

E&E Project Evaluation Form

****Please be advised that completed evaluations are made available publicly and are posted on Stewardship Ontario's E&E Fund web site****

Project Name/Number/Priority area: Recycle Away / PN 44 / Public Space Recycling

Lead Sponsor/competed by/date: Quinte Waste Solutions

Project Duration: 1 Year

Total project value: \$30,000

E&E funding amount: \$15,000

Section 1 –To be completed by Project Applicant

1) What were the Project Goals and Objectives (as per the E&E Application and/or Contract)?

The main objectives of the 2005 Recycle Away program were to:

- Collect accurate public space waste audit data for average size Ontario municipalities.
- Estimate typical recovery rates for Recycle Away materials (PET, HDPE, aluminium, polystyrene and steel).
- Determine desirable features in bin design through public and worker surveys

2) Were the goals and objectives met? (and if not why not?)

All the objectives were met. The public surveys however, were not as successful as anticipated. This was due to the difficulty of finding members of the public willing to answer a survey during their leisure time without offering an incentive.

3) Summary of Project Accomplishments (i.e. what did the project do/achieve?):

- Piloted 110 public space recycling bins (arenas, sports fields, and public parks) in two test municipalities (Belleville and Quinte West)
- Collected 2,860 Kg from public space recycling
- Increased material recovered from special event recycling (non-WDO eligible tonnes) by 95% over the previous year (3,340 Kg in 2005 compared to 1,760 Kg in 2004)
- Conducted pre and post audits and weekly cross contamination audits at 3 trial sites
- Trialed 5 bin designs to identify the impact of different attributes (graphics, written signage, etc.) on recyclable capture and contamination
- Raised awareness of the blue box program in general through increased media coverage
- Improved the relationship between Quinte Waste Solutions and municipal staff in member municipalities
- Created a memorable public space recycling icon which is now used as an additional marketing tool by QWS and is available to download by all Ontario municipalities through QWS's website
- Assembled and reviewed baseline literature on public space recycling

4) Summary of Project Limitations (e.g. is there anything that should have been done differently?)

Two audits (one pre and one post Recycle Away) were conducted at each study site. Conducting an additional audit at each site would perhaps have strengthened the data's validity. Trialing a greater number of bin designs may have ruled out bias, although the little information we did manage to gather from respondents proved useful. In addition, offering an incentive for the public survey may have increased the number of respondents.

5) What do you consider to have been the key “lessons learned” from this project? Does your project/activity represent a “best practice”?

- Approximately 30% of the total material weight (combined waste and recycling streams) in the areas audited is Recycle Away materials (PET, HDPE, aluminium, Polystyrene and steel).
- According to QWS, these materials can be recovered at no or relatively low cost (it was not possible to confirm this).
- QWS calculated the net cost of collecting public space recyclable (assuming all available recyclables are captured) in the city of Belleville at \$6K versus \$17K to collect garbage only.
- Open bed trucks such as half tonne pick ups are required to collect public space recyclables efficiently. Conversely, enclosed collection trucks, which have only one compartment, lead to collection inefficiencies.
- The use of a recognizable graphic such as the Recycle Away Icon plays an important role in promoting public space recycling with the public
- The general public buys into a pro-active program like the Recycle Away program if it has the support of public officials
- Recycling bins that display graphic material interpretations, written word descriptions and colour coded material stream signage are most successful at reducing cross-contamination
- Placing recycling and garbage bins side by side increases recyclable material capture while reducing cross contamination
- Motivated collection staff play a key to the success of a public space recycling program

6) What specifically are municipal staff doing with the experiences and data from this project? Do you have plans to apply these lessons in your program? Please explain how.

Municipalities using single compartment trucks to collect waste in parks (the City of Belleville, and on occasions the City of Quinte West) are now investigating options for multiple compartments to increase collection efficiencies. More broadly speaking, the project's positive outcome has focused member municipalities' attention on improving collection and ensuring recyclable collection functions efficiently with the garbage collection system already in place. Member municipalities are also working with QWS staff to expand the program into more arenas and public spaces.

7) Has your municipal council been informed about the project and its results?

Yes, information is shared at monthly Centre and South Hastings Waste Services Board meetings. The information is then reported to individual municipal councils by their respective representative on the Centre and South Hastings Waste Services Board.

8) Do you think there are opportunities to share/replicate the successful elements of this project with other Ontario programs? If yes, how and where?

Yes. The project's final report was written in a way that provides explanation and rationale for each step of the program, thus allowing the reader to duplicate almost every element of the program. The program was developed for average-size rural communities in Ontario rather than urban settings; however, many of the principals (i.e. signage, bin placement, design) can be replicated in larger cities with the potential for an even higher material capture. The final Recycle Away report will be made available through CD, hardcopy, and the QWS website.

9) Did this project result in either reduced costs per tonne of Blue Box waste recycled and/or increased Blue Box tonnes diverted? (Please explain)

As mentioned previously, QWS diverted 2,860 Kg of public space Blue Box materials through this project (and 3,340 of non-eligible special event Kgs) at no or little additional collection costs to the system (assuming costs are simply transferred from garbage servicing). For the MRF operation, increased tonnes of materials go to market at no increase in costs; gross costs are therefore unchanged. Revenues should increase and net costs decrease. Processing costs will increase in a linear fashion, as revenue increases.

Section 2 –To be completed by Stewardship Ontario (and reviewed by applicant)

9) Did this project do what it set out to do? If not, what were the reasons/ barriers?

The project fulfilled all its objectives as stated in Question 1. With regards to the original application, the project successfully estimated the total amount of Recycle Away materials in public spaces. The project accomplishments were weaker however, with regards to the assessment of why public space users chose the disposal options they do (waste vs. recycling). As mentioned by the proponent in question 2, this is likely due to the difficulty to recruit survey participants.

It is also not clear whether/how the Public Space recycling literature review informed QWS's decision on what recycling system (i.e. bin type, location, etc.) to install.

Finally, this project does not produce definitive conclusions on whether public space recycling represents the next source of least cost tonne and whether it should therefore be considered a priority area.

10) What are the key learnings from this project? Are there any next steps? What is being done to share the results?

The key learning from this project is that approximately 30% (by weight) of the total public space material audited (combined waste and recycling streams) is made up of Recycle Away materials (PET, HDPE, aluminium, Polystyrene and steel).

As a comparison, audit data provided by Kevin Vibert at the City of Toronto indicated that the city's open-top garbage cans contain 35.74% by weight recyclables. This includes the full range of materials collected by the city (glass, steel, aluminium, plastics 1-2 and tubs and lids), whereas the Recycle Away target materials include only PET, HDPE, aluminium, Polystyrene and steel. Given these numbers, the QWS appear to be in comparable range to Toronto's data.

To be efficient, collection of public space recyclables should be done simultaneously with the collection of public space waste. This requires the use of open bed trucks such as half tonne pick ups, which allow the two streams to be kept separate.

11) Was the project good value for the money (e.g. were there measurable program or system cost reduction benefits, cost effective tonnage increases, etc?)

This project led to a 2,860 Kg increase in blue box tonnes diverted.

12) Does this project represent “best practices”? If yes, explain.

QWS believes that Public Space recycling represents an important source of ‘least cost tonnes’. QWS calculates the net cost of collecting public space recyclable (assuming all available recyclables are captured) in the city of Belleville at \$6K versus \$17K to collect garbage only.

Although QWS predicts that public space recycling can be collected at no or relatively low cost, it was not possible, at the time of the project’s completion, to confirm and/or specify this information. As QWS continues to roll-out its public space recycling strategy, Stewardship Ontario will be looking forward to this information becoming available.

13) Tonnage and Financial Summary

Blue Box tonnes recycled in previous year: 11,893 tonnes

Blue Box tonnes recycled during project year: + 2.86 tonnes from public space recycling (+3,340 non-eligible special event Kgs)

Did this project have a direct impact on Blue Box tonnes recycled ? (Please explain)

Yes, see question 11

Program costs for previous datacall: \$1,098,250

Did this project have a direct impact on the cost of Blue Box recycling? (Please explain)

No