

DONATED GOODS KERBSIDE TRIAL FINAL REPORT – APRIL 2006

'From rags to community riches'

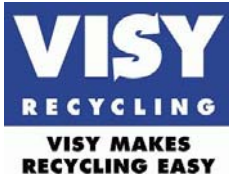




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1. EXECUTIVE SUMMARY

The Donated Goods Trial was conducted over a four month period between February and May 2005 involving 8,000 households from within the City of Greater Geelong with the aim of providing a consistent source of usable material to charity shops as a viable alternative to the operation of donated goods bins and to maximise the quantity of material recovered.

Traditionally, the collection of donated goods (predominately clothing, textiles, footwear, leather goods, toys, games, electronics, and household items) through a network of charity bin drop off points has been a key source of material for sale for charitable institutions in Australia. Charity bins sites are being used by some people as dumping sites for unwanted rubbish and the cost of collection and disposal of this material is a serious financial burden on these organizations and is diverting funds from welfare programs into waste disposal.

Two committees were established for this project. A project steering committee to oversee the project and a Donated Goods Working Group comprising of local and national charities was established to explore the issues of the trial and management of the donated goods bins as well as other issues the charities are experiencing.

Specially designed bags were distributed to residents and residents were requested to place specified materials in the bags and then into the kerbside recycling bin for collection. The City of Greater Geelong operates a fortnightly kerbside recycling service collecting fully commingled recycling in 240 litre wheelie bins.

The bags were collected in the recycling bin during the scheduled fortnightly collection by the recycling collection contractor and deposited at Visy Recycling for sorting. The bags were then transferred to FM Recycling in Melbourne where sample bags were opened and sorted for analysis.

A residential survey of the 8,000 households in the trial area was conducted after the trial to monitor community opinions; 653 responses were received.

- 73% of respondents rated the trial favourably as a method of collecting goods
- 70% of respondents participated in the trial
- 87% of respondents wanted the service provided in the future
- 70% of respondents agreed that goods should go to various charities in Melbourne

A total of 14.35 tonnes of material was collected by the trial with 2,695 bags being returned in the trial. The cost benefit analysis of the trial shows that the kerbside collection service when compared to the charity bin collection system, yields a 29% reduction in cost per tonne of usable material.

The City of Greater Geelong considers the results of the trial as most encouraging and certainly supports the further investigation of the systems that should in the near future see the implementation of a kerbside donated goods collection across the municipality utilizing the existing collection system.



2. RECOMMENDATIONS

1. Permanent donated goods kerbside collection service be implemented

It is recommended that a permanent donated goods kerbside collection service be implemented in the City of Greater Geelong. The analysis shows that a kerbside collection is a more cost effective means of collecting donated goods. The trial indicates that a permanent service would be an effective means of diverting reusable materials from landfill.

2. Continuation of the Donated Goods Working Group

The trial indicates that the Donated Goods Working Group played a critical role in the success of the trial kerbside collection.

It is recommended that the existing Donated Goods Working Group continue as a advisory body to guide the development and implementation of donated goods collection services within the City of Greater Geelong.

3. Removal of charity bins from unsupervised sights

This report clearly shows that the use of charity bins for the collection of donated goods leads to significant waste dumping and littering problems.

It is recommended that charity bins be relocated from all unsupervised sites to supervised sites such as schools, churches and community centres.

4. Through the door donations remain a priority in any future donated goods programs and/or marketing and information

This report recognizes that the funding of welfare programs, the employment of staff and volunteers from the community, and the legitimate form of material recovery conducted by the donated goods industry all provided social benefits.

It is recommended that any future donated goods collection service actively promote through the door donations as a desirable and responsible method of donating goods.

5. Use of a dedicated bag

It is recommended that a dedicated bag be used to avoid any confusion about placing general plastic bags into the recycling bin. It is also an opportunity to advertise what materials are collected and where they are going, to ensure that general public is aware that donated materials are going to charities not to general recycling



3. INTRODUCTION

The aim of this report is for the Barwon Regional Waste Management Group to identify the benefits and issues of a kerbside donated goods collection service, based on the results of the trial conducted between February and May 2005.

The project was jointly funded by the City of Greater Geelong, Brotherhood of St Laurence, FM Recycling, Visy, Cleanaway and Sustainability Victoria.

Analysis of the current charity bin collection system and the proposed kerbside collection was made. It is anticipated that this report will assist in the development of a permanent donated goods kerbside collection service.

4. BACKGROUND

The City of Greater Geelong Waste Services Unit was approached by FM Recycle (collection and processing contractor to The Brotherhood of St Laurence, Red Cross and Open Family), in 2004 to conduct a trial using the existing kerbside recycling infrastructure and services. A Technical Group consisting of Cleanaway (kerbside collection contractor), Visy Recycling (kerbside recycling processing contractor), FM Recycle and the Barwon Regional Waste Management Group was established to develop a process for collection utilizing bags placed with recyclables in the yellow lid kerbside recycling bin.

Lara, Newcomb and Leopold south of Portarlington Road were the areas selected for the trial – approximately 8,000 households. Belmont was originally selected but changed due to the number of charity services (shops and bins) already available to residents in the area.

The trial ran from February to end May 2005 with a residential survey conducted in June 2005. This survey was funded and commissioned by Sustainability Victoria.



5. TRIAL PROCESS

The trial process was undertaken as follows:

- specially designed bags and instructions for use were letterbox dropped to nominated households – each house receiving two bags
- resident placed the nominated material in the bag
- the bag was placed in the household recycling bin and the bin placed out in the normal manner for collection on the regular day
- bags could be placed in the bin at any time of over the trial period
- material was cleared from the bin by Cleanaway as part of the regular fortnightly collection and deposited at Visy
- at Visy the bag was removed at the initial sort and dropped into a skip
- each bag was bar coded and weighed
- the bags were transported to FM Recycle in Thomastown to be sorted (bagged material was sorted using the same process as the existing charity bin collection service) and if requested a portion of the material distributed to local charities.



Bag used for the trial

The original aim was to have the local charities receive the bags after being processed at Visy to be sorted. Only three charities – The Oppe Shoppe, Kalkee and Uniting Care Concern – agreed to accept and sort a limited number of bags (comments attached). The major concerns of the charities of accepting bags to be sorted were:

- contamination (in particular glass) getting into the bags and injuring the sorters as well as the garments being resold with glass in the sleeves etc.
- the quality of the material donated in the bags may not be up to the accepted standard
- the delivery arrangements and the number of bags they were to receive



Visy Recycle made alterations to its facility in South Geelong to accommodate the trial to enable the removal of the bags at the earliest practical stage.

It should also be noted that part of the process to establish the trial involved the establishment of a Donated Goods Working Group. This Group was facilitated by the City and involved all known charities collecting donated goods. As a result of the Group it has been identified that the donated goods industry plays an important role in recovery of materials and the reuse of these materials as an example of the highest order of waste management.



'From rags to community riches'



Information flier handed out to residents in the trial area

TO THE HOUSEHOLDER

DONATED GOODS COLLECTION TRIAL - FEB TO MAY 2005

Dear Resident,

The City of Greater Geelong's **donated goods collection trial** (using the white **donation bags** and your yellow-lid recycling bin) is underway in your area.

To date, the trial has been very successful with some excellent donated goods collected. The City and charities involved appreciate this response from residents.

One of the issues to be resolved by the trial is what goods can be placed in the donation bags. From early collections, it has become clear that breakable goods are being damaged in the collection process while hard items cause the bags to tear open. As a result, these items cannot be recovered. They are also affecting the condition of other goods in the bags.

For the remainder of the trial, any items made of **breakable / hard materials** (such as glass, china, hard plastic or metal) must **NOT** be placed in your donation bag. These items should be taken directly to any charity shop.

Charity shops provide much wanted clothing and household goods, funding for welfare programs as well as employment for our community. Direct donations of clean, reusable clothing and household goods will help continue this work.

Please place ONLY the following items in your donation bag:

- | | | | |
|-------------|------------|---------|----------|
| - Clothing | - Blankets | - Linen | - Towels |
| - Soft toys | - Books | - Shoes | |

If you require any further information or additional donation bags, please contact the City's Waste Advisory Officer on 5227 0853.

THANK YOU FOR YOUR CONTINUED SUPPORT OF THIS TRIAL.

WWW.GEELONGAUSTRALIA.COM.AU





6. COST ANALYSIS

Table 1: Cost analysis of current charity bin collection service

Cost of Current System		Per Bin Per Year	Trial Area Per Year
Bin Maintenance- includes painting, vandalism, graffiti and stickers		\$100	\$900
Outside-Bin Waste Disposal- includes pick-up and disposal	2.5 tonnes per bin per year	\$600	\$5,400
Inside-Bin Waste disposal (30%)	1.5 tonnes per bin at \$80 tonne (cost of waste disposal to Melb landfills)	\$120	\$1,080
Cost for goods-transport	30c/kg	\$1,500	\$13,500
Total number of bins in trial area	9 bins		
Total quantity of material collected		5 tonnes	45 tonnes
Total usable material collected	(1.5 tonnes waste materials per bin)	3.5 tonnes	31.5 tonnes
Total Cost		\$2,320	\$20,880
Cost Per Tonne (total collected material)			\$464
Cost Per Tonne (usable material)			\$662.85

Table 2: Cost analysis of trial kerbside collection service

Cost of Trial System		4 month trial		Per Year
Bags	44c each	16,000 bags supplied	\$7,040	\$16,000*
Visy	\$36.64 tonne	14.35 tonnes collected	\$525.78	\$1,577.34
Cleanaway	No cost			
Inside-Bag Waste disposal (15%)	2.15 tonnes	\$80 tonne	\$172	\$517
Cost for goods-transport	2c/kg	14,349kg	\$287	\$861
Total quantity of material collected			14.35 tonnes	43.05 tonnes
Total usable material collected		(15% waste collected)	12.20 tonnes	36.59 tonnes
Cost saving of material diverted from landfill	\$38 tonne	14.35 tonnes diverted	\$545.30	\$1,635.90
Total Cost			\$7,479.48	\$17,319.44
Cost Per Tonne (total collected material)			\$521.23	\$402.30
Cost Per Tonne (useable material)			\$613.05	\$473.34

*This figure is based on the resident survey findings that 4 bags per year would adequately services 89% of households, 11% of households will need to pick up extra bags, (this totals 32,000 bags per year for the trial area) and the cost of the stronger bags when purchased in bulk on an ongoing basis would be 50c each as apposed to the 44c per bag price for the trial.



Table 3: Analysis of the materials donated during the trial

Total Material Collected	14,349.98kg
Total Material Sorted	5,136.00kg

Analysis of Materials Donated	Kilograms	Percent
Export	1,038	20.21%
Waste	771	15.01%
Wiper	732	14.25%
Manchester	452	8.80%
Wool	370	7.20%
Children's Winter	348	6.78%
Shoes	341	6.64%
Shop	329	6.41%
Bric-a-Brac	323	6.29%
Books	305	5.94%
Damaged	117	2.28%
Electrical	10	0.19%
TOTAL	5,136	100%

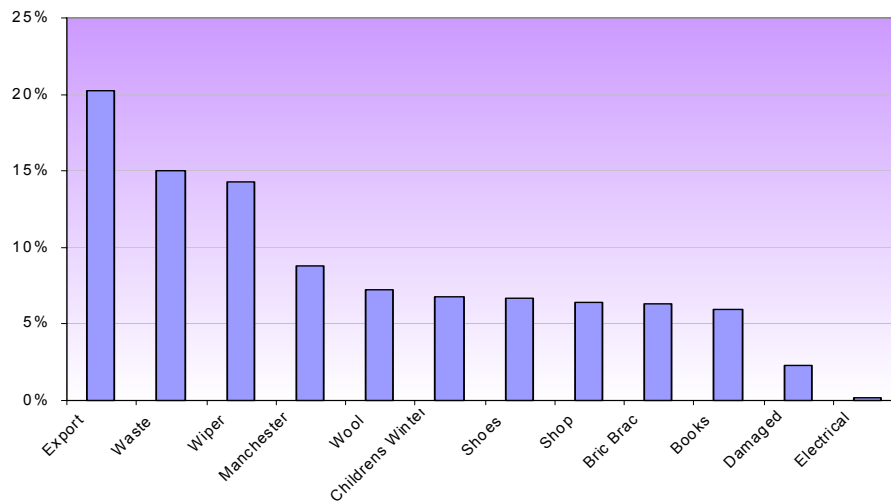


Figure 1: Analysis of materials donated during the trial



7. DISCUSSION

7.1 Analysis

This Donated Goods Trial involving the recovery of textiles from the kerbside recycling service has been the first one conducted in Victoria and has generated interest from Victorian Local Government. All councils are experiencing problems with the management of the donated goods bins and dumping of material. This is an expense to the charities as well as Councils to clean up.

The trial covered an area encompassing 8000 households. 16,000 bags were distributed and 2695 bags were returned. These bags yielded a total of 14.45 tonnes of material, equating an average of 8kg of donated material per participating household.

The material collected from the trial contained only 15% waste, compared to the 30% waste found in the charity bins. The data shows that when comparing the cost per tonne of collecting usable material, the trial method represents a 29% cost reduction when compared to the charity bin method of collection; this doesn't indicate a cost saving to any particular stakeholder but rather is a cost saving of the entire system.

During the trial period the quantity of materials donated into the existing charity bins in the trial area and received by charity shops as 'through the door' donations did not change. This indicates that the material collected was new material that would otherwise have been deposited to landfill. The disposal of waste material through the kerbside garbage service cost the City of Greater Geelong \$38 per tonne. This diversion of donated materials from landfill equates to a \$545.30 saving in tipping fees during the trial period, and when extrapolated out a \$1,635.90 saving per annum.

The marketing costs of the project totalled \$14,651. The aim of this analysis is to estimate the cost benefits of an ongoing service as apposed to the existing charity bin system. For the purposed of this report the marketing costs have been viewed as a one-off cost. A permanent kerbside service would require initial marketing, but on an ongoing basis marketing would be minimal, for this reason marketing costs have not been included in the analysis.

7.2 Successes of the trial

The trial used the existing infrastructure at the Visy Recycling MRF and the existing recycling kerbside collection infrastructure and service.

Participants could put their bag in their recycling bin whenever they wanted to; this meant they could wait for space in their bin. Assuming there was room in their bin (and 91% of survey responses indicate that there was mostly or always room in their bin) participants were able to dispose of materials immediately so there was no need to store donated goods. Participants were asked to place the donated goods recycling bag on top of the recycling material in the bin to ensure litter control- no litter problems arose.



Resident responses indicated that the trial was a success and participants wanted to see it expanded into a permanent service (87% of survey respondents responded in this way).

The quality of material collected was comparable to the quality of materials currently collected through the charity bin system.

Both national and local charities support the removal of charity bins and the implementation of an alternative donated goods collection service, with the understanding that an alternative service would continue to advocate through the door donations as a desirable method of donating unwanted goods.

There is no direct additional risk to Councils identified in the trial. Occupational Health and Safety (OH & S) was continuously reviewed during the trial and there were no incidents reported. The major additional risk was caused by the manual handling of bags that may have been contaminated with glass fines or broken china however these were identified in the risk assessment along with all OH&S issues associated with the collection and sorting of the donated goods and strategies were put in place to counter them. The bags only weighed 5kg to avoid any occupational health and safety risks to residents lifting bags into bins and to workers at Visy Recycling removing bags from the feed lines.

Communication to the residents directly involved in the trial was completed by letterbox drop. Communication to the total community was avoided as this may have lead to widespread use of alternative bags. 83% of the respondents to the residential survey indicated there was enough information provided about the trial. The importance of the Donated Goods Working Group has been identified as developing networking relationships and materials exchange within the local community of charities. This Group will continue to be supported by the City of Greater Geelong.

The funding of welfare programs, the employment of staff and volunteers from the community as well as the legitimate form of material recovery conducted by the donated goods industry all provided social benefits.

There was no issues legal or statutory implication identified during the trial.



7.3 Household Survey

A survey of the 8,000 households was conducted in June 2005. The Council received 653 responses. These responses are as follows,

- 73% of respondents rated the trial favourably as a method of collecting goods
- 70% of respondents participated in the trial
- 87% of respondents wanted the service provided in the future
- 83% of respondents felt that there was enough information about the trial
- 70% of respondents agreed that goods should go to various charities in Melbourne

These responses are encouraging; however it is important to note that whilst the survey shows a 70% participation rate, in reality only 2695 out of the 8000 bags distributed were returned. Factoring in that 66.66% of participants used both their bags and 33.33% of participants used only one bag, the actual percentage of households that participated in the trial is 22.5%. (See appendix 1 for full survey analysis)

7.4 Issues and key learnings

Involving all Charities in the decision making processes needs to occur from the beginning. This ensures that the needs of the Charities, including the small one-shop groups, are met. A key learning from the trial was that the charities need to do their ground work together outside of the working group, as a result of this a sub group was formed.

The durability of the bag used in the trial was a significant issue. Some of the bags were broken at the Visy Recycling MRF by the front end loader and the bag wasn't able to be fully seal so some contamination in the form of broken glass entered some of the bags. The issue of contamination has been explored through a second small trial of a bag which has been reinforced with metal fibres and can be more fully sealed. The bag will still be subjected to being run over by the front loader at Visy Recycling while being loaded onto the processing line. The goods inside the bag would still be subject to damage.

Both Visy Recycling and Cleanaway were happy with the trial, and foresee no operational issues for a service reflective of the trial's level of participation. Visy Recycling is prepared to have a donated goods separated from commingled recycling at their Geelong MRF on a permanent basis. Each tonne of donated material would cost councils the contract rate paid per tonne for treatment of their commingled recycling materials. It was advised by Visy Recycling that in the case of extremely large quantities of material being donated an additional person would be required on the sorting line, and this is estimated to cost approximately \$31,200 a year.

Material initially nominated for the trial was good quality wearable clothing, unbroken toys, games, books, blankets, linen, towels, shoes and sporting goods. During the trial breakable items were excluded as breakages did occur due to being run over by the front loader and this impacted on the other materials.



Negative public opinion towards putting donated goods into a bin to be collected by a recycling truck was raised as a concern. The household survey indicates that the public support a system the utilises the existing recycling bin; however it is noted that marketing and information provided to households needs to clearly identify that the materials are going to charity. This is supported by having a labelled and dedicated bag.

Initially there was some concern that a kerbside collection would have an impact on the charity stores who are solely reliant on 'through the door' donations. However during the trial period there was no change to the quantities or quality of materials received by charities through the door. There was also concerns raised regarding the distribution of collected materials to the various charities, however because existing donation patterns remained unchanged this was not an issue. A permanent service would require a formal agreement between the material sorting facility receiving the donated goods and the local charities, to ensure that donated material could be returned to the local charities as needed.

7.5 Limitations

The trial was held over a four month period; whilst it did produce meaningful and significant data, the short timeframe does impose limitations. The marketing for the trial was deliberately kept to a minimum to ensure that only the target audience was alerted and to prevent random loose donated goods being put into the recycling bins. The data indicates that there was a 22.5% participation rate from the 8000 households in the trial area, given the trial timeframe it is reasonable to expect that this is a conservative representation of the actual participation rate that could be expected from a permanent service. With ongoing public education and marketing it would be expected that a permanent service would have a higher participation rate.

During the trial the existing charity bins remained in the trial area. It was not possible to determine conclusively whether the kerbside collection service would result in a decrease in dumped goods. It is also important to note that as donations to these bins remained consistent during the trial period, it is expected that if the charity bins were removed then there would be an increase in quantities of through the door donations and materials collected through a kerbside service.



8. CONCLUSION

The Donated Goods Kerbside Trial demonstrated that the existing infrastructure and services could be further utilized to maximise both the services and the collection of recyclable material thus enhancing our achievements in the towards Zero Waste targets.

The cost benefit analysis of the existing charity bin collection service and the trial service shows that the trial service provides a 29% reduction in the cost per tonne of collecting useable materials.

The trial identified the polyethylene type bag used was not suitable. Further development of the bag has identified an alternative recyclable high strength fibre bag that would overcome some of the problems associated with the polypropylene bag. The contamination issue has been reduced through the use of a different bag, however further testing is required to ensure that the issues with the bag closure have been fully resolved.

There were concerns expressed by the local charities about the contamination of material (due to the bag) and the impact on material being donated directly to the charity shops.

The trial indicated that a kerbside service would have no impact on quantities of material being donated directly to the charity shops. The trial also indicated that a kerbside service would increase the total quantity of donated goods collected in the area, and therefore decrease the quantity of materials being deposited to landfill.

The City of Greater Geelong considers the results of the trial as most encouraging and supports the further investigation of the systems that should in the near future see the implementation of a kerbside donated goods collection across the municipality utilizing the existing collection system. The City of Greater Geelong will continue the investigation of kerbside collection of donated goods and to support the work of the Charity Organizations in the collection of donated goods.