



Recycling rising high

An evaluation of the High Rise
Public Housing Recycling Project

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June 2010



Brotherhood
of St Laurence

Working for an Australia free of poverty

**Sustainability
Fund** Managed by
Sustainability Victoria



Published by

Brotherhood of St Laurence
67 Brunswick Street
Fitzroy Vic. 3065
ABN 24 603 467 024

Tel: (03) 9483 1183

www.bsl.org.au

ISBN 978-1-921623-15-8

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Acknowledgements

Sincere thanks go to the interviewees who shared their experiences of the HaRP initiative. I am also grateful for the help of those who distributed surveys to residents, and who then collected and returned them to me. I am particularly indebted to Christine Sammut, Chris Hunter, and Robyn Swallow of the BSL's Community Contact Services, and to Josip Lenger, Dean McKinnon, and George Dahoud. Thanks also go to Deborah Patterson for her fine editing and production skills, to Michael Horn for his feedback, and to Sharon Simon of the Office of Housing for her insights. We are grateful to Ross Bird who took the photos which appear in this report.

Finally, it should be acknowledged that this project was supported with generous financial assistance from the Victorian Government Sustainability Fund, managed by Sustainability Victoria.

Summary

This evaluation focuses on the High Rise Public Housing Recycling Project (HaRP) which has been in place in the Fitzroy and Collingwood high-rise estates since early 2007. Under HaRP, wheelie bins for recyclable materials were placed on each floor throughout seven high-rise towers and residents were employed to take the bins down weekly for kerbside collection. It is estimated that throughout this period the program collected an average of 2.7 (metric) tonnes of material per month from the Collingwood estate, and 5.1 tonnes per month from the Fitzroy estate. Though figures show that recycling rates have reached a plateau, the results for this pilot are impressive, with a significant number of households now committed to recycling, and a consequent reduction in recyclable material sent to landfill.

The achievement is significant if one considers that no recycling program had existed prior to 2007 in these buildings, where all household waste was discarded via chutes to the ground-floor disposal unit. Those introducing the initiative undertook to first consult with and then educate communities about a concept which was for many quite new. The consultation and educative aspects continued alongside the operation of the service.

We should not underestimate this achievement, given that the estates house such a high proportion of disadvantaged residents, as well as culturally and linguistically diverse communities, many of whose members had recently arrived in Australia and who had experienced significant dislocation and ‘culture shock’.

Education and outreach initiatives included promotion in various community settings and groups, and the distribution of information and recycling aids such as re-usable collection bags. It seems that these activities and initiatives have slowed over recent months and this may have contributed to the levelling off of recycling.

The pilot also aimed to provide employment pathways for residents, and five have been employed as part of the recycling service. However, the roles and hours available have limited the scope for employment progression. Few, it would seem, regard employment for just four hours per week as part of a wider career plan. That the positions and duties are not integrated with other services— notably, cleaning and waste management—also makes transition to further employment unlikely.

Challenges

In spite of the successes, a number of challenges remain. Unless these are addressed it is possible that the recent levelling-off in recycling will become a long-term, and possibly irreversible, decline.

1. Many residents across both estates still have little understanding or awareness of recycling and, importantly, of the service provided by the HaRP. This problem is exacerbated by the pressures caused by disadvantage, as well as the instability many residents experience as a result of large-scale renovations to buildings. New forms of community engagement are needed.
2. The location of the collection bins, within the clothes drying rooms on each floor, is problematic. This is a vexed issue and remains a concern for those maintaining the service. Though the rationale for choosing this location is understandable—i.e. the need to differentiate between recycling and waste services—many people are reticent to use the service while bins remain in a place they see as inconvenient or unsafe.

3. Though the rationale for excluding paper and cardboard from collection is also understandable—the material poses a fire risk—this arrangement excludes many people who would otherwise use the service. Importantly, it severely limits access to an abundant source of recycling material.
4. The efficiency of the service is also undermined by an apparent lack of collaboration with the cleaning services. Though relations between individuals are amicable, separation of the services means that far too much recyclable material is disposed of as waste, and that too much waste material contaminates the recycling bins.

In spite of these challenges, the foundations have been laid for a sustainable and efficient recycling service. It is also evident that there remains potential for further growth.

Recommendations

With the above-mentioned challenges in mind, we make the following recommendations.

1. **Outreach and education must be resourced as an ongoing and integral component of the service.** A renewed effort to increase public awareness and knowledge of the service is needed. Visits to local schools, promotion through community leaders and role models, the production of DVDs and promotional videos, better posters and flyers—*featuring clear illustrations and translations into main languages*—and the distribution of more re-usable recycling bags and fridge magnets etc. are all measures that must be used.
2. **Consideration should be given to staged integration of the recycling and cleaning services.** Full integration would doubtless involve complex negotiation and then adjustments to contracts. For this reason, we recommend a staged approach, based initially on closer relations between those handling recyclable and waste materials, as well as between the respective supervisors. The objectives here are twofold:
 - Ensure that the material encountered daily by each service is directed to an appropriate destination
 - Establish a pathway for recycling workers to additional employment opportunities.

It is imperative that any such change occurs without jeopardising the employment of the workers involved.

3. **The question of paper and cardboard collection must be addressed.** We recommend that all major stakeholders, including the Metropolitan Fire Brigade and the City of Yarra, make a concerted attempt to design protocols, procedures and then storage facilities that would enable collection of this material.
4. **The positioning of the bins should be reviewed.** In recognition of the many concerns raised about the location of the bins in the drying rooms, we recommend a thorough investigation into alternatives.
5. **Resources need to be made available for routine cleaning of recycling bins.** Presently, the lack of such maintenance results in unpleasant odours and unhygienic surfaces and this, in turn, deters many potential users.

- 6. Handling procedures should be reviewed.** In recognition of the potential for injury or serious infection as a result of handling heavy or contaminated materials, it is recommended that the training for recycling collectors be strengthened. Immunising employees against the hepatitis B virus should be considered.
- 7. Contingency plans need to be devised for the duration of large-scale renovations.** Procedures should be implemented that mitigate the disruption to recycling by building renovations. All efforts must be made, in collaboration with maintenance and building contractors, to ensure that signage is improved and/or replaced following major works. In addition, procedures should be designed to maintain access to the service for residents even at times of relative dislocation or disruption.

Introduction



Recycling has become second nature for most Australians, with well-coordinated kerbside services now in place across metropolitan and regional local government areas. The introduction of recycling collection for those residing in large public housing estates is relatively new. This report focuses on one such program, servicing the residents of the Fitzroy and Collingwood high-rise communities of inner Melbourne.

The High Rise Public Housing Recycling Project (hereafter referred to as HaRP) has been funded by the Victorian Government Sustainability Fund, and managed by the Brotherhood of St Laurence (BSL). It came into being in 2006, against the background of the Victorian Government's Neighbourhood Renewal initiative for disadvantaged communities. The HaRP program services seven high-rise buildings in the City of Yarra. The Collingwood high-rise comprises three 20-storey buildings fronting Hoddle and Wellington streets and containing 600 households with just over 1500 residents. The Fitzroy high-rise, known as Atherton Gardens, comprises four 20-storey buildings fronting Brunswick and Napier streets, with 800 households and approximately 1700 residents. The estates were established in the late 1960s and early 1970s to cater for low-income households. The current residents are very culturally diverse, and include Indigenous Australians and newly arrived migrants.

Until 2007 the waste management services in these estates did not include a recycling component. Instead unsorted household waste was discarded into central chutes emptying into dumpers. This changed when a consortium comprising the state government's Office of Housing, the City of Yarra, the BSL and Jesuit Social Services selected the BSL to establish a recycling program in the seven buildings constituting the Fitzroy and Collingwood public housing high-rise communities. The BSL entrusted the management of the program to its Community Contact Services (CCS) team. This team is responsible for establishing and fostering links between residents and the BSL's

Community Services, and for maintaining programs that provide training and employment opportunities to the public housing tenants of Fitzroy and Collingwood. With its networks, contacts and community involvement in the area, the CCS was deemed to be well placed to administer the program.

The evaluation uses as its reference points the project's 'short-term' and 'long-term' aims, as stated in the funding agreements between the BSL and Sustainability Victoria:

Short-term aims

- Establish an effective recycling program
- Enhance community understanding of recycling
- Reduce waste to landfill
- Establish a complementary volunteer and training program

Long-term aims

- Establish employment pathways via the program
- Make linkages with other recycling organisations
- Create a replicable program, suitable for both public and private communities
- Build community and other environmental programs.

The evaluation reflects on how the service was delivered and to what extent it satisfied expectations in relation to efficiency, as well as its impact on the attitudes and behaviours of residents related to recycling. It also considers the extent to which it has provided employment pathways for those who administer the service.

Methodology

The study utilised semi-formal interviews, survey and statistical data, internal progress reports, informal communications, and documents produced from community engagement events. We adopted a framework used by Fielding et al. (2009) which relies on the notions of ‘predictors’ and ‘interventions’. The former refers to the context in which interventions might apply. Interventions, as the name suggests, are concerned with the approaches, strategies, and methods that have been—or that may conceivably be—employed to promote changes to residents’ levels of recycling. These categories were utilised when designing surveys and interview questions, and later when analysing the data.

Interviews

Six interviews were conducted: three with HaRP recycling collection workers (2 from the Collingwood, and 1 from the Fitzroy estates), two with BSL Community Contact Services Officers, and one with the BSL’s Enterprise Development Coordinator.

Questions and discussion prompts were grouped under the following headings: ‘about you’, ‘implementation’, ‘people’s attitudes’, ‘use of the service’, ‘project design’, and ‘oversight and management’ (see Appendix A for a detailed list).

Informal consultations

In addition to the semi-formal interviews, the author also consulted with one Office of Housing employee. In her role as Neighbourhood Renewal ‘place manager’ at the Collingwood estate, she was responsible for implementing a government scheme to improve employment and training opportunities, the standard of housing, safety and wellbeing, access to services, and resident participation in all the associated programs. Though she had not been directly involved in the HaRP, she did provide important insights into the resident communities, and the various networks that sustain them. She also explained the policy and governance context in which the HaRP operated.

Residents survey

Residents’ views were gathered by means of a survey (see Appendix B). It comprised ‘tick box’ questions as well as sections for more expansive responses. Residents were asked about their backgrounds, their attitudes and behaviours relating to recycling, the program’s shortcomings, and possible improvements. Of the 1500 surveys produced, approximately 1300 were letterboxed to households, with the remainder distributed in the foyers and ‘security boxes’ (i.e. the inquiry desks staffed by concierges). The surveys were analysed using SPSS survey software.

Primary data

Data revealed the number of recycling bins (at least half full) sent to collection in 2008–09 and up to May 2010. This information was recorded for each building, by week and by month. In addition, data was obtained that recorded the extent of contamination—that is, bins in which non-recyclable waste was found.

The evaluation also relied on the BSL’s project progress report, maintained from the commencement of the program. This report noted the project’s milestones and aims, and the months in which they were achieved or reassessed. Finally, the research made use of Office of

Housing survey documents and resident consultation and public forum summary reports. These were deemed worthy of inclusion because they revealed the processes by which new forms of community representation and services came into being. They revealed the nature of the consultative structures, and something of the character of the resident communities.

Project stages

The main stages in the design of the methodology and in the evaluation itself were as follows:

1. Consultations with BSL Enterprise Development and Community Service staff
2. On-site visits to high-rise estates and discussions with Community Contact Service staff
3. Survey design, production and printing, followed by widespread letterboxing in the estates
4. Preparations for interviews, including design of the ethics/consent forms, application for ethics clearance, and the scheduling of interviews
5. Conducting interviews, producing and analysing transcripts
6. Informal consultations with an Office of Housing Place Manager
7. Collating and analysing primary data (surveys processed *via* SPSS software)
8. Final report written

Limitations of the research

Though it was anticipated that only a small proportion of the 1500 questionnaires would be returned, the final response (63) was very disappointing. This was in spite of follow-up reminders, a second distribution of the survey to central locations, and posters displayed in the lifts urging residents to submit their surveys (we ponder the reasons for this result in the Survey Data section). Had time constraints not been so severe, strategies might have been employed that encouraged a better response. Inducements (e.g. giveaways, competitions, prizes), or more labour-intensive methods of engaging with residents (e.g. door knocking, presentations to community groups and community leaders), or surveys translated into major languages might have prompted a better response. Finally, in the absence of focus group discussions with residents we had to rely heavily on the views of those employed to operate the program.

HaRP establishment and milestones

The HaRP came into being in 2006, though its origins were in earlier discussions between the Office of Housing, Sustainability Victoria, the City of Yarra, Visy, residents' groups, and the BSL. Residents' working groups had been established on the estates under the Victorian Government's Neighbourhood Renewal initiative (begun in 2001–02) and these—particularly the 'health and wellbeing' and 'safety' working groups—played an instrumental role in putting the service into place. The following provides an outline of key milestones.

July–September 2006

- A steering committee was formed and made plans for recycling trials and for subsequent outreach activities.
- A project officer was appointed (at 0.4 EFT).
- Trials of bin alternative locations were completed and community events for Collingwood and Fitzroy estates were planned for September and October.
- Information displays were placed in foyers of each tower.
- English and translated versions of information were prepared and outreach commenced.
- Promotional activities were held at Fitzroy Primary School. Here and elsewhere colouring-in activities were used to encourage recycling.

October–December 2006

- Consultations took place with Fitzroy United Residents group.
- Preparations were made for ordering and labelling 300 bins.
- Signage at trial recycling stations was replicated on all floors.
- Volunteers were recruited and their training program developed.

January–June 2007

- Decision was made in favour of transporting bins directly to kerbside for collection, as opposed to using a sorting depot.
- BSL Community Contact Services assumed full coordination responsibility.
- Recruitment of staff commenced, with 5 residents selected (3 for Fitzroy, and 2 for Collingwood). Staff training commenced via BSL 'STEP' program.
- The remainder of the bins arrived and were distributed.

July–December 2007

- Promotion by door-knock to all 1400 flats commenced. Each flat received a recycling bag in which to take material to the bin, a multilingual flyer with instructions, and a fridge magnet.

- Employment model was adjusted: staff were now to commence as casuals, and move to 3-month, 6-month, and then 12-month contracts.
- Promotion continued via children's groups, and posters were created for display throughout the estates.
- Recycling collections commenced, with Collingwood's buildings producing on average 15 bins per week, and Fitzroy, 30 bins.
- Decision confirmed not to collect cardboard/paper as stockpiling this material posed a potential fire hazard.

January–June 2008

- Promotion continued via letter drops to 156 households.
- On prompting from residents, recycling was extended to 'walk-ups' (4-storey blocks of flats) across the Collingwood estate (previously only available to the high-rise).
- There were now 40 bins in each tower.

July–December 2008

- Promotion via partnership with Livewires, an after-school program in Collingwood.
- Promotion undertaken via the Harvest Festival using artworks made of recycled materials, which were subsequently displayed in foyers.
- CCS staff attended ESL classes on the estate and at Collingwood Neighbourhood House to promote recycling.
- Trainees visited the Visy Education Centre.
- Employee profile: 3 at Fitzroy and 2 at Collingwood; average age 50, all receiving either aged or disability pensions.
- Recycling bins were also distributed to several community agencies on the estate.

January–June 2009

- Promotion continued via ESL classes at NMIT (where many residents are students), though few people attended the sessions.
- Colouring books promoting recycling were distributed to local primary schools. Follow-up presentations were made at school assemblies.

Primary data



The following data were derived from the records kept by the BSL's Enterprise Development Coordinator. The records detailed *weekly* collections of 240 litre bins by Visy. These have been reproduced below in distilled form. Note that a bin that is at least half full constitutes one unit in the data presented. Table 1.4 offers a (cautious) estimate of how these collection translate into tonnes.

Importantly, it should be noted that the service was introduced gradually throughout 2007–08. In addition, large-scale renovations—particularly affecting building 229 in Collingwood—proved very disruptive. They necessitated the relocation of residents for long periods and thus the data shows marked falls in usage of the recycling service. Lastly, it became apparent during interviews that usage varies greatly between residents of different floors *within* buildings. The data does not include a floor-by-floor breakdown (anecdotally, the most enthusiastic recyclers reside on floors 13, 16 and 19 in Collingwood's building 253).

Collection overview

Table 1 (below) shows a steady increase in recycling over the two-year period of 2008 and 2009. Figures up to May 2010 suggest that this usage may have reached a plateau.

Table 1 Bins of recyclable material collected, 2008 to 2010

	Collingwood		Fitzroy	
	Total collections	Monthly average	Total collections	Monthly average
2008	643	53	1336	111
2009	895	75	1544	128
2010 (to May)	356	71	622	124

Collection breakdown: by building, quarter and monthly average.

Tables 2 and 3 show a more complex and uneven result, though they too suggest a plateau in usage. There is considerable variation between buildings at both Collingwood and Fitzroy estates. We see falls in the latter part of 2009 in recycling in five of the seven buildings. The exceptions are Fitzroy's buildings 90 and 95. Marked reduction in usage was in Collingwood's building 229 and 240 and Fitzroy's 125 and 140. The monthly averages for the most recent completed quarter (January–March 2010) suggest a plateau, with two of four Fitzroy buildings and two of three in Collingwood showing modest increases. Residents of building 125 in Fitzroy and 253 in Collingwood are the most enthusiastic recyclers, with Fitzroy's building 140 also producing significant amounts.

Table 2 Bins of recyclable materials collected, quarterly figures, Collingwood, 2008 to 2010

Collingwood	Building					
	229		240		253	
	Total	Monthly average	Total	Monthly average	Total	Monthly average
2008						
Jan–March	15	5.0	43	14.3	70	23.3
April–June	16	5.3	70	23.3	57	19.0
July–Sept	7	2.3	58	19.3	72	24.0
Oct–Dec	20	6.6	97	32.3	134	44.6
2009						
Jan–March	27	9.0	102	34.0	79	26.3
April–June	32	10.6	84	28.0	130	43.3
July–Sept	30	10.0	73	24.3	147	49.0
Oct–Dec	14	4.6	59	19.6	128	42.6
2010						
Jan–March	36	12.0	71	23.6	132	44.0
April–May	12	6.0	39	19.5	66	33.0
Total	209		696		1015	

Table 3 Bins of recyclable materials collected, quarterly figures, Fitzroy, 2008 to 2010

Fitzroy	Building							
	90		95		125		140	
	Total	Monthly average	Total	Monthly average	Total	Monthly average	Total	Monthly average
2008								
Jan–March	66	22.0	52	17.3	108	36.0	65	21.6
April–June	70	23.3	78	26.0	88	29.3	95	31.6
July–Sept	63	21.0	51	17.0	118	39.3	77	25.6
Oct–Dec	97	32.3	65	21.6	158	52.6	99	33.0
2009								
Jan–March	111	37.0	76	25.3	137	45.6	86	28.6
April–June	107	35.6	58	19.3	129	43.0	95	31.6
July–Sept	61	20.3	96	32.0	121	40.3	120	40.0
Oct–Dec	83	27.6	98	32.6	104	34.6	83	27.6
2010								
Jan–March	94	31.3	77	25.6	103	34.3	113	37.6
April–May	55	27.5	41	20.5	69	34.5	72	36.0
Total	807		692		1135		905	

Collections converted to tonnes

Conversion from units collected to tonnes is an inexact process. Visy does not differentiate between estates: material from Collingwood and Fitzroy estates is combined in the trucks with that collected earlier and later in the day. Complicating matters is the type of material recycled, which differs across seasons. A tentative conversion of ‘bins into weight’ can be made, however, using a formula provided by the City of Yarra. This holds that each 240-litre bin emptied in the winter months weighs up to 15 kilos; while each emptied in summer months weighs up to 80 kilos (more glass accounts for this wide disparity). Table 4 displays very approximate annual (metric) tonnage for recyclable materials collected from the Collingwood and Fitzroy estates. An overall assessment shows that the program collected an average of 2.7 tonnes of material per month from the Collingwood estate, and 5.1 tonnes per month from the Fitzroy estates.

Table 4 Estimated weight of recyclables collected 2008 to 2010, tonnes

	Collingwood		Fitzroy	
	Total tonnage	Monthly average	Total tonnage	Monthly average
2008	27.2	2.2	56.7	4.7
2009	38	3.1	65.6	5.4
2010 (to May)	15	3	26.4	5.2

Summary point

Recycling rates are impressive, given the service is in its infancy. However, recycling rates apparently reached a plateau in the latter part of 2009.

Survey data

As a prelude to discussion of the survey data, we note once again the lack of response by residents. This may itself be an important indicator, but one that is beyond the scope of this report to fully assess. Interviewees observed that recycling is a low priority for those refugee residents who are recovering from hardship and trauma. We are also reminded that the communities are constantly the subject of surveys and polls on a myriad of subjects, and this manifests in ‘survey fatigue’.

It must be acknowledged, however, that the poor response may indicate a lack of awareness about the recycling service itself; and this in turn may indicate the need for better outreach and education (this issue is discussed in the Interviews section).

Note that due to the modest number of questionnaires returned (63) we use aggregate figures in the analysis that follows (percentages would give a distorted view of the data). The people who responded are profiled in Table 5.

Table 5 About the sample (People who responded to the survey)

Characteristic	Number
Birthplace	
Australia	17
China	8
Vietnam	8
Countries of Africa (Eritrea, Ethiopia, Liberia, Somalia, Sudan, Tanzania)	14
Gender (2 declined to answer)	
Male	40
Female	21
Age (4 declined)	
Under 30	6
30–39	17
40–49	20
50–59	8
60+	8
Residence (4 did not disclose)	
Fitzroy building 90	6
Fitzroy building 95	6
Fitzroy building 125	11
Fitzroy building 140	5
Collingwood building 229	13
Collingwood building 240	7
Collingwood building 253	12

Awareness and usage

Knowledge of the service itself was uneven, with 38 claiming to ‘know a lot’ about it, while 19 remarking that they had ‘only heard about it’. Four admitted to not knowing about it at all. Fifty-two of the respondents used the service weekly, 4 used it ‘less than once per month’, with 7 not using it at all. In a subsequent question, 22 people indicated that they would like to use the service, and/or use it more than they do at present.

The survey inquired into the reasons why people do not use the service. Again, the small number of responses should be treated with caution. Five people thought it ‘too much trouble’, 7 felt they did not produce enough recyclable material to warrant participation, 7 did not know where to take their recycling for collection, while another 6 thought the collection point was too far away. Notably 10 people were unsure of how or what to recycle.

The question of usage was approached from another direction in the survey by asking how usage might be increased. Eighteen people believed more bins should be made available, with another 11 pointing to the positioning of the bins as a problem. Eight called for more frequent collection, and 7 felt that not having to separate material would influence their usage. Significantly, 17 people requested more re-usable recycling bags to enable them to carry material to the collection bins.

Paper and cardboard recycling is a vexed question. At present this material is excluded from the service, solely because of the fire risk associated with storage prior to collection. Of the 63 respondents, 37 thought that paper and cardboard collection was ‘very important, with a further 15 regarding it as ‘important’ (7 were ‘unsure’, and 3 thought it ‘not important’).

The questionnaire sought information about the relative amount recycled of the major types of household containers. Plastic bottles were by far the most common items collected for recycling

(identified by 33 respondents). Cardboard containers (e.g. for milk and juice) also featured (28), as did glass bottles (14) and aluminium cans (12).

Attitudes

Forty of the 63 respondents expressed the view that recycling was ‘very important’ to them, with another 20 believing it to be ‘important’. When asked about the views of others in their households, 31 believed that their co-habitants considered recycling to be important, while 13 thought it was not important to those people (19 did not answer). Residents were also asked whether their fellow tenants valued the service. Again, most (34) believed that the wider high-rise community want the service, but a significant minority (12) believed that it was not valued by others.

The survey also asked whether participation in the service had helped residents get to know others. The overwhelming number of respondents answered in the negative (51), leaving just 8 who thought it had brought them into closer contact with neighbours. Importantly, a high proportion of those surveyed responded positively when asked if they would like to be more involved in supporting the service. Twenty-three answered with an unambiguous ‘yes’, with another 26 with ‘maybe’.

Residents’ comments

The questionnaire also invited comments and observations about recycling and the service in general. There were a number of recurring themes in these responses. Some respondents commented on the smell of the recycling bins, and on the overall dirtiness of the surrounds:

They [bins] smell too much when they are ... left unemptied and half full.

This occurs regularly when the workers deem that there is not enough in the bin to warrant moving it to the pick-up location.

Others commented on problems of accessibility:

The security [staff] lock the door regularly, so a lot of recyclables are put down the rubbish chute, as it’s easier than getting the key to the bin rooms.

Having to unlock the door to the bin puts people off. We have too many keys.

A number of residents commented on the need to include paper and cardboard collection, with one saying that ‘it is stupid not to be recycling paper’, and another that ‘more bins are needed for paper and cardboard’.

Another recurring theme was the need for better promotion and education. In reference to the newly arrived communities, one resident pointed out that ‘[We] cannot assume [that] new arrivals share “middle class” attitudes re recycling and the environment’. Speaking more generally, terms, another felt that ‘We need to show people ... show and teach by acting’.

Finally, some residents expressed very positive views about the recycling service, with the most explicit statement being: ‘The recycling service is running well and doing a great service [for the] community and environment’.

Summary point

Recycling is valued and there is demand for better access to collection points. There is also demand for expansion of the service to include paper and cardboard. Levels of awareness can be greatly improved.
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Interviews



Three HaRP recycling collection workers were interviewed (two from the Collingwood, and one from the Fitzroy estate). These workers are responsible for manoeuvring and emptying the 240-litre bins made available to the residents for recycling. Their working arrangements—4 hours per week, over 2 days—require that they monitor levels of recyclable material left at each of the collection points. It is also their responsibility to ensure that no contaminants are present in the bins. They determine whether the amounts warrant moving each bin—bins are removed in a systematic manner, floor by floor, using the residents’ main elevator, and to the kerbside where the recycling contractor’s truck takes ‘delivery’ of all the material. Bins are then returned by the workers to their respective floors.

Interviews were also conducted with two BSL Community Contact Services Officers. They oversee the recycling program, foster links between residents and the BSL’s Community Services, and help run employment and training programs for public housing tenants of Fitzroy and Collingwood. The BSL’s Enterprise Development Coordinator provided insights into the background and management of the program (interviewee comments are labelled below with either ‘collector’ or ‘CCS’).

* * * * *

Interviews commenced with impressions of the service. They moved on to discuss various ‘predictors’ (i.e. contextual factors such as the complexion of the communities serviced, levels of awareness and attitudes, problems associated with the system and its operation). The interviews concluded with discussion of future ‘interventions’ related to either organisational or outreach issues.

Interviewees were committed to the idea of recycling, and their view of the program itself was positive. One collector observed that most people he encountered were happy with the service.

Another felt that the service should be acknowledged for its uniqueness, as it is among the first in Australia to offer recycling in such a setting. Another noted that:

You don't see any rubbish now on all the floors like you used to. Even the estate, when you walk up through the estate, you have a look, you see all the recycle bins are strategically placed and all that, and you open them up and most of the time they're half full and the rubbish isn't on the floor, isn't on the ground, in the gutters and all that making the place look bad. That's picked up quite a bit in that area, because it used to look like a scumbag area sort of thing. But now it's quite clean. (Collector)

Predictors

Interviewees were questioned about contextual issues. These include social and demographic factors, existing attitudes and beliefs, barriers and obstacles to the widespread use of the recycling service.

Community profile

The communities housed in the Collingwood and Fitzroy estates are very diverse, with around forty nationalities represented. Residents include Kooris, Chinese (mostly elderly), Vietnamese, Serbians, Croatians, Somalis, Sudanese, Eritreans, Ethiopians, New Zealanders, people from Pacific Island nations, Afghans, Iraqis, Iranians, Liberians, Tanzanians and others. Interviewees commented on how this diversity extends not only to culture and religion but to politics and other interests. One looked upon the high-rise estate as a village, complete with its tensions and politics, and each building with its own culture. Another looked upon the resident population as:

a lot of communities in one demographic area. Some people call it 'a' community. In my experience it's not 'a' community, it's lots and lots and lots of different communities. Some who integrate, some who do not. I think it's a bit of an urban myth that it's one big community ... I'd call it vibrant, multicultural, some positive, some not so positive, a lot of people have been through a lot of changes coming here from traumatised backgrounds ... people from all over the world here. (CCS)

Interviewees recognised that in spite of the diversity, many residents had much in common, particularly those who had experienced trauma and hardship as a result of war, persecution, or poverty. Notwithstanding occasional tensions, things had, according to one interviewee, become more 'relaxed and friendly' in recent years.

Awareness and attitudes

The interviews inquired into the levels of awareness about recycling among residents. They also inquired whether residents were supportive of the service. Interviewees felt there was a great deal of ignorance about the recycling service, with one suggesting that '75 per cent appreciate the service, and another 25 per cent who don't care'. Others had difficulty gauging attitudes and levels of support:

I detect a general sense, on the whole, of apathy, possibly not being that bothered, possibly having lots more things to think about and they just think that's the bottom of the priority list. I just think it's going to take a while. We've got people from all over the world who had probably never heard of recycling until they got here and are just trying to fathom that out. But it's probably at the bottom of their list of importance. What's important is probably feeding their kids and getting them off to school and dealing with their immigration issues and finding a job. I can see how [recycling] would be lower in the priority list with all that lot and it doesn't seem very important. (CCS)

Cultural and religious differences are important considerations, and can be barriers to communication and engagement. They pose problems for those looking to change behaviours—i.e. in the way waste material is handled—and to promote new programs. In other words, culture shock is real. According to one interviewee:

Well, the people [the Sudanese] come from the bush and they hardly survived. They've never seen a lift or washing machine so how can they do the recycling? (Collector)

Cultural and religious differences impact on the service in other ways. Interviewees were of the opinion that aspects of religious observance result in a reticence to use the recycling service. For example, the Muslim residents pay extraordinary care to personal cleanliness, and do not relish taking bags of waste to bins that may not have been cleaned for months (more on this later). As one interviewee noted:

You expect someone whose cleanliness is part of their religion—five times a day they've got to wash and clean—they don't want to be contaminated by anything. (Collector)

Some people's attitudes to the service are also influenced by the presence of threatening or potentially violent people. Both estates experience some criminal activity and this impacts on freedom of movement and use of amenities. As one interviewee put it:

It's people's perceptions of safety as well. The odds of something happening to you are minimal, but maybe some people would possibly do a risk assessment and think, I'm not going to go along there because I don't know what's going to be behind a door [where recycling bins are kept]. (CCS)

Others believe this fear to be justified and, though they acknowledge that the community is 'close-knit', also see crime as an important factor in shaping people's everyday experience.

The decision to exclude paper and cardboard from the recycling service was raised by interviewees who felt that residents are confused by the present arrangement:

[if] you can't recycle paper ... I think that confuses people because normally paper is one of the main things you think about when recycling ... So I think that might perplex people or confuse people about the whole concept of recycling and think, well, what else can I recycle? (CCS)

Other aspects of life in the high-rise also shape people's attitudes and behaviors in relation to the recycling service. Some issues are relatively minor, while others have a dramatic impact on usage. Collectors must move the often smelly and dirty 240-litre bins using the residents' lifts. This can be a slow process—particularly if the lifts are faulty—and one that inconveniences others waiting to use the lifts.

Our interviewees believe that attitudes and awareness of the service are affected by the unsettled and often transient nature of the resident population. As residents come and go, or when they move temporarily due to renovations, the discontinuity erodes the levels of commitment to the service.

The following responses capture well the optimism and the problems facing those looking to increase awareness:

... people are moving back from this tower to that tower and vice versa. So the people who know about us got dispersed and the people that don't know about it moved back in. And

we've got new tenants and new arrivals ... All those people have no idea unless someone mentions it to them and tells them and suggests they try it. (Collector)

They're ignorant at the moment. I know that ... They see us. They know something is going on ... [The] ones that know about it, I suppose they feel like they're doing something for the environment so they use it ... In general, I would say if everyone knew about it and knew about the benefits of it, they will be very proactive and ... [supporters] of it. They would be keen to partake. (Collector)

Summary point

The distinctive nature of the estates poses challenges and barriers to those looking to introduce and promote recycling. The communities are culturally diverse and the levels of disadvantage are such that engagement can be difficult.

Location of collection bins

The 240-litre recycling bins are located on each floor in 'drying rooms', which are designed to allow air to flow through for the drying of clothes. Access to these rooms is restricted to those who have a key. Though there seem to be few alternatives, locating bins in these rooms remains a contentious issue. The principal benefit of this choice is that drying rooms are separated from the chutes where normal waste is disposed of; and so it is less likely the bins will be contaminated by non-recyclable material (early trials locating bins in open areas proved this concern to be justified):

So basically this little area, the enclosed area [drying room], with a sign on it saying, just 'recycling'. There's nothing in there, so the bins are more protected ... So what I'm saying is that little enclosure where the bins are kept in the modernised building is a good idea. It does help to sort of separate, say, hazardous stuff coming in the bin. (Collector)

If [they] want to recycle [they've] got to actually go there, unlock a door and put ... recycling in the recycling bin. So from that point of level it is that they are consciously deciding that they are recycling. (CCS)

However, the drying rooms also make some residents apprehensive. This is because they are located close to the laundries:

The laundries have a water supply. They're discreet, so we do get a lot of drug users using the laundries which [are] very close physically to the drying rooms. I would say that has an impact on some people. I know some people would rather use a laundromat than use the communal laundries on each floor because people get their clothes stolen, find syringes in their washing, all that kind of irresponsible stuff. (CCS)

The person who made this observation also cautioned against overstating the dangers posed by drug users or sellers. Nonetheless, it seems that at least some wary residents may balk at taking recyclables to the drying rooms. Another concern is the proximity of the bins to clothes that have recently been washed. As one interviewee said, 'I can't understand why the bins are in with where you would dry your clothes ... I don't put my bins near my clothes'.

The counter argument is that in locating the recycling bins in the drying rooms the service strikes a balance between access and contamination.

It would seem that the location of the bins poses challenges for those looking to increase the service usage rate. Though the drying rooms are relatively secure, this can prove to be an irritant to

those seeking quick access to the bins (e.g. the survey respondent who felt that having to carry ‘too many’ keys ‘put people off’). The bins’ proximity to clean clothing is also an impediment for some.

Summary point

The location chosen for the collection bins is problematic.

Contamination and paper

Even though the drying rooms were chosen as collection points so as to separate the waste management and recycling services, a perennial concern for those maintaining the recycling service is contamination of bins with foreign waste material. As a rule of thumb, if the recycling bin is more than 10 per cent contaminated, the collectors overlook the bin, and instead empty it into the rubbish chutes. When considering the scale and the nature of the problem, one interviewee explained:

We’ve got to be able to see what’s in it, and if there’s food waste or dead animals—we get a lot of them—then we throw it down the chute or it goes out in the rubbish, take it out of the bin. We try and have only recycled. We wear our gloves. We only try and keep the recyclables in there but sometimes they’re that full you can’t really see right down, whatever. I’ve found dead ferrets, dead rabbits, plucked chooks—like the bag’s there with all the feathers and all the innards and all that, so they’ve obviously got a chook from down there and killed it and chucked everything in the bin—and after that’s been in the bin for about four or five days it starts to smell and when you open the bin to look, phew, geez, you start dry retching and everything. (Collector)

Another vexed issue is the omission from the service of paper and cardboard. The rationale for this is the risk of fire due to accident or arson. There was a consensus among all interviewees—and the residents who responded to the survey—on the importance of paper and cardboard recycling. Indeed, the paper and cardboard that residents (wrongly) place in bins is sent for recycling, though this practice is not encouraged. Some believe that were it not for this ‘contamination’ the usage would be much lower: ‘If you didn’t do [it], then you will have half empty bins all the time’ (Collector). Interviewees were divided, however, on whether the fire risk is negligible, and hence worth taking; or significant, and to be avoided:

They were worried about fire hazard. That someone might decide to go and light it. I don’t know, I think it’s good because I feel guilty throwing paper in the bin. But that’s taken me years to do that, be like that. That’s why it’s going to take them a while because it’s been so accessible. But paper, why, I mean it would be great. But how would you stop anyone from getting in there and lighting it up? (CCS)

Summary point

Much time and energy is devoted to examining the material that has been placed in recycling bins and removing contaminants. At the same time, residents are discouraged from recycling contributing paper and cardboard, materials which are most readily associated with recycling.

Workforce and resources

Presently, each of the five employees works four hours per week. The consensus is that this provides barely enough time to fulfil the duties. There are times—when someone is absent, or when collection by Visy is delayed—when the workload is too great, and the duties cannot be contained within the prescribed hours. Most of the workers are no longer young, and transporting heavy bins can be very tiring, if not hazardous. The interviews indicated that even though the

present workload is manageable, an increase in recycling rates would require a commensurate increase in the workforce, or in hours allocated to handle the load:

[If just] two or three people on each floor took up recycling, you would need a lot more than three people doing it, I assure you ... bins would be overflowing on a regular basis. (Collector)

Other aspects of the work can cause problems. Removing contaminants can be unpleasant and sometimes hazardous, particularly if these include syringes and other dangerous items. Indeed, great care must be taken to guard against infections, and the risk of contracting hepatitis B, for example, is by no means insignificant. Though protective gloves and glasses are provided, there are times when the workers are reluctant to wear them:

Well, we are supposed to wear gloves and glasses when we're handling the recycling because gloves for needle pricks and broken glass and things like that ... We take it for granted I suppose now. We didn't wear the gloves. I love the feel of what I'm doing ... put it this way, if we did that job according to the job specification then we don't touch anything because that's what we were told, not to touch anything. But you can't really not touch anything if the bin is overflowing and things are hanging over. So you've got to use your hands and that. Well we haven't had anything close to a prick or cut or anything like that. We are careful because we know exactly what goes into the bins. (Collector)

Another potential hazard is encountering drug users or threatening:

Oh yes, I've been attacked. That's what you might call a bad day where you get physically assaulted or physically abused ... I've had people pull ... the bins out of the lift and say, f**** off, get out, we're in a hurry' ... We haven't had many of them, maybe the odd one in the last two years or something like that. Well, you know, we live here so we know what to expect, right? ... We see people in the corridor shooting up and doing deals. We see people doing all kinds of business. We just turn away. It's nothing to do with us. (Collector)

This vulnerability is lessened by working in pairs; and uniforms also provide a measure of security. As one interviewee noted:

[I wear] the hat always. Because you have to have some indication for people to know what you do to protect yourself and to protect the people who live there so they know these are the workers, not some drug dealers or drug users. (Collector)

The recycling workers operate alongside a number of other service workers and this can sometimes slow the recycling collection process. The relationship with the cleaning staff will be considered in more detail later, but it is worth noting here that there is a lack of cooperation between the two services. This is unfortunate since cleaners are well placed to help educate and guide residents, and to minimise contamination by ensuring normal waste is kept well away from the recycling bins. Given that renovations and building works are a constant feature of the estates, the recycling workers also come into contact with builders and tradespeople. Complications have arisen when builders have used recycling bins for their own purposes, or remove notices:

This is another thing about the subcontractors, when they come and they fix a door or whatever, or replace a door, they don't replace the sign again. That door goes out and the sign goes with it. So it's like half of them haven't even got signs up (collector).

The final aspect bearing on the workforce is the question of pathways for advancement. It was envisaged at the outset of the program that employment in the recycling scheme might represent a stepping stone to other work. This has not been the case for a number of reasons: the impact of

extra hours on benefits, the relatively few hours available, the lack of an identifiable future role and, above all, a high level of contentment (and limited ambition) of the employees. Two interviewees remarked on this aspect:

I suppose the nicest surprise for me is the fact that the majority of the people that we've employed have stayed. It's been very, very stable employment. So that's been really nice. Because it does, it makes it nice and consistent and people can actually even plan and have holidays and all of those sorts of things. And I suppose the downside of that it's a bit disappointing because people haven't actually moved onto anything else. But look, they're happy in what they're doing as well and I suppose from that personal point of view, for me it's highlighted [that] different people have different levels of capacity. And so this is what this particular group of people are happy doing. And that's great. It's very positive for them. They get a lot out of it. (CCS)

... on a positive note ... some of the workers in the past have been a bit isolated or maybe not have that much sense of work, but it at least gives them a bit of a routine and something, some part of work that gives them the option of saying, 'Yeah, I can turn up on time' and 'Yeah, I can do this within the time allocated'. But yeah, we have a pretty good retention rate. (CCS)

Summary point

More resources are needed to enable workers to better maintain the bins. The employment conditions of the workers are satisfactory, but can be improved.
--

This review of the existing conditions shows that even though the program has not reached its capacity, or 'taken off properly', in the words of one collector, it provides an effective service, given the resources allocated, and caters for a discernible need.



Future interventions

With the predictors in mind, we now consider the interventions that interviewees suggested would help the service grow and run more efficiently. We focus first of all on organisational improvements, and then on outreach.

Organisation

Interviewees were asked for their suggestions on improvements to cleanliness, safety, conditions and hours. High on the list of improvements was the state of the bins themselves. Interviewees thought that unwashed and smelly bins not only made their duties unpleasant, but also deterred many residents from using the recycling service. They called for the equipment and the extra hours needed to clean the bins more regularly:

Two hours to do two towers is all right, but then we need a little bit more time to do the cleaning part of it, like this. They haven't been cleaned inside since we started the job and some of them, you get some people throwing in dead birds and everything in the bins and just from a safety/health point of view they have to be cleaned out. Some of them are just worse than the rubbish bins ... At the time we haven't got the time to clean them and that's the only problem. They get cleaned on the outside when it rains. We make sure we put the dirtiest one out and when it rains overnight that cleans the outside of it so that's good, but it's the inside that needs cleaning.

... what we need is a high-pressure thing to squirt out the insides of the bins, a broom with hard bristles to do a bit of a scrub on the inside of the bins, and then we'll need some wet weather, say, pants and boots for when we're doing the cleaning. (Collector)

Interviewees also commented on the improvements needed in relations with other services on the estates. One such relationship is with the cleaners. As one person noted, 'the cleaners are never involved', and often contribute to the problems of contamination. When, as sometimes happens, recycling bags are left in the corridors, cleaners throw them down the rubbish chute:

It's only two minutes of their day. It's time. It's not like hours of their time just to put the recycling that's on the door ... in the [recycling] bin. It's just the same, it takes just as long to put it down the chute. So ... if you see recycling material put it in the bin, not in the chute. (Collector)

While acknowledging that the two services co-exist amicably, another interviewee called for changes to contracts such that cleaners would become directly involved in the recycling service:

So my suggestion has been that it did go to [cleaning company] and it become part of their contract ... because they're there five days a week (it might even be six days a week). So for them to check the bins and see what needs to go out on a weekly basis is much easier for them, much more effective. Because our guys come out, that's what they do specifically for two hours. They check all the bins, take out the full ones and then bring them back the next day. (CCS)

Such a change would, according to this interviewee, also help to transform the service so that it provides transitions to 'higher' and more appealing employment opportunities for workers:

I suggested that it [the recycling service] should sit with the cleaners who are on site because that seemed more a natural sort of match-up. And also to me it seemed like that would be an easier pathway for people into employment as well. Because that's what we haven't achieved, one of the things that we haven't achieved is that idea of people

pathwaying [sic] into other employment. And part of it I see is because there's no natural sort of thing. It's not like you're a recycling officer and then you become a community contact officer. There's not that natural, as you say, pathway or the dovetailing. It makes more sense that it be with the cleaners. (CCS)

Summary point

In addition to more resources for maintenance, there is a need for greater collaboration between recycling, cleaning, waste and maintenance services.

Outreach

A significant message from these interviews is the need for sustained education and outreach activities to promote recycling. Many educational and promotional activities were held in the formative and mid stages of the project, including whole-of-estate door-knocking, visits to schools, TAFES and community centres, and children's activities (see Appendix C). However, it seems these are now less frequent. Considering the sizeable population and the turnover of households in the estates, regular awareness raising would be required to maintain and build recycling levels. According to one, the lack of information is the biggest problem:

I'm quite sure if we put out a lot of information, signs on the doors and that, and let them know exactly what is to be thrown out and what isn't, I'm very confident that we'll get maybe a third more than we're getting now, which is quite a bit.

Others felt that promotion should go hand in hand with other services and initiatives aimed at strengthening the community:

So whether that be the social activities that they're involved in or the ongoing education and training as well. So it seems the easiest way is to piggyback on, like I say, something that's already existing [e.g. TAFE, ESL classes]. (CCS)

Another interviewee recalled earlier campaigns and suggested a renewed effort was needed:

I was one of the first people to go and knock on people's doors. I've got a recycling bag with some pamphlets and some papers in there saying, 'Hello, my name is ... I'm from the Brotherhood of St. Laurence. Do you realise we just started a recycling program? It's over there in the drying room. And this is the material about it. Read it in English and Arabic and Greek and Chinese, Vietnamese'. And that's basically how the program got started. But since then, there has never been any more about it. (Collector)

Others affirmed the effectiveness of ongoing face-to-face engagement, give-aways, and welcome kits designed to educate new tenants about the recycling service. Most interviewees thought there was an urgent need to improve signage, posters and leaflets, and to use translations into the main language groups. The need is pressing, particularly if non-English speaking communities are to be engaged. Other suggestions included enlisting role models such as community leaders or entertainers:

What would be great is to have some big flash celebrity that promotes and encourages it. Some hip hop guy or something, for all the African community are into hip hop or whatever. The next generation ... the kids, they're the ones who are going to be more likely to do it than the ones who are set in their ways. (CCS)

Distributing material would itself provide an opportunity to better engage with communities. Aside from face-to-face interactions, interviewees also saw the potential for education through electronic media:

As you go into a foyer they've each got a TV with some sort of adverts and that. I think they should have or make something about recycling and put it on the TVs, because you get a lot of people watching. While they're waiting for the lifts they look at it and watch the messages. That would be a good way of informing them all about the recycling.

[and it] would probably be a good little thing for someone [who's] into filmmaking ... to make one of them little infomercials, like I said, for the TVs that ... explain to them on that in their own languages about the recycling. (Collector)

Also considered worthwhile are competitions between estates, buildings, or floors; though views on the effectiveness of competitions and other inducements are mixed. One interviewee remarked:

I think the inducement is limited in one sense too, because are people doing it because they want to do it? Do they remember and retain what they've talked about? Or have a true interest in it or is it just about the end result? So like I say I think I prefer the educational ...

In their own ways, interviewees stressed the importance of residents' engagement, participation, and 'ownership' in relation to such services. In addition to the initiatives designed specifically to promote recycling, they emphasised the need to engage effectively with the myriad of community organisations and community leaders representing residents.

Summary point

Education and outreach efforts have waned, and there is a need to commit more resources to addressing this gap.

Conclusions

Given the distinctive context, it is evident that the HaRP has broken new ground in service provision for residents of the high-rise estates in Collingwood and Fitzroy. The pilot has laid a solid foundation for a sustainable and comprehensive recycling program. It has introduced recycling to those denied a service that has become commonplace for virtually all sections of the wider community.

The pilot was established through innovative outreach initiatives that engaged both disadvantaged and relatively inaccessible communities, particularly recent arrivals to Australia and/or those with limited capacity to communicate in English.

A large number of residents regard recycling as important, and call for the service to be expanded to include paper and cardboard. Catering for this need poses problems, not least because of the potential for fire (our recommendations address this issue). Importantly, the pilot has also provided employment for some residents, though it has become apparent that current opportunities are limited.

In statistical terms the recycling rates are impressive, though the latter months of 2009 saw a levelling off of recycling. We believe this was caused by a combination of flagging promotion, renovations to buildings, insufficient resources to maintain the bins and to minimise contamination, and the inaccessibility of bins. An important contributing factor here is the lack of collaboration between the recycling staff and those of the cleaning contractor.

In sum, it is evident that HaRP has been a successful pilot, though steps need to now be taken to capitalise on the potential for further growth.

Appendix A. Interview questions

HaRP interviews – April 2010

1. About you

- a. How did you come to work on this job?
- b. What's your own background? How long have you been doing this job?
- c. What else do you do?
- d. Are you familiar with this community?
- e. How would you describe living/working here?
- f. Is it a close-knit community?
- g. Has the service helped you get to know other people?
- h. Do you think this job has helped your chances of finding work in the future? How?
- i. How important is recycling to you?
- j. Has the job changed your mind about recycling?

2. Implementation

- a. Can you explain how it all works?
- b. Is it well designed? Do you think it's a well organized service?
- c. In terms of recycling collection: describe a good day and what then a bad day in your week?
- d. Is it a hard job for you? Is it dirty or sometimes dangerous?
- e. Is mixed waste—involving hazardous waste—ever a problem? What kind of unacceptable waste do you notice? What can be done about this problem?
- f. What changes might be needed if the service is to continue and expand?
- g. Have you noticed any trends? Spikes or dips in the amount that's put out for collection? Or in attitudes or approaches to recycling? What might account for these?
- h. If you were running it, say, in another context, what would you do?
- i. What equipment and facilities do you work in? Can they be improved?

3. People's attitudes

- a. How important do you think recycling is to the people who live here?
- b. What feedback do you get from residents?
- c. What part could/should you play in increasing awareness and usage of the service?
- d. How would you go about increasing awareness and educating people?
- e. Who are the most enthusiastic recyclers?
- f. Communities age group gender
- g. What do you think accounts for the difference, and how can we make the most of these differences?
- h. What have you noticed in your time here that has changed in people's approach to recycling?
- i. Who are the most important people—aside from the residents—in the whole program and why?
- j. Are there people we ought to be closer to in order to improve the service?

4. The use of the service

- a. How often do people here use the service?
- b. Why do some not use it?
 - Lack of awareness no spacedon't produce enough don't know where to take it
 - Too much trouble too far opposed to it forget
 - Other
- c. Would paper/cardboard collection make a difference?
- d. What would increase the participation?
 - More bins more frequent pick-ups bigger bins different collection points
 - If they didn't have to separate material other

Appendix B. High Rise Recycling Survey



Brotherhood
of St Laurence

Working for an Australia free of poverty

High Rise Recycling Survey

1. How important is recycling to you?

- very important important unsure not important at all

2. Do others in your apartment think recycling is important? yes no

If yes, who is that person and how old are they?.....

3. How much do you know about the recycling service?

- I know a lot I've only heard about it I don't know about it

4. How often do you use the service?

- never less than once per month weekly

5. If you don't use it, would you like to use the service? yes no maybe

6. If you don't use the service, which of the reasons below explain why?

- | | |
|---|---|
| <input type="checkbox"/> I didn't know the service existed | <input type="checkbox"/> the collection point is too far away |
| <input type="checkbox"/> it's too much trouble | <input type="checkbox"/> I'm not sure how to recycle |
| <input type="checkbox"/> I don't have space in my apartment | <input type="checkbox"/> sometimes I just forget |
| <input type="checkbox"/> I don't have enough recycling | <input type="checkbox"/> I don't know what I can recycle |
| <input type="checkbox"/> I don't know where to take my material | |
| <input type="checkbox"/> other..... | |

7. Would you use the service more if?...

- | | |
|--|--|
| <input type="checkbox"/> there were more bins | <input type="checkbox"/> if bins were picked up more often |
| <input type="checkbox"/> if the bins were in a different place | <input type="checkbox"/> if the bins were bigger |
| <input type="checkbox"/> if you didn't have to separate things | <input type="checkbox"/> if I had more recycling bags |
| <input type="checkbox"/> other | |

8. How important is paper and cardboard collection?

- very important important unsure not important at all

9. If you use the service, please write the numbers 1 to 5 in the boxes below to show the amount you recycle (1 is for the most; and 5 for the least).

- plastic bottles glass bottles alum cans
 steel cans milk/juice cartons other

10. Who takes out your rubbish or your recycling?

- you your child(ren)
 your husband/wife/partner we share the work
 someone else (who?).....

11. Has the service helped you get to know other people? yes no
If yes, please explain.....

12. Do you think many people in the building want the service? yes no
Why?

13. Would you like to be more involved in supporting the service?
 yes no maybe (I need more information)

14. Have you any comments you would like to make?.....
.....

ABOUT YOU

15. Where were you born? (country/city)

16. What is your main language?.....

17. Which building do you live in? Which floor?.....

18. What is your sex? male female

19. How old are you? under 30 30-40 40-50 50-60 60+

20. How many people do you live with? children adults

21. If there are children under 15 years old, how many?

THANK YOU VERY MUCH

**PLEASE RETURN THIS SURVEY TO THE COMMUNITY CONTACT OFFICE
IN THE SECURITY BOOTH**

Appendix C. Educational and information materials

Children's recycling awareness colouring book

The Clean Green Gang
help save the environment

JACKSON BROOKE PENNY THE PELICAN

OZZIE OWL PETER POSSUM MOLLIE MULLET

Answer to find-a-word
HELP THE CLEAN AND GREEN GANG
BY PROMOTING
REDUCE, REUSE, RECYCLE !!!

5 cents from the sale of this book during 2008 will be donated
to Wesley E-Recycling who specialise in the refurbishment
of computers for individuals, families and community
organisations in need - www.wesleycomputers.org

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Please recycle the paper in this book when you are finished with it!

Colour-in storybook
The Clean & Green Gang
Discovers
Recycling

BONUS
FIND-A-WORD
GAME INSIDE!

Instructions distributed and displayed in high-rise towers

The following **recyclables** may be placed in the recycling bin:

Những thứ tái sinh được như sau có thể bỏ vào thùng rác này:

以下可再生的物品可以被放入回收箱内：

المنتجات الآتية القابلة للتصنيع قد توضع في صناديق إعادة التصنيع :

Aşağıdaki kullanılmış çöp maddelerini ayrılan bidonlara koyunuz:



Glass bottles & jars

Chai và lọ thủy tinh
玻璃瓶和玻璃罐
زجاجات و برطمانات
Cam, şişe & kavanoz



Milk & juice cartons

Hộp giấy đựng sữa và nước trái cây
牛奶和果汁的包装纸盒
علب حليب و عصير من الكرتون
Süt & meyve karton



Aluminium cans

Các lon hộp bằng nhôm
铝制易拉罐
معلبات ألومنيوم
Alüminyum teneke



Plastic bottles

Các loại chai bằng nhựa
塑料瓶
زجاجات بلاستيكية
Plastik şişe

Plastics marked with the following Recycling Codes may be placed in the recycling bin:

Những loại nhựa có dán một trong các mã tái sinh sau đây có thể được bỏ vào trong thùng:
有以下标记的塑料瓶可以被放入回收箱内:

يتم وضع علامات على البلاستيك تحمل رموز إعادة التصنيع التالية التي ربما توضع على صناديق إعادة التصنيع:

Aşağıdaki işaretli Geriçevirim Kodlu plastikler bu çöp bidonlara konulabilir:



Steel cans

Các loại lon bằng thép
铁制罐头盒
معلبات معدنية
Çelik teneke



The following items should **not** be placed in the recycling bin:

- **Paper and Cardboard:** Paper and cardboard are also not being collected during this trial.
- **Non-recyclables:** Non-recyclables include all other household waste, such as food scraps, broken glass, cigarette butts.

You should continue using the garbage chute to dispose of these items.

Những thứ sau đây **KHÔNG** được bỏ vào thùng đựng rác tái sinh:

• **Giấy và thùng giấy:**
Giấy và thùng giấy không được bỏ vào thùng trong thời gian thử nghiệm.

• **Những thứ không tái sinh được:**
Những thứ rác trong nhà khác như đồ ăn dư thừa, miếng chai, tàn thuốc lá phải được bỏ vào ống đổ rác thường.

Quý vị nên tiếp tục dùng chỗ đổ rác thường ngay để vứt bỏ những thứ rác này.

المنتجات الآتية لا يجب وضعها في صناديق إعادة التصنيع:

• الورق و الكرتون : الورق و الكرتون أيضا لن يتم جمعها في هذه التجربة.

• المنتجات غير القابلة للتصنيع: المنتجات غير القابلة للتصنيع تشمل كل قمامة المنزل، مثل مخلفات الطعام، الزجاج المكسور، رماد السجائر يجب التخلص منها في الخزانة التي تلقى فيها القمامة.

يجب عليك الاستمرار في استعمال خزانة القمامة للتخلص من هذه الأشياء.

以下物品不能被放入回收箱：

• 纸张和纸板：在试行阶段，纸张和纸板同样不能被回收。

• 不可回收物：不可回收物包括其它所有的生活垃圾，像残余食物，碎玻璃，烟头等都应该直接被扔进垃圾通道内。

您仍将继续使用垃圾通道来处理以上物品。

Aşağıdaki işaretli gördüğünüzde bunları çöp bidonlarına koyulmaz:

• **Kağıt ve Mukavva:** kağıt ve mukavvalarda şuan bu denemede toplanılmayacaktır.

• **Dönüşümlü Olmayan:** Dönüşümlü olmayan ev çöpleri, mesala yemek artıkları, cam parçaları, sigara izmarçileri normal çöp bidonlarına konması lazımdır.

Yukarıdaki yazılan maddeleri normal çöp bidonlarına atmaya devam edebilirsiniz.

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