

GETTING STARTED BACK TO BASICS WITH WASTE

Creating a
**waste-wise
culture
together**

REDUCE

RE-USE

RECYCLE

HELP save OUR city

HELP

save our
WORLD



You
can
help!



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Making progress possible. Together.

TABLE OF CONTENTS

- INTRODUCTION..... 5
- SUSTAINABILITY..... 9
- WASTE MANAGEMENT
 - What is waste?..... 10
- THE INTEGRATED WASTE MANAGEMENT PLAN..... 12
- ORGANIC WASTE DIVERSION
 - Organic Waste Management
 - What is organic Waste?..... 14
 - What you need to know..... 15
- The Circular Economy
 - Circular Economy..... 24
 - Climate Change..... 26
- RECYCLING PROGRAMME
 - How to start..... 27
 - Getting started..... 30
 - Business, Community and Government..... 33

Disclaimer

Although all efforts was made to ensure the accuracy of the information, in no event will the city be held liable for any loss or damage that may rise from this booklet.

The content of this booklet provides you with the basic understanding to complex topics within the waste sector with links for further learning or as a guide.

INTRODUCTION

The South African Constitution, the corner stone to our democracy and the foundation that enshrines peoples rights affirming their democratic value of human dignity, equality and freedom inclusive of Section 24 (Environment) of the Constitution of the Republic of South Africa (Act 108 of 1996) which states:

“Everyone has the right –

- (a) to an environment that is not harmful to their health or wellbeing;
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –
 - (i) prevent pollution and other degradation;
 - (ii) promote conservation; and
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

Follow the link

<https://www.gov.za/documents/national-environmental-management-waste-act>

Therefore, it is important that we play our part in the prevention of waste pollution, promote and encourage waste minimisation so to avoid the degradation of our natural resources.

As a city we constantly remind our communities to **re-duce, re-use, separate your waste for recycling, and to avoid generating waste in the first place.**

We encourage people to take up a more greener approach in all aspects of their lives, but all will be undone if we do not practice what is being displayed in section 24 of Constitution of the Republic.

In Cape Town we are making strides towards the above mentioned as said in the City of Cape Town 4th Generation Integrated Waste Management Plan- Waste Sector.

As stated in 4th Generation Integrated Waste Management Plan- Waste Sector, all those living, working, visiting, commerce and industry who is generating waste has a responsibility towards diverting waste from landfill as the city does not have unlimited landfill airspace. It is within this context that the City acknowledges its responsibilities to reduce, minimize and dispose waste in an environmentally acceptable manner in order to reduce its impact on the environment and save landfill airspace by articulating bold measures that would lead to sustainable options for integrated waste management.

Follow the Link

<https://www.capetown.gov.za/search?k=%204th%20generation%20integrated%20waste%20management%20plan/%20waste%20sector>

Furthermore and Importantly we want to get away from illegal dumping, littering, pollution to sustainable living, good waste management practices and support the City of Cape Town's endeavours around Global Warming and Climate change.

FOLLOW SOME LINKS ON THIS TOPIC

https://www.environment.gov.za/sites/default/files/docs/2020nationalwaste_managementstrategy1.pdf

<https://cer.org.za/virtual-library/legislation/national/pollution-and-waste/national-environmental-management-waste-act-2008>

<https://www.gov.za/documents/constitution/chapter-2-bill-rights>

This booklet provides the basics on how we can get started and how we can get involved.



SUSTAINABILITY

With the emergence of sustainable waste management in the 80's and in particular defined in the Brundtland Commission's Report of 1987, it was clear that the concept of sustainable development would be seen as the instrument to conserve and manage natural resources of today whilst supporting human life on earth's current and for future generations.

The report defines sustainability in the following way:

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

It is therefore important to note that Sustainability has become an integral part of the current and future plans of the City of Cape Town and within the Waste Management environment **and requiring your involvement.**

Use the link for more information on how sustainability is an integral part to all aspects of sustainable living.

[https://bit.ly/Smartliving2020.](https://bit.ly/Smartliving2020)

Also for more information, use the link below on the United Nations Sustainable Development Goals.

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

WASTE MANAGEMENT

Solid Waste Management is the core service delivery department for the Urban Waste Directorate of the City of Cape Town. It aims to ensure effective and efficient service delivery and at the same time continues to involve people in efforts to minimise health and environmental impacts of waste by encouraging waste avoidance and waste diversion.

What is waste?

Waste refers to any unwanted or unusable material that is discarded or disposed of, generated through human activities and or lifestyle. In addition, waste cause various forms of pollutions. For example, burning of waste can cause air pollution, disposal of waste into water source can cause water pollution and the disposal of waste on open soil can cause soil degradation. Moreover, the way we have created and disposed of waste must be relooked so to move toward a sustainable approach.

It is therefore important to take cognisances of the following sections with regards to the sustainable waste management approach, starting with the City's Integrated Waste Management Plan. This plan allows you to get involved responsibly.



THE INTEGRATED WASTE MANAGEMENT PLAN

We have previously mentioned the importance of the constitution and also the Municipalities responsibility towards managing their waste. In Cape Town through the 4th Generation Integrated Plan that is aligned to the all-important five-year Integrated Development Plan (IDP) gives directives and the strategic way forward on how national legislative targets, provincial directives and the City's strategic plans, policies and by-laws on waste management operational requirements to be met.

It is within the Integrated Waste Management Plan that importance are given to waste minimisation, organic waste diversion cementing concepts such as climate change amongst the aligned strategic imperatives as described in the national Waste Management Strategy, 2020.

See link.

<https://www.gov.za/documents/national-environmental-management-waste-act>

https://www.environment.gov.za/sites/default/files/docs/2020nationalwaste_managementstrategy1.pdf

To read more on City of Cape Town Solid Waste Management

Follow the link

[https://www.capetown.gov.za/Departments/Solid Waste Management Department for more information.](https://www.capetown.gov.za/Departments/Solid%20Waste%20Management%20Department%20for%20more%20information)

See link.

<https://www.gov.za/documents/national-environmental-management-waste-act>

https://www.environment.gov.za/sites/default/files/docs/2020nationalwaste_managementstrategy1.pdf

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ORGANIC WASTE DIVERSION

If you thinking of starting organic waste diversion you should know some basic information to get you started.

Organic Waste Management

Managing waste historically was done by landfilling but this has changed over time and the City of Cape Town has taken the shift to a more waste minimisation approach. This is also seen a key approach to reducing waste to landfill and key strategic goal for the City of Cape Solid Waste Management department. Organic waste diversion is one of the key strategic goal for the department.



What you need to know!

A waste generator, as defined in the by-law, means a property owner, household, organisation or business entity, occupants or employees who generate waste. This includes waste sorters such as recycling or waste minimisation groups, scrap dealers and buy-back centres. In terms of section 10 of the City of Cape Town's Integrated Waste Management By-law 2009, as amended 2016, waste generators must have an integrated waste management plan (IWMP) approved by the Director: Solid Waste Management.

Go to; <http://www.capetown.gov.za/bylaws/> to view the By-law and [amendments](#).

What business should know when submitting an integrated waste management plan?

Apart from the need to be legally compliant, it not only provides a waste generator with an opportunity to build relationships with other industry stakeholders and therefore makes his/her business more sustainable, but also contributes to diverting waste from landfill and protecting our environment for future generations.

Section 10(2) of the City's Integrated Waste Management By-law provides detail on **content of the IWM plan**.

Approval of the IWM plan is required to ensure compliance with the minimum requirements, as well as to verify that information is current and accurate.

The city is now involving all to divert organic waste from landfill, which includes our business community. Meaning that all organic waste generators are to submit an integrated waste management (IWM) plan for approval whereby you shall propose on how you as the waste generator will progressively phase out the landfilling of organic waste you produce. The City urges all to become accredited in our endeavour to reduce waste going to landfill.

Benefits of being accredited and compliant: Accreditation is necessary for everyone providing a Waste management service and certain waste generators within the City. Apart from the need to be legally compliant, there are numerous other benefits:

- Being registered on the City's accreditation database, which is shared with the public who might be requiring waste management services, also means free marketing.
- It provides opportunities like meeting tender specifications and work opportunities with government and large businesses since accreditation is specified as a supply chain requirement for waste management in the public sector and large businesses with ISO accreditation.
- It provides an opportunity to build relationships with other industry stakeholders and therefore makes your business more sustainable.
- Accreditation is required for building demolition applications which cannot be approved without an accredited service provider and building integrated waste management plan.
- It creates an enabling environment where small, medium and micro enterprises (SMMEs) can thrive.
- It assists persons in maintaining legal compliance and developing a professional waste management service, and provides training opportunities for small business.
- It contributes to diverting waste from landfill and protecting our environment for future generations.

Submission of IWM Plans

Go to the solid waste accreditation site to submit your IWM plan online:

<http://web1.capetown.gov.za/web1/swma/>

Application forms are available on the City's website: <https://www.capetown.gov.za/City-Connect/Register/Business-and-trade/Register-as-an-accredited-waste-services-provider>

Submit any enquiries to: waste.accreditation@capetown.gov.za

Cape Town has a very robust private organic waste processing sector offering many alternatives to landfilling. Organic waste processing solutions include animal feed, composting, protein recycling and energy generation. To find out more about the private services offered to the organic waste generating sector (including hospitality, food manufacturing and processing industries),

We recommend you contact the following non-profit organisations who has a list of all its members offering the different processing solutions:

- ORASA (Organic Recycling Association of South Africa),
- SAMIRO (South African Mass Insect Rearing Association), as well as
- SABIA (Southern African Biogas Industry Association)

Important Sources to consult and or to contact for you to get involved.

Green Cape; <http://www.GreenCape.co.za> which was established to support the growth of the green economy in the Western Cape.

Green Cape's Waste: Market Intelligence report 2021, https://www.greencape.co.za/assets/2021_DIGITAL_WASTE-MIR.pdf

The market intelligence report gives great insight into the 2021 organic waste management status in Cape Town.

For you to know at home

TIPS: The Waste chapter on page 50 of the Smart Living Handbook provides more details on how to compost including pages 66-68 on methane gas and its impact.

The Energy chapter on page 173 of the Smart Living Handbook provides more details on how to determine your carbon footprint.

Use the link to read more on waste section in the Smart living handbook.
<https://bit.ly/Smartliving2020>

Tips for managing organic waste

Managing Food Waste within this industry can provide a direct link to minimising waste to landfill such as minimising the impact on natural resource and bolstering concept such as climate change and circular economy within this context.

Read more about the United Nations Sustainable Goals with specific reference to consumption- production by going to; <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>

Hospitality businesses can implement a number of responsible practices. The very first step for them is to develop 'sustainable' menus. The restaurants' menus can offer a choice of different portion sizes to satisfy the requirements of different customers. They may feature fewer items in their menus to operate their business with a reduced inventory of food products to decrease storage costs, minimize waste and spoilage.



It is in the interest of restaurant owner-managers to procure fresh ingredients from local businesses including farmers, bakers, butchers, et cetera, to ensure that they are preparing good food for their valued customers. Local products including organic items like fruit and vegetables, will have a longer shelf life than imported ones.

The hospitality businesses ought to forge close relationships with dependable, local suppliers to implement just-in-time purchasing systems. There is scope for them to purchase regularly and in smaller quantities to reduce the probabilities of food spoilage and dehydration.

They are expected to continuously monitor the expiration dates of their food items and ingredients to minimize waste and to respect relevant hygienic standards.

Owner-managers may apply the first expired first out (FEFO) principles in their kitchens, to avoid any stock-outs. Moreover, they can use food tracking devices to identify the types of food waste they are generating.

Their monitoring and control of food waste should be carried out on a day-to-day basis, as it can lead to significant operational efficiencies and cost savings. Practitioners may keep a track record of their waste in a spreadsheet. They can measure the quantity of organic waste that is generated from their premises. They may include details like the dates (and times of events), which ingredients or recipes were wasted, the name of the employee(s) who was (or were) responsible for the waste, etcetera.

Furthermore, practitioners can estimate the composition of their organic waste and identify whether it is derived from vegetables, bread/pasta, specific meats, etc. This will allow them to make adjustments in their food menus (if possible).

Such food trackers may also help the hospitality business to detect irresponsible behaviours in their kitchens and to minimize food waste from their properties. It may indicate that certain employees are not engaging in responsible food preparation behaviours.

There is scope for hospitality businesses to train their human resources, at all levels, particularly new employees, on circular economy approaches. This way, they will be in a better position to improve their efficiencies in terms of reducing, reusing and recycling resources, and responsible waste disposal practices. They have to be supported and educated on the best practices to ensure that they are improving the (economic) sustainability of their businesses' food and beverage operations whilst minimizing their impact on the natural environment.

Green Cape's Waste: Market Intelligence report 2021,

https://www.greencape.co.za/assets/2021_DIGITAL_WASTE-MIR.pdf

THE CIRCULAR ECONOMY

UNDERSTANDING WASTE IN THE CIRCULAR ECONOMY

To understand Circular economy we need to understand linear economy. The City Smart Living handbook describes this clearly to ensure it is easily understandable.



One of the key tools to implement the Zero-waste philosophy is the circular economy. Traditionally, our economy has been linear in terms of materials: We make goods, use them, and then dispose of them. The circular economy is an alternative economic model. Under such a model, we keep goods and materials in use for as long as possible, extracting maximum value from them. Once they reach the end of their life, we recover and regenerate them, minimizing disposal or incineration. The essence of a circular economy is to preserve natural resources by retaining the quality and value of products, their parts and the materials used to make them.

The Circular Economy



A circular economy also separates the value chains of renewable resources ("biological nutrients") and non-renewable resources ("technical nutrients"), as they require different technologies and methods. To get to a circular economy, we need all stakeholders, including government, the private sector, households and communities, to be committed and involved. It requires us to change our thinking and behavior – from how we design products and services, to how we manufacture, distribute, use, reuse, repair, recycle and, ultimately, dispose of these products or services.

Read more on the circular economy in the Waste Section of the Smart Living Handbook. You can also consult the link as another resource for awareness.

<https://earth5r.org/circular-economy-powai-waste-management-livelihood/>

Climate Change

When organic waste or food is dumped in landfills, it produces **METHANE** gas.

These gasses are also called Green House Gasses that could potentially contribute to a rise in Climate Change. By managing your food waste, you could generate less going to landfill's.

Industry mass production emits greenhouse gas emissions from chemical processes and from high-heat processes that are currently fueled largely through the burning of fossil fuels.

Meanwhile, agriculture is the second largest contributor to climate change after electricity generation. Pesticides, fertilizers and other toxic farm chemicals can poison fresh water, marine ecosystems, air and soil. They also can remain in the environment for generations.

Green House Gas emissions result in climate change which can trigger droughts, floods, disease etc.



RECYCLING PROGRAMME



How to start

Tips for retail / distribution centres

Retail Stores can Reduce, Reuse and Recycle

There is no doubt that most retail stores generate a lot of waste, much of what is recyclable materials. Excessive packaging including corrugated cardboard and shrink wrap can all be efficiently reduced and recycled. Recycling in a retail environment is very similar to recycling in our homes, schools, or other businesses.

The same guidelines apply for the 3 R's – Reduce, Reuse, and Recycle.

- ✓ Try to minimize excessive packaging when your customers make a purchase. This can be as simple as asking if your customer wants a bag instead of assuming that they do.
- ✓ Encourage the use of reusable shopping bags. If you can, try to offer your customers an incentive for using a reusable shopping bag instead of plastic or paper.
- ✓ When possible, ask your vendors to reduce bulky packaging on the products you sell. You could also encourage using packaging that is reusable or made with recyclable materials.
- ✓ Merchandise that may be slightly damaged or outdated can be donated to an organization or charity in need instead of thrown in the trash.
- ✓ Place recycling bins inside your store, in the break room, or outside near the entrance to give customers and employees the opportunity to throw their waste into a recycling can instead of just the trash can.

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- ✓ Invest in a cardboard baler for your stockroom so you can easily bale your own cardboard or other recyclables as merchandise comes in. Even in a smaller stockroom, space saving vertical balers will help you to reduce the size of your recyclables so it can be efficiently stored until it is picked up or transported to your recycler.
- ✓ Educate your staff on what they can do to reduce, reuse, and recycle, not only while they are at work, but also at home and on-the-go.
- ✓ Use, purchase, and promote products that are made with recycled materials. Your customers who are environmentally-conscious will appreciate having a green alternative to buy from you.
- ✓ Promote buy-back programs or upcycling programs to encourage new sales with a trade-in of old products that can be recycled, reused, or donated.
- ✓ Use digital marketing to reduce paper waste. For instance, instead of printing wasteful catalogues, newsletters, or fancy packaging, opt for online catalogues, email newsletters, and mobile marketing.

Another upside to improving the recycling program at your retail business is that you will likely reduce your business' trash handling costs and increase profitability.

Getting started

1. Identify your waste



Vase for flowers
Containers
Flower pot



For art
Melt and reuse
Musical instruments



Papermache
For art
Scrap paper



Eco bricks (filled with sand)
Flower pots
For art



Composting
Clean organic animal feed

2. Putting a team together to drive recycling Programme

- a. Project Coordinator
- b. Champion within each department
- c. Sorting and Cleaning

3. **Decide on what and how you will recycle**
 - a. Refer back to point 1 for guidance
4. **Provide training to staff**
5. **Identify champions in each department of the company**
6. **Introduce and start with 1 recyclable item per month**
7. **Keep track of waste being recycled**
8. **Calculate the money being saved**
9. **There are various ecological footprint Calculators that are available. Find the one most suitable for you.**
10. **Don't forget to record your before and after statistics**

RECYCLE TIPS:

I CAN RECYCLE:

- ✓ Paper and cardboard
- ✓ Tins
- ✓ Glass
- ✓ Food
- ✓ Plastic
- ✓ TetraPak juice and milk cartons
- ✓ Compostable/biodegradable food

I CAN'T RECYCLE:

- ✗ Wet or dirty paper
- ✗ Adhesive and laminated paper
- ✗ Dry dog/cat food bags
- ✗ Cling film/wrap
- ✗ Disposable nappies
- ✗ Cigarette butts
- ✗ Chip packets and containers

Check your recycling service provider or drop-off site first on what they take.

Business, Community and Government

Each business is different however, these Stakeholders are universal across various business.

Stakeholders	Roles & Responsibility
Owner/ Manager	• Being the example, communicating change within the company and being the advocate. • Set clear goals for the company • Promote innovation thinking • Possibly create jobs within company
Project Co-ordinator	• Ensure all legal aspects see "How to start" and Online registration • Looking at using environmentally friendly products • Create staff spirit and moral
Champions	• Specific staff members driving the recycling programme
Sorters &/ Cleaner	• Ensure recycling takes place operation • Sorts out waste to be recycled • Assist with monitoring waste being recycled
Community	• Identify if items can be donated as part of the recycling programme
Government	• Provides legislation, policies and guidelines • Support recycling programme
Waste Management	• Provides a service to the company to recycle and/waste removal

In Cape Town you can search for a recycler follow the link
<http://web1.capetown.gov.za/web1/wasterec/map>

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