



Highlands
Regional Waste
Management
Group

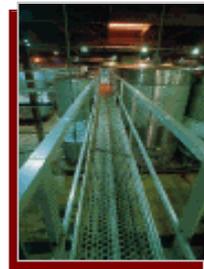


WASTE WISE IS A PROGRAM OF
ECORECYCLE VICTORIA



HIGHLANDS REGION

RESOURCE RECOVERY IN THE COMMERCIAL AND INDUSTRIAL SECTORS




ARCADIAN SOLUTIONS

2001

This report was prepared on behalf of HRWMG by Arcadian Solutions.

Contact: Libby Chaplin
Director, Arcadian Solutions
Phone: 03 9482 2276
Facsimile: 03 9482 6337
Email: libby.chaplin@arcadian.com.au
Internet Site: www.arcadian.com.au

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Resource Recovery in the Highlands region

It is estimated that nearly two thirds of waste sent to landfill in the Highlands region is generated from the commercial and industrial (C&I) sector. Much of this material could have been re-used or reprocessed to generate valuable income and employment.

The HRWMG in association with the Australian Industry Group and EcoRecycle Victoria are actively facilitating improved resource recovery in the region. The aim of this work is to improve resource recovery and minimise waste to land fill from the C&I sector. It is also recognised that other government and commercial organisations play a key role in achieving efficiencies in the commercial and industrial sector.

The aim of this approach is to provide strategic direction and motivation to businesses in the region to review their material usage and reduce the waste by reusing or recycling resources.

HRWMG

The role of the Highlands Regional Waste Management Group (HRWMG) is to foster environmentally sustainable uses of resources and best practices in waste management. The region encompasses the municipalities of Ballarat, Central Goldfields, Golden Plains, Hepburn, Moorabool and Pyrenees. The HRWMG was recently successful in obtaining a grant from EcoRecycle Victoria to establish this Waste Wise Business Program.

The Australian Industry Group

The Australian Industry Group is an independent, representative body created to help Australian industry be more competitive, both domestically and internationally, so that it takes its rightful place in the emerging global economy.

EcoRecycle Victoria

EcoRecycle Victoria is the Victorian Government agency charged with minimising the creation of waste, promoting the sustainable use of resources and better managing the disposal of residuals. A successful feature of EcoRecycle Victoria's work is the role of the regional waste management groups in implementing programs across the state. EcoRecycle Victoria has provided grant funding to the HRWMG to implement a Waste Wise Business Program.

Regional partnerships

Resource recovery in the commercial and industrial sectors impacts on everyone in the region. Figure 1. illustrates the breadth of these relationships

Regional relationships

The HRWMG recognises that there are numerous people and organisations that have an interest in improved resource use in the region. These are illustrated below in the Figure 1.



Figure 1. Organisations with a role to play in resource recovery initiatives

Industry Working Group

In December 2000, the HRWMG established the Industry Working Group, the aim of providing a forum to:

- discuss the barriers to resource recovery and identify local solutions that will see industry prosper;
- provide advice to the HRWMG to ensure that the Waste Wise Business Program is useful and effective; and
- highlight the range of opportunities for resource recovery offered by various agencies with a view to minimising overlap and ensuring government funding is well spent.

The first meeting of the group was held on 11 December 2000 at the Australian Industry Group offices. The meeting involved a workshop that was designed to:

- initiate the first meeting of the working group; and
- identify issues, opportunities and potential linkages for the development of a Commercial and Industrial Resource Recovery Strategy for the region.

Workshop Program

The program for the workshop included:

TOPIC	SPEAKER
Introduction & Welcome	Cr Cheeseman Chairperson, HRWMG
Outline of Waste Wise Business Program	Philip Clingin, HRWMG
Benefits of providing Waste Wise services	Terry Pendergast, Cleanaway
Small Group Work to identify Resource Recovery Issues	Libby Chaplin, Arcadian Solutions
Presentation of issues to large group	Small Groups
Closing remarks	Rosemary Phillips, HRWMG
Refreshments!	Everyone

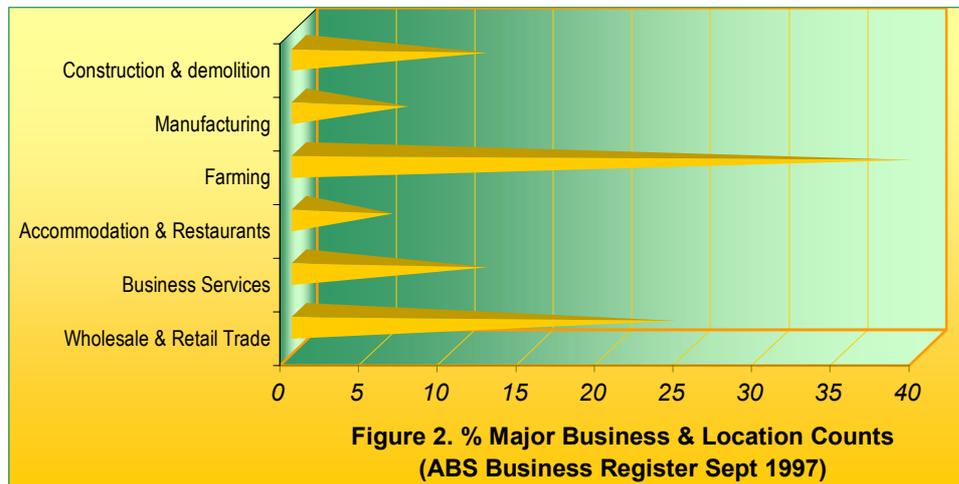
Attendance and feedback from the workshop indicated that the time is right for a strategic approach to resource recovery to be implemented. The following table shows the 'strengths, weaknesses, opportunities and threats' that were identified key issues facing the region in achieving its objectives.

<p>Strengths</p> <ul style="list-style-type: none"> ▶ existing contractors and recyclers recover most materials in Ballarat - Ace Metals (scrap metal, glass, paper/cardboard), ART, Cleanaway/Visy, Organic Recyclers, Chris Beveridge Pty. Ltd., CBM ▶ the region has innovative waste contractors and recyclers that could provide the basis for regional development based on sustainable industries ▶ strength of the monopoly remanufacturers ▶ competitive market for waste contractors and recyclers ▶ good access to local and metropolitan markets for recyclables, eg. ART, Visy ▶ existing infrastructure including road networks, collection systems, transport systems, industrial sites (good existing buffers) ▶ a committed and active culture which includes community, industry, Council and HRWVG ▶ increasingly positive attitude to use of products made from recycled material such as crushed concrete and plastics ▶ benefits of resource recovery (income and job generation and environmental) 	<p>Weaknesses</p> <ul style="list-style-type: none"> ▶ disposal costs in Ballarat too low which discourages incentive to recycle and makes it easy to dump materials ▶ proximity to forest areas – easy illegal dumping ▶ cost – capital, recurrent, viability, collection and processing infrastructure ▶ limited number of collection contractors ▶ state of supply of product travel/transport – small pockets of a market ▶ most industry is small business and too diverse– one bin a week - lack of volume ▶ lack of knowledge by ‘industry’ of benefits of recycling and strategies that could be built into their methods/work practices and their raw materials ▶ community apathy, old habits and resistance to change, need community incentive; ▶ cost of recycling mixed papers ▶ one outlet for DVC in Geelong ▶ waxed cardboard
<p>Opportunities</p> <ul style="list-style-type: none"> ▶ commitment of current participants and Industry Working Group ▶ need for innovative managers and attitudes to improve product stewardship and product design with recycling in mind, e.g. reducing layers of packaging and returning to the practice of bulk sales and buying ▶ ‘waste’ materials to be considered as ‘resources ▶ maximize resources of local government and HRWVG through community and industry education forums/skills, networking and identifying opportunities, sourcing of funds, advocacy role for other bodies/grants, working task groups and site visits to commercial/industrial sites by professional waste reduction consultants ▶ provide incentives to recycle/reuse/reduce ▶ tougher landfill controls and higher disposal costs to reflect true costs of managing (charges and landfill levy) improve recycling viability ▶ potential for legislation/policies – e.g. CDL requirements to use percentages of recycled materials ▶ increase volumes of product to reduce unit production and monitor industry changes that may affect supply ▶ increase innovation/technology applied to recyclables ▶ focus on materials specific strategies e.g. identification of major sources eg food (past ‘use by’ date), other organics, identify new markets for materials not currently recycled (PVC, waxed board) ▶ new business opportunities and job creation eg exploiting the labor intensive nature of tasks, proximity to other markets eg, source western regions 	<p>Threats</p> <ul style="list-style-type: none"> ▶ small profit margins cost of processing some materials such as concrete, glass, greenwaste and plastic, particularly in regard to inherent high labour component ▶ perception that recycling should be cost free ▶ that purchasing recycled products will represent an increased cost to the purchaser ▶ market instability due to small size of the market, fluctuating commodity prices, uncertainty of supply, unreliability of product and unpredictable end markets ▶ lack of marketing skills by processors ▶ protection of business ideas ▶ too many ‘cowboys’ within the industry that lack quality/integrity who give the industry a false impression of the real costs of processing ▶ quality control on recyclables eg, contamination, substances used in original products, e.g. treated pine and combinations of materials ▶ inconsistent regulatory framework in regard to illegal dumping, burning and other compliance issues ▶ monopoly nature of remanufacturers ▶ one collection contractor in some areas leads to a lack of competition and service

Resource Recovery in Context

Overview of the C&I Sector

The region has a wide variety of both large and small industries. Figure 2 shows the percentages of business in each major sector.



The Ballarat Economic Profile (BEP) provides an analysis of turnover in the highlands region. The BEP indicates that:

- the manufacturing sector contributes \$955 million in turnover to the Central Highlands region; and
- agricultural production contributes \$262 million in turnover to the Central Highlands region.

In addition, the BEP identifies a broad cross section of manufacturing companies are represented in the region including:

- Bendix Mintex supplies automotive and industrial friction materials to the Australian and South-East Asian market. Employs around 750 people;
- Bunge produces flours and mixes for the Australian and Asian markets, and employs around 105 people;
- CMI Pressed Components manufactures pressed metal products. Employs around 120 people;
- Eureka Tile Company; manufactures quarry tiles and an extensive range of bathroom fittings. Presently employs around 95 people at two plant sites;
- Freighter Australia manufactures semi-trailers and employs around 300 people;
- Haymes Paint manufactures high-quality architectural and light industrial paints, and services outlets in Victoria, New South Wales, South Australia and Queensland. Has 50 employees at the manufacturing plant;
- Hilton Fabrics is a textile dyer and finisher. The company employs around 100 people;

- Laminex Industries manufactures particleboard and a range of decorated board. Employs around 200 people;
- Mars Confectionery producing a range of confectionery products, Mars currently employs around 450 people;
- McCain Australia Pty Ltd produces french fries, prepared frozen meals, speciality and dehydrated potato products. Has 630 employees;
- Oliver Footwear is a footwear manufacturer which employs around 75 people;
- Rivers (Aust) Ltd manufactures men's footwear and clothing, which it distributes to its 18 retail stores around Australia. Employs around 110 people; and
- Selkirk Bricks manufactures bricks and pavers and employs approximately 135 people in Ballarat.

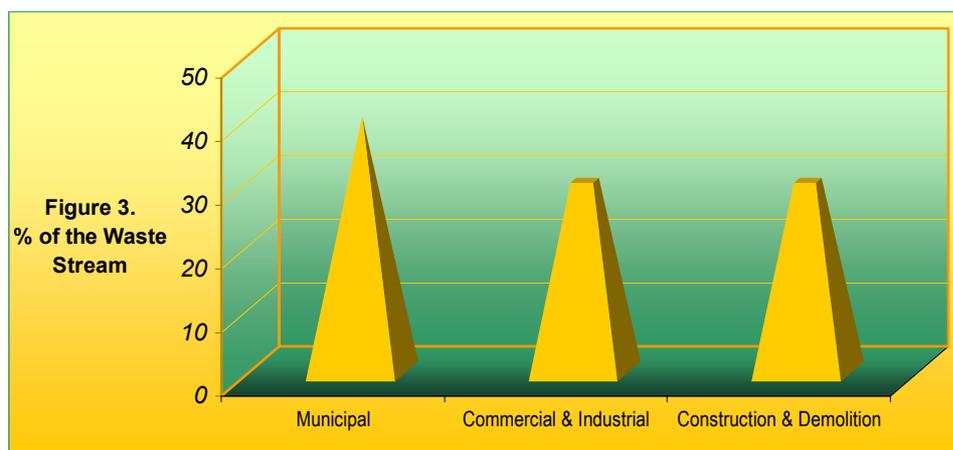
Activity in the building sector can be illustrated by statistics provided by the Building Control Commission in the Building Activity Profile, October 2000. This is shown in Table 1.

Table 1 Building Activity Profile, October 2000

Council	Number of Buildings (Oct 2000)	Value of buildings (Oct 2000)
Ballarat	171	11,855,000
Central Goldfields	10	1,737,000
Golden Plains	32	1,482,000
Hepburn	34	1,687,000
Moorabool	53	2,386,000
Pyrenees	11	454,000

Source of waste streams in the region

Discrete data on resource flow in the region is unavailable at this time. The Highlands Regional Waste Management Plan identifies the following estimate of the waste stream.



For the purposes of this strategy, construction and demolition material is defined as being part of the commercial and industrial sector. This means that on the basis of these figures, the commercial and industrial sector constitute approximately 60% of the waste stream.

Existing Waste Reduction Priorities for the Region

The member councils of the HRWVG have committed to significant waste reduction targets. These are shown below in Table 2. The Draft Business Plan 2000 - 2003 recognises the importance of providing an integrated approach if these targets are to be achieved. It identifies the commercial and industrial sector as a key area for attention given the proportion of the waste stream that originates from this sector.

Table 2 Member Council Waste Reduction Targets (1990 – 2003)

Description	Ballarat	Central Goldfields	Hepburn	Moorabool	Golden Plains	Pyrenees
Estimated waste in 1990 (tonnes)	113,160	13,100	13,000	22,400	8,000	4,600
% Reduction to 1998	22%	11%	7%	7%	5%	6%
Regional Plan Waste Reduction Targets	18%	16%	15%	15%	14%	17%
Target tonnes of waste to landfill in 2003	67,500	9,500	10,100	17,500	6,500	3,500
Target (%) Reduction by 2003	40%	27%	22%	22%	19%	23%

As a result, the HRWVG has identified a number of strategies to target waste reduction in the commercial and industrial sector. The include:

- ☛ Establish Regional Industry Sector Working Groups
 - ☛ The HRWVG Education Officer will facilitate the establishment of Regional Industry Sector Working Groups. The Working Groups will aim to achieve waste reduction and reuse in the commercial and industrial sector and the construction and demolition sector. In consultation with industry, the HRWVG will determine the need for separate working groups catering for the individual sectors or whether a combined working group should be established.
- ☛ Benchmark existing conditions and set performance targets
 - ☛ Introduce and maintain appropriate data management systems to establish benchmarks for the commercial and industrial sector and the construction and demolition sector and provide records of waste generation, disposal and recovery.
- ☛ Develop An Industry Sector database.
 - ☛ Develop and co-ordinate a database of waste management services available within the region and in neighbouring regions, and of the major commercial and industrial waste generators within the Region.
- ☛ Investigate Market Opportunities For Waste Products
 - ☛ The HRWVG will work with local industry and businesses to investigate market opportunities for products from recovery and recycling operations. Examine The Potential For A Regional Waste Exchange Program.

- Develop Major Event Protocols.
 - ▶ The HRWVG will develop a protocol for the conduct of major events, which will establish performance standards for waste minimisation and management for the event.

- Support EPA in Development of Industry Agreements Which Minimise Waste Through Avoidance
 - ▶ The HRWVG will support EPA in the on-going development of industry agreements that are aimed at minimising waste through avoidance.

- Support Waste And Recycling Services In The Region With The Aim Of Minimising Undesirable Waste Practices
 - ▶ Produce a Waste Management Plan Proforma for Member Councils to provide to applicants for demolition permits and commercial and industrial developments by June 2000.

- Facilitate Communication Between Private Sector Industry And The EPA
 - ▶ The HRWVG will take on the role of facilitating communication between private sector industry and the EPA with the aim of improving dialogue and information exchange. The HRWVG can assist to bring forward general issues of concern to business or industry groups or specific cases which need pro-active mediation to achieve solutions. The HRWVG will play a significant role in encouraging the input of the EPA as part of the implementation of this Plan.

Industry Waste Reduction Programs

In addition to the partnerships and programs in the region, a number of other resource efficiency programs have been undertaken which can usefully input to the development of the Regional program. These partnerships and programs are summarised in Table 3.

Table 3. Summary of resource efficiency partnerships and programs

Organisation	Program Name	Description/Support provided	Opportunity
Australian National Training Authority & Property Services Training	Asset Maintenance Training Package for the Waste Management Sector	Comprehensive competency based training targeting the waste management industry covering all aspects of the sector.	Useful elements and approach and should be discussed with participants during the Highlands program.
Business Ballarat	Strategic Environmental Management run by the Australia Productivity Council	4 three hour training sessions and two half day site visits. Participants will be awarded certificates on 4 April and the program will be promoted at that time.	It may be possible for businesses participating in the BB program to show leadership to potential businesses in Highlands program. Business Ballarat are happy to use the event to promote the benefits of environmental improvement and the Waste Wise Business Program.
Centre for Professional Development	Environmental Auditing Guidebook	Guide to preparing audits for accreditation	Useful check resource to ensure Highlands initiatives are consistent with accredited programs.
Department of State and Regional Development	Cleaner Production Partnerships program	75% funding available for cleaner production programs	Generally limited application due to restrictions on competition for funding with applicants needed three quotes. Waste contractors are unlikely to risk long term clients to competitors to access the funding.
EcoRecycle Victoria	Industry Waste Advisors	Provide regional support to Waste Wise program	The regional advisor may be able to provide assistance to the implementation and strategy development for the Highlands program
EcoRecycle Victoria	Waste Wise Business Program	<p>The Waste Wise Business/Organisation Program is a voluntary program run by EcoRecycle Victoria in partnership with the sixteen regional waste management groups across Victoria. The objectives are to:</p> <ul style="list-style-type: none"> ▶ encourage businesses and organisations to take action to reduce their wastes; and ▶ reward companies who are taking a lead role in waste avoidance. <p>The program involves</p> <ul style="list-style-type: none"> ▶ No funding ▶ Participating companies receive Waste Wise Badging and certification ▶ Participating companies are able to use the Waste Wise logo to promote their involvement ▶ Participating companies are promoted 	Integral to the Highland Program.

Table 3. Summary of resource efficiency partnerships and programs (continued)

Organisation	Program Name	Description/Support provided	Opportunity
EcoRecycle Victoria	Waste Reduction Manual For Manufacturers	Comprehensive manual outlining the benefits and steps involved in a waste reduction program.	Useful information. Will be used as a resource in the development of the training program.
EcoRecycle Victoria	Waste Not - Want Not! An Essential Kit for Manufacturers (1999)	Short guide to waste reduction in industry targeted more at small to medium sized enterprises.	Useful introduction to Waste Reduction in the manufacturing sector and could well be given to participants as an additional resource.
Environment Protection Authority	Cleaner Production Program	The EPA is currently reviewing its cleaner production program.	Important to keep a watching brief as opportunities may arise in the near future.
EPA Victoria	Waste Minimisation Assessments and Opportunities for Industry (1993)	These guidelines contain good information but format is not designed with motivated learning in mind. Excellent tips and cost assessment.	Useful information. Will be used as a resource in the development of the training program.
EPA Victoria	Guidelines for Preparing Waste Assessments (1994)	Step by step guide to preparing a waste assessment.	Useful information. Will be used as a resource in the development of the training program.
EPA Victoria & Civil Contractors Federation	CCF Environment Management System for Civil Contractors	Environment Management System that includes resource management issues	Useful information. Will be used as a resource in the development of the training program.
EPA Victoria & Victorian Automobile Association of Victoria	Clean Green Shop	Environment Management System that includes resource management issues	Useful information. Will be used as a resource in the development of the training program.
EPA NSW	Waste Reduction & Purchasing Policy - A guide for agencies	Although this package is not directed at business, it is still interesting in that it describes a process for developing waste reduction plans	Useful information. Will be used as a resource in the development of the training program.
Goulburn Ovens Institute for TAFE	Business Sustainability Profiting Through Cleaner Production	This is a useful resource, however the academic approach is not appropriate for the Highlands program giving the limited time available to participants.	Useful information although requires a longer term commitment from participants in terms of training hours. Will be used as a resource in the development of the training program.
Northern Regional Waste Management Group	Waste Wise Toolbox	A CD comprising basic waste audit tools, education, images, for businesses.	Useful information. Will be used as a resource in the development of the training program.
NSW Waste Boards	Waste Makes No Cents	This manual is one of the better examples of training for this sector. It is clear and offers example and clear steps for waste reduction	Useful information. Will be used as a resource in the development of the training program.

Table 3. Summary of resource efficiency partnerships and programs (continued)

Organisation	Program Name	Description/Support provided	Opportunity
NSW Waste Boards	Waste Reduction and Procurement Policy and Guidelines for local government	Although this package is not directed at business, it is still interesting in that it describes a process for developing waste reduction plans	Useful information. Will be used as a resource in the development of the training program.
Property Services ???	Asset Maintenance Waste Industry Training	Comprehensive competency based training program that covers all aspects of the waste industry.	Will provide a useful resource in ensuring that issues such as OH&S are properly dealt with and consistent with standard industry practice.
RMIT Centre for Design EcoRecycle Victoria and the Society for Responsible Design.	EcoSpecifier	The aim of EcoSpecifier is to help architects, designers, builders and specifiers shortcut the materials sourcing process.	Useful information. Will be used as a reference in the training program.
RMIT Centre for Design EcoRecycle Victoria and the Society for Responsible Design Sustainable Energy Authority Victoria	OnSite	onSITE is a Web site dedicated to Construction & Demolition (C&D) waste minimisation, provides access to information on waste avoidance and resource recovery related to construction and demolition. The Energy Smart Business program helps Victorian companies of all sizes develop a practical strategy for improving their profits and performance by reducing their energy consumption. And at the same time helps the environment. Provision depends on the size of the company and may include: <ul style="list-style-type: none"> ▶ provision of information ▶ auditing services for one company site or factory 	Useful information. Will be used as a reference in the training program. Opportunity to improve integration of government programs targeting industry. Opportunities for reciprocal promotion and marketing of the program.
Waste Assessment Training Program	Waste Audit Consultancy Services	A one day waste assessment training program.	Useful information. Will be used as a reference in the training program.
Xerox	Down to Earth Officecare	Step by step guide to waste reduction in the office	Useful information. Will be used as a reference in the training program.

Key issues for the region

Drawing from consultation with local businesses and agencies (see Appendix 1), industry surveys and the outcomes of the Industry Working Group workshop, the following objectives have been developed to deliver improved resource recovery in the region. Each objective is listed with a number of associated key issues.

Increased resource recovery

- ☛ Increasing resource recovery in the C&I waste is a priority for the region as a means of:
 - ▶ minimising the cost of waste management to the community;
 - ▶ of improving business viability through improved efficiencies; and
 - ▶ establishing the region as a centre for sustainable industry.
- ☛ Industry recognition and participation in resource efficiency initiatives is significant and illustrated by turn out and interest generated at the first meeting of the Industry Working Group. Continued involvement of industry in policy and strategy development is essential.

Increase understanding and recovery of specific materials

- ☛ Increased recovery of materials will depend on the nature of each material. Some common issues arise for most materials and as a result the actual recovery strategies will depend on:
 - ▶ the availability of ongoing sustainable markets;
 - ▶ the need for manufacturers to be focused on the needs of customers and application requirements when developing new products;
 - ▶ the need for improved end product marketing;
 - ▶ problems associated with insufficient volumes to recover or recycle some materials;
 - ▶ lack of competition amongst some recyclers ie only one operator;
 - ▶ delicate balance between cost of collection, processing and disposal fees;
 - ▶ lack of skilled waste assessors and auditors to track waste and opportunities; and
 - ▶ lack of space and time to sort material on demolition sites.

Government policy and pricing strategies to enhance resource recovery

- ☛ Current landfill pricing acts as a disincentive to resource recovery.
- ☛ There is a perception that councils and the EPA are failing to monitor and prosecute bad practice, eg illegal dumping or burning.
- ☛ There is much to be gained from Councils showing leadership in demonstrating a commitment to resource recovery eg own performance and purchasing activities, requiring contractors to provide dockets to prove materials have been properly recovered or disposed, enforcing policies and by-laws.
- ☛ There is a need to coordinate the large number of agencies providing assistance to industry in the area of resource efficiency and business development.

Improved Business Development through resource recovery

- ☛ By promoting and facilitating the region as a centre for sustainable industry the region could:
 - ☛ enhance the viability of the recycling sector;
 - ☛ extend the life of landfills in the region;
 - ☛ reduce the cost to the community of waste management;
 - ☛ attract green businesses to the region; and
 - ☛ enhance the livability of the region to the community and tourist market.
- ☛ There is a potential to encourage local manufacturers to 'design with waste in mind' to improve resource efficiency and establish a Highlands brand of sustainability.

Improved markets for recovered materials

- ☛ Viability of individual re-manufacturing businesses could be improved with assistance in marketing and product development.
- ☛ Increased networking and knowledge of existing and potential opportunities will enhance resource recovery.
- ☛ Increase awareness that illegal dumping is a problem and will undermine companies pursuing legal means of resource recovery and disposal.

Increased awareness and understanding of resource recovery issues

- ☛ Awareness of the benefits of resource recovery and the Waste Wise Business Program.
- ☛ Improving the understanding that there is no such thing as waste – only resources, which can be transformed into a revenue-generating product or lost from the production process.
- ☛ Importance of promoting successes in the region and giving recognition to companies who are participating.
- ☛ Increase awareness and participation in resource efficiency programs.
- ☛ Identification of drivers for change, for example financial incentive, wellbeing of staff and improvement of image/corporate profile.

3 year Action Plan

Given the issues facing the region in delivering resource recovery outcomes in the commercial and industrial sector, a draft three year action plan has been developed as a basis for discussion. The plan shown in Table 4, is derived from existing HRWMG priorities, input from workshops and surveys, data from economics and building statistics and the range of related initiatives being undertaken elsewhere.

This Action plan will require further development and costing to ensure it is practical and worthy of adoption by key stakeholders in the region.

Table 4 Three-Year Regional Resource Recovery Action Plan

Objective	Action	Lead Agent	Stakeholders	Due date	
Increased resource recovery	▶ Establish Industry Working Group	HRWMG	AIG, ERV, Industry, VECCI,	2001	
	▶ Establish and deliver training programs for waste contractors	HRWMG	AIG, ERV, Business Ballarat	2001	
	▶ Produce a Waste Reduction Plan Proforma for member Councils to provide to applicants of demolition permits and C&I developments	HRWMG		2001	
	▶ Facilitate 15 businesses to be badged per year as Waste Wise Businesses	HRWMG		2001-3	
	▶ Establish reciprocal promotion of related programs.	HRWMG	AIG, VECCI, BB, ERV, SEAV, DSRD	2001	
	▶ Integrate government programs to achieve resource recovery	HRWMG	AIG, VECCI, BB, ERV, SEAV, DSRD	2002	
	▶ Utilise the services of the EcoRecycle Victoria industry advisors to increase resource recovery initiatives	HRWMG	ERV	2001-3	
	Increase understanding and recovery of specific materials	▶ Establish Industry Working Groups for 2 priority materials per year to assess current issues, identify opportunities and source funding and other support for increased recovery	HRWMG	AIG, VECCI, BB, ERV, SEAV, DSRD, member councils	2001-3
		▶ Identify priorities for C&I infrastructure and other EcoRecycle Grants	HRWMG	AIG, VECCI, BB, ERV, SEAV, DSRD	Ongoing
		▶ Investigate opportunities in joining the Trade Post waste exchange program trailed in the Barwon region	HRWMG	BRWMG, ERV	2001
Government policy and pricing strategies to enhance resource recovery		▶ Member councils to report to HRWMG on effectiveness of bi-laws relating to illegal dumping, burning, number of complaints v's prosecutions.	Member Councils	HRWMG	2001-2
	▶ Lobby state government to review the landfill levy to provide incentives for increased resource recovery	HRWMG		2001-2	
	▶ Member councils to review landfill fees to ensure resource recovery is maximised	Member Councils	AIG, VECCI, MBA, HRWMG, EPA, ERV.	2001/2	
	▶ Member councils to join LG Buy Recycled Alliance	Member Councils	HRWMG, ERV	2001	
	▶ Member councils to become "Waste Wise"	Member Councils	HRWMG, ERV	2002	

Table 4 Three-Year Regional Resource Recovery Action Plan

Objective	Action	Lead Agent	Stakeholders	Due date
Improved Business Development through resource recovery	▶ Liaison with BB to have participants in APC training to become Waste Wise	HRWMG	BB	2001
	▶ Investigate funding opportunities to support the provision of small industry grants for companies to become Waste Wise	HRWMG	ERV, DSRD	2002/3
	▶ Deliver "EcoDesign" seminar series	HRWMG	Centre for Design at RMIT	2002/3
	▶ Investigate inclusion of Resource Recovery Initiatives into BRACE training	HRWMG	BRACE	2002
	▶ Present results of Waste Wise Business Program to Rotary Club events	HRWMG	Rotary Club	2002
	▶ Investigate promoting the outcomes of the Waste Wise Program in a 2 page spread in the Courier	HRWMG	AIG, VECCI	2201-2
	▶ Investigate opportunity for including a half day workshop on Waste Minimisation during Manufacturing Week (13-17 th August)	HRWMG	AIG, ?	2001
	▶ Work with the EPA to develop Industry Waste Agreements	HRWMG	EPA	2002
	▶ Integrate Waste Wise initiatives into existing seminar series	AIG	HRWMG	2001-2
	▶ Audit of existing recycling and remanufacturing industry in the region to show value and contribution of sector to the regions economic development	ABS	HRWMG, DSRD	2002
Improved markets for recovered materials	▶ Promote material recovery strategies to interested organisations and representative groups of waste generators	HRWMG	BB, AIG, DSRD	2001-3
	▶ Develop a regional marketing strategy for Waste Wise Business	HRWMG	ERV (Industry Advisor)	2001
	▶ The region to play a broker role between major waste producers, contractors and recyclers	HRWMG	AIG, VECCI	Ongoing
	▶ Identify priorities for market development and other EcoRecycle Grants	HRWMG	AIG, VECCI, BB, ERV, SEAV, DSRD	Ongoing
	▶ Establish a Waste Management Services database for the region	HRWMG	ERV, AIG, VECCI, BB	2001

Table 4 Three-Year Regional Resource Recovery Action Plan

Objective	Action	Lead Agent	Stakeholders	Due date	
Improved markets for recovered materials continued.	▶ Investigate opportunities for including waste generation criteria in the Manufacturing Database	HRWVG	ERV, AIG, VECCI, BB, Main Street University (mainstreet.au.com)	2001	
	▶ Promote EcoRecycle Victoria Business Planning Advisor	HRWVG		2001-3	
	▶ Send out a one page survey via existing associations and rotary regarding waste generation	HRWVG	AIG, VECCI, MBA, EMA, ETC, RTAV	2001	
	▶ Establish a database of major waste generators for the region	HRWVG		2001	
	▶ Investigate local award programs that may include scope for a resource recovery award	HRWVG		2001	
	▶ Establish Sustainable Industries profile for the region	HRWVG	BB	Ongoing	
	▶ Establish a quarterly Industry Resource Recovery Newsletter	HRWVG		2001-3	
	▶ At least four articles per year in AIG newsletters showcasing local resource efficiency initiatives, plus one in the National Magazine. This might include an 'Are you Waste Wise' campaign that encourages the public to question business houses and industries as to their Waste Wise status.	AIG	HRWVG & IWG		2001-3
	▶ At least four articles per year in VECCI newsletters promoting Waste Wise Businesses	VECCI	HRWVG & IWG		2001-3
	▶ Promote Waste Wise initiatives in Business Ballarat media eg insert in the Courier	BB	HRWVG & IWG		2001-3
▶ Negotiate for professional organisations to encourage members to become Waste Wise	HRWVG	HRWVG	AIG, VECCI, MBA, ARA	2001-3	

Appendix 1. Organisations consulted during this program

Organisation	Contact		Phone
A&M Recycling	Mark	Raven	
Australian Recycling Technologies	Brad	Muller	03 5333 2883
Australian Recycling Technologies	Russell	Muller	03 5333 2883
Ballarat Bulk Containers	Peter	Kuzmich	03 5334 3211
Ballarat Concrete Recyclers	Doug	Armstrong	03 5338 7210
Ballarat Waste Line	Jason	Kern	03 5320 7452
Barton Demolitions	Graham	Barton	03 5331 2227
Bealiba Transfer Station	Harry	Denis	03 5469 1201
Bins on the Run	Bill	McClenaghan	5348 1258
Boral Resources	Ian	Commons	03 5277 9544
Browning Ferris Industries	Darren	Pollard	() 9702 8000
Business Ballarat	Ross	Haby	03 5320 5620
Business Ballarat	Fiona	Davey	03 5320 5620
Calleja Transport	Peter	Dudley	03 9369 6222
Calora Pty Ltd	Shane	Coffield	03 5342 4181
CBM Waste Management	Don	Anderson	03 5231 3076
CBM Waste Management	Don	Anderson	
Central Goldfields Shire Council	Charles	Knight	03 5461 0602
Central Goldfields Shire Council	Ron	Potter	03 5461 0610
Central Highlands Area Consultative Committee	Gerrie	Carr-MacFie	03 5320 5960
ChrisBev	Mary	Beveridge	03 5335 7945
Circle Contractors Pty Ltd	Paul	Boxsell	
City Circle Demolition & Excavation	Peter	Skidmore	03 9489 7600
City of Ballarat	Russell	Ogier	03 53205666
City of Ballarat	Uldis	Neilands	03 5320 5762
City of Ballarat	Hedley	Thomson	03 5320 7402
City Wide	Helen	Skondras	03 9328 3944
CityWIDE	Frank	Dilallo	
Clark's Recycling	Kevin	Clark	03 5339 2654
Cleanaway	Steve	Rooks	03 5335 8805
Cleanaway	Terry	Pendergast	03 5277 9544
CoyWaste Pty Ltd	Graham	Coy	03 5369 2288
David Eldridge Pty Ltd			
Dept Natural Resources & Env	Sharon	Slater	
Dept State & Regional Development	Ken	Millis	03 9651 9846
Douglas Lund Contractors	Douglas	Lund	
Dunolly/Talbot Refuse & Recycling	Gerry	Van Loon	
Eastside Metals			
EcoRecycle Victoria	Helen	Lewis	03 9653 6914
EcoRecycle Victoria	Jan	van de Graaff	03 9639 3322
Environment Protection Authority	Rowan	MacKenzie	03 5226 4825
EPA VIC	Harry	Blutstein	03 9695 2813
EPA VIC	John	Ward	03 9695 2813
Four Seasons Waste Pty Ltd	Peter	Miles	03 5222 1905
Golden Plains Shire Council	Greg	Vaughan	
Golden Plains Shire Council	Richard	Russell	03 5220 7137
Green Triangle Bark Processors	John	Kennedy	
Hard Yakka	Jurgis	Stulpinas	03 5344 7420
HRWMG	Phillip	Clingin	03 5333 7770
HRWMG	John	Barnes	03 5320 5500
HRWMG	Rosemary	Phillips	03 5333 7770

Organisation	Contact		Phone
Lake Gardens Ballarat	Stuart	Benjamin	03 5334 3449
Lyonville Rubbish Removals	Daryl	Crowley	03 5348 5602
Lyonville Rubbish Removals	Trish	Crowley	03 5348 5602
Maryborough Recycling	Gunther	Mieglitz	
Maryborough Refuse Collection	Graham	Proctor	
Master Builders Association	Peter	Jones	0418 503 718
Melton Recycling Centre	John	Brooks	() 9743 0158
Midland Recycling	Geoff	Murray	03 5427 4268
Midwest Earthmovers Pty Ltd	Terry	Guy	03 5335 6366
Moorabool Shire Council	Tom	Sullivan	
Moorabool Shire Council	Andrew	Park	03 5366 7109
Motorway Tyres	Peter	Young	
Organic Recyclers Pty Ltd	David	Owen	03 5561 3326
Organic Recyclers Pty Ltd	Kevin	Banner	03 5561 3326
Pinegro Products Pty Ltd	Russell	Hendry	03 5367 3955
PWM Australia Pty Ltd	Mike	Straud	03 5336 2733
Pyrenees Shire Council	Chris	Goodman	03 5349 2000
Pyrenees Shire Council	Gary	Smith	03 5349 2000
Sandhurst Enterprises Recycling	David	Logan	() 5441 6795
Small Business Victoria	Linette	Penhall	03 5320 5910
Sustainable Energy Authority	Andrew	Hoffman	03 5331 9256
Australian Earthmovers Association	Wayne	Pelchen	03 5335 9997
The Australian Industry Group	Kay	Macauley	03 5331 7688
Ballarat Chamber of Commerce and Industry	Anne-Marie	Cormick	03 5331 8754
Transwest Environmental Services	Alan	Meddings	03 5232 2448
Twigg Group	Robert	Herrington	03 5342 8540
Victorian Chamber of Commerce and Industry	John	Brown	03 5332 2520
Victorian Farmers Federation	Terry	Long	03 5461 1239
Visy Recycling	James	Wright	
Waste Audit & Consulting Services	Pam	Keating	03 9877 9960
Waste Beat Recycling Education Centre JJ Richards	Fay	McKenzie	03 9703 5214
Waste Recyclers of Victoria	Syd	Pearson	5464 2306
Whitford Liquid Waste	Richard	Whitford	03 5331 1829
Whitford Liquid Waste	Dianne	Whitford	03 5331 1829