

H O W T O :

Start a Recycling Collection Business



Current legislation puts more emphasis on waste avoidance, minimisation, reuse and recycling. As a result entrepreneurs in the waste collection industry play a critical role in the implementation of legislation. This guideline, or “How To” guide focuses on how to set up a sustainable collection business and also assist entrepreneurs with key issues ie. licensing, design, marketing and monitoring of such businesses.





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This booklet was compiled and designed by Delanie Bezuidenhout (Environmental Manager: Plastics Federation of SA) on behalf of the Recovery Action Group (RAG) and other partners below:





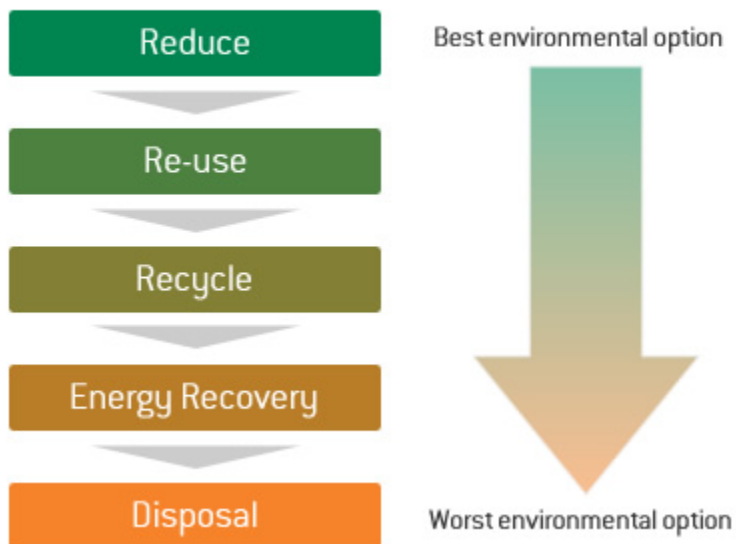
WHAT IS WASTE MANAGEMENT?



WASTE MANAGEMENT aims to reduce waste generation and increase recycling to reduce waste going to landfill and create a clean and green environment!

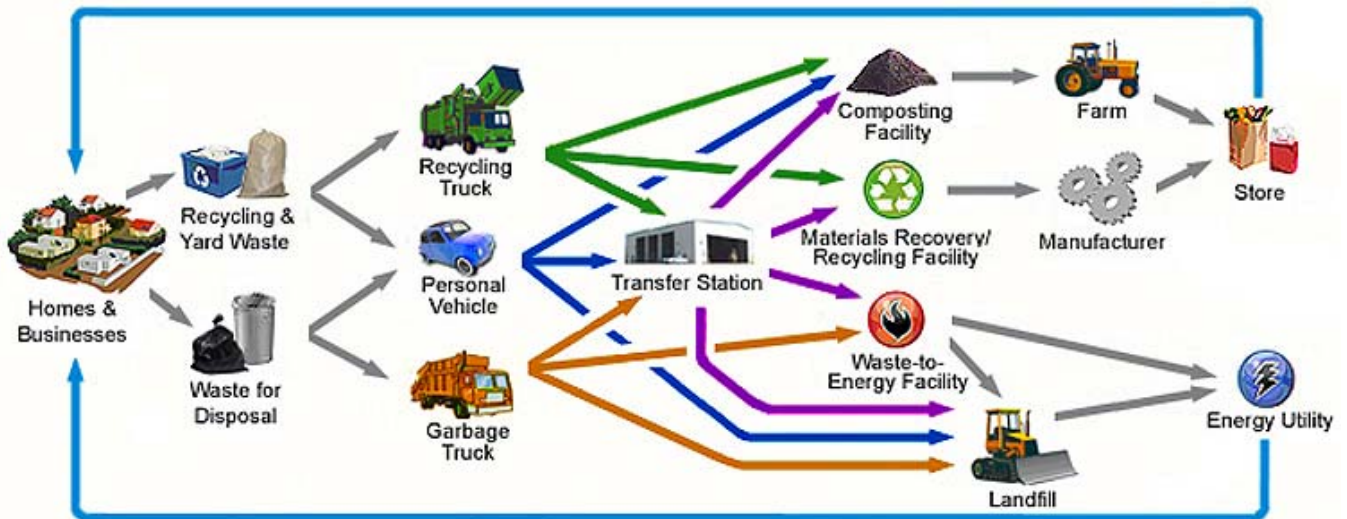
THE WASTE MANAGEMENT HIERARCHY

An environmentally sustainable waste management programme is based on the waste management hierarchy as shown below. Reducing waste should be the first step in any programme with disposal to landfill only considered as a last option.





The figure below is a picture representation of the waste management hierarchy above.



WHAT IS IN MY RUBBISH BIN?

If we take a look at the general contents of A rubbish bin and take the waste management hierarchy into consideration it is clear that we are able to reduce the amount of waste sent to landfill for disposal by almost 87%!!!



CONTENTS

Plastics = 14%

Glass = 3%

Cans = 4%

Garden Refuse = 29%

Food Waste = 12%

Compostable Food Waste = 25%

Unrecyclable General Waste = 13%



GENERAL REQUIREMENTS



- Infrastructure – What do we need?-
 - Find a Site-
 - Sign Posting-
 - Training-
 - Labour Supervision-
- Management of Non-Recyclable Waste-
- Management of Recyclable Materials-
- Occupational Health and Safety-
- Emergency Procedures-
- Design Requirements-
- General Comments-

INFRASTRUCTURE – WHAT DO WE NEED?

Labour – What types of jobs and how many people need to be appointed.

Services – Such as water, electricity and sanitation.

Space – Sufficient size to accommodate, sort and store the waste that comes in until it can be collected or sold. It must be accessible to the public and collectors.

Access – Your centre should be easily accessible to both the collector and public dropping off recyclables.

Health and Safety – Consider the possible odour, effect of insects, high traffic areas, possibility of fire, broken glass, etc. Check for possible fire risks.

Protection from the elements – Make sure that your material collected are protected from rain and sun damage.

Security – To prevent vandalism or illegal dumping you must be able to restrict access to your recycling area.

Reception and off-loading area – must be paved and positioned near the entrance.

Sorting Tables – A number of sorting tables to handle the volume of waste you expect to come in. The sorting area should be covered, paved and easy to clean.

Bail (Bulk) Bags and other containers – You will need bulk bags and other containers (skips) to place the various recyclables in.

Protective Clothing – Make sure that all staff have the necessary protective clothing ie. gloves, masks.

Special equipment – Such as scales, baling machines, compactors etc.



FIND A SITE

Identify a possible site and consider the following:

- is the site centrally located?
- are there sufficient recyclables available in the area?
- is it accessible to the public and other informal collectors?
- does the site need any alterations and what will it cost?
- do I need a specific permit/licence to operate my waste management activities from this site?

Determine how much space you will need based on the following questions:

- how much recyclables will be sorted and stored on the site?
- how will material be off-loaded?
- how many containers will be needed on the site for sorting and storage?
- how big will the office and ablution area be?

The choice of the site will also depend on the sources of the recyclables that you will collect, ie.

- the community brings in recyclables to the site
- litter collected in surrounding areas and brought in by informal collectors
- household collection
- high consumption areas such as restaurants, hotels, shopping centres

SIGN POSTING

A general notice board must be erected at the sorting facility in the appropriate official language and must include the following information:

- Name, address and telephone number of the owner and responsible person
- Hours of operation
- Emergency telephone number
- Type of waste accepted for recycling

TRAINING

Staff must be trained in all aspects of operations:

- Legislative requirements
- Occupational Health and Safety (OHS) Risks and the importance of wearing protective clothing
- Emergency procedures and first aid



- Waste management, recycling and waste minimisation

LABOUR SUPERVISION

A supervisor must be present on the site at all times to monitor work.

MANAGEMENT OF NON-RECYCLABLE WASTE

- Explain to staff the procedure for separating recyclable waste from non-recyclable waste
- Provide details of storage facilities for the various waste streams (ie. a skip for non-recyclable waste and bulk bags for various types of recyclables)
- Determine the required frequency of removal of non-recyclable waste from the site to ensure that pollution and odours are kept to a minimum

MANAGING RECYCLABLE MATERIAL

- Provide details of material that will be accepted
- Provide detail of waste suppliers as well as companies that will collect and buy recyclables
- Provide proof of contract between business and companies that collect from them in terms of frequency of collection
- Provide details in terms of how various types of waste are offloaded, sorted, handled, stored (ie. baling of plastics, breaking of glass)
- Provide details in terms of pest control measures

OCCUPATIONAL HEALTH AND SAFETY (OHS)

It is imperative to comply with the requirements of the Occupational Health and Safety Act (Act no 85 of 1993) no matter how big or small the site or business is:

- Identify all health and safety risks on the site
- Describe ways to minimise or prevent these risks from occurring (ie. wear masks and gloves)
- Report all incidents to the relevant authorities
- Provide ablution and other staff facilities (ie. kitchen)



EMERGENCY PROCEDURE

Emergency procedures that deal with all potential risk scenarios must be developed and communicated to staff, such as:

- Identify an assembly point for staff
- Provide staff with a list of emergency numbers
- Identify all possible risks and detail procedures to be followed in the event of such a risk
- Fire-fighting equipment must be available on the site and maintained and checked regularly

DESIGN REQUIREMENTS

- Design structures and areas designated for unloading, sorting, storage and processing (ie. baling)
- Have a good ventilation system
- Control litter and odour in especially the storage area
- Specify all equipment and machinery to be used (ie. baling machine, fork-lifting equipment)
- Design and implement a storm water management system to ensure that no components of litter land up in the water system thereby causing an environmental hazard
- Ensure the necessary structures are in place based on the operations and activities at the site (ie. office, parking area, staff kitchen, ablution facilities, fencing, landscaping)

GENERAL COMMENTS

The following operational requirements must be met by each entrepreneur/owner:

- Daily record of quantity of recyclables received, its origin, quantity sorted, type sorted and processed.
- Keep the site and surrounding area clean including sweeping, washing and disinfecting floors and work surfaces, picking up litter outside the site
- Record all environmental incidents (ie. hazardous waste items found in collected recyclables)

All record keeping and monitoring data will be used to improve the site's environmental performance



REGISTERED WASTE OPERATOR?



To comply with the by-laws of various municipalities and other waste legislation, it might be a requirement for all waste management operators to register themselves.

Go to www.sawic.org.za for more information!

WASTE MANAGEMENT ACTIVITIES THAT MUST BE REGISTERED

- Storage and transport of waste
- Recycling and recovery of waste
- Treatment of waste
- Disposal of waste

WASTE MANAGEMENT OPERATORS THAT NEED TO REGISTER

- Waste transporters
- Waste processors
- Waste recyclers
- Waste collectors
- All those trading in waste

DOCUMENTS REQUIRED FOR REGISTRATION

- Company profile
- Certified copy of company registration
- Certified copy of tax clearance certificate
- Certified copy of roadworthiness certificate of vehicles used
- Certified copy of proof of up to date payment of municipal rates and taxes



- Certified copy of land use rights

FREQUENTLY ASKED QUESTIONS – SOURCE: WWW.SAWIC.ORG.ZA

Where can I get the current list of waste activities listed in terms of Section 19 of the National Environmental Management Waste Act 2008 (no. 59 of 2008)?

The list can be obtained from www.sawic.org.za under the folder “Waste Policy and Regulation”.

Where do I submit a new application for a waste management license?

Your application form must be submitted to the relevant authority listed below. Each authority has different requirements.

The Director: Authorisations and Waste Disposal Management

Department of Environmental Affairs

Private Bag X447

PRETORIA

0001

Tel: 012 310 3536

Fax: 012 310 3753

Head of the Department: Department of Environmental Affairs and Development Planning

Private Bag X 9086

CAPE TOWN

8000

Fax: 021 483 4425

Tel: 021 483 5109

Head of Department: Department of Economic Development and Environmental Affairs

Private Bag X 0054

BISHO

5605

Fax: 040 609 4700

Tel: 040 609 4702



Head of Department: Department of Economic Development Tourism and Environment Affairs

Private Bag X 20801

BLOEMFONTEIN

9300

Fax: 051 400 4772

Tel: 051 400 4917

Head of Department: Department of Agriculture and Rural Development

P.O. Box 8769

JOHANNESBURG

2000

Fax: 011 333 0667

Tel: 011 355 1927

Head of Department: Department of Agriculture Environmental Affairs and Rural Development

Private Bag X 9059

PETERMARITZBURG

3200

Fax: 033 355 9593

Tel: 033 355 9621

Head of Department: Department of Economic Development, Environment and Tourism

Private Bag X 9484

POLOKWANE

0700

Fax: 015 291 5809

Tel: 015 291 5447

Head of Department: Department of Economic Development Environment and Tourism

Private Bag X 11215

NELSPRUIT

1200

Fax: 013 766 4613



Tel: 013 766 4179

Head of Department: Department of Agriculture, Conservation and Rural Development

Private Bag X 2039

MMABATHO

2735

Fax: 018 389 5006

Tel: 018 389 5341

Head of Department: Department of Environmental Affairs and Nature Conservation

Private Bag X 6102

KIMBERLEY

8300

Fax: (053) 807 7367

**CONTACT YOUR LOCAL MUNICIPALITY FOR MORE INFORMATION
ON LICENSING AND REGISTRATION REQUIREMENTS!!!**



GENERAL RECYCLING TIPS



For more information visit:

www.mywaste.co.za

www.recycling.co.za

www.moonprint.co.za

www.cleanup-sa.co.za

www.recyclingday-sa.co.za

www.plasticsinfo.co.za

www.petco.co.za

www.polystyrenepackaging.co.za

www.theglassrecyclingcompany.co.za

www.collectacan.co.za

www.prasa.co.za

www.ewasa.co.za



A little R & R & R!

To reduce, reuse and recycle goes without saying!



Know what you can and cannot recycle

Read up on the recycling rules of your BUYER and follow those guidelines!



Buy recycled

Supporting recycling means not only feeding the loop but also buying items with recycled content.



Recycle your water

Use grey water in the garden around your recycling facility.



Recycle your greenery

Start a compost heap and worm farm for use in your garden.



Recycle your electronic waste

Electronics and electrical goods such as batteries, globes, computer scrap...



Make recycling easy

When placing recycling bins at your various collection sites, ensure that they are as close to the point of generation as possible. Also put a general bin next to a recycling bin.



Who will do it?

Decide who will be tasked with emptying the recycling containers at your various collection points.



Be reliable!

Make sure that you will be able to provide your client with a reliable service before engaging in a contract with them!



Generate awareness!

Recycling should be seen as a fun activity! Organise fun events, provide feedback to your clients and involve the local media!



WHAT CAN BE RECYCLED?



Plastics
Glass
Cans & Tins
Cardboard & Paper
e-Waste

PLASTICS

For more information on plastics recycling visit www.plasticsinfo.co.za.

Plastics are part of our everyday lives. They keep our food safe and hygienically packaged, they are inexpensive to produce, easy to recycle and light to transport. To make it easy for us to identify the various types of plastics, an international polymer identification logo can be found on most plastics packaging. The number in the triangle indicates what type of plastic (polymer) was used to manufacture the plastic product. Most packaging plastics can be recycled.



Polyethylene Terephthalate (PET)
Products like plastic water and cold drink bottles

MORE INFORMATION:
www.petco.co.za or 0860 147 738



High Density Polyethylene (HDPE)
Products like:

- Grocery bags
- Milk bottles
- Household cleaning product containers
- Crates
- Jars



Polyvinyl Chloride (PVC)

Products like:

- Rigid packaging like blister packs
- Clear plastic bottles



Low Density Polyethylene (LDPE)

Products like:

- Packaging films
- Soft plastics bags ie. Frozen Veggies
- Shrink wrap



Polypropylene (PP)

Products like:

- Yogurt and margarine containers
- Bottle caps
- Flower pots
- Buckets



Polystyrene (PS)

Either expanded polystyrene (EPS)

like:

- Take away cups
- Clamshells
- Protective packaging

Or High Impact Polystyrene (HIPS)

like:

- Coat hangers
- CD cases

MORE INFORMATION:

www.polystyrenepackaging.co.za



GLASS

The Glass Recycling Company helps entrepreneurs and communities establish a collection system and you can contact them or visit their website for more information!
www.theglassrecyclingcompany.co.za

Glass can be recycled indefinitely as part of a simple process. Recycling two glass bottles saves enough energy to boil water for 5 cups of tea. Glass is 100% recyclable, with scrap glass an important ingredient of new glass. The recycling of glass uses less water, raw materials and energy than using raw materials in the production cycle.



Glass that we are familiar with is divided into different streams based on its composition and use:

1. Container glass. Largely bottles and jars – 80% of the recycled glass market.
2. Flat glass. Used in long-term applications ie. windscreens – not recyclable.
3. Fibre glass. Currently no recycling in this sector.
4. Domestic and special glass. Pyrex and ornaments, cathode ray tubes in TV sets – largely not recyclable and should not be mixed with container glass.

What to do?

- Rinse glass bottles and jars – in the same water you washed your dishes
- Remove metal or plastic tops, corks and rings
- Separate glass bottles in different colours (clear, green & blue, brown)



CANS AND TINS

For more information on the recycling of cans and tins visit www.collectacan.co.za.

The cans you use on a daily basis are all recyclable! There is no reason to throw them away. Sort your cans for the best prices e.g. steel cans (cold drink and beer), aluminium cans (Red Bull), food (Milo, dog food, baked beans, coffee tins etc.), paint and aerosol cans and oil cans (used at garages and fuel stations). Cans should be empty and flattened.



CARDBOARD AND PAPER

For more information on the recycling of paper and cardboard visit www.prasa.co.za.

Remember to remove staples, sellotape, prestick, pins and paper clips from paper items. The following types of paper can be recycled:

- Old memos and letters
- Computer paper
- Used photocopy paper
- Windowless envelopes
- Old books
- Pale coloured paper (ie. invoices)
- Newspapers
- Magazines
- Flattened cardboard

You cannot recycle:

- Wet or dirty paper
- Tissue paper
- Wax or plastic coated packaging
- Self-adhesive paper



- Carbon paper
- Chemically treated fax or photographic paper
- Dog food bags
- Potato bags
- Wax coated boxes
- Cement bags



REMEMBER!

- Print only when necessary!
- Print and copy on both sides of the paper
- Use scrap paper for internal correspondence
- Place your waste paper in a paper recycling bin



E-WASTE

For more information on the recycling of e-waste visit www.ewasa.org.

E-waste includes computers, TVs, stereos, DVD players, fax machines, cell phones and other electronic and electrical household appliances that have been thrown away. It is definitely recyclable because it is a valuable source of secondary raw materials. It will become toxic if not treated and discarded properly.





YOUR BUSINESS PLAN

Use the following headings:

General

The Business

Finance

The People

Targets

Record Keeping

The Legal Stuff

Marketing

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**"Look what I found in the dumpster!
A perfectly good business plan!"**



GENERAL

- Name of the business
- Legal entity (ie. closed corporation, partnership)
- Proof of registration
- Physical and postal address
- Contact persons
- Contact numbers
- Organisational structure

THE BUSINESS

- Describe your business in terms of what you do, what you collect and what your vision is.
- Who owns the business?
- What is the goal of the business?
- In what area do you operate?
- What markets do you service?
- What makes your business unique?
- Who supports your business (ie. the local municipality)?

FINANCE

- How much start-up capital do you have?
- How much will it cost to acquire a site, containers, lables, tables and other infrastructure items?
- How much will signage, fencing and other security items cost?
- How much cash float will you need to pay informal collectors?
- How much will you pay for recyclables?
- What income do you expect to get?

THE PEOPLE

- How many people will work for you?
- How much will you pay them?



TARGETS

- What are your recycling targets for the first three months, six months, year?
- How many clients do you want to acquire in the first three months, six months, year?

RECORD KEEPING

- Keep daily records of all recyclables collected and sold.
- Keep monthly record of all income and expenses.

THE LEGAL STUFF

- Do you need provincial or EIA approval?
- What licenses do you require?
- What licenses have you applied for?
- Can you operate the business while you wait for license approval?

MARKETING

- How will you market your business to your target market?
- What type of communication will you use to market your business?
- Who are your competitors?

