# Guidebook on Setting Up a Structured Waste Recycling Programme in Condominiums and Private Apartments

2021 Edition



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# **CHAPTER 1: INTRODUCTION**

#### About this Guide

This Guidebook is produced by the National Environment Agency (NEA) to help and provide the management corporations (MCs) and managing agent (MA) with a step-bystep guide on setting up a structured recycling programme in their condominiums and private apartments. The intent is to help the interested management corporations (MCs)/managing agents (MAs) in condominiums and private apartments to set up a waste recycling programme and not a legally binding document.

This guide does not provide a "one-size-fits-all" solution to developing the best recycling programme for condominiums and private apartments. Rather, it seeks to provide general concepts and factors for MCs' / MAs' consideration on setting up the recycling programme for the residents.

#### **Overview of Solid Waste Management in Singapore**

Over the years, Singapore's waste disposal quantities have increased significantly. From 1,260 tonnes per day in 1970, the amount of waste disposed of has risen more than seven times to more than 8,100 tonnes per day in 2019, and is projected to continue to increase in tandem as our population and economic grow.

Since 1979, much investment has gone into the building of waste-to-energy incineration plants and landfills to manage the increasing amount of waste disposed. The waste-to-energy plants are designed to incinerate waste safely and are equipped with air emission cleaning equipment. These plants reduce the volume of waste by up to 90%, and recover energy to supply about 3% of Singapore's electricity demand. Ferrous and non-ferrous metals are also recovered from the incineration bottom ash for recycling.

The remaining ash is then transported to the offshore Semakau Landfill, the only landfill in Singapore.

If waste quantities continue to grow, there would be a need to build more waste-to-energy plants and offshore landfills. This presents a key challenge for land-scarce Singapore.



**Tuas South Incineration Plant** 



Semakau Landfill

As about half of the waste in Singapore is generated from households, by practising the 3Rs (Reduce, Reuse, Recycle), we can greatly reduce the amount of waste sent to the waste-to-energy plants and landfill.

# **CHAPTER 1: INTRODUCTION**

#### **Recycling in HDB and Landed Properties**

To provide residents a convenient means to recycle, Public Waste Collectors (PWCs) appointed by National Environment Agency (NEA) are required to provide recycling bins for the HDB blocks and landed homes.

#### **Recycling in Condominiums and Private Apartments**

The PWCs also provide recycling bins to condominiums and private apartments that have not opted out of the public waste collection scheme.

Those that opt out of the public waste collection scheme are required to provide their own recycling receptacles and convey the recyclables as frequently as necessary from the premises to a recycling facility as required under Section 10(1)(c) and Section 10(2) of the Environmental Public Health Act (Cap 95) respectively.

## CHAPTER 2: SETTING UP A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/PRIVATE APARTMENTS

A structured waste recycling programme consists of the following components:

- Provision of recycling receptacles
- Storage and consolidation of recyclables
- Engaging a recyclables collector

#### **Provision of Recycling Receptacles**

(i) Types and Capacity of Receptacles

The receptacles can be provided in the form of bins or bags for the deposit of recyclables<sup>1</sup> i.e. papers, plastics, metals and glass. The type of receptacles should be standardised across the estate, in either commingled (all types of recyclables can be deposited in a bin) or segregated form.



Commingled recycling bins





Segregated recycling bins

**Recycling Bags** 

The recycling receptacles should be of sufficient numbers, size and capacity to prevent any overflowing.

The storage capacity of the designated main recycling point of the development (e.g. at the centralised bin centre) can be calculated based on the Code of Practice on Environmental Health (COPEH).

As part of a good recycling practice, MC/MA is to review and ensure that the recycling receptacles (front-end system) shall be of a type aligned to the method of collection of recyclables (back-end system) by the recyclables waste collector. For instance, developments whose recyclables are collected in a commingled form shall provide commingled type of recycling receptacles, and developments whose recyclables are collected in a segregated form shall provide segregated type of recycling receptacles. This is to avoid giving the residents the wrong impression that the workers, who are transferring the recyclables within the estate development, are mixing recyclables with general waste during the recyclables transferring process at the respective recycling points to the main recycling point (i.e. bin centre). Moreover, MC/MA to use blue transfer bin for recyclables and to be differentiated from the green general waste transfer bin. These blue transfer bins are to be properly labelled as recycling receptacles.

## CHAPTER 2: SETTING UP A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/PRIVATE APARTMENTS

(ii) Labelling and Usage of Receptacles

All receptacles are to be clearly labelled to indicate what can and cannot be deposited for recycling.

As part of the #RecycleRight movement, for developments that are adopting commingled recycling, the recycling receptacles are to be affixed with the following NEA's recycling bin label design (print in full colour):-



#### Storage and Consolidation of Recyclables

Receptacles for recycling can be provided either by the MCs/MAs or the collectors. Different types of recyclables collection and storage system can be adopted.

#### Recycling bins system

In cases where recycling bins are used, the following are the different systems:

i) Multiple intermediate recycling points with recyclables collected by collector from a centralised location (i.e. designated main recycling point)

To allow residents to recycle conveniently, MCs/MAs to ensure at least one commingled recycling receptacle or one set of segregated type of recycling receptacles provided for each block.

As a general guide, some of the strategic locations could include areas near the lift lobby, stairwell or letter box area and where communal facilities are located, etc.<sup>2</sup> As far as operationally feasible, the receptacles are recommended to be placed at location easily accessible by residents of each block, e.g. prominently near each block or at common areas near or within each block.

Arrangements are to be made to consolidate the recyclables from these intermediate recycling bins into the set of recycling bins placed at a centralised location/main recycling point that allows the collector to conveniently and regularly collect using the same road access as that used by the recyclables collection vehicle.

<sup>2</sup>Ensure that locations of recycling bin would not compromise fire safety requirements of the building.

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## CHAPTER 2: SETTING UP A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/PRIVATE APARTMENTS

ii) Multiple intermediate recycling points, with recyclables collected directly by collector from intermediate recycling bins

Similar to (i), there shall be at least one commingled recycling receptacle or one set of segregated recycling receptacles provided for each block. However, MCs/MAs can make special arrangement with their collector to directly collect recyclables from the intermediate recycling bins regularly.

#### Recycling bags system

In cases where recycling bags are adopted, the following are the different systems:

iii) Door-to-door collection of recyclables using recycling bags by collector

The collector can be engaged for door-to-door collection of the filled recycling bags on a scheduled day, as an agreed arrangement between the MCs/MAs and the collector.

iv) Recycling bag system with designated main collection points/recycling corner

MCs/MAs can make special arrangement with their collector to collect the filled recycling bags from receptacles for recycling placed at designated main collection points/recycling corner within the estate (e.g. near the security guard house, bin centre) on a scheduled date, instead of the door-to-door collection of recyclables. Residents shall be informed to put out the bags at the designated main collection points/ recycling corner on the scheduled date.

#### Recycling chute system

v) This system applies to estates with buildings installed with recycling chutes.



Recycling chute

MCs/MAs could either make arrangement to empty and consolidate the recyclables collected in the bin under each recycling chute into a set of recycling bins placed in such location that allows the collector to conveniently and regularly collect using the same road access as that used by the recyclables collection vehicle or make special arrangement with the collector to collect directly from the bin under each recycling chute.

#### Engaging a Recyclables Collector

A licensed general waste collector (GWC) has to be engaged where the recyclables collection and transportation involves payment by the condominium management or other remuneration (whether monetary or otherwise) to the collector.

i) Condominiums which have opted into the Public Waste Collection scheme

For condominiums or private apartments which have their waste collected by the appointed Public Waste Collectors, their MCs/MAs shall work with their Public Waste Collector to arrange for the collection of recyclables from a centralised location/main recycling point in their estate development.

ii) Condominiums with their own recyclables collection arrangements

Condominiums and private apartments with their own private waste collection arrangements with a licensed general waste collector (GWC) should engage a Class A licensee to collect and send their recyclables to recycling facilities.

MCs and MAs may be able to reap synergy by integrating recycling and waste collection or cleaning services in the same contract. In such cases, the following points are to be taken into considerations:

- Collection of recyclables at a suitable frequency such that there is no overflowing of the recycling receptacles.
- Provision of monthly tonnages of collected recyclables
- · Cleaning and maintenance of the recycling bins

# CHAPTER 3: SUSTAINING A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/PRIVATE APARTMENTS

#### Role and Responsibility of MCs/MAs

The MCs/MAs play a crucial role in ensuring the success of the recycling programme and to take note of the following:

- Provide clear contract specifications on recycling in the collection contract (for condominiums or private apartments under private contract arrangement)
- Provide documentation on working relationship and procedure among waste/recycling collector, management, and cleaning contractor as necessary.
- Ensure all staff and cleaners are aware and informed of the proper standard operating procedures (SOPs) in handling recyclables within their estate development
- Spell out clearly and give constant reminders to the cleaning contractor on the SOPs, dos and don'ts of their workers if they are involved in transferring the recyclables within the estate, for example:-
  - Forbid the workers to remove recyclables from recycling bins and keep them for their personal gains
  - Forbid the workers to mix recyclables with general waste or dispose of recyclables as general waste
  - Maintain the cleanliness of recycling bins and recyclables transfer bin
  - Ensure proper handling and storage of the recyclables
  - Notify MCs/MAs on any overflowing of recycling bins
- Constant communication to all parties (e.g. waste collector, recyclable collector, cleaners and residents) information on the recycling programme – e.g. locations of bins, items that can be deposited, name of collector, collection frequency, point of contact (POC) contact number on recycling matters.
- Promote and educate residents on recycling through emails, circulars, notices and posters. Some information that could be shared include:
  - Locations of recycling bins
  - Items that can be recycled
  - Dos and Don'ts of recycling
  - #RecycleRight Poster
- Work with recycling collector to monitor and improve the performance of the recycling programme



#RecycleRight Poster

#### Role and Responsibility of Residents

Residents should separate their recyclables from waste. Inconsiderate actions (e.g. depositing non-recyclables or food waste into recycling bins, putting recyclables outside recycling bins, dumping furniture waste or any bulky items indiscriminately outside recycling bins, thus dirtying the area) could jeopardise the recycling programme.

#### Role and Responsibility of Recyclables Collector

The collector should comply with all specifications stated in their contract to ensure all recyclables (paper, plastic, metal and glass) deposited in the receptacles are collected promptly and sent to recycling facilities.

Under Section 10(1)(c) and 10(2) of the Environmental Public Health Act (Cap 95), condominiums and private apartments are required to provide recycling receptacles and send the recyclables for recycling. A structured waste recycling programme can only be set up with the cooperation and commitment from the various stakeholders, i.e. the MAs/MCs, residents, cleaning contractor and recycling/waste collector. A step-by-step chart<sup>4</sup> is created to sum up the concepts mentioned in the guidebook for easy referencing.

<sup>4</sup>Refer to Annex B for the step-by-step guide for MCs/MAs on Introduction of a Structured Waste Recycling Programme in Condominiums/Private Apartments

# Annex A – CATEGORIES OF RECYCLABLES

## **Categories of Recyclables as specified in the Environment Public Health (General Waste Collection) Regulations**

Recyclables	Examples
1. Paper products	Newspapers and magazines, writing paper, envelopes, car park coupons, brochures or pamphlets, books, cardboard and paper packaging (such as cereal boxes and drink cartons) and other paper products, but excluding tissue paper and paper food wrappers.
2. Metal products	Cans or containers made of metal such as drink cans, milk powder tins and food cans.
3. Plastic products	Bottles or containers made of plastic such as detergent containers, milk containers, mineral water bottles, soft drink bottles, juice bottles, plastic bags, plastic packaging and other plastic products, but excluding styrofoam.
4. Glass products	Jars and bottles, but excluding light bulbs, window glass and fish tanks.



# Annex B – Step-by-Step Guide for MCs/MAs on Introduction of a Structured Waste Recycling Programme in Condominiums/Private Apartments

The introduction of structured waste recycling programme in the estate development with support and approval by the MC.

MC/MA can work with the recyclables collector on the details of the programme implementation e.g. types of collection service they can offer (commingled or segregated mode), recyclable collection system, frequency of collection, suitable and adequate number, size, capacity and on the strategic locations of the recycling bins. Obtain recycling programme proposal.

MC/MA approves recycling proposal and confirm on implementation date of programme.

- Brief cleaning contractor of their roles (forbid cleaners from removing recyclables from the estate for their personal gains, maintain the cleanliness of recycling bins etc.)
- Send circulars/notices to inform and encourage residents to participate in recycling programme. Include locations of recycling bins and the list of recyclables that can be deposited.
- Display posters regarding recycling on notice boards/lift landings or other appropriate places.

Start of waste recycling programme

Monitoring and sustaining structured waste recycling programme.

- Send circulars/notices annually bearing message on 3Rs (Reduce, Reuse, Recycle)
- Put up posters and/or exhibition panels on recycling
- Incorporate recycling in daily operation (e.g. encourage recycling of waste generated at communal facilities areas)
- Work with recycling company to organize activities or events related to recycling
- MC/MA to review the contract and the types of receptacles and collection method to adopt nearing to the end of the contract period

For more information, please refer to Chapter 2 on SETTING UP A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/ PRIVATE APARTMENTS

For more information, please refer to Chapter 3 on SUSTAINING A STRUCTURED WASTE RECYCLING PROGRAMME IN CONDOMINIUMS/ PRIVATE APARTMENTS