



Western Highway Roadside Litter Campaign

(VIC 94 - 10)

Final Report

**Prepared by
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June 2011**



A National Packaging Covenant funded project

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Acknowledgements

The project steering committee would also like to acknowledge the support from:

Les Baxter, VicRoads
Ben Hurnall, VicRoads
Gary Mogford, Keep Australia Beautiful Victoria
Ararat Lions
Beaufort Rotary
Dimboola Lions
Kaniva Rotary
Kiata Town Community Group
Nhill Rotary
Trawalla Primary School & Stawell Park Caravan Park who displayed large banners
All the shops who participated by displaying posters or distributing the resources to their customers

Disclaimers

The opinions, representations, statements or advice expressed or implied in this project report were done in good faith. The project partners do not accept any liability for loss or damages incurred as a result of reliance placed upon the content of this project report. Persons reading this project report accept responsibility for assessing the relevance and accuracy of its contents to their situation.

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Executive Summary

Highlands, Grampians and Desert Fringe Regional Waste Management Groups in partnership with VicRoads were successful in obtaining a National Packaging Covenant Grant of \$37,300 to implement the Western Highway Roadside Litter Campaign.

The Western Highway Roadside Litter Campaign aimed to reduce the incidence of littering by 30% at selected sites along the Highway and to increase the number of reports made to the EPA Litter Report Line.

The project involved the clean up, in October 2010, of 15 selected sites from Bacchus Marsh to Kaniva. Baseline audits were conducted in November 2010 at the commencement of the radio advertising campaign and in February 2011. A final audit was conducted in May 2011 to assess the longer term impact of the campaign. The clean up and audits were carried out by Adopt-a-Roadside groups.

The radio campaign was backed up with banners and posters along the Highway and car litter bags available from supporting businesses.

Analysis of the audit data indicates that overall there was a reduction of 45.15% in the total number of items counted.

Audit	Total Litter Count	Reduction from baseline
Baseline	939	-
Audit 1	472	49.73%
Audit 2	515	45.15%

Use of the EPA Litter Report dropped. This is logical given the audit results, there was less littering behaviour to report.

Municipality	2009/2010	2010/2011
Moorabool	32	25
Ballarat	231	162
Pyrenees	4	7
Ararat	6	5
Northern		
Grampians	5	1
Horsham	8	2
Hindmarsh	0	1
West Wimmera	0	0
TOTAL	286	203

This project has been a success. The litter reduction target was met, indeed exceeded, and whilst the Litter Report Line target was not met we believe that this was a reflection of improved littering behaviour and thus a positive result was obtained.

The enthusiastic support of the Adopt-a-Roadside groups and the willingness of over 100 businesses to support the project clearly demonstrates the ongoing need for funding to target litterers and littering behaviours.

Introduction

The aim of the Western Highway Roadside Litter Campaign was to reduce the incidence of roadside littering on the Western Hwy by 30% at selected sites. The project also promoted the EPA's Litter Report Line. The project timing November – February was selected to take advantage of the increased use of the Western Hwy during the holiday season.

This project is a partnership between the Highlands, Grampians and Desert Fringe Regional Waste Management Groups and VicRoads. In addition to these organisations, it has involved local Adopt-a-Roadside groups whose support has been invaluable.

Best practice litter projects have three key areas – Education, Enforcement and Infrastructure. The Western Highway Roadside Litter Campaign addressed all these areas, although its primary focus was community awareness/education.

Education: The campaign used a range of tools to educate highway users that littering is an inappropriate behaviour.

- Signage, both temporary and permanent
- Radio advertising campaign
- Distribution of car litter bags
- Posters in businesses
- Schools Pack CD

Enforcement: This will be achieved by the use of the EPA Litter Report Line.

Infrastructure: A total of fifteen permanent signs have been installed along the Highway.

Description of Works

A steering committee was established to oversee the project with representatives from the four project partners.

Key project dates:

- Initial clean up Sat 16/Sun 17 October
- Baseline audits Sat 13/ Sun 14 November
- Project launch Mon 15 November
- End of project audits Sat 12/ Sun 13 February 2011
- Final audits Sat April 30/ Sun May 1 2011

Adopt-a-Roadside groups agreed to support the project by doing the initial clean up and then the scheduled auditing at their existing locations on the Western Highway. Sites at Ballarat, Ballan and Bacchus Marsh were covered by VicRoads as community groups are not permitted on the freeway sections due to safety concerns.

Clean up of the target sites was completed by the Adopt-a-Roadside groups in October and followed up with the baseline audits in November. Follow up audits were conducted in February and the final audit in April.

The roadside litter banners provided by VLAA (Victorian Litter Action Alliance) were installed by VicRoads at roadside stops along the highway. A total of 30 banners were installed.



Banner and temporary signs, Trawalla Primary School



Banner at roadside stop, Great western

The roll out of the posters and other resources to businesses along the Western Hwy was successful. Most businesses have been supportive and choose to display a sign in their window and/or to distribute promotional material including car litter bags. The car litter bags are fully biodegradable and compostable to AS 4736.



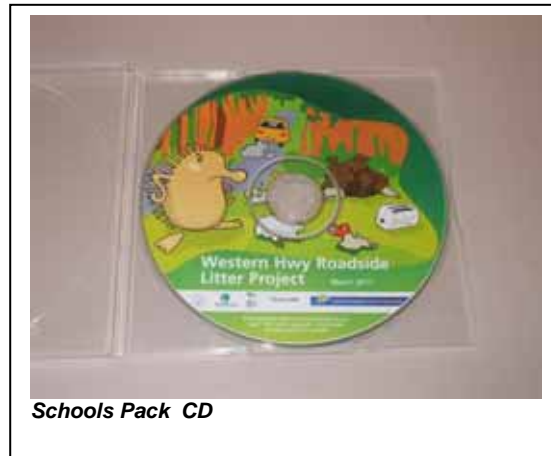
Signing mat and custom display box for the car litter bags

Fifteen permanent road signs have been installed by VicRoads. Sites were selected to support known litter hot spots with final placement and installation carried out by VicRoads.



Permanent road sign, Ballarat by-pass

The Schools Pack CD has been delivered to all primary and secondary schools in the Highlands, Grampians and Desert Fringe waste management group regions. It contains units of work for all year levels, some classroom activities have been specifically designed for this project plus some others that had previously been developed by the RWMGs. The units of work have been mapped against the VELs criteria (Victorian Essential Learning Standards) as this makes them more useful to teachers. In addition the CD contains an overview of this project and an additional resources section with links to many websites and other significant litter resources.



The radio campaign on 3BA/Power FM (Ballarat) and 3WM/Mixx FM (Horsham) was the primary education/marketing tool for the project and commenced on 15 Nov 2010 through to 15 Feb 2011. It was extended and the advert was further broadcast on all channels during the school holidays from 8 – 27 April. The radio scripts are included in the Appendix.

There is clear evidence (anecdotal) that the ads were recognised and the message understood. The ads commenced before the resources were distributed, and a significant number of business owners recalled the ad and its message and this was a key factor in their decision to support the campaign.

Issues that Arose

Two issues of significance arose during this project. Both related to regulations governing the safe management of the Western Highway that were not identified in the project planning phase. The commitment of VicRoads staff to this project enabled these issues to be overcome.

Firstly, Adopt-a-Roadside groups are not able to operate on sections of road designated as freeways, this is for both their safety and the safety of road users. Fortunately VicRoads were able to assist by tasking their normal clean-up crew to the designated areas and then they arranged for a staff member to assist the Highlands REO to do those audits.

Secondly, the original intention was to place the banners and temporary signs along the edge of the highway for maximum impact. Unfortunately this was outside the VicRoads signage guidelines and so the alternative of placing the banners in roadside stops was implemented. This certainly has had less of an impact than the original concept but the committee are grateful that a solution was able to be found.

Also there were unavoidable delays in the production of the Schools Pack CD. As a consequence the CDs were only delivered to schools in the first week of May. Therefore feedback from teachers about the usefulness of the Schools Pack has not been able to be obtained within the timeline of this project.

One final issue has arisen at the end of the project, just as evaluation and final report were being prepared. The EPA now advises that the Litter Report Line data is not available until after 30 June, when the financial year results will be consolidated.

Key Outcomes

The project had two targets:

1. Reduction of litter by 30% at selected sites on the Western Hwy,
2. Increase in the use of the EPA Litter Report Line

Reduction of Litter

Due to the strong support from the Adopt-a-Roadside groups we were able to audit 15 sites. Some of the sites were known hot spots, others were the regular sites for the Adopt-a-Roadside clean up and others were strategically selected e.g. just past the off-ramp from the Ballan Roadhouse.

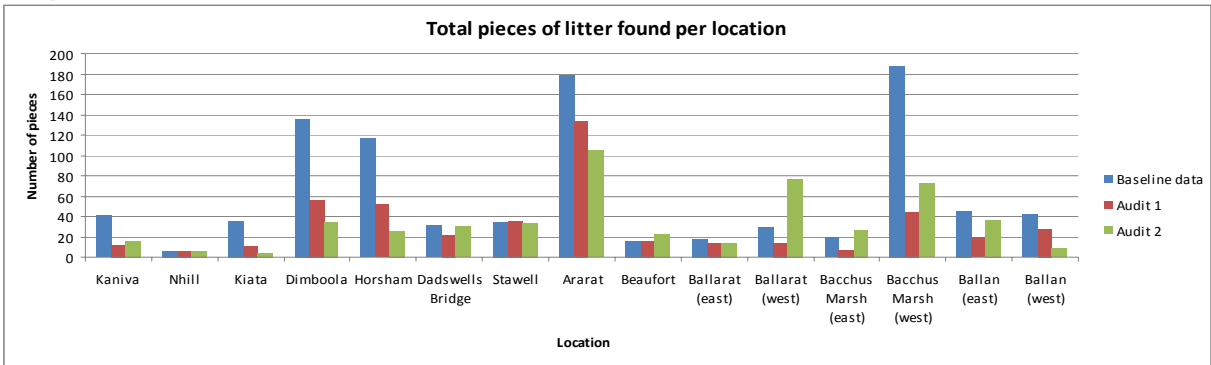
It is very pleasing to be able to report that a significant reduction in littering was achieved during this project (Table 1).

Table 1: % Reduction in total litter from baseline

Audit	Total Litter Count	Reduction from baseline
Baseline	939	-
Audit 1	472	49.73%
Audit 2	515	45.15%

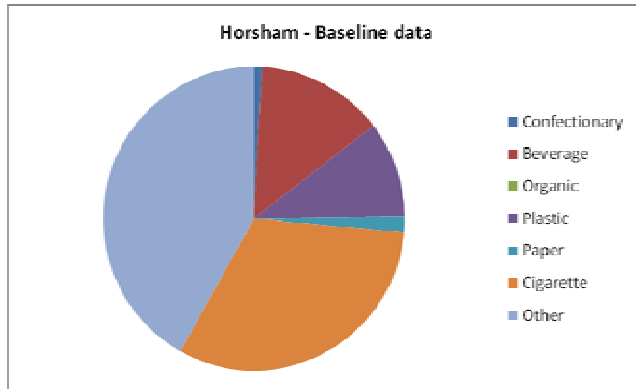
The total litter count does not, however, tell the whole story. It is necessary to analyse the data on a site by site basis to look for trends. Generally there was a reduction in the total litter counts. Dimboola went from 136 items to 35 items, Ararat from 179 items down to 105 items and Ballan (westwards) from 42 items to 9 items.

Graph : Total Litter Count

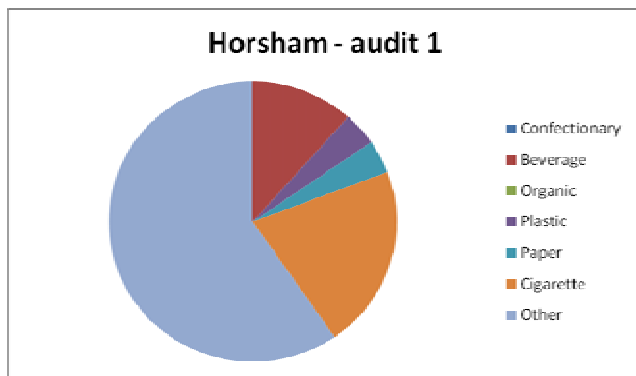


To get the true picture of the outstanding results of this project it is necessary to drill down even further. Two sites have been chosen and their data is looked at in closer detail.

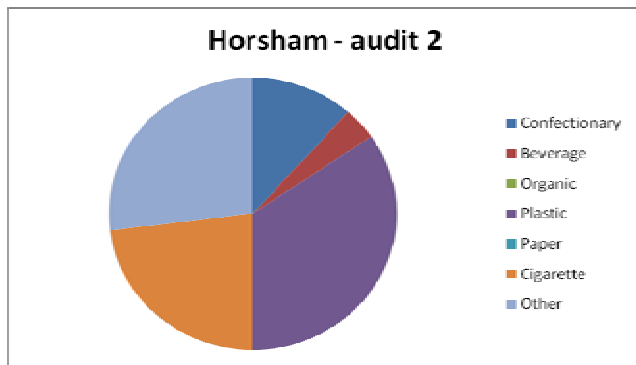
Horsham site:



A clear finding from the litter collected at the Horsham site is that the greatest % falls into the “other” category, particularly in both the baseline data and audit 1 data. A significant portion of the items in this category were pieces of tyre (71% of baseline data and 77% of audit 1).



The high proportion of plastic in the audit 2 data was entirely made up of “miscellaneous plastic”, which was usually fragments of vehicles.



The “organics” category appears unnecessary for these type of sites.

Ballan (westwards) site:

The number of weeks between audits was not the same. The data from the Ballan (westwards) site has been further analysed to show the results as a weekly average. The results for this site show an amazing improvement.

Table 2: % Reduction in litter (weekly Ave) from baseline, Ballan (westwards) site

Baseline audit	Weekly Ave	Feb audit	Weekly Ave	Reduction from baseline	May audit	Weekly Ave	Reduction from baseline
42	10.5	25	1.79	-82.95%	9	0.82	-92.19%

Not all sites had such significant improvements and some did, unfortunately, show small increases in the May audit that indicate that the daily radio advertisements (November to February) had a significant impact on the littering behaviour of road users.

EPA Litter Report Line

The table below shows the total number of fines issued in each municipality that the Western Hwy goes through. It is not possible to separate data for reports on the Highway on its own.

The steering committee had anticipated that as the result of this campaign there would be an increase in the use of the EPA Litter Report Line. This proved not to be the case. The conclusions drawn from this are that as a result of increased awareness about the impact of littering and that it is an offence less people were observed to litter and this is supported by the litter audit data. It is also possible that there is still a cultural reluctance to 'dob in' an offender.

Municipality	2009/2010	2010/2011
Moorabool	32	25
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TOTAL	286	203

Diversion Materials Expected

The following materials will be diverted through this project.

Materials	Tick if Diversion Expected	Original Estimated Diversion Tonnages
Other (Litter Reduction)	<input checked="" type="checkbox"/>	30% reduction at selected sites

Project Promotion

Promotion of the project results will be delayed until the EPA Litter Report Line data is available.

- The Project Report will be available on the Highlands RWMG website www.hrwmg.vic.gov.au and directly from the project partners.
- Hard copies will be available on request.
- A media release announcing the projects achievements will be sent to all media outlets in the Highlands, Grampians and Desert Fringe Regions.

Cost Summary and Breakdown

Item	NPC Funding \$	Applicant Funding \$	3 rd Party Funding \$	Budget Total (excluding GST) \$	Budget Actual (including GST) \$
Advertising	25,500	1,500	3,000	30,000	
- display boxes					253.00
- print A4 posters					95.00
- newspaper advert					399.00
- radio adverts 3BA, Power FM Nov – Feb					10,890.00
- radio adverts 3WM, Mixx FM Nov - Feb					14,176.80
- radio adverts 3BA, Power FM Ballarat Swap Meet 25 -27 Feb					495.00
- radio adverts 3BA, Power FM 8 -27 April					2,722.50
- radio adverts 3WM, Mixx FM 8 -27 April					3,168.00
				<i>Sub-total</i>	<i>32,199.30</i>
Temporary signs and banners*	5,500			5,500	981.00
Car litter bags (25,000)	4,000			4,000	6,627.50
Community Group incentives	1,000	1,000	1,000	3,000	4,500.00
Permanent signs (15)	1,300			1,300	1,803.78
Schools Pack CD		1,000	2,000	3,000	
- graphic design initial					1,089.00
- graphic design final					330.00
- production (300)					529.00
- postage					525.30
				<i>Sub-total</i>	<i>2,473.30</i>
TOTAL	37,300	3,500	6,000	46,800	
TOTAL + GST				51,480	48,584.88

*initially we budgeted to purchase banners but instead we were able to use ones provided by VLAA so money was redirected to radio advertising, more permanent signs and increased incentives for the community groups

Specific Learnings:

- The VLAA “Litter Count” tally sheet, as obtained from the *Litter Prevention Kit – Roadside Litter*, was found not to be an ideal tool for the purposes of roadside litter audits.
 - The audit teams found that there are several categories on the recording sheet which were not relevant to a roadside site, for example “organics”.
 - The opportunity for recording items commonly found on the roadside was very limited apart from in the “other items not listed above” box. Examples of common items included pieces of tyre and miscellaneous plastic and metal fragments, originating from vehicles.
- A large proportion of the litter that was noted in many of the sites was found to have originated as parts of vehicles. A high proportion of litter pieces were pieces of rubber, assumed to be from truck tyre blow-outs. It is suggested that a future campaign could be run to educate truck drivers about the requirement to clean up rubber from tyre blow-outs.
- The support from roadside businesses was predominantly in favour of supporting this project. The steering committee members who approached the businesses, found that most of them believed the Western Highway Roadside Litter Campaign was very worthwhile. The feedback was that businesses would like to see ongoing funding and action in regards to the issue of roadside litter.
- One consideration, in regards to the validity of the data, is the fact that many of the audit sites were subject to flooding in January 2011. The flooding may have impacted on the data – either positively or negatively, as litter may have either been washed into or away from the site. The learning gathered from this situation is that reliable data for roadside litter is very difficult to collect due to environmental impacts, such as flooding.

Conclusion

This project has been a success. The litter reduction target was met, indeed exceeded, and whilst the Litter Report Line target was not met we believe that this was a reflection of improved littering behaviour and thus a positive result was obtained.

The enthusiastic support of the Adopt-a-Roadside groups and the willingness of over 100 businesses to support the project clearly demonstrate the ongoing need for funding to target litterers and littering behaviours.

Appendix : Radio Scripts

There are two versions of the radio script.

Version 1

[SFX] people driving in a car, singing and laughing

-window being wound down and the rustle of paper

Girl- Don't throw that out the window!

Boy-Why not

Girl- Don't you know how bad it is for the environment and it looks awful!

Boy- Gee it's not like it's illegal or anything

Girl-Actually **it is** illegal

Both- Keep the Western HWY litter free by registering at reportlitter.com. or call 1800 litter today!

VO: This message bought to by Highlands Grampians and Desert Fringe Regional Waste Management Groups, VicRoads and The Australian Packaging Covenant.

Version 2

[SFX] people driving in a car, singing and laughing

-window being wound down and the rustle of paper

Girl- Hey, Look at that!

Boy-What, where?

Girl- The car in front, they threw litter out their window! Let's report it!

Boy- Yes let's, **it is** illegal !

VO- Keep the Western HWY litter free by registering at reportlitter.com.au or call 1800 litter today!

VO: This message bought to by Highlands, Grampians and Desert Fringe Waste Management Groups, VicRoads and The Australian Packaging Covenant.

