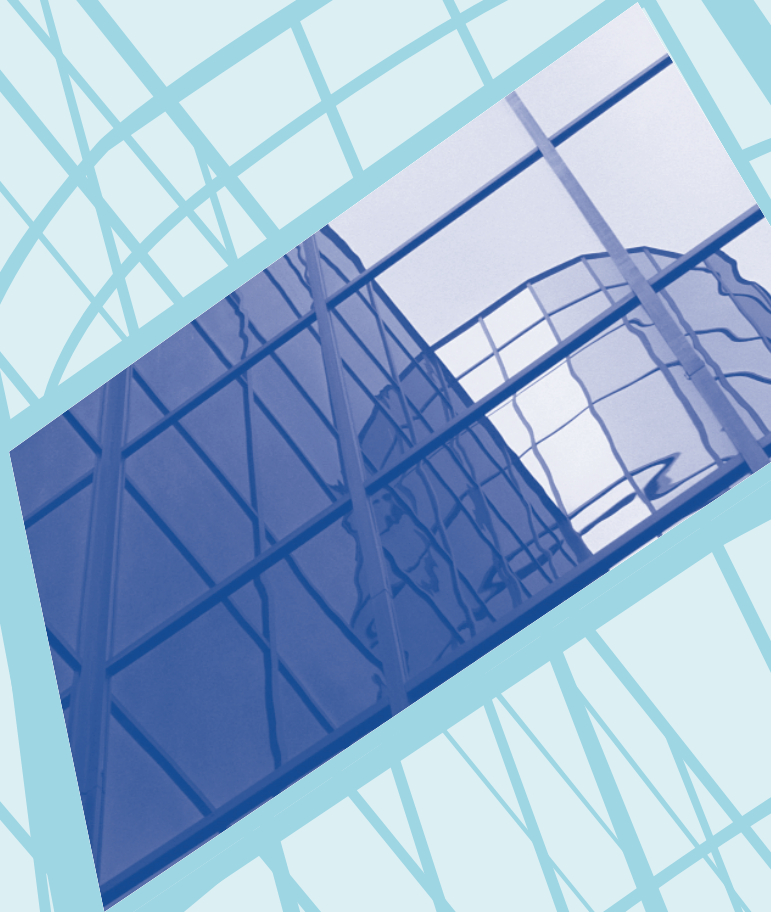


# **Waste Reduction** in Office Buildings

A Guide for Tenants



RESOURCE<sup>NSW</sup>

# RESOURCE<sup>NSW</sup>

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## Disclaimer:

These Guidelines have been prepared in good faith. Whilst every effort has been made to ensure that the information provided is correct, Resource NSW does not endorse any of the goods or services discussed in the Guidelines. It is your responsibility to ensure that any waste reduction system and equipment used in your building is suitable and appropriate.

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# Introduction

Reducing the amount of waste your office produces needn't be difficult or time consuming. There are a few, key things you can do that will dramatically reduce the waste from your office, and save money and the environment at the same time.

This booklet is designed to be a simple, straightforward guide to what tenants in an office building can do to reduce waste in their building. Its focus is on implementing a successful paper recycling system, but it includes other waste reduction initiatives as well.

## Who is responsible?



**Architects/Developers**  
Design and build buildings with adequate waste facilities.



**Building Managers**  
Implement and maintain building-wide waste management systems that support waste minimisation and recycling.



**Tenants**  
Utilise the building's waste and recycling system. Avoid generating waste wherever possible.



**Cleaners**  
Keep recycling and garbage separate.



**Waste and recycling contractors**  
Provide efficient and cost effective recycling service.

## Community expectations are changing

Throughout our community, there is a strong and growing concern that many aspects of our modern lifestyle are unsustainable and are taking their toll on our environment and future generations. There is an expectation that governments, supported by all sectors in the community, should lead the way to re-examine our use of resources. This includes the waste we create as well as our use of other resources such as energy and water.

Recycling is not new. If you live in NSW you will know that most homes have a recycling bin. Simply by putting paper, cardboard and drink containers in our recycling bins, residents of NSW are saving hundreds of thousands of tonnes of resources each year from going to landfill.

Now that household recycling is well established, the community is looking to the commercial sector to follow suit. Over the next few years, the business sector will be faced with increasing pressure to participate alongside all other sectors to implement a wide range of environmental measures in buildings, including waste avoidance and resource recovery programs.

## Why reduce waste?

Concern about our resources and impact on the environment are reflected in commitments from all levels of government to the principles of ecologically sustainable development (ESD).

ESD principles also underpin NSW legislation. A range of environment agreements have been made at international and national levels: for example the "Agenda 21" agreement from

the Rio Summit, the National Packaging Covenant and national and state targets for waste reduction and resource recovery.

The challenge for everyone – governments, business, industry, consumers and householders is to turn the principles of ESD into actions that make a real difference.

Major cities around the world, including Sydney are also working to conserve their existing landfill space. Communities don't want new landfills, and to avoid needing to build new ones, we need to get smarter about waste. We need to avoid and prevent waste as much as possible and then recover useable resources from our waste for reprocessing into new products. This will involve the establishment of new technologies and practices to use these recovered materials.

## Reducing waste – What's in it for you?

Reducing waste is good for everyone, especially you.

### It can save money

Offices can save a lot of money by avoiding waste. This means cheaper running costs and a chance to use your dollars to develop your business instead of throwing it away as waste. Recycling is also cheaper than garbage disposal, which means cheaper service fees.

### It will preserve resources and the environment for your family and future generations

Many of our resources can be used over and over again. It makes no sense to just use them once and discard them and keep extracting more and more new ones unnecessarily. There are many easy opportunities in your office to stop this happening, particularly with the way we use paper.

## Community participation

You and your staff are part of the community. You already recycle at home so why not recycle at work as well?

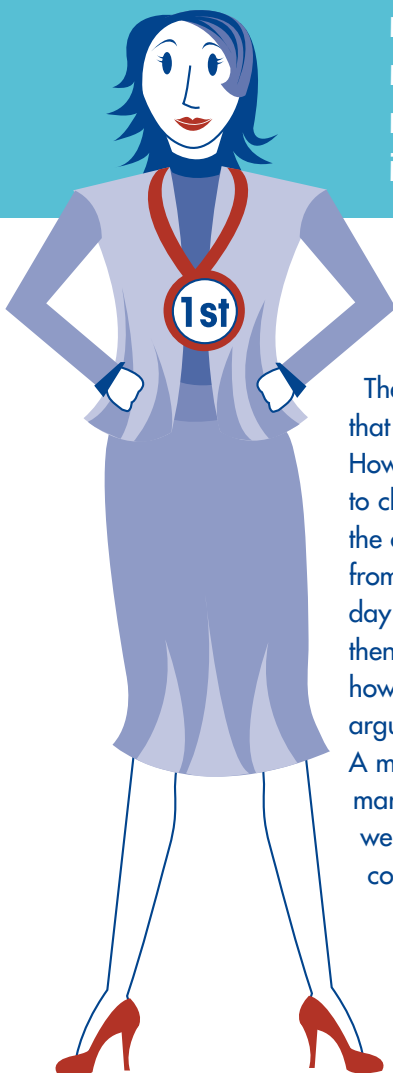
## What do I have to do?

The greatest barrier for many people in offices is finding the time to implement a waste reduction program. A few simple measures, however, can make a big difference. Read through this Guide and try out the strategies that will work in your office. As well as a checklist at the back of the Guide that should make this easier, throughout the Guide there are tips and hints to help the process succeed. There are also some sample letters, memos and posters you can use.



# Becoming a champion

Office recycling and waste reduction programs often start when one person or a few people in the office take the lead. For things to happen, someone needs to take responsibility for implementing the program. It doesn't need to be difficult or time-consuming. A few simple measures can make a big difference. The important thing is to get everyone on side – and keep them on side.



## Getting management on side

There are some things that can be done that don't require management approval. However, generally speaking, if you want to change the way things are done around the office, then you will need approval from whoever is responsible for the day-to-day running of the office. If that is you, then it should be easy! If it is someone else, however, you will need to prepare a good argument as to why things need to change. A model format for "making a case" to management is given in Appendix C. A well-prepared plan is essential for large, commercially focused organisations.

Management will want to see that you have thought carefully about any changes you are proposing and they will want to see some benefit to the organisation before allocating resources to any program or new measures. The model memo includes the potential cost savings, which are discussed in more detail later. Demonstrating cost savings is usually a good way of getting management on side.

You should also check whether your company has an environment policy and/or has a commitment to reporting their environmental performance. Any waste reductions you can achieve in the office will contribute towards the positive image of your company.

**Demonstrating cost savings is usually a good way of getting management on side.**

## Getting the staff on side

There are a few key things you can do to get (and keep) the rest of the office on side with your waste reduction program. The most important and effective thing you can do is to let them know what is going on.

Most people are happy to “go with the flow” as long as it is clear what is required of them, and it doesn’t require too much effort on their part. Good, clear signage on the wall and on the bin should help let everyone know the new system. An email or memo from management will also help.

Make sure you provide regular feedback. Let people know what a good (or bad) job they are doing. Let them know that they recycled so many tonnes in the last month. Tell them if there are too many banana peels in the paper recycling. This will act as a regular reminder about the waste reduction program, and will also let them know that someone does actually care, and is paying attention.

Another important thing to remember is to not expect too much of your co-workers. It is unrealistic to expect everyone in the office to be as enthusiastic as you are, and it is unreasonable to expect everyone to instantly make a big effort to reduce their waste. They won’t. And they don’t need to. Small changes can bring about big results, especially when you first start. If possible, find some incentives to link to the program. Take it one step at a time, and watch as your office gradually turns into an eco-office.

## Deciding where to start

Where to start will depend on where you are at the moment, and also what is your main motivation for reducing waste. Generally, it is best to start where there are big, easy waste reductions to be made. This will help motivate people and build enthusiasm for the program. Resource NSW sorted through the waste and recycling of five Sydney office towers and found what a typical office tower had in waste composition.

In the waste audits conducted on offices and office towers the following was found to be true for all of them:

- The largest component of the waste stream is office paper;
- Most of the office paper is printed on one side only;
- There is often a lot of contamination in the recycling;
- There is usually a lot of paper in the garbage stream, even in buildings with paper recycling; and
- Substantial amounts of new, or barely used, stationery items are thrown out.

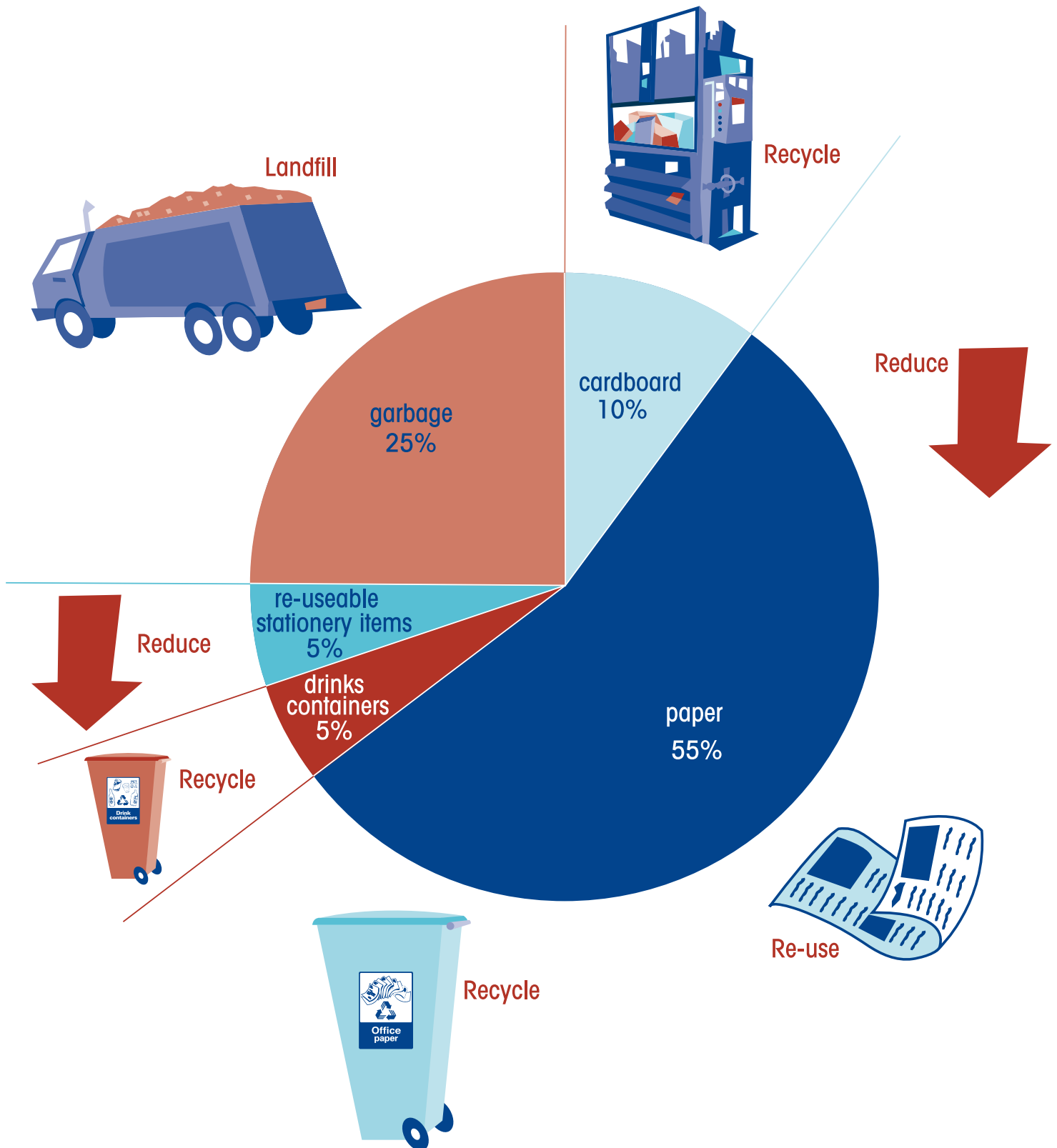
Therefore, if you can get everyone to:

- Print and/or copy double-sided;
- Recycle their waste paper;
- Throw things in the correct bin; and
- Stop throwing out the stationery;

You will be an office champion.



## Composition of “typical” office tower waste



# Office recycling systems

In waste studies conducted by Resource NSW, all the buildings surveyed already had a paper recycling system in place. However, in all the buildings, less than half the paper was finding its way into the recycling system.

Even buildings that have a paper recycling system in place can reduce waste further through improved use of the system.

## Putting in a paper recycling system

The best option for implementing paper recycling is to have the building management put in a building-wide paper recycling system. In this case, building management will decide the system to be used. However, they will most likely consult the tenants. So, you should think about what type of system would best suit your office and let the building management know. *Waste Reduction in Office Buildings – A Guide for Building Managers* is available on the Resource NSW website ([www.resource.nsw.gov.au/officebuildings](http://www.resource.nsw.gov.au/officebuildings)).

If the building management is unwilling to install a building-wide paper recycling system, then you have the option of engaging a paper recycler yourself. In this case, you will probably use a system like in example one: a central recycling bin for

paper, as this does not involve the cleaners in any way. The recycler will come to the office either regularly or when called. The full bin will be removed and replaced with an empty one. This can be quite expensive, as it requires the recycler to make a special trip into the city during office hours just to empty one or two bins.

Remember to consider recovering the other recyclable items such as cans, bottles and milk cartons. Your recycling contractor may collect these from your building in separate wheelie bins or mixed with the paper and cardboard.

## Example recycling systems in offices

On the next pages are three examples of paper recycling systems for offices.

**Hint: never have a recycling bin without a garbage bin next to it**

## System 1: Centralised paper recycling

### Advantages:

- There is likely to be lower contamination in the paper recycling because it takes more effort to recycle than to put material into the garbage bin.
- Waste and paper are removed from the office using completely separate systems, which means cleaners are less likely to mix the recycled paper with the garbage.



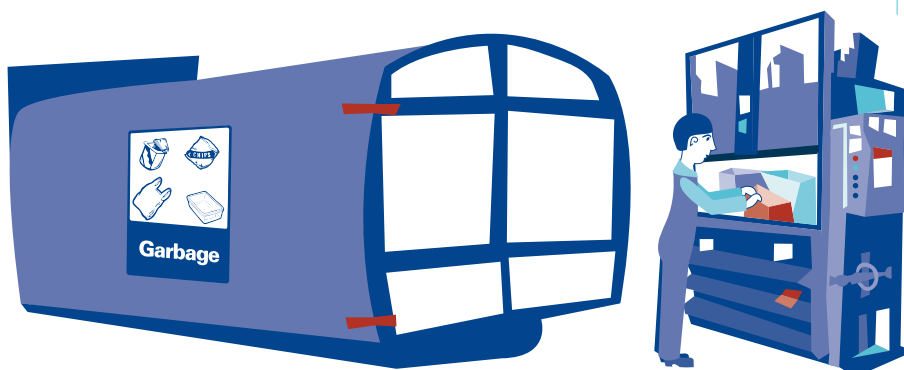
*In the office*

### Disadvantages:

- The system relies on the tenant's staff to do their bit. If the system is not made as convenient as possible, staff might not use it all the time.
- Sufficient space is required near the photocopier and/or printer for storing a large recycling bin. This can be a problem in cramped or small offices.

### Suitable situations:

- large offices;
- when "retrofitting" a system, that is, introducing a system in the middle of a cleaning contract;
- where it is likely there might be less than 100% co-operation by cleaning staff;
- where there is limited extra money for a recycling service.



*In the waste room*



## System 2: Each desk has a small paper bin and a small garbage bin

The way to make this system work is to ensure that the garbage bin and the paper bin look very different to each other. It is also important that cleaners can pick up both the waste bin and the paper bin at the same time. This means they need a trolley that holds two bags; one for the garbage and another for the paper. If they have to visit each desk twice, once to pick up garbage and again to pick up paper, they probably won't do it. Everything will end up in the garbage.

### Advantages:

- This system is convenient for office workers, which should lead to more office workers recycling and more paper being recovered.

- It doesn't require extra floor space in central utility areas.

### Disadvantages:

- Cleaners may perceive that this system is doubling their workload. They may not co-operate with such a system.
- It relies on cleaners collecting the contents of the bins separately, and not just emptying everything into the one bag.

### Suitable situations:

- where a high level of convenience for office workers is very important;
- where the co-operation of cleaning staff is guaranteed.

*In the office*



*In the waste room*





In the office

### System3: Centralised garbage bin and paper recycling bin at each desk

An alternative to the first system is to give everyone a paper recycling bin at their desk, and make them get up to put their garbage in a central bin. This system has potentially better savings than the central recycling bin, and means there is only one or two smelly bins per office for the cleaners to empty.

#### Advantages:

- This system makes it convenient to recycle, which should lead to increased participation rates and increased recovery rates.
- It is less smelly for cleaners, as they only have to empty one or two garbage bins per floor, and the rest of the bins contain only clean paper.

- It can mean less work for the cleaners. Garbage bins need to be emptied every day, but paper bins can be left longer. By only having to empty desk bins every second day, cleaning costs can be reduced.

#### Disadvantages:

- There may be higher levels of contamination as a result of it being easier to put things in the recycling bin than in the garbage bin. However, as such a high proportion of the waste is paper, if most people do the right thing, it shouldn't matter.

#### Suitable situations:

- offices where a very high proportion of the waste stream is paper;
- offices where there is a high awareness level.



In the waste room

## Improving your existing recycling system

As mentioned before, you may not have much say in the recycling system you get. However, whatever system you have, there are some simple things you can do to make the most of it.

### Signs and bin labels

Bin labels should be clear and be able to be read from five metres away.

Standard bin labels can be downloaded for free from the internet at [www.resource.nsw.gov.au/officebuildings/links.htm](http://www.resource.nsw.gov.au/officebuildings/links.htm). You can also make up your own signs from the graphics available on the site.

### Posters

Putting up posters near central recycling bins will let people know what can and can't be recycled. It will also remind people to use the recycling bin. Posters should be clear and eye catching. A sample poster is shown below.

### Memos/email

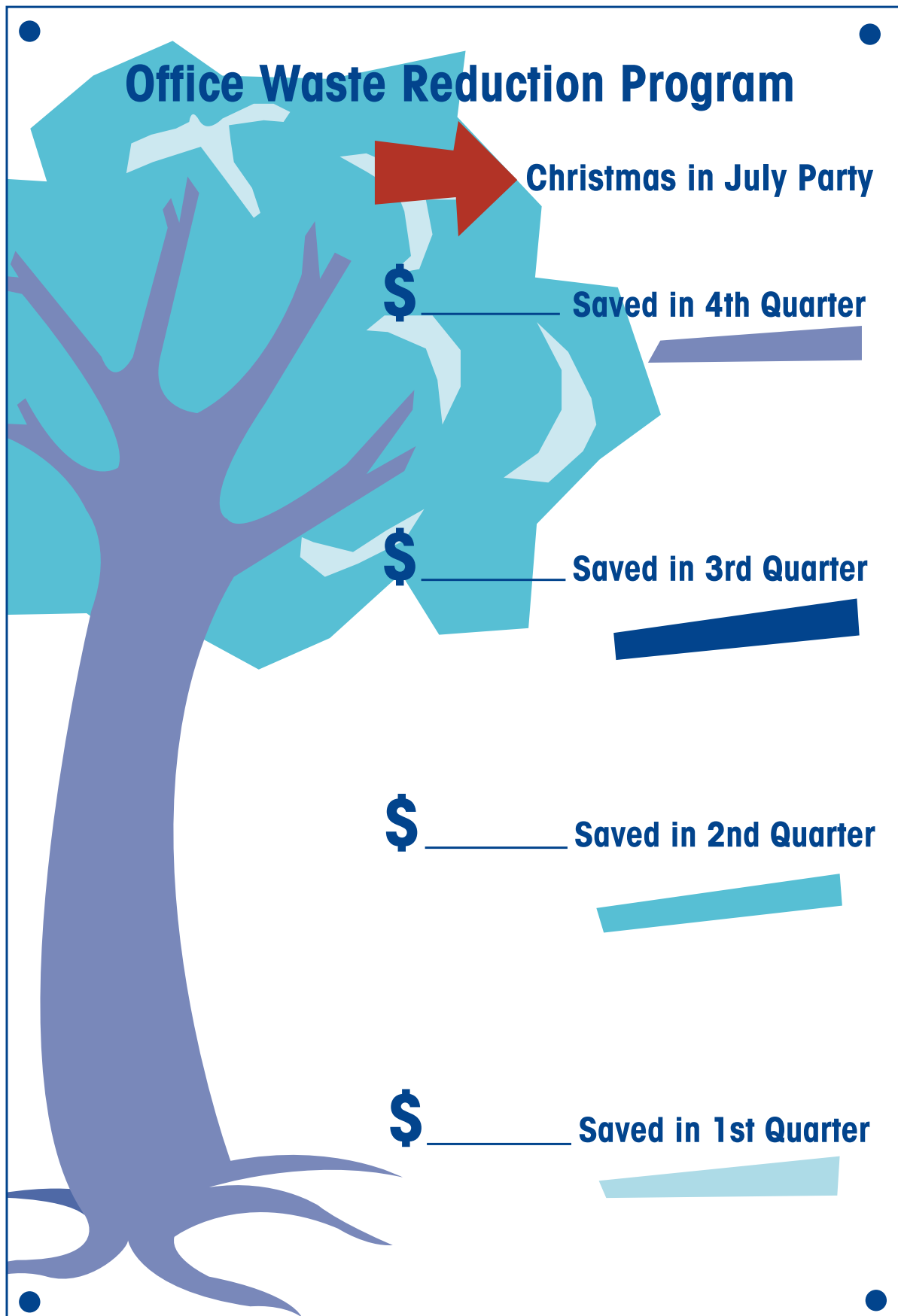
A quick memo or email from management asking everyone to recycle their waste paper and print/copy double-sided will help reinforce the company's commitment to recycling and to the environment.

### Feedback and rewards

Giving feedback is very important, as it acts as a reminder and keeps people on track. If the feedback can be linked with a reward, then it will greatly improve the chance of the recycling system working. One idea for a reward system is given on the next page. Here, the waste reduction is tracked and turned into a "cost estimate". At the end of the year, a portion of the savings is contributed to the staff Christmas party.



Example Posters



Example rewards idea

# Reducing Waste in Office Refurbishments

During an office refurbishment there are three phases that require different strategies to reduce waste.

## 1. Design

## 2. Strip-out

## 3. Construction

### 1. Design

“Designing out” waste in the first place is the best way to reduce waste in the long term.

- Write into the designer’s brief that they must minimise waste and reuse/recycle materials wherever possible.
- Use modular components that can be easily reconfigured to create a flexible work space.
- Use durable materials and furnishings.
- Use materials that can be (or are) refurbished or remanufactured (for example, carpet tiles).
- Require designers to write (and implement) a waste management plan. (Council may require this anyway).
- Reuse demolition materials on-site (for example, timber, partitions, light fittings, glass).
- Specify minimal, returnable or recyclable packaging from suppliers.

### 2. Strip-out

- Use a company that deconstructs rather than demolishes.
- Require demolishers to adhere to the waste management plan.
- Use a demolition company that has its own retail outlet for second-hand building materials. They may be able to salvage more than one that doesn’t.
- Nominate somebody to help organise the lifts and loading bays so that contractors can recycle and reuse as much material as possible (otherwise it’s easier to “throw it in the bin”).
- Get receipts from the waste company about the amount reused, recycled and landfilled.
- Some of the materials may be left onsite for reuse by the builder, for example, glass, timber, carpet underlay.

### 3. Construction

- Use a builder who is flexible and can reuse materials.
- Get materials made to measure to minimise offcuts, particularly plasterboard.
- Minimise and recycle packaging, particularly cardboard.

## Example:

When the Inner Sydney Waste Board extended their office they had extensive discussions with the designer so that any demolition was minimised. They also:

- > Re-used internal doors.
- > Used excess plasterboard as insulation within the internal walls.
- > Minimised the realignment of existing walls.
- > Steam cleaned the existing carpet instead of replacing it.
- > Purchased refurbished furniture.



# Avoidance makes cents

Avoidance means not generating waste in the first place. This generally means using less of a material to achieve the same result, whether it is paper, packaging or pens.

When people think about the cost of waste management, they often forget about the cost of the items they are throwing away. Tenants can achieve real cost savings for themselves through waste avoidance. Why pay for something just to throw it away? Reducing the amount of material thrown out by tenants saves the tenant's money, and also saves building waste disposal fees.

When you avoid waste, you save money through:

- **Avoided disposal costs.** These are generally shared over the entire building and are not usually directly reimbursed to the tenants. However, savings in disposal costs for the building management postpones the next increase in waste charges to be paid by tenants;
- **Avoided purchasing costs.** Obviously, if you are using less of something, you don't have to buy as much of it; and
- **Reduced labour and handling.** Avoidance can save time loading printers/photocopiers, ordering stationery, delivery fees, distributing items throughout the office, etc.

Below are some easy ways tenants can save money through waste avoidance.

## Double-sided printing

Most offices use a lot of paper. Quite often, printers are set to print single-sided as a default. Some less expensive printers are not equipped to print double-sided at all. Older photocopiers either can't, or have trouble, copying double-sided. However, newer office machines are generally

equipped to print/copy double-sided with no problems. By setting computers and printers to print double-sided by default, the office can save an enormous amount of paper – and money.

For older printers that don't print double-sided, most word processor programs have a printing option to print two pages on the one sheet. This is a good option when printing drafts or copies of emails for files.

Printing on only one side of the paper is essentially only using half of the sheet of paper. It is equivalent to throwing out pens when they are half full, or throwing out note pads when they are only half used. Using the double-sided printing option for some documents saves paper, which saves money, and also saves labour in filling up the printer, ordering paper, storage and handling.

## Example:

If an office uses 15 reams of paper per week, at the cost of approximately \$5 per ream, this equates to \$75 per week or \$3900 per year. If half of the paper were printed either double-sided or two pages per sheet, this would save 3¾ reams per week, which equates to \$18.75 per week. Over the year, the saving is \$975, or 25%.

Results of waste studies conducted on office towers in Sydney CBD found that double-siding had the potential to save \$88,000 in one building, \$96,000 in another building and \$119,000 in another building, in the cost of paper alone.

### Security paper bins

Some offices have a need for secure destruction of confidential documents. This service is generally much more expensive than an ordinary paper recycling service or a garbage service. What often happens, however, is that secure paper bins are used to dispose of non-confidential documents. The result is that the secure paper bins fill up and are cleared much more frequently than they really need to be. The company then pays much more for the service than they really should.

## Example:

An office collects confidential documents for destruction in a 240L MGB, which costs \$55 per bin clearance. The office also has a normal paper recycling service, also collected in 240L MGBs, which costs \$5 per bin clearance. If one extra security bin is filled per week due to people putting non-confidential documents in the security bin, the additional cost is \$50 per week. This is a cost of \$2500 per year.

### Stationery

Throwing out a pen or a bull-dog clip or a partially-used inter-office envelope can seem trivial. However, for large companies, the replacement cost of all the items thrown out can run into thousands of dollars.

## Example:

From the results of waste studies conducted, the total annual replacement cost for new stationery items found in the garbage was estimated to be \$8,700 for one office tower, \$11,790 for another building, and \$136,231 for another office building.

### E-Avoidance

The dream of the paperless office has not yet been realised. However, technology does offer time, money and waste savings if used correctly.

Many people feel the only safe way to keep records is to print a hard copy. In reality, the back up and security procedures practiced by most companies mean that an electronic copy is just as good, if not better than paper records. Archives kept on CD are more accessible and less easily destroyed than a paper library. Check your company's policy on keeping printed copies of documents for auditing purposes.

Most people are comfortable using emails for communicating and sending documents. However, many people print out every email, either to read or keep on a paper file. Emails should be read on screen, and stored in an electronic file, where they are captured by the server's document back-up regime.

In addition to using email, there is both inexpensive and free software available that allows you to send and receive faxes from your computer. This not only saves paper and toner, but time as well.

### More avoidance hints

Some other examples of avoidance include:

- Buy bulk and save with items like coffee, tea, sugar, paper, pens, notebooks. Avoid buying sachets of sugar and coffee or wooden paddle stirrers for office use;
- Share newspapers and magazines;
- Use crockery mugs instead of polystyrene cups and teaspoons instead of wooden stirrers. It saves waste and the coffee tastes better;
- email or write to companies who send your office unsolicited mail requesting that you be removed from their mailing list;
- Keep mailing lists up-to-date to avoid wasted correspondence;
- Send one hard copy of memo around to all staff concerned with a distribution list on the front. Each person can mark their initials off the list when they have read it and pass it onto the next person to read. This can then be recycled or stored in a folder which everyone has access to if needed for reference;
- Send electronic copies of minutes of meetings or memos where possible;
- Re-use one-sided copied or printed documents that are no longer needed. Resource NSW have an A4 page you can download and printout that makes an attractive cover for scrap notebooks made from paper printed on one side.  
See the webpage [www.resource.nsw.gov.au/officebuildings/tenants.htm](http://www.resource.nsw.gov.au/officebuildings/tenants.htm);
- Make more use of your electronic "to do" list on your computer, rather than handwriting lists. You can set the alarm in the electronic calendar to remind you when to do things;
- Try to notify people of phone messages by email rather than handwritten slips;
- Store staff phone numbers on an electronic database that everyone can access rather than printing lists that need regular updating;
- Use White Pages or Yellow Pages on the internet;
- Install re-usable towel units in the bathrooms instead of using disposable paper towels; and
- Adopt a low-waste purchasing policy.

## Example: Comparative cost of sending a single-page document

Average of 100 Copies a month

Cost	Mailing	Plain Paper Fax	Plain Paper Fax	Computer Fax
		<b>\$849</b>	<b>\$349</b>	<b>\$168</b>
Equipment (1)	NA	\$0.14/pg	\$0.06/pg	\$0.03/pg
Labour/Supplies (2)	\$ 0.28 cents	\$0.13	\$0.13	\$0.13
Postage	\$ 0.45 cents	NA	NA	NA
Phone Line (3)	NA	\$ 0.35 cents	\$ 0.35 cents	\$ 0.35 cents
<b>Total (\$)</b>	<b>\$0.73</b>	<b>\$ 0.62</b>	<b>\$0.54</b>	<b>\$0.51</b>

### 1. Equipment:

Assuming 100 faxes per month and a 5 year life or 6000 faxes

- Plain Paper Fax Machine cost range
- Brother Laser Fax = \$849.00
- Panasonic Plain Paper Fax = \$349.00
- Fax Modem cost = \$168.00 (stand alone)

### 2. Labour/Supplies to operate the Fax Machine or the Fax Modem:

On average, most fax machines transmit at 15 seconds per page. Assuming that a Secretary with a salary of \$20/hour (\$0.33/minute; \$0.00555/second) operates the machine and remains at the machine to operate it for 20 seconds (number dial plus fax transmission time), a per page cost of \$0.12 cents is calculated. The cost of paper varies from \$5.98 to \$6.38 per ream (500 sheets) for 80 gsm copy paper. Using an average price (\$6.18), a price of \$0.0124 per page is calculated. It is also assumed that one copy of the modem faxed page is produced for file.

Labour/Supplies for mailing: Assuming that a Secretary with a salary of \$20/hour, (\$0.33/minute; \$0.00555/second) takes approximately 40 seconds to fold, stuff and address an envelope or \$0.22/page. Cost of paper is \$0.0124/page and the cost of the envelope averages at \$0.05/envelope for supply cost of \$0.06/page.

### 3. Phone Line Charges:

Installation of a separate phone line is \$190.30. Over the assumed life of the fax (5 years and 6,000 pages) this translates to a cost of \$0.03 per page. The monthly fee of \$31.95 per month translates to a cost of approximately \$0.32/page if 100 copies are transmitted a month.

*Note: The cost of sending mail and faxes consists of fixed (e.g. purchase of the fax machine) and variable (labour, envelope size, paper costs etc) components. The variable cost of sending additional pages of a multi-page document will differ for each of the above sending methods. The lowest variable cost is incurred by transmitting larger documents by computer fax.*

# B

## uying recycled

“You’re not really recycling until you’re buying recycled”.

For recycling programs to be worthwhile, we need to buy products made from the material we put out for recycling.

The most common reasons that businesses don’t buy recycled-content products are:

### **They can be more expensive than “virgin” products**

There are a number of reasons for this, but the main one is the economy of scale. For example, not enough recycled-content paper is sold to make it as cheap as non-recycled-content paper. The State Government is moving to address this problem by buying recycled-content paper and other items. The buying power of the State Government should bring down the price of recycled-content products.

### **There is a perception that recycled-content products are inferior to non-recycled-content products**

Again, paper is a good example. Many people tried recycled paper 10-15 years ago. They found it was a grey colour and jammed in the photocopier. However, during the past decade, the quality of both the paper and office machines has vastly improved. There is now a range of office papers that contain some recycled material, which look and perform as good as paper made completely from woodchips.

There is a range of products available that are second-hand, recycled or environmentally friendly in some way. Many are now available through large stationery stores.

To help choose the right product, there are a number of directories. These are all available on the web, with links on the Resource NSW web page:

[www.resource.nsw.gov.au/officebuildings/links.htm](http://www.resource.nsw.gov.au/officebuildings/links.htm)

- NSW Buy Recycled Guide;
- Ecorecycle Victoria Buy Recycled Guide;
- Know Your Paper: A Guide to Purchasing Recycled Content Office Paper;
- Office Products: A Guide to Sustainable Purchasing and Use.

### Example listings in the NSW Buy Recycled Guide.

Note: for illustrative purposes only – these are not real companies

#### Copy paper

##### Contact Details

##### Koala Paper

56 Green Trees Street  
Sunnyvale NSW 2190

**Phone 1800 067 061**

Fax n.a.

**Email n.a.**

[www.koalapaper.com.au](http://www.koalapaper.com.au)

##### Total Recycled Content

90 - 100%

##### Post Consumer Recycled Content

20 - 30%

##### Recycled Material Content

Paper

##### Specific Material Type

Letterhead and Writing Paper

#### 100% Recycled Cotton Paper – White/Natural

##### Contact Details

##### Sunshine Paper

Unit 9, 63 White Street  
Lane's End NSW 2210

**Phone 02 9999 0000**

Fax 02 9999 0000

**sales@sunshine.com.au**

[www.sunshine.com.au](http://www.sunshine.com.au)

##### Total Recycled Content

90 - 100%

##### Post Consumer Recycled Content

90 - 100%

##### Recycled Material Content

Textiles

##### Specific Material Type

Cotton

#### Toner Cartridges

##### Contact Details

##### Green Office Supplies

72 - 74 Sweet Street  
Charleville NSW 2057

**Phone 1300 000 000**

Fax 1300 000 000

**email@greensupplies.com.au**

[www.greensupplies.com.au](http://www.greensupplies.com.au)

##### Total Recycled Content

60 - 70%

##### Post Consumer Recycled Content

90 - 100%

##### Recycled Material Content

Plastic

##### Specific Material Type

Plastic 7 Other

#### Office Machines Express

Unit 22/566 Gardinia Road  
Florentine NSW 1435

**Phone 02 9000 0000**

Fax 02 9000 0000

**Email n.a.**

[www.omexpress.com.au](http://www.omexpress.com.au)

##### Total Recycled Content

80 - 90%

##### Post Consumer Recycled Content

90 - 100%

##### Recycled Material Content

Plastic, Metal, Textiles

##### Specific Material Type

Plastic 7 Other, Aluminium, Rubber

# The Hard Sell to building management

Convincing building management to implement a building-wide recycling system can be difficult. The most straightforward approach is to demonstrate that it can save money. How much money will be saved will depend on the nature of the cleaning and waste removal contracts. Below is an example of how money can be saved.

## Recycling is cheaper than garbage disposal

It is cheaper for waste collection companies to collect recyclable materials than it is to collect garbage. There are a couple of reasons for this. Firstly, the collectors pay less to deliver recyclable material to waste management centres than garbage (for which there is a disposal fee and a State Government levy). It is free to drop off some recyclable materials at waste depots, so the cost to the collector is simply the transport cost. Secondly, separated recyclable materials tend to be cleaner and drier than

mixed garbage. Therefore, the bins/compactors and collection vehicles can be less expensive and require less maintenance than those used for garbage. As it is relatively straightforward to recycle and is easy to transport, clean office paper is one of the most cost effective materials to recycle. Therefore, one of the quickest and easiest ways an office building can save money on waste removal is to introduce a paper recycling system.

## Example:

A typical office tower's waste contains 55% paper. If management arrange a paper recycling system for the whole building, they can easily divert half of the paper from the garbage stream. The following is an example of a building that produces one tonne per day of waste.

If garbage is stored in a 10m<sup>3</sup> compactor, then it will need to be cleared about every three days, or approximately 10 times per month. If the cost is \$300 per clearance, then the cost of waste disposal is about \$3000 per month.

By recycling half of the paper, 275 kg per day is diverted from the garbage. This leaves 725kg per day as garbage. The 10m<sup>3</sup> compactor only needs to be cleared every four days, or roughly seven times per month. The garbage cost is then \$2100 per month. If paper is collected at a flat rate of \$150 per month, the cost saving is approximately \$750 per month or \$9000 per year.

### Cost of contamination

Where recycling programs can end up costing more money is when the contamination levels are high. If the contamination levels are too high, the material can't be recycled and has to be dumped at a landfill. Paper recycling companies will usually charge a penalty when the contamination is too high. This is to cover the cost of disposing of the contaminated material and to encourage businesses not to contaminate their recycling.

The way to keep the contamination low, and hence avoid penalties, is to have an ongoing education program with staff members. This can consist of:

- Clear and correct stickers on the bins;
- Posters and information sheets near the bins; and
- Regular reminders in a newsletter or by memo.

The cost of these simple measures is well and truly covered by the avoided contamination level penalties. In many cases, suitable stickers and posters are available for little or no cost from the recycling company, the local Council or the State Government.

## Example:

An office block in the Sydney CBD was paying a flat fee of \$100 per month for paper recycling. Due to consistently high contamination levels, the flat rate fee was increased to \$750 per month. Therefore, the office block was paying \$650 per month more than it needed because people were putting the wrong things in the paper recycling bin.



# C hecklist

- ☒ Get management onside
- ☒ Get the staff onside
- ☒ Decide where to start
- ☒ Get the gear - bins, signs, bin labels, posters
- ☒ Spread the word - announce the changes, give feedback, put up posters
- ☒ Take it further - avoid waste and buy recycled

# Appendix A: Where to go for information/help

Resource NSW has set up an office building waste management resource web page, which can be accessed from:

**[www.resource.nsw.gov.au/officebuildings](http://www.resource.nsw.gov.au/officebuildings)**

It contains links to a range of useful publications and web sites, including bin stickers and posters.

## Other sources of information include;

NSW Government **[www.livingthing.net.au](http://www.livingthing.net.au)**

EcoRecycle Victoria **[www.ecorecycle.vic.gov.au](http://www.ecorecycle.vic.gov.au)**

Your local Council. Look on the Department of Local Government's web site for contact details  
**[www.dlg.nsw.gov.au](http://www.dlg.nsw.gov.au)**

Environment Australia Eco-Efficiency and Cleaner Production  
**[www.ea.gov.au/industry/eecp/index](http://www.ea.gov.au/industry/eecp/index)**

EcoOffice **[www.ecooffice.com.au](http://www.ecooffice.com.au)**

Buy Recycled Business Alliance **[www.brba.com.au](http://www.brba.com.au)**

The Property Council **[www.propertyoz.com.au](http://www.propertyoz.com.au)**

California Integrated Waste Management Board **[www.ciwmb.ca.gov](http://www.ciwmb.ca.gov)**

Recycled Paper Coalition **[www.papercoalition.org](http://www.papercoalition.org)**

## Appendix B: Bins and equipment



### Desk bins

Desk bins are generally approximately 10L in volume and come in a range of shapes. It's a good idea to have solid bins for garbage (to prevent leakage) and bins you can see through for paper (so the cleaners and everyone else can see if people are trashing the paper recycling). Cleaners should be given permission to leave paper-recycling bins that have garbage in them. Some paper recyclers provide a small cardboard box for each office worker to keep at their desk and put paper in.



### Mobile Garbage Bins (MGBs) or Wheelie bins

	120L MGB	240L MGB
Height	940mm	1080mm
Width	485mm	580mm
Depth	560mm	735mm

MGBs are good for paper recycling systems as they hold a large amount of material and are easy to move. They are generally used for transferring the paper from the office area down to where the recycler will collect the paper.

# Appendix C: Making a Case - example proposal to present to office management

## Proposal outline

The staff would like to propose that [this office] embark on a waste reduction and recycling program. This would be not only good for the environment and good for staff morale, but would save [the business] money. To help the program along, we also propose an incentive scheme, whereby a share of the savings achieved through implementation of the waste reduction program goes towards [the staff Christmas party].

## Waste reduction program

Action	Description	Who is involved	Costs	Savings
eg. Paper recycling	Introduce a blue wheelie bin for paper collection. Place one next to photocopier and one next to the printer on each floor.	Staff are responsible for placing paper in bins. Cleaners would need to transfer bins to central waste room for collection.	\$5/bin/collection = \$30/week. NB: we should be able to get building management to implement paper recycling at no cost to us.	None (unless directly responsible for waste removal costs).
eg. Default double-siding	Have Merv, the computer guy, set all the printers and photocopiers, and everyone's computers, to print double-sided by default.	Merv. Some people might be able to do this themselves.	The cost of Merv's time x number of computers x 2 minutes per computer.	If half the paper used in the office is double-sided, we save a quarter of the cost of paper (assuming negligible double-siding occurs at the moment). Also save time on re-filling machines and ordering/handling paper.

Action	Description	Who is involved	Costs	Savings
eg. Re-fill toner cartridges	Happy Toner cartridges will swap an empty cartridge for a re-filled cartridge at less than the cost of a new cartridge.	If people leave empty toner cartridges in a stack near the photocopier on each floor, Janet from Accounts will send them off for re-filling.	Re-filled toner cartridges cost \$_ from Happy Toner Cartridges.	\$ (Cost of new cartridge - cost of re-filled cartridge) x number of cartridges.

## Incentive program

To encourage everyone in the office to keep doing the right thing, we propose that half the net measured savings resulting from the waste reduction program go towards [the staff Christmas party]. Waste reduction and the equivalent savings would be monitored and progress fed back to the staff by [regular updates in the newsletter] [poster in the tea room/kitchen/lift].

The net savings would be calculated monthly as per the following table:

Action	Cost	Saving	Net
eg Paper recycling	= \$130/month	-	\$130/month  NB: we should be able to get building management to implement paper recycling at no cost to us.
eg Paper use reduction measures (double-siding, electronic fax, etc)	Merv's time (NB: one off)	(previous average monthly paper use - paper use this month) x cost of paper	\$ lots
eg. Re-fill toner cartridges	(Cost of re-fills) x (No. toner cartridges)	(Cost of new cartridges) x (No. toner cartridges)	\$ heaps
			<b>\$ TOTAL</b>

## Appendix D: Making a Case – example letter to Building Management

NB: you will need to do some homework for this, such as how much waste your building produces and what the current waste removal fee is.

Dear [Ms Building Manager],

[Red Dragon Industries] has a commitment to sustainability, and have undertaken to report all environmental impacts and initiatives in our annual report. In keeping with our commitment to the environment, we intend to implement a paper recycling program. As tenants of [Lucky Coin Office Tower], we would like to request that building management install a building-wide paper recycling system. This would be more efficient, and less of a security risk, than if individual tenants arrange their own paper recycling collections. We also believe that an effective paper recycling system in the building will reduce the overall waste removal costs, thus postponing the need for a rise in facility-servicing fees. This is achieved through offsetting the cost of the recycling collection by a reduction in garbage collection/disposal fees.

[Red Dragon Industries] has approached [2 paper recycling companies and the building's current waste removal contractor]. The following cost estimates were obtained:

Company	Service	Cost
eg Clean and Tidy Waste Removals	Provide two wheelie bins (240L) for paper collection for each floor. Collection on demand from car park.	\$5/bin/collection

Office building waste is approximately 55% paper. If half of the paper waste was recycled, then it is estimated that the building would save \$\_ per month in waste disposal fees. If [Clean and Tidy] were selected, this would mean minimal extra work for the cleaning staff to maintain the paper recycling. [In fact, it may reduce the amount of work involved in collecting material from individual desk waste bins.]

We look forward to discussing this matter with you further.

Yours sincerely,

[Mr T. Businessman]



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