



BLINKYBULB

PROJECT REPORT



**Highlands
Regional Waste
Management
Group**



Report compiled by Rosemary Angus, Regional Education Officer, Highlands Regional Waste Management Group on behalf of the project steering committee.

BlinkyBulb Project

Introduction

The BlinkyBulb initiative was established to help people recycle mercury containing fluorescent tubes and CFL globes. It was a pilot project that commenced in June 2009 and was funded for 12 months.

The aim of the program was to set up a process so that as many people as possible would have access to convenient, safe and cost-free disposal of their used fluorescent tubes/globes, which are then recycled, preventing a significant source of mercury pollution from going to landfill.

Why Recycle

Mercury is a toxic substance

Used lighting products are the largest source of mercury contamination in municipal landfills. With the phasing out of incandescent globes, the problem is becoming urgent.

Over 10,000 tonnes of mercury contaminated waste is contained in landfills across Australia. In landfill mercury can convert to methyl mercury; this toxic and volatile gas can easily escape into the environment.

Protecting the environment is important for all of us. Recycling fluorescent tubes and CFL globes is a simple and easy way to protect the environment from mercury poisoning.

Fluorescent tubes and CFL globes are ideal for recycling

- Aluminium from the tube ends is separated and recycled into new aluminium products such as drink cans
- Glass is recycled into glass wool for home insulation batts
- The Mercury is distilled from the powders then re-used in the manufacture of dental amalgam
- Phosphor powder is used to manufacture agricultural fertilizer

Report

Project Overview

The BlinkyBulb project was developed by the Rotary International District 9780 Preserve Planet Earth (Water & Environment) Committee and Highlands Regional Waste Management Group. The other project partners are Desert Fringe, Central Murray and Barwon RWMGs. The media partner was Win TV and Sustainability Victoria supported the recycling of the fluorescent globes via their Detox Your Home sites.

Collection points were established, Rotarians collected the boxes and took them to the central collection point. The fluorescent tubes and globes were consolidated at the Detox Your Home sites in Ballarat and Geelong before transport to Melbourne for recycling.

World Environment Day 5 June 2009 was selected for a media launch attended by representatives from Rotary, Collection Point managers, Regional Waste Management Groups staff and directors. Good media coverage on Win TV and the local papers gave the project a kick start and was followed up by a six week intensive TV advertising campaign. A 50/50 advertising sponsorship was negotiated with Win TV.

Steering Committee

Highlands Regional Waste Management Group
Rotary International District 9780 Preserve Planet Earth (Water & Environment) Committee
Barwon Regional Waste Management Group
Central Murray Regional Waste Management Group
Desert Fringe Regional Waste Management Group
Grampians Regional Waste Management Group

Resources

The principal resources used in this project were a TV advertisement backed up by a website www.blinkybulb.com.au. Posters, shelf wobblers and counter struts were developed for promotion at Collection Points.



The website was the primary interface with the community, it provided detailed information about the BlinkyBulb campaign – who was running it, how it operated, why recycling of CFL globes and fluorescent tubes is important and list of Collection Points so that the community could find the most convenient one to their location. In addition information was provided for commercial operators (BlinkyBulb was only for domestic quantities).

A total of 200 special boxes for the tubes were donated by Chemsal and an additional small boxes for the CFL globes were purchased. All were stickered to provide collection data with the BlinkyBulb logo to reinforce the brand recognition.

A Training Guide was developed so that all people involved in the project had an understanding of the risks associated with Mercury and the correct procedures to implement in case of breakage. This was rolled out sequentially – all the steering committee members were trained, then Rotarians and then staff at the Collection points. A register of the people trained has been maintained.

Communication Strategy

For BlinkyBulb to be successful it was necessary to engage with three distinct groups – Rotarians, businesses to act as Collection Points and the community.

The Rotary Preserve Planet Earth Committee who instigated this project spoke to the Rotary Clubs and gained support. This wider group of Rotarians then went out and found the businesses to act as

Collection Points. This one on one approach was most successful. In areas outside the Rotary District, the RWMGs made the necessary contact.

The community was initially engaged by the TV advertisement that ran for 6 weeks commencing June 2009 that directed people to the website. The website was the primary communication tool with secondary support provided by posters and signs.

Results

The enthusiastic support for this project by the Rotarians has been a key factor in the success of the project. Their first task was to seek out businesses that would support the project by becoming Collection Points and this was most successful. A total of 77 sites have been established as Collection Points. These range from small business such as Colonial Lantern to large businesses like Bunnings as well as Council Customer Service Centres and Transfer Stations.

A special pack was put together and delivered to all the Collection Points. It contained

- Memorandum of Understanding that clearly outlined role and responsibilities for the RWMGs, Rotary and the Collection Points,
- Posters, counter struts and shelf wobblers,
- Overview of the project
- Information sheet for industry or commercial operators that they could had out if required, and
- Training Guide.

A laminated Certificate of Appreciation was sent to all Collection Points and Rotary Clubs in the Highlands Region.

Data collection sheets were developed and used by the Rotarians and RWMG staff who collected the boxes for consolidation at the Detox Your Home sites in Ballarat and Geelong. The collection data are summarised in the table below.

Estimates used for calculation

1 long box = 50 tubes

tube = 0.2kgs

1 square box = 100 globes

CFL = 0.1kgs

Region	Collection Point	Boxes Tubes	% Full	No. of Tubes (calc.)	Boxes CFL	% Full	No. of CFL (calc.)
Desert Fringe	IGA Dimboola	1	100%	50	1	45%	45
		1	65%	33	1	40%	40
	Hardware Dimboola	1	100%	50			
	Home Hardware Nhill	1	100%	50	1	65%	65
		2	88%	88			
	Mitre 10 Nhill	2	93%	93			
	TOTAL				363		
Central Murray	Kerang Tfr Station	3	93%	113			2
	Boort Landfill	1	20%	17			
	Swan Hill Landfill	4	100%	204			
	Kerang Tfr Station	3	85%	106			23
	Charlton Foodworks	1	20%	16			3
	Swan Hill Landfill	3	100%	150			
	Cohuna Tfr Station	2	85%	81			1
	Swan Hill Landfill	2	75%	76			
	Charlton Foodworks	1	95%	32			
	TOTAL				829		

Region	Collection Point	Boxes Tubes	% Full	No. of Tubes (calc.)	Boxes CFL	% Full	No. of CFL (calc.)	
Highlands	Carisbrook TS	2	100%	100				
	Colonial Lantern	1	100%	50				
		1	100%	50	1	100%	100	
		1	100%	50	1	150%	150	
		1	100%	50				
		1	100%	50	1	70%	70	
		1	100%	50	1	100%	100	
		1	100%	50	2	85%	170	
		1	100%	50	2	100%	200	
		2	100%	100	1	100%	100	
		2	100%	100	1	150%	150	
		1	120%	60				
		Davies & Rose	2	100%	100	1	100%	100
			1	100%	50	1	80%	80
		Beacon Lighting	1	100%	50	1	100%	100
			2	88%	88	1	100%	100
			1	100%	50			
			2	100%	100	1	100%	100
			1	100%	50			
			2	100%	100	2	100%	200
			2	100%	100	1	120%	120
			1	100%	50	1	120%	120
			1	100%	50	2	100%	200
		Bacchus Marsh Hardware	3	100%	150	1	85%	85
			4	100%	200	4	100%	400
			2	100%	100	1	70%	70
		Smart Options	1	100%	50			
						1	60%	60
						1	50%	50
		Foodworks Buninyong	1	100%	50			
			3	100%	150	1	50%	50
			1	100%	50			
		1	70%	35				
	Daylesford IGA	1	100%	50				
	City of Ballarat	1	80%	40	1	60%	60	
		1	80%	40				
		1	100%	50	1	10%	10	
					1	120%	120	
		1	100%	50				
	TOTAL			2,563			2,945	
Grampians	Stawell Mitre 10	1	100%	50				
	Horsham (shopping centre?)	1	100%	50				
	Warracknabeal	1	100%	50				
		1	100%	50				
		2	98%	98	1	70%	70	
		1	100%	50				
		1	95%	48	1	70%	70	
	Ararat Mitre 10	1	100%	50	1	90%	90	
	St Arnaud	1	100%	50				

Region	Collection Point	Boxes Tubes	% Full	No. of Tubes (calc.)	Boxes CFL	% Full	No. of CFL (calc.)
	LBH Horsham	2	75%	75	1	100%	100
	Home Hardware Horsham	2	95%	95	1	80%	80
	Horsham	8	100%	400	1	70%	70
	TOTAL			665			410
	GRAND TOTAL			4,419			3,544
	Estimated weight			884kgs			354kgs
Barwon	Consolidated weight			710kgs			152kgs
	Estimated numbers			3,550			1,520

In Barwon the only data available was the total weight collected by Chemsal when they picked up the boxes from the Geelong Transfer Station. This data will also include tubes brought directly to the Detox Your Home site by the community, not necessarily as a result of BlinkyBulb.

Promotion and advertising was also different in the Barwon Region as they were unable to run the TV advertisement due to the fact that they get metropolitan TV coverage not Win Television. TV coverage also caused some unintended issues for resident of those municipalities that do receive Win TV but are outside of the project partners' areas, these people wanted the service but it was unavailable. This was actually very important information as it clearly demonstrated that the community will, if provided with a simple and convenient method, make an effort to recycle. The message about the environmental benefits of recycling is getting through.

This equates to:

13,033	Total Collection
\$23,550	Total Expenditure
\$1.96	Expenditure per bulb/tube

Recycling of specialised waste streams frequently leads to this scenario where the environmental benefits of the program come at a significant dollar cost. In costing this project it must also be remembered that the transport to Melbourne and the value of the work done by the volunteer Rotarians has not been included in the calculation.

Website Statistics

Very detailed statistics on the use of the website are available. The key results are tabled below. Naturally the most interest was associated with the launch and TV advertising campaign, nevertheless 12 months later there is still steady traffic. This supports the conclusion that the program is valued by the community and that they continue to support it, which is also evidenced by the steady stream of full boxes arriving at the Detox site.

Month	No of Unique Visitors	No of Visits
June 2009	351	475
January 2010	73	100
June 2010	70	81

Survey Results

The community feedback in support of BlinkyBulb is demonstrated by the steady flow of tubes into the Collection Points. A survey was developed to gain feedback from the Collection Points and Rotary Clubs.

In the Highlands Region the comments from the Rotary Clubs were all very positive and indicated that they were happy to continue to support the BlinkyBulb if it were to continue. Comments included *“the project is vital for the health of future generations”*. Responses were received from 50% of the Collection Points and all were unanimous in their support for BlinkyBulb the *“project was worthwhile”* , *“a great concept”*.

A few problems were identified, primarily tradesmen wanting to drop off commercial quantities and people not taking enough care and breaking tubes. The need for further advertising was also identified as an issue.

Safety

Although several Collection Points complained about customers bringing in broken tubes and some rough handling after they were collected resulting in breakages, no official reports of any injuries of were recorded.

Budget

EXPENDITURE		BUDGET	ACTUAL
Marketing Co-ordination	PR/Publicity		\$440.91
	Campaign Management and Coordination		\$550.00
Branding and Marketing (Point of sale, Publicity Support, Campaign Management)	2 of. Pull up Banners		\$2,296.88
	200 of Collection Point 200 of General Posters	\$6,000.00	\$2,413.52
	200 of Counter struts		\$1,470.60
	200 of Wobblers		
Collector training (REO time)	Materials etc	\$3,000.00	\$0.00
	Travel/Accommodation		\$0.00
Recycling Costs (CMA Ecocycle)	10,000 tubes @ \$3.50/5 tubes (approx \$0.70/tube)	\$7,000.00	\$0.00
	3,000 CFLs @ \$4:50/10 CFLs (approx \$0.45/CFL)	\$1,350.00	\$0.00
Television Production			\$4,664.09
Television advertising			\$8,330.00
Project monitoring and independent evaluation		\$3,500.00	\$0.00
Unbudgeted	Website Development		\$1,536.36
	Radio advert and Press templates		\$340.91
	Boxes and Stickers		\$861.06
	Meeting Expenses		\$645.45
TOTAL EXPENDITURE		\$20,850.00	\$23,549.78
INCOME			
Project Contributions	HRWMG	\$20,850.00	\$11,049.78
	Desert Fringe RWMG		\$4,000.00
	Grampians RWMG		\$4,000.00
	Central Murray RWMG		\$1,500.00
	City of Ballarat		\$1,500.00
	Barwon RWMG		\$1,500.00
TOTAL INCOME		\$20,850.00	\$23,549.78

Conclusion and the Future of BlinkyBulb

BlinkyBulb was a 12 months trial that scheduled to conclude on 30 June 2010. BlinkyBulb has been an expensive model for the collection for recycling of domestic sourced mercury containing tubes, especially when the effort of the Rotarians is taken into consideration.

This is the scenario that is often presented for recycling of specialised waste streams. They are expensive but this needs to be balanced with the perceived environmental benefit of removing this mercury source from landfill and ameliorating the environmental risk.

Despite all of this BlinkyBulb has been a success. Over 13,000 mercury containing tubes and globes have been diverted from landfill. This is an outstanding result and clearly demonstrates that the community have embraced recycling and will support new initiatives if the process is made easy.



Acknowledgements

- Rotarians of Rotary International District 9780 and especially the members of the Preserve Planet Earth (Water & Environment) Committee who conceived of this project and without whom it would not have been possible. Special mention must be made of Kester Baines and David Sanders who were the driving forces of the project and who's enthusiasm keep it going.
- The businesses, councils and other organisations who made the commitment to be Collection Points, we thank you.
- Shane Manley and staff at Ascet Creative for the development and implementation of the marketing strategy including the wonderful TV ad.
- Our media partner Win TV Ballarat
- Chemsal Pty Ltd, the ultimate destination of all the tubes and globes, who provided the special boxes for tube collection.
- Sustainability Victoria for accepting the tubes and globes as part of the Detox Your Home campaign.
- And finally the staff and the Boards of Barwon, Central Murray, Desert Fringe, Grampians and Highlands RWMGs

Postscript

Due to the strong ongoing support from the community and the continued interest by Rotary, it has been possible to keep BlinkyBulb, in its current format, going until June 2011.

The introduction of FluoroCycle in 2010, under the auspice by the Lighting Council of Australia, now provides a structure for the recycling of fluorescent tubes from industry. It is hoped that it will not be long before this initiative is made available for domestic sourced tubes.