WASTE COLLECTION FOR NEW MULTI-DWELLING HOUSING AND RESIDENTIAL FLAT BUILDINGS

SUTHERLAND SHIRE ENVIRONMENTAL SPECIFICATION 2020

SUTHERLAND SHIRE

This specification is constructed as follows;

1. PURPOSE

This guide was developed to improve the design and functionality of waste management systems within new Multi-Dwelling housing, Residential Flat Building and shop top housing developments . This guide is provided for use in the development application process to ensure consideration of appropriate and best practice waste management systems and procedures during the design phase of new developments.

2. OBJECTIVES

- Ensure properties have appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management systems are intuitive for occupants and are readily accessible.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene is achieved.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage and removal services.
- Enable collection service providers to efficiently collect waste and recyclables with minimum disruption and impact on the community.
- Ensure bin storage areas do not dominate the streetscape.
- To assist in achieving the State Government waste minimisation targets as set out in the Waste Avoidance and Resources Recovery Act 2001 and NSW Waste Avoidance and Resource Recovery Strategy 2014-21.

3. DEFINITIONS

Term	Definition
Domestic Waste	Waste produced in the course of day to day residential activity. Domestic waste does not normally include waste generated from demolition, construction, major renovation or large scale landscaping activities.
Garbage	Putrescible and non-putrescible waste produced that cannot be reused, recycled or composted.
Kerbside Collection	Waste management service that typically requires bin presentation on the nature strip.
Litter	Rubbish including but not limited to, paper, plastic or containers left lying in an open or a public space.

Term	Definition
Multi Dwelling Housing	3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building. Includes townhouses and villas that may have shared or individual services
Onsite Collection	Waste is presented at a collection point within the property boundary and the waste service provider parks the waste service vehicle wholly or partially on the private property to service the bins. This may include service from a driveway, internal service bay or dedicated loading bay. Council must be indemnified for damage to the driveway in these instances.
Recycling	Plastic containers, bottles, tubs and jars, aluminium, aerosol and steel cans, glass bottles and jars, liquid paperboard containers, paper and cardboard items of a type specified by Council collected in a yellow lid bin and delivered to a Materials Recovery Facility for sorting and recycling.
Residential Flat Building	A building containing 3 or more dwellings, but does not included multi dwelling housing.
Resource	A waste material that can be recycled or reused for another purpose.
Shop top housing	One or more dwellings located above ground floor retail premises or business premises.
Waste	Any discarded, rejected, unwanted, surplus or abandoned matter
Waste Collection Point	This is where waste is collected by the waste service provider. It may or may not be the same location as the usual waste storage area. It is always the responsibility of the body corporate to arrange the movement of bins from the usual storage area to the collection point.
Waste Storage Area	A permanent area is to be provided for all developments to store bins for general waste and recycling by the ongoing use of the development.
Wheel-in/Wheel-out Collection	Waste bins are presented at a waste collection point usually within the property boundaries and wheeled out to the collection vehicle by the waste service provider. The truck can be parked either in the roadway, road reserve, dedicated loading bay or access driveway of the relevant property. The

Term	Definition
	distance between the waste collection point and the truck must be no more than 10 m

4. OPERATIONAL WASTE MANAGEMENT PLAN REQUIREMENTS

A Waste Management Plan must accompany all Development Applications. The Waste Management Plan must include details of how the development promotes waste minimisation, through avoiding, re-using and recycling for the ongoing use of the development.

The plan must include:

- Waste generation, including type and volume.
- Reuse and recycling potential.
- Waste systems, such as provision for waste separation and details of any garbage chute or compactors.
- Bin quantity, size and type/colour.
- Proposed bin storage and collection areas, including how bins are to be moved from waste storage area/s to collection area/s and to the truck for collection
- Collection frequency.
- Collection location, i.e. onsite, temporary bin holding area or kerbside).
- Scaled waste management drawings.
- Waste vehicle access (swept path analysis).
- Detail of the ongoing management, maintenance and cleaning of all waste and recycling management facilities.

5. PLANNING AND DESIGN

The following publications must be used to inform the design of the development:

- For Multi Dwelling Housing and Residential Flat Buildings: *Better practice guide for resource recovery in residential developments* (2019, NSW EPA)
- For Mixed Use Development: *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities* (2012, NSW EPA)

5.1 Dwelling Waste Storage Requirements

Each dwelling is to be provided with an indoor waste and recycling cupboard (or other appropriate storage space) to store two days of garbage waste and recycling generation.

5.2 Waste Generation

The residential waste generation rates per dwelling are:

- 120L/week garbage

- 120L/week recycling

Green organics as required

5.3 Bin Sizes

The size of the bins that can be used in the provision of waste and recycling services by Sutherland Shire Council are described in Table 1.

Table 1: Standard Bin Sizes and Dimensions

Bin Type (L)	Height (mm)	Width (mm)	Depth (mm)
120	940	485	560
240	1,080	580	735
660*	1,250	1,370	850

* onsite collection only

Figure 1: SSC Standard 120L garbage and 240L co-mingled recycling bin

5.4 Collection Frequency

The standard service frequencies for garbage waste and recycling collection in Sutherland Shire are outlined in the table below:

Bin Type	Frequency
120L red lid bin	Weekly
240L yellow lid bin	Fortnightly
240L green lid bin	Fortnightly

For developments with a shared service, frequency may be increased, however this must be discussed and agreed to by Council's Waste Services during a pre-application discussion with Council.

5.5 Waste Storage Area

Waste storage area/s is to be provided for all developments. They must be:

- Located in a position that is convenient for residents and collection services.
- Situated behind the building line.
- Maintain the amenity of the development and the character of the streetscape.
- Constructed in accordance with the requirements of Building Code of Australia.

The location of waste and recycling facilities should minimise theimpact on car parkingand landscaping requirements of the development. In addition, facilities must also be designed to prevent litter and contamination of the stormwater drainage system.

The Owners Corporation must take responsibility for the management of garbage waste and recyclable material generated by the development. Arrangements must be in place for the on-going management, maintenance and cleaning of all waste and recycling management facilities.

5.5.1 Garbage and Recycling

A waste storage area to store bins for garbage waste and recyclables must have sufficient space for the storage of garbage and recycling waste generated by the development. For larger developments, multiple waste storage areas may be required.

Developments containing four or more storeys must be provided with a suitable system for the transportation of waste and recyclables from each storey to the waste storage area/s.

Waste chutes must be designed in accordance with the *Better practice guide for resource recovery in residential developments* (NSW EPA, 2019).

For mixed use development, separate waste storage facilities must be provided for residential and commercial uses. Each waste stream must be separated and clearly labelled. Residential waste must be kept separate from commercial waste. Adequate space must be allowed for manoeuvring bins within the bin area. The *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities* (NSW EPA, 2012) provides indicative waste generation rates for a wide range of commercial activities.

Grades and surfaces on the path between storage and collection areas must allow fully laden bins to be moved safely and conveniently. It is the responsibility of the Owners Corporation to present the bins on the kerb or temporary bin holding area for collection.

5.5.2 Bulky Household Waste

The development must provide a dedicated room or caged area for the storage of bulky household waste (whitegoods, mattresses, furniture etc.) awaiting collection. This area should be in addition to and adjacent to the development's waste storage area/s and the central collection area.

For developments with up to and including 35 dwellings, these bulky waste storage areas must have minimum floor area of 4m² per 7 dwellings. For developments with more than 35 dwellings, floor space requirements and collection frequency options must be addressed during the pre-application discussion with Council.

5.6 Collection

Waste collection procedures for a development must be carefully considered and be to the satisfaction of Council officers. Council provides three options for waste collection at multi-unit and residential flat building developments:

- Kerbside Collection
- Wheel in/Wheel out service
- Onsite Collection

To determine which service is appropriate for a particular development., each development will be assessed according to site specific characteristics and merit, subject to the following criteria:

- Serviceability of bins
- Maintaining streetscape/amenity
- Traffic flow
- Pedestrian safety

- Occupational health and safety for council officers

5.6.1 Kerbside collection

Where site characteristics, number of bins and length of street frontage allows, bins may be collected from the kerbside. This will be assessed on merit within other residential zones.

It is the responsibility of a caretaker or residents to transfer the bins to the collection point and then back to the waste storage area/s. Kerbside collection is only available for developments being serviced by 120L and/or 240L bins, and collection points are to be located so that:

- Bins are wheeled (by resident/caretaker) no more than 75m from storage area to collection point.
- All bins are presented in a single file with a minimum 30cm gap between bins.
- All bins are presented within the allocated dwelling frontage and not on the driveway, a footpath or street.
- Collection point has a minimum distance of 2m from street trees, bus stops, street furniture and road infrastructure.
- Collection point has a minimum height clearance of 4.5 from overhanging tree branches, power lines and other obstructions.
- Presentation of bins on the kerb is not impacted by on-street parking demand.

5.6.2 Wheel in/wheel out Service

Where kerbside presentation of bins is unsuitable due to site characteristics, number of bins required insufficient street frontage or high on-street parking demand, a wheel in/wheel out service may be provided, where the communal bin storage areas is located within 10m of the kerb. If the communal bin storage area is not within 10m of the kerb, developments must provide for a temporary bin holding area. This service is only available for developments being serviced by 120L, 240L and/or 660L bins.

The bin holding area is required to be a sufficient size to allow the temporary storage of all allocated bins for the development. Collection staff will collect and return empty bins to the holding area. It is the responsibility of a caretaker or residents to transfer the bins to the holding area and then back to the permanent waste storage area/s. Arrangements for Council's wheel in/wheel out service must be discussed and agreed to during the application process. The health and safety of all users including caretakers and collection staff is an important consideration when selecting an appropriate location for the waste collection point.

The waste collection point must be sufficient size to accommodate the number of bins to be collected for all dwellings and should:

- Be integrated into the design of the development and not dominate the streetscape.
- Be located behind the building alignment and in an area as not to comprise the amenity of the occupants and of adjacent properties in terms of noise, odour and aesthetic impacts.
- Be no more than a 5% grade between the collection point and the street.
- Discourage the dumping of other household waste.
- Be within 10m of the kerb.

5.6.3 On-site collection

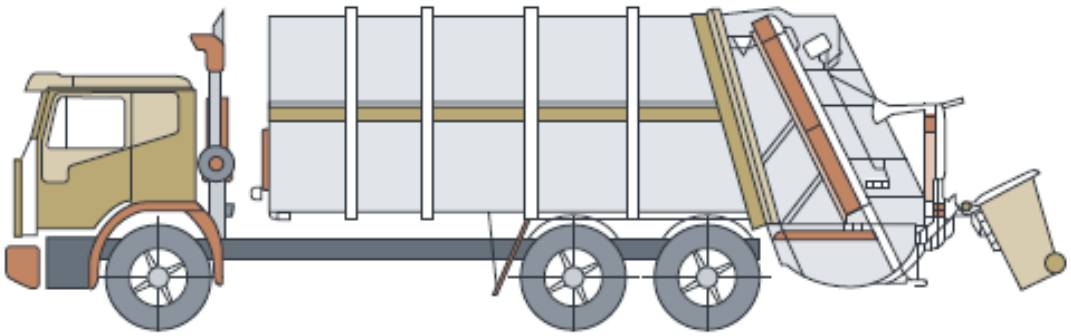
Onsite collection may be required if:

- Street frontage is located on a Classified (Roads Act 1993) or Arterial Road with a speed limit equal to or greater than 70kmh; or
- Kerbside collection or councils wheel in/wheel out service does not ensure adequate traffic flow and pedestrian safety; or
- The development is a mixed use development or is located within a specific precinct.
- Development is being serviced by bins greater than 660L capacity.

Where the site is difficult to service, options for alternate waste collection options must be discussed at a pre-application discussion with Council.

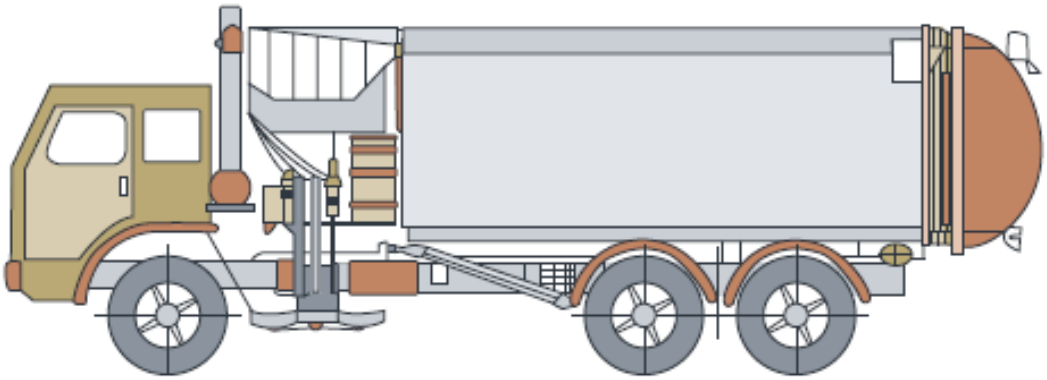
Collection vehicles will be required to enter the property to undertake waste and recycling collection. This may include access wholly or partially onto the property. Access to a nominated collection point/s must be designed to ensure a Heavy Rigid Vehicle (HRV) can safely access and manoeuvre within the site. The dimensions of a HRV are described in Figure 3 and 4. Waste collection vehicles can be side loading, rear end loading or front end loading.

The nominated collection point may be a temporary bin holding area or driveway if gradients and surfaces allow fully laden bins to be collected safely and allow for a fully laden garbage truck to enter the site. However, manual manoeuvring of bulk bins or bins containing compacted waste should be avoided wherever possible. If transfer of bins is required, it should be no more than 3m at a maximum surface gradient of 1:30.



Overall Length	Overall Width	Turning Circle	Travel height	Operational height	Operating length
10.24m	2.5m	18m	3.5m	4.5m	12m

Figure 2: Typical Rear Loading Collection Vehicle



Overall Length	Max Reach of Sidearm	Turning Circle (kerb to kerb)	Turning circle (wall to wall)	Operational height
9.64m	3m	17.86m	20.56m	3.9m

Figure 3: Typical Side Loading Collection Vehicle

Access roads, including driveway gradients must comply with the Building Code of Australia and relevant Australian Standards (i.e. AS 2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities. Council will require indemnity against liabilities, losses, damages and any other costs arising from any on-site collection service (e.g. damage to the pavement or other driving surface).

The driveway and loading bay pavement must be designed to withstand the loads generated by a 30 tonne waste collection vehicle.

The onsite central collection area must be sufficient in size to accommodate the number of bins to be collected for all dwellings and should:

- Be integrated into the design of the development and does not dominate the streetscape.

- Be located behind the building alignment and in an area as not to comprise the amenity of the occupants and of adjacent properties in terms of noise, odour and aesthetic impacts.
- Discourage the dumping of other household waste.
- Include a loading area for the collection vehicle to stop on while empting bins, that does not obstruct the public road and pedestrian movements.

It is preferable for waste collection trucks to enter and exit a site in a forward direction. Where design and site conditions make it safe to do so, one reverse movement is permitted, subject to council approval and AS 2890.2. If the development is located on Classified (Roads Act 1993), waste collection trucks must enter and leave the development in a forward direction.

Turning circle and reverse entry templates for a HRV (AS 2890.2 Parking Facilities: Off-Street Commercial Vehicle Facilities) must be incorporated in the development design. Dynamic vertical clearances for vehicle manoeuvring and waste collection should be demonstrated where collection will occur within a building or basement.

5.6.4 Bulky Household Waste Collection

It is the responsibility of the Owners Corporation to transfer stored bulky waste to the approved collection point for council's pre-booked clean-up service.

Council's prebooked clean up must be collected on site, where the development contains 20 or more dwellings. Frequency of bulky waste collection may be increased, however this must be discussed and agreed to by Councils Waste Services during a pre-application discussion with Council.

Sutherland Shire Council
4 Eton Street, Sutherland NSW 2232
Locked Bag 17, Sutherland NSW 1499
T 02 9710 0333 ssc@ssc.nsw.gov.au
sutherlandshire.nsw.gov.au

Appendix 1 - Waste Management Plan Checklist

Waste generation, including type and volume.	
Reuse and recycling potential.	
Waste systems, such as provision for waste separation and details of any garbage chute or compactors	
Bin quantity, size and type/colour	
Proposed bin storage and collection areas, including how bins are to be moved from waste storage area/s to collection area/s and to the truck for collection	
Collection frequency	
Collection location, i.e. onsite, temporary bin holding area or kerbside).	
Scaled waste management drawings	
Waste vehicle access (swept path analysis).	
Detail of the ongoing management, maintenance and cleaning of all waste and recycling management facilities.	

Appendix 2– Operational Waste Management Plan Template

4-20 Eton Street,
Sutherland NSW 2232
T 02 9710 0333
sutherlandshire.nsw.gov.au

Operational Waste Management Plan Template

On-going Use of Premises

Use the following template as a model for the preparation of a Waste Management Plan, required for all proposals except dwelling houses and minor additions or alterations to non-residential buildings.

The information provided is collected for administrative and assessment purposes to ensure the development achieved the waste objectives set out in the DCP and associated Environmental Specifications. If you choose to provide an alternative waste management plan, please ensure all of the required information is addressed. Failure to provide all the required information may lead to further information being request and a delay in the final decision of your application.

PROJECT DETAILS	
Address of Development:	
Applicant Name:	
Prepared By:	
Phone/Email:	
Proposed Development:	
The information provided on these forms provides an accurate description of the provisions and intentions for managing waste relating to this project.	
Signed (Applicant):	
Date:	

4-20 Eton Street,
Sutherland NSW 2232
T 02 9710 0333
sutherlandshire.nsw.gov.au

All applications must include details of how the development promotes waste minimisation, through avoiding, re-using and recycling for the ongoing use of the development. Applicants should refer to Councils *DCP 2015* and *Waste Collection for Multi Dwelling Housing and Residential Flat Buildings* for specific requirements related to the type of development proposed. These are available on Councils website.

Use the following table to provide information for the ongoing use of the development.

	Garbage	**Recycling**	**Green waste**	**Other** (please specify)
Waste generation (L/unit per day)				
Waste generation (L/development/week)				
Waste systems (chutes, compactors)				
Frequency of collections (per week)				
Collection method/location (kerbside/onsite)				
Number and size of bins required				
Floor area of bin storage area.				
How bins are to be moved from storage area to collection area?				
Floor area of bulky waste storage area				
How is bulky household waste to be moved from storage area to collection area?				
Ongoing management, maintenance and cleaning of all waste and recycling management facilities				

Plans and Drawings

The following details should be provided on plan drawings (to scale) and submitted to council with the development application.

- Size and location(s) of waste storage area(s) including bulky household waste
- Size and location of bin collection area.
- Bin carting routes from storage area to collection point
- Access for waste collection vehicles (swept path analysis)
- Bin carting grades

Appendix 3 – Waste Generation Rates

The waste generation rates are provided are a guide only. Each development will be assessed according to site specific characteristics and merit.

Applicants are advised to refer to the *Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities*, 2012 NSW EPA for further information and generation rates for activities not listed below.

Use/Activity	Garbage	Recycling
Single unit dwelling	120L/week	120L/week
Multi-unit dwelling	120L/dwelling/week	120L/dwelling/week
Residential Flat Building	120L/dwelling/week	120L/dwelling/week
Boarding House	60L/occupant/week	60L/occupant/week
Day-care Centre	16L/child/week	8L/child/week
School	1.5L/student/day	0.5L/student/day
Office	10L/100m^2 floor space/day	10L/100m^2 floor space/day
Café	215L/100m^2 floor space/day	130L/100m^2 floor space/day
Restaurant	190L/100m^2 floor space/day	190L/100m^2 floor space/day
All retail	80L/100m^2 floor space/day	70L/100m^2 floor space/day

Sources: *Better Practice Guidelines for Waste Management and Recyling in Commercial and Industrial Facilities*, 2012 NSW EPA, Randwick City Council's *Waste Management Guidelines* and City of Sydney *Policy for Waste Minimisation in new developments.*

Mixed Use Developments

Waste generation for mixed-use developments should be estimated based on the combination of waste generation estimates for the type of residential dwelling and commercial premise/s.

Appendix 4 – Standard Conditions of Consent

Each development will be assessed according to site specific characteristics and merit, subject to the following criteria, as a minimum, the following standard conditions apply for on-site waste and wheel-in/wheel-out collection.

Waste (On-site Collection)

A. Design

The waste collection point must be designed in accordance with the following requirements:

i) A "HRV" sized loading bay must be provided in accordance with AS2890.2 within the subject property for waste collection use.

ii) The driveway and loading bay pavement must be designed to withstand the loads generated by a 30 tonne waste collection vehicle

iii) The maximum long and cross section grade of the loading bay and bin holding area must be ±5%.

iv) *(Where the permanent bin storage area is not adjacent to the loading bay)* The temporary bin holding area is to be adjacent to the loading bay to facilitate ease of access for Council staff on collection day. The bin holding area must be ###m long x ###m wide to allow the temporary storage of all allocated bins for the development.

v) Clear and direct access must be provided from the bin holding areas to the loading bay.

vi) The permanent communal garbage and/or recycling storage area must have a smooth impervious floor that is graded to a floor waste. A tap and hose must be provided to facilitate regular cleaning of the bins and all waste water must be discharged to the sewer in accordance with the requirements of Sydney Water. Garbage bins must be designed to prevent the escape of any liquid leachate and must be fitted with a lid to prevent the entry of vermin.

B. Before Construction

Prior to the issue of any Construction Certificate a suitable qualified civil engineer must certify that the waste collection point has been design in accordance with part A. above. A copy of this certification must accompany the Construction Certificate.

C. Before Occupation

Prior to the occupation of the site or the issue of any Occupation Certificate a suitable qualified civil engineer must certify that the waste collection point has been constructed to their satisfaction and in accordance with part A. above. A copy of this certification must accompany the Occupation Certificate.

D. On-going

i) All ongoing management, maintenance and cleaning of all waste and recycling management facilities, including suitable collection arrangements and how bins are to be moved from waste storage area/s to collection area/s are to carried out in accordance with the approved Waste Management Plan for the development.

ii) All waste and recycling bins must be stored wholly within the approved permanent communal garbage and/or recycling storage area. The bins must only be placed in the temporary bin holding area in the evening prior to collection and returned to the permanent communal garbage and/or recycling storage area as soon as possible after pick-up.

~Waste Collection (Wheel-in/Wheel-out)

A. Design
The waste collection facilities must be designed in accordance with the following requirements:

i) A suitable temporary bin holding area is to be provided within the front building setback adjacent to the driveway pavement to facilitate ease of access for Council staff on collection day. The bin holding area must be ###m long x ###m wide to allow the temporary storage of all allocated bins for the development.
ii) The temporary bin holding area must have a maximum grade of ±5%.
iii) The permanent communal garbage and/or recycling storage area must have a smooth impervious floor that is graded to a floor waste. A tap and hose must be provided to facilitate regular cleaning of the bins and all waste water must be discharged to the sewer in accordance with the requirements of Sydney Water. Garbage bins must be designed to prevent the escape of any liquid leachate and must be fitted with a lid to prevent the entry of vermin.

B. Before Construction
Details of compliance with A. above must accompany the Construction Certificate.

C. Before Occupation
The works required by A. above must be completed prior to the occupation of the site or the issue of any Occupation Certificate.

D. Ongoing

i) All ongoing management, maintenance and cleaning of all waste and recycling management facilities, including suitable collection arrangements and how bins are to be moved from waste storage area/s to temporary holding area/s are to carried out in accordance with the approved Waste Management Plan for the development.
ii) All waste and recycling bins must be stored wholly within the approved permanent communal garbage and/or recycling storage area. The bins must only be placed in the temporary bin holding area in the evening prior to collection and returned to the permanent communal garbage and/or recycling storage area as soon as possible after pick-up.