MASTER BUILDERS
SMART WASTE GUIDE

A guide for commercial and residential builders, subcontractors and clients in metropolitan Perth and Peel regions.

✔ Avoid wasting money on landfill disposal
✔ Reduce purchasing costs
✔ Lead the way in environmental responsibility
✔ Cut transport costs
✔ Create a safer workplace
✔ Stay ahead of environmental regulation
As builders and contractors, we face increasing pressures to reduce construction waste going to landfill in WA. We are confronted by increasing costs of disposing to landfill. The landfill levy has increased, so cutting waste will save you money. We have contractual, planning and government tendering requirements to reduce wastes going to landfill. There are also some clients asking for waste management plans to demonstrate the environmental credentials of their buildings. I recommend that you read through this guide and see what you can do on your sites to avoid, reduce, reuse and recycle your waste materials. It may be beneficial to implement your new waste reduction processes gradually. You will need to customise your initiatives as you determine what works best for you. This guide will be available online via mbawa.com. Any updates will be accessible online. If you succeed in reducing the amount of waste you create and send to landfill, you will assist our industry to avoid more onerous waste management regulations in the years ahead. Plus, you will be reducing the industry’s environmental footprint, which you should feel good about! My thanks to Master Builders staff, contractors and other contributors for the work they have put into producing a valuable guide for our industry. Your efforts in waste reduction initiatives will benefit your business and our community.

John Ripp
PRESIDENT OF MASTER BUILDERS ASSOCIATION
OF WA AND DIRECTOR OF EMCO BUILDING

Marcus Geisler
CHAIRMAN OF THE WASTE AUTHORITY

The Western Australian Waste Strategy: Creating the Right Environment, has landfill diversion targets for municipal solid waste of 65 per cent by 2020; for commercial and industrial waste of 70 per cent by 2020; and for construction and demolition (C&D) waste of 60 per cent by 2015 and 75 per cent by 2020, up from 38 per cent in 2012. Currently half the material being wasted in landfills in Western Australia is C&D waste. It is clear that the WA construction industry has significant scope for reducing waste by recycling material and using recycled products in construction.

I am very happy to hear reports of the increasing interest in recycling from builders in Western Australia. There are some notable recycling champions in the industry and the Waste Authority wants to promote their work and make it easier for others to follow their lead. Many of them have been open to guidance from leading sustainability consultants who have shown the way with practical advice on changing the way builders do business. The Waste Authority applauds this work.

The Waste Authority currently supports a range of awards in the residential building sector and has itself awarded winner and highly commended awards to large commercial construction companies for their initiatives in waste minimisation in the 2012 and 2013 Infinity Awards. I hope others in the construction and demolition industry will use this Guide and the fine examples already being set for reducing waste and ensuring valuable materials are not wasted in landfills.

The Waste Authority is pleased to have funded a two-year program of work with the Master Builders Association for a concerted and practical approach to making the industry aware of reuse and recycling options, and for achieving long-term behavioural change in the commercial and residential construction industries.

“We have our cabinet makers conduct onsite measurements and then fabricate offsite, which reduces the amount of waste we create.”

Highbury Homes

Contents

03 Benefits of Waste Reduction
05 How to Reduce Waste
07 Recyling
07 Onsite Source Separation and Offsite Co-Mingled Recycling
07 How to Implement an Onsite Source Separation Recycling Program
07 How to Implement an Offsite Co-Mingled Recycling Program
07 Questions to Ask a Recycling Company
11 Waste Management Plan
11 Waste Management Plan Checklist
11 Waste Management Plan Template
16 Illegal Dumping
17 Measuring Waste Reduction
19 Handy Hints for Subcontractors
21 Recycling Facilities in Perth
21 Facilities that Recycle Single Material Loads
21 Facilities that Recycle Multiple Single Material Loads
21 Co-Mingled Bin Recycling Contractors
21 Waste Transfer/Landfill Stations that Recycle Some Materials
21 Demolition Companies
21 Environmental Consultants
31 WA Regulations Impacting Construction Waste
33 Further Information
34 Useful Websites
34 References and Links

Disclaimer: This document is a guide only. Users should conduct their own research into the material in this document. Master Builders and its contributors take no responsibility for the contents of this guide, make no representation as to its accuracy or completeness, and expressly disclaim any liability whatsoever for any loss howsoever arising from the use of or in reliance upon the whole or any part of the contents of this publication.
REDUCE YOUR COSTS

- Enjoy lower disposal costs by reducing the amount of waste materials created.
- Cut back on purchasing costs by understanding what materials you are over ordering.
- Enjoy lower disposal costs for some separated wastes.
- Lower volumes of waste will cut waste transport costs.
- Receive payment for some separated wastes (potentially metals, aggregates and sand).
- Cut back purchasing costs by re-using existing waste materials onsite.
- Improve efficiency with a tidier site giving workers easier access to their workspace.

MEET REGULATORY REQUIREMENTS

- Create a safer workplace as required under safety legislation.
- Comply with planning approval requirements in some local government areas.
- Limit risks of littering and subsequent clean up costs and fines.
- Avoid environmental protection penalties.

YOU WILL REDUCE ONSITE RISKS

- Decrease the chance of worker injuries due to waste left onsite.
- Improve the visual impact of your project on the surrounding community.
- Reduce the risk of illegal dumping.
- Comply with any quality assurance obligations.
- Reduce the risk of theft on site.

REDUCE YOUR ENVIRONMENTAL FOOTPRINT

- Divert waste from landfill and protect land resources.
- Reduce pollution and carbon emissions.
- Help conserve natural resources (eg. sand), by allowing materials to be reused in manufacturing or onsite.

MEET CONTRACTUAL OBLIGATIONS AND RATING/ACCREDITATION TARGETS

- Comply with WA Government tendering requirements.
- Help achieve Master Builders Green Living program accreditation.
- Ensure clients meet corporate social responsibility (CSR) commitments.
- Assist developers achieve EnviroDevelopment certification (leaf) icons.
- Gain a higher Green Star rating.

PROMOTE YOUR BUSINESS’ WASTE REDUCTION SUCCESSES

- A clean site gives existing and potential clients a good impression.
- Highlight waste reduction initiatives to existing and potential clients and use as a business differentiator.
- Inform others in the industry or the community through print or other media, including via the Master Builder magazine.
- Celebrate achievements with your staff and contractors.
- Enter awards for recycling to promote your business.

HELP TO AVOID ONEROUS NEW COMPULSORY REGULATIONS

- By minimising waste and encouraging recycling now, the construction industry can help avoid more punitive regulations or higher waste levies in the future.

“We reused the bricks from the demolition of a home, as a feature wall inside a new home, reused the pavers for use in the courtyard and driveway, and reused the timber for the fencing and garden shed.”

RIGHT HOMES
HOW TO REDUCE WASTE

As a builder or subcontractor, it is recommended that you follow these steps to reduce the amount of waste created on your project:

1. **AVOID** waste by careful planning at the design, drawing and documentation stages. It is at this stage that the greatest reductions in waste can be achieved:
   - Select building materials and systems with low waste rates. In particular, consider modular and prefabricated construction materials that minimise onsite waste.
   - Choose a method of construction to minimise cut and fill.
   - Design with life-cycle assessment in mind, considering end of life uses.
   - Use dimensions that suit standard material sizes. Plan the use of materials better to reduce the volume of waste (especially off-cuts).
   - Reduce waste allowance in the planning stage, e.g. decrease concrete waste allowance from 5% to 3%.
   - Appropriate storage and management of materials onsite will minimise damage from weather or machinery, or theft, and will eliminate the need for replacement and waste generation.
   - Minimise the time between delivery and installation of materials, to reduce the risk of damage and subsequent waste.
   - Check quantity, condition and quality of goods on delivery. Reject inferior goods if their quality will result in additional waste. Refuse over-supply as compensation for inferior quality or condition.

2. **REDUCE** by limiting waste when purchasing. You can:
   - Purchase materials with minimal packaging.
   - Control purchasing to limit over ordering and to encourage buying of recycled or recyclable materials where appropriate.
   - Improve site security to reduce theft of materials thus allowing the reduction in the over ordering margin.

3. **REUSE** by finding available recycled materials from demolition works, civil works, suppliers or nearby locations, especially sand.
   - Identify, source and specify recycled materials, or materials with a recycled content, to be used during construction.
   - Materials that can be reused or used on future projects include surplus sand / soil (siteworks), PVC & plumbing fittings (pre-lay), formwork & accessories (slab), waterproof membrane (WPM), reinforcement & accessories, bricks, bags of cement / lime, brickwork hardware, windows, door frames, timber (treated & untreated), timber fixings & accessories, metal roof sheeting, roof tiles, fascia, gutters & downpipes, fibre cement sheeting, doors, plasterboard & accessories, paints, paving bricks and reticulation.

4. **RECYCLE** by implementing a waste management plan, incorporating bins and any space on your site drawings.
   - Determine whether you will separate your waste materials onsite, use a co-mingled recycling company and place all waste in one bin, or employ a combination of both methods.

Some materials with a recycled content that can be used on site:

- sand and soils
- reinforcement
- bricks
- timber products
- plastics
- aggregates
- concrete
- paving
- insulation

---

“We process waste and surface water onsite and use it for dust suppression.” BROOKFIELD MULTIPLEX
Onsite source separation and offsite co-mingled recycling – what is the difference?

Onsite source separation – waste is separated onsite and placed in separate bins, bags or piles. It is then either deposited at recycling facilities or collected by recyclers or suppliers.

Offsite co-mingled recycling – all waste streams (generally apart from hazardous materials) are placed in one bin and are separated at an offsite recycling facility.

<table>
<thead>
<tr>
<th>Onsite source separation</th>
<th>Offsite co-mingled recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and size of bins</td>
<td>Will usually require multiple smaller bins. Smaller bins may allow for more flexibility on smaller lots.</td>
</tr>
<tr>
<td>Onsite area</td>
<td>Requires more planning to coordinate multiple bins, especially on smaller lots.</td>
</tr>
<tr>
<td>Education</td>
<td>Greater training is needed to educate on what materials are placed into each bin.</td>
</tr>
<tr>
<td>Public image</td>
<td>General public and client can see that builder is recycling.</td>
</tr>
<tr>
<td>Payments</td>
<td>Can receive payment for some waste materials like metals. Some materials will be free to dispose of under certain conditions.</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Separated waste streams can be recycled by some suppliers eg. bricks.</td>
</tr>
<tr>
<td>Subcontractors</td>
<td>Individual trades can see their waste stream being recovered.</td>
</tr>
<tr>
<td>Contamination &amp; separation</td>
<td>Multiple bins increase scope for contamination.</td>
</tr>
<tr>
<td>Visibility</td>
<td>Can see at a glance which type of waste stream is most wasted.</td>
</tr>
</tbody>
</table>
HOW TO IMPLEMENT AN ONSITE SOURCE SEPARATION RECYCLING PROGRAM

1. Decide if you would like to follow the steps in this guide or engage a consultant to undertake the work for you. See p.29.

2. Adopt a team approach, engaging the client, designer and contractor. Allocate staff responsible for introducing and overseeing a waste management plan. See p.12.

3. Prepare a waste management plan (p.12) before tender so any waste avoidance savings or management costs are factored into the price.

4. Identify the materials likely to be discarded and at what stage of the project. This should be carried out prior to the commencement of the site works. This involves looking at your construction program and the project design and identifying material in-flows and outflows. Estimate the quantities by using normal ordering margins. This will give you the information you need to schedule bin numbers, sizes and likely changeovers.

5. You may be able to share the costs of recycling with other builders on adjacent sites by sharing space and bins.

6. Estimate the amount of waste that will be avoided, reduced, reused and recycled. See p.17 for details.

7. Evaluate the options for recycling in the area of your site. You may need to talk to a number of recycling facilities to find out what opportunities exist to lower disposal costs. See p.22 for a list of recycling options in Perth.

8. Allocate adequate space on the site for the storage of recyclables and the access required to collect them.

9. Provide recycling bins with clear signage. Colour code or label waste bins and protect them from contamination, rain and wind where feasible.


11. Work with suppliers, consultants, recycling companies or Trade365.com.au to take or sell separated waste streams.

12. If possible, secure recycling bins at night and weekends to prevent rubbish dumping in recycling bins – especially at Christmas time. Your load could become contaminated and rejected from a recycling company.

13. Decide what wastes will be separated. Some options are:
   - Heavies: sand, bricks, tiles, concrete, rock, plaster
   - Lights: packaging, bags and glass
   - Timber
   - Paper & cardboard
   - Metals
   - Plastics (including brick straps)
   - Plasterboard

14. Implement processes to ensure the separation of chosen wastes by contractors. Ensure that everyone is aware of their obligations and responsibilities. Conduct training during site inductions if possible. Inductions should cover the materials to be separated, explaining the importance of removing contaminants, and getting any ideas from staff as to how sorting can best be done onsite. Master Builders staff can help you with your inductions.

15. Include waste minimisation and recycling performance clauses in subcontractor contracts. Consider back-charging a contractor who doesn’t separate their wastes, or reward those for proper separation.

16. Oversee the plan to ensure its success throughout the project and make adjustments if needed.

17. Measure the amount of waste that has been avoided, reduced, reused and recycled. See p.17 for details.

18. Review the program after completion. Share findings with staff and contractors. Celebrate any successes. Consider displaying outcomes on a notice board on site for all to see. You can publicise outcomes through the Master Builder magazine and other media.

HOW TO IMPLEMENT AN OFFSITE CO-MINGLED RECYCLING PROGRAM

1. Incorporate a team approach, involving the client, designer and builder. Allocate staff responsible for introducing and overseeing a waste management plan. See p.12.

2. Prepare a waste management plan (p.12) before tender so any waste avoidance or management costs are factored into the price.

3. Employ a co-mingled bin contractor and investigate their claimed recycling rates. Determine what materials cannot be placed in the single bin.

4. Visit the recycling facility.

5. Allocate adequate space on the site for the co-mingled recycle bin and general waste bin and clearly sign them.

6. If possible, secure bins at night and weekends to prevent rubbish dumping in recycling bins – especially at Christmas time.

7. Ensure that everyone is aware of their obligations and responsibilities. Conduct training during site inductions if possible. Inductions will cover the materials that cannot be placed in the co-mingled bin. Master Builders staff may be able to help you with your inductions.

8. Oversee the plan to ensure its success throughout the project and make adjustments if needed.

9. Compile reports on the amount of waste that has been avoided, reduced, reused and recycled. See p.18 for details.

10. Review the program after completion. Share findings with staff and contractors. Celebrate any successes. Consider displaying outcomes on a notice board on site for all to see. You can publicise outcomes through the Master Builder magazine and other media.

QUESTIONS TO ASK A RECYCLING COMPANY

WHERE ARE YOU LOCATED?
Remember to factor in the distance you or the recycler (if they offer a pick-up service) will need to travel to dispose of the waste materials. The closer a recycling company is located to your site, the lower the transport costs will be.

DO YOU PROVIDE BINS OR BAGS AND A COLLECTION SERVICE?
An integrated bin collection, transportation and recycling service will reduce your workload. Recyclers may not offer collection, but can recommend a skip company who will take material to them. Alternatively, you can ask your usual skip operator to take the material directly to the recycling facility.

WHAT MATERIALS DO/ DON’T YOU ACCEPT?
It may also be useful to find out what the tolerance to contamination in the bins is.

DO YOU RECYCLE ALL OF THE MATERIALS YOU ACCEPT?
Just because a company accepts a certain material stream, it doesn’t mean they recycle it. Check what materials the company actually recycles.

ARE THERE DIFFERENT COSTS FOR ANY SEPARATED WASTES?
Do your collectors implement litter management controls at all times? E.g. covering loads during collection, handling and transportation of materials.

CAN YOU PROVIDE ME WITH DETAILS OF YOUR RECYCLING STATISTICS AND THE PROPORTION OF RECEIVED MATERIALS THAT ARE RECYCLED?
This will allow you to determine how much effort they actually put into recycling and diverting waste from landfill. Recycling companies use percentage of residual to landfill as a KPI. Ask about offsite recycling procedures and facilities -- you may be able to access reports.
What is a waste management plan?

A waste management plan is an important document to assist builders to meet contractual, budgetary and environmental goals by reducing waste from their projects. It sets out responsibilities and targets for waste management through the project from the design stage through to completion.

Waste management plan checklist

This checklist can be downloaded from www.mbawa.com

<table>
<thead>
<tr>
<th>Project stage</th>
<th>Checklist questions</th>
<th>Tick if yes</th>
<th>Action proposed</th>
<th>Tips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Planning</td>
<td>Have you internally agreed on the need for a waste management plan and allocated staff responsibility?</td>
<td></td>
<td>Responsible staff need sufficient enforcement powers to make sure others comply with the plan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have you checked any tendering, contractual or rating tool requirements for a waste management plan?</td>
<td></td>
<td>Check with the tendering documents, Green Building Council, or other rating body, to determine what is required to meet any targets.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Have relevant subcontractors agreed to follow the waste management plan?</td>
<td></td>
<td>Share responsibility for waste management with subcontractors.</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Have material quantities been selected to minimise over ordering?</td>
<td></td>
<td>Minimise wastage allowances.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has consideration been given to the use of secondary and recycled materials?</td>
<td></td>
<td>Consider ordering from recycling facilities. Investigate whether you can reuse materials from your other construction jobs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can unwanted packaging be returned to the supplier for recycling or re-use? Can unused materials be returned to the supplier or used on another job?</td>
<td></td>
<td>Choose suppliers who will take back packaging and off cuts and recycle them. Ask suppliers to backload wastes.</td>
<td></td>
</tr>
<tr>
<td>Design</td>
<td>Have designers used standard material sizes wherever possible?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Project Planning Checklist questions

<table>
<thead>
<tr>
<th>Has responsibility for waste management planning and compliance with environmental legislation been communicated to all staff and identified subcontractors?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation in subcontract orders is desirable. Provide for back charges if waste is not separated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you identified likely waste arising (how much, when, and what types)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use bills of quantities and previous experience.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has an area of the site been designated for waste management and bins?</th>
</tr>
</thead>
<tbody>
<tr>
<td>This may require more planning on small sites.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has the time between delivery of materials and installation been minimised, to reduce the risk of damage to materials, which turns into waste?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check quantity, condition and quality of goods on delivery, reject inferior goods if their quality will result in additional waste. Refuse oversupply as compensation for inferior quality or condition.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have waste targets been set for the different types of waste likely to arise from the project?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note obligations under the Contaminated Sites Act to report sites containing material harmful to humans or the environment. Controlled wastes, which include asbestos, clinical or related waste, tyres and batteries, cannot be disposed of at many landfill sites and should be separated.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have measures been put in place to deal with any hazardous waste?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note obligations under the Contaminated Sites Act to report sites containing material harmful to humans or the environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you considered the implications of the disposal of liquid wastes such as wash-down water and lubricants?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set aside an area for wash downs. Protect storm drains from liquid wastes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you checked any requirements for water wastes with the Water Corporation or Swan River Trust (if applicable)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is best to prevent any silty or other discharge at source rather than causing a problem. The best way to prevent discharge is to ensure that stormwater and drainage is properly managed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have opportunities been considered for re-use or reprocessing of materials onsite?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider having onsite crushing or compacting equipment. (Government approval may be required).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you researched disposal costs for separated waste that may have a commercial value?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remember that there may be lower disposal costs for separated wastes. Some wastes will be accepted at no charge by recyclers and some waste streams may even attract a rebate eg. metal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has responsibility for waste management onsite and compliance with environmental legislation been assigned to a named individual regularly onsite?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include a waste training component in site inductions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are selected waste materials separated to allow best value to be obtained from recycling waste management practices?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locate bins for different waste streams close to the work places generating material for recovery.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are containers/bins clearly labeled to avoid confusion/contamination?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make sure the bins do not overfill and ensure that all workers know their obligations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>During operations, have you monitored that waste is being placed in the bins correctly?</th>
</tr>
</thead>
<tbody>
<tr>
<td>During site operations, are barriers to good waste management noted for incorporation into the post-completion review?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you made sure that the bins are, where possible, removed from view, to help avoid illegal dumping of rubbish?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take special care to secure bins around Christmas time when illegal dumping becomes more frequent.</td>
</tr>
</tbody>
</table>

### Post Checklist questions

<table>
<thead>
<tr>
<th>Has a final report of use of recycled materials, waste reduction, and separation, with costs and savings identified, been completed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have key waste management successes been considered for action at future projects?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have you considered promotional opportunities for any successes eg. awards programs, local media, industry media (eg. Master Builder magazine) or in staff newsletters?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit successes to <a href="mailto:mba@mbawa.com">mba@mbawa.com</a>. Distribute media releases to local newspapers or organise an interview with a local radio station to discuss your achievements.</td>
</tr>
</tbody>
</table>

---

“We recycle 8,820 tonnes of waste each year.” SUMMIT HOMES GROUP
Waste management plan template

This template can be downloaded from www.mbawa.com

Note that you will need to tailor this plan to allow for the type of waste that your job is likely to produce, and to suit the type of wastes that you decide to separate, if you use the source separation recycling system.

<table>
<thead>
<tr>
<th>Project</th>
<th>Site Address</th>
<th>Subcontractors involved</th>
<th>Responsible site manager</th>
</tr>
</thead>
</table>

### Material Quality

<table>
<thead>
<tr>
<th>Total waste</th>
<th>Reused onsite</th>
<th>Reused offsite</th>
<th>Recycled for use onsite</th>
<th>Recycled for use offsite</th>
<th>Sent to recycling facility</th>
<th>Sent to landfill</th>
<th>Contractor used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil/fill sand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock/rubble</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concrete</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plaster/Plasterboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tiles</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bricks &amp; pavers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timber</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastics/PVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper + Cardboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazardous (paint, oil, asbestos)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of total 100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ILLEGAL DUMPING

#### HOW TO REDUCE YOUR RISK:
- Clean building sites are less likely to be targeted by illegal dumpers.
- Display warning signs on your building site. Building sites with no warning signs to deter illegal dumping are far more likely to be targeted by illegal dumpers.
- If you are concerned about where your waste is being deposited, ask for weighbridge tickets to be produced.
- Be aware that Christmas and holidays see spikes in illegal dumping.

#### WHAT DO TO IF YOU ARE A VICTIM OF ILLEGAL DUMPING:
- The Environmental Protection Act provides for fines for individuals or corporations of up to $62,500 and $125,000 respectively for illegal dumping.
- If you are a victim, you can call your local council or the illegal dumping hotline on 1300 766 541. Alternatively, you can report the complaint online at www.kabc.wa.gov.au/illegal-dumping
- You will need to report the following information:
  - Street location of illegally dumped material.
  - Types of dumped materials and whether you believe that this may be a hazard.
  - Date and time of dumping.
  - Name, addresses and car registration (if applicable) of the people responsible.
  - Photograph of the incident to assist in any investigation or prosecution.
  - It is also helpful if the dumped material is left in the state it is found, if possible, because it is evidence that could be used in court.

### DID YOU KNOW?
- 1,155,411 tonnes of construction & demolition (C&D) waste was recycled in the 2011-2012 financial year in WA (Hyder Consulting).
- The C&D sector made up the highest proportion of recycling activity by weight during 2011-12, accounting for over 45% of the material recovered for recycling in WA (Hyder Consulting).
- Between 2009/2010 and 2011/2012, Western Australia’s recovery rate for C&D waste increased by more than 31% (Interpolated from Hyder Consulting).
MEASURING WASTE REDUCTION

WHY MEASURE WASTE REDUCTION?
- Demonstrate what and how much waste has been reduced to demonstrate the success of your efforts.
- Keep staff engaged and motivated by providing regular updates on achievements. You could demonstrate recent and ongoing achievements by displaying a graph or a set of figures.
- Meet possible recycling requirements as part of your contract or requirements to achieve Master Builders Green Living Program accreditation or Green Star ratings.

HOW TO MEASURE WASTE REDUCTION
The following steps can be followed to measure the amount of waste that is reused and reduced on site:
1. Quantify materials used in the project.
2. Compare to amount that would have been produced if normal ordering margins had been used.
3. Estimate the amount of waste that is avoided, reduced and reused onsite and record these amounts in your waste management plan.

The following process can be followed to measure the amount of waste that is recycled:

SOURCE SEPARATION
1. The data must be collected in the form of invoices or docket s received from the recycling facility at the point of material drop off at each facility for each load.
2. The quantity by weight should be recorded for all waste and recyclables leaving the site. Some facilities are unable to provide tonnages and instead provide the quantity in cubic metres. This data must be converted to weight so that a standard measure is used. The calculation used to convert a known volume of material to weight is specific to the waste stream type and level of compaction. Consult your recycler.
3. It’s useful to store the information in a simple spreadsheet so that you can track how much is being recycled and calculate recycling rates (as a percentage of all waste removed from site).

HOW TO CALCULATE RECYCLING RATES
Recycling rates can be measured by weight and are calculated out according to the equation:

\[
\text{Recycling rate (\%)} = \frac{R \text{ (tonnes)}}{W \text{ (tonnes)}} \times 100
\]

Where:  
- \( R \) = material recycled (tonnes) i.e. all of the recycling streams added together
- \( W \) = total material collected in tonnes (for both waste and recycling)

It is important that \( R \) and \( W \) are calculated over the same time frame and should include all waste streams.

In order to allow credible, robust reporting of the recycling rate, data should be collected each month that detail:
- Total waste and recycling deposited at a recycling facility or landfill (given in tonnes).
- The percentage of contamination where this data relates to recycling streams and is available.
- A summary of total waste (in tonnes) and total recycling (in tonnes) collected.

4. You can consider appointing a quantity surveyor or consultant to undertake this work for larger projects.

CO-MINGLED WASTE
1. You can ask your co-mingled recycling company to provide you with reports, detailing what materials were recycled and what percentage of the material they received was recycled.
2. You will also need to estimate the amount of waste (if any) that could not be sent to the co-mingled recycling company.
Make sure you are aware of any waste reduction initiatives the builder is undertaking before starting the job.

**BRICKLAYING**
- Have bricks dropped around the perimeter to save damage in transporting to place of use and to minimise costs.
- Use appropriate mortar strength - softer mortar saves cement and helps in recycling.
- Set aside brick straps for recycling.
- Use a brick supplier who actively recycles their waste and uses recycled materials in their packaging eg. stickless packs.
- Use the designated area for mixing and washdown.

**CARPENTRY**
- Use engineered timber products that make efficient use of materials where possible.
- Use sustainably sourced timber.
- Prepare accurate cutting lists before ordering.
- Give joiners a copy of the cutting list. Ensure that carpenters have a complete cutting list to allow efficient timber use.
- Use joinery profiles that can be easily and invisibly joined to reduce off-cuts.
- Use off-cuts wherever possible.

**CONCRETING**
- Use concrete with recycled aggregate where possible.
- Utilise reinforcement made from recycled steel.
- Form up accurately and minimise wastage. Up to 10 percent is regularly wasted.
- Return surplus to the supplier for recycling.
- Buy from plants that wash out cement to allow recycling of sand and aggregate.
- Crush/smash remnants into small pieces before final set to allow later use as backfill or recycling.
- Always form up an area of path or low grade slab ready to accept remnants.
- Use the designated area for mixing and washdown.

**ELECTRICAL SERVICES**
- Use sub-boards and plan wiring to reduce wiring distances, quantities, waste and cost.
- Recycle off-cuts. Strip insulation from copper which can be sold.
- Use PVC free insulated cable - it lowers leachate toxicity.
- Consider pulse switching and intelligent controls to reduce cabling and energy use.

**GLAZING**
- Separate construction glass from other glass such as drink bottles.
- Glass can also be recycled as aggregate, talk to your recyclers.

*Please note that glass recycling is currently limited in WA.*

**PAINTING**
- Never clean brushes or rinse paint containers into a street gutter or drain.
- When you are finished working, squeeze out excess paint back into the paint tin.
- Seal the lid securely and store the paint upside down, which creates an airproof seal around the lid. Keep excess paint for future touch-ups.

**PLASTERING/PLASTERBOARD**
- Buy plasterboard from suppliers who recycle.
- Sort off-cuts and store on site for return to recycler.
- Keep off-cuts clean and dry.
- Carry useful sized off-cuts to other work areas.
- Metal screws and fixings should be kept out of separated bins.
### Facilities that Recycle Single Material Loads

View the most up to date recycling facilities at mbawa.com

<table>
<thead>
<tr>
<th>Material that can be recycled</th>
<th>Contact</th>
<th>Waste accepted</th>
</tr>
</thead>
</table>
| Aluminium and metal: is 100 percent recyclable. Recycling aluminium reduces embodied energy by 95 percent. Tin and other metals can be recycled too. Payments are sometimes made for metals by recyclers. **Steel:** Recycling furnaces produce reinforcing bar, mesh and sections from steel scrap. Recycling steel reduces embodied energy by an estimated 72 percent. | **ALLIED METAL RECYCLERS**  
FERROUS YARD  
35 Felopar Street, Welshpool, WA 6106  
P: 9451 6818  
ROCKINGHAM  
22 Crompton Road, Rockingham, WA 6168  
P: 9591 2424  
www.alliedmetalrecyclers.com.au | All metals of metallic nature, lead based batteries, brass, copper, aluminium, all clean steel. Offers a bin/collection service. Charges may apply. |
| **C.D. DOOD SCRAP METAL RECYCLERS**  
521 Dundas Road, Forrestfield, WA 6058  
P: 9352 8014  
cindy@recyclers.com.au  
www.recyclers.com.au | All metals and batteries. Offers a bin/collection service. Opening hours: Mon-Thu 7:30am-4:00pm Fri 7:30am-3:30pm. |
| **COLLINS RECYCLING**  
16 Kembia Way, Willetton, WA 6155  
P: 9657 3973  
wisey2001@bigpond.com  
www.collinsrecycling.com.au | All metals, electrical cables, copper tubes and brass tap wear. Builder or contractor must take recyclable materials to facility. Will pay builders for non-ferrous materials. |
| **GO RECYCLE**  
69a Windsor Road, Wangara, WA 6065  
P: 0487 337 886  
mike.gorecycle@bigpond.com  
www.gorecycle.com.au | Ferrous and non-ferrous scrap metals and batteries. Offers a bin/collection service or builder can take recyclable materials to facility. Call to discuss. Will pay for some metals. Opening hours: Mon-Fri 7:00am-4:00pm Sat 8:00am-12:00pm. |
| **SIMS METAL MANAGEMENT**  
PERTH  
200 Barrington St, Spearwood, WA 6163  
P: 9436 2222 I F: 9418 5030  
PERTH  
150 Welshpool Rd Welshpool, WA 6106  
P: 94519877 I F: 9458 5919  
KALGOORLIE  
100 Forest St Kalgoorlie, WA 6430  
P: 90211061 I F: 90913326  
PORT HEDLAND  
15 Peawah St, Wedgefield, WA 6721  
P: 91722460 I F: 91723213  
KARRATHA  
2526 Coolawanya Rd, Karratha, WA 6714  
P: 91852277 I F: 91461193  
In all cases e-mail is simswa@au.sims-group.com  
www.au.simsmm.com | All ferrous and non-ferrous metals including steel, aluminium, copper, lead, brass, cable, car bodies, car batteries, white goods and many more items. Offers a bin/collection service. Free of charge if quantities are sufficient. |
### Material that can be recycled

<table>
<thead>
<tr>
<th>Contact</th>
<th>Waste accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bricks (and tiles):</strong> can be reused where appropriate or crushed on site or offsite for backfill, aggregate and gravel. Portable crushing plants can be used for large projects. For information on brick strap recyclers in Perth, please see the ‘plastics’ section of this directory.</td>
<td></td>
</tr>
<tr>
<td><strong>Contact</strong></td>
<td><strong>Waste accepted</strong></td>
</tr>
<tr>
<td><strong>Austral Bricks</strong></td>
<td>Bricks and breeze, and clay tiles but must be strictly uncontaminated. Offers a pick-up service – cost shared with builder.</td>
</tr>
<tr>
<td><strong>Master Builders Midland</strong></td>
<td>Clay bricks, clay pavers, clay roof tiles and clean brick rubble. Also accepts a small amount of plastic strapping that is used to pack bricks. It is a requirement that all returned product is free from contaminants such as cement, wood, paper (including lunch wraps and newspaper), cardboard, metal and other building materials. Builder must take recyclable materials to facility. No cost in taking bricks back.</td>
</tr>
<tr>
<td><strong>Red Sand Supplies</strong></td>
<td>Clean clay bricks (colours separated), clean terracotta roof tiles, clean limestone blocks and steel. Does not accept demolition waste, clean fill or asbestos. Materials can be co-mingled, however higher charges will apply. Builder can deliver recyclable materials to facility or company will provide a collection service for large loads.</td>
</tr>
<tr>
<td><strong>Capital Recycling Bayswater</strong></td>
<td>Rubble, concrete, bricks, bitumen, sand, glass and rocks. Builder must take recyclable materials to facility.</td>
</tr>
</tbody>
</table>

### Glass

<table>
<thead>
<tr>
<th>Contact</th>
<th>Waste accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Glass can be cut and reused or recycled as aggregate for concrete. Recycling glass reduces embodied energy by 20 percent. Please note that construction glass recycling opportunities in Perth are limited.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Contact</strong></td>
<td><strong>Waste accepted</strong></td>
</tr>
<tr>
<td><strong>Glass Sands</strong></td>
<td>Currently accepting container glass. Expect to be accepting plate glass. Please ring to ascertain their acceptance of glass. Also accept steel and aluminium. $35/tonne. Builder must take recyclable materials to facility.</td>
</tr>
<tr>
<td><strong>Perth Glass Recyclers</strong></td>
<td>Container glass. Soon to be accepting and recycling construction and demolition glass. Please call for details. Note: container glass needs to be kept separate from window glass. If ceramic material is included with container glass, it is contamination and the whole load of glass may be rejected from recycling.</td>
</tr>
<tr>
<td><strong>Recycling Waste Solutions</strong></td>
<td>Paper and cardboard. Offers a bin and pick up service.</td>
</tr>
<tr>
<td><strong>Oorara Recycling</strong></td>
<td>Cardboard - all types of clean cardboard and cardboard boxes. Newspoint - clean, not sunburnt. Magazines - magazines, books, brochures. Office paper - photo copy scrap, envelopes, computer printouts etc. Aluminium and Steel. Plastics - some grades of clean plastics including PET, HDPE, LDPE. Enquiries welcome for other grades of recyclable product. Collection of most products can be arranged. Rebates paid at market prices.</td>
</tr>
</tbody>
</table>

### Plasterboard:

<table>
<thead>
<tr>
<th>Contact</th>
<th>Waste accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C-Wise</strong></td>
<td>Plasterboard off-cuts, must be completely clean.</td>
</tr>
<tr>
<td><strong>Regyp</strong></td>
<td>Gyprock, plasterboard, virgin gypsum board off-cuts, gypsum ceilings, floors, walls and comice and chemical precipitate gypsum (eg FGD). Materials must be clean. Offers a collection service.</td>
</tr>
</tbody>
</table>
### Material that can be recycled

<table>
<thead>
<tr>
<th>Plastics (including brick straps): Many plastics can be granulated and re-used to make new plastic products and include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• High Density polyethylene (HDPE): rubbish bins, buckets and traffic cones.</td>
</tr>
<tr>
<td>• Low Density polyethylene (LDPE): shrink wrap and bubble wrap</td>
</tr>
<tr>
<td>• Polyethylene: containers, insulation, UPVC pipes, fittings and flooring</td>
</tr>
</tbody>
</table>

### Waste accepted

<table>
<thead>
<tr>
<th>Plastic Codes 2, 4, 5 and 6. Please feel free to enquire for other codes. Charges and rebates vary depending on cleanliness of the material and whether there are multiple plastics mixed together. CLAW Environmental is available to visit your site and advise on the plastics available for recycling. Shredding and granulation services are available. *Strapping needs to be clean, free from contaminants and metal clips etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil: Can be stockpiled for use as fill.</td>
</tr>
<tr>
<td>Timber: Can be reclaimed, reused, or re-processed into flooring or horticultural mulch (where permitted under local regulations).</td>
</tr>
</tbody>
</table>

---

### Facilities that Recycle Multiple Single Material Loads

<table>
<thead>
<tr>
<th>Material that can be recycled</th>
<th>Contact</th>
<th>Waste accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLASTIC CODES 2, 4, 5 AND 6</strong>. Please feel free to enquire for other codes. Charges and rebates vary depending on cleanliness of the material and whether there are multiple plastics mixed together. CLAW Environmental is available to visit your site and advise on the plastics available for recycling. Shredding and granulation services are available. *Strapping needs to be clean, free from contaminants and metal clips etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Soil</strong>: Can be stockpiled for use as fill.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Timber</strong>: Can be reclaimed, reused, or re-processed into flooring or horticultural mulch (where permitted under local regulations).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Multiple waste materials:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Address</th>
<th>Contact</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAW ENVIRONMENTAL</td>
<td>5 Forge Street, Welshpool, WA 6106 (rear factory)</td>
<td>P: 9333 4888</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>DCG RECYCLING</td>
<td>4 Hyne Rd, South Guildford, WA 6055</td>
<td>P: 9277 1500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>FIBOPOST</td>
<td>Unit 1, 8 Iron Street, Malaga, WA 6090</td>
<td>P: 9341 8306</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>SINOPLASTIC RECYCLING</td>
<td>157 – 159 Welshpool Road Welshpool, WA 6160</td>
<td>P: 9451 5005</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JUMPABAG</td>
<td>10 Whyalla Court, Bibra Lake, WA 6163</td>
<td>P: 9379 2111</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>VEOLIA ENVIRONMENTAL SERVICES</td>
<td>20-22 Cindale Street, Welshpool, WA 6106</td>
<td>P: 9418 9300</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JIMBOBAG</td>
<td>9 Rogers Way, Landsdale, WA 6065</td>
<td>P: 03 9681 7838</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>THE BIN GUYS</td>
<td>157-159 Welshpool Road Welshpool, WA 6090</td>
<td>P: 9343 2500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
</tbody>
</table>

---

### We level and cut sites when the slab is laid, to remove any excess sand, so that it can be used as clean fill, rather than becoming contaminated waste.” CELEBRATION HOMES

---

### Addresses:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Address</th>
<th>Contact</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAW ENVIRONMENTAL</td>
<td>5 Forge Street, Welshpool, WA 6106 (rear factory)</td>
<td>P: 9333 4888</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>DCG RECYCLING</td>
<td>4 Hyne Rd, South Guildford, WA 6055</td>
<td>P: 9277 1500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>FIBOPOST</td>
<td>Unit 1, 8 Iron Street, Malaga, WA 6090</td>
<td>P: 9341 8306</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>SINOPLASTIC RECYCLING</td>
<td>157 – 159 Welshpool Road Welshpool, WA 6160</td>
<td>P: 9451 5005</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JUMPABAG</td>
<td>10 Whyalla Court, Bibra Lake, WA 6163</td>
<td>P: 9379 2111</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>VEOLIA ENVIRONMENTAL SERVICES</td>
<td>20-22 Cindale Street, Welshpool, WA 6106</td>
<td>P: 9418 9300</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JIMBOBAG</td>
<td>9 Rogers Way, Landsdale, WA 6065</td>
<td>P: 03 9681 7838</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>THE BIN GUYS</td>
<td>157-159 Welshpool Road Welshpool, WA 6090</td>
<td>P: 9343 2500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
</tbody>
</table>

---

### More information:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Address</th>
<th>Contact</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAW ENVIRONMENTAL</td>
<td>5 Forge Street, Welshpool, WA 6106 (rear factory)</td>
<td>P: 9333 4888</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>DCG RECYCLING</td>
<td>4 Hyne Rd, South Guildford, WA 6055</td>
<td>P: 9277 1500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>FIBOPOST</td>
<td>Unit 1, 8 Iron Street, Malaga, WA 6090</td>
<td>P: 9341 8306</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>SINOPLASTIC RECYCLING</td>
<td>157 – 159 Welshpool Road Welshpool, WA 6160</td>
<td>P: 9451 5005</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JUMPABAG</td>
<td>10 Whyalla Court, Bibra Lake, WA 6163</td>
<td>P: 9379 2111</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>VEOLIA ENVIRONMENTAL SERVICES</td>
<td>20-22 Cindale Street, Welshpool, WA 6106</td>
<td>P: 9418 9300</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>JIMBOBAG</td>
<td>9 Rogers Way, Landsdale, WA 6065</td>
<td>P: 03 9681 7838</td>
<td>Accepts multiple separated waste streams</td>
</tr>
<tr>
<td>THE BIN GUYS</td>
<td>157-159 Welshpool Road Welshpool, WA 6090</td>
<td>P: 9343 2500</td>
<td>Accepts multiple separated waste streams</td>
</tr>
</tbody>
</table>
“During construction, we use recycled sand under our housing slabs, which is important as the amount of basic raw materials in Perth is getting quite low.”

HOMEBUYERS CENTRE
DEMOLITION COMPANIES

Armadale Mini Loads 9390 8003
Asbestos Masters 9531 4564
Auscon Metals 9497 1340
Becker Demolition 0404 892 462
Capital Demolition 9279 4599
Civil & Demo 9370 1833
Coastal Demolition 9534 6827
Delta Group 1300 887 555
Diascon Demolition 0379 2700
Diggers & Truckers 9382 2240
Focus Demolition 0418 817 885
G&D House Strippers 9306 8055
Ital Demolition 9460 0468
J&P Deconstruction 9725 5050
Jag Demolition 9406 6800
Matrix Contracting 9466 2240
Mosman Recyclers 9339 6337
Nateis Contracting 9312 2639
Sanders Contracting 0418 921 364
Statewide Demolition 9418 928 210
Swift Demolition 9406 6064
Thunderstruck Asbestos Rem 0416 348 566
Vinsan Contracting 9279 5422

ENVIRONMENTAL CONSULTANTS

ENCYCLE CONSULTING
Level 1, 76 Roberts Street, Osborne Park, WA 6017
P: 9444 7668
info@encycle.com.au
www.encycle.com.au

Services:
• Waste assessments.
• Preparing waste management plans for commercial constructions for the following phases:
  - design phase (including in accordance with the Green Building Council of Australia’s Green Star - Office Design v3 Rating Tool).
  - construction phase.
  - operational phase.
  - demolition phase.
• Waste management plan implementation assistance.
• Performance monitoring and reporting.

eTOOL
Level 1 40-44 Pier St Perth, WA 6000
P: 9467 1666
info@etool.net.au
www.etool.net.au

Services:
• Life cycle assessment.
• Analysis and improvement of full life cycle impacts associated with the built form.
• LCA in accordance with Green Star and EnviroDevelopment requirements.

GEO - ENVIRONMENTAL
3 Passfield St, Baldwins, WA 6171
M: 0419 851 970

Services:
• Solid waste management planning and auditing.
• Project approvals.
• Implementation and auditing of environmental management systems (ISO 14001).
• Contaminated site management.
• Life-cycle analysis.

HYDER CONSULTING
Level 2, Suite 1, 675 Murray St, West Perth, WA 6872
P: 9322 1677

Services:
• Waste assessments and modelling.
• Waste management plans.
• Assist with tenders and sustainable purchasing.
• Assist with approvals advice.
• Design, engineering and drafting services.

TALIS CONSULTANTS
Level 1, Unit 8 / 663 Newcastle St, Leederville, WA 6007
P: 1300 251 070

Services:
• Strategic waste management plans.
• Waste minimisation, reuse and resource recovery strategies.
• Waste collection and treatment tender preparation and management.
• Waste awareness and education programs.
• Waste data gathering and reporting frameworks.
• Waste stream, markets and technology due diligence.
• Waste auditing and compositional analysis.
• Community consultation.
• Feasibility and financial assessments.
• Funding applications.
• Waste services reviews.

We have been able to get our ordering margins down to 5% for bricks, 5% for tiles, 3% for concrete and 5% for plasterboard on some construction sites.”

HIGBURY HOMES
## WA REGULATIONS IMPACTING CONSTRUCTION WASTE

Below is a brief guide to regulatory considerations for risks associated with construction waste handling and recycling.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Potential result</th>
<th>Impact</th>
<th>Relevant Acts / Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Air pollution</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amenity</td>
<td>Conditions imposed under relevant planning approvals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Environmental Protection (Clearing of Native Vegetation) Regulation 2004.</td>
</tr>
<tr>
<td>Loss of Biodiversity</td>
<td>Flora &amp; fauna habitats</td>
<td></td>
<td>Environmental Protection Act 1986 – Section 50A (causing serious environmental harm).</td>
</tr>
<tr>
<td>Transporting materials to or from site or stockpiling of wastes or recycled products on site</td>
<td>Dust due to wind movement across unsealed areas</td>
<td>Dust due to wind movement across unsealed areas</td>
<td>Environmental Protection Act 1986 section 49 Causing pollution and unreasonable emissions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Environmental Protection Regulations 1987 (license may be required under Schedule 1 - Part 1 - Categories 13, 61A, 62 or 63).</td>
</tr>
<tr>
<td>Crushing, grinding or screening operations</td>
<td>Noise</td>
<td>Amenity</td>
<td>Environmental Protection (Noise) Regulations 1997.</td>
</tr>
<tr>
<td>Site operations or contouring that allows water to pond on-site</td>
<td>Odour</td>
<td>Health</td>
<td>Environmental Protection Act 1986 Section 49 - cause pollution and unreasonable emission.</td>
</tr>
<tr>
<td>Poor site maintenance practices</td>
<td>Mosquitoes, weeds, pests or vermin</td>
<td>Flora &amp; fauna impacts</td>
<td>Environmental Protection Act 1986 – Section 50A if licensed, otherwise Section 182 of the Health Act 1911. Local Government Bylaws.</td>
</tr>
<tr>
<td>Uncontrolled or poorly managed site run-off. Poorly maintained or inadequate site access roads or drainage systems.</td>
<td>Surface water run-off resulting in transport of sediment, erosion</td>
<td>Water pollution</td>
<td>Environmental Protection (Unauthorised Discharge) Regulations 2004.</td>
</tr>
<tr>
<td>Diesel, oil or other leaks or spills</td>
<td>Site or groundwater contamination</td>
<td>Land contamination</td>
<td>Contaminated Sites Act 2003.</td>
</tr>
<tr>
<td>Poor design or management of fuel or hazardous goods storage areas.</td>
<td>Diesel, oil enters drainage systems</td>
<td>Water pollution</td>
<td>Environmental Protection Act Section 49 - cause pollution and unreasonable emission.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Section 50 - discharge of waste likely to cause pollution.</td>
<td></td>
</tr>
</tbody>
</table>

### Activity: Asbestos contamination
- Asbestos pieces pass through crushing operations
- Impact: Air pollution

### Activity: Asbestos from stockpiled material remains in soil
- Asbestos from stockpiled material remains in soil
- Impact: Land contamination

### Activity: Illegal Dumping
- Additional charges
- Impact: Financial

### Activity: Staff safety
- Injury to people on site
- Impact: Workers compensation claims

---

**PROTECTING OUR WATERWAYS**

**Impact:**
- Water that flows from a building site and into the stormwater system, eventually finds its way into creeks, rivers and the ocean.
- It is usually not treated in any way, and if care is not taken sediments, sand, soil, gravel, litter, paints and solvents can kill plants and animals in waterways.
- These materials can also lead to blocked drains and rivers, which will increase the chance of flooding.

**What you can do to help:**
- Keep mud off the road and foot paths.
- Cut materials onsite, away from stormwater drains.
- Cover stockpiles.
- Use bins with lids.
- Clean all equipment onsite and make sure the wash water stays onsite.
- Collect water from concrete mixers into a wheelbarrow for disposal onsite.
- Use a sediment control fence and gravel access point.

---

**“We employ two contractors to take left over materials from one site, such as bricks, to nearby sites that requires the material, minimising the amount of waste that is created.”** — HOMEBUYERS CENTRE

**“We use fully automated systems to ensure scheduling is as effective as possible, to minimise over ordering.”** — SUMMIT HOMES GROUP
FURTHER INFORMATION

AUSTRALIAN PACKAGING COVENANT (APC)
The Australian Packaging Covenant (APC) is a sustainable packaging initiative that aims to change the culture of business to design more sustainable packaging, increase recycling rates and reduce packaging litter.

KEEPING OUR STORMWATER CLEAN – A BUILDER’S GUIDE

LIFE CYCLE ASSESSMENT
Life cycle assessment (LCA) is the determination of the environmental impacts of a product resulting from all stages of its production, use and disposal.
The waste hierarchy is based on life cycle assessment, which takes into account the total environmental impact of different management options, including the direct and indirect impact of material use, water and energy. www.wasteauthority.wa.gov.au/media/files/documents/Waste_Hierarchy_2013.pdf www.environment.gov.au/archive/about/publications/economics/consumption/lessons.html

PRODUCT STEWARDSHIP
Product stewardship is an approach to managing the impacts of different products and materials. It acknowledges that those involved in producing, selling, using and disposing of products have a shared responsibility to ensure that those products or materials are managed in a way that reduces their impact throughout their lifecycle, on the environment and on human health and safety.

THE RESOURCE EFFICIENT BUILDER
Smart ways to become a more efficient builder, have a cleaner, safer site and in the process, produce less waste, recycle more, save money and protect the environment. www.mbav.com.au

WASTE AVOIDANCE AND RESOURCE RECOVERY ACT 2007 (WARR)
This is a primary piece of legislation for waste management in Western Australia. www.wasteauthority.wa.gov.au/about/legislation/

WESTERN AUSTRALIAN WASTE STRATEGY – CREATING THE RIGHT ENVIRONMENT (MARCH 2012)
Creating the Right Environment, the Waste Authority’s inaugural Waste Strategy, developed under the Waste Avoidance and Resource Recovery Act 2007, aims to engage the Western Australian community over the next decade in moving to a low-waste society by providing the required knowledge, infrastructure and incentives to change behaviour.

USEFUL WEBSITES

REFERENCES

ACKNOWLEDGEMENTS
Prepared and published by Master Builders Association of Western Australia and funded by the Waste Authority through the Waste Avoidance and Resource Recovery Account.
Thanks are extended to the following individuals who all added to the quality of this guide: Kimberley Alexander, Ken Beazant, Janelle Bouch, Anne Marie Bremner, Francis Burke, Geoff Cooper, All D’Angelo, Ryan Davies, Jake Hickey, Michael McLean, Wendy Muir, Alan Nelson, Michael Norriss, Pippa Leanne and Ferry Waters.

These websites are provided for further investigation. Master Builders, nor the Waste Authority endorse or recommend these websites. Readers should make their own enquiries about the content on these websites.
CONTACTS
Principal office
35-37 Havelock Street,
West Perth, WA 6005
9476 9800
mbawa@mbawa.com
www.mbawa.com

MBA Insurance Services
35-37 Havelock Street,
West Perth, WA 6005
1800 150 888
www.mbais.com.au

REGIONAL OFFICES
Great Southern
30 Graham Street,
Albany, WA 6330
9841 6232
albany@mbawa.com
www.albanyshowroom.com.au

South West
19 Clifford Street cnr Ray Jordan Way,
Halifax LIA, WA 6230
9726 0939
southwest@mbawa.com

Midwest-Northwest
4 Walton Close, Geraldton, WA 6530
9921 5061
geraldton@mbawa.com
www.geraldtonshowroom.com.au

Kalgoorlie
PO Box 1332, Goldfields, WA 6433
0419 854 413
kalgoorlie@mbawa.com

Esperance
PO Box 2066, Esperance, WA 6450
0437 184 366
esperance@mbawa.com