

**Municipality of Chatham-Kent
Waste Recycling Strategy**

CIF Project 611-11

Final Report

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This Project has been delivered with the assistance of Waste Diversion Ontario's Continuous Improvement Fund, a fund financed by Ontario municipalities and stewards of blue box waste in Ontario.

Notwithstanding this support, the views expressed are the views of the author(s), and Waste Diversion Ontario and Stewardship Ontario accept no responsibility for these views.

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Disclaimer This report is provided as opinion for discussion only and is **not** designed to replace qualified engineering, architectural or legal advice in any way. Municipalities are cautioned to obtain qualified advice and certified/approved drawings and plans prior to undertaking or adopting any recommendations that may affect their programs or facilities.

Background

Preamble As part of the objectives of the CIF, which include a proactive approach to assisting municipalities to implement best practices in blue box recycling, the CIF has provided financial assistance for the development of a waste recycling strategy plan.

In accordance with WDO/CIF guidelines, the Municipality of Chatham-Kent has produced a waste recycling strategy plan for the blue box recycling program that is a public document and will meet best practices as outlined by Waste Diversion Ontario.

Project Description The CIF funding support for this project was provided under the following conditions:

1. The Municipality shall devote a sufficient amount of staff time and other resources to carry out the Project in accordance with parameters set out in Guidelines for CIF Support.
2. The Municipality assumes the full responsibility for the production and completion of a public waste recycling plan. A final copy of the plan is to be submitted to the CIF, (appendix “A” attached). The CIF will have the right to post or use, in whole or in part, the document produced.
3. The Municipality shall recognize and state in an appropriate manner, the support offered by WDO and Stewardship Ontario, through the CIF, concerning the Project.
4. The Municipality shall provide a final report summarizing the highlights of the plan as adopted by council.

WRS Plan Highlights Summary

Following public input and final revisions, the WRS plan was delivered to staff/committee for final review and presentation to council for adoption.

Adoption Dates

The final plan was submitted for adoption by Chatham-Kent council in December, 2013. Council review and adoption is pending.

Chatham-Kent plan highlights follow:

Goals and Objectives

Chatham-Kent Waste Recycling Goals and Objectives		
Goals	Objectives	Potential Results
1. To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	Divert 60% of municipal solid waste through diversion programming.	Capture up to 19,486 total tonnes per year, increased from 4,733 blue box tonnes.
2. To maximize capture rates of blue box materials through existing and future programs.	Increase capture rate of blue box materials by 10% within 5 years.	Divert an additional 475 tonnes per year within 5 years.
3. To improve the cost-effectiveness of recycling in our community.	Reduce recycling net costs per tonne by 10% over the next ten years.	Reduce costs \$28/mt. over 10 years.
4. To increase participation in the recycling program.	Make recycling services available to all residents. Raise participation rate in blue box program to 75%.	Increase communication and education.
5. To expand the lifetime of the Ridge Landfill.	Add lifetime to the Ridge Landfill by increasing blue box diversion.	Save landfill costs and delay landfill closure 10 years.

The following priority initiatives have been identified:

Planned Initiatives

1. Increase public education and promotion.
2. Increase training for key program staff.
3. Investigate the timing of a reduction in bag/container limits as enhanced or new diversion programs are implemented.
4. Enhance existing recycling depots
5. Investigate the provision of increasing availability of free blue boxes and subsidized toter carts
6. Follow G.A.P. for effective procurement and contract management including enhanced monitoring and measurement.

The following future initiatives have been identified:

Future Initiatives

1. Exploration of standardized service levels and co-operative hauling/processing contracting options.
2. Optimization of collection frequency and investigate a potential increase to weekly collection
3. Optimization of collection operations.
4. Exploration Multi-Municipal collection and/or processing of recyclables.

Best Practices

This project fits within the following fundamental best practices as identified by the Blue Box Program Enhancement and Best Practices Assessment Project (2007).

- Development of an up-to-date plan for recycling, as part of an Integrated Waste Management System.
- Establishing defined performance measures, including diversion targets and monitoring and a continuous improvement program.
- Established and enforced policies that induce waste diversion
- Multi-municipal planning approach to collection and processing recyclables.

Appendix “A”

Municipality of Chatham-Kent Waste Recycling Strategy

Prepared by
The Emerald Group

with assistance from
Waste Diversion Ontario

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Introduction

This Waste Recycling Strategy (WRS) was initiated by the Municipality of Chatham-Kent to develop a plan to increase the efficiency and effectiveness of their recycling programs and maximize the amount of blue box material diverted from disposal at the Ridge Landfill. Specifically, the purpose of this recycling strategy is to provide guidance and direction for recycling programs and operations for the next ten years.

Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

Chatham-Kent faces a number of waste management challenges that this WRS will help address. In particular;

- To meet Best Practice, Waste Diversion Ontario (WDO) requires municipalities to have a Recycling Plan in place.
- Existing landfills have a limited lifespan.
- Population/consumer growth can lead to increases in waste generated.
- Local geographic conditions strain collection and processing resources due to long driving distances.
- Opportunities for cost savings and service improvements can be identified when updating this WRS which will be done on an ongoing basis as required.

This WRS was developed with support from the Council of the Municipality of Chatham-Kent using the Continuous Improvement Fund's *Guidebook for Creating a Municipal Waste Recycling Strategy*.

This Project has been delivered with the assistance of WDO's Continuous Improvement Fund, a fund financed by Ontario municipalities and stewards of blue box waste in Ontario. Notwithstanding this support, the views expressed are the views of the author(s), and WDO and Stewardship Ontario (SO) accept no responsibility for these views.

Overview of the Planning Process

This WRS was prepared through the efforts of the Municipality of Chatham-Kent, the WDO Continuous Improvement Fund, The Emerald Group, local stakeholders and the public.

The approach to this project was for the consultant to prepare a draft WRS using program information supplied by staff and annual WDO datacall reports. The draft WRS was delivered to staff and stakeholders for review and input.

Following revisions of the draft WRS, staff supplied detailed input and feedback for incorporation into the public draft.

A committee decision was made to fix the level and timing of public input deemed necessary to complete the WRS. The committee resolved that the following level of public consultation was appropriate for this initial WRS:

1. Direct stakeholder contact
2. Written feedback/submissions from staff, Council and committee
3. Internet publication and comments received from the public
4. A public consultation meeting

Following final public input, all relevant concerns, ideas and comments were incorporated into the WRS and a draft final document was submitted to staff for final revisions. After incorporating additional revisions a joint decision was made to finalize the WRS.

Following final revisions, the WRS was delivered to staff/committee to be presented to Council for adoption as an inclusion to the overall waste management plan.

Study Area

The study area for this WRS includes the geographic boundaries of the Municipality of Chatham-Kent and all communities that receive curbside garbage and recycling collection services plus eight transfer stations which service the balance of rural residents in Chatham-Kent.

This WRS will target those sectors from which the municipality collects or accepts solid waste including:

- Residential single-family;
- Residential multi-family, such as apartment buildings or condominiums;
- Small businesses, such as in downtown areas; or
- Small institutions, for example schools or small community centres; and all
- Industrial, Commercial and Institutional (ICI) properties

Public Consultation Process

The public consultation process followed in the development of this WRS consisted of the following activities:

1. Direct stakeholder contact.
2. Written feedback/submissions from staff, council and committee.
3. Internet publication and comments received from the public.
4. A public consultation meeting.

Stakeholder groups specifically targeted in this consultation included:

- Recycling collection and waste management contractors
- Local business associations
- Local environmental/interest groups.

The response from the public and stakeholders included the following comments which are typical of the feedback and input received and considered while preparing this WRS plan:

- *Reduced bag limits make sense as long as alternatives for excess waste are available.*
- *The sooner we get the majority of people on board with recycling the better. The four bag limit we have in this community, that of course blossoms by way of an increase of 10 bags in the spring and fall is absolute nonsense. A two week collection period for garbage should be the long term goal.*
- *Reduce the garbage bag limit and promote increased recycling by all residents.*
- *Bag limits are a great idea. If you don't want to use a tag system for fear of dumping and other issues, you should consider small rewards for those who meet the limits.*
- *Despite improved participation in recent years, C-K's current diversion rate should shock and dismay all of us – more residents can and need to do a lot better!*
- *I do hope more will be done with Promotion & Education especially if there are changes to come; hopefully Council will support that at budget time.*
- *There needs to be more education, about all things including the local environment, in C-K.*

The majority of public input highlighted the need for further discussion about bag limits and enhanced recycling promotion and education.

Waste and Recycling Services currently has a recycling Promotion and Education plan in development as well as a new recycling/reuses website, <http://www.chatham-kent.reuses.com> which will provide a permanent access point for waste management/recycling activities, promotion and education going forward.

The website features a “Recyclopedia”, designed to answer “what to do with it when you’re done with it” type questions from the public. The site is continuously available seven days a week. Plans are in place to continually promote the site over the next few years.

Based on the limited public input received, the municipality has deemed it unnecessary to hold additional public input meetings or make additional changes to this plan.

Issues and Drivers

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

The key drivers that led to the development of this WRS include:

1. WDO requires municipalities to have a WRS in place to maintain optimal blue box program funding levels.
2. A successful WRS can help to expand the lifetime of your local landfill.
3. Population/consumer growth can lead to increases in waste generated.
4. Opportunities for cost savings and service level improvements can be identified when updating this WRS.
5. The Provincial target diversion rate is 60% and the Municipality currently diverts much less than this target rate.
6. The Municipality currently has no recycling promotion and education (P&E) budget or plan; however, a new P&E plan is in progress.
7. Geographic size of the curbside service area and rural collection issues affect recycling collection costs and efficiencies.
8. The limited size of the municipal recycling program is a challenge to obtaining economies of scale in collection and processing of blue box materials.

Goals and Objectives

This WRS has identified a number of goals and objectives for the Municipality of Chatham-Kent. These are presented below. Goals are defined as broad spectrum, high level statements that outline what the Municipality or the WRS is trying to achieve. Objectives are measurable, defined statements that describe specific, tangible outcomes.

Establishing broad goals and objectives sets the perspective for the WRS. They also provide direction for municipal actions and targets against which progress can be measured.

Waste Recycling Goals and Objectives	
Goals	Objectives
6. To maximize diversion of residential/municipal solid waste through the blue box/recycling program.	1. Divert 60% of municipal solid waste through diversion programming.
7. To maximize capture rates of blue box materials through existing and future programs.	2. Increase capture rate of blue box materials by 10% within 5 years.
8. To improve the cost-effectiveness of recycling in our community.	3. Reduce recycling net costs per tonne by 10% over the next ten years.
9. To increase participation in the recycling program.	4. Make recycling services available to all residents. Raise participation rate in blue box program to 75%.
10. To expand the lifetime of the Ridge Landfill.	5. Add lifetime to the Ridge Landfill by increasing blue box diversion.

Current Solid Waste System, Trends, Practices and Future Needs

Community Characteristics

The Municipality of Chatham-Kent has a total population of approximately 104,000 residents with about 47,303 single family households. About 200 multi-family households are currently reported as participating in the recycling program.

Approximately 75% of single family households are served by the curbside garbage and recycling program and the balance of households are served by the eight supervised transfer stations below:

Camden Transfer Station located at 12187 Splinter Line
 Chatham Twp. Transfer Station located at 9753 Darrell Line
 Dover Twp. Transfer Station located at 25280 Big Pointe Road
 Harwich Transfer Station located at 21633 Communication Road
 Howard Transfer Station located at 12923 Magnavilla Line
 Orford Transfer Station located at 20908 Hetherington Road
 Tilbury East Transfer Station located at 22362 Depot Road
 Wallaceburg Transfer Station located at 505 Water St.

The Municipality of Chatham-Kent has recycling program issues unique to southwestern Ontario. Population density is low compared to urban centres. A large geographic collection area and distance to neighbouring communities limits opportunities for efficiencies and potential multi-municipal co-operation. Chatham-Kent is dependent on a limited pool of recycling service providers within a reasonable driving distance.

Given current market conditions, low volumes of recyclables available and the surrounding geographic issues, full diversion of recyclables from landfill is a difficult task. Political and citizen input suggests a low tolerance for engaging in costly enterprises during times of financial constraint.

The Municipality has incentives to examine best practices to most effectively offer standardized services to all residents, maintain or possibly reduce costs and preserve landfill capacity. This is also a rural municipality providing service over a large geographic area that doesn't have the economies of scale of an urban centre and therefore it needs to find efficiencies in other areas.

The Municipality does not have a "pay as you throw" curbside program in place, however weekly garbage bag limits are currently in place permitting 30 bags or six 95 gallon toter carts for institutional, commercial and industrial (ICI) properties including multi-residential buildings and four bags/items per single family dwelling. Recycling is unlimited for all properties provided that it is placed in the proper recycling containers.

Recycling boxes are free of charge for residential properties having five or less dwelling units as of 2011. ICI properties (including multi-residential properties) are charged a \$10 fee per recycling box or \$75 per recycling toter cart (after municipal subsidy). Recycling boxes can be picked up and/or purchased at any Municipal Service Centre. Recycling toter carts are delivered free of charge by the contractor and also come labelled by recycling stream.

Like many Ontario communities, the Municipality operates a two stream recycling collection program designed to sort recyclables and accommodate processing operations at a local recycling facility. Curbside recycling collection frequency is bi-weekly combined with the transfer stations which operate at least once per week for rural residents that do not receive curbside collection. The contractor operates daily excluding statutory holidays when services are delayed one day during the week in question. Garbage is collected weekly at the curb.

Current Waste Generation and Diversion

In 2012, Chatham-Kent generated 32,477 tonnes of municipal solid waste. Of this, 4,733 tonnes or 14.58% were diverted through the blue box program. The most common material recycled is paper, while the least is metals.

The table below summarizes the current waste generation and blue box diversion rates. In the absence of local waste composition audits, the waste composition percentages shown are the averages provided by WDO for similar municipalities.

Residential Solid Waste Generated and Diverted through Blue Box		
Residential Waste Stream/Blue Box Material WDO sample municipality estimates	Tonnes	Percent of Total Waste
Total waste generated	32,477	-
Non blue box waste	21,110	65%
Total Recyclables Available in Waste Stream	11,367	35%
WDO Estimated Material Composition		
Papers (ONP, OMG, OCC, OBB and fine papers)	7,470	23%
Metals (aluminum, steel, mixed metal)	650	2%
Plastics (containers, film, tubs and lids)	1,949	6%
Glass	1,299	4%
Total Blue Box material available	11,367	35%
Blue Box material currently diverted	4,773	14.58%
Estimated Material Available for Diversion	6,634	20.42%

As the table below indicates, Chatham-Kent's current diversion rate is below average for its WDO municipal grouping.

Average Blue Box Diversion Rate 2012	
Municipality of Chatham-Kent	14.58%
Municipal Grouping Average: Rural Regional	26.75%

Potential Waste Diversion

The Municipality of Chatham-Kent's current waste composition was estimated using the comparable municipal estimates provided by WDO in the CIF Waste Recycling Strategy Guidebook.

A total of approximately 11,367 tonnes of blue box recyclable materials are calculated to be available for diversion, of which approximately 6,634 tonnes are still currently in the waste stream.

Current and Potential Diversion			
Material	Total Available in Waste Stream (tonnes/year)	Currently Recycled (tonnes/year)	Potential Increase (tonnes/year)
Papers (ONP, OMG, OCC, OBB and fine papers)	7,470	3,076	4,445
Metals (aluminum, steel, mixed metal)	650	331	331
Plastics (containers, film, tubs and lids)	1,949	947	928
Glass	1,299	379	930
Total	11,367	4,773	6,634

Diverting all of the blue box material remaining in Chatham-Kent's waste stream could increase its waste diversion rate to 35% however the diversion of all available material is not realistic or financially practical.

Existing Programs and Services

“Municipalities need to utilize a combination of policy mechanisms and incentives to stimulate recycling and discourage excessive generation of garbage. Most of these policies are aimed toward causing a permanent shift in residents’ behaviour through the use of economic and non-monetary levers.” Pg. 64, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Currently, the Municipality of Chatham-Kent has the following policies and programs in place to manage residential solid waste:

Garbage and Recycling by-law:

The Municipality currently has in place By-law 119-2005 to establish and maintain a system for the curbside collection of recyclable materials, ashes, garbage and other refuse generated within the Municipality of Chatham-Kent. It provides for the method in which recycling is to be placed at the curb (i.e. blue and/or black box) as well as the type of recyclable material that is accepted. Scrap metal and white goods were banned at the curb in 2008 and municipal transfer stations will no longer allow such materials to be handled as waste. All fines outlined in the By-law are recoverable under the Provincial Offences Act, R.S.O. 1990 c P. 33 and amendment thereto.

User Fees for Bagged Waste:

The Municipality currently has no residential user fees per bag of refuse collected at the curb.

Bag Limits:

It should be noted that, the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21*, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a two (2) bag limit, supported by adequate diversion alternatives, was found to result in higher recyclable material recovery rates. However, in this municipality, large areas are rural and unsupervised which offers an increased risk of dumping at the roadside and in municipal/private drains and therefore, Administration has recently recommended and received approval from the Committee of the Whole to implement a three (3) bag weekly limit commencing in 2015. In addition, the Municipality will no longer collect excess leaf and yard waste during the former spring and fall exception periods effective in the fall of 2013.

Multi-family properties (six dwelling units or more) are assessed commercially and the maximum weekly garbage limit is 30 bags or six 95 gallon toter carts. Properties having less than six dwelling units are entitled to four bags per dwelling unit (i.e. duplex is entitled to eight bags per week and so on). Administration has recently recommended and received approval from the Committee of the Whole to implement a weekly limit of 24 bags or five toter carts commencing in 2015.

There may be an opportunity to adjust the bag limit downward gradually in the future and create an incentive and mindset to increase diversion over a period of years. Since the Municipality has a relatively stable recycling and transfer station program, fears over increased roadside dumping following the adoption of lower bag limits should not be a concern if limits are initially set higher than Provincial averages and reduced gradually over time. Diversion may be increased by eventually reducing the bag limit further while at the same time providing residents with alternatives and an ability to prepare for and accept the gradual change. Consideration of the best practise of collecting recycling at the curb more frequently (i.e. weekly) will provide a meaningful alternative to encourage more waste diversion in the future.

Promotion and Education (P&E):

“Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community’s ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors. ” *Pg. 57, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The Municipality currently produces a recycling calendar, compliance notices and public service announcements. A recently developed DVD plus optional staff presentation is also available for elementary students to promote recycling in school and at home. Some opportunity exists to increase co-operation with local community groups to enhance the local P&E distribution channels.

“A study of eight programs that are considered to be among the Ontario P&E leaders, as well as other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with a recovery rate at or exceeding 60%.” *Pg. 59, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Chatham-Kent currently reports a local budget for P&E programs of approximately \$0.03 per household. Earlier this year the Committee of the Whole approved the use of \$45,000 annually for P&E from the WDO reserve beginning in 2014 through the term of the next collection contract.

The recycling program co-operates with other municipal departments, schools, service organizations etc. to maximize the P&E message and minimize costs. An increased level of co-operation with neighbouring municipalities may result in greater effectiveness for the current P&E program due to economies of scale and consistent content. There may be some opportunity to co-operate with other nearby municipalities to reduce costs and increase effectiveness of future P&E efforts and staff is encouraged to explore these options.

In recent years the current program has transitioned to increased collection of two stream recyclables and therefore, it is recommended that a comprehensive communications effort be undertaken to inform all residents of the key program details and garner and maintain their support for the program. This will be challenging given the limited human resources that are available in Waste and Recycling Services. In the future, staff may apply to the Continuous

Improvement Fund for additional funding necessary to support the P&E effort required to promote significant program changes.

P&E Plan:

As a long term goal, development of a P&E plan is advisable. A P&E plan would assist staff with addressing what promotional materials are needed, how to deal with the issues to get the best result and provide a framework for budgeting for future P&E requirements. If funding is available, the development of a P&E Plan is a logical next step after approval of this WRS.

The Municipality has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form.

Waste Exchange:

The Municipality has a new online waste exchange, free to use by local residents, and designed to encourage diversion and provide educational material. This dedicated internet site for recycling and diversion is deemed a tier 2 best practice by the *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007*.

The new P&E site (www.Chatham-Kent.Reuses.Com) includes an online recycling “how to” recyclopedia and recycling news/events listings that are updated frequently by a Waste and Recycling Services staff administrator.

Enforcement:

The Municipality enforces garbage and recycling rules through public information, non-compliance notices and transfer station staff. Currently, “reason for leaving” notices are not provided to residents, when recycling boxes or toter carts are contaminated with non recyclables or improperly used, due to existing budget and contract restrictions.

Recycling Costs:

In 2012, the total net annual recycling costs for Chatham-Kent were \$1,257,980. This amounts to \$283.02 per tonne or approximately \$12.13 per capita.

As the table below shows, net annual recycling costs for Municipality of Chatham-Kent are 6.71% above average for its WDO municipal grouping.

Net Recycling Cost (per tonne per year)	
Municipality of Chatham-Kent	\$283.02
Municipal Grouping: Rural Regional (2012)	\$265.22

Anticipated Future Waste Management Needs

Solid waste generation rates in Chatham-Kent are expected to stay the same over the next five year planning period. The Table below depicts the expected growth rates for solid waste generation and blue box material recovery based on projected population growth rates of 0.2%.

Anticipated Future Solid Waste Generation Rates and Available Blue Box Material			
	Current Year (2012)	{Current Year + 5}	{Current Year + 10}
Population	103,671	119,453	131,885
Total Waste (tonnes)	32,477	35,331	39,008
Blue Box Material Available (tonnes)	11,367	12,487*	13,787*

* Estimated recyclables available increase at a faster rate than garbage (0.3%), due to product changes and more recyclable content in the waste stream.

Planned Recycling System

Overview of Planned Initiatives

The Municipality of Chatham-Kent reviewed a number of options for consideration in its WRS. The options were then scored based on a series of criteria, which included:

- Percentage of Waste Diverted
- Proven Results
- Reliable Markets/End Use
- Economically Feasible
- Accessible to Public
- Ease of Implementation

Once scored, the top ranking WRS options were organized into Priority Initiatives and Future Initiatives. The estimated cost for implementing the priority initiatives is approximately \$69,000, while implementation of the future initiatives is estimated at \$15,000. No new budget allocation is required for these new initiatives based on the outcome of the Service Review recently completed and approved by the Committee of the Whole.

The Table below presents the Priority Initiatives and Future Initiatives and their estimated costs. A detailed review of these initiatives and their steps for implementation are listed on the following pages. More study may be required before final costs for new recycling initiatives can be budgeted.

Priority and Future Initiatives		
Initiatives	Implementation Costs	Operation Costs
<i>Priority Initiatives</i>		
Public Education and Promotion Program (P&E)	new collection P&E 45,000**	Ongoing for term of next contract 45,000**
Training of Key Program Staff	0.00	3000*
Bag Limits	extra roadside cleanup yr. 1 - unknown	0
Enhancement of Existing Recycling Depots	8 @ 500 = 4,000*	maintenance 1,000*
Provision of Free Blue Boxes and Subsidized Toter Carts	new collection materials added 20,000*	annual replacements 20,000*
Following Generally Accepted Principles for Effective Procurement and Contract Management	0	0
<i>Estimated Total Cost</i>	<i>\$69,000 plus roadside cleanups</i>	<i>\$69,000</i>
<i>Future Initiatives</i>		
Standardized Service Levels and Cooperative Haulage/Processing Contracting e.g. London two-stream	5000*** staff/consulting time	review at next collection contract
Collection Frequency Potential increase to weekly recycling	TBD based on RFP outcome	implement at next collection contract
Optimization of Collection Operations	5000*** staff/consulting time	implement at next collection contract
Multi-Municipal Collection and/or Processing of Recyclables	5000*** staff/consulting time	collection costs/tonne at market rates
<i>Estimated Total Cost</i>	<i>\$15,000</i>	<i>TBD</i>
* <i>included in current base budget</i> ** <i>included in 2014 base budget</i> *** <i>subsidized by CIF/WDO</i>		

Details of Planned Initiatives

Details of the Priority and Future Initiatives considered for this WRS follow below;

Priority Initiatives

Initiative:

Public Education and Promotion Program (P&E)

Overview:

Public education and promotion programs are crucial for ensuring the success of local recycling programs. Well-designed and implemented education and promotion programs can have impacts throughout the municipal recycling program, including participation, collection, processing, and marketing of materials. Furthermore, having a P&E plan contributes toward the amount of WDO funding a municipality receives as identified in best practice section of the WDO municipal datacall. For example, benefits of public education and promotion programs include:

- Greater participation levels and community involvement
- Higher diversion rates
- Less contamination in recovered materials, potentially leading to higher revenues
- Lower residue rates at recycling facilities

The Continuous Improvement Fund has prepared a Recycling Program Promotion and Education Workbook and other materials, which are available at:

<http://www.wdo.ca/cif/resources/education.html>

Implementation:

“Planning and implementing targeted P&E programs that support recycling and waste diversion are vital to municipal Blue Box programs. Each community’s ability to design and deploy P&E is affected by community size, geography, resources (financial, skills-based and time) and many other factors.” Pg. 57, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The Municipality currently produces a recycling calendar, compliance notices and public service announcements. A recently developed DVD plus optional staff presentation is also available for elementary students to promote recycling in school and at home. Some opportunity exists to increase co-operation with local community groups to enhance the local P&E distribution channels.

“A study of eight programs that are considered to be among the Ontario P&E leaders, as well as of other well-performing communities, revealed that their P&E costs, range from approximately \$0.83 to \$1.18 per household, with recovery rate at or exceeding 60%.” Pg. 59, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Chatham-Kent reports a local budget for P&E programs of approximately \$3,156 or \$0.03 per household. This level of funding is considered very low for routine P&E activities. However, the recent changes to collection will require a greater P&E effort for the first year of operation. Once a communication plan has been adopted, other funding may be available to help fund P&E efforts for any major program changes in the future.

The Municipality co-operates with other municipalities, other departments, schools, service organizations etc. to maximize P&E message and minimize costs. An increased level of co-operation with other municipalities may be explored that could result in greater effectiveness for the current P&E program due to economies of scale and consistent content.

The Municipality has an internet presence providing residents with recycling, reuse and diversion information. This information is relatively static and is also available in printed form as a waste and recycling calendar.

A Communications (P&E) Plan will be supplied as a separate part of this WRS. This plan will assist staff with targeting local promotion and education efforts to achieve the most value for limited P&E budgets available.

A dedicated P&E website (www.Chatham-Kent.Reuses.Com) has been developed as a separate part of this WRS project and will be administered by staff going forward. This dedicated P&E tool will facilitate waste management communication efforts and will be updated regularly by staff. It is anticipated that this website will form the hub of recycling P&E for Chatham-Kent in future.

This site will also provide an online recycling “how to” recyclopeda and recycling news/events listings along with an item exchange (trading post) free for local residents, to help place reusable items instead of landfilling them.

Initiative:

Training of Key Program Staff

Overview:

Training of recycling staff in core competencies is considered a best practice.

“Municipalities need to ensure that management program personnel are adequately trained on position-related competencies and responsibilities. Training provides the skills needed to develop, manage, monitor, document and promote the numerous and complex components of a successful recycling program. Regardless of the size or type of municipal program, training acts as an enabler of performance, facilitating the achievement of objectives in a cost-effective manner.” Pg. 45, *Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

A well-trained staff can lead to greater cost and time efficiencies and improved customer service. Knowledgeable staff including both front line staff and policy makers, have a greater understanding of their municipal programs and can perform their responsibilities more effectively.

Similar to many smaller municipalities, Chatham-Kent currently has no dedicated budget or resources to provide ongoing training for recycling staff. The Municipality has an opportunity to improve their performance in this area that is now required to be reported annually under the revised WDO datacall.

Implementation:

There are a number of low-cost training options available. The CIF holds periodic Ontario Recycler Workshops that discuss recycling program updates (www.wdo.ca/cif/orw.html).

The Municipal Waste Association (MWA), Waste Diversion Ontario (WDO), the association of Municipalities of Ontario (AMO), Stewardship Ontario and the Solid Waste Association of Ontario (SWANA) can also be sources of information, guides, workshops, or training on recycling and/or solid waste management.

The municipality is encouraged to contact the Municipal Waste Association, <http://www.municipalwaste.ca/contact.cfm> for information on the Ontario Blue Box Recyclers Training program currently available to municipalities at nominal to no cost. This training was developed and offered through E&E Fund project #341 and was developed with input by municipal recycling experts specifically for Ontario municipal recycling staff.

Further information is available at

http://www.stewardshipontario.ca/wp-content/uploads/2013/03/KPMG_final_report_voll.pdf on page 44.

Initiative:

Bag Limits

Overview:

Bag limits restrict the number of bags of garbage a resident can dispose of per collection. This encourages residents to divert more recyclable materials in order to comply with the fixed limit.

It should be noted that, the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. Pg. 21, references a strong relationship between reduced bag limits and increased diversion. Statistics indicate that a 2 bag limit, supported by adequate diversion alternatives, was found to result in higher recyclable material recovery rates.

Bag limits can also be used in conjunction with bag tags (e.g., user fees). For example, some municipalities allow residents to dispose of a number of bags at no charge, with additional bags requiring a purchased bag tag. The Municipality currently has no user fee for refuse and there is a 4 bag limit in force for single family households. Similar bag limit restrictions for all other commercial (including multi-residential), institutional and industrial properties should be considered as well.

Implementation:

There may be an opportunity to propose a reduced bag limit per week or biweekly (if alternatives exist for excess garbage) over a period of years and to make this an official policy. Establishing a lower bag limit will create the opportunity to increase overall waste diversion at a steady rate over a period of years.

Since the Municipality already has a bag limit, fears over increased roadside dumping following the lowering of bag limits should not be a concern, especially if weekly bag limits are reduced slowly over time until the weekly or biweekly limit is reached.

Additional P&E will be required for the phase in of this initiative and funding assistance from CIF may be available.

Initiative:

Enhancement of Recycling Depots

Overview:

Where curbside collection programs are not feasible, recycling depots provide an inexpensive means for rural communities to divert recyclable materials from disposal.

Enhancements to recycling depots may include (but are not limited to):

- Reviewing depots to improve public access and convenience;
- Enhancing the conditions at the depot/transfer station (e.g., landscaping, general cleanliness, maintenance);
- Incorporating friendly, easy-to-read signage;
- Providing additional part-time staff to address program changes, seasonal fluctuations and educate visiting traffic.

Implementation:

Additional P&E may be required for the phase in of this initiative.

Funding for P&E, signage and equipment may be available from CIF.

Initiative:

Provision of Free Recycling Boxes

Overview:

The Best Practices Assessment Project final report states: “Provision of blue boxes entails the provision to households of free blue boxes in order to ensure ample household recycling capacity. This is usually done when programs are initiated and when materials are added and/or the program is repromoted. Additional blue boxes require an initial capital outlay, however, the added capacity may not only increase capture and potentially lower unit operating costs, but the minimization of home-made curb side containers may yield longer-term ergonomic benefits to collection crews.”

Providing blue boxes at no charge helps to ensure that residents have sufficient storage capacity for recyclables. While this is initially done at the roll-out of the blue box program, many municipalities offer free boxes to new residents or residents moving into new homes.

Implementation:

Recycling boxes are free of charge for residential properties as of 2011. Commercial (including multi-residential properties), industrial and institutional properties are charged \$10 fee per box or \$75 per recycling toter cart (after municipal subsidy). Recycling boxes can be picked up/purchased at any Municipal Service Centre. Recycling toter carts are delivered free of charge by the contractor and are also labelled.

Provincial experience shows that boxes typically have a five year life span and so budget provisions are recommended to support 25% of total households serviced as a replacement rate per annum.

Funding from CIF may be available for additional recycling boxes and staff did receive one-time funding in 2012.

Initiative:

Following Generally Accepted Principles for Effective Procurement and Contract Management

Overview:

Following generally accepted principles (GAP) for effective procurement and contract management is considered to be a best practice in Ontario. For a full list of generally accepted procurement principles refer to http://www.stewardshipontario.ca/wp-content/uploads/2013/03/KPMG_final_report_vol1.pdf on page 50.

A considerable number of municipalities in Ontario contract out the collection and processing of recyclables. To ensure that municipalities obtain good value for money, municipalities should follow generally accepted principles (GAP) for effective procurement and contract management.

The greatest opportunity for program improvement is available at the end of the municipal contract cycle; therefore, it is critically important to identify any potential improvements in the local municipal recycling contracts which can be implemented immediately or at the end of the current contract.

Implementation:

Key aspects of GAP include planning the procurement well in advance, issuing clear RFPs, obtaining competitive bids, and including performance-based incentives.

The Municipality has access to weigh scales which makes monitoring and measurement of collections effective. The processor provides monthly production reports.

Financial support for consulting services to assist staff with the preparation of a new recycling collection/processing RFP has been secured through the Continuous Improvement Fund.

It is also recommended that Chatham-Kent consider establishing a future contract term end date to match the contract expiry date(s) with other local municipalities (i.e. London) who offer a two-stream collection contract to generate the opportunity, on the next RFP/tender cycle, for the Municipality to possibly take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area.

This might be accomplished by working with municipalities like London to request that they include a provision in their next collection RFP/tender requesting separate costs to collect recyclables under the larger London contract. Should this cost be deemed acceptable to the local Council, they may elect to enter into a subcontractor agreement to take advantage of the resulting cost saving generated by the economies of scale available to the larger community.

Other accepted leading practices for effective procurement and contract management to extract the best value for municipal Blue Box contract needs include:

1. Planning procurements well in advance of service requirements.
2. Recognizing useful life of existing equipment, lead times for replacing this equipment and lead times for the execution of the procurement process itself, all require careful consideration. Failure to plan properly may mean costly maintenance and breakdowns and sub-optimal contracting/service levels.
3. Investigating and understanding suppliers' markets to understand the players, dynamics, cost drivers and innovators in order to maximize value when setting procurement strategy. This results in municipal staff becoming informed buyers.
4. Involving suppliers (in pre-procurement consultations), to help refine requirements where in house experience is limited, and to leverage innovation and capabilities of experienced suppliers. This results in municipal staff becoming smart buyers.
5. Developing a clear definition of services and performance requirements.
6. Using the appropriate procurement instrument, such as a Tender, RFQ or an RFP.
7. Using a competitive procurement process and working to encourage multiple proponents/bidders.

Changes to the collection and processing stream may necessitate amendments to existing or new contracts. Assistance for the preparation of recycling collection and processing tenders is available free of charge at the following internet address:

<http://www.wdo.ca/cif/resources/database.html>

Consulting assistance is also available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

Future Initiatives

Initiative:

Standardized Service Levels and Collaborative Haulage Contracting

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Collaborative haulage contracts for blue box materials can take advantage of increased purchasing power through municipal partnerships and ensures that the partner municipalities provide common levels of services to their residents.

Standardizing collection programs among municipal partners increases the amount of materials being diverted from disposal, allows for common education and promotion materials, increases collector efficiencies, and can potentially reduce overall costs.

Implementation:

The Municipality currently processes recyclables at a local facility. Collection is done through a local contractor and material is delivered directly from curbside collection vehicles.

An opportunity may exist to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection/Processing:

London is the largest neighbouring municipality and opportunities should be explored to obtain pricing for recyclable collection/processing using their collection contractor/material recovery facility. Other nearby municipalities may also be approached to determine if their collection could be combined with Chatham-Kent to achieve greater economies of scale.

Initiative:

Collection Frequency

Overview:

The efficiency of curbside collection of recyclables is dependent on a number of factors, including the rural nature of the community, the types of recyclable materials included in the recycling program, the type of equipment used to collect the recyclables, among other things.

In some circumstances, bi-weekly collection of recyclables can be more cost-effective than weekly collection, assuming that collected tonnages remain the same overall and residents have enough storage capacity to accommodate storing their blue box materials for two weeks.

The Municipality operates a bi-weekly collection program designed to compliment the local processing facility and existing budget.

Recyclables are collected at half the frequency of garbage. Recycling collection at an equal or greater frequency than garbage is considered a best practice.

Implementation:

Collection equipment is currently supplied by subcontractors.

Additional information about better practices operating depots can be found in the Best Practices Project report located at:

http://www.stewardshipontario.ca/wp-content/uploads/2013/03/KPMG_final_report_vol1.pdf
on page 107.

The Municipality is also encouraged to review these operating practices for potential improvements to local operating conditions at their depots.

Initiative:

Optimization of Collection Operations

Overview:

The purpose of optimizing collection operations is to facilitate collecting more recyclables using fewer financial, capital and human resources. This requires critically assessing both collection and processing operations (as the two are closely linked) and making changes that reduce costs while at the same time increasing capture of blue box materials. The relevant options for optimization vary according to the size, composition and location of municipalities, as well as their available processing options.

Implementation:

The Municipality currently collects a standard list of blue box recyclables including fibers, metals and plastics.

The Municipality operates a bi-weekly two-stream collection program designed to compliment the processing operations at the local recycling facility. Negotiations with the processor should be explored to determine if a more standard alternate week collection system should be started in the Municipality. This may increase revenue for materials recycled going forward and reduce overall costs.

Prior to the next collection tender, routes and collection days should be optimized for efficiency to reduce costs. Use of on truck GPS and routing software can assist with this goal.

Initiative:

Multi-Municipal Collection and Processing of Recyclables

Overview:

“A widely-recognized principle of business is that significant efficiencies and economies can be obtained from larger scale activities. Many communities have found it advantageous to work co-operatively in providing solid waste management services.

Working jointly, municipalities can increase bargaining power with private service providers for collection and processing of recyclables. Pooling resources can result in increasing equipment, labour, and/or facility utilization, thereby realizing financial and operational efficiencies.

Co-operative planning can lead to improved performance across virtually all recycling program components, enhancing effectiveness and efficiency.” *Pg. 33, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

Small and medium-sized municipalities often face considerable cost and capital challenges when working to collect and process recyclables from residents. However, working collaboratively with other municipalities to provide these services can increase economies of scale and allow for the sharing of resources.

The Municipality currently processes recyclables at a local MRF. Collection is done through a local contractor.

Implementation:

An opportunity exists to take advantage of economies of scale through co-operation with neighbouring municipalities in the following areas:

Collection:

London is the largest neighbouring municipality and opportunities may be explored to obtain pricing for recyclable collection using their collection contractor. Other nearby municipalities like Bluewater and Essex Windsor, may also be approached to determine if their collection can be combined with Chatham-Kent's to achieve greater economies of scale.

Processing:

Opportunities may be explored with other municipalities to determine if processing at the local facility is still the most cost effective option. This may be accomplished by obtaining market pricing through the next collection/processing RFP and exploring the possibility of shipping material to other processing facilities via efficient highway compaction trailers.

P&E:

London is the largest neighbouring two-stream municipality and opportunities may be explored to co-ordinate P&E with their program. An increased level of co-operation may result in greater effectiveness for the current P&E program due to economies of scale and consistent content.

Containers:

Opportunities should be explored to co-ordinate volume purchases of recycling containers through annual purchases with larger municipalities or future CIF tenders. The Municipality may be able to obtain volume discount pricing if they add annual container purchases to a larger order. The CIF also has opportunities for volume container purchasing and funding may be available.

It is also recommended that Chatham-Kent consider establishing a future contract term end date to match the contract expiry date(s) with other local municipalities (i.e. London) to generate the opportunity, on the next tender cycle, for the Municipality to take advantage of multi-municipal co-operation, standardization of service levels and economies of scale in collection throughout the service area. This can be accomplished by requesting that they include a provision in their next collection tender requesting separate costs to collect Chatham-Kent recyclables under a larger contract. Should this cost be deemed acceptable to Chatham-Kent Council, they may elect to enter a subcontractor agreement with Chatham-Kent and take advantage of any resulting cost saving generated by the economies of scale available to the larger community.

Bluewater Recycling Association has recently upgraded their processing facility and collection equipment and although Bluewater is a single stream processor, it may be cost effective to examine the possibility of collection and processing at the Bluewater MRF.

Assistance is available to help municipalities develop and/or negotiate agreements for jointly processing and/or collecting materials. Additional assistance is available from the CIF Program Managers upon request.

Contingencies

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

Waste Recycling Strategy Contingencies	
Risk	Contingency
Insufficient funding	Raise/implement user fees
	Explore and apply for other funding sources
	Delay lower-priority initiatives
	Increase proportion of municipal budget to solid waste management
Public opposition to planned recycling initiatives	Improve public communications (P&E)
	Engage community/stakeholders to discuss initiatives/recycling plans
Lack of available staff	Prioritize department/municipal goals and initiatives
	Hire summer student to help with planning (funding may be available)
	Use qualified consultants (funding may be available)

Monitoring and Reporting

“Proper management of a recycling program includes the monitoring and measurement of the program goals through the establishment of diversion targets and performance objectives. Targets and objectives must be realistic, measurable and relevant. Furthermore, targets and objectives are needed for the individual program components to be evaluated (e.g., curbside collection, depots, processing, promotion and education, etc.) Evaluation facilitates continuous improvement within the recycling program.” *Pg. 38, Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007.*

The monitoring and reporting of any recycling program is considered a Blue Box program fundamental best practice and will be a key component of this Waste Recycling Strategy. Once implementation of the waste recycling strategy begins, the performance of the program will be monitored and measured against the baseline established for the current system. Once the results are measured, they may be reported to Council and the public.

The municipality currently has not performed waste audits to better understand the effectiveness of the recycling program and base rate diversion. The Municipality does obtain processing data monthly from the local facility. A lack of audited weight based collection data makes effective monitoring and measurement challenging.

In defining data requirements going forward, the following questions should be answered as the municipality continually improves their performance measures:

Will the measure track program outcomes as opposed to just outputs and inputs?

Is the measure for absolute impacts or relative impacts?

Can information pertaining to the measure be gathered systematically, consistently, and objectively?

Is there sufficient time and resources to gather, organize and interpret that information in order to tell a meaningful story to the evaluation audience?

Will the intended audiences perceive the measure as credible?

Will the knowledge gained through use of the measure be useful? (e.g., for program improvement, adjustment in funding)

The approach for monitoring the waste recycling program is outlined in the table below.

Recycling System Monitoring		
Topic	Tools	Frequency
Total waste generated (by type and by weight)	Measuring of wastes and recyclables at transfer station/disposal site (e.g. weigh scale records)	Each load
Diversion rates achieved (by type and by weight)	Formula: $(\text{Blue box materials} + \text{other diversion}) \div \text{Total waste generated} \times 100\%$	Monthly
Waste disposed (by type and by weight)	Reconciliation of weigh scale tickets	Monthly
Program participation	Customer survey (e.g. telephone); monitoring set-out rates, web site statistics	Every 1 to 3 years
Customer satisfaction	Customer survey (e.g. telephone, internet); tracking calls/complaints received to the municipal office	Every 1 to 3 years
Opportunities for improvement	Customer survey (e.g. telephone, internet); tracking calls/complaints received to the municipal office	On-going
Planning activities	Describe what initiatives have been fully or partially implemented, what will be done in the future	Annually
Review of Recycling Plan	A periodic review of the Recycling Plan to monitor and report on progress, to ensure that the selected initiatives are being implemented, and to move forward with continuous improvement	Every 3 to 5 years

Conclusion

The Municipality is making steady progress toward increased diversion and recycling efficiency.

Our long term goals are to increase the sustainability of our community, make our community a cleaner, greener place to live and to enhance service/value for our taxpayers.

As with many smaller municipalities, budgetary and staff resources dedicated to recycling and diversion activities are limited. Other limiting factors include geographic and market restrictions and reduced economies of scale.

Accordingly, staff must take advantage of any assistance available to them to improve the local program and several opportunities are noted below for consideration:

1. Eventually adopt an official waste management master plan that includes this updated recycling strategy and clear diversion goals, implementation timelines and regular review procedures.
2. Explore opportunities for multi-municipal co-operation, especially in collection, processing, container procurement and P&E.
3. Establish defined performance measures and methods to monitor them. Conduct waste audits to establish base line performance and ongoing weight based data should be considered as a minimum.
4. Standardize and optimize collection within the service area.
5. Enhance training for staff in recycling core competencies.
6. Develop a promotion and education plan.
7. Enhance policies that increase recycling and diversion.
8. Align collection/processing contract expiry dates with other municipalities in an attempt to optimize collection/processing, address program needs and deficiencies and obtain opportunities to take advantage of economies of scale.

The following recommendations may assist staff in realizing some of the opportunities noted above:

1. Contact neighbouring municipalities to explore opportunities for co-operation.
2. Contact the Municipal Waste Association, for information on the Ontario Best Practice, three year training program currently under development.
3. Adopt a weekly bag limit for garbage and consider reducing this limit over time to increase diversion.
4. Re-evaluate/fix current target diversion rates and establish a timeline to achieve the target rate.
5. Review the Blue Box Program Enhancement and Best Practices Assessment Project, Final Report, July 2007. for suggested depot operating practices located at http://www.stewardshipontario.ca/wp-content/uploads/2013/03/KPMG_final_report_voll.pdf on page 107.
6. Review the P&E module on CIF municipal outreach website <http://www.wdo.ca/cif/resources/education.html>
A specialized P&E course is currently in development and staff are encouraged to participate when available.

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