

Demolition Handbook



EcoRecycle Victoria

EcoRecycle Victoria is the state government agency that works with industry, commerce, local government and the community to reduce waste, promote the sustainable use of resources and better manage the disposal of residuals. EcoRecycle funded the Demolition Contractors Association of Victoria to prepare these guidelines for the demolition industry and other waste management contractors such as landfill, transfer station and bin system operators. For further information and contacts on waste minimisation are available through EcoRecycle Victoria's toll free Infoline on: *1800 35 32 33* or *website at* <http://www.ecorecycle.vic.gov.au>

Remember, when following this guide, to take into account all relevant OH&S and Building Act regulations.



Why Use These Guidelines?

The Reason

- The dumping of useful material to landfill cannot go on forever and comes at an environmental and financial cost. Over 32% of Victoria's waste currently comes from the construction and demolition industry.
- By the nature of the job those working in demolition and bin cartage decide where to dispose of material.

These guidelines are designed to alert you to:

- Outlets that may offer less expensive disposal than landfill;
- Opportunities to make money through active salvage; and
- The ability to reduce waste to the benefit of our environment

The Guidelines

- Are relevant to any type or size of demolition work;
- Provide easy step-by-step guidance toward waste reduction; and
- Offer contact lists to outlets for the disposal or sale of materials.

The Result

- Savings in transport costs;
- Savings in landfill fees;
- Increased revenue through salvage resale;
- Increased revenue through higher recycling rates; and
- A better environment

The result is an overall improvement in your business efficiency.

How To Use These Guidelines



These guidelines will help you assess your current practices, and perhaps provide you with new ideas to save money and better utilise existing resources. By doing this, you can improve your business efficiency and minimise waste going to landfill.

Prior to Works

Use the flowcharts and checklists provided to establish the basic building blocks for your waste minimisation program.

On Site

- Use the checklists provided to ensure all opportunities are used to minimise waste to landfill.
- Use the contact listings provided to increase opportunities for the recovery of valuable materials during salvage works.

How Do You Rate? Right Here, Right Now!

Objective:

Improved Business Efficiency through Waste Management

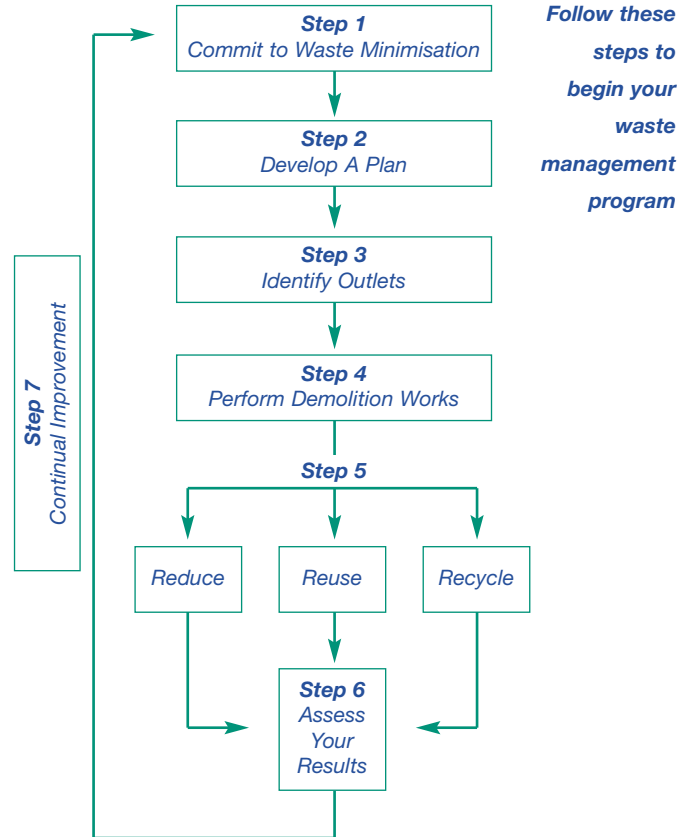


Result: Demolition waste to landfill minimised

1. Environmental Benefits!
2. Business Benefits!

Job costs down, more work won, increased revenue and effective use of resources.

Toward Waste Minimisation



STEP 1

Commit to Waste Minimisation



- Develop a company policy or statement to establish waste minimisation as part of your core business activities.
- Involve all employees in this process.
- Use this guide as an educational tool to foster ownership of the program by site workers and management.
- Where appropriate, incorporate waste minimisation into all staff job descriptions and site induction programs.
- When sub-contractors are used, ensure waste minimisation is incorporated into their contracts.
- Provide positive feedback to staff and sub-contractors. This might include bonuses linked to waste minimisation achievements.

STEP 2

Develop A Plan

Refer to Tables 1.1 & 1.2 on Pages 10 & 11, which provide guides and information that are useful when assessing your jobs.

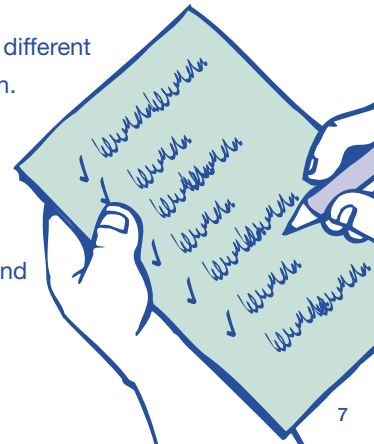
There are several keys to making a Waste Minimisation Program work for you. These include:

Committed key field personnel

- Ensure that all levels of staff understand what is to be achieved and keep them informed of progress to foster ownership of the program.
- Make sure training is adequate and updated.

Job-specific planning

- Establish base checklists for different types of building construction.
- Set targets & objectives for each site.
- No job is the same. Assess each waste stream on site. (See tables 1.1 on page 10 and 1.2 on page 11)



Understanding available options and limiting factors.

Identifying available collection, sorting, and recycling services will help you to set up an effective program.

Utilise this guide as first point of reference.

- Where separation is not viable, find mixed material sorting facilities (e.g transfer stations).
- Consult with the client regarding the duration of the project to allow for maximum salvage. More project time will lead to better results in minimisation. Explain this (and your reasons) to help the client understand the situation and best assist you in achieving a good result.

Establish a Monitoring Program

Refer to Table 1.2 (page 11) to guide you.

This will assist you in:

- Reviewing results and identifying areas of improvement;
- Providing a record of past jobs when making improvements;
- Setting new targets & objectives; and
- Monitoring your success.

Focus on high potential materials and practices

Select materials that:

- Can be readily separated & collected;
- Are generated in high volumes; and
- Have the highest market values, and can be easily separated.

Once the basic are under control, then target harder to handle materials.

Site Estimates

Using checklists to: (Refer to table 1.2 on page 11)

- Estimate types & quantities of materials; and
- Locate destination of materials.

This will:

- Provide a reference for program success through reporting; and
- Ensure market investigation.

Recording Information

Table 1.1 Pre-demolition.

Establish a checklist using the table below as a basis and make additions as they are required.

Site Assessment: (tick off as considered)	
Project Name:	Project Address:
<input type="checkbox"/> Client Consulted re: timing. <i>i.e can the time req. be taken.</i>	
<input type="checkbox"/> Work Method Prepared. <i>i.e how are you going about it.</i>	
<input type="checkbox"/> Sight Assessed. (see Table 1.2)	
<input type="checkbox"/> Permits Obtained. <i>i.e regulatory requirement, which include planning and and demolition permits.</i>	
<input type="checkbox"/> Method Reviewed. <i>i.e appropriate to site assessment.</i>	
<input type="checkbox"/> Outlets Identified. <i>i.e from this handbook or existing contacts.</i>	
<input type="checkbox"/> Targets & Objectives Set.	
<input type="checkbox"/> Sorting area available	
<input type="checkbox"/> Monitoring Program Established.	
<input type="checkbox"/> Employees & Sub-contractors involvement.	
<input type="checkbox"/> Public Protection measures implemented	
<input type="checkbox"/> Other	

Table 1.2. Project Overview.

Establish a checklist using the table below as a basis and make additions as they are required. (Shaded areas filled out during and post demolition. All other areas are pre demolition).

Site Assessment & Monitoring.		Project Name:	Project Address:	Actual Vol/weight	Destination	Estimated Vol/weight	Material Type
		Construction Type: Eg. Brick/weatherboard	Visual Condition:	Vol/weight	Mr. Table	3 tonne	Eg timber flooring
				Est. landfill cost		2.75 tonne	Own additions
				Revenue Rec.d.		\$60	
				Achieved Saving		\$50	
						\$110	

STEP 3

Identity Outlets

This guide provides you with a listing of recyclers by material type. (see pages 18 to 24)

Utilise existing industry contacts where possible. Refer to listings when entering a new region or if you have not worked in the area for a while. An opportunity that existed 2 years ago may not be available and new outlets or markets may now have been established.

For the most up to date information, contact EcoRecycle Victoria's Tollfree Infoline on 1800 35 32 33 or visit their website at www.ecorecycle.vic.gov.au Or onSITE website at <http://onsite.rmit.edu.au>



STEP 4

Perform Demolition Works

- Develop your workplan and ensure that safe and controlled methods are used.
- Ensure adequate public protection measures are in place to prevent entry by unauthorised people into the "demolition zone."
- Keep and revise your workplan when necessary throughout the project and avoid short cuts.
- Allow appropriate time to achieve your workplan safely and effectively.

STEP 5

Reduce, Reuse & Recycle

Your **SALVAGE** operations may include one or more of the following.

REDUCE

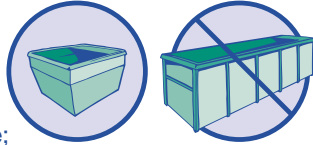
REUSE

RECYCLE

Site-specific opportunities will vary. This will have been identified in your site assessment and the options to be considered include:

Reduce

- Investigate demolition techniques which produce less waste and greater salvage;
- Target areas that characteristically contribute to high levels of waste e.g timber; and
- Avoid damage to materials during removal that may reduce salvage potential.



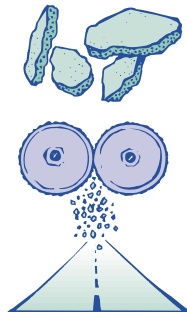
Reuse

- Prior to demolition, identify what can be salvaged;
- Ensure separation of materials is achieved on site for ease of movement from site or identify handlers of mixed loads;
- Strip the building of all reusable materials; and
- Identify a network of available markets or outlets for salvage/sales.



Recycle

- Investigate the various methods and sub-contractors available, for recycling materials; and
- Use your own contacts and those provided in this guide to identify market opportunities for recycling.



STEP 6

Assess Your Results

From the information gained from your Monitoring Program (Tables 1.1 on page 10 & 1.2 on page 11) :

- Identify the benefits & success of minimising waste on the job.
- Identify areas of improvement for future jobs.
- Compare the results to previous jobs where construction methods have similarities.
- Provide feedback to employees and sub-contractors.
- Provide reports to the client if required.



STEP 7

Continual Improvement

- Discuss results with all involved at the site. Encourage and be open to suggestions.
- Update contact lists.
- Discuss successes and problems with other contractors.
- Remain focused on the objective at all times.
- Learn and apply lessons to future jobs.



Legislation & Regulations

The following list provides areas of legislation and regulations that need to be considered in association with your waste minimisation plan when starting any demolition project:

- *OH&S Act 1985*
- *OH&S Code of Practice for Demolition No 14, 1991.*
- *OH&S (Asbestos) Regulations 1992*
- *OH&S (Certification of Plant Users and Operators) Regulations 1994*
- *O H & S Code of Practice for Confined Spaces No 20, March 1997*
- *OH&S Code of Practice, Working at Heights No 22*
- *Building Act 1993*
- *Building Regulations 1994*
- *Building (Qualifications) 1996*
- *AS 2601-1991 Demolition of Structures*
- *AS 2685 Safe Working in a Confined Space etc.*
- *Environment Protection Act 1970*

Note: This list is a guide only and appropriate authorities should be consulted if you are in any doubt.

Outlet/Marketing Listings

<i>COMPANY</i>	<i>AREA</i>	<i>CONTACT</i>
BUILDING MATERIALS - GENERAL (Metropolitan Areas)		
Abate Demolition	South Melbourne	9699 5404
Anglo Australian	Preston	9480 1861
A&R Secondhand Dealers	Campbellfield	9357 2900
Beachside Salvage	Mordialloc	9587 9677
Calleja	Altona North	9369 6222
City Circle Demolitions	Fairfield	9489 7600
Clayton Salvage	Clayton	9562 6432
Damn Serious Demolitions	Preston	9480 6888
Dandenong Demolitions	Dandenong	9792 9193
Dingley Recycling	Dingley	9558 0060
Jeff Brice Demolitions	Carnegie	9568 6465
Pace Demolition & Salvage	Bulleen	9850 9226
Price Edinburgh	Lilydale	9739 7007
Rafferty the Wrecker	Mulgrave	9560 4255
Reidy the Wrecker	Williamstown	9355 7812
Richmond Secondhand Pty Ltd	Richmond	9427 0933
Steptoe Renovator Suppliers	Collingwood	9419 9826
Urban Salvage	Spotswood	9391 0466
Whelan the Wrecker Pty Ltd	Port Melbourne	9646 7922

Outlet/Marketing Listings

<i>COMPANY</i>	<i>AREA</i>	<i>CONTACT</i>
BUILDING MATERIALS - GENERAL (Regional Areas)		
Brennans Timber Yard	Kangaroo Flat	5441 1146
Budget Demolitions & Recyclers	Crib Point	5983 6777
Building Bitz	Wonthaggi	5672 4021
C & J Crosby Contractors	Glengarry	5192 4209
Chris Bev	Ballarat	5335 7945
Crowbar Demolitions	Shepparton	5829 9413
Drive In Salvage	Wangaratta	5721 6661
Dunnolly Secondhand Timber Yard	Dunnolly	5468 1766
Eaglehawk Recovery & Sales Yard	Bendigo	5446 3467
Goldfields Waste and Recycling	Ballarat North	5339 2488
Homestead Collections Classic Aged	Wilston .Q'land	0417 817 597
Kenny Pierce Timber	Healesville	5962 2181
Leen, Bernie & Sons	Geelong	5222 2675
Macca's Demolition & Second. Hand Bldg. Materials	Echuca	5482 6748
Maryborough Recycling Centre	Maryborough	5460 4606
Midland Recycling	Woodend	5427 4268
Murphy Salvage and Demolition	Wodonga	02 6056 2059

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
BUILDING MATERIALS - GENERAL (Regional Areas) <i>continued</i>		
Natural Image Products	Huntingdale	9545 6667
Nullabor Forest Timber Industries	Moama (NSW)	5480 0044
Overboard Design	Sorrento	5984 2055
Ray's Shed	Moolap	5248 7557
Restorer Barn	Geelong	5221 7712
Stawell Recyclers	Stawell	5358 2490
Swan Hill Demolitions	Swan Hill	5032 3818
Voutier Demolitions	Breakwater	5229 2799
Wilson's Salvage Yard	Cabarita	5025 2871
Yackandandah Recycled Timber	Yackandandah	(02) 6027 1882
ASPHALT (Metropolitan Areas)		
Alex Fraser Group	Laverton	9369 7388
Alex Fraser Group	Port Melbourne	9646 1934
Alex Fraser Group	Clayton/Dingley	9551 9300
Alex Fraser Group	Epping	9408 4159
Recovery & Recycling Industries	Brooklyn	9314 8300
ASPHALT (Regional Areas)		
Chris Bev	Ballarat	5335 7945

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
BRICKS (Metropolitan Areas)		
Alex Fraser Group	Laverton North	9369 7388
Beaver Bricks	Ringwood	9873 5644
Paddy's Bricks	Footscray	9687 2338
Toby's Recycled Bricks	Clayton	9822 2822
Whelan the Wrecker Pty Ltd	Port Melbourne	9646 7922
CARPET		
Colican's Carpets (pure wool only)	Huntingdale	9545 6588
McMats	Bayswater North	9761 4451
CARPET UNDERLAY		
(Rebonded Polyurethane Foam only)		
Dunlop Flooring	Sunshine	1800 622 293
CONCRETE (Metropolitan Areas)		
Alex Fraser Group	Laverton	9369 7388
Alex Fraser Group	Port Melbourne	9646 1934
Alex Fraser Group	Clayton	9551 9300
Alex Fraser Group	Epping	9408 4159
Boral Delta Group	Sunshine	9315 2555
Boral Delta Group	Deer Park	9315 2555
Boral Delta Group	Epping	9315 2555
Boral Delta Group	Coldstream	9315 2555

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
CONCRETE (Metropolitan Areas) <i>continued</i>		
Boral Delta Group	Melbourne (CBD)	9315 2555
Boral Delta Group	Montrose	9315 2555
Boral Delta Group	Dandenong	9315 2555
City Circle Demolitions	Fairfield	9489 7600
Eastern Recycling/Able Demolitions	Ringwood	9870 3855
Recycling & Recovery Industries	Brooklyn	9314 8300
CONCRETE (Regional Areas)		
All Stone Quarries	Bendigo	5446 1292
Chris Bev	Ballarat	5335 7945
Clarke Recycled Product	Bendigo	0418 506 423
Commercial Sands Waste Converters	Lyndhurst	9799 1305
Dasma Solutions	La Trobe Valley	5133 9422
David Eldridge	Derrinallum	018 593 938
Delaney, A.P.	Albury (NSW)	(02) 6021 2833
Fyansford Waste Disposal	Fyansford	5224 2251
CONCRETE (Mobile Crushing Services) (Metropolitan Areas)		
Alex Fraser Group	Laverton North	9369 7388
Delta Demolitions	Sunshine	9315 2555
XL Mobile Crushing	Werribee	9395 1253

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
CONCRETE (Mobile Crushing Services) (Regional Areas)		
Boral Delta Group	Melbourne (CBD)	9315 2555
All Stone Quarries	Bendigo	5446 1292
A.P. Delaney	Albury (NSW)	(02) 6021 2833
Crowbar Demolitions	Shepparton	5829 9413
David Eldridge Pty Ltd	Geelong	018 593 938
FERROUS & NON-FERROUS METALS (Metropolitan Areas)		
As most "Scrap Merchants" handle both ferrous and non-ferrous scrap, these outlets are listed in the following section.		
A & E Scrap Metals	Preston	9484 4176
A1 Metals	Dandenong	9720 6404
Archer George Metals	Dandenong	9794 7250
Associated Metals Pty Ltd	Thomastown	9462 1323
Base Metal Recyclers	Clayton	9548 4300
Collingwood Recycling	Collingwood	9417 3692
Consolidated Metal Industries	Brunswick	9380 6112
Melbourne Metal Recyclers	Pakenham	5940 2539
Menzies Metal	Frankston	9786 1661
Menzies Metal	Oakleigh	9568 7386
Minibah Recycling	Hampton Park	9799 6277
Nonferral Recyclers	Campbellfield	9308 6143
Nonferral Recyclers	Keon Park	496 1411

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
FERROUS & NON-FERROUS METALS (Metropolitan Areas) <i>continued</i>		
Norstar	Laverton North	9369 2099
Norstar	Dandenong	9706 5484
Norstar	Reservoir	9460 6022
Simsmetal	Brooklyn	9314 0844
Simsmetal	Broadmeadows	9357 9188
Simsmetal	Noble Park	9795 4666
Smorgon Metal Recyclers	Laverton	1800 81 82 31
Smorgon Metal Recyclers	Dandenong	1800 81 82 31
Smorgon Metal Recyclers	Broadmeadows	1800 81 82 31
Southern Cross Metal Recyclers	Williamstown	9397-4358
Southern Recycling	Ringwood	9873 2066
WM Waste Management Services	Boronia	9720 4644
FERROUS & NON-FERROUS METALS (Regional Areas)		
A.Brooks & Sons	Mildura	5023 2583
Ace Scrap Metal & Steel Co	Wendouree	5339 1753
Bairnsdale Scrap Metals Pty Ltd	Bairnsdale	5152 5711
CBM Waste Management Pty Ltd	Colac	5231 3076
Dowson	Wonthaggi	5672 1186

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
FERROUS & NON-FERROUS METALS (Regional Areas) <i>continued</i>		
East Side Metals	Benalla	5762 5261
LaTrobe Valley Recyclers	Morwell	5134 2828
Lawson K J & D A	Camperdown	5593 1845
McInerney, John	Moolap	5248 2544
Maryborough Recycling Centre	Maryborough	5460 4606
Metalcorp	North Geelong	5278 8333
Metalcorp	Bendigo	5446 1800
Peters Trading Post	Rochester	5484 2322
Rentchs Metal Recyclers	Warrnambool	5561 6077
Rich River Dealers	Echuca	5480 6505
Simsmetal	Geelong	5278 9944
Stawell Recyclers	Stawell	5358 2490
Timboon Metal Recyclers	Moolap	5248 7557
Westate Scrap Metals	Geelong	5221 7712
FLOORING (Metropolitan Areas)		
Just Old Flooring	Eltham	9439 9293
Shiver Me timbers	Williamstown	9397 5993
Recycled Classic Floors	Springvale	9548 5888
Urban Flooring	Spotswood	9391 0466

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
FLOORING (Regional Areas)		
Chris Bev	Ballarat	5335 7945
Eaglehawk Recovery & Sales Yard	Bendigo	5446 3467
FLUORESCENT TUBES		
Chemisal Pty Ltd	Laverton North	9369 4222
HOT WATER SYSTEMS (Gas only)		
CDA Hot Water	Preston	9484 8244
OFFICE FURNITURE *INC OLD COMPUTERS ETC		
HMR	Carlton	9663 6607
Mica Commercial Furniture	Bayswater	9720 2222
MRI (Aust) Pty Ltd	Campbellfield	9305 4611
PLASTER		
Boral Resources	Victoria	9564 1111
Chris Bev	Ballarat	5335 7945
Paddison Wentworth	Lara	5274 1369
Recovery & Recycling Industries	Brooklyn	9314 8300
ROOF TILES (Metropolitan Areas)		
Canterbury Courtyard and Roofing	Surrey Hills	9830 5703
Melbourne Roof Tile Trading	Preston	9484 1277
Moonee Valley Roof Tiles	Airport West	9310 3491
Roof & Gutter Shop	Vermont	9873 8970

Outlet/Marketing Listings

COMPANY	AREA	CONTACT
ROOF TILES (Regional Areas)		
Chris Bev	Ballarat	5335 7945
Eaglehawk Recovery & Sales Yard	Bendigo	5446 3467
SOIL & RUBBLE (Metropolitan Areas)		
Burdetts Sand, Soil & Stone Supplies	Frankston	9789 8266
Calleja Transport	Altona North	9369 6222
Commercial Sands Waste Converters	Lyndhurst	9799 1305
Green Circle	Port Melbourne	9646 9599
SOIL & RUBBLE (Regional Areas)		
Chris Bev	Ballarat	5335 7945
WHITE GOODS		
Minibah Recycling	Hampton Park	9799 6277
The Salvation Army Stores	Noble Park	9709 9999
Waste No More – Western Community Repair & Reuse	Laverton North	9369 8399
WINDOW GLASS (PANELS)		
Bells Glass Recyclers	Broadford	5784 1613
Potters Industrial (clear glass)	Laverton	9314 7555

Outlet/Marketing Listings

COMPANY **AREA** **CONTACT**

GREEN ORGANIC WASTE (TREE TRUNKS & LIMBS)

(Metropolitan Areas)

Australian Rescued Timber	Mt Martha	5977 1444
Dingley Recycling	Dingley	9558 0060
Haulaway Recyclers	Mitcham	9872 4144
Mossrock	Epping	9408 7900
Mulch Master	Dandenong	9768 2857
Organic Recyclers	Brooklyn	9318 0046
Rare Woods	Abbotsford	9427 0570
ScatoPlus	Epping	9408 4555
The Green Centre	Keilor	9331 5300
The Botanical Tree Surgery Company	Cranbourne South	9782 2422
Whelan Kartaway	North Melbourne	9326 5555
Whelan Kartaway	East Brunswick	9387 9999

GREEN ORGANIC WASTE (TREE TRUNKS & LIMBS)

(Regional Areas)

Enviro-Mulch	Rosebud	5982 2869
Garretts Waste Management	Shepparton	5821 7555
Organic Recyclers	Ballarat	5334 2448
Organic Recyclers	Warrnambool	5561 3326
Timber Recovery Enterprises	Kinglake	5786 1778

Additions, Alterations and Suggestions Form – Demolition Handbook

Industry Contacts Update

If any of your organisation details change, or you would like to add your organisation's name to the publication, please photocopy this completed form and return to EcoRecycle Victoria on fax no: (03) 9639 3077 or via mail: Level 2, 478 Albert Street, East Melbourne, VIC 3002.

Name of organisation: _____

Street Address: _____

Postcode: _____

Phone: _____ Fax: _____

E-mail: _____

Service Offered: _____

Materials: _____

Contact Name: _____

Date this form completed: _____

Staff use only: File no:

Updated:

Suggestions for Improvement to the Demolition Handbook:



Level 2, 478 Albert Street, East Melbourne, VIC, 3002

Telephone 03 9639 3322 Facsimile 03 9639 3077

Email: mailbox@ecorecycle.vic.gov.au

www.ecorecycle.vic.gov.au

Recycling Infoline: FreeCall 1800 35 32 33 (Victoria only)