



Small Business Waste Reduction Toolkit

A simple process, tools, templates and case studies
to help small business reduce waste and save money



This project is a Midwaste initiative, assisted by the NSW Office of Environment and Heritage.

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Published by Midwaste Regional Waste Forum
Produced by 360green

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Section One

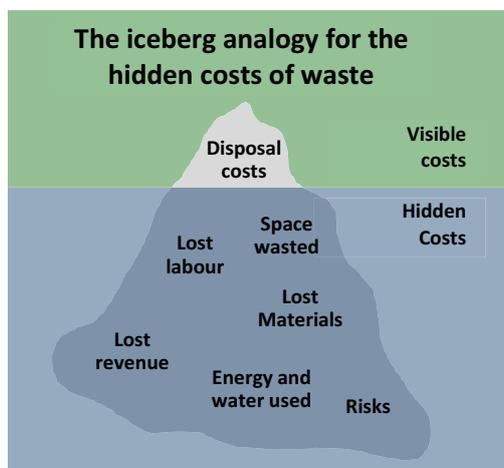
About Waste

Why worry about waste?

The hidden costs of waste

The cost of waste to your business is likely to be 5-10 times more than the obvious waste disposal and management costs you pay. 'Hidden costs' arise from the generation of waste, such as:

- the purchase cost of materials that get wasted
- lost opportunity for revenue from wasted material
- labour costs handling or working with the material which ends up being waste
- energy, water and space wasted on the material
- wear and tear on equipment generating waste product
- potential OHS and environmental liability costs
- reduced morale as employees don't like dealing with waste and they perceive inefficiencies
- reduced sales as customers value efficiency, cleanliness and sustainability.



Rising waste disposal fees

As a result of state government levies, the national carbon pricing mechanism and increasing regulation on waste and landfill management, waste disposal fees are rising. The cost differential between waste disposal and recycling is growing. This means that reducing your waste and diverting more waste to recycling or composting will save you even more money as time goes by.



Environmental impacts of waste

Disposing of waste has significant environmental impacts. Most of our waste is buried in landfills where some of it will rot producing odours and methane gas which is a potent greenhouse gas. Leachate produced as water infiltrates into decomposing waste may also cause pollution, and landfill sites can attract vermin or cause litter.

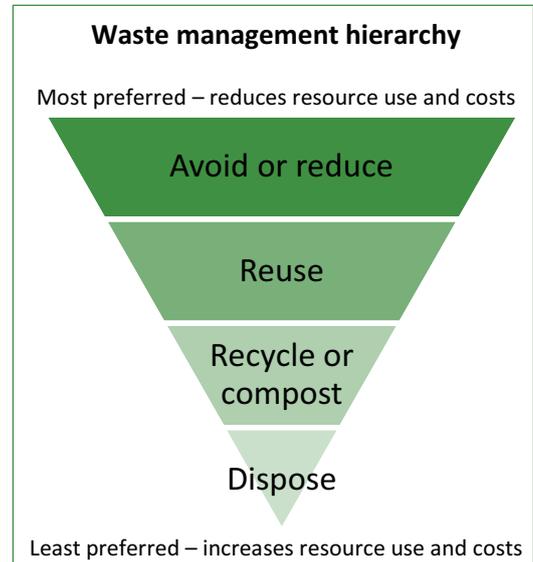
How will this toolkit help?

This toolkit provides a simple 5-step process and the tools you need to reduce waste. It has been designed specifically for small business. The tools are also available in fully editable electronic format so you can adapt them to your needs. This booklet explains how to use the tools and provides basic information about waste to help you make the right decisions.

The hierarchy of effective waste management

The waste management hierarchy highlights that we should:

- First, reduce use of materials and avoid the generation of waste in the first place
- Second, reuse materials for their original purpose or another
- Third, send materials to be recycled or composted
- Finally, send waste for disposal to landfill only as your last resort, after all the options above have been tried



Effective waste reduction is most easily achieved by preventing the creation of unnecessary waste in the first place.

Section Two

Managing Your Waste

Summary

A 5-step process has been developed to guide you to better waste management. The steps are:

- Step 1: Document current services
- Step 2: Site assessment
- Step 3: Opportunity review
- Step 4: Waste reduction action plan
- Step 5: Implementation and review

These steps are detailed on the following pages, and links to more information are provided at the end of this section. Worksheets are then provided in Section 3, followed by additional templates and then sample documents to assist you in completing the worksheets. Please note all worksheets, templates and samples are available in editable electronic form on the Midwaste website: www.midwaste.org.au.

Step 1: Document current practices

This is a simple but important first step. Using Worksheet 1, list the waste collection services you currently have and calculate the amount of each type of waste and what you pay for it each year.

Gathering your data

For waste collection services provided by Council you can find waste management charges on your rates notices. For contractor services you will need invoices showing charges and the number of bins being collected. If you take any waste or recycling away yourself, use dockets from the waste management centre and an estimate of labour and transport costs.

Case in point

Two local businesses were paying for waste services they weren't receiving. A retailer paying for three bins per week only had two bins – the third may have been present in the past and was stolen or damaged.

An accommodation provider was paying for a wheelie bin to be collected weekly but the bin was never being used as larger skip bins were also on site. The savings available from a simple check were around \$130 and \$380 per year respectively.

It is likely that the amount of waste you generate varies throughout the year, so gather records for a full year if possible or consider these fluctuations if making an estimate.

While completing this step, check that the services you are paying for match the services you are receiving. Over time the service might change without the invoicing system being updated (see Case in point above).



Section Two Managing Your Waste

Estimating waste generation

The number of bins you have multiplied by their size and the number of collections tells you how much bin space you're paying for, but if the bins aren't always full then your actual waste generation is less.

Estimate how full your bins are on average throughout the year and apply this percentage to your bin space figure to find the volume of waste you generate. You may need to talk to staff using the bins regularly to make a good estimate.

Doing this may reveal an opportunity to save money by reducing the number or size of bins, or reducing the frequency of the collection to ensure you fully utilise your services. If you currently have a scheduled collection service, ask your service provider if it can be an on-call service so the bin is only emptied when it is full.

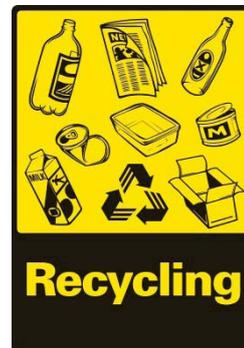


If you came across anything needing further investigation, or thought of an idea, make a note to include it in your Waste Reduction Action Plan in Step 4.



'Worksheet 1: Current practices summary' is available in editable electronic format at www.midwaste.org.au

Save your current practices information to compare against future data so you can determine how effective your actions have been.



Step 2: Site assessment

Using Worksheet 2, conduct a site inspection to assess how waste is managed in your business and start identifying opportunities to reduce waste.

Involve staff

The worksheet is simple and self-explanatory, but you will get greater benefit if you talk to staff about the specific issues in your workplace and seek their input. Alternatively, you could ask staff from each area to complete the site assessment for you and discuss the results. Involving staff at this stage is the best way to get their support later when you introduce changes, and they are likely to provide valuable insight and ideas if asked for an opinion.

Case in point

Increased efficiency and cleanliness as well as a reduction in OHS risk was achieved in a mid-sized retail outlet simply by hearing the concerns of inventory and cleaning staff who thought they shouldn't complain.

Section Two

Managing Your Waste

Source separation

As you undertake the site assessment and consider the results, note these key factors for effective source separation systems:

- Convenient and safe bin locations, with recycling bins paired with general waste bins and the general waste bin closest to most users to avoid garbage being put into recycling bins
- Appropriate bin size, considering frequency of emptying and weight of material if lifting is required
- Ease of bin cleaning
- Bin colour coding and/or labelling
- Signs with details of what goes in each bin, near bins and in common areas
- Lids for odour reduction where appropriate
- Staff engagement – eg induction, support, feedback, reward

 While completing the site inspection and talking to staff note down any possible actions to include in your Waste Reduction Action Plan in Step 4.

 'Worksheet 2: Site assessment' is available in editable electronic format at www.midwaste.org.au



Case in point

A local manufacturer was able to introduce recycling for plastic packaging and cardboard which nearly eliminated the need for a general waste bin in the workshop area. The existing contractor is providing the service and the bins, and the business is saving approximately 50% of the collection cost for everything they recycle rather than waste.

At the same time, a food outlet had a recycling collection service but was only recycling cardboard. The introduction of internal recycling bins and clear signage now allows staff to recover the full range of recyclable materials.



Section Two Managing Your Waste

Step 3: Opportunity review

Worksheet 3 provides a comprehensive (though not exhaustive) list of opportunities for waste avoidance, reduction, reuse, recycling and composting. One way to use the opportunity review is to have several managers or staff complete the form separately to highlight different perspectives but also to identify key opportunities as those which everyone has selected.

About Worksheet 3

Opportunities are listed under the following categories:

- Infrastructure and services
- Information and behaviour
- Purchasing and packaging
- Manufacturing and production
- Foodwaste and food Service
- Paper and stationary

A 'hierarchy level' column refers to the waste hierarchy for maximum conservation of resources, giving each opportunity a rating from most to least efficient: (1) avoids and/or reduces waste, (2) reuses waste, and (3) recovers waste.



The checklist allows you to quickly identify actions you're already undertaking and select additional opportunities. These can then be transferred directly to your waste reduction action plan – Worksheet 4.

The opportunities listed are generalised, and some may apply across your whole business while others apply only to some products or areas. Adapt them as required.



'Worksheet 3: Opportunity review' is available in editable electronic format at www.midwaste.org.au

The opportunity review checklist is your cheat sheet for an instant waste reduction action plan! It looks long but it's quick to use...



Section Two

Managing Your Waste

Step 4: Waste Reduction Action Plan

It's time to formulate a plan, and to be effective the plan should prioritise tasks, allocate each task to a person, and specify timeframes. Collate the ideas which arose during Steps 1 and 2 with the opportunities identified in Step 3, then use Worksheet 4 to produce your waste reduction action plan (WRAP).

Developing your WRAP

First summarise your current practices for reference, then list all your actions in the first column of the Waste Reduction Action Plan actions list. Review the list and put the actions in order of priority with most important at the top. Complete the remaining sections and it's ready to go! See the 'Sample 2: Waste reduction action plan' for an example of how to complete yours.

Depending on your business, industry-specific waste management information and case studies may be available. Check at the end of this section for more information.

It is strongly recommended that you use the electronic version of the WRAP template – it's more versatile and you can save it for later review



'Worksheet 4: WRAP' is available in editable electronic format at www.midwaste.org.au

Step 5: Implementation and review

As you implement your actions, be on the lookout for additional opportunities. Talk to staff, suppliers and customers for feedback.

Staff

Ask staff how well new systems are going, whether unexpected benefits or problems are arising, and whether they think more can be done. Staff will need clear information to maximise the outcomes of your initiatives – include waste management systems in your induction programs and staff meetings. Also check periodically that bin labels and signs are still in place.

If you need an incentive to increase staff compliance, consider sharing the cost savings from improved waste management by investing them into the staff Christmas fund or bonus schemes.

Section Two Managing Your Waste

Involving staff in planning and implementation will increase their awareness and understanding so they will better adapt to any changes that affect them

Suppliers

One of the best ways to reduce waste is to reduce the packaging you receive. A 'Supplier and service provider sustainability questionnaire' template is provided in Section 3 to assist you in working with suppliers – adapt this to your needs and use it to avoid bearing the costs of unnecessary packaging waste.

Customers

Customers appreciate a clean, efficient and sustainable business – promote your waste reduction efforts by adopting a policy to formalise your undertakings and put this on public display. A 'Sustainability Policy' template is provided in Section 3.

Review

Collate your waste costs regularly and compare them annually against previous years. You may like to set targets for waste reduction or cost savings. Choosing an appropriate key performance indicator such as annual sales or production units will allow your waste cost analysis to consider the level of business activity during each period, so the findings will better reflect actual efficiency.

Periodically review your WRAP and supporting worksheets to check on your progress and identify further opportunities. Consider conducting the site assessment again, and revisit any items marked 'review later' on your opportunity review checklist.



Check the Midwaste website for new information on business waste management: www.midwaste.org.au



More Information

For updates and a list of business waste resource links, including case studies and print-ready sign artwork, visit the Midwaste website www.midwaste.org.au.

To find recycling services in your area, to download print-ready waste signage, and for lots of information about recycling, visit www.businessrecycling.com.au.

For details of Council services and facilities in your area, or for general assistance with waste, visit your local Council's website or contact their waste management section.

Search phone books under 'waste' and 'recycling' categories for service providers.

Contact your industry association as they may have industry-specific information.

Section Three

Tools

Overview

This section contains all the tools you need to review and improve waste management in your business. The purpose of each item along with how and when it can be used is detailed in Section 2.



Fully editable electronic versions of these worksheets, templates and samples are available at www.midwaste.org.au – you can download them to use on your computer, or to print copies.

The following pages contain:

- Worksheet 1: Current practices summary
- Worksheet 2: Site assessment
- Worksheet 3: Opportunity review
- Worksheet 4: Waste reduction action plan
- Template 1: Sustainability policy
- Template 2: Supplier and service provider sustainability questionnaire
- Sample 1: Current practices summary
- Sample 2: Waste reduction action plan

Worksheet 1: Current practices summary

Use this worksheet to detail your current waste disposal services, waste generation and costs. Remember to include waste or recycling you transport yourself. See Step 1 in the Small Business Waste Reduction Toolkit for information about data gathering and estimating waste generation.

Waste Stream	Service Provider	Waste bins and waste volume						Costs			Notes	
		# of bins	Bin size (litres or cubic metres) ⁽¹⁾	Collection Frequency	Annual number bin collections	Annual bin volume ⁽²⁾	Average % fullness ⁽³⁾	Annual waste volume ⁽⁴⁾	Cost per bin collection	Other costs ⁽⁵⁾		Cost per year ⁽⁶⁾
Example	ABC	2	1½ m ³	2/wk	208	312m ³	85%	265m ³	\$50	\$832	\$11,232	
General Waste (service #1)												
General Waste (service #2)												
Cardboard												
Paper/cardboard												
Comingled recycling												
Food organics												
Garden organics												
Oil recycling												
Other												
Other												
Other												
Other												
TOTAL												

- 1 - The common size for mobile garbage bins (wheelle bins) is 240 litres, for metal bulk bins 1.0m³, 1.5m³ and 3.0m³ and for plastic bulk bins 660L and 1,100L – check with service provider.
- 2 - Annual bin volume is the bin space available per year. Calculate 'bin size' x 'bin collections per year'. Note the unit of measure is the same as in 'bin size'.
- 3 - Average % fullness of all bins in this category for the full year.
- 4 - Annual waste volume is 'annual bin volume' x 'average % fullness'. Note the unit of measure is the same as in 'bin size'.
- 5 - Other costs specific to the waste stream, eg skip bin lease/site fees, Council infrastructure fee.
- 6 - Cost per year is 'cost per bin collection' x 'bin collections per year', plus 'other costs'.

Section Three: Tools

Worksheet 2: Site Assessment

Conduct a site assessment in each of the areas of your workplace where waste is generated. This provides a snap-shot, but talk to staff in each area to find out what happens throughout the year. Alternatively, ask staff to complete the assessment for their area and discuss the results. Refer to the findings of this site assessment when developing your Waste Reduction Action Plan.

1. YOUR BINS

Are <u>general waste</u> bins:	Yes	No	Are <u>recycling</u> bins:	Yes	No
In good locations for use	<input type="checkbox"/>	<input type="checkbox"/>	In good locations for use	<input type="checkbox"/>	<input type="checkbox"/>
In good locations for servicing	<input type="checkbox"/>	<input type="checkbox"/>	In good locations for servicing	<input type="checkbox"/>	<input type="checkbox"/>
Good size for use and servicing	<input type="checkbox"/>	<input type="checkbox"/>	Good size for use and servicing	<input type="checkbox"/>	<input type="checkbox"/>
Clearly labelled or signed	<input type="checkbox"/>	<input type="checkbox"/>	Clearly labelled or signed	<input type="checkbox"/>	<input type="checkbox"/>
Clean and in good condition	<input type="checkbox"/>	<input type="checkbox"/>	Clean and in good condition	<input type="checkbox"/>	<input type="checkbox"/>
Comments:			Comments:		
<hr/>			<hr/>		
<hr/>			<hr/>		

2. YOUR WASTE

Are these in your general waste?	Yes	No
Paper and cardboard	<input type="checkbox"/>	<input type="checkbox"/>
Glass	<input type="checkbox"/>	<input type="checkbox"/>
Plastic containers	<input type="checkbox"/>	<input type="checkbox"/>
Plastic packaging (eg wrap, film)	<input type="checkbox"/>	<input type="checkbox"/>
Aluminium cans	<input type="checkbox"/>	<input type="checkbox"/>
Steel cans or other metal items	<input type="checkbox"/>	<input type="checkbox"/>
Foodwaste	<input type="checkbox"/>	<input type="checkbox"/>
Garden waste or timber	<input type="checkbox"/>	<input type="checkbox"/>
Batteries or electronic waste	<input type="checkbox"/>	<input type="checkbox"/>
If yes, detail what you find and how much of each material there is ¹ :		
<hr/>		
<hr/>		
<hr/>		

3. YOUR WASTE AVOIDANCE AND REUSE

Do you do any of the following?	Yes	No
Buy products in bulk or in concentrated form	<input type="checkbox"/>	<input type="checkbox"/>
Buy recycled or recyclable products	<input type="checkbox"/>	<input type="checkbox"/>
Buy long-lasting rather than disposable items (eg cups)	<input type="checkbox"/>	<input type="checkbox"/>
Reuse products (eg containers for storage, paper for notepads)	<input type="checkbox"/>	<input type="checkbox"/>
Give waste products to another organisation for reuse	<input type="checkbox"/>	<input type="checkbox"/>
If yes, detail these and any other waste avoidance or reuse practices here:		
<hr/>		
<hr/>		
<hr/>		

4. YOUR OPPORTUNITIES

What opportunities do you see to improve waste management and reduce waste? What are your main types of waste and how can they be avoided, reduced, reused, recycled or composted?

¹ These recoverable materials can be recycled or composted. Services are available in many locations, and composting of food and garden waste can be undertaken on site.

Worksheet 3: Opportunity Review

This checklist provides a comprehensive (though not exhaustive) list of opportunities for waste avoidance, reduction, reuse, recycling and composting. You can quickly identify actions you're already undertaking and select additional opportunities, then transfer these to your waste reduction action plan. Some will apply across your whole business while others apply only to some products or areas - adapt them as required.

The 'hierarchy level' column refers to the waste hierarchy for maximum conservation of resources, from most to least efficient: (1) avoid and reduce waste, (2) reuse waste, and (3) recover waste.

Consider having several managers or staff complete the form separately to highlight different perspectives but also to identify key opportunities as those which everyone has selected.

Opportunity	Hierarchy level	Already underway	Yes, include in WRAP	No, review later	No, not viable	No, not applicable
Infrastructure and Services						
Review current waste services and waste generation (see Worksheet 1)	all	<input type="checkbox"/>				
Conduct a site assessment to review current waste management systems (see Worksheet 2)	all	<input type="checkbox"/>				
Consult your local Council and waste collection contractors about service options	3	<input type="checkbox"/>				
Check with your local Council about electronic waste (e-waste) collection or drop-off centres	3	<input type="checkbox"/>				
Arrange appropriate new waste recovery services (eg recycling, foodwaste collection)	3	<input type="checkbox"/>				
Develop and implement internal waste separation systems to support new waste recovery services (eg recycling bin in each workstation and common area)	3	<input type="checkbox"/>				
Information and Behaviour						
Discuss business operations with employees and get their input on where waste is occurring and how to reduce it	all	<input type="checkbox"/>				
Involve staff in development and implementation of your Waste Reduction Action Plan – allocate actions to staff	all	<input type="checkbox"/>				
Establish data monitoring system for waste costs and volumes (including targets where appropriate)	all	<input type="checkbox"/>				
Encourage excellence in waste avoidance and waste recovery with acknowledgement and rewards for staff	all	<input type="checkbox"/>				
Develop and display a business Waste Reduction Policy or Sustainability Policy to highlight your commitment and efforts to your staff and customers (see Template 1)	all	<input type="checkbox"/>				
Ensure your recycling containers are a different colour from your general waste and/or have very clear labels	3	<input type="checkbox"/>				
Install signs in waste disposal areas and common areas (eg staff kitchen) showing what items should go into each bin	3	<input type="checkbox"/>				

Section Three: Tools

Opportunity	Hierarchy level	Already underway	Yes, include in WRAP	No, review later	No, not viable	No, not applicable
Purchasing and Packaging						
Talk to suppliers about what options they can offer you to reduce waste (eg reusable packaging, less packaging, taking back drums, crates, and polystyrene boxes)	all	<input type="checkbox"/>				
Adopt a Supplier Sustainability Questionnaire to encourage suppliers to reduce waste and provide you with better options (see Template 2)	all	<input type="checkbox"/>				
Use online order forms or fax directly from a computer to reduce printouts	1	<input type="checkbox"/>				
Buy in bulk to avoid excess packaging	1	<input type="checkbox"/>				
Purchase products in concentrated forms (eg cleaning products) and refillable containers to reduce packaging	1	<input type="checkbox"/>				
Use washable kitchenware rather than disposable items	1	<input type="checkbox"/>				
Purchase durable and repairable office equipment and furniture	1	<input type="checkbox"/>				
Avoid battery-powered devices where possible and /or purchase rechargeable batteries	1	<input type="checkbox"/>				
Purchase reusable and recyclable items such as refillable pens and cardboard folders	2	<input type="checkbox"/>				
Reuse packaging to store your own items	2	<input type="checkbox"/>				
Find another organisation which can reuse your packaging (eg school, community centre, charity)	2	<input type="checkbox"/>				
Buy products such as paper, toilet paper, tissues, notepads etc that are made from recycled material	3	<input type="checkbox"/>				
Recycle your packaging such as cardboard, plastic wraps and films with an appropriate collection service	3	<input type="checkbox"/>				
Manufacturing and Production						
Review product design to use fewer raw materials, use recycled materials, and minimise waste in production and end use	1	<input type="checkbox"/>				
Review your product packaging to minimise material use, use recycled material, and make it reusable and recyclable	1	<input type="checkbox"/>				
Review processes to avoid inefficiencies that create waste	1	<input type="checkbox"/>				
Revise systems so waste products are collected in one location, reducing handling and increasing viability of reuse and recycling options	2	<input type="checkbox"/>				
Reuse any waste you produce until it no longer has any value and then recycle the materials wherever possible	2	<input type="checkbox"/>				
If you can't reuse a waste product, consider whether any other business or organisation can - you can save paying waste disposal, while they get a product they need	2	<input type="checkbox"/>				

Opportunity	Hierarchy level	Already underway	Yes, include in WRAP	No, review later	No, not viable	No, not applicable
Foodwaste and Food Service						
Choose suppliers that can provide meats, baked goods, dairy products etc in reusable or recyclable containers	1	<input type="checkbox"/>				
Adopt a Supplier Sustainability Questionnaire to encourage suppliers to reduce waste and provide you with better options (see Template 2)	1	<input type="checkbox"/>				
Check stock when received and review inventory management to reduce spoiled and out of date product	1	<input type="checkbox"/>				
Provide serving size options to allow for differing appetites	1	<input type="checkbox"/>				
Serve condiments such as butter and jam in reusable containers rather than individually wrapped portions	1	<input type="checkbox"/>				
Check if any charity organisations in your area will collect excess food which has not been served to the public	1	<input type="checkbox"/>				
Reuse containers for storage or give to schools or charities	2	<input type="checkbox"/>				
Separate food scraps in the kitchen and introduce an internal or external composting system or worm farm	3	<input type="checkbox"/>				
Check if a foodwaste collection service is available	3	<input type="checkbox"/>				
Arrange a cooking oil recycler to provide a collection service and drums for storing the used oil	3	<input type="checkbox"/>				
Paper and Office Supplies						
Make double-sided copying/ printing the default setting	1	<input type="checkbox"/>				
Switch from printed to electronic marketing	1	<input type="checkbox"/>				
Keep mailing lists current	1	<input type="checkbox"/>				
Use inter-office emails not printed memos	1	<input type="checkbox"/>				
Post general announcements on a bulletin board rather than printing a copy for each person	1	<input type="checkbox"/>				
Edit and proof documents on computer before printing	1	<input type="checkbox"/>				
Store documents electronically rather than printing copies	1	<input type="checkbox"/>				
Share one copy of reference documents in a central location rather than having several copies	1	<input type="checkbox"/>				
Eliminate fax cover sheets by using a company stamp	1	<input type="checkbox"/>				
Remove yourself from mailing lists of unwanted mail	1	<input type="checkbox"/>				
Reuse single-sided sheets of paper for printing draft copies, or for scrap paper or notepads	2	<input type="checkbox"/>				
Reuse office supplies such as folders and clips and share them in a central location for all staff	2	<input type="checkbox"/>				
Use reconditioned ink cartridges and return for reuse	2	<input type="checkbox"/>				
Donate reusable furniture, equipment and supplies to schools or charities	2	<input type="checkbox"/>				
Recycle paper with a collection service supported by internal paper recycling bins in appropriate locations	3	<input type="checkbox"/>				

Template 1: Waste Reduction Policy

(Business Name)
Waste Reduction Policy
(Date)

(Business Name) is committed to the protection of the environment and the health and safety of employees. We seek to avoid the generation of waste. We reuse, recycle and compost waste wherever possible, and where waste must be disposed of this is undertaken using safe and responsible methods.

(Business Name) undertakes the following practices to reduce, reuse and recycle waste:

- Encourage suppliers to reduce waste by providing more sustainable product and packaging alternatives
- Buy products in bulk and in concentrated forms wherever possible to avoid excess packaging
- Buy paper products made from recycled material
- Use online order forms to reduce paper consumption
- Use electronic rather than printed marketing materials
- Reuse containers and packaging for storage
- Maintain effective internal waste separation systems to maximise resource recovery
- Recycle packaging such as cardboard, plastic wraps and films
- Recycle paper and containers
- Monitor waste generation and regularly review practices for continuous improvement

Section Three: Tools

Template 2: Supplier and service provider sustainability questionnaire

As a potential supplier or service provider to our business, you could have an influence on our impact on the environment and our community. We have therefore included this questionnaire to assess your sustainability performance for consideration in our purchasing decisions.

Please note additional information can be provided using extra pages. More information may also be requested to support your responses.

About your organisation	Yes	No
1. Does your organisation have a policy or ongoing program which supports local communities (eg buying local products, voluntary community work)?	<input type="checkbox"/>	<input type="checkbox"/>
2. Does your organisation have an Environmental Policy and/or Waste Minimisation Policy? If yes, please supply a copy with your quotation.	<input type="checkbox"/>	<input type="checkbox"/>
3. Does your organisation have an Environmental Management System (EMS)? If yes, please specify certification body if applicable:	<input type="checkbox"/>	<input type="checkbox"/>
4. Does your organisation carry out monitoring programs or auditing to minimise environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>
5. Does your organisation evaluate the environmental performance of its suppliers or subcontractors?	<input type="checkbox"/>	<input type="checkbox"/>
6. Does your organisation undertake any other initiatives to conserve resources or minimise environmental impacts? If yes, please provide a summary separately.	<input type="checkbox"/>	<input type="checkbox"/>
About your product (not applicable to service providers)	Yes	No
7. Is there an accredited environmental rating system applicable for this product? If yes, provide rating system and score here:	<input type="checkbox"/>	<input type="checkbox"/>
8. Is any part of the product (excluding packaging) manufactured from sustainable and/or renewable resources (eg recycled or FSC certified materials)?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is any part of the product (excluding packaging) reusable, recyclable or biodegradable when the product is no longer usable in its current form?	<input type="checkbox"/>	<input type="checkbox"/>
10. Is any part of the product made locally?	<input type="checkbox"/>	<input type="checkbox"/>
11. Are there any other considerations which make this product more sustainable than similar alternatives? If yes, please provide a summary separately.	<input type="checkbox"/>	<input type="checkbox"/>
About your packaging (not applicable to service providers)	Yes	No
12. Has your organisation adopted packaging reduction practices or policies?	<input type="checkbox"/>	<input type="checkbox"/>
13. Is the packaging made from recycled materials?	<input type="checkbox"/>	<input type="checkbox"/>
14. Is the packaging designed for reuse?	<input type="checkbox"/>	<input type="checkbox"/>
15. Is the packaging recyclable?	<input type="checkbox"/>	<input type="checkbox"/>
16. Will your organisation accept the packaging back for reuse or recycling?	<input type="checkbox"/>	<input type="checkbox"/>
17. Please describe the packaging of your product(s) here (use reverse side or additional page if required):		

Sample 1: Current practices summary

(Business Name)
 Current Waste Management Services and Volumes
 (Date)

Waste Stream	Service Provider	Waste bins and waste volume						Costs			Notes	
		# of bins	Bin size (litres or cubic metres) ⁽¹⁾	Collection Frequency	Annual number bin collections	Annual bin volume ⁽²⁾	Average % fullness ⁽³⁾	Annual waste volume ⁽⁴⁾	Cost per bin collection	Other costs ⁽⁵⁾		Cost per year ⁽⁶⁾
General Waste (service #1)	ABC	2	1½ m ³	2/wk	208	312m ³	85%	265m ³	\$50	\$832	\$11,232	Scheduled collections
General Waste (service #2)	Cnc1	1	240L	1/wk	52	12.5KL	50%	6.25KL	n/a	\$32	\$320	Council wheelie bin svc
Cardboard	ABC	1	1½ m ³	1/wk	52	78 m ³	100%	78 m ³	\$28	\$416	\$1,872	On demand, avg wkly
Paper/cardboard												
Comingled recycling	Cnc1	1	240L	1/ftn	26	6.25KL	40%	2.5KL	n/a	n/a	\$88	Council wheelie bin svc
Food organics												
Garden organics												
Oil recycling												
Other – scrap metal	DEF	1	3 m ³	1/mth	12	36 m ³	100%	36 m ³	-\$100	n/a	-\$1,200	On demand, metal sold
Other												
Other												
Other												
TOTAL												

- 1 - The common size for mobile garbage bins (wheelie bins) is 240 litres, for metal bulk bins 1.0m³, 1.5m³ and 3.0m³, and for plastic bulk bins 660L and 1,100L – check with service provider.
- 2 - Annual bin volume is the bin space available per year. Calculate 'bin size' x 'bin collections per year'. Note the unit of measure is the same as in 'bin size'.
- 3 - Average % fullness of all bins in this category for the full year.
- 4 - Annual waste volume is 'annual bin volume' x 'average % fullness'. Note the unit of measure is the same as in 'bin size'.
- 5 - Other costs specific to the waste stream, eg skip bin lease/site fees, Council infrastructure fee.
- 6 - Cost per year is 'cost per bin collection' x 'bin collections per year', plus 'other costs'.

Section Three: Tools

Sample 2: Waste Reduction Action Plan

(Business Name)
Waste Reduction Action Plan
 (Date)

Current Waste Management Services and Practices:

Waste avoidance and reduction

Buy cleaning products in bulk
 Double-sided copying/ printing is the default setting

Waste recycling and composting

Internal commingled recycling bin in staff kitchen
 One blue 240L confidential paper recycling wheelie bin, collected monthly by contractor
 One 240L commingled recycling bin, collected fortnightly by Council

Waste reuse

Reuse of plastic containers for storage, and paper for notepads
 Timber pallets collected by supplier for reuse

Waste disposal

Three 240L general waste wheelie bins, collected weekly by Council

Waste Reduction Action Plan:

Action	Costs/savings	Responsibility	Timing
Review our product packaging to minimise material use, use recycled material, and make it reusable and recyclable	To be determined	John Citizen	Within 4 weeks
Adopt Supplier Sustainability Questionnaire to encourage suppliers to reduce waste and provide with better options	\$0 cost, possible waste disposal savings	Jane Citizen	Immediate
Introduce additional internal recycling bins in offices and reception area	Bins \$10-20ea	Joe Citizen	Immediate
Introduce plastic packaging recycling service with bales for collection provided by contractor	\$0 cost, Save \$15/m ³	Joe Citizen	Within 2 weeks
Install signs in waste disposal areas and staff common areas showing what items should go into each bin	Printing only	John Citizen	Within 2 weeks
Establish data monitoring system for waste costs and volumes (including targets)	Time only	John Citizen	Within 4 weeks

Case Study 1 – Embelton Timber Services

Manufacturing sector

Manufacturing timber flooring products, the main wastes produced by this operation are sawdust, timber offcuts and packaging. An effective arrangement was in place for the use of sawdust as fuel by another business, but significant amounts of timber and packaging were being disposed of. Also the business had an underutilised Council recycling wheelie bin service, and the workplace culture did not embrace resource recovery.

New initiatives:

An assessment of current costs and services and an opportunity review revealed the value in the following initiatives:

- Introduction of plastic packaging recycling using 1m³ bale on frame
- Introduction of cardboard recycling using 1m³ bale on frame
- Introduction of internal commingled recycling collection for containers and paper in offices and staff room
- Increase sale of wood offcuts as firewood by improving presentation, marketing and promotion

“We save around 50% of the disposal fee for everything we recycle, so the introduction of recycling systems for cardboard and plastic packaging made perfect sense,” said Stephen Gibney, Production Manager.

Outcomes:

- Gradual shift in workplace culture to recognise the value of resource recovery
- Cleaner workplace
- Estimated annual savings of over \$1,500 in waste disposal fees
- Estimated annual reduction in waste to landfill of over 100m³



Section Four

Case Studies

Case Study 2 – Lobbys Seafood Restaurant

Food services sector

Offering dine in, takeaway and al fresco options and located in heart of Forster CBD, this is a busy restaurant particularly during school holidays. The owner is committed to reducing the environmental impacts of business operations and had made a number of choices with sustainability in mind, such as the use of takeaway containers made from 100% recycled paper rather than Styrofoam. Through the Business Waste Reduction program new initiatives were identified and implemented.

Previous activities:

- Purchasing in bulk containers
- Use of recycled and recyclable cardboard takeaway containers
- Use of washable cleaning wipes
- Reuse of plastic containers for food storage
- Ink cartridges refilled
- Used cooking oil collected for biodiesel
- Cardboard recycling

Remember the hierarchy of effective waste management:

1. *Reduce use of materials and avoid producing waste*
2. *Reuse materials*
3. *Recycle and compost wastes*
4. *Send waste for disposal to landfill only as your last resort, after all the options above have been tried*



New initiatives:

- Replace plastic bags with a compostable bag, and minimise use by providing only when needed
- Encourage eat-in option to reduce takeaway container use
- Expand cardboard recycling to full commingled recycling (plastic, steel, aluminium, paper and cardboard)
- Place recycling bins in kitchen and internal and external eating areas
- Develop and display waste reduction policy

Outcomes:

While hard to quantify, the business owner felt that the prominent placement of well-labelled recycling bins in eating areas combined with having a waste reduction policy on display would demonstrate to customers that the business is committed to good environmental management, and lead to increased customer loyalty.

The diversion of recyclable containers from garbage to recycling has resulted in a reduction in waste of around 15%, representing a saving of around \$300 and 23m³ of waste each year.

Case Study 3 – Amcal Max Chemist

Retail trade sector

This large retail store has the common problem of serious space constraints in the back of house receivals, inventory and waste handling areas, which can result in untidiness and unsafe conditions.

The review process:

Inventory and cleaning staff were consulted and a site assessment conducted, highlighting a number of opportunities to improve recycling and waste handling, including:

- Strategic placement of additional internal recycling crates to increase capture of recyclables
- Improving labelling of recycling and garbage bins
- Adjustments to waste handling procedures of inventory and cleaning staff to develop cleaner and safer back of house operations
- Rearrangement of wheelie bins and skip bins to avoid contamination of the recycling



Outcomes:

- Clear understanding amongst staff of roles and responsibilities for waste handling
- Cleaner and safer conditions
- Increase in capture of recyclables
- Decrease in contamination of recycling stream

"We reviewed our waste handling systems and the internal and external bins," said David Hunt, Pharmacist. "We now have a safer and more efficient system that saves us money and reduces our environmental impact – a win for the triple bottom line."

Section Four

Case Studies

Case Study 4 – Great Lakes Holiday Park

Accommodation sector

Providing both semi-permanent and holiday accommodation, this park has a range of facilities and substantial grounds to manage.

The review:

Motivated by recurring incidences of garbage being put in the recycling skip bins and the cost of waste disposal, the park reviewed current waste management systems and alternatives. An unexpected and significant financial saving was identified as a redundant service was still in place, and an opportunity to expand waste avoidance practices was also revealed.

Outcomes:

Methods which were implemented to increase the capture of recycling and decrease contamination included:

- Rearrangement of skip bins in bin stations to position garbage bins closest to entries
- Refreshing recycling signs in bin stations
- Introducing 60L recycling bins in the communal kitchen and lounge facility with bold labelling and a lid with only a small opening to exclude bags of garbage
- Introducing recycling crates in the office and staff kitchen



In addition, the cancellation of an unrequired service offers savings of around \$380 per year. An incremental decrease in waste generation and small cost savings from reduced consumption of materials are being achieved through actions such as:

- Posting general announcements on a bulletin board rather than printing a copy for each person
- Storing documents electronically rather than printing
- Electronic ordering rather than faxing
- Reusing and sharing office supplies

Some key factors for effective source separation systems:

- *Recycling bins paired with garbage bins and garbage bins closest to access point*
- *Bin colour coding and/or labelling and signage*
- *Lids for odour reduction where appropriate*
- *Staff training and support*



“ We now have a safer and more efficient system that saves us money and reduces our environmental impact – a win for the triple bottom line ”

“ We save around 50% of the disposal fee for everything we recycle ”

For more information, electronic templates and web links visit www.midwaste.org.au