | 2,393 | 1,128 | 1,128 | | | Rural Depot - South |
| Mono | 7,515 | 2,631 | 2,631 | | | Rural Collection - South |
| Mulmur | 3,402 | 1,637 | 1,637 | | | Rural Collection - South |
| Orangeville | 27,582 | 9,851 | 9,851 | 1,439 | | Small Urban |
| Shelburne | 5,724 | 2,120 | 1,827 | 293 | | Small Urban |
| Total | 55,329 | 20,934 | 20,238 | 364 | 332 | |

Source: 2009 WDO Datacall www.wdo.ca

EG refers to East Garafraxa

ELGV refers to East Luther Grand Valley

7.2 Current Waste Generation and Diversion

Based on the published 2009 WDO Datacall information, the County, as-a-whole, generated 20,938 tonnes of residential solid waste. Of this, 5,231 tonnes, or 25.0%, was diverted through the blue box program. Currently, the most common material recycled is papers while the least is metals.

The table below summarizes the 2009 waste generation and blue box diversion rates from the eight (8) local municipalities.

Table 8 - Worksheet 7b Waste and Blue Box Recyclables Generated and Diverted

| Material Stream | Tonnes Currently Diverted | | | | | | | | | % of Total |
|------------------------|---------------------------|------------|------------|------------|------------|------------|--------------|------------|--------------|--------------|
| | Amaranth | EG | ELGV | Melancthon | Mono | Mulmur | Orangeville | Shelburne | Total | |
| Waste | 1,398 | 755 | 814 | 1,050 | 2,553 | 1,425 | 10,623 | 2,321 | 20,938 | 75.0% |
| Papers | 177 | 127 | 149 | 99 | 533 | 271 | 2,326 | 387 | 4,068 | 19.4% |
| Metals | 15 | 11 | 13 | 9 | 45 | 5 | 136 | 23 | 256 | 1.2% |
| Plastics | 41 | 30 | 35 | 23 | 108 | 6 | 183 | 30 | 457 | 2.2% |
| Glass | 15 | 11 | 13 | 8 | 46 | 10 | 296 | 49 | 449 | 2.1% |
| Tonnes Diverted | 249 | 178 | 209 | 139 | 732 | 293 | 2,942 | 489 | 5,231 | 25.0% |

Source: 2009 WDO Datacall www.wdo.ca

EG refers to East Garafraxa

ELGV refers to East Luther Grand Valley

Papers include: newsprint, magazines, cardboard, boxboard, Polycoat

Metals include: ferrous and non-ferrous cans

Plastics includes: containers and film

7.3 Potential Waste Diversion

Since there is no current waste (i.e. garbage) audit data available from the local municipalities to estimate how much blue box material is available to be captured, waste composition data from similar municipalities was used to estimate the potential blue box diversion from the County's waste stream. As the 2009 WDO Datacall groups Dufferin County's eight (8) local municipalities into three (3) separate "municipal groups", representative waste composition data from the three (3) separate "municipal groups" has been applied to each local municipality respectively.

From Table 8 (above), 5,231 tonnes of blue box material was diverted in 2009. Using the representative waste composition data, in 2009, approximately 6,347 tonnes of blue box recyclable materials was calculated to be available for diversion in Dufferin County. Using the reasonable target capture rate of 70% for a Rural Collection – South and a Rural Depot - South municipality and a target capture rate of 80% for Small Urban municipality, approximately 1,551 tonnes was calculated to be available for recovery but not recovered. The estimates of available blue box material for diversion are listed in the tables below.

Table 9 - Worksheet 7c1 Calculating the Material Available for Diversion

Rural Collection – South: Amaranth, East Garafraxa, East Luther Grand Valley, Mono and Mulmur

| Material | Estimated Available ¹ (tonnes/year) | Currently Recycled ² (tonnes/year) | Potential Increase (tonnes/year) | Potential Increase in Overall Diversion Rate (%) |
|--------------|--|--|---|---|
| Papers | 1,458 | 1,256 | 202 | 2.9% |
| Metals | 146 | 89 | 57 | 0.8% |
| Plastics | 389 | 220 | 168 | 2.4% |
| Glass | 583 | 95 | 488 | 7.0% |
| Total | 2,576 | 1,661 | 915 | 13.2% |
| | Current Blue Box Diversion Rate³ | 23.9% | | |
| | Current Blue Box Recovery Rate⁴ | 64.5% | | |
| | | Additional Blue Box Diversion Rate | 13.2% | |
| | | | Potential Future Blue Box Diversion Rate | 37.1% |

Table 10 - Worksheet 7c2 Calculating the Material Available for Diversion

Rural Depot – South: Melancthon

| Material | Estimated Available ¹ (tonnes/year) | Currently Recycled ² (tonnes/year) | Potential Increase (tonnes/year) | Potential Increase in Overall Diversion Rate (%) |
|--------------|--|--|---|---|
| Papers | 162 | 99 | 63 | 6.0% |
| Metals | 15 | 9 | 6 | 0.6% |
| Plastics | 44 | 23 | 21 | 2.0% |
| Glass | 29 | 8 | 21 | 2.0% |
| Total | 250 | 139 | 111 | 10.5% |
| | Current Blue Box Diversion Rate³ | 13.3% | | |
| | Current Blue Box Recovery Rate⁴ | 55.7% | | |
| | | Additional Blue Box Diversion Rate | 10.5% | |
| | | | Potential Future Blue Box Diversion Rate | 23.8% |

Table 11 - Worksheet 7c3 Calculating the Material Available for Diversion

Small Urban: Orangeville and Shelburne

| Material | Estimated Available ¹ (tonnes/year) | Currently Recycled ² (tonnes/year) | Potential Increase (tonnes/year) | Potential Increase in Overall Diversion Rate (%) |
|--------------|--|--|---|---|
| Papers | 2,278 | 2,713 | 0 | 0.0% |
| Metals | 207 | 158 | 49 | 0.4% |
| Plastics | 621 | 214 | 408 | 3.1% |
| Glass | 414 | 346 | 69 | 0.5% |
| Total | 3,521 | 3,431 | 525 | 4.1% |
| | Current Blue Box Diversion Rate³ | 26.5% | | |
| | Current Blue Box Recovery Rate⁴ | 97.4% | | |
| | | Additional Blue Box Diversion Rate | 4.1% | |
| | | | Potential Future Blue Box Diversion Rate | 30.6% |

¹ Calculated based by multiplying the average waste stream composition (by material type) for the respective municipal group by the WDO reported waste generated (tonnes) by the reasonable target capture rate (either 70% or 80% respectively)

² Source: 2009 WDO Datacall (www.wdo.ca)

³ Current Blue Box Diversion Rate is a division of the tonnes Currently Recycled by the Total Residential Waste Generated in the County

⁴ Current Blue Box Recovery Rate is a division of the tonnes Currently Recycled by the Estimated Available in the County

Table 12 - Worksheet 7c4 Calculating the Material Available for Diversion

Combined totals from of all Local Municipalities

| Material | Estimated Available ¹ (tonnes/year) | Currently Recycled ¹ (tonnes/year) | Potential Increase (tonnes/year) | Potential Increase in Overall Diversion Rate (%) |
|--------------|--|--|---|---|
| Papers | 3,898 | 4,068 | 0 | 0.0% |
| Metals | 368 | 256 | 111 | 1.8% |
| Plastics | 1,054 | 457 | 597 | 7.6% |
| Glass | 1,027 | 449 | 577 | 9.5% |
| Total | 6,347 | 5,231 | 1,551 | 18.9% |
| | Current Blue Box Diversion Rate² | 25.0% | | |
| | Current Blue Box Recovery Rate³ | 82.4% | | |
| | | Additional Blue Box Diversion Rate | 18.9% | |
| | | | Potential Future Blue Box Diversion Rate | 43.9% |

¹ Calculated by summing the tonnes of each product by municipal group (i.e. sum of Table 9 through Table 11)

² Current Blue Box Diversion Rate is a division of the tonnes Currently Recycled by the Total Residential Waste Generated in the County

³ Current Blue Box Recovery Rate is a division of the tonnes Currently Recycled by the tonnes Estimated Available in the County

7.4 Existing Programs and Services

Currently, the local municipalities use the following practices to manage curbside residential waste:

- Bag limits for solid waste vary between one (1) and three (3) bags per collection day;
- Collection of blue box recyclables varies between weekly and every other week; and
- Weekly collection of source separated food waste.

Collection services are provided to the residents using a combination of curbside collection and drop off at depots at the landfill's around the County and at the County's contracted transfer station. Disposal and recycling services are paid for primarily through a combination of the tax base and user fees. Recyclables collected from seven (7) of the municipalities are taken to a private transfer station located in the County and from there the material is shipped to a public sector Material Recovery Facility (MRF). One municipality (Mulmur) has its recyclables taken to a different private sector transfer station (in Mount Forrest) and subsequently shipped to a private sector MRF.

While many of the local municipal collection contracts have terms that expire at different times, for those that expire prior to the County assumption of collection responsibility date (December 31, 2012), they have extended the term of their contracts to end at this date. Similarly, for those that have contracts that expire after the County's assumption date, they have agreed to transfer the contract to the County.

Table 13 - Worksheet 7d Existing Programs and Services

| Policies currently in place for managing residential solid waste | | | |
|--|---|---|---|
| <ul style="list-style-type: none"> ➤ User Pay..... varies by local municipality ➤ Tipping fees..varies by local municipality ➤ Bag limits.....varies by local municipality | | <ul style="list-style-type: none"> ➤ Mandatory recycling majority = mandatory but varies ➤ Take backs County run take back program for a variety of materials | |
| How are waste and recycling collection services provided to the residential sector? | | | |
| Collection Service | Waste Coverage (%) | Recycling Coverage (%) | Upcoming Milestones |
| Municipal collection | 96% (Melancthon, at 4%, is a depot based program) | 96% (Melancthon, at 4%, is a depot based program) | County to assume collection responsibilities January 1, 2013 |
| Contracted service | 100% | 100% | Collection contracts will expire / transfer to the County December 31, 2012 |
| Drop-off (at landfill or depot) | 100% for transfer station (as a private facility) Access to landfill is limited to local residents | Varies by municipality; if not accepted at local depot, residents directed to the private transfer station located in the County | |
| How are waste and recycling services financed? | | Waste | Recycling |
| Payment Type | | Tax base & user fees | Tax base & WDO funding |
| Where are recyclable materials taken after collection? | | | |
| <ul style="list-style-type: none"> ➤ Transfer Stations: Seven (7) of the eight (8) municipalities have their recyclables transferred to a transfer station located in the County then consolidated and transferred to a public sector MRF. The other has its recyclable material direct hauled to a transfer station in Mount Forest. | | | |

7.5 Existing Program Costs

Based on the published 2009 WDO Datacall information, the net¹ recycling cost for Dufferin County was \$1,093,225. This amounts to \$209 per tonne, \$19.80 per capita and \$52.20 per household.

As the local municipalities belong to different “municipal groups”, comparing the financial performance of the local municipalities to that of the average net recycling cost for their respective “municipal group”, a performance comparison was made. As can be seen by the tables below, in 2009, only one (1) of the local municipalities (Orangeville) has a net annual recycling cost higher than the respective “municipal group” average.

Table 14 - Worksheet 7e1 Existing Program Costs

| Net Residential Recycling Costs (2009) | Net Cost / Year¹ | Net Cost / tonne¹ |
|--|------------------------------------|-------------------------------------|
| Dufferin County | \$1,093,225 | \$209 |
| Amaranth | \$40,053 | \$161 |
| East Garafraxa | \$45,671 | \$256 |
| East Luther Grand Valley | \$68,206 | \$326 |
| Melancthon | \$47,215 | \$339 |
| Mono | \$167,269 | \$229 |
| Mulmur | \$122,679 | \$419 |
| Orangeville | \$499,064 | \$170 |
| Shelburne | \$103,066 | \$211 |
| Net Residential Recycling Costs per tonne | \$209 | |
| Net Residential Recycling Costs per capita | \$19.80 | |
| Net Residential Recycling Costs per household | \$52.20 | |

Table 15 - Worksheet 7e2 Existing Program Costs

| Net Residential Recycling Costs (2009) | Net Cost / Year¹ | Net Cost / tonne¹ |
|--|------------------------------------|-------------------------------------|
| Rural Collection - South Municipal Group (Average) | \$215,443 | \$560 |
| Dufferin County local municipalities (Average) | \$88,776 | \$278 |
| Rural Depot - South Municipal Group (Average) | \$105,989 | \$466 |
| Dufferin County local municipalities (Average) | \$47,215 | \$339 |
| Small Urban Municipal Group (Average) | \$217,865 | \$260 |
| Dufferin County local municipalities (Average) | \$301,065 | \$190 |

¹ Source: 2009 WDO Datacall (www.wdo.ca)

Dufferin County municipalities in Rural Collection - South includes: Amaranth, EG, ELGV, Mono and Mulmur

Dufferin County municipalities in Rural Depot - South includes: Melancthon

Dufferin County municipalities in Small Urban includes: Orangeville and Shelburne

7.6 Anticipated Future Waste Management Needs

Even though the population growth in the County is not expected to be significant over the next ten (10) years, the table below depicts the expected growth rates for solid waste generation and blue box material recovery. The population projections are based from the report, “*The County of Dufferin and its Member*

¹ Net recycling costs is calculated by subtracting the Gross recycling costs from any revenue or rebates or subsidies received

Municipalities Growth Management Study, Dillon Consulting and Watson & Associates Ltd, December 2008.

Table 16 - Worksheet 7f Anticipated Future Needs

| | Current Year (2009) | 2014 | 2019 |
|---|--------------------------------|-------------|-------------|
| Population | 55,329 | 62,391 | 67,890 |
| Total Waste (tonnes) | 20,938 | 23,610 | 25,691 |
| Blue Box Material Available (tonnes) | 6,347 | 7,157 | 7,788 |

8. Overview of Recycling Options

In considering the various Options, it is helpful to understand the current level of service provided to County residents. The table below summarizes the main differences between each municipality with respect to their blue box program only.

Table 17 - Local Municipal Blue Box Program Characteristics

| Municipality | Blue Box Collection Frequency | Set-Out Containers | Set-Out Style | Blue Box Materials Not Accepted¹ | Clear Bags for Garbage | PAYT for Garbage |
|--------------------------|--|-------------------------------|--------------------------|--|---------------------------------------|---------------------------------------|
| Amaranth | 2 Weeks | Blue box or blue bag | Single-stream | All materials accepted | Yes | 2 bags / week, additional bag \$ 1.00 |
| East Garafraxa | Weekly | Blue box | Single-stream | GT, AE, PC | No | 3 bags / week, additional bag \$ 2.00 |
| East Luther Grand Valley | 2 Weeks | Blue box | Two-stream | GT, AL | Yes | 2 bags / week, additional bag \$ 1.00 |
| Melancthon | Depot | Depot | Depot | AL, 3-5-7, PSC | Yes | 2 bags / week, additional bag \$ 1.00 |
| Mono | Weekly | Blue box | Two-stream | FILM | No | 2 bags / week, additional bag \$ 1.00 |
| Mulmur | Weekly | Blue box | Two-stream | TP, AE, PS, PSC | Yes | 1 bag / week, additional bag \$ 2.00 |
| Orangeville | Weekly | Blue box or blue bag | Two-stream | AE | No | 1 bag / week, additional bag \$ 2.00 |
| Shelburne | Weekly | Blue box | Single-stream | AE, PC, FILM | No | 2 bags / week, additional bag \$ 2.00 |

¹ Blue box materials as defined by WDO Datacall, including gable top cartons (GT), tetra pak cartons (TP), other aluminum packaging and foil (AL), empty aerosol cans (AE), empty paint cans (PC), other bottles and containers (3-5-7); LDPE/HDPE film #2 and #4 (FILM), polystyrene foam #6 (PS) and polystyrene crystal #6 (PSC).

Dufferin County's By-Law 2010-29 enables the County to assume responsibility for waste management in all of the lower-tier municipalities by the end of 2012. Each of the local municipalities currently provides a separate and unique level of service to their residents, and it might, at first, seem that the prudent thing to do is to wait for the County to take over collection before making any program changes. There are some good reasons, however, to consider a number of the Options in the near term and before the end of 2012.

A recommendation to begin harmonizing some elements of the recycling program in advance of the County-wide collection RFP recognizes that recyclables from seven (7) of the eight (8) local municipalities are processed at the same facility. In this respect, these local municipalities, in cooperation with their collection operator and the County, need not engage in high-profile or radical "changes", but instead

promote existing capabilities and program parameters, in effect providing an update to program participants.

Of particular interest, Table 17 outlines differences in set out (single versus two stream) and accepted materials, despite the fact that all but one (1) municipality use the same processing facility. This suggests that there is potential benefit for the local municipalities to collectively adjust their programs and educational material without waiting for the County to issue and award the County-wide contract.

The MRF that seven (7) of the municipalities use is located in the City of Guelph. This is a single stream MRF and it accepts the following materials: corrugated cardboard, boxboard, all types of mixed papers, gable top cartons, tetra pak cartons, aluminum cans & foil, steel cans, empty aerosol & paint cans and rigid plastic containers #1 through 7. This facility does not accept plastic film (i.e. bags).

As Mulmur's collection contractor is Waste Management of Canada (WM), it is likely that WM directs Mulmur's recyclables to their facility located in Petrolia, ON. This is a dual stream MRF which accepts similar material types to that of Guelph's MRF with the exception that it does not accept tetra pak cartons, empty aerosol cans or polystyrene.

Most notably, there is still a period of over a year in which the local municipalities have the opportunity to improve performance and maximize WDO funding by increasing program recovery without making any significant operational changes to the existing operation. Options recommended for the "near term" are noted in Section 8.1 below. These are not really program changes as much as they are refinements to the way the programs are promoted and used, and in some cases, provide added convenience to program users. Adoption of a more standard approach in selected areas will also facilitate a coordinated promotional approach that may relieve some of the confusion about what is recyclable as witnessed in the E-survey.

8.1 Options for Immediate Consideration by the Local Municipalities

Below is a brief description of each of the Priority Options that were reviewed but were not scored or evaluated since they were thought to be actions that would automatically evolve once under the management of a single administration at the County level. As noted in the previous section, however, there is benefit to the local municipalities to act on these prior to 2013, especially with respect to the first three (3) complementary items below. The first three (3) potential adjustments are related activities that simply use and promote the full capabilities of the MRF that currently receives the material.

- Harmonizing the Collection Stream: Currently, each of the local municipalities (except Melancthon) directs its residents to set out the recyclables in one (1) of two (2) methods: either as a single stream (all items comingled together) or as a dual stream (containers placed into a container and fibres into a separate container).

Currently three (3) of the local municipalities promote a single stream program (the others promoted dual stream). It should be noted that regardless of the collection stream promoted by the local municipalities, seven (7) of the eight (8) municipalities direct their recyclable materials to the same Material Recovery Facility (MRF) for processing and that facility is a single stream facility. Having the same set out requirement (i.e. single stream) will serve to minimize possible confusion about the program requirements and potentially increase the recyclable material recovery rate.

This issue could be addressed in the near-term and long before the County's assumption of waste collection responsibilities.

Since Mulmur directs its recyclables to a different MRF than the other seven (7) municipalities, the materials collection stream (i.e. dual stream) is acceptable to that facility and that any change to this should not take effect until January 2013 due to contractual obligations.

This Option assumes that the County's future recycling program will remain as a single stream program.

Single stream blue box programs across the province have been shown to increase the recovery rate of blue box materials. The reported data shows that single stream programs capture 2.9%

more recyclable material than dual stream programs. Applying this value to the local municipalities that instruct residents to set out their recyclables as dual stream, approximately 96 additional tonnes could be recovered. This equates to an operational cost of approximately \$248 per recovered tonne (based on the 2009 average cost per tonne for East Luther Grand Valley and Orangeville).

As noted in the *Blue Box Enhancement and Best Practices Report*², when implementing a new program or major program changes (as a County-wide collection plan would be), it is common for Promotion and Education (P&E) spending to be between \$3 and \$4 per household. Assuming that the budget for a County-wide P&E campaign is \$4 per household, and the promotion of *this* Option was 5% of the budget (i.e. for print and electronic media, road side signs, etc) this would cost \$44 per recovered tonne for implementation.

- Harmonizing the Eligible Materials: Currently, each of the local municipalities (except Melancthon) permits different material types into the recycling program. As noted previously, seven (7) of the eight (8) municipalities direct their recyclable materials to the same MRF for processing.

Standardization of the eligible materials, to be the same as what the existing MRF accepts, can be addressed in the near-term. There may be some concern that responses to the County's 2012 collection and processing RFP might propose to direct the recyclable materials to a different MRF (which may or may not accept the same materials as the current processing facility). However the existing suite of proposed materials is common for programs and the County RFP can prescribe or favour, through evaluation, certain parameters including which materials are to be collected.

However, if *this* Option were actioned prior to the County's assumption of waste collection responsibilities, based on the differences in the material types that the receiving MRF accepts and what is currently accepted by the local municipalities (except Mulmur), an additional 285 tonnes of blue box material could be recovered. Again, since Mulmur directs its recyclables to a different facility, it is assumed that the materials currently acceptable to that facility are already accepted by Mulmur's recycling program and that any changes to their eligible material list would not take effect until January 2013 for contractual reasons.

Using the 2009 average cost per tonne, the operational cost for these additional tonnes would be \$209. Assuming that the budget for a County-wide P&E campaign is \$4 per household, and the promotion of *this* Option was 5% of the budget (i.e. for print and electronic media, road side signs, etc) this would cost \$15 per recovered tonne for implementation.

- Harmonizing Promotion and Education: This option is necessary to support the previous two (2) and would be required to advise residents of the changes, and will also support any of the following policy-related options. Decisions to harmonize collection stream and eligible materials would be accompanied by the development of related promotional and educational materials.

Revitalized promotion and education efforts are believed to have benefit in themselves, although these are rarely done in isolation and somewhat difficult to quantify. At the very least, promoting the program adjustments noted above to program users will help each of the local municipalities maximize the expected benefit. Even if a harmonized promotion and education campaign is deferred until after the County's assumes waste collection responsibilities, the form and content of it can be prepared in 2012 for issuance in late 2012.

In addition to and to supplement the print and communication elements of the Promotion and Education campaign, when it is deemed appropriate, the County and local municipal Web sites could be updated to reflect the new program requirements and policies. Should any, or all, of the harmonization Options noted above be implemented prior to the County's assumption of waste collection, updating the various Web sites could be completed in the near-term.

² Appropriately Planned, Designed and Funded P&E Program, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 58

8.2 Options for Consideration by the Local Municipalities

The remaining near-term Options would support the existing and/or adjusted programs, and are subject to local staff and Council discretion and direction. They are proposed in the near term since they are considered to be actions that will maximize recovery, reduce cross-boundary confusion, and in general benefit the local municipalities while they still operate the programs.

- Harmonizing the Recycling Set-out Containers: Currently, each of the local municipalities (except Melancthon) provides and encourages residents to use a blue box (of various sizes) for recyclables. However, some of the municipalities permit recyclables to be set out in plastic bags.

The issue of standardizing the set-out container can be addressed in the near-term through reminding residents of the acceptable set-out containers. It is also likely that a standard container will be prescribed in either the collection and processing Request for Proposal (RFP) the County will issue in 2012 or be based on the responses to that RFP. However, seven (7) of the local municipalities have their recyclable materials delivered to the same processing facility and this facility does not accept bagged recyclables.

Harmonizing the recycling set-out containers is not likely to increase the quantity of recyclable materials collected. However, it may serve as a cost control method in terms of reducing contamination and improving program promotion and education.

- Adopting a County Waste Management By-law: As the County of Dufferin is looking to harmonize the collection of material, the County should pass its own waste management By-law and the existing local municipal By-laws should be rescinded.

Establishing a County-wide waste management By-law is not likely to measurably increase the quantity of recyclable materials collected. It would, however, serve to reduce confusion across municipal boundaries.

- Adoption of Annual per Household Diversion Targets: While this Option was initially considered, it was felt that once the WRS process is complete, the various performance targets would be established. As such, it was felt that setting targets prior to the completion of the WRS was premature. After the WRS has been adopted by the County, the performance targets will be set, and throughout the process of program measurement, monitoring and regular WRS reviews, progress reports will be developed that evaluate blue box performance against the targets.

Local Councils may wish to adopt, by resolution, the goals and targets established in the County's WRS, since local staff participated and represented each municipality in the process. Local acceptance of the overall report, it is believed, would qualify as a local WRS under the Waste Diversion Ontario recycling funding best practice questions 1 (*do you have a WRS?*) and 2 (*do you have established recycling targets?*)

- Blue Box Capacity Review: Since the County has a good recovery rate of recyclable materials (82.4%) and has entered into a joint purchase (March 2011) for 6,315 larger blue boxes (22 gallons), the need for a capacity review was considered not to be needed at this time.

However, if the issue of *Harmonizing the Container Set-out Requirements* is addressed, the capacity of the blue boxes could be reviewed with the purposes of standardization as well as for measurements of participation and recovery rates.

- Harmonizing User Fees and Pay-As-You-Throw (PAYT): While each of the local municipalities currently has a "bag tag" requirement for regular garbage, the value of the "bag tag" varies by municipality (\$1 or \$2) as does the number of bags permitted to be set out per collection day (between 1 and 3 bags).

Even though *this* Option was not scored, since PAYT is already in place, an evaluation of the current system is needed so as to address harmonization County-wide with respect to the "bag tag" price and the number of bags permitted per collection day. This Option could be evaluated in the near-term so that the recommendation can be included in the County's 2012 RFP.

It is recognized that “bag tag” fees and bag limits were established at different rates for different reasons and they are considered to be good waste diversion policy. With respect to bag limits, best practice reports tend to support that bag limits make a difference, and that two (2) bags per week is both manageable for users and an effective waste diversion policy. For the purposes of harmonizing bag tags, based on observations around the province, it would appear that \$2 is a reasonable bag tag value.

➤ Mandatory Recycling By-law:

As a complementary piece to *Harmonizing the Waste Management By-laws*, this could serve to strengthen the foundation for increased waste diversion and program cost reduction. This item can be addressed in the near-term through either updating existing By-laws or once the County assumes collection responsibilities in 2013.

9. Priority Initiatives

This Section contains a brief description of each of the Priority Options that were reviewed and scored. These Options (except those discussed in Section 9.9 and 9.10) are considered Priority Options and, as appropriate, should be included in the County's RFP for waste collection as policy. Detailed descriptions of each of the Options can be found in Section 10.

9.1 Collection Frequency

While each of the local municipalities provides a certain level of service to its residents, the level of service varies. In 2009, five (5) of the local municipalities provided weekly recycling collection, two (2) provided bi-weekly collection (Amaranth and East Luther Grand Valley) and Melancthon provided depot service. For those that provided curbside collection, residents also had depot access, be it at their local landfill or at the County's contracted transfer station.

A best practice is to provide the frequency of recycling collection that is either equal to or greater than the frequency of garbage collection³. While the frequency of recycling collection varies between local municipalities, each provides its residents with a recycling collection frequency that is equal to their garbage collection frequency. Based on this, the local municipalities programs are in-line with the best practice; but because there are differences in collection frequencies, improvements to blue box recovery rates and program costs can be realized if a standard collection frequency were used.

9.2 Recycling Depot Best Practice Review

Around the County, there are a number of depots (located at municipally owned landfills and a privately owned and operated facility). As with every depot, challenges can arise if the signage, capacity, layout, convenience or promotion is limited. By following best practices, the capture rate of materials can be increased which will serve to increase the annual diversion and reduce program costs.

9.3 Curbside Collection in Melancthon

While each and every municipality strives to deliver the best possible service to its residents, it is understood and appreciated that limitations and competing priorities exist and that resource allocation decisions are made based on the priorities and needs of the community.

It is known from published WDO reports that municipalities receiving curbside collection generally have a greater recovery rate of blue box materials than those without curbside service. This is the case when assessing Melancthon's blue box recovery rate to that of the Dufferin County municipalities in the Rural Collection – South “municipal group”. Note that this is the “municipal group” that Melancthon would likely be in if they had a curbside collection program.

In 2009, Melancthon had a blue box recovery rate of 35.7% as compared to the other local municipalities who had an average recovery rate of 64.5% (approximately twice of the recovery rate).

³ Factors Contributing to Good and Poor Performance, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 22

9.4 Inaccessible / Private Road Collection

Drawing from the knowledge and experience of projects and studies completed in Ontario, opportunities exist to improve the waste diversion performance by residents who live in areas that currently not receiving curbside collection; specifically, those living on inaccessible and private roads. Through researching and evaluating various measures, changes could be made to improve upon the current level of service provided to those on inaccessible and private roads which would increase the blue box recovery rate and potentially reduce program costs.

9.5 Bi-weekly Garbage Collection

Based on the local municipal waste management program requirements, three (3) of the local municipalities (Amaranth, East Luther Grand Valley and Mono) have every other week collection of garbage. Bi-weekly collection of garbage has been shown in many communities across the province to serve as significant factor in increasing waste diversion. Of particular note, the *Blue Box Enhancement and Best Practices Report*⁴ determined that, “reducing the frequency of garbage collection and/or increasing the frequency of blue box collection was found to have a positive effect on recovery rate” and that, “municipalities that collect recyclables less frequently than garbage tend to exhibit lower recovery rates”.

9.6 Garbage Bag Limits

With the exception of Melancthon, each of the local municipalities has a garbage bag limit per curbside collection day. The bag limits, however, are tempered by the fact that if a household has additional garbage to set out, they can purchase additional “bag tags” and set out a greater quantity of garbage than the collection frequency bag limit.

One of the conclusions of the *Blue Box Enhancement and Best Practices Report*⁵ was that, “municipalities with lower garbage bags limits tend to exhibit higher recovery rates”. As the local municipalities have a range in bag limits, comparing the 2009 blue box recovery rates between the municipalities with the same bag limit produces results that are in-line with the conclusion. For example: Mulmur and Orangeville, with a one (1) bag limit, had an average blue box recovery rate of 72.4%; Amaranth, East Luther Grand Valley and Shelburne have a two (2) bag limit and their average blue box recovery rate was 63.9%; and East Garafraxa, with a three (3) bag limit, had a blue box recovery rate of 63.6%.

9.7 Outreach – Student Green Teams

Used in combination with the Promotion and Education program, *this* Option is one where communities use citizens and/or students to promote the waste management initiatives and programs through training programs, canvassing and personal interactions. Outreach employs tools to directly engage with residents to foster and encourage behavioural change to increase participation and diversion. Commonly employed tools include: commitment (pledges), feedback, prompts and incentives.

This type of Option typically requires good coordination of activities and a strong public education and training program. As well, a good understanding of the resident’s behaviours and attitudes will serve well during the design, implementation and performance measurement of *this* Option.

9.8 Clear Bag Policy for Garbage

Currently, four (4) of the local municipalities (Amaranth, East Luther Grand Valley, Melancthon and Mulmur) have a clear bag policy for garbage. In some jurisdictions across the province, this policy has shown the ability to persuade residents to properly sort their waste and allow for screening by the

⁴ Factors Contributing to Good and Poor Performance, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, pages 21- 22

⁵ Factors Contributing to Good and Poor Performance, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 21

collection contractor at the curb so as to refuse to collect garbage bags with unacceptable materials (i.e. contain recyclables).

In 2009, the blue box recovery rate⁶ for the County as-a-whole was 82.4%. When the blue box recovery rate is analyzed based on those municipalities with a clear bag for garbage against those without a clear bag policy, an interesting result is shown which is contradictory to other jurisdictions across the province. The four (4) municipalities with a clear bag policy had a blue box recovery rate of 51.2% and the blue box recovery rate for the four (4) municipalities that do not have a clear bag for garbage policy was 72.0%.

However, it is presumable that because the various municipalities have a variety of waste management policies, the various combinations of the policies is a contributing factor to the recovery rate differences, rather than the clear bag policy itself.

9.9 Rewards Program

Municipalities are increasingly looking to new methods and opportunities to increase participation and performance with their recycling programs, and as such, offering rewards to residents is one such measure. While the number and type of rewards that can be offered is limited only by the decision maker's imagination, concepts such as the City of Hamilton's "Gold Box" program (which gives a gold coloured recycling box to residents that perform well) is such an Option.

9.10 Public Space Recycling

As with the Rewards Program, increasing in popularity with municipalities across the province is public space recycling (also known as open space recycling). This involves placing recycling receptacles alongside waste receptacles at various locations, such as in parks, community centres, retail establishments, etc. While the potential to increase the blue box recovery rate is potentially significant, the challenges of material quality (i.e. contamination) and collection cost needs to be carefully considered and evaluated.

10. Planned Recycling System

After the Options were scored by the Stakeholder group, they were either ranked as Priority Initiatives or Future Initiatives. If all of the Priority Initiatives were actioned, the estimated implementation cost is \$86 per recovered tonne and operationally (collection, transfer and process), the cost is estimated at \$438 per recovered tonne⁷.

The table below defines the proposed strategies and approaches that, after having been scored (ranked from highest to lowest), represent the County's Priority and Future Initiatives. For each Priority Initiative, a score of 20 or greater (out of 30) was considered a Priority. As such, an implementation plan has been developed along with Contingencies and Monitoring and Reporting requirements.

⁶ Blue Box Recovery Rate calculated by dividing the blue box tonnes currently diverted by the tonnes available for diversion

⁷ \$438 per tonne is calculated by averaging the estimated cost of each Option which themselves are calculated in isolation. The actual operational cost, however, would be based on the actual tonnes recovered and based on the results of the 2012 RFP process

Table 18 - Worksheet 9 Planned Recycling System

| Priority Initiatives | Estimated Implementation Costs (per additional recovered tonne) | Estimated Operation Costs (first year, per additional recovered tonne) | Estimated Additional Tonnes Recovered |
|--|---|--|--|
| Collection Frequency | \$17 | \$278 | 243 |
| Depot Best Practice Review | \$24 | \$195 | 171 |
| Curbside Collection in Melancthon | \$55 | \$278 | 77 |
| Inaccessible / Private Road Collection | \$241 | \$209 | 25 |
| Bi-weekly Garbage Collection | \$107 | \$211 | 780 |
| Bag Limits | \$54 | \$278 | 78 |
| Outreach – Student Green Teams | \$102 | \$1,836 | 52 |
| Clear Bag Policy for Garbage | \$88 | \$216 | 955 |
| Average Cost | \$86 | \$438 | |

In the case of the Future Initiatives (those that scored less than 20 out of 30), these items will be brought forward for consideration and re-evaluated during the WRS reviews. Similarly, if these are determined to be actionable, the associated costs will be evaluated and if deemed feasible, an Implementation Plan will be prepared along with Contingencies and Monitoring and Reporting requirements.

| Future Initiatives | |
|---------------------------|------------------------|
| Rewards | Public Space Recycling |

10.1 Priority Initiatives

The following section describes the Priority Initiatives including the estimated additional tonnes potentially recoverable as well as the estimated implementation and operational cost of each Option. The costs are based on the County's 2009 WDO Datacall submissions and actual costs, should any of the Options be implemented, will be determined based on the responses to the County's 2012 RFP process.

Collection Frequency

In 2009, five (5) of the local municipalities provided weekly curbside collection services for recycling and two (2) of these (Amaranth and East Luther Grand Valley) provided bi-weekly blue box collection services. Melancthon residents are provided with depot access for their recycling requirements.

If Amaranth, East Luther Grand Valley and Melancthon were to implement weekly curbside collection of blue box recyclables (to be the same as the other five (5) local municipalities), the blue box recovery rate for these municipalities could increase by approximately 41% (based on their 2009 performance). Multiplying this increase by the currently recovered tonnes (2009) from these three (3) municipalities would represent an additional 243 tonnes of blue box material recovered.

By applying the 2009 average cost per tonne for the local municipalities in the Rural Collection – South municipal group, the operational cost, per recovered tonne, for these additional tonnes is approximately \$278. However, when the County issues the collection RFP, the actual cost for *this* Option (based on the bids received) would be determined.

The implementation costs of *this* Option can vary depending on the degree of promotion and education (P&E) undertaken and when the program change takes place. As the County will be assuming collection responsibilities in January 2013, it could be difficult to rationalize a change to the existing contract prior to this. So, if *this* Option were to be implemented as part of the County-wide program, it is likely that the implementation costs, consisting of both a broad and municipality specific P&E campaign, would be a portion of the overall P&E budget. As noted in the *Blue Box Enhancement and Best Practices Report*⁸,

⁸ Appropriately Planned, Designed and Funded P&E Program, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness

when implementing a new program or major program changes, P&E spending between \$3 and \$4 per household is considered appropriate. Assuming that the budget for a County-wide P&E campaign is \$4 per household, and the promotion of *this* Option was 5% of the budget (i.e. for print and electronic media, road side signs), this would cost \$17 per additional recovered tonne.

Depot Best Practice Review

Recycling depots provide an alternative to and are complementary for curbside recycling programs as they offer an additional outlet for residents to divert materials from landfill. As well, they can be effective in jurisdictions that have a seasonal or weekend increases to population and in areas that have inaccessible and private roads. However, challenges can exist with respect to recovery rates and operational costs if the signage, capacity, layout, convenience, promotional information or program enforcement at the depot is limited.

The *Blue Box Enhancement and Best Practices Report*⁹ identified a number of key attributes of an effective and efficient depot system, including:

- Situated in a safe and accessible location;
- Convenient to use, ensuring smooth traffic flow;
- Designed to limit the potential for contamination and illegal dumping;
- Attractive and well-maintained;
- Appropriate signage with clear instructions to residents;
- Adequate promotion and education to enhance awareness of residents;
- Robust record keeping processes; and
- Optimized container design and transportation system.

In addition to the key attributes, ensuring that depot staff are trained and knowledgeable about the details of the entire waste management program is essential.

By following depot best practices, the capture rate of materials being delivered by users can be increased which will serve to increase the annual tonnage and reduce overall program costs. As this WRS did not focus on the current performance (diversion rate) or cost (capital or operating) of the existing depots owned and operated by the local municipalities, no specific recyclable tonnage increase or cost projections can be directly made.

However, it is known from published studies¹⁰ that residents receiving both curbside collection and who have access to a supplemental depot considered to be operating based on depot best practices divert approximately 105kg/capita/year. Excluding Melancthon (which provides no curbside collection for recyclables), based on the 2009 Datacall, Dufferin County's local municipalities (Amaranth and Mono) who provide both curbside collection for recyclables and access to a local depot divert 90kg/capita/year. By applying this difference (15kg/capita/year) to Amaranth's and Mono's 2009 population, approximately 171 tonnes of additional blue box material could be recovered. The operational cost, for these additional tonnes, is calculated to be \$195 per recovered tonne.

The implementation costs of *this* Option can vary depending on the exact nature of the depot upgrades required to be operating at best practice levels. Similarly, the County's assumption of waste collection By-law does not include the assumption of any landfill site owned by a lower-tier municipality and as such, any changes to the depot operations would require the effort by the local municipalities themselves. However, if *this* Option were implemented as part of the County-wide program, a specific review of each depot would be required to determine the exact depth and breadth of the (any) improvements needed. Again, as noted in the *Blue Box Enhancement and Best Practices Report*, when implementing a new program or major program changes, as upgrading the depots to best practice levels could be considered to be, spending between \$3 and \$4 per household is considered appropriate. Assuming that the budget for depot upgrades is \$4 per household, and *this* Option consumed 5% of the budget, this would cost \$24 per additional recovered tonne.

and Efficiency (E&E) Fund project #226, page 58

⁹ Best Practices in the Use of Recycling Depots, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 108

¹⁰ Quinte Waste Solutions Depot Review, E&E project #45

Curbside Collection in Melancthon

Melancthon is the only local municipality in Dufferin County that does not provide curbside collection service for recyclables; paragraphs 2(b) and 7 of the County's By-law 2010-29 respectively state, "the power...for the provision of waste collection and treatment programs and services, including the continuation of existing programs and services" and "Melancthon Township will have the option of requesting that the County provide curb-side pickup of household waste".

In order to calculate the potential additional tonnes of blue box material diverted and the associated costs, a few assumptions have been made. For the purposes of this WRS, it has been assumed that: curbside collection for recyclables will be provided to Melancthon residents, the collection frequency would be weekly and that the list of eligible blue box materials is the same as that which is permitted at the receiving MRF.

When Melancthon's 2009 blue box recovery rate is compared to Dufferin County's local municipalities in the Rural Collection – South "municipal group" (purposefully done because if Melancthon had a curbside collection program for recyclables, it is likely that they would be in this "municipal group"), its blue box recovery rate is approximately 55% of that of its peers.

If curbside collection were provided to Melancthon's residents and if Melancthon's blue box recovery rate were equal to that of its peers within the County, an additional 77 tonnes of blue box material could be recovered. By applying the average cost per tonne of the local municipalities within Dufferin County's Rural Collection - South "municipal group", this equates to an operational cost of \$278 per recovered tonne. Regarding the implementation costs, assuming \$4 per household is used and *this* Option consumed 5% of the budget, *this* Option would cost \$55 per additional tonne recovered.

However, when the County issues the collection RFP, the actual cost (based on the bids received) for *this* Option, would be determined.

Inaccessible / Private Road Collection

In certain circumstances across the County, there are residents that live on either inaccessible roads or on private roads for which the collection contractor either physically cannot or is prohibited from driving on to collect materials. By not receiving the curbside collection service, these residents deliver their waste and recycling to the various depots across the County and/or to the privately contracted transfer station or have to bring the materials to a designated municipal right of way for pick up.

Where feasible, a method of providing a curbside service to these residents would be to establish a communal drop off area, perhaps at the end or some other accessible location of the inaccessible/private road. In this way, the curbside collection contractor would be able to pick up the materials and would eliminate the need for the residents to deliver the material to the landfill and the recycling depot.

While *this* Option could provide for a uniform level of service for most, if not all, residents of the County, some potential issues regarding *this* Option that would need to be addressed include:

- It could become an illegal dumping location for residents that do not want to pay for the disposal of additional bags/cans of waste;
- If recyclable materials were found in the waste stream, it could be difficult to identify the exact source which would make enforcement of the program policies a challenge; and
- Depending on its layout, structure and the rules regarding use, it could become unsightly visual distraction.

While no formal statistical data specifically quantifies the diversion or cost implications of *this* Option, where local circumstances permit *this* Option as viable¹¹, increased program participation and capture rate increases are possible. Specifically, studies have indicated that residents receiving curbside collection divert approximately 51% more material than those that do not receive curbside collection¹². This is confirmed by Melancthon's 2009 blue box recycling rate which was approximately half of the recovery rate as compared to the other municipalities in the County.

¹¹ Sault North Waste Management Council http://www.wdo.ca/cif/pdf/reports/171/171_report.pdf

¹² Waste Management Master Plan CIF 120 http://www.wdo.ca/cif/pdf/reports/120/120_report.pdf

Based on the tonnes of blue box material recovered in the County in 2009, and average of 250 kilograms of recyclables per household (kg/hh) was achieved. Applying this to the estimated 100 homes in the County that are on inaccessible / private roads, an additional 25 tonnes of recyclable material is estimated to be available from those households that do not receive curbside collection service. Applying these tonnes to the 2009 average cost per tonne across the County, the operational cost for these additional tonnes is approximately \$209.

To implement a communal curbside drop off location, the cost would potentially include: an adjustment to the collection contractor's price, advisement / instructional materials for the residents and possibly signage at the drop off location. Assuming that there would be no adjustments to the collection contract, the cost is estimated to manage these additional tonnes is \$241 per additional tonne recovered. Not included in the cost estimate for *this* Option (as the exact expense will depend on a number of factors), are modifications to road allowances and/or road upgrades.

To effectively monitor the performance of *this* Option, the County could, as part of the set out rate study and via feedback from the collection contractor and from the public, assess the participation in the program as well as the quality of material and aesthetics of the site. The results of any audits undertaken should be incorporated into the annual program review process. Any adjustments that are deemed necessary will be budgeted for and actioned accordingly.

Bi-weekly Garbage Collection

In 2009, three (3) of the local municipalities (Amaranth, East Luther Grand Valley and Mono) provided every other week collection of garbage. A bi-weekly garbage collection policy has been shown in many communities across the province to serve as significant factor in increasing waste diversion. Of particular note, the *Blue Box Enhancement and Best Practices Report*¹³ determined that, "reducing the frequency of garbage collection and/or increasing the frequency of blue box collection was found to have a positive effect on recovery rate" and that, "municipalities that collect recyclables less frequently than garbage tend to exhibit lower recovery rates".

In addition, a recycling collection frequency that is equal or greater to the collection frequency of garbage collection is considered a "Non-monetary Incentive"¹⁴ and can drive additional recovery of recyclable materials. This policy, however, requires a certain level of monitoring to ensure the quality of the collected material is acceptable as the potential for increased contamination of the recycling stream exists due to the reduction in garbage collection frequency.

Each of Dufferin County's local municipalities (with the exception of Melancthon) currently provide a frequency of curbside recycling collection (either weekly or bi-weekly) that is equal to or greater than garbage collection (either weekly or bi-weekly). Studies¹⁵ commissioned to determine the impact of bi-weekly collection of garbage on blue box recovery indicate that a 20% increase in blue box recovery can be obtained (with an associated weekly collection frequency of recyclables and food waste). Applying this percentage increase to the 2009 tonnes of blue box material recovered by the local municipalities that provided weekly garbage collection, an additional 780 tonnes could have been recovered.

Using the 2009 net residential cost per tonne for the local municipalities providing weekly collection of garbage, this represents a net operational cost of \$211 per additional recovered tonne. Assuming a \$4 per household promotion and education campaign in those municipalities that currently provide weekly garbage collection and that *this* Option comprised 5% of the budget, the implementation cost per additional tonne recovered is calculated to be \$107.

To ensure public acceptance of the policy, a comprehensive and sufficiently long consultation process should be undertaken. In order to achieve public acceptance and buy-in, any concerns should to be addressed in advance to ensure a smooth as possible implementation.

¹³ Factors Contributing to Good and Poor Performance, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, pages 21- 22

¹⁴ Established and Enforced Policies that Induce Waste Diversion, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 67

¹⁵ Joint Solid Waste/Blue Box Collection for Six Northern Municipalities in York Region, E&E project #214

Bag Limits

With the exception of Melancthon, each of the local municipalities has a garbage bag limit per curbside collection day. The bag limit, however, can be exceeded. If a household has additional garbage to set out they can purchase additional “bag tags” and set out a greater quantity of garbage than the collection frequency bag limit.

While a direct relationship is difficult to assess (as each and every waste management policy has a separate and unique impact on waste diversion), a correlation can be drawn between the number of acceptable garbage bags permitted to be set out and the blue box recovery rate.

As described earlier in this report, comparing the local municipalities 2009 blue box recovery rates with their respective same bag limit produces results that are in-line with the *Blue Box Enhancement and Best Practices Report* conclusion; that lower garbage bag limits produce higher recycling rates. The following lists the number of garbage bags permitted to be set out per collection day:

- Amaranth: _____ 2 (bi-weekly garbage collection, 4 per collection day);
- East Garafraxa: _____ 3 (weekly garbage collection);
- East Luther Grand Valley: _____ 2 (bi-weekly garbage collection, 4 per collection day);
- Melancthon: _____ Not applicable, no curbside garbage collection);
- Mono: _____ 2 (bi-weekly garbage collection, 4 per collection day);
- Mulmur: _____ 1 (weekly garbage collection);
- Orangeville: _____ 1 (weekly garbage collection); and
- Shelburne: _____ 2 (weekly garbage collection).

Of the local municipalities that provide curbside collection: five (5), 71%, provide weekly curbside collection of recyclables and four (4), 57%, provide weekly collection of garbage. In addition, the County provides weekly collection of source separated food waste (i.e. kitchen waste). Using the level of service that the majority of County residents currently receive (i.e. weekly collection), the *Blue Box Enhancement and Best Practices Report*¹⁶ suggests that an effective garbage bag limit for this type of curbside program is two (2) garbage bags per collection day.

However, the section in the *Blue Box Enhancement and Best Practices Report* that describes “Non-monetary Incentives” (i.e. bag limits) describes bag limits as a, “companion strategy to the effective diversion of household organics and blue box recycling” and that, “the need for weekly garbage collection is effectively eliminated”. As such, a two (2) garbage bag limit per collection day could also apply to a bi-weekly garbage collection frequency (i.e. 1 garbage bag per week, provided the program is supported with effective and on-going education, monitoring and enforcement).

One of the *Blue Box Enhancement and Best Practices Report’s* conclusions¹⁷ was that, “municipalities with lower weekly garbage bag limits tend to exhibit higher recovery rates”. Specifically, municipalities with a one (1) garbage bag per week limit produced recycling rates that were:

- 4% higher than municipalities with a two (2) garbage bag per week limit; and
- 6% higher than municipalities with a three (3) garbage bag per week limit.

Assuming that the County-wide curbside collection program includes weekly collection of recyclables and food waste and bi-weekly collection of garbage with a two (2) garbage bag limit per collection day, an additional 78 tonnes of blue box tonnes could be recovered. The per additional tonne recovered operational cost for *this* Option is estimated at \$278.

Assuming a \$4 per household promotion and education campaign in those municipalities that currently allow greater than one (1) garbage bag per week and that *this* Option comprised 5% of the budget, the implementation cost per additional tonne recovered is calculated to be \$54.

¹⁶ Established and Enforced Polices that Induce Waste Diversion, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, pages 64 through 68

¹⁷ KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 21

To ensure public acceptance of the policy, a comprehensive and sufficiently long consultation process should be undertaken. In order to achieve public acceptance and buy-in, concerns should to be addressed in advance to ensure a smooth as possible implementation.

Outreach – Student Green Teams

Outreach employs tools to directly engage with residents to foster and encourage behavioural change to increase participation and diversion. Commonly employed tools include: commitment (pledges), feedback, prompts and incentives. *This* type of Option typically requires good coordination of activities and a strong public education and training program. As well, a good understanding of the resident's behaviours and attitudes will serve well during its design, implementation and performance measurement.

While there is limited research available on the effectiveness of *this* Option at increasing the blue box recovery rate, there has been a number of studies commissioned on Promotion and Education. As well, the *Blue Box Enhancement and Best Practices Report's* section on "Other Practices Meriting Consideration"¹⁸ indicates that a number of Ontario communities have (or are) undertaking community based outreach and education.

Due to the uncertainty with *this* Option's impact on increasing blue box tonnage, an assumption needs to be made with respect to the success of the campaign at increasing waste management awareness and its ability to affect positive change in the behaviour of residents. Using the County's 2009 average capture rate of 95 kg/capita/year and assuming *this* Option was capable of reaching and successfully changing the behaviour of 1% of the County's population, this would represent an additional 52 tonnes of material recovered.

Assuming that *this* Option involved the use of two (2) full time students per year, the annual operational cost for *this* Option would be \$96,000¹⁹ (\$1,836 per additional recovered tonne). Regarding the implementation costs, *this* Option could include promotional items such as: clothing, flyers, name tags, banners, etc. Assuming the implementation cost is 10% of the operational cost, the cost per additional tonne recovered is \$102.

Clear Bag Policy for Garbage

Currently, four (4) of the local municipalities (Amaranth, East Luther Grand Valley, Melancthon and Mulmur) have a clear bag policy for garbage. While studies on the clear bag policy from across the province have shown a number of associated issues, such as privacy rights, the benefits of a clear bag program generally involve motivating the residents to recycle more through public pressure and enforcing program compliance (as the collection contractor can easily see if prohibited materials are in the bag).

Based on the clear bag for garbage policy studies undertaken around the province, the results range from: no noticeable increase in blue box capture²⁰ to a 35% increase recycling accompanied by a 41% decrease in garbage generation^{21,22}. However, it is clear, that in jurisdictions that have implemented a clear garbage bag policy, community dynamics play a crucial role in whether or not this policy is effective.

To ensure public acceptance of the policy, a comprehensive and sufficiently long consultation process be undertaken. In order to achieve public acceptance and buy-in, concerns should to be addressed in advance to ensure a smooth as possible implementation.

While there is a range in diversion impacts with respect to implementing the policy, where it has been successfully implemented, the average increase in recycling rate is 22%. Applying this average increase to Dufferin County's local municipalities that do not have a clear bag for garbage policy, an additional 955 tonnes is estimated to be available for collection. Using the 2009 net residential cost per tonne for the local municipalities without a clear bag policy, this represents an operational net cost of \$216 per additional recovered tonne

¹⁸ KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 130

¹⁹ Assumed (per student) \$20 per hour, 8 hour working day, 250 working days per year plus 20% for benefits

²⁰ Clear Bag Project E&E 285 http://www.stewardshipontario.ca/bluebox/pdf/eefund/reports/285/285_report.pdf

²¹ Clear Bags Research E&E 177 http://www.stewardshipontario.ca/bluebox/pdf/eefund/reports/177/177_report.pdf

²² Clear Bags for Garbage E&E 312 http://www.stewardshipontario.ca/bluebox/pdf/eefund/reports/312/312_report.pdf

The implementation costs can vary depending on the extent of the public consultation and educational process undertaken. Assuming \$4 per household²³ is spent County-wide on this campaign (potentially involving the use of various media, personal interactions to advise the public and staff time to answer telephone/email questions) and that *this* Option comprised 5% of the budget, the estimated implementation cost would be \$88 per additional tonne recovered.

To supplement and support a curbside clear bag for garbage policy, enforcement at both the curbside and the various landfill's and contracted transfer station should also be in place.

10.2 Future Initiatives

Based on the Option scores, it was felt that it was more important to focus those that were required as a result of the County's assumption of waste collection responsibilities and defer these that were considered longer term, broader in scope or perhaps required additional maturity.

A Rewards Program and Public Space Recycling Options will be reviewed during WRS review periods.

11. Implementation Steps

While the following table outlines the implementation steps for the Priority Initiatives, it needs to be recognized that the local municipalities will continue to be responsible for the Blue Box program until the end of 2012. As such, the steps presented outline a high level overview.

Table 19 - Implementation Steps

| Priority Initiatives | Steps | Timeline |
|---|--|----------------|
| Collection Frequency Collection in Melancthon Inaccessible/ Private Roads Bi-weekly garbage collection Bag limits Outreach Clear Bags for garbage | Prepare County collection RFP | 2012 Q1 |
| | Post-RFP close and award, prepare County-wide promotion and education program identifying that Blue Box Recyclables will be collected weekly | 2012 Q3 |
| | Implement pre-County assumption of collection responsibilities promotion and education campaign noting the various program changes | 2012 Q4 |
| | Regular program review and assessment of transition to County-program and update/revise messaging based on the performance seen | 2013 Q1 & Q2 |
| | Review performance, report as required (including providing feedback to the residents) and implement continuous improvement actions | 2013 Quarterly |

12. Contingencies

Even the best planning can be delayed by a variety of foreseen and unforeseen circumstances. Predicting and including contingencies can help to ensure that these risks are managed for minimum delay. The table below identifies contingencies for possible planning delays.

²³ Appropriately Planned, Designed and Funded P&E Program, KPMG Final Report, July 2007, Stewardship Ontario Effectiveness and Efficiency (E&E) Fund project #226, page 58

Table 20 - Contingencies

| Priority Initiative(s) | Risk | Contingency |
|--|---|---|
| Collection Frequency Collection in Melancthon | RFP not issued/awarded on time delaying the preparation of 2012 pre-County assumption P&E materials | Ensure proper planning steps have been taken to prevent a delay with the preparation, issuance and award of the RFP |
| Bi-weekly garbage collection Bag limits | Politically unacceptable | Defer until perception of Option changes |
| Inaccessible/ Private Roads | Collection contractor not willing to collect and/or cost to high | Engage in discussions with residents and/or local municipality to identify other mutually acceptable solutions |
| Outreach | Funding shortfall | Defer until funding obtained or find alternative funding |
| Clear Bags for garbage | Politically unacceptable | Defer until perception of Option changes |

| Other Risks | Contingency |
|---|---|
| Full Extended Producer Responsibility (EPR) | Timeline of this is unknown but even if it becomes a reality, the implementation plan may take several years. This may create an opportunity for municipal recyclers to recover most if not all of their expenses, and may also cause municipal recyclers to act as contractors to Stewardship Ontario. |
| RFP and Contract language (i.e. fuel escalation and recycling revenues) | In preparation for assuming collection and processing responsibilities, the RFP and contract language should be developed to accurately and appropriately assign the risks associated with these items to minimize, and where possible prevent, contract issues and disputes. |

13. Monitoring and Reporting

The monitoring and reporting of the County's recycling program is considered a Blue Box program fundamental best practice and will be a key component of this WRS. Once this strategy is implemented, the performance will be monitored and measured against the baseline established for the current system. Once the results are measured, they should be reported to Council and the public.

The approach for monitoring the County's program is outlined in the table below.

Table 21 - Monitoring and Reporting

| Monitoring Topic | Monitoring Tool | Frequency |
|---|---|---------------------------|
| Diversion rate achieved, total and by material type | Conduct regular reviews of program data (i.e. tonnages) to determine the waste diversion performance | Monthly and annually |
| Program Participation | Conduct set-out studies and waste audits to assess program performance | Quarterly and annually |
| Resident satisfaction | Conduct resident surveys to understand their views regarding the County-wide program | Semi-annually or annually |
| Waste Recycling Strategy Reviews | Periodic reviews of the WRS to report on progress of the implemented options to demonstrate continual improvement | Every three (3) years |

14. Conclusions

The County of Dufferin initiated this Waste Recycling Strategy (WRS) to develop a plan to increase the efficiency and effectiveness of its recycling programs and maximize the amount of blue box material diverted from disposal. The WRS will also help the County meet the Waste Diversion Ontario (WDO) Best Practices requirement to have established recycling targets and a plan that specifically targets recycling performance and performance measurement.

Many of the Priority Initiatives will likely be included in the upcoming County RFP for curbside collection and will be measured and monitored regularly after the County assumes responsibility in 2013.

After the County assumes collection responsibilities, the County will be responsible for completing the annual Waste Diversion Ontario Datacall.

Appendix A

Waste Recycling Option Scores

Option Scoring

| Priority Initiatives | | | | Criteria (Score out of 5) | | | | | | Total Criteria Score |
|--------------------------------|---|------------------------------------|--|----------------------------------|-----------------------|------------------------------|-----------------------------|---|---|-----------------------------|
| Options | Approximate Cost | | Approximate Additional Tonnes Recoverable | % Waste Diverted | Proven Results | Economically Feasible | Accessible to Public | Technical Ease of implementation | Political Ease of implementation | |
| | Implementation (per recovered tonne) | Operation (net, first year) | | | | | | | | |
| Collection Frequency | \$17 | \$67,531 | 243 | 4 | 4 | 4 | 5 | 4 | 2 | 23 |
| Recycling Depot BP Review | \$24 | \$33,314 | 171 | 3 | 4 | 4 | 4 | 4 | 4 | 23 |
| Collection in Melanchthon | \$55 | \$21,297 | 77 | 4 | 4 | 3 | 4 | 4 | 3 | 22 |
| Inaccessible and Private Roads | \$241 | \$5,222 | 25 | 1 | 4 | 4 | 4 | 4 | 4 | 21 |
| Bi weekly Garbage Collection | \$107 | \$164,748 | 780 | 4 | 4 | 5 | 3 | 3 | 2 | 21 |
| Bag Limits | \$54 | \$21,658 | 78 | 3 | 4 | 5 | 3 | 4 | 2 | 21 |
| Outreach – Student Green Teams | \$102 | \$96,000 | 52 | 3 | 3 | 4 | 4 | 3 | 4 | 21 |
| Clear bags for Garbage | \$88 | \$206,587 | 955 | 3 | 4 | 5 | 3 | 3 | 2 | 20 |
| Deferred Initiatives | | | | | | | | | | |
| Rewards | NA | NA | NA | 1 | 2 | 4 | 4 | 3 | 3 | 17 |
| Public Space Recycling | NA | NA | NA | 1 | 1 | 3 | 4 | 2 | 2 | 13 |

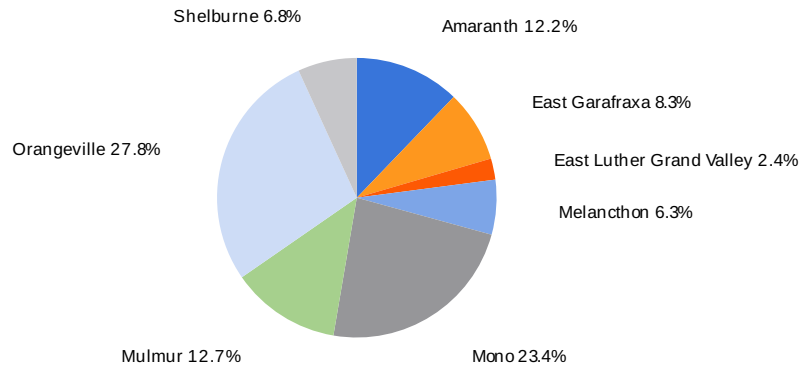
Appendix B

Electronic Survey Analysis

Summary Report

Survey: Dufferin County

I/we live in:

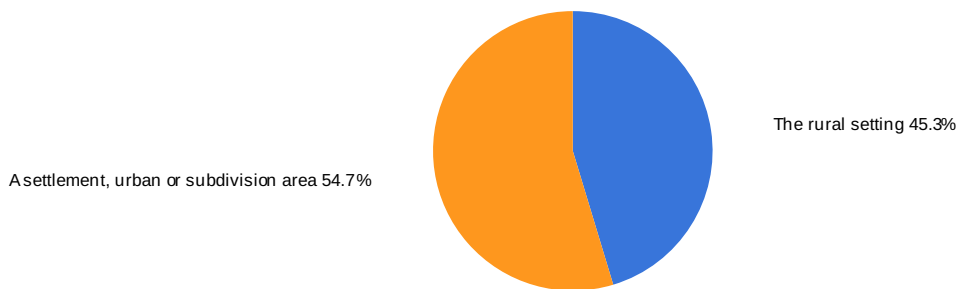


I/we live in:

| Value | Count | Percent % |
|--------------------------|-------|-----------|
| Amaranth | 25 | 12.2% |
| East Garafraxa | 17 | 8.3% |
| East Luther Grand Valley | 5 | 2.4% |
| Melancthon | 13 | 6.3% |
| Mono | 48 | 23.4% |
| Mulmur | 26 | 12.7% |
| Orangeville | 57 | 27.8% |
| Shelburne | 14 | 6.8% |

| Statistics | |
|-----------------|-----|
| Total Responses | 205 |

In my municipality, I live in:

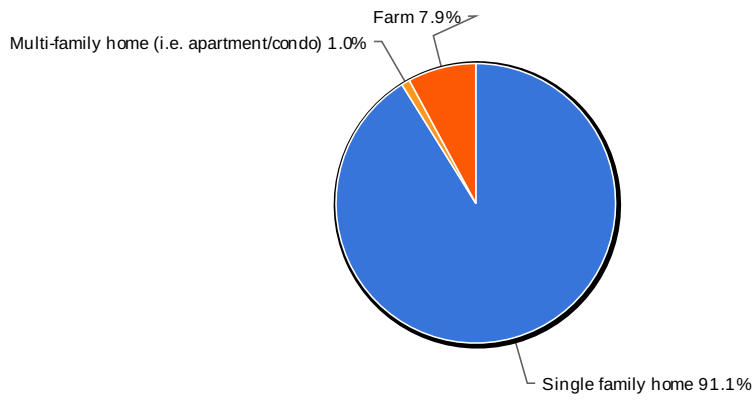


In my municipality, I live in:

| Value | Count | Percent % |
|---|-------|-----------|
| The rural setting | 92 | 45.3% |
| A settlement, urban or subdivision area | 111 | 54.7% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I/we live in/on a:

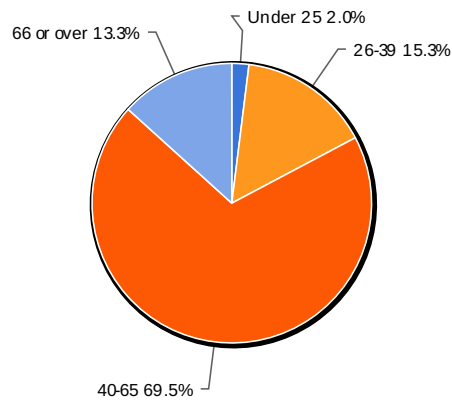


I/we live in/on a:

| Value | Count | Percent % |
|--|-------|-----------|
| Single family home | 185 | 91.1% |
| Multi-family home (i.e. apartment/condo) | 2 | 1% |
| Farm | 16 | 7.9% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I am:

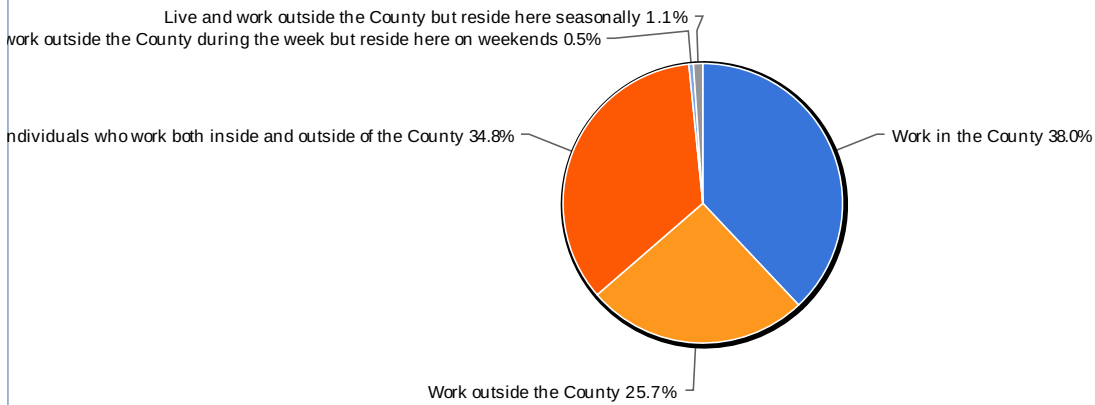


I am:

| Value | Count | Percent % |
|------------|-------|-----------|
| Under 25 | 4 | 2% |
| 26-39 | 31 | 15.3% |
| 40-65 | 141 | 69.5% |
| 66 or over | 27 | 13.3% |

| Statistics | |
|-----------------|---------|
| Total Responses | 203 |
| Sum | 8,228.0 |
| Average | 41.3 |
| StdDev | 10.97 |
| Max | 66.0 |

In our household we:

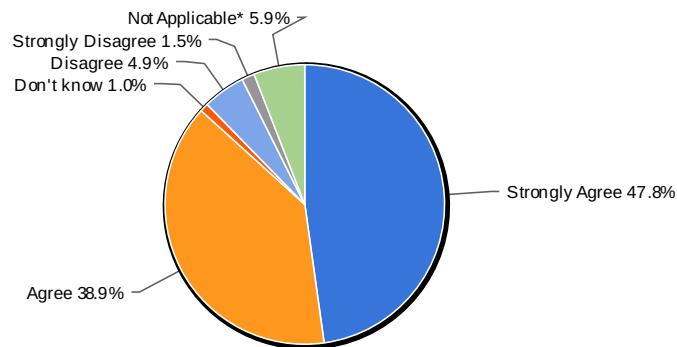


In our household we:

| Value | Count | Percent % |
|--|-------|-----------|
| Work in the County | 71 | 38% |
| Work outside the County | 48 | 25.7% |
| Have individuals who work both inside and outside of the County | 65 | 34.8% |
| Live and work outside the County during the week but reside here on weekends | 1 | 0.5% |
| Live and work outside the County but reside here seasonally | 2 | 1.1% |

| Statistics | |
|-----------------|-----|
| Total Responses | 187 |

I am/we are satisfied with our garbage collection frequency:

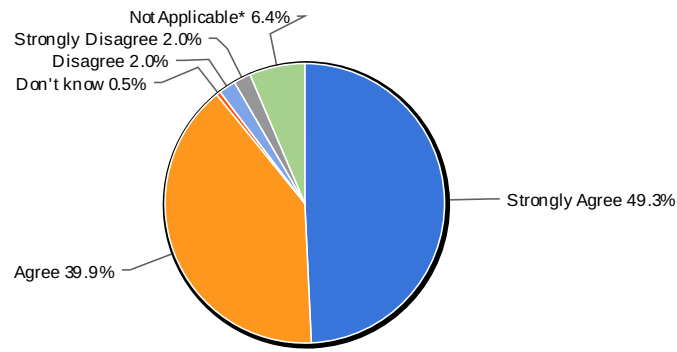


I am/we are satisfied with our garbage collection frequency:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 97 | 47.8% |
| Agree | 79 | 38.9% |
| Don't know | 2 | 1% |
| Disagree | 10 | 4.9% |
| Strongly Disagree | 3 | 1.5% |
| Not Applicable* | 12 | 5.9% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I am/we are satisfied with our blue box collection frequency:

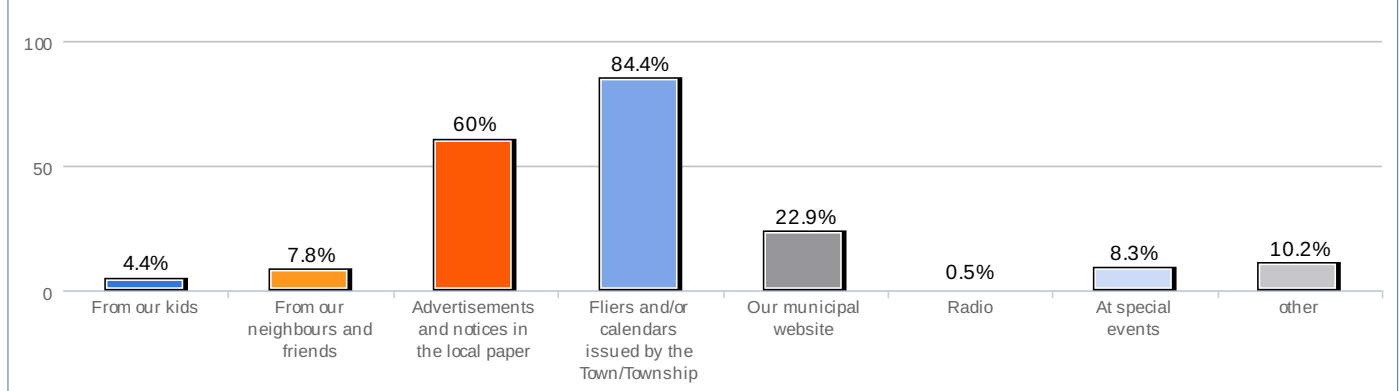


I am/we are satisfied with our blue box collection frequency:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 100 | 49.3% |
| Agree | 81 | 39.9% |
| Don't know | 1 | 0.5% |
| Disagree | 4 | 2% |
| Strongly Disagree | 4 | 2% |
| Not Applicable* | 13 | 6.4% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I/we currently get information about our recycling and waste diversion programs from (check all those that apply):

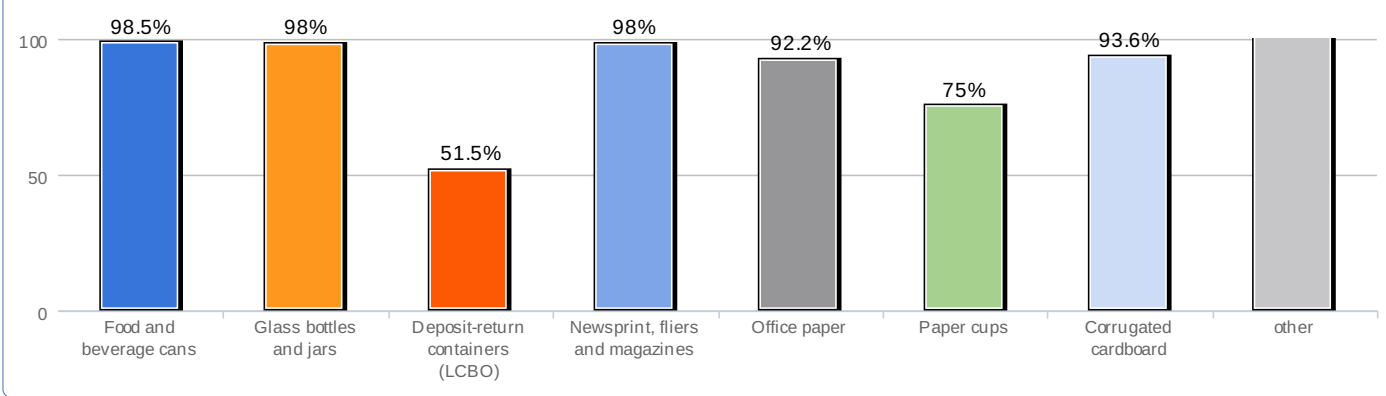


I/we currently get information about our recycling and waste diversion programs from (check all those that apply):

| Value | Count | Percent % |
|---|-------|-----------|
| From our kids | 9 | 4.4% |
| From our neighbours and friends | 16 | 7.8% |
| Advertisements and notices in the local paper | 123 | 60% |
| Fliers and/or calendars issued by the Town/Township | 173 | 84.4% |
| Our municipal website | 47 | 22.9% |
| Radio | 1 | 0.5% |
| At special events | 17 | 8.3% |
| Online, social media (i.e. News feeds, Twitter) | 8 | 3.9% |
| Other (please describe) | 13 | 6.3% |

| Statistics | |
|-----------------|-----|
| Total Responses | 205 |

It is my/our understanding that the following materials are accepted as part of our blue box recycling program (check all those that apply):

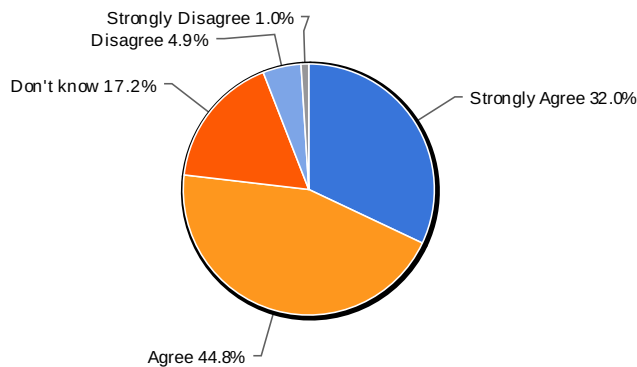


It is my/our understanding that the following materials are accepted as part of our blue box recycling program (check all those that apply):

| Value | Count | Percent % |
|---|-------|-----------|
| Food and beverage cans | 201 | 98.5% |
| Glass bottles and jars | 200 | 98% |
| Deposit-return containers (LCBO) | 105 | 51.5% |
| Newsprint, fliers and magazines | 200 | 98% |
| Office paper | 188 | 92.2% |
| Paper cups | 153 | 75% |
| Corrugated cardboard | 191 | 93.6% |
| Boxboard (cereal boxes, etc) | 197 | 96.6% |
| Gable Top containers (milk, etc) | 158 | 77.5% |
| Aseptic and Tetra Pak containers | 119 | 58.3% |
| Plastic bottles and jugs (water bottles, laundry jugs) | 202 | 99% |
| Other types of rigid plastics (i.e. clamshell packaging for fruits) | 159 | 77.9% |
| Polystyrene (meat trays, Styrofoam cups) | 150 | 73.5% |
| Film plastic (grocery bags, milk bags) | 62 | 30.4% |
| Empty paint cans | 48 | 23.5% |
| Empty aerosol cans | 38 | 18.6% |
| Other (please describe) | 20 | 9.8% |

| Statistics | |
|-----------------|-----|
| Total Responses | 204 |

I/we know who to contact if I/we have questions about curbside or depot recycling and waste collection services:

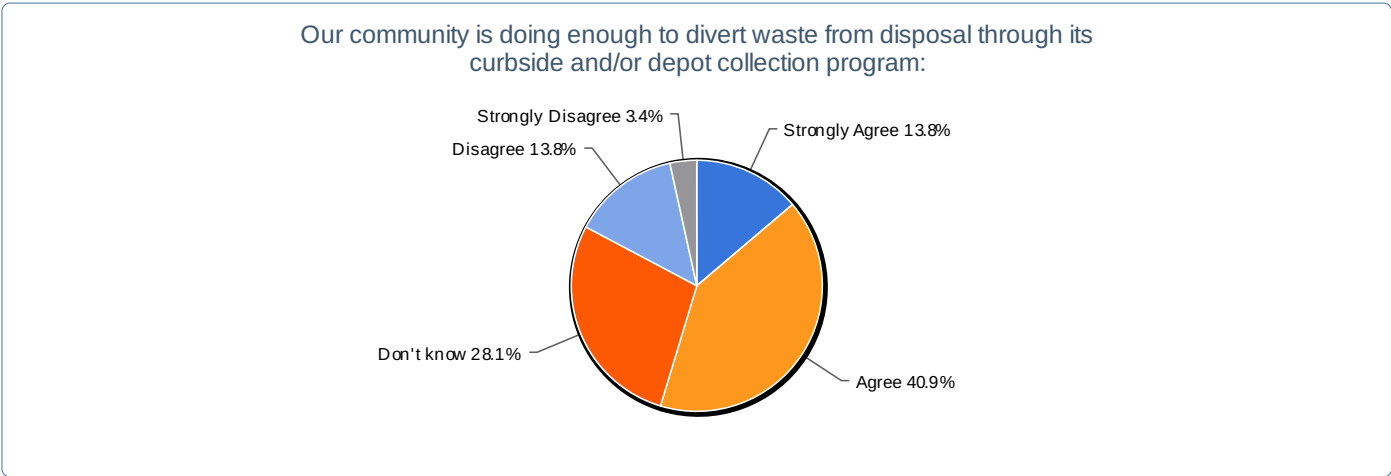


I/we know who to contact if I/we have questions about curbside or depot recycling and waste collection services:

| Value | Count | Percent % |
|----------------|-------|-----------|
| Strongly Agree | 65 | 32% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

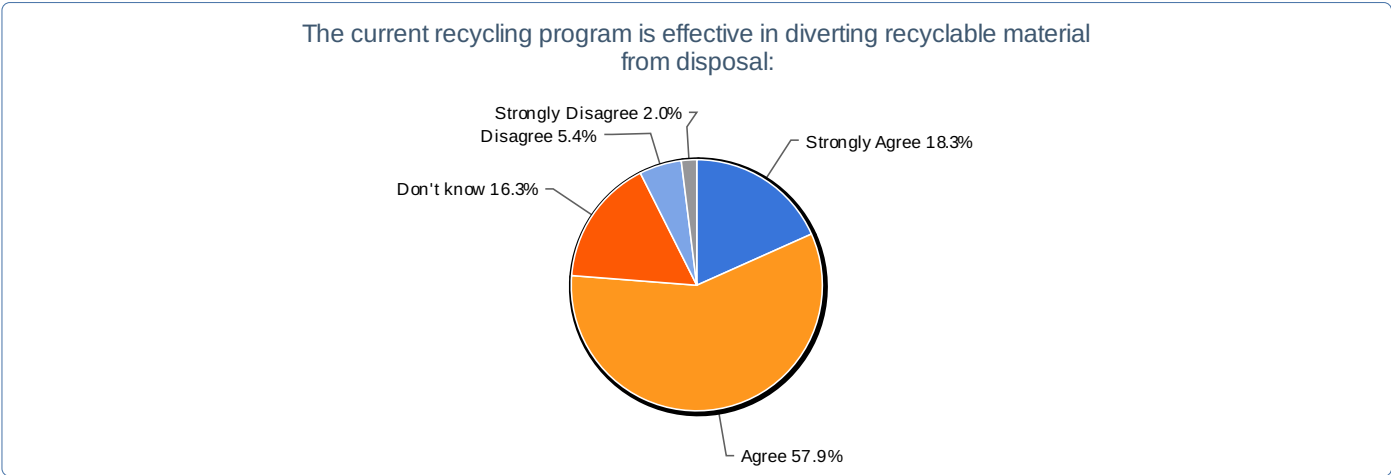
| | | |
|-------------------|----|-------|
| Agree | 91 | 44.8% |
| Don't know | 35 | 17.2% |
| Disagree | 10 | 4.9% |
| Strongly Disagree | 2 | 1% |



Our community is doing enough to divert waste from disposal through its curbside and/or depot collection program:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 28 | 13.8% |
| Agree | 83 | 40.9% |
| Don't know | 57 | 28.1% |
| Disagree | 28 | 13.8% |
| Strongly Disagree | 7 | 3.4% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

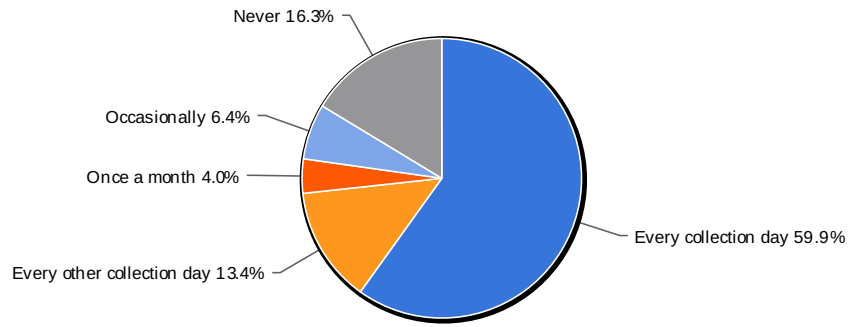


The current recycling program is effective in diverting recyclable material from disposal:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 37 | 18.3% |
| Agree | 117 | 57.9% |
| Don't know | 33 | 16.3% |
| Disagree | 11 | 5.4% |
| Strongly Disagree | 4 | 2% |

| Statistics | |
|-----------------|-----|
| Total Responses | 202 |

In our household, I/we put out our green bin:

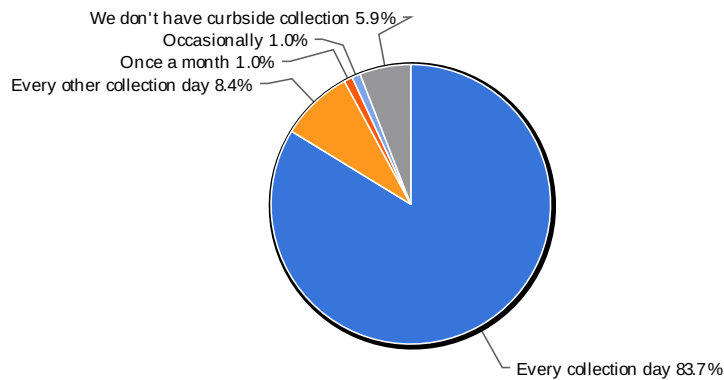


In our household, I/we put out our green bin:

| Value | Count | Percent % |
|----------------------------|-------|-----------|
| Every collection day | 121 | 59.9% |
| Every other collection day | 27 | 13.4% |
| Once a month | 8 | 4% |
| Occasionally | 13 | 6.4% |
| Never | 33 | 16.3% |

| Statistics | |
|-----------------|-----|
| Total Responses | 202 |

In our household, I/we put out our blue box:

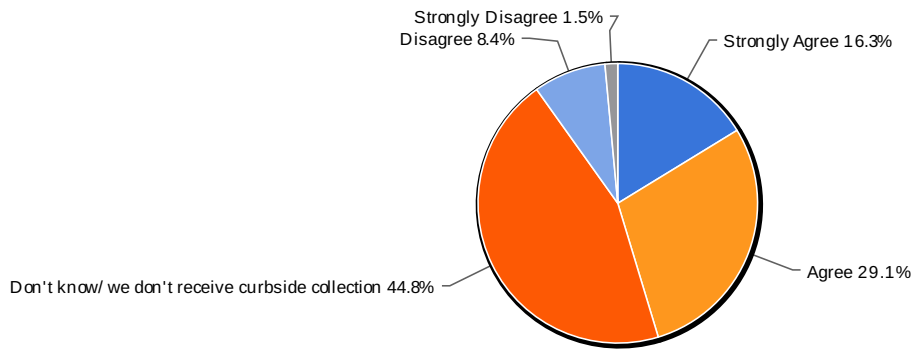


In our household, I/we put out our blue box:

| Value | Count | Percent % |
|-----------------------------------|-------|-----------|
| Every collection day | 170 | 83.7% |
| Every other collection day | 17 | 8.4% |
| Once a month | 2 | 1% |
| Occasionally | 2 | 1% |
| We don't have curbside collection | 12 | 5.9% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I/we are satisfied with our current schedule of leaf and yard waste collection:

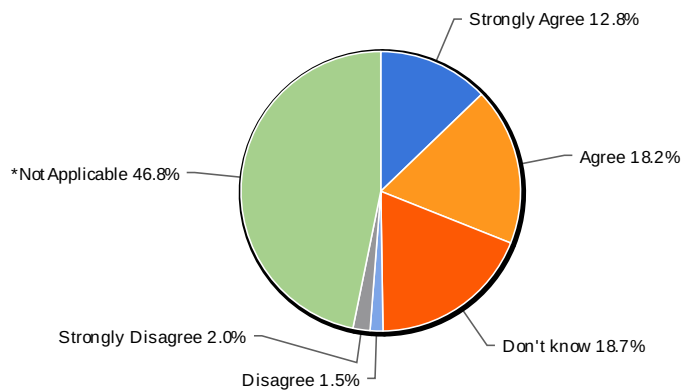


I/we are satisfied with our current schedule of leaf and yard waste collection:

| Value | Count | Percent % |
|--|-------|-----------|
| Strongly Agree | 33 | 16.3% |
| Agree | 59 | 29.1% |
| Don't know/ we don't receive curbside collection | 91 | 44.8% |
| Disagree | 17 | 8.4% |
| Strongly Disagree | 3 | 1.5% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

I/we are satisfied with our current program for Christmas tree collection:

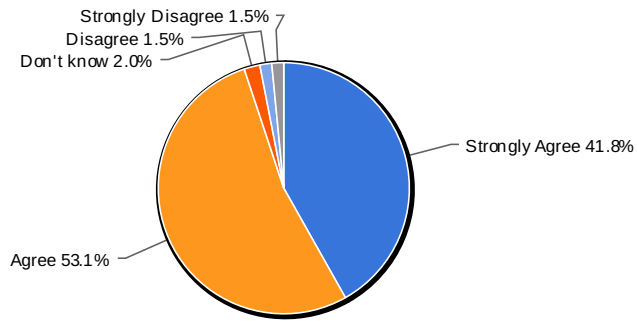


I/we are satisfied with our current program for Christmas tree collection:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 26 | 12.8% |
| Agree | 37 | 18.2% |
| Don't know | 38 | 18.7% |
| Disagree | 3 | 1.5% |
| Strongly Disagree | 4 | 2% |
| *Not Applicable | 95 | 46.8% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

If a cost savings for garbage collection resulted from it, I/we would be willing to have my garbage day changed to another day in the week:

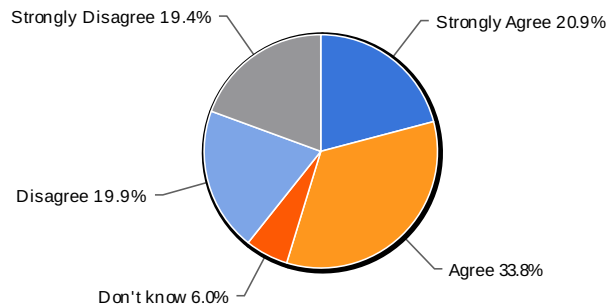


If a cost savings for garbage collection resulted from it, I/we would be willing to have my garbage day changed to another day in the week:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 82 | 41.8% |
| Agree | 104 | 53.1% |
| Don't know | 4 | 2% |
| Disagree | 3 | 1.5% |
| Strongly Disagree | 3 | 1.5% |

| Statistics | |
|-----------------|-----|
| Total Responses | 196 |

If a cost savings for overall collection programs resulted from it, and I/we received weekly collection of recyclables and food waste, I/we would be willing to consider garbage collection frequency of once every two weeks:

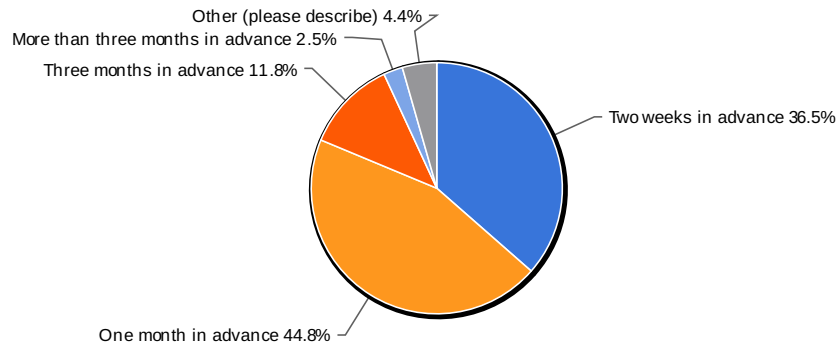


If a cost savings for overall collection programs resulted from it, and I/we received weekly collection of recyclables and food waste, I /we would be willing to consider garbage collection frequency of once every two weeks:

| Value | Count | Percent % |
|-------------------|-------|-----------|
| Strongly Agree | 42 | 20.9% |
| Agree | 68 | 33.8% |
| Don't know | 12 | 6% |
| Disagree | 40 | 19.9% |
| Strongly Disagree | 39 | 19.4% |

| Statistics | |
|-----------------|-----|
| Total Responses | 201 |

If a change in collection schedule were required, I would prefer to receive notice at least:

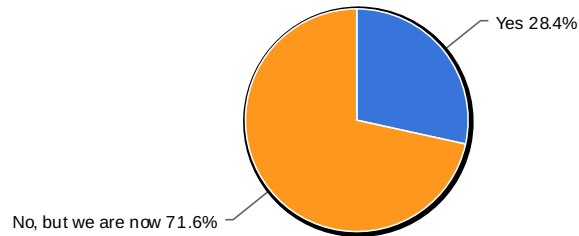


If a change in collection schedule were required, I would prefer to receive notice at least:

| Value | Count | Percent % |
|-----------------------------------|-------|-----------|
| Two weeks in advance | 74 | 36.5% |
| One month in advance | 91 | 44.8% |
| Three months in advance | 24 | 11.8% |
| More than three months in advance | 5 | 2.5% |
| Other (please describe) | 9 | 4.4% |

| Statistics | |
|-----------------|-----|
| Total Responses | 203 |

If we are aware that open house events (to share with residents the development of the Waste Recycling Strategy and Collection Plan) are being/were being held May 17th, 19th, 31st and June 2nd:

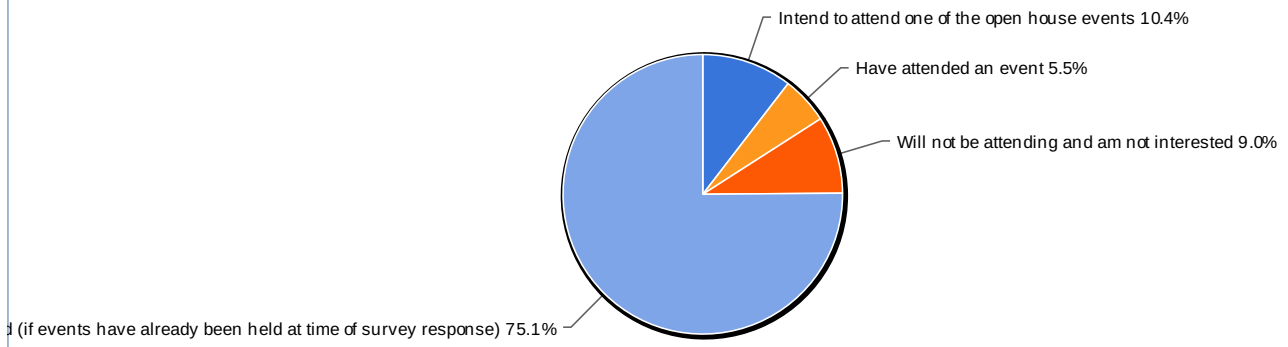


If we are aware that open house events (to share with residents the development of the Waste Recycling Strategy and Collection Plan) are being/were being held May 17th, 19th, 31st and June 2nd:

| Value | Count | Percent % |
|--------------------|-------|-----------|
| Yes | 58 | 28.4% |
| No, but we are now | 146 | 71.6% |

| Statistics | |
|-----------------|-----|
| Total Responses | 204 |

I/we:



I/we:

| Value | Count | Percent % |
|--|-------|-----------|
| Intend to attend one of the open house events | 21 | 10.4% |
| Have attended an event | 11 | 5.5% |
| Will not be attending and am not interested | 18 | 9% |
| Did not attend (if events have already been held at time of survey response) | 151 | 75.1% |

Statistics

| | |
|-----------------|-----|
| Total Responses | 201 |
|-----------------|-----|

Appendix C

Dufferin County By-law 2010-29

CORPORATION OF THE COUNTY OF DUFFERIN

BY-LAW NUMBER 2010-29

A BY-LAW TO EMPOWER THE COUNTY OF DUFFERIN TO ASSUME AUTHORITY FOR THE ESTABLISHMENT, OPERATION AND DELIVERY OF WASTE COLLECTION AND TREATMENT PROGRAMS AND SERVICES FOR THE COUNTY OF DUFFERIN AND ALL ITS CONSTITUENT LOWER-TIER MUNICIPALITIES.

WHEREAS authority for waste management in the Corporation of the County of Dufferin (the "County") rests exclusively with the lower-tier municipalities, as set out in Section 11 of the *Municipal Act, 2001, S.O. 2001, c. 25* (the "*Act*"), with the exception of composting, household hazardous waste and e-waste;

AND WHEREAS Section 189(1) and (2) of the *Act* sets out the authority and conditions for the transfer of power to an upper-tier municipality;

WHEREAS the County owns 200 acres of an Environmental Assessment approved landfill site (the "Dufferin Eco Energy Park");

AND WHEREAS the County is looking for alternative methods of solid waste treatment;

AND WHEREAS the County has identified composting of Source Separated Organics ("SSO") and gasification as two alternative methods of waste treatment;

AND WHEREAS the County currently has authority to collect and treat SSO and Household Hazardous Waste pursuant to By-law 2000-32 and By-law 2007-17;

AND WHEREAS the County is developing the Dufferin Eco Energy Park site to utilize these methods of treatment;

AND WHEREAS the County has identified the need to control the waste stream to secure tipping fees that will be competitive with current commercial rates;

AND WHEREAS a coordinated waste system in the County will allow for a greater opportunity for effective promotion/education, diversion and cost savings;

NOW THEREFORE, subject to the conditions set out in Section 189(2) of the *Act*, the municipal council of the County enacts as follows:

Assumption of Power

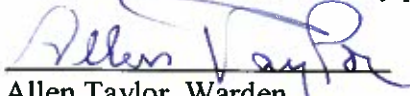
1. The County hereby assumes from all the lower-tier municipalities forming part of the County, the power to establish, operate and deliver household waste collection and treatment programs and services.


2. Without limiting the generality of Section 1 above, “the power to establish, operate and deliver waste collection and treatment programs and services” shall include, but not be limited to, the following elements:
 - (a) the power to carry out, or to commission, research, studies, and analyses of waste collection and treatment programs and services;
 - (b) the power to enter into agreements and contracts with lower-tier municipalities and other parties for the provision of waste collection and treatment programs and services, including the continuation of existing programs and services;
 - (c) the power to construct, own, and operate a waste facility or facilities;
 - (d) the power to implement a waste collection system or systems that may be required to support such a waste facility or facilities;
 - (e) the power to enter into agreements and contracts for the sale or other disposition of the products of any waste collection and treatment programs;
 - (f) the power to conduct public education programs and otherwise promote waste programs and services;
 - (g) the power to require the separation of waste at the point of collection consistent with continuation of existing programs and services; and
 - (h) the power to:
 - (i) establish incentives to encourage the use of waste programs and services;
 - (ii) establish different classes of waste;
 - (iii) establish fees and incentives that vary based on the volume, weight or class of waste, or on any other basis the Council of the County of Dufferin considers appropriate.
3. Notwithstanding Section 1, the assumption of waste does not include the assumption of any landfill site open or closed and owned by a lower-tier municipality.
4. The tipping fees paid by the County must be competitive with commercial rates at the time of commission.

Transitional Provisions

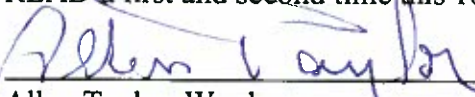
5. The County shall assume all authority granted herein by December 31, 2012 or the latest expiry date of the existing lower-tier collection contracts.
 6. Until the assumption identified in Section 5 of this by-law, the County will work with the lower-tier municipalities, at the request of the individual lower-tier municipalities, to administer the waste collection process. The cost of any existing contracts will be borne by the lower-tier municipality until assumption by the County pursuant to this by-law.
 7. The County will maintain the current curb-side collection programs offered by the lower-tier municipalities. Melancthon Township Council will have the option of requesting that the County provide curb-side pick up of household waste.
 8. In accordance with the provisions of the *Act*, this by-law shall not come into effect unless,
 - (a) a majority of all votes on the County Council are cast in its favour;
 - (b) a majority of the Councils of all the lower-tier municipalities within the County have passed resolutions consenting to the by-law; and
 - (c) the total number of electors in the lower-tier municipalities that have passed resolutions under clause (b) form a majority of all the electors in the County;
5. This by-law will come into effect upon third reading.


READ a ~~third~~ time and finally passed this 9th day of September, 2010.


Allen Taylor, Warden


Pam Hillock, Clerk


READ a ~~first and second~~ time this 10th day of June, 2010.


Allen Taylor, Warden


Pam Hillock, Clerk

PURSUANT TO SECTION 189(2) OF THE MUNICIPAL ACT, 2001, S.O. 2001, c. 25

TRIPLE MAJORITY ACHIEVED ON THIS 16 day of September, 2010.


Allen Taylor, Warden


Pam Hillock, Clerk

Appendix D

Public Consultation Comments

AGENDA
Community Development Committee

Thursday, November 24, 2011, 7:00 p.m.
229 Broadway, Orangeville



Declarations of Pecuniary Interest by Members

REPORTS

1. **COMMUNITY DEVELOPMENT COMMITTEE – November 24, 2011 – Item #1**
Draft Waste Recycling Strategy and Waste Management Collections Plan

A report from the Director of Public Works dated November 24, 2011 to provide the Committee with comments received on the Draft Waste Recycling Study and the Draft Waste Management Collection Plan. Correspondence from Melancthon Township, Town of Mono and Mulmur Township is attached.

Recommendation:

THAT report CDC-2011-11-24 WRS Comments, from the Director of Public Works dated November 24, 2011 be received;

AND THAT responses provided be circulated to all local municipalities;

AND THAT the Waste Recycling Study and Waste Management Collection Plan be approved, once the stakeholder consultation process in the studies has been updated to reflect the process followed.

2. **COMMUNITY DEVELOPMENT COMMITTEE – November 24, 2011 – Item #2**
Update Household Hazardous Waste Service Enhancement

A report from the Director of Public Works dated November 24, 2011 with respect to an update on household hazardous waste service enhancement.

Recommendation:

For the consideration of the Committee.

3. **COMMUNITY DEVELOPMENT COMMITTEE - November 24, 2011 – Item #3**
Battery Recycling

A report from the Director of Public Works dated November 24, 2011 with respect to battery recycling.

Recommendation:

THAT report CDC-2011-11-24 Battery Recycling, from the Director of Public Works dated November 24, 2011 be received;

AND THAT staff be directed to initiate a battery recycling program through Raw Materials Company.

4. COMMUNITY DEVELOPMENT COMMITTEE - November 24, 2011 – Item #4
Bale Wrap Recycling

A report from the Director of Public Works dated November 24, 2011 with respect to bale wrap recycling.

Recommendation:

THAT report CDC-2011-11-24 HHW Bale Wrap Recycling, from the Director of Public Works dated November 24, 2011 be received for information.

Next Meeting: To be determined
229 Broadway, Orangeville

THE CORPORATION OF THE COUNTY OF DUFFERIN



REPORT CDC-2011-11-24 WRS Comments TO COMMUNITY DEVELOPMENT COMMITTEE



To: Chair Taylor and Members of Community Development Committee
From: Trevor Lewis, Director of Public Works
Date: November 24, 2011
Subject: **Waste Recycling Study/ Waste Management Collection Plan Comments**

PURPOSE

The purpose of this report is to provide the comments received on the Draft Waste Recycling Study and the Draft Waste Management Collection Plan.

BACKGROUND and DISCUSSION

At the August 17th Community Development Committee, the Committee received the draft reports and asked for comments from the public over a 30 day period. Below are the comments received from Melancthon, Mono and Mulmur. Copies of the correspondence are attached.

Below is a table with the issues and responses. The comments received relate to further discussions and decisions of the Committee and Council as we get into the operational decisions.

| Municipality | Comment | Response |
|--------------|--|---|
| Melancthon | Page 12 at the bottom sounds like the garbage collection will be every other week and only 2 bags max. One bag per week | The RFP will include both weekly and bi-weekly collection. The decision as to the frequency will be made during the RFP review. |
| Melancthon | If the Landfill is to be open on Fri and Sat we will still bury on Sunday but if the road side collection is not close to those days we will be burying twice per week doubling your costs. | It will depend on the final destination of the garbage. This concern will be mentioned in the RFP document |
| Melancthon | Four Municipalities use transparent bags and 4 use dark bags, with all on the same page we may lose our transparent bag policy and loss of a lot of recycling. It has been proven that clear bags increase recycling according to Genivar. | The type of bags/containers has not been decided. |
| Melancthon | Pages 16 and 17 deal with bulk items and if the county is proposing a | The discussion has been to have some form of bulk/white goods pickup |

| | | |
|------------|---|---|
| | <p>monthly pick up of these items I see no reason to recommend a bin at the Landfill for these items. If construction materials are not picked up then I may recommend a bin for these items. Waiting to hear from the county.</p> | <p>through the Contractor as part of the RFP. Construction material will not be part of the contract.</p> |
| Melancthon | <p>It has been suggested that it is left up to the contractor to say where the garbage goes witch is no doubt the shortest route, also I asked at one of the meetings that is it possible that another community other than Melancthon's garbage will be going into our Landfill and I was told yes it is possible.</p> | <p>The plan at this point is to leave the destination of the garbage up to the contractor. They might decide to take Melancthon's garbage to the Melancthon site. It will be part of the RFP process. If the Contractor wants to include other locations going to a municipal site, then that is up to them to work it out with the municipality and MOE.</p> |
| Mono | <p>It is with concern that budgetary figures and recommendations have been made using the E-Survey results. As you are aware only 0.4% of the population responded to this survey and it is recommended that the County use these results in a very conservative way. The information gathered by the Town would aid the County in any future audits or possible decision making tools relative to the Towns boundaries.</p> | <p>The additional data would be useful.</p> |
| Mono | <p>With respect to the Town of Mono's inaccessible roads we are in favour of the consultant's recommendation that the RFP include a requirement for contractors to provide optional pricing structures to deal with these issues. Mono will gladly provide your department with these locations should they be required.</p> | <p>Noted.</p> |
| Mono | <p>Serious safety concern has been raised with the consultant's recommendation of rural same side of road pickup. Specific to Mono the Town would like the County to use their Average Annual Daily Traffic (AADT) on County Road 8 (Mono Centre Road) and County Road 10 (10th Sideroad) as the deciding factor as to the safety of the residents for set out locations of these roads. Furthermore the Town will not support same side pickup on County Road 18</p> | <p>The County will be looking at all high volume roads as well as speed limit on the road, in deciding which roads will be collected on both sides.</p> |

| | | |
|------|--|---|
| | (Airport Road), County Road 16, County Road 7 (Hockley Road), Highway 9, Highway 10 and Highway 89 all within the limits of the Town of Mono that would have high AADT numbers. | |
| Mono | The Town of Mono's current diversion rates, set out rates and operational procedures are ranked among the highest in our sector according to Waste Diversion Ontario. It is with this track record that we encourage the County follow the same guidelines. Specifically weekly organics and blue box set out rates. Every other week solid waste pickup is a proven factor in the increase in diversion and it is recommended that the County, as noted in the consultant's report, explore this process to the fullest extent. | Noted. |
| Mono | Although the thought of rural yard waste pickup may seem beneficial the Town would have to raise a concern of financial implications with budgeting of funds and financial implications of such a process. Rural properties do not receive this service at this time and an option for the contractor to propose is justified yet a survey cost to investigate would not seem to be warranted | Noted. No decision has been made, only discussions. |
| Mono | In conclusion Council and this Department are very concerned about the accumulative budget funds being proposed inside of the consultant's report. The extent of the funds is accelerating and potentially harming the full intent of the County taking over the system. Promotion and Education funds are well understood and backed considering there may be change to current service levels. However getting the program up and running should be the main concern and the evaluation stage should be investigated at a later date allowing the initial changes to take place and residential compliance would be better evaluated at a later date once grants | Noted. |

| | | |
|--------|---|---|
| | and other funding becomes available | |
| Mulmur | Where will the garbage go in the interim until the Dufferin Eco-Energy Park is operating? | It will be the contractor's responsibility to find a location, prior to the opening of the EFW facility |
| Mulmur | Where will the yard waste & brush go? | The County is considering some form of yard waste collection. |
| Mulmur | What happens with garbage picked up from the roadside?(illegal dumping) | The road authority will be responsible for disposing it. |
| Mulmur | Weekly or Bi-weekly collection - Garbage & Recyclables -Weekly (currently in use) | To be determined prior to the award of the RFP. |
| Mulmur | Number of bags allowed -1 per week (currently in use) -2 per week -2 bi-weekly | To be determined. |
| Mulmur | Cost of bag-tags -\$2.00 (currently in use) | To be determined. |
| Mulmur | Clear bags -(currently in use) | To be determined. |
| Mulmur | Collection Day -Monday (currently and preferred) | To be determined. Comment noted. |
| Mulmur | Set-out Location -Currently location was determined by the collector -Both sides (currently on all paved roads) | The roads to be collected on both sides will be determined based on volumes and speed. |
| Mulmur | White goods and large item pickup. -Currently the residents can take these items to the landfill/transfer site. | The discussion has been to have some form of bulk/white goods pickup through the Contractor as part of the RFP. |
| Mulmur | Use of Township's landfill as a County Transfer Station. | Possibility. |
| Mulmur | The Township continues to operate the landfill as a transfer station. | Possibility. |
| Mulmur | Cost of closing the landfill and required monitoring. | Landfills will continue to be a local municipal responsibility. |
| Mulmur | Township of Mulmur will have to rescind all waste management By- | Correct. |

| | | |
|--------|--|---|
| | Laws | |
| Mulmur | Termination of landfill staff (2 part-time) | |
| Mulmur | Cancelation of current contract with Waste Management. | This is the responsibility of the local municipality. |

FINANCIAL IMPACT

The comments and the decisions from the comments will have an effect on the cost of the contract that will be awarded in 2012. The exact amount cannot be determined at this time.

RECOMMENDATION

THAT report *CDC-2011-11-24 WRS Comments*, from the Director of Public Works dated November 24, 2011 be received;

AND THAT responses be provided to all local municipalities;

AND THAT the Waste Recycling Study and Waste Management Collection Plan be approved, once the stakeholder consultation process in the studies has been updated to reflect the process followed.

Respectfully submitted by:

Original signed by,

Trevor Lewis, P.Eng.
Director of Public Works
and County Engineer

From: Denise Holmes, AMCT
Sent: October-07-11 10:16 AM
To: Pam Hillock
Subject: Comments on the Dufferin County Waste Recycling Strategy and Waste Management Collections Plan

Hi Pam,

The below comments from our Landfill Supervisor were reviewed at yesterday's Council meeting and I was asked to send these to you for the next CDC meeting.

Thanks.

Denise

Denise B. Holmes, AMCT | CAO-Clerk/Treasurer | Township of Melancthon |
dholmes@melancthontownship.ca | PH: 519-925-5525 ext 101 | FX: 519-925-1110

From: Rick
Sent: October-04-11 9:07 PM
To: Denise Holmes, AMCT
Subject: Re: Dufferin County Waste Recycling Strategy and Waste Management Collections Plan

1. Hi Denise... I have a few concerns for council to discuss. Page 12 at the bottom sounds like the garbage collection will be every other week and only 2 bags max. One bag per week
2. If the Landfill is to be open on Fri and Sat we will still bury on Sunday but if the road side collection is not close to those days we will be burying twice per week doubling your costs.
3. Four Municipalities use transparent bags and 4 use dark bags., with all on the same page we may lose our transparent bag policy and loss of a lot of recycling. It has been proven that clear bags increase recycling according to Genivar.
4. Pages 16 and 17 deal with bulk items and if the county is proposing a monthly pick up of these items I see no reason to recommend a bin at the Landfill for these items. If construction materials are not picked up then I may recommend a bin for these items. Waiting to hear from the county.
5. It has been suggested that it is left up to the contractor to say where the garbage goes which is no doubt the shortest route, also I asked at one of the meetings that is it possible that another community other than Melancthon's garbage will be going into our Landfill and I was told yes it is possible.

October 29, 2011

Mr. Trevor Lewis, P.Eng.
Director of Public Works
County of Dufferin
51 Zina Street
Orangeville, Ontario, L9W 1E5

**Town of Mono Comments on the Waste Management Collections Plan
Dated September 2011**

Dear Mr. Lewis,

Council for the Town of Mono and the Director of Public Works have reviewed, discussed and provide the following comments on the Dufferin County Waste Management Collections Plan.

1. It is with concern that budgetary figures and recommendations have been made using the E-Survey results. As you are aware only 0.4% of the population responded to this survey and it is recommended that the County use these results in a very conservative way. As outlined in the Plan, basing budget estimates on these results would be without adequate background information and a review of the recommendations and budget suggestions provided by the consultant should be dealt with accordingly. The Town of Mono has completed a mail out survey and also performed waste audits for the last two years running and would be happy to provide our data should you require it. The information gathered by the Town would aid the County in any future audits or possible decision making tools relative to the Towns boundaries.
2. With respect to the Town of Mono's inaccessible roads we are in favour of the consultant's recommendation that the RFP include a requirement for contractors to provide optional pricing structures to deal with these issues. Mono will gladly provide your department with these locations should they be required.
3. Serious safety concern has been raised with the consultant's recommendation of rural same side of road pickup. Specific to Mono the Town would like the County to use their Average Annual Daily Traffic (AADT) on County Road 8 (Mono Centre Road) and County Road 10 (10th Sideroad) as the deciding factor as to the safety of the residents for set out locations of these roads. Furthermore the Town will not support same side pickup on County Road 18 (Airport Road), County Road 16, County Road 7 (Hockley Road), Highway 9, Highway 10 and

Highway 89 all within the limits of the Town of Mono that would have high AADT numbers.

4. The Town of Mono's current diversion rates, set out rates and operational procedures are ranked among the highest in our sector according to Waste Diversion Ontario. It is with this track record that we encourage the County follow the same guidelines. Specifically weekly organics and blue box set out rates. Every other week solid waste pickup is a proven factor in the increase in diversion and it is recommended that the County, as noted in the consultant's report, explore this process to the fullest extent.
5. Although the thought of rural yard waste pickup may seem beneficial the Town would have to raise a concern of financial implications with budgeting of funds and financial implications of such a process. Rural properties do not receive this service at this time and an option for the contractor to propose is justified yet a survey cost to investigate would not seem to be warranted.

In conclusion Council and this Department are very concerned about the accumulative budget funds being proposed inside of the consultant's report. The extent of the funds is accelerating and potentially harming the full intent of the County taking over the system. Promotion and Education funds are well understood and backed considering there may be change to current service levels. However getting the program up and running should be the main concern and the evaluation stage should be investigated at a later date allowing the initial changes to take place and residential compliance would be better evaluated at a later date once grants and other funding becomes available..

Respectfully

Michael Dunmore
Director of Public Works/Road Superintendent

MD

CORPORATION OF THE

township of mulmur

R.R.2, Lisle, Ontario • L0M 1M0

TELEPHONE: 705-466-3341 • FAX 705-466-2922



November 7, 2011

To Whom It May Concern

After reviewing Draft Waste Recycling Study and Draft Waste Management Collection Plan proposed by Dufferin County, the Township of Mulmur has compiled the following list of concerns, possible changes and considerations.

Concerns:

- 1) Where will the garbage go in the interim until the Dufferin Eco-Energy Park is operating?
- 2) Where will the yard waste & brush go?
- 3) What happens with garbage picked up from the roadside?(illegal dumping)

Possible changes to Mulmur's current collection system:

- 1) Weekly or Bi-weekly collection - Garbage & Recyclables
 - Weekly (currently in use)
- 2) Number of bags allowed
 - 1 per week (currently in use)
 - 2 per week
 - 2 bi-weekly
- 3) Cost of bag-tags
 - \$2.00 (currently in use)
- 4) Clear bags
 - (currently in use)

- 5) Collection Day
 - Monday (currently and preferred)
- 6) Set-out Location
 - Currently location was determined by the collector
 - Both sides (currently on all paved roads)
- 7) White goods and large item pickup.
 - Currently the residents can take these items to the landfill/transfer site.

Additional items for consideration:

- 1) Use of Township's landfill as a County Transfer Station.
- 2) The Township continues to operate the landfill as a transfer station.
- 3) Cost of closing the landfill and required monitoring
- 4) Township of Mulmur will have to rescind all waste management By-Laws.
- 5) Termination of landfill staff (2 part-time)
- 6) Cancellation of current contract with Waste Management.

Sincerely,

John Willmetts

John Willmetts, Director of Public Works
Township of Mulmur
Phone: 705-466-3341 ext 224
Fax: 705-466-2922
758070 2nd Line East, Terra Nova
R.R.#2, Lisle, Ontario
L0M 1M0

THE CORPORATION OF THE COUNTY OF DUFFERIN



REPORT CDC-2011-11-24 HHW Service Enhancement TO COMMUNITY DEVELOPMENT COMMITTEE



To: Chair Taylor and Members of Community Development Committee

From: Trevor Lewis, Director of Public Works

Date: November 24, 2011

Subject: **Household Hazardous Waste Pilot Study
Special Residential Collection**

PURPOSE

The purpose of this supplemental report is to provide additional discussion and clarification on collection and servicing options for residents of Dufferin County.

BACKGROUND and DISCUSSION

To supplement the report submitted to the CDC on November 8, 2011, additional research and options have been reviewed for the committee's consideration. To clarify, the program enhancement is being proposed for all Dufferin residents that may require special consideration and assistance to safely and properly dispose of their hazardous and electronic wastes. It is not intended only for seniors but it is expected that they would comprise a large majority of the users. It would be necessary to use screening criterion to determine the appropriateness of providing this collection. See Appendix A.

The waste management staff could accept collection requests up to 48 hours prior to the event. This would allow for efficient route scheduling and ensure adequate staff and vehicles are available for the day.

To ensure the collections are manageable, quantities would be limited. For hazardous waste, a minimum of 10 litres and a maximum of 50 litres would be stipulated in the promotional literature. However, designated staff were already at a location and have adequate space, it is unreasonable (and undesirable) to enforce a maximum.

ROUTES AND SCHEDULING

The program will require some flexibility to determine the best approach to efficient service. With the County covering an area of 1495 square kilometres, a schedule is critical to efficiency. If this program generates a significant demand, it may be necessary to divide the County into zones. There are 4 different locations where events are held, Orangeville, Mono, Primrose and Grand Valley. If required, collection on each day could be limited to areas close to the event. This may result in residents storing their waste longer but it will still provide them with a safe and responsible disposal option. If there is limited demand for the program, the entire County could be served on

each day. We would be able to provide collection between 8:00 am-2:15 pm. To remain in compliance with our Certificate of Approval, all material must be on site and unloaded by 3:00 pm.

ADVERTISING AND PROMOTION

This program is intended to serve those in real need of assistance. The senior population could potentially have the greatest need due to physical limitations or lack of transportation. As such, the program would be advertised with flyers in the lobbies of all senior residences. Waste management staff would also suggest the program to residents calling in to ask for assistance. This is not expected to contribute significantly to the number of collections but in the last two months, there have been two such inquiries. Each event is advertised in the local newspapers and flyers are distributed through unadvertised ad mail. A provision could be identified at the bottom of these promotions to state "Residents requiring special assistance, please contact the Waste Management Coordinator at 519-941-2816 ext 2620".

POTENTIAL PROGRAM OPTIONS

- (1) Free collection of HHW and electronic wastes. This service would be provided to residents with a declared physical need for assistance. This would also be extended to members of the population without the ability to transport their wastes.
- (2) Free collection of HHW only, for residents with physical need or without transport. (Private haulers are available to pick up the non hazardous goods.)
- (3) Charge residents \$15.00 per collection. This amount is in line with the "large item pick up" fee from the Town of Orangeville. This may deter potential abuse of the system by people who are able to transport their wastes themselves.

This pilot study will be reassessed at the conclusion of the 2012 collection season.

LOCAL MUNICIPAL IMPACT

Increased level of service for residents.

FINANCIAL IMPACT

The one-time cost to apply to the Ministry of the Environment for a Waste Management Systems License is approximately \$400.00.

The cost to receive online certification in the Transportation of Dangerous Goods is approximately \$40.00 per person and takes 4 hours to complete. This would be completed by the Waste Management Coordinator every 3 years and one student per term. To offer a comparison, we surveyed a local waste hauler and inquired about the cost to provide this collection service and it was approximately \$150.00 per hour. This would equate to an event total of \$1,200.00.

The cost per hour with our own 2 part-time staff would be approximately \$30.00. This would be a total of \$240.00 per 8 hour event day. This would represent an increase of 0.04% in the daily cost of the event.

Recommendation

For the consideration of the committee.

Respectfully submitted by:

Original signed by,

Trevor Lewis, P.Eng.
Director of Public Works
and County Engineer

Prepared by:

Original signed by,

Sharon Smith
Waste Management Coordinator

Appendix A

HHW COLLECTION: NEEDS ASSESSMENT

Date of Contact

Name

Full Address

Nearest Interesection

Phone

Email

Level of Assistance Needed/Requested

HHW Material Type

HHW Material Quantity

Electronic Type

Electronic Quantity

THE CORPORATION OF THE COUNTY OF DUFFERIN



REPORT CDC-2011-11-24 Battery Recycling TO COMMUNITY DEVELOPMENT COMMITTEE



To: Chair Taylor and Members of Community Development Committee

From: Trevor Lewis, Director of Public Works

Date: November 24, 2011

Subject: **Battery Recycling**

PURPOSE

The purpose of this report is to present a municipal option for the collection and recycling of batteries.

BACKGROUND and DISCUSSION

Raw Materials Company (RMC) is a free municipal battery recycling program offered to “all public facing collection points” in Ontario. Included in this description are public libraries, municipal offices, arenas, community centers etc. RMC collects all battery types, rechargeable and single use. A variety of container types and sizes are available and will be qualified and assigned based on the population, traffic through the collection site and potential volume of batteries. These containers are provided free of charge. A regular collection schedule can be assigned or staff can call when the container is ready to be exchanged.

This program is intended to complement the HHW days and the vendors listed in the Take It Back Directory. It is another level of convenience to our residents. RMC also provides reporting on the volumes of MHSW collected through this program. Additional information can be obtained by calling 1-888-937-3382 or www.rawmaterials.com.

LOCAL MUNICIPAL IMPACT

An increased level of service to residents should mean an increased diversion of these wastes from landfill.

FINANCIAL IMPACT

There is no financial impact to the area municipalities. It is a completely free service.

Recommendation

THAT report *CDC-2011-11-24 Battery Recycling*, from the Director of Public Works dated November 24, 2011 be received;

AND THAT staff be directed to initiate a battery recycling program through Raw Materials Company.

Respectfully submitted by:

Original signed by,

Trevor Lewis, P.Eng.
Director of Public Works
and County Engineer

Prepared by:

Original signed by,

Sharon Smith
Waste Management Coordinator

THE CORPORATION OF THE COUNTY OF DUFFERIN



REPORT CDC-2011-11-24 Bale Wrap Recycling TO COMMUNITY DEVELOPMENT COMMITTEE



To: Chair Taylor and Members of Community Development Committee

From: Trevor Lewis, Director of Public Works

Date: November 24, 2011

Subject: **Bale Wrap Recycling**

PURPOSE

The purpose of this report is to circulate information on the availability of bale wrap recycling.

BACKGROUND and DISCUSSION

The issue of bale wrap recycling has resurfaced at the CDC meetings periodically. In an effort to assist with finding a waste management solution for problem materials, we have been in contact with CleanFARMS. They are prepared to collect bale wrap for recycling, free of charge. They ask the municipality to designate a drop-off area for the material, which is typically a concrete or asphalt pad with a 3'high concrete block back wall. The contractor will bring a mobile baler and transport the material off site. The wrap may be sent to a number of recyclers across North America (primarily the U.S. and Canada) for shredding, washing and re-pelletizing. The plastic pellets will in turn be sent to other manufacturers. Products created from the plastic pellets include, but are not limited to; plastic films, lawn edging, and thin walled pipe. The actual recycler may vary depending on the time of year and quality of the film. In some cases, the bale wrap may be too dirty and may be rejected by North American recyclers. When that occurs, the bale wrap will be sent overseas for reprocessing.

Additional information is available at www.cleanfarms.ca.

LOCAL MUNICIPAL IMPACT

The availability of bale wrap recycling could help to increase the waste diversion efforts of municipalities currently without a program.

FINANCIAL IMPACT

The services provided by CleanFARMS are free of charge. There is no financial impact to the area municipalities.

Recommendation

THAT report *CDC-2011-11-24 HHW Bale Wrap Recycling*, from the Director of Public Works dated November 24, 2011 be received for information.

Respectfully submitted by:

Prepared by:

Original signed by,

Original signed by,

Trevor Lewis, P.Eng.
Director of Public Works
and County Engineer

Sharon Smith
Waste Management Coordinator