

Recycling Works - Toolkit development and outcomes

Waste and Recycle Conference
Fremantle, WA
September 2010



www.encycle.com.au

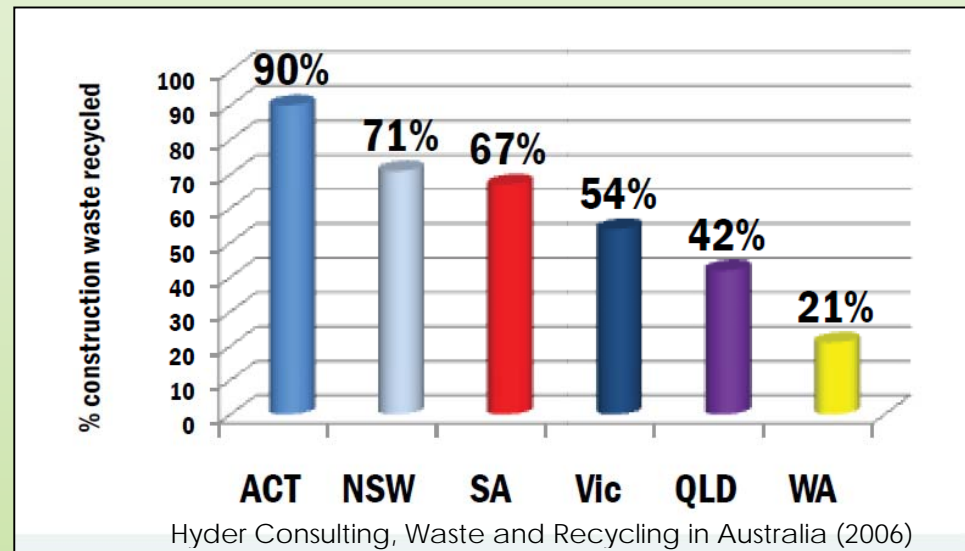
Presentation Overview

- 🌱 Background
- 🌱 Recycling Works development process
- 🌱 Recycling Works format and content
- 🌱 Outcomes
- 🌱 What next

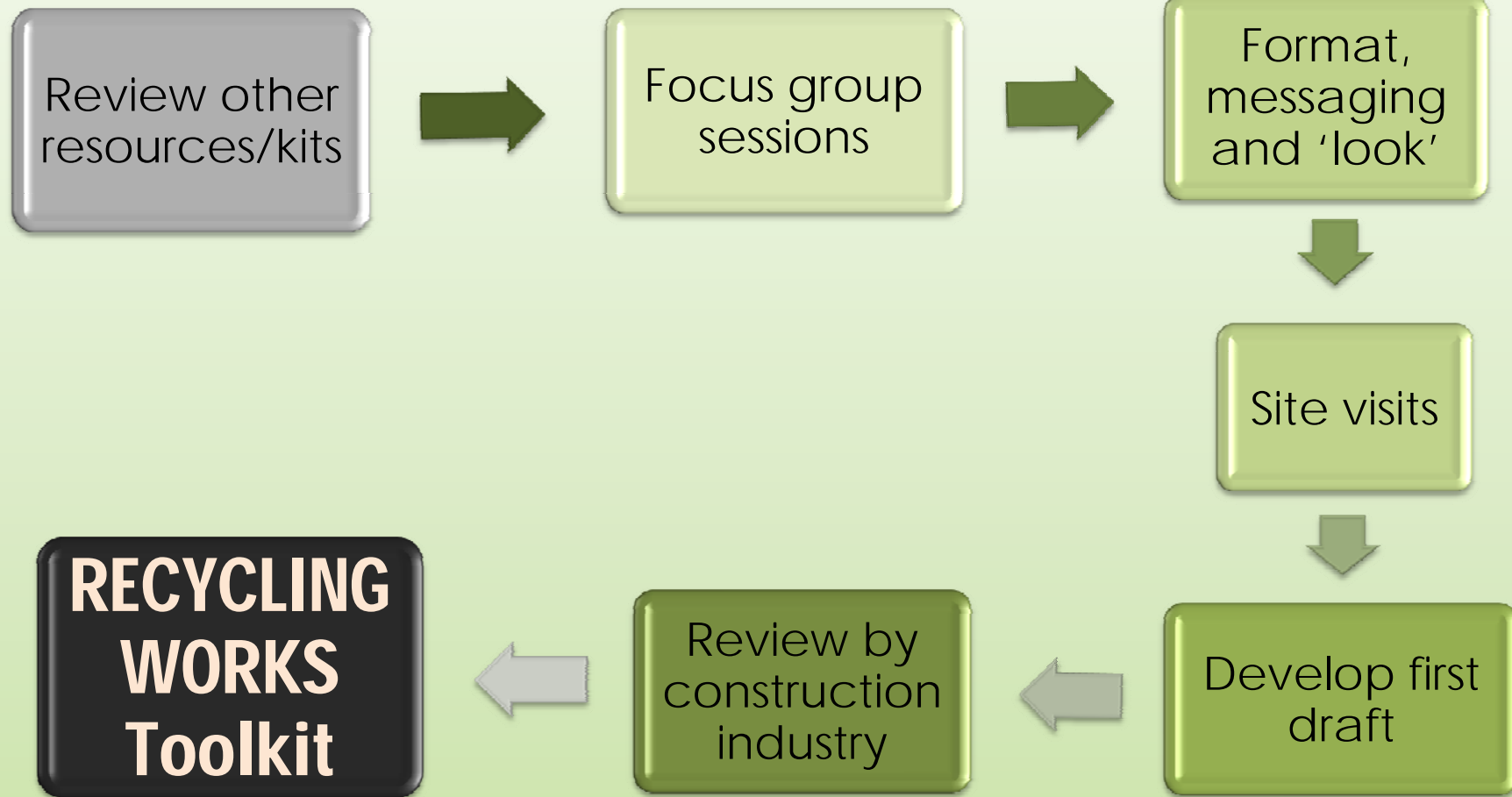


Background – project drivers

- ❶ In WA the C&D sector is the largest contributor of waste to landfill
- ❷ Landfill levy increased as of 1st January 2010 – future increase likely
- ❸ Lack of awareness within the construction industry of availability of credible recycling facilities in Perth
- ❹ Significant resource recovery targets for C&D waste as outlined in the Draft Waste Strategy
- ❺ Voluntary rating tools such as the Green Building Council of Australia's (GBCA) Green Star



Recycling Works – development process



Recycling Works – development process

- Focus Group Discussion (FGD) Sessions – consultation with 6 industry stakeholder groups :
 - C&D recycling industry
 - Skip operators
 - Construction site supervisors
 - Construction senior management
 - Ecologically Sustainable Design (ESD) Consultants
 - Owners/developers
- Purpose: to identify barriers to on-site recycling, and identify materials that should be included in the Toolkit
- Messaging and look was based around central 'slogan' – “**Recycling Works... and Works... and Works**” and design was based around one image (the recycling symbol)



Recycling Works – content development

Encycle compiled a list of all of the resources/tools the focus group participants wanted to see in the Toolkit, including:

- 🔄 What can be recycled and why recycle
- 🔄 Waste classifications (how many bins for what types of waste, what colour coding, etc.)
- 🔄 Pre-planning templates and system set up
- 🔄 Waste in WA – background
- 🔄 Incentives/feedback
- 🔄 Online access to resource(s)
- 🔄 Checklist for good recycling systems
- 🔄 Posters and pictures for use on site

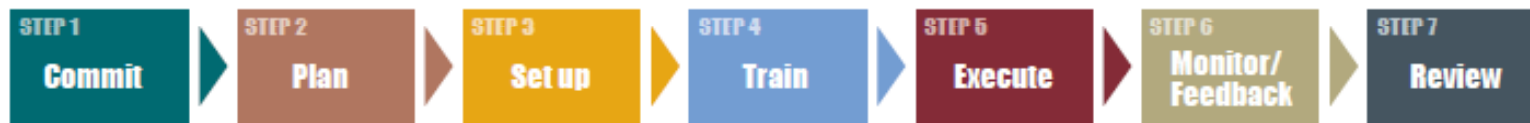


Recycling Works – development process

- First draft - established the '7 steps to on-site segregation of materials for recycling'
 - ISO 14001 – plan, do, check, act

The 7 steps to effective recycling on construction sites

This toolkit is structured around 7 logical steps to achieving effective recycling on commercial construction sites:



- First draft was reviewed by several members of the commercial construction industry and the C&D recycling industry
 - Over a 6 week period, the content of the Toolkit went through an intensive amount of rearranging and refinement



Recycling Works – development process

- Final draft printed and launched in February 2010
 - The launch was held at the All Earth Group recycling facility
 - Officially launched by the Hon. Helen Morton MLC
 - Attended by over 60 industry representatives



Recycling Works – toolkit promotion

The Toolkit has been promoted through the following:

- Master Builders media release (24th February 2010)
- The Sunday Times - *Industry News* (28th February 2010)
- Letter to the Minister – from Helen Morton (25th February 2010)
- WA Business News – *Building Recycling Rates* (4th March 2010, pg 4)
- WA Business News – *Landfill Shouldn't be Confused with Recycling* (29th April 2010, page 26)
- Community News (Maddington Comet) – *Package to Boost Building Recycling* (9th March 2010)
- Green Building Council of Australia – May newsletter



09/Mar/2010
By Jon Bassett, Comment News

Recycling Works – content

The Toolkit is segmented into **7 steps** and the content composed to ensure relevance to all stakeholders within the construction industry:

Steps:

- 1) Commit
- 2) Plan
- 3) Set up
- 4) Train
- 5) Execute WMP
- 6) Monitor/feedback
- 7) Review

Step	Relevance	Resources in this toolkit
STEP 1 Commit	Developer/construction company senior management must commit to recycling on construction sites through providing adequate resources and reporting recycling performance.	<i>Why recycle on a construction site?</i> Fact sheet <i>Tell him he's dreaming</i> – common barriers and their solutions <i>Does recycling cost more?</i> Fact sheet <i>What is recycling?</i> Fact sheet <i>What happens to my recycling?</i> Fact sheet Top 10 recycling tips
STEP 2 Plan	Recycling collection systems, equipment, storage areas and logistics must be well planned and communicated to all site workers. Recycling facilities and skip operators must be consulted during the planning stage to ensure that materials are segregated and delivered correctly to be recycled.	Waste Management Plan (WMP) Checklist Recycling and general rubbish template Perth recycling facilities Questions to ask recyclers Questions to ask skip operators
STEP 3 Set up	The initial setting up of the recycling bins and skips will require involvement from skip operators and key site staff. The bins and skips must be well organised and clearly signed.	Signage examples and CD Signage guidelines Recycling Works poster
STEP 4 Train	All site workers must be fully aware of the recycling systems and how to use them. Continual training, feedback and reminders are necessary to ensure recycling procedures are adhered to throughout the construction project.	Training and communication methods
STEP 5 Execute WMP (Waste Management Plan)	During the implementation of the WMP, site workers will raise questions about what can and can't be recycled, so be ready with the answers so as to avoid any confusion and bad habits from forming. The systems must be well managed and regularly inspected. A procedure for addressing WMP non-compliance is necessary.	Top 10 recycling tips
STEP 6 Monitor/ feedback	It is vital that site workers are kept informed about their recycling efforts, including providing regular feedback on recycling rates and whether targets were achieved. Reward good performance.	Data collection, monitoring, reporting and feedback guidelines
STEP 7 Review	It is always useful to report why recycling succeeded or failed, lessons learnt, tips for your next site and future innovations. Make sure these are reported to senior management. Celebrate your successes and congratulate site workers.	Review and evaluation process guidelines



Toolkit Content

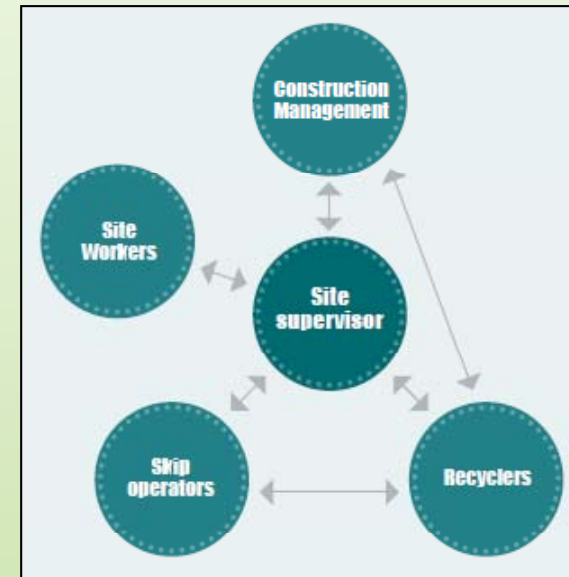


STEP 1. Commit

Relevant to: Senior management (commitment from the top)

Content includes:

- Formal commitment, throughout the organisation
- Communicate, communicate, communicate
- Why recycle on a construction site?
- ‘Tell him he’s dreaming’ – common barriers to on-site segregation and their solutions
- Does recycling cost more?
- What is recycling?
- What happens to my recycling?
- Top 10 recycling tips



Toolkit Content



Relevant to: All site workers/staff; skip operators; recycling facilities

Content includes:

- Why plan?
- Waste Management Plan checklist
- Recycling and general rubbish planning template
- Perth recycling facilities
- Questions to ask recyclers
- Questions to ask skip operators



Toolkit Content



One of the most important aspects of the Toolkit, as identified by the focus group participants is the Perth recycling facilities contact list

Perth recycling facilities

The companies listed below provide credible recycling services to the construction industry in WA and responded to Encycle's request for information during the development of this toolkit and are intended as a guide only.

The list is not comprehensive of all recycling companies operating in Perth, WA. To remain up to date on recycling facilities available in Perth, please visit the recycling database on www.ecycle.com.au, which will be updated regularly.

Please contact recyclers direct to ensure the correct material types are provided and for pricing schedules.

Material type	Company	Contact details	Facility location	Collection services/Bins provided	Requirements
Bricks	Midland Brick	9267 9826 www.midlandbrick.com.au	See website for various recycling yard locations	Collection services available - must adhere to guidelines detailed on website	Clay bricks, pavers and tiles only (no contaminants including excess mortar) see website
Cardboard	Amcor Recycling	Justin Pereira 0400 623 445 justin.pereira@amcor.com.au www.amcor.com	3 Madison St, Canning Vale	Provide most bins including wheelle bins, FEL bins and open top bins as well as balers and compactors	
Cardboard	Visy Recycling	Chris Gusezow 0437 482 028 christopher.gusezow@visy.com.au www.visy.com.au	9 Valentine St, Kewdale	Provide 240L, 660L, 1100L bins and 3m³ and 4.5m³ bulk bins, balers, compactors, bale frames	
Cardboard	Damien Cole Group	Gavin Corps 0407 429 149 haldee@damiencole.com.au www.damiencole.com.au	4 Hyne Road, South Guildford	Rear load 1.1m³ bins are available for cardboard products	Will accept clean cardboard. Facility can receive bulk cardboard deliveries. All wastes must be clean (free from concrete, paint, plaster etc)
E-waste	Sims E-Recycling	Ms Ieez Howcroft 9236 3001 leez.howcroft@simsmm.com www.apac.simsrecycling.com	Unit C3, 174 Barrington St, Spearwood WA	Collection services and bin options available (contact for details)	Accept computers & peripherals, servers, cables, monitors, printers, copiers, phones & phone systems, etc. Do not accept white goods (except for microwaves)

Testimonial: "Mirvac implements a Waste Management Plan on every site as part of their EMP. We expect to be able to increase our recycling percentage by following some of the recommendations outlined in the Toolkit. For us, the most useful item is the identification of reliable recycling facilities."



Toolkit Content



STEP 3. Set up

Relevant to: Skip operators and key site staff (site supervisors)

Content includes:

- Set up recycling systems
- Introducing recycling for the first time?
- Signage guidelines
- 'Recycling Works' Poster
- Example signage

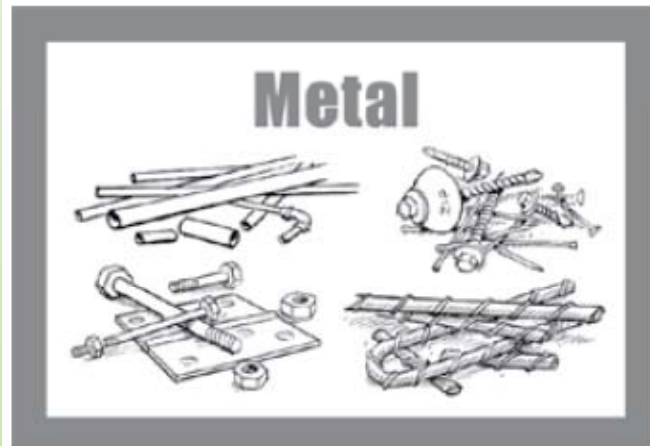
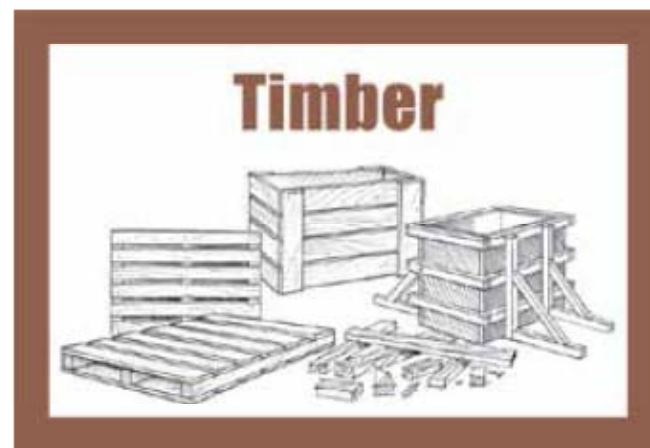
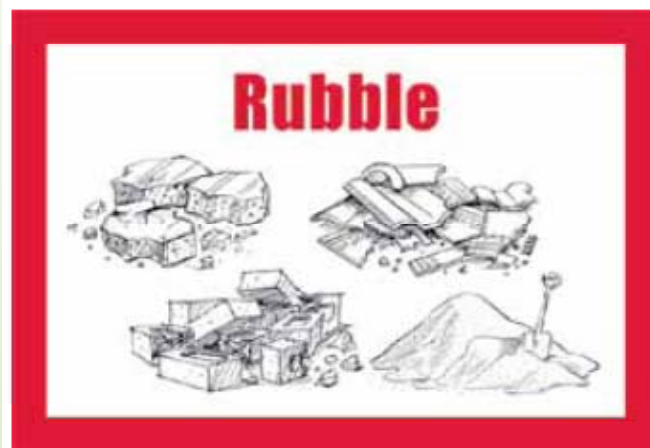


Toolkit Content

Example Signage



STEP 3. Set up

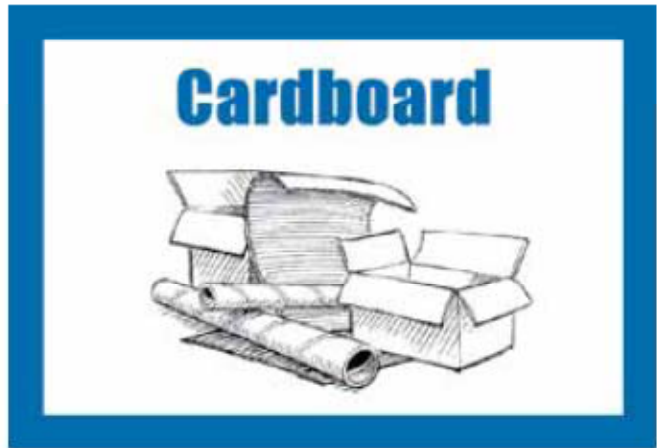
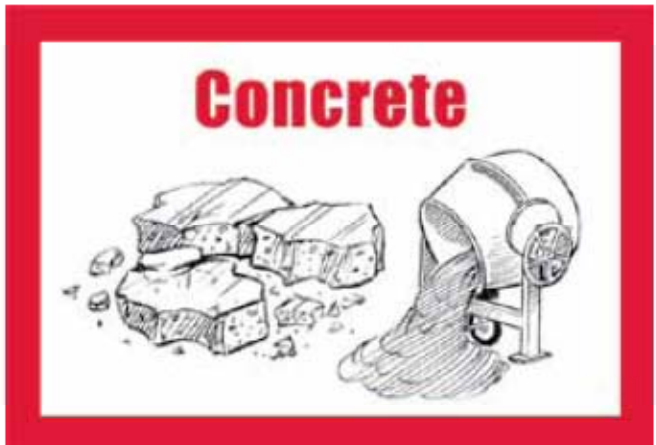
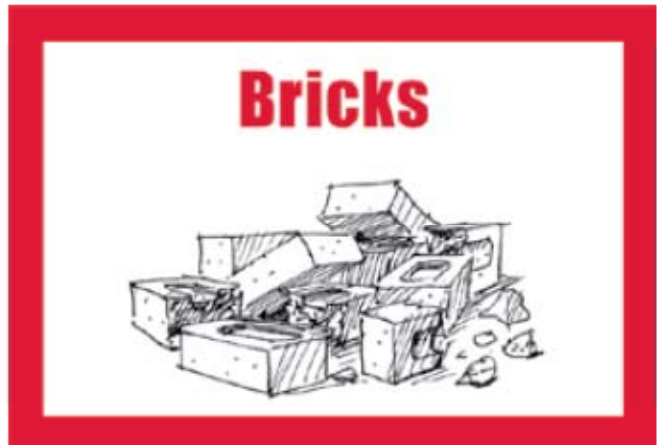


Toolkit Content

Example Signage



STEP 3. Set up



Toolkit Content



Relevant to: All site workers/staff

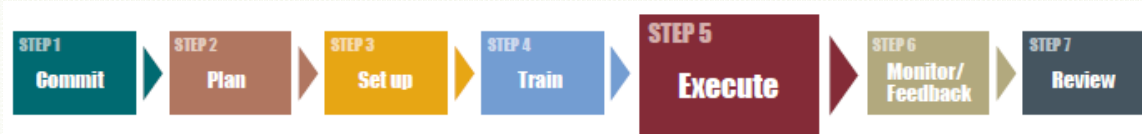
Content includes:

- Training – why you need it and what to do

**REMEMBER: COMMUNICATE,
COMMUNICATE, COMMUNICATE**



Toolkit Content



STEP 5. Execute Waste Management Plan (WMP)

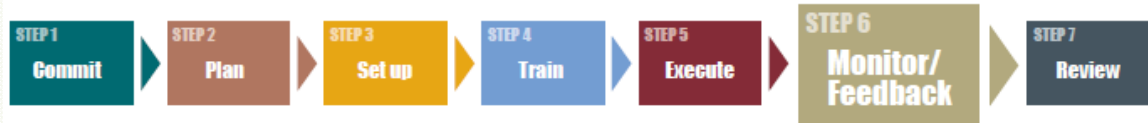
Relevant to: Site supervisors and all site workers/staff

Content includes:

- Refer to waste management plan
- Inspections
- Non-compliance
- Data collection



Toolkit Content



STEP 6. Monitor/feedback

Relevant to: Recycling facilities; senior management; site supervisors

Content includes:

- Why monitor?
- What information to collect
- What to do with the information
- Feedback to staff and stakeholders



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

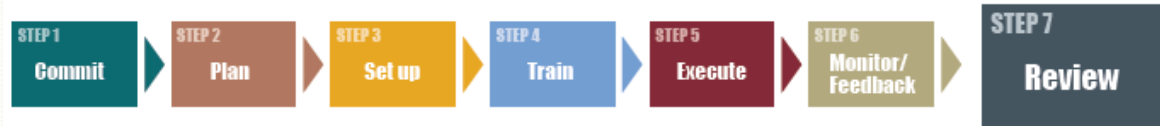
Where: R = material recycled (tonnes) i.e. all of the recycling streams added together

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 solid waste streams.



Toolkit Content



STEP 7. End of project review and evaluation

Relevant to: Senior management; site supervisors; site workers/staff

Content includes:

- Review and evaluation process



Recycling Works – 3 Key Messages

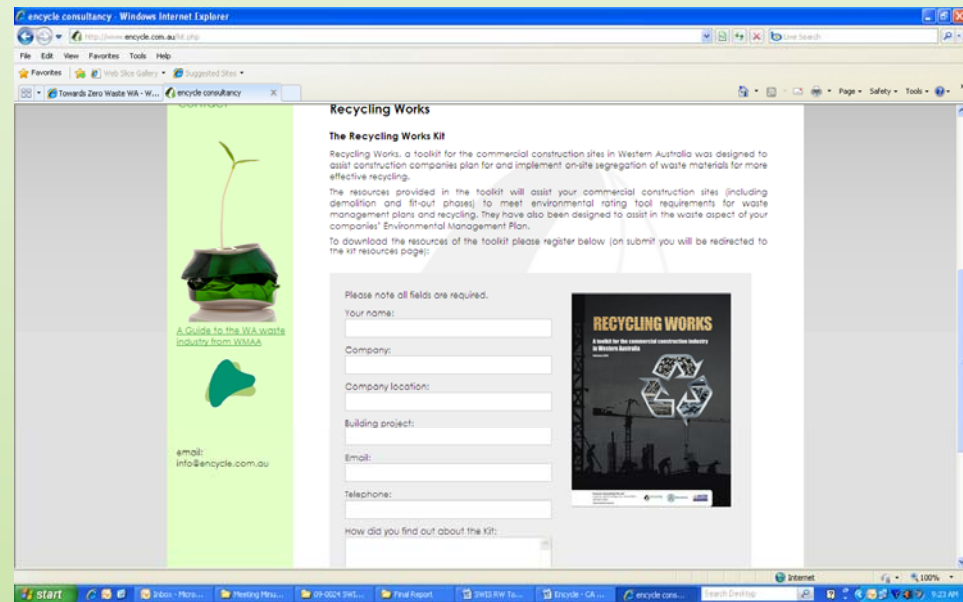
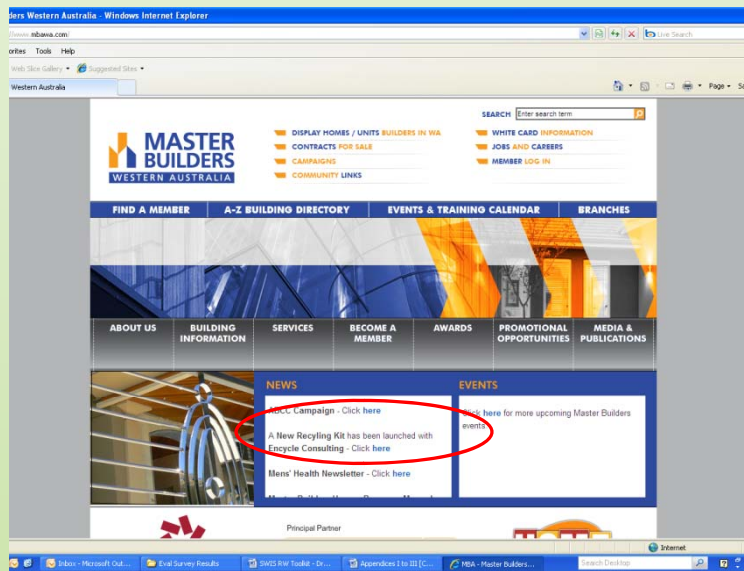
RECYCLING WORKS AND WORKS AND WORKS IF YOU...

- 1. Commit, starting at the top – support from senior management is essential**
- 2. Keep it simple – it can be as easy as separating 'heavies' from everything else**
- 3. Communicate, communicate, communicate – talk to site workers, provide feedback on achievements and reinforce the messages**







Recycling Works – toolkit dissemination

- Over 140 Recycling Works Toolkits have been disseminated
- The Toolkit is available for download from the Encycle website www.encycle.com.au
 - There is a link to the Toolkit from the Master Builders Association WA news webpage
 - A copy of the Toolkit can also be found on the Waste Authority – Towards Zero Waste website



Evaluation

Survey:

-  Rated '4 out of 5' in terms of how useful the Toolkit is (5 being "extremely useful")
-  3 companies have implemented a recycling program as a result of the Toolkit on more than 11 sites
-  10 respondents said that they do not know yet if their organisation will use the Toolkit
-  3 respondents said that they do not have the time to implement the Toolkit despite thinking it was very useful

Feedback:

"This is a succinct guide covering the major aspects of material recovery from construction sites. It is clearly written, with lots of pictures...I like using it."

"This Toolkit is fantastic and more builders should be using it!"

"I believe it is a great introduction to the environmental issues in construction and is very useful in providing a starting point from which to begin the process of Environmental responsibility."



Outcomes

- ❏ Increased the level of communication between the construction industry and the recycling industry – improving the attitudes of both industries towards one another
- ❏ Train the trainer program for Toolkit resources to be taught to TAFE students within applicable programs
- ❏ Plaster board recycling

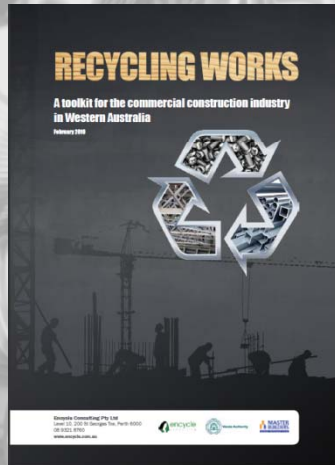


What Next

- 🔄 Ongoing distribution:
 - 🔄 Available online and regularly updated
 - 🔄 Encycle will continue to oversee the distribution of the Toolkit and will provide updates to the toolkit via the Encycle website, including:
 - 🔄 Development of a database of current C&D recyclers in Perth
 - 🔄 Local recycling infrastructure changes, i.e. acceptance of flat glass at the new Colmax glass recycling plant
 - 🔄 The implementation of plasterboard recycling (if or when this begins)
 - 🔄 Case studies will be developed where possible as the Toolkit is implemented (and data collected) on construction sites



Download Toolkit from:
<http://www.encycle.com.au/kit.php>



waste less, achieve more

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Thank you

