

Municipal Waste Management Shared Services Centre of Excellence

Business Case Analysis

Project Participants

Townships of
Bonnechere Valley
Brudenell Lyndoch Raglan
Head Clara Maria
Horton
Madawaska Valley
Town of Renfrew

Project Funded by
Continuous Improvement Fund
Project # 802.4

Project Consultant
Redi Recycling Inc.



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Executive Summary

The Continuous Improvement Fund is supporting the Business Case Analysis (BCA) of six municipalities that are interested in exploring the formation of a joint committee that will support their respective blue box recycling programs through the creation of a municipal waste management Shared Services Center of Excellence [Centre of Excellence]. The municipalities are:

1. Township of Bonnechere Valley
2. Township of Brudenell, Lyndoch and Raglan
3. Township of Head Clara and Maria
4. Township of Horton
5. Township of Madawaska Valley, and
6. Town of Renfrew

The objective of the BCA is to review and report on the formation of a municipal waste management Centre of Excellence that will work to develop a road map to transition to a harmonized blue box recycling system. This report provides details on the methodology, the aspects of a Centre of Excellence and determines if there is any value in municipalities working together in a cooperative format to deliver their respective blue box recycling programs. In order to identify and assess Centre of Excellence options the municipal group worked with Redi Recycling Inc. to:

- Identify the issues and current waste management challenges,
- Present the funding status of the participating municipal programs,
- Identify any benefits, financial opportunities and common activities of a joint Centre of Excellence and
- Prepare a report for staff and councils to consider.

Each municipality has taken on recycling programs over the years and operated within the context of their voluntary or mandated responsibilities. When considering working together as Centre of Excellence there are a number of issues to be considered:

- Municipalities collect slightly different recyclable materials
- Promotion and education methods are different in neighbouring communities
- The geographic area for collection is larger as a whole when working together
- Seasonal population and tourism influence the performance of the recycling programs
- Working together increases overall recycling tonnage and each municipal program is capturing different levels of recyclables compared to the provincial available average of 267 kg/hhld
- There are only two local processors for recyclable materials: Beauman Waste Management Systems and the Ottawa Valley Waste Recovery Centre
- The current funding level for 2014 programs is in arbitration
- The WDO is currently consulting on four Industry Stewardship Plans (ISP) that could affect municipal waste management programs
- Beyond the blue box recycling program, a Centre of Excellence may have opportunities to assist with other waste management needs

The business needs that were identified during this assessment include the following:

- Contain or if possible, reduce existing overhead and operating costs,

- Increase current recycling and diversion rates,
- Create efficiencies within and between recycling programs where possible,
- Remain current with WDO stewardship program changes,
- Maintain current information on legislative changes as it relates to the Waste Diversion Act that is currently being amended,
- Tendering/ coordinating as needed for recycling and diversion services that include blue box program, HHW collections, landfill grinding, and
- Planning for future recycling and diversion program needs by assessing collection and transfer methods and where needed transitioning to best practices.

The business outcome is the expected result or benefit that the municipal organizations are striving to achieve at the end of implementing a change. Fundamentally, business outcomes are the reason for undertaking an activity, initiative, or project and are therefore critical to a successful business case. The business outcome identified for the Centre of Excellence initiative is to:

Ensure the municipal programs are operating at the highest levels possible at the least cost resulting in maximized funding of the blue box program.

In reviewing the work to be done, the municipalities have identified the following business scope as it relates to the blue box program:

- Harmonize program materials to be recycled and the Promotion and Education plans to ensure all free advertising space is utilized.
- Track and report on current waste management trends and stewardship information
- Monitor legislation and advise on WDO policy changes
- Enable compliance with current and future legislative and policy changes
- Where possible, identify and reduce existing overhead cost, or contain costs
- Provide information and training support to recycling depot staff
- Conduct community outreach via schools and other community activities
- Work with local businesses to encourage diversion efforts and possibly act as collection agents for specific materials (tires, electronics, batteries, paint and other steward program materials as applicable)
- Report on a regular basis to councils on individual and the joint Centre of Excellence recycling programs, and
- Complete annual WDO data call

Beyond the blue box and in keeping with diversion programs, the scope of work could also include:

- HHW programs
- Tires
- Electronics
- Seek efficiencies in waste management
- Bulky goods diversion
- Waste audits

As part of the CIF approval, this BCA project is to develop a road map to transition to a harmonized local blue box recycling system. The CIF understands and supports well-planned and executed cooperative efforts to formalize joint municipal approaches to enable programs the opportunity for continuous improvements. To that end, the CIF sees value in having this group of municipalities work together to form a Centre of Excellence. In its approval letter, the CIF noted that the proposed road map is to include at a minimum:

- the required action and steps for each participating municipality to transition their blue box program;
- the cost implications (i.e., capital impacts and operating) for each;
- the estimated annual savings and;
- ongoing management costs of the cooperative.

Centre of Excellence Evaluation Criteria

To enable the evaluation of the Centre of Excellence business case, a set of criteria were developed. This allowed each municipality to individually assess the Centre of Excellence core and broader optional activity services approach and determine which provided the best value and can meet their need to improve overall recycling program performance.

The evaluation criteria used for the BCA are:

- Diversion potential: 25 marks
- Financial: 20 marks
- Staff Workload: 15 marks
- Working Together: 40 marks

Staff Assessment

Using the evaluation criteria, the municipalities conducted independent reviews of their respective situations and provided their ratings. The ratings were taken at equal value and averaged which provided the following:

Evaluation Criteria	Value	Assessed Average	
		Core Services	Core + Optional Services
Diversion Potential	25	20	25
Financial	20	20	10
Staff Workload	15	10	15
Working Together	40	40	30
Totals	100	90	80

Recommendation

Based on the assessment, the municipal staff is recommending that the group move forward to establish a joint Centre of Excellence that provides services in accordance with the identified core activities.

Further, staff is recommending Council approval to apply for further financial support from the CIF to assist with the start up and operations during the first year of the Centre of Excellence.

Introduction

Background

There are six municipalities that are interested in exploring the formation of a joint committee that will support their respective blue box recycling programs through the creation of a municipal waste management Shared Services Center of Excellence [Centre of Excellence]. The municipalities are:

1. Township of Bonnechere Valley
2. Township of Brudenell, Lyndoch and Raglan
3. Township of Head Clara and Maria
4. Township of Horton
5. Township of Madawaska Valley, and
6. Town of Renfrew

The municipal group in seeking Continuous Improvement Fund [CIF] support understood that the CIF is a program developed through a partnership among Waste Diversion Ontario (WDO), the Association of Municipalities of Ontario (AMO), the City of Toronto and Stewardship Ontario with a mandate to improve the effectiveness and efficiency of Ontario's municipal Blue Box program. The CIF is a catalyst for change, which fulfills its mandate by providing funding, technical support, and training for municipalities. CIF actively engages stakeholders in identifying and developing best practices and technological and market based solutions to challenges associated with the operation of Ontario's Blue Box system. The CIF understands and supports well-planned and executed cooperative efforts to formalize joint municipal approaches to enable programs the opportunity for continuous improvements.

After several discussions exploring the Centre of Excellence concept amongst the municipalities, the Township of Bonnechere Valley put a group application forward to, and the CIF approved, funding to undertake a Business Case Analysis [BCA] of a Centre of Excellence municipal cooperative. CIF Project No. 802.4, Bonnechere Valley Cooperative Initiative received approval in November 2013. For this project, CIF support is based on each municipality committing to act on the results if a clear savings is demonstrated or reimburse the CIF for their share of the project costs should they elect to not pursue the applicable study recommendations, all parties acting reasonably. A municipality's share will be the project costs divided equally amongst the participating municipalities. Members of the cooperative have confirmed their participation in the project by way of a council resolution or letter from an authorized representative.

The objective of the BCA is to review and report on the formation of a municipal waste management Centre of Excellence that will work to develop a road map to transition to a harmonized blue box recycling system. This report provides details on the methodology, the aspects of a Centre of Excellence and determines if there is any value in municipalities working together in a cooperative format to deliver their respective blue box recycling programs. In order to identify and assess Centre of Excellence options the municipal group worked with Redi Recycling Inc. to:

- Identify the issues and current waste management challenges,
- Present the funding status of the participating municipal programs,

- Identify any benefits, financial opportunities and common activities of a joint Centre of Excellence and
- Prepare a report for staff and councils to consider.

Issues

Each municipality has taken on recycling programs over the years and operated within the context of their voluntary or mandated responsibilities. When considering combining recycling programs into a Centre of Excellence there are a number of issues to be considered:

- Municipalities collect slightly different recyclable materials through a mix of curbside and depot methods;
- Promotion and education methods and recycling strategies of the respective recycling programs are different;
- The geographic area for collection is larger as a whole when working together; noting that the municipalities are situated within the County of Renfrew which is the largest geographic county in the province;
- Seasonal population and tourism influence the performance of the recycling programs;
- Working together increases overall recycling tonnage to manage and each municipal program is capturing different levels of recyclables compared to the provincial available average of 267 kg/hhld¹;
- There are two processors for recyclable materials: Beauman Waste Management Systems and the Ottawa Valley Waste Recovery Centre;
- The current funding level for 2014 programs is in arbitration between AMO/Toronto and Stewardship Ontario;
- The WDO is currently consulting on four Industry Stewardship Plans (ISP) that could affect municipal waste management programs;
- Beyond the blue box recycling program, a Centre of Excellence may have opportunities to assist with current funded stewardship programs such as municipal household hazardous waste (phases 1 and 2), tires, electronics, collection tenders/RFPs, and future ISPs; and
- Other waste management aspects may be supported by a Centre of Excellence such as:
 - Completing the WDO annual data call
 - Coordinate funding opportunities from the CIF or other agencies
 - Maintain existing or develop and coordinate waste management strategies
 - Keep municipalities informed and compliant with current and future Ministry of Environment legislation

Methodology:

The process to complete a BCA of the Centre of Excellence was as follows:

Step 1: Identify the Business Need

Step 2: Identify Change Drivers

Step 3: Business Outcome

Step 4: Identify Business Scope

¹ Continuous Improve Fund, Alec Scott, MIPC Blue Box Program Coordinator

Step 5: Centre of Excellence Evaluation Criteria

Step 6: Staff decision – Go or No Go

If No Go – stop and report to council of outcome

If Go –

Step 7: Develop Centre of Excellence framework

- Scope of work: roles, responsibilities, deliverables, respective delivery dates

- Governance and oversight – reporting process and respective Centre of Excellence/municipal interaction

- Define performance measures and measurement strategy

Step 8: Present to Councils for Decision

Step 9: If approved by respective Councils: Develop Centre of Excellence Agreement

Current Situation and Business Need

The municipalities that are participating in the BCA currently do not have dedicated resources to focus on the specific aspects of the evolving and complexities of environmental stewardship programs in Ontario. In order to support their respective recycling programs municipalities may or currently use consultant support to:

- Develop waste recycling strategies,
- Develop Promotion and Education plans for recycling programs,
- Complete the WDO data call,
- Conduct diversion and recycling studies funded by the CIF,
- Train landfill and depot staff,
- Advise staff and council on waste, organics, HHW, C&D, diversion and recycling matters, and
- Undertake annual landfill monitoring and respective reporting.

Generally, most municipalities currently use staff resources to:

- Oversee blue box and garbage collection contractors,
- Place municipal advertisements for municipal site hours and services,
- Coordinate hazardous waste event and site contractors, and
- Track waste and recycling initiatives.

Municipalities that are providing blue box recycling services receive annual funding from Stewardship Ontario. As part of the current funding system, municipalities are held to a level of accountability and performance that is increasingly harder to achieve, maintain and to stay informed on. As well, under current WDO blue box funding requirements, there is pressure on programs to reduce costs, standardize program delivery and share services and resources where possible. By joining forces and enabling a common support process for blue box recycling programs, it is anticipated that all six municipalities can be better informed, achieve greater best practices, higher diversion rates, higher funding levels and ultimately lower landfilling rates.

During the course of this project to identify the business needs several meetings were held as a group. In these meetings the group discussed current practices, activities, staff resources and current operating structures. The business needs that were identified during this assessment include the following:

- Contain or if possible, reduce existing overhead and operating costs,
- Increase current recycling and diversion rates,
- Create efficiencies within and between recycling programs where possible,
- Remain current with WDO stewardship program changes,
- Maintain current information on legislative changes as it relates to the Waste Diversion Act that is currently being amended,
- Tendering/coordinating as needed for recycling and diversion services that include blue box program, HHW collections, landfill grinding, and
- Planning for future recycling and diversion program needs by assessing collection and transfer methods and where needed transitioning to best practices.

Material Quantities and Program Information

The following table provides information published in 2013 from the 2011 operating year. It is important to recognize the recycling program funding is based on a combination Best Practice scores, tonnage recovered and the recovery rate of a program. The BP – Best Practice Score is based on the answers provided during the data call, the Recovery per HHLd is calculated using the Tonnes divided by the households, Tonnes is the amount of recyclables sent to market and the Recovery Rate is the comparison of the Recovery per HHLd to the recyclable materials available provincial average of 267 kgs/hhld.

2013 Performance Factors

Program	Total Hhlds	Recovered Tonnes	Recovered KGs per Hhld	Recovery Rate	BP Score
Bonnechere Valley	2,421	309	128	47.4%	27%
Brudenell, Lyndoch & Raglan	1,142	68	59	27.2%	58%
Head, Clara & Maria	337	35	105	79.5%	68%
Horton	1,357	178	131	52.8%	25%
Madawaska Valley	2,985	383	128	58.1%	85%
Renfrew	3,779	565	149	51.7%	26%

Source: Waste Diversion Ontario: <http://www.wdo.ca/programs/blue-box/> [2013 Performance Factors excel file]

The following information provides relevant program information and a perspective of scale between operating individually compared to combining efforts and operating as a Shared Services Centre of Excellence.

2013 Program Size Comparison

Program	Total Hhlds	Hhld %	Tonnes	Tonnes%
Bonnechere Valley	2,421	20%	309	20%
Brudenell, Lyndoch & Raglan	1,142	10%	68	4%
Head, Clara & Maria	337	3%	35	2%
Horton	1,357	11%	178	12%
Madawaska Valley	2,985	25%	383	25%
Renfrew	3,779	31%	565	37%
Group Total	12,021	100%	1,538	100%

This table shows that the household counts of the smallest program, HCM is ~3% of the group as compared to Renfrew being the largest at ~31%, with the remaining programs coming in between. As well, the current recovered tonnes in the table reveal similar proportions can be calculated [HCM 2% : Ren 37%]. As a Centre of Excellence group municipalities can work more effectively together by putting forward their respective share of program tonnage to increase overall tonnage recovery. This being said, the Centre of Excellence concept is based on joining together to share resources to bring all aspects of program performance to a higher level.

Drivers for Change

The drivers that have triggered the need for change can be put into two main categories of internal and external.

Internal:

Municipal governance structure and operations are such that the respective council mandates, municipal goals and current resources provide the working parameters in which the business needs can be fulfilled. Generally speaking all council mandates include the provision of recycling services through depots and/or curbside collection. Of the six municipalities most have completed either a waste recycling strategy in the last five years or a promotion and education plan. However, while program performance/financials reporting have been made to councils, all municipalities have been limited in their abilities to act on the plans or to keep the strategies and plans current.

Landfill capacity is also a driver for change as it is a limited resource. The amount available is continuously diminishing and if the next 'tonne' of material can be diverted from landfill through recycling, every reasonable effort must be made to save the landfill capacity for true waste. Along with efforts to improve overall landfill operations, the recycling effort must also be made within the context of available financial resources and a balance maintained.

Recycling technology is another driver that was considered. The methods to deliver services have been improving and there are opportunities that may provide recycling at a better price point and more sustainably. For example, many current recycling depots are serviced by 40-yard roll of containers. The respective municipalities own these and they are currently in need of repair or replacement. However, research has shown that automated collection into compaction trucks with either front or rear loading 6-8 yard containers can save significant money by reducing

transport costs. At the time of this report, some of the municipalities are considering moving to a different collection model, to that end, there may be an opportunity to share equipment and service another communities program leading to an overall improvement of program performance.

External:

External forces are those that may impact municipal operations and recycling planning, but are not within the control of a municipality. At this time, the external forces that are known and may have an impact are:

- Waste Diversion Ontario: data call amendments and information requirements
- Bill 91 - An Act to establish a new regime for the reduction, reuse and recycling of waste and to repeal the Waste Diversion Act, 2002
- WDO: Municipal Industry Programs Committee (MIPC) – municipal/industry funding arbitration to determine Ontario Stewards' blue box funding contributions for 2014.
- Four applications by Industry Stewardship Plans: Call2Recycling - batteries, Canadian Beverage Container Recycling Association – beverage containers, Product Care Association (PCA) – Pesticides, Solvents and Fertilizers, PCA – paints and coatings.

The blue box program plan's data call that is used to calculate funding continues to evolve and requirements for funding and program performance are changing. To that end, there is a need for each municipality to be current in their information for program compliance and to maximize funding. The provincial government has initiated Bill 91 to revise the current blue box funding to 100% and to repeal the Waste Diversion Act. With greater funding, the change will result in the way municipalities will need to or may choose to deliver recycling services. Before the provincial election was called, the act was in second reading and debate and it is not known when it will move forward. Notwithstanding this, given that Bill 91 called for 100% funding, the Association of Municipalities of Ontario's members of MIPC have challenged the blue box funding methodology and demanded Stewards to fund the program to the legislated 50%. And there are four industry stewardship plans in the works looking for approval by the WDO that may change the current reporting, funding requirements and funding sources for each waste stream.

Business Outcome

The business outcome is the expected result or benefit that the municipal organizations are striving to achieve at the end of implementing a change. Fundamentally, business outcomes are the reason for undertaking an activity, initiative, or project and are therefore critical to a successful business case. The business outcome identified for the Centre of Excellence initiative is to:

Ensure the municipal programs are operating at the highest levels possible at the least cost resulting in maximized funding of the blue box program.

As a measurable outcome, the 2013 funding payments were assessed and projections made on the potential increase in municipal funding. For the purpose of projecting the funding change the Tonnage for each program and the Best Practice (BP) score was increased to 85% of what is available and achievable for all programs.

The following table shows the 2011 tonnage recycled and the possible tonnage recycled at an 85% recycling rate. As well, it shows the 2013 funding based on the tonnage and the possible funding if an 85% recycling rate is achieved.

2011 Tonnage Recycled and 2013 Funding

	Tonnage Recycled		Tonnage Funding	
	2011 Tonnes	Possible	2013 Funding	Possible
Bonnechere Valley	309	549	\$10,930.00	\$19,414.00
Brudenell, Lyndoch & Raglan	68	259	\$2,392.00	\$9,158.00
Head, Clara & Maria	35	76	\$1,247.00	\$2,702.00
Horton	178	308	\$6,281.00	\$10,882.00
Madawaska Valley	383	677	\$13,519.00	\$23,937.00
Renfrew	565	858	\$19,961.00	\$30,304.00

Source: Waste Diversion Ontario: <http://www.wdo.ca/programs/blue-box/> [Blue Box Funding Payments excel file]

The following table shows the Best Practice score and the projected score at 85% rate. As well, it shows the Best Practice funding and the possible Best Practice funding if an 85% rate is achieved.

Best Practice Funding

	Best Practice Ratings		Best Practice Funding	
	Rating	Possible	Funding	Possible
Bonnechere Valley	27%	85%	\$2,144.00	\$6,855.00
Brudenell, Lyndoch & Raglan	58%	85%	\$1,557.00	\$2,294.00
Head, Clara & Maria	68%	85%	\$1,260.00	\$1,580.00
Horton	25%	85%	\$1,497.00	\$5,071.00
Madawaska Valley	85%	85%	\$10,090.00	\$10,150.00
Renfrew	26%	85%	\$3,231.00	\$10,644.00

Source: Waste Diversion Ontario: <http://www.wdo.ca/programs/blue-box/> [Blue Box Funding Payments excel file]

The following table sums the previous tables and shows the current and possible funding based on the Tonnage and Best Practice scores.

Funding Increase Summary: Tonnage + Best Practice

	2013	Possible	\$ Increase
Bonnechere Valley	\$13,074.00	\$26,269.00	\$13,195.00
Brudenell, Lyndoch & Raglan	\$3,949.00	\$11,452.00	\$7,503.00
Head, Clara & Maria	\$2,507.00	\$4,282.00	\$1,775.00
Horton	\$7,778.00	\$15,953.00	\$8,175.00
Madawaska Valley	\$23,609.00	\$34,087.00	\$10,478.00
Renfrew	\$23,192.00	\$40,948.00	\$17,756.00

Notwithstanding the potential for increased funding, the business outcome considers operating at an optimal level, meaning the least cost recovery the highest tonnage. The following table provides a summary of the existing net cost per tonne for each program. The primary drivers to calculate the cost of each program are the tonnages recycled and the current operating costs.

2013 Net Cost/Tonne

Program	Provincial Group	Program Net Cost/Tonne	Provincial Program Avg.
Bonnechere Valley	9	\$339.13	\$435.94
Brudenell, Lyndoch & Raglan	9	\$607.41	\$435.94
Head, Clara & Maria	6	\$700.75	\$416.70
Horton	7	\$473.75	\$361.52
Madawaska Valley	9	\$454.36	\$435.94
Renfrew	5	\$441.30	\$210.68

Source: Waste Diversion Ontario: <http://www.wdo.ca/programs/blue-box/> [Blue Box Funding Payments excel file]

For reference, the following table provides information for each municipal groups marketed tonnes (recycled), the net cost/tonne and the maximum allowable funding for net cost/tonne.

2013 Provincial Group Tonnage and Net/Cost Tonne

	Marketed Tonnes	Weighted Average Net Cost/Tonne	Maximum Allowable Net Cost/Tonne
Group 1	433,382 T	\$210.81 /T	\$250.34 /T
Group 2	233,870 T	\$142.85 /T	\$198.02 /T
Group 3	51,202 T	\$180.21 /T	\$320.45 /T
Group 4	98,537 T	\$258.59 /T	\$398.40 /T
Group 5	23,392 T	\$210.68 /T	\$301.38 /T
Group 6	9,703 T	\$416.70 /T	\$745.85 /T
Group 7	38,937 T	\$361.52 /T	\$557.79 /T
Group 8	5,767 T	\$624.95 /T	\$1,412.15 /T
Group 9	10,061 T	\$435.94 /T	\$767.52 /T

Source: Waste Diversion Ontario: <http://www.wdo.ca/programs/blue-box/> [Blue Box Funding Payments excel file]

As part of the business outcome, the Centre of Excellence would attempt to find alternative methods and efficiencies to achieve optimal recycling net costs per tonne and achieve a higher recycling rate. In order to assess the impact on the operating net cost per tonne, the following scenarios were considered: Status Quo, 10% and 25% operating cost increases.

Assuming the current operating costs are generally the best they can be and were to stay the same while actually achieving an 85% recovery rate, the new projected net cost/tonne for each program is substantially lower than the current cost/tonne. However, it is unlikely that costs are the best they can be and that current costs can be maintained due to additional staff efforts, equipment use and fuel that may be needed to achieve a higher recovery rate. The table provides an assessment of adding 10% and 25% to current costs while implementing efficiency changes and achieving an 85% recovery rate. Even at the nominally higher operating costs, all programs will see an overall

savings in program delivery as the projected cost/tonne are again lower than the existing program cost/tonne. The objective of the Centre of Excellence would be to fully utilize the current operating system and add tonnage at the least cost possible.

Projected Net Cost/Tonne for programs operating at 85% recovery rate

Program	Net Cost/Tonne	85% Recycling Rate	Projected Net Cost/Tonne		
			No cost change	10% Cost increase	25% Cost Increase
Bonnechere Valley	\$339.13	549	\$164.25	\$180.68	\$205.31
Brudenell, Lyndoch & Raglan	\$607.41	259	\$167.75	\$184.53	\$209.69
Head, Clara & Maria	\$700.75	76	\$325.17	\$357.68	\$406.46
Horton	\$473.75	308	\$282.49	\$310.74	\$353.11
Madawaska Valley	\$454.36	677	\$250.53	\$275.58	\$313.16
Renfrew	\$441.30	858	\$246.27	\$270.90	\$307.84

With operating a recycling program, a primary benefit to each community has been landfill operation savings and life extension due to reduced wastes being landfilled. As municipalities are all too well aware, the environmental measures needed today for operating landfills far exceed what was in place a decade or more ago. The cost of landfill management, monitoring and expansion are becoming a major financial burden for communities with a landfill. For each tonne of blue box material diverted, the result is:

- longer landfill life, which pushes off operating and capital costs to future years,
- less landfill operating costs, which immediately saves on current year budgets,
- less on-site litter managed, reducing current costs, improving operations and public perception and
- landfill space is reserved for 'real garbage' from which landfill revenues can be realized.

Business Scope

In reviewing the work to be done the municipalities have identified the following business scope as it relates to the blue box program:

- Harmonize program materials to be recycled and the Promotion and Education plans to ensure all free advertising space is utilized.
- Track and report on current waste management trends and stewardship information
- Monitor legislation and advise on WDO policy changes
- Enable compliance with current and future legislative and policy changes
- Where possible, identify and reduce existing overhead cost, or contain costs
- Provide information and training support to recycling depot staff
- Conduct community outreach via schools and other community activities
- Work with local businesses to encourage diversion efforts and possibly act as collection agents for specific materials (tires, electronics, batteries, paint and other steward program materials as applicable)

- Report on a regular basis to councils on individual and the joint Centre of Excellence recycling programs, and
- Complete annual WDO data call

Beyond the blue box and in keeping with diversion programs, the scope of work could also include:

- HHW programs: given the different funding sources and different reporting portals for phases 1, 2 and 3, the Centre of Excellence could coordinate all reporting, HHW events, joint services and where possible municipal collections sites and recycling/disposal services.
- Tires: having its own reporting portal and program requirements, the scope of work could include administrative reporting and managing of tires from each municipal collection site.
- Electronics: again this program has a unique reporting portal and program requirements that need to be managed, at this time some municipalities (BV, BLR, HCM and GM) have assigned this work and are supported at no cost.
- Seek efficiencies in waste management – tendering for services e.g. grinding, recycling collection, scrap metal, Freon, container supply (roll off or other choice at landfills), landfill roll off container support, other aspects as identified/needed
- Bulky goods diversion: seek opportunities for durable bulky goods to be recycled such as mattresses, carpets, flooring, wood furniture as opposed to the current grinding and use as landfill cover
- Waste audits: while there are provincial averages used to predict what each program should achieve, conducting regular waste audits would accurately assess what recyclable are truly available in each municipality.

With respect to landfill management, it was noted that the disparity in landfill tipping fees causes an issue at various locations given residents are seeking out reduced costs and sneaking in their waste. The Centre of Excellence could address this matter through a review of each of the municipalities landfill tipping fees. The findings would be brought forward for discussion to determine if the issue can be resolved by standardizing tipping fees that would eliminate cross boundary disposal.

Centre of Excellence Models

The CIF is a catalyst for change, which fulfills its mandate by providing funding, technical support, and training for municipalities. CIF actively engages stakeholders in identifying and developing best practices and technological and market based solutions to challenges associated with the operation of Ontario's Blue Box system. The CIF understands and supports well-planned and executed cooperative efforts to formalize joint municipal approaches to enable programs the opportunity for continuous improvements. To that end, the CIF sees value in having this group of municipalities work together to form a Centre of Excellence. In its approval letter, the CIF noted that the project is to include at a minimum:

- the required action and steps for each participating municipality to transition their blue box program;
- the cost implications (i.e., capital impacts and operating) for each;
- the estimated annual savings and;
- ongoing management costs of the cooperative.

Working Together

From the CIF's perspective, in order to create a more efficient provincial blue box system, the participating municipalities need to move away from working independently to working together. In this context, the actions and steps for each municipality need to be identified so that they each can transition their blue box program to operate and work in a broader planning context. To that end, the Centre of Excellence is a working forum in which the municipalities can work together to cooperatively operate their blue box programs, and where feasible to utilize existing resources to the benefit of the broader group.

The following table shows that the majority of the programs contract out the collection operations. Only two of the municipalities, Bonnechere Valley and Madawaska Valley have collection equipment that is used for curbside recycling. At this time, for the majority of the depots they each collect containers and fibre material in roll-off containers for which the transportation is contracted out. Further, all programs contract out the processing of their recyclables.

Collection Method Summary

Program	Collection			
	Curbside	Contracted	Depot	Contracted
Bonnechere Valley	Y	N	Y	Y
Brudenell, Lyndoch & Raglan	N	N	Y	Y
Head, Clara & Maria	Y	Y	Y	Y
Horton	Y	Y	Y	Y
Madawaska Valley	Y	N	Y	Y
Renfrew	Y	Y	Y	Y

In terms of working together, the programs are limited to joining forces in the next recycling tender. For those communities that have recycling collection equipment, opportunities would be explored to provide support to each other's program as well as to possibly provide some level of service to other communities. For the purposes of this report, the ability to identify this service as a solution to work together is limited to identifying the opportunity at hand. The costing and logistics behind this change would be an activity to be reviewed and assessed by the Centre of Excellence if it is created.

Cost Implications

As part of the CIF approval, a review of the capital and operating impacts for each community are to be a part of this report. Given the current collection methodology, most of the capital assets for the purposes of the blue box program are at the local recycling depots in the form of roll-off bins or other smaller collection containers. For the communities with rolling stock there is still over 10 years of the vehicles' useful life remaining. As such, there is minimal capital cost savings due to limited need to replace expensive capital equipment. If there are going to be any capital cost savings it will be from working together to purchase any new collection containers as a group rather than individually.

The primary cost implication will be in the operations of the blue box program. Two municipalities use their own equipment for curbside collection and the others contract out both curbside and depot roll off transportation. It is anticipated that the method in which cost savings can be realized will be through a joint tender for the delivery of recycling collection and processing services. At this time one of the communities has already undertaken a joint collection and processing tender and established a five-year contract, with three years remaining. In future, collection and processing contracts can be synchronized and jointly tendered to put onto the market a larger material tonnage. Notwithstanding this, it is recognized that there is a very limited choice at this time of competing collection and processing firms in the Renfrew County area.

Estimated Annual Savings

It is recognized that the six participating municipalities are looking to improve the performance of their respective recycling programs by working together. All programs are overseen by senior management and utilize depot staff to supervise the public and at this time only one municipality has a staff position with waste management duties that deals with its current recycling program. Given the situation the formation of the Centre of Excellence will incur additional costs within each municipal budget. In order to achieve any program savings, the efforts of the Centre of Excellence will need to increase recycling rates within each program while maintaining or limiting any increase to operating costs.

To recap, as stated in the Business Outcome section, the Centre of Excellence would work towards finding efficiencies to optimize operating costs. The table provides an assessment of adding 10% and 25% to current costs while implementing efficiency changes and achieving an 85% recovery rate. Even at the nominally higher operating costs, all programs will see a reduced projected cost/tonne are over the existing program cost/tonne. The objective of the Centre of Excellence would be to fully utilize the current operating system and add tonnage at no cost or at a nominal rate.

Projected Net Cost/Tonne for programs operating at 85% recovery rate

Program	Net Cost/Tonne	85% recovery rate	Projected Net Cost/Tonne		
			No cost change	10% Cost increase	25% Cost Increase
Bonnechere Valley	\$339.13	549	\$164.25	\$180.68	\$205.31
Brudenell, Lyndoch & Raglan	\$607.41	259	\$167.75	\$184.53	\$209.69
Head, Clara & Maria	\$700.75	76	\$325.17	\$357.68	\$406.46
Horton	\$473.75	308	\$282.49	\$310.74	\$353.11
Madawaska Valley	\$454.36	677	\$250.53	\$275.58	\$313.16
Renfrew	\$441.30	858	\$246.27	\$270.90	\$307.84

These projections are predicated on recyclable materials being available for recovery. Given that there is a provincial average of what is available per household, the unknown here is whether or not these communities fit within the provincial profile of available recycled material. This has always been a question as there are no major newspapers and the area has had declining

economic activity. It should be noted that the Renfrew County area median household income is 14% lower than the Ontario average. In 2011 the median household income was ~\$73,000 in Ontario and only ~\$63,000 in Renfrew County. As such it is quite possible that there is less purchasing of products and less recycled material per household in the six communities than the Ontario average. However it is recognized that there is room for improvement to increase the overall recycling tonnage, this in turn will translate into reducing the net operating costs of the program.

Centre of Excellence Operating Costs

The level of effort needed to fulfill the business scope mandate will determine the ongoing operating costs. There are two models that were considered for the Centre of Excellence. The first encompassed all the listed business scope activities in the table below and the second is predicated on providing core services and having optional activities provided on an as needed basis.

Business Scope Activities

Activity	Core Mandate	Optional Service
Harmonize program recyclable materials and Promotion and Education plans to ensure all free advertising space is utilized.	x	
Track and report on current waste management trends and stewardship information	x	
Monitor legislation and advise on WDO policy changes	x	
Enable compliance with current and future legislative and policy changes	x	
Identify and reduce existing overhead cost, or contain costs	x	
Provide training support to office and recycling depot staff	x	
Report on a regular basis to councils on individual and the joint Centre of Excellence recycling program efforts	x	
Conduct community outreach via schools and other community activities		x
Work with local businesses to encourage diversion efforts		x
Complete annual WDO data call		x
HHW programs		x
Tires		x
Electronics		x
Seek efficiencies in waste management – tendering for services		x
Bulky goods diversion		x
Waste audits		x

In comparing the two models from a financial perspective the core mandate model will be less expensive to implement for two reasons:

- the work involved within the core mandate is independent of the municipalities program size or population and can be delivered at a flat rate, and
- optional service elements are influenced by complexity of programs community size and number of sites managed

In conducting this BCA it has been determined that the core mandate are the most important activities to be undertaken to improve the municipalities' recycling programs. If each program were to undertake this independently, the work associated with the activities would be a duplication of efforts and duplication of expenditures. By working together, the core mandate can be undertaken in a cost-effective manner and be provided to all six municipalities at an incremental rate. The cost assessment of having external resources undertake this work independently has a broad range and is estimated to be anywhere from \$25,000 for limited efforts upwards of \$60,000+ for a higher level of effort.

Centre of Excellence Evaluation Criteria

To enable the evaluation of the Centre of Excellence business case, a set of criteria were developed. This allowed each municipality to individually assess the Centre of Excellence core and broader optional activity services approach and determine which provided the best value and can meet their need to improve overall recycling program performance.

The evaluation criteria used for the BCA are:

- Diversion potential: 25 marks: rate the opportunity to divert and recycle more materials from landfill noting that with higher tonnage recycled there is less waste going to landfill thereby preserving landfill capacities
- Financial: 20 marks: rate the potential return on investment assuming improved program performance can realize greater funding from Stewardship Ontario while the net operating costs per tonne are reduced and higher recycling means reducing landfill operating costs
- Staff Workload: 15 marks: rate the value in freeing up staff time from the core business scope activities or the value in having the work completed given no staff resources available.
- Working Together: 40 marks: with a greater importance placed on sharing resources, assess the value in joining efforts to accomplish the business scope activities

Staff Assessment

Using the evaluation criteria, the municipalities conducted independent reviews of their respective situations and provided their ratings. The ratings were taken at equal value and averaged which provided the following:

Evaluation Criteria	Value	Assessed Average	
		Core Services	Core + Optional Services
Diversion Potential	25	20	25
Financial	20	20	10
Staff Workload	15	10	15
Working Together	40	40	30
Totals	100	90	80

Recommendation

Based on the assessment, the municipal staff is recommending that the group move forward to establish a Shared Services Centre of Excellence that provides recycling program support in accordance with the identified core activities.

Further, staff are requesting Council approval to apply for further financial support from the CIF to assist with the start up and operations during the first year of the Centre of Excellence.

Centre of Excellence Framework

To establish the operating framework for the Centre of Excellence it is proposed that the following elements be adopted for its terms of reference:

Covenant

- To cooperatively work together in order to improve the recycling program performance and implement efficiencies to the benefit of all programs

Terms/Conditions

- Municipalities to form an oversight committee meeting quarterly or as needed, comprised of one Municipal staff person as appointed annually
- Committee shall define core services scope of work, deliverables and task timing
- Core services to be executed by a qualified consultant or company
- Municipal participation in the Centre of Excellence is voluntary
- Centre of Excellence to provide quarterly and annual reports to Committee
- Committee members to provide reports to municipal councils on a regular or as needed basis
- Centre of Excellence service provider to present annual report to respective municipal Councils

Appendix A

Municipal Program Material and Service Summary

	Program Code	547	416	794	551	567	565
	Program Title	<u>BONNECHERE VALLEY, TOWNSHIP OF</u>	<u>BRUDENELL; LYNDONCH & RAGLAN, TOWNSHIP OF</u>	<u>HEAD, CLARA & MARIA, TOWNSHIPS OF</u>	<u>HORTON, TOWNSHIP OF</u>	<u>MADAWASKA VALLEY, TOWNSHIP OF</u>	<u>RENFREW, TOWN OF</u>
Total Number of Collections Per Year for Curbside Blue	Single Family Dwellings	52	Depot	26	26	52	26
	Multi-Family Dwellings	52	Depot	26	26	52	26
Residential Pay As You Throw Program for Garbage Collection	User Pay Waste Collection / Pay as You Throw	Y	N	Y	Y	Y	Y
	Partial User Pay	Y	N	Y	Y	Y	N
	Full User Pay	N	Y	N	N	N	Y
	Bag Limit Program for Garbage Collection	N	N	Y	N	N	Y
Residential Blue Box Materials Collected (beyond 5 basic materials: ONP (old newspaper), Glass, Aluminum Cans, Steel Cans, PET Plastic)	Corrugated Cardboard	Y	Y	Y	Y	Y	Y
	Boxboard	Y	Y	Y	Y	Y	Y
	Gable Top Cartons	Y	Y	Y	Y	Y	Y
	Tetra Pak Cartons	Y	Y	Y	Y	Y	Y
	Other Aluminum Packaging & Foil	Y	Y	Y	Y	Y	Y
	Empty Aerosol Cans	Y	Y	Y	Y	Y	Y
	Empty Paint Cans	Y	Y	Y	Y	Y	Y
	HDPE Containers (#2)	Y	Y	Y	Y	Y	Y
	Other Bottles & Containers (#3, #5, #7)	Y	Y	Y	Y	Y	Y
	LDPE/HDPE film (#2, #4)	Y	Y	Y	Y	Y	N
	Tubs & Lids (#2, #4, & #5)	Y	Y	Y	Y	Y	Y
	Polystyrene Foam(#6)	Y	Y	Y	Y	Y	Y
	Polystyrene Crystal(#6)	Y	Y	Y	Y	Y	N