City of Kwinana

DEVELOPMENT GUIDELINES FOR WASTE SERVICES

Waste Management *Plans*

This document is available in alternative formats upon request.

City of Kwinana kaditj kalyakool moondang-ak kaaradj midi boodjar-ak ngala nyininy, yakka wer waabiny, Noongar moort. Ngala kaditj baalap kalyakoorl nidja boodjar wer kep kaaradjiny, baalap moorditj nidja yaakiny-ak wer moorditj moort wer kaditj Birdiya wer yeyi.

City of Kwinana acknowledges the traditional custodians of the land on which we live, work and play, the Nyoongar people. We recognise their connection to the land and local waterways, their resilience and commitment to community and pay our respect to Elders past and present.

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Introduction

1. Background

The City of Kwinana (the City) serves as the primary provider of residential kerbside waste and recycling collections within its municipality. According to the provisions of the ***Waste Avoidance and Resource Recovery Act 2007*** (*WARR Act 2007*), all residential developments in the City are required to have an adequate waste service, either provided by the City or approved as an alternative service by the City.

Commercial, industrial developments, Mixed-Use Developments (MUD) or Multi-Dwelling Development (MDD) developers are required to submit a Waste Management Plan for approval as part of the planning development process. Temporary accommodation and more intense residential development where 6 or more unrelated persons reside within the same premises, such as a lodging house, unhosted short-term rental accommodation, respite home, aged care facility etc., are considered commercial for the purposes of this guideline.

This Waste Management Plan must indicate whether the development will use the City's waste collection services or an alternative service that meets the needs of the development. Approval of the Waste Management Plan by the City is necessary for either option.

Public waste and recycling bins are not covered within these guidelines. However, information on enclosures for public spaces can be found in the City of Kwinana Landscape Development Guidelines.

2. Purpose

These Development Guidelines for Waste Services (guidelines) have been developed to assist designers, builders, and developers in designing and integrating efficient waste infrastructure into their projects. Aligning designs with these guidelines will ensure waste facilities are compatible with the City's waste collection services, and legal obligations.

The guidelines are designed to provide information on sufficient bin storage areas that are convenient, sanitary, safe, and facilitate the efficient sorting and storage of recyclable materials and waste. Additionally, the guidelines provide strategies for maintaining and cleaning these areas, as well as educating occupants on safe and effective waste management practices. The guidelines include:

- Design standards for waste infrastructure in new developments.
- Performance criteria for a Waste Management Plan.
- Types of waste and recycling services provided by the City.
- Requirements for adopting alternative waste collection services.
- Design and management requirements to preserve community amenity and environmental integrity.
- Specifications for bin collection points.
- Calculations for waste generation rates.
- Strategies to promote best practice waste management aligned with the state's Waste Avoidance and Resource Recovery Strategy 2030 targets.
- Educational strategies to improve recycling and waste management practices.

3. Strategic Context

These guidelines are supported by the following strategies.

Western Australian Waste Strategy 2030

Since 2007, the ***WARR Act 2007*** has driven waste management in Western Australia, promoting environmental sustainability. Administered by the Western Australian Waste Authority, the state's Waste Strategy 2030 outlines objectives and targets necessary to meet the requirements under the *WARR Act 2007*.

These guidelines provide directions on meeting the requirements of the Waste Strategy 2030.

Image 3.1: Waste Strategy 2030 vision, objectives and targets.

VISION	*Western Australia will become a sustainable, low-waste, circular economy in which human health and the environment are protected from the impacts of waste.*		
OBJECTIVES	**Avoid** *Western Australians generate less waste.*	**Recover** *Western Australians recover more value and resources from waste.*	**Protect** *Western Australians protect the environment by managing waste responsibly.*
TARGETS	**2025** – 10% reduction in waste generation per capita **2030** – 20% reduction in waste generation per capita	**2025** – Increase material recovery to 70% **2030** – Increase material recovery to 75% **From 2020** – Recover energy only from residual waste	**2030** – No more than 15% of waste generated in Perth and Peel regions is landfilled. **2030** – All waste is managed and/or disposed to better practice facilities

Waste Avoidance and Resource Recovery Strategy 2030, 6

City of Kwinana Sustainability Framework

The City's Sustainability Framework provides guiding principles and priority focus areas to aid the City's realisation of the United Nations Sustainability Development Goals outlined in the City's Strategic Community Plan. Development Guidelines for Waste Services help to address the following Sustainability Framework principle and priority areas:

Sustainability Guiding Principle	
	**Environmental stewardship** Environmental protection and environmental services to retain environmental values and ecological function to local natural assets.
Priority Areas	
Priority Area 2: Environment and biodiversity	The environment is one of the pillars of sustainability: it underpins all life and provides all ecosystem services. Biodiversity is a key feature of our local environment: its protection is an essential part of maintaining our ecological services and functions.
Priority Area 3: Liveability	Liveability is a fundamental part of the City's role as a local government, to create and maintain a safe, connected, comfortable environment so that we have a thriving and happy community.
Priority Area 5: Waste and resource recovery	Waste management is an essential service and impacts everyone in our community. It protects community health and our environment. Waste is also one of the City's largest expense areas.

Waste Avoidance and Resource Recovery (e-waste) Regulations 2024

The *Waste Avoidance and Resource Recovery (e-waste) Regulations 2024* (*e-waste Regulations 2024*) introduce requirements aimed at managing electronic waste more sustainably. These regulations mandate that significant entities must adhere to specific guidelines for the disposal and recycling of electronic waste generated.

The *e-waste Regulations 2024* impose specific responsibilities regarding the management of electronic waste. Adherence to these regulations, not only ensures legal compliance but also supports environmental stewardship and sustainable practices.

Planning and Development Act 2005

Adequate on-site bin storage and access for waste collection vehicles are stipulated in clauses 5.3.2, 5.3.5, and 5.4.4 of State Planning Policy 7.3 Volume 1 and in Parts 3 and 4 of State Planning Policy 7.3 Volume 2.

Developers are required to prepare and secure approval for a Waste Management Plan from City Waste Services prior to or in conjunction with submitting a planning approval application or, where applicable, a building permit. This applies to all new commercial properties, mixed-use residential/commercial developments, strata-titled properties, and residential developments comprising six units or more.

Additioinally, Waste Management Plan must be submitted to and approved by City Waste Services for all developments that choose an alternative to the City's standard waste services or an alternative waste service provider. This requirement is a legal obligation in addition to the standard planning approval application process.

Waste Local Law 2022

The *City of Kwinana Waste Local Law 2022* mandates that owners, occupiers, or those managing premises must fulfill specific responsibilities related to waste management. This includes providing a sufficient number of bins and ensuring proper use and management of their waste services.

Operational aspects outlined in the Waste Management Plan may be regulated or subject to penalties determined by the City. Non-compliance with these regulations, as stipulated in the City of Kwinana *Waste Local Law 2022*, may necessitate the inclusion of a Waste Management Plan as part of the planning approval process.

Animal, Environment and Amenity Local Law 2024

Part 8 of the *City of Kwinana Animal, Environment and Amenity Local Law 2024* mandates that licensed builders adhere to specific requirements regarding waste management on building and development sites to maintain cleanliness and prevent litter. Key provisions include:

- Owners or occupiers must provide and maintain refuse and recycling receptacles on building, development, or demolition sites.
- Receptacles must have covers to prevent waste from being blown away and must be emptied when full.
- Refuse and recycling waste is separated and stored in appropriate receptacles.
- The site is as free as is reasonably practicable from any refuse or recycling ensuring no waste escapes the building, development, or demolition site.

These regulations aim to promote the recycling of construction and demolition waste and enhance environmental and amenity standards within the City of Kwinana.

Food Act 2008

The Food Standards Code under the *Food Act 2008* requires food premises to have waste and recycling storage facilities that contain the appropriate volume and type of waste and recyclables. These facilities must enclose waste and recyclables to keep pests and animals away and be designed for easy and effective cleaning.

This Code states that bin storage areas must have impervious floors with coved edges, a hose tap connected to a water supply, and graded floors with drainage to a proper disposal system. Walls should be smooth and free of cracks and crevices to prevent pest harboring. The areas must also have adequate ventilation and lighting.

4. Waste Service Type Definitions

Waste services in the City are tailored to different types of developments, each with specific requirements as mandated by the *WARR Act 2007*. The City has three waste service options as detailed below:

Service Type	Service Description	
Standard Waste Service 3 bin (SUDs >350m²)	Standard service used for Single Unit Dwellings (SUDs) on lots sized over 350m².	
	Waste	140L weekly collection
	Recycling	360/240L fortnightly collection
	Organics (GO)	240L fortnightly collection
	Verge Collection	3m³ per collection
Standard Waste Service 2-bin (MUDs, MDDs, Commercial lots and SUDs <350m²)	Standard service used for most Mixed-Use Developments (MUD) or Multi-Dwelling Development (MDD) without adjacent verge access, commercial properties, and SUDs sized less than 350m².	
	Waste	140L weekly collection
	Recycling	360/240L fortnightly collection
	Organics (GO)	Non-standard service: • SUDs: May opt-in without Waste Management Plan • Commercial MDDs and MUDs: City approval is required. May require an approved Waste Management Plan
	Verge Collection	• SUDs and MDDs: 3m³ per collection • Commercial: Not eligible for service
Alternative Waste Service	Commercial developments, MDDs and MUDs can choose alternative waste collection services from providers other than the City. This option is preferred when these providers offer enhanced material recovery or recycling capabilities tailored to the specific needs of the development. However, developments opting for alternative services must submit a Waste Management Plan for approval prior to the commencement of the alternative waste service.	

Procedure

Effective waste management is crucial for maintaining the cleanliness and sustainability of our urban environment. The following procedure provides detailed guidelines to ensure responsible and efficient waste management. Waste Management Plans not only help maintain a cleaner environment but ensure alignment with City regulations aimed at improving community well-being. The following sections will detail development application requirements.

Table 5.1: Requirements by dwelling type.

Dwelling Type	Waste Management Plan	Designated Bin Store Area	Shared bin Syetem	Verge Collection Eligibility
SUD	No	No	No	Yes
MDDs: <6 units or units with direct street/ laneway access	No	No	No	Yes
MDDs: >6 units or <6 units without direct street/ laneway access	Yes	Potentially	Potentially	Yes
MUDs	Yes	Yes	Yes	MDDs only
Commercial Developments	Yes	Yes	Potentially	No
Health Care Facilities	Yes	Yes	Potentially	No
Schools and Day Cares	Yes	Yes	Potentially	No

5. Waste Assessment

Conducting a Waste Assessment is a necessary step in determining waste management requirements. Waste Management Plans are only required in specific applications as detailed in Table 5.1.

If a Waste Management Plan is required, you must:

a. Conduct a comprehensive assessment of waste generated using waste generation rates provided in Appendix B: Waste Generation Rates
b. Periodically and in response to any complaints conduct waste audits to assess the efficiency of current waste management practices, identify opportunities for improvement, and monitor progress toward waste reduction objectives.

6. Collection Locations

Waste Management Plans may vary based on collection locations. This section outlines the guidelines and requirements for the collection of waste bins, ensuring that they are accessible and compliant with collection requirements.

Verge/ Laneway Collection

a. Calculate the allotted collection area to ensure that the number of bins required, as determined in section 5(a), have sufficient space to be presented on the verge. Use bin sizes specified in Appendix A: Standard Bin Colors and Sizes.
b. If eligible for bulk waste verge collections specified in Table 5.1, calculate the allotted collection area to ensure sufficient space for waste to be presented on the verge.
c. Dedicate a collection area to ensure safe collection, ensuring the following:
    i. Bins:
        - Maintain a 0.5m distance between bins.
        - Place bins within 1.5m of the kerb.
    ii. All waste:
        - Position waste on the verge adjacent to the property unless otherwise approved by the City.
        - Ensure waste does not obstruct thoroughfares, driveways, or footpaths.
        - Retain a 1.2m pedestrian thoroughfare.
        - Keep waste at least 1m from on-street car parking bays.
        - Position waste at least 1m from street signs, light poles, infrastructure, power domes, gas, or water mains.
        - Ensure waste is not positioned under any tree canopy or in close proximity to tree trunks. *Waste Management Plans are to show tree locations and estimated mature canopy diameter.*

On-site Collection

In some instances, waste collection areas on the adjacent verge of a property are not practical. Allocation of alternative presentation points are usually determined at the design stage. Proponents should liaise with the City to determine if the requirements for alternative collection areas are necessary.

The City of Kwinana does not offer on-site waste collections. Service must be conducted by private service provider.

a. Designate a collection point on private property for waste collection, ensuring:
    i. Waste Management Agreement between the strata manager and the collection service provider is established. The service provider may decline entry onto private property if such an agreement is not in place. Management Agreement should protect the service provider from any liability associated with loss, damage, or claims caused directly or indirectly to any person or property in connection with the waste removal services or equipment.
b. Provide a swept path for the truck entering private property as stipulated in section 8. Waste Vehicle Access.

7. Bin Store Requirements

Effective bin store management is essential for maintaining cleanliness and promoting efficient waste disposal. This section details the requirements for bin store areas, including their size, specifications, security protocols, and signage to support proper waste management in any development. *Stockpiling of waste is not recommended in any development.*

Location

a. Bin store must be on-site, not on the verge.
b. Bin stores should be located near waste sources and must be located at the furthest reasonable location from noise sensitive/odour sensitive premises, to minimise potential amenity and health and safety impacts.
c. The collection point must be within a specified distance from the bin store:
    i. For residential facilities for aged or disabled residents – within 50m.
    ii. For all other facilities – within 75m.
    iii. For bins with a capacity of 1,000L or more – within 5m.

Size and specifications

a. Using the waste generation calculation in 5(a) Waste Assessment, determine the number and types of bins required to calculate the minimum bin store size. *Ensure SUDs and MDDs developments, if required, have sufficient space for a three-bin system.*

b. Ensure that each bin has space on all sides, including between walls, other bins, and walkways.
c. Bin store should be spacious enough to accommodate bins without obstructing walkways or doors, ensuring a minimum of 1m for walkways.
d. Equal access is provided to all bins (i.e. bins are not stored behind other bins).
e. Bin store walls or screens must be tall enough to allow bin lids to open without obstruction while complementing the overall aesthetic of the development.
f. Per AS2870 Residential slabs and footing, bin stores must have a 100mm thick concrete drain sloping to an industrial floor with a water-trap connected to a sewer or approved septic system, and a hose cock for washing bins or the store.
g. Per AS1668 The use of ventilation and air conditioning in buildings, enclosed bin stores must have ventilation to manage odour and health impacts from poor ventilation.
h. Bin store must be constructed in accordance with the National Construction Code 2022 – Part D1P1: Access for people with disabilities. It should be accessible to tenants at all times, well-lit after dark if required and adequately signed. It is advisable to seek specialist advice on these design matters from a certified building surveyor.

Security

a. Bin store should be designed to encourage passive surveillance by people and nearby activities to provide security for users.
b. Where possible, entry gates and doors should be visually permeable.
c. It is recommended, when required, to provide lighting to ensure security during nighttime access and use.
d. It is recommended to install CCTV both externally and internally in the bin store to enhance security and prevent illegal dumping and bin contamination.

Signage

a. Provide adequate signage throughout the development indicating the location and access routes to the bin store and presentation points for collection.
b. As detailed in 10. Better Practice Waste Management: Education, install educational signage explaining best practice for disposing various waste streams housed in the bin store.
c. Ensure signage is easily visible and readable, including signs on the walls or entrances to the bin store, and bin stickers on the bins. *The City offers a resource package for signage and bin stickers, free of charge, available upon request*. If high proportion of residents/ tenants speak language/s other than English, it is advisable to include alternative language signage.

8. Waste Vehicle Access

Proper planning and design for waste collection vehicles is vital to ensure efficient and safe waste management operations. This section outlines the necessary guidelines and requirements for accommodating waste trucks within development projects, ensuring that road layouts and access points meet the required standards and facilitate effective waste collection processes. Adhering to these standards helps minimise disruptions, enhance safety, and ensure compliance with municipal engineering requirements.

Swept Paths

Waste vehicle access swept path assessments are required for specific developments only. Contact City Waste Services for clarification on whether an assessment is necessary.

Road and subdivisional design must meet the City's Engineering Specifications as part of the development planning approval process. Road layouts and networks for greenfield and infill developments are determined by the 'Livable' Neighbourhoods Design Principles. The City also adheres to the Local Government Guidelines for Subdivisional Development by the Institute of Public Works Engineering Australasia Perth (IPWEA) for engineering standards related to the design and construction of roadworks and greenfield developments.

Applicants are required to include in their submitted Waste Management Plan swept paths and reverse entry diagrams, demonstrating compliance with AS2890 for access roadways associated with the servicing of waste services proposed for the development.

Table 8.1: Waste collection vehicle specifications

Waste Collection Vehicle	Height	Width	Length
Medium Rigid Vehicle (MRV)	4.5m minimum height for vehicle access points into buildings required	2.5m 10m design turning radius and 22m swept circle	9m Rear lift: 2m clearance to the rear of the vehicle Side lift: 1m clearance to the side of the vehicle
Heavy Rigid Vehicle (HRV)	4.5 minimum height for vehicle access points into buildings required	2.5m 12.5m design turning radius and 28m swept circle	12.5m Rear lift: 2m clearance to the rear of the vehicle Side lift: 1m clearance to the side of the vehicle

Table 8.1 provides the necessary dimensions and clearance requirements for waste collection vehicles to ensure safe and efficient access and operation within the development.

Waste Management Plan must:

a. Provide swept paths addressing turning circles and/ or turn-around bays designed to accommodate a 23-tonne truck with a 6x4 wheel configuration. Other possible turning configurations may be considered appropriate and should be discussed with City officers where required. HRV truck dimensions for the purpose of vehicle (vehicles used by the City) access design include:
   i. Overall length 12.5m
   ii. Wheelbase 5.2m
   iii. Front overhang 1.5m
   iv. Rear overhang 2.9m

b. Produce road design including:
   i. Gradients for turning heads, longitudinal road gradients, horizontal alignment, vertical curves, cross-falls, carriageway width, and verges.
   ii. Sight distance requirements including 45° line of sight for service vehicles at entry/egress points in compliance with AS2890.2.
   iii. Road strength. Industrial-type strength pavement is required, engineered in accordance with Table 8.1.
   iv. For alternative waste services where the collection of bins is performed on the property, internal hardstand areas and crossovers must be engineered in accordance with Table 8.1.
   v. Clearance heights (if applicable).
   vi. Local area traffic management, such as speed humps when determining height clearances for waste trucks when traversing undercover areas or to avoid intervals between speed humps being the same length as the waste truck wheelbase.

9. Environmental Health

Effective waste management system design is essential for ensuring environmental health in our community. This section outlines the key considerations and best practices needed in the planning and construction stages to mitigate environmental impacts and improve the quality of life for occupants. The focus is reducing noise, controlling odours, preventing vermin infestations, maintaining hygiene, and safeguarding health, safety, and the environment.

Noise

a. Development design must include better practice measures to minimise noise associated with the use and collection of bins. It must consider:
   i. Bin store location, minimising noise impacts to residents.
   ii. The use of smooth surfaces and pathways to allow quiet travel of bins.
   iii. Collection times, ensuring they commence after 7am and before 7pm Monday to Saturday, unless otherwise approved.

b. Noise Management Plan is required for commercial development for out of hours collections.

Odour

a. Development design must include appropriate measures to minimise odours associated with the use of the waste management system and bin store.
b. As stated in **7. Bin Store Requirements: Size and specification,** enclosed bin stores must have ventilation to manage odour and health impacts from poor ventilation.

Vermin

a. Development design must include adequate measures to minimise the entry of vermin into the bin store.
b. Ensure bins remain closed to reduce vermin.
c. Commitment to the development and implementation of an Operational Plan to control vermin.

Hygiene

a. Development design must allow the bin store to be kept in a clean and hygienic condition as outlined in **7. Bin Store Requirements: Size and specifications.**

Health, Safety, and the Environment

a. Development design must minimise the risk to health, safety, and the environment.

10. Better Practice Waste Management

Better practice waste management aims to achieve the targets outlined in the State Waste Strategy 2030, ensuring that waste is managed efficiently and sustainably.

Education

a. Clear signage/ bin stickers should be included, providing information to all tenants/ occupants including:
   i. How to use waste services provided including waste, recycling, organic bins and/or verge collections.
   ii. Collection frequency and collection day.
   iii. Bin and verge collection locations and access routes.
   iv. Waste service representative.
   v. How operational actions are managed and monitored including penalties associated with non-compliance.

vi. Any relevant documents associated with the management of waste.

vii. If a high proportion of residents/ tenants speak language/s other than English, it is advisable to include an alternative language signage.

b. Conduct regular educational programs and workshops to educate stakeholders on recycling best practices. *The City of Kwinana offers free waste management education and training. Contact the City for more information.*

Waste Reduction Strategies

Implementing waste reduction strategies is optional but will lead to cost savings and better sustainability outcomes within a facility. There are numerous ways to reduce waste in a facility, such as:

a. Source reduction: Encourage employees, residents, and tenants to minimise waste generation through practices such as paperless documentation, bulk purchasing, and reusable packaging.
b. Share shelves: Install share shelves for tools and other items.
c. Recycling infrastructure: Install easily accessible recycling, containers for change and cardboard bins and containers in designated areas, clearly labelled for different waste streams.
d. Problematic waste disposal: Provide problematic material disposal options (e-waste, hazardous waste, batteries)
e. Purchasing policiy options: Give preference to environmentally friendly and sustainable products and materials with minimal packaging.
f. Composting: Establish an on-site composting system to divert organic waste from the general waste stream and produce nutrient-rich compost for landscaping purposes.
g. Donation programs: Establish partnerships with local charities or organisations to donate usable items, furniture, or equipment that are no longer required.
h. Maintenance and repair: Encourage proactive maintenance and repair practices to extend the lifespan of equipment, furniture, and appliances, reducing the need for replacement.
i. Collection and disposal: Establish partnerships with local recycling service providers or waste management companies to ensure proper collection, transportation, and disposal of recyclable materials.

11. Ongoing Waste Management

Waste Management Plans are crucial to outline responsibilities and commitments for building managers, strata bodies, and tenants to maintain and manage on-site waste effectively. Ensure waste management responsibilities are assigned to the building manager or caretaker for the following:

a. Bins: Bins are managed, cleaned, and presented at the collection location on collection day/s.
b. Bin store: Bin store to remain clean and free of vermin.
c. Waste equipment: Bins, compactors, and other waste equipment are maintained and not damaged.
d. Litter and illegal dumping: Illegally dumped waste and litter are removed promptly.
e. Education: Undertake ongoing education with tenants to ensure the correct use of the waste management system. *The City of Kwinana offers free waste education. Contact the City for more information.*
f. Signage: Install and maintain signage for the use of the bin store.
g. Stockpiling: Ensure no stockpiling of waste occurs.
h. Management: Ensure access and the provision of current liability coverage and agreements for on-site collection services, if applicable.
i. Accountability: Identify and provide contact details for the person responsible for managing the bin store as well as placement and retrieval of bins for collection to the City, collection provider and tenants when requested.

Monitoring and Reporting:

a. Performance Metrics: Define key performance indicators (KPIs) to monitor waste generation, recycling rates, and other relevant metrics. Regularly measure and track progress towards waste reduction targets if required.
b. Reporting: Prepare periodic reports summarising waste management efforts, achievements, and areas for improvement. Share these reports with employees, residents, tenants, and relevant stakeholders as required.

Continuous Improvement

a. Review and Evaluation: Regularly review and evaluate the effectiveness of the Waste Management Plan. Seek feedback from employees, residents, and tenants to identify areas for improvement.
b. Adaptation and Innovation: Stay informed about emerging waste management technologies and practices. Explore opportunities for innovation and implement new strategies to further improve waste management efforts.

12. Conclusion

This Development Guidelines for Waste Services reflects our commitment to responsible waste management practices. By implementing the strategies outlined in this guideline, we aim to reduce waste generation, promote recycling, and contribute to a cleaner and more sustainable environment. Regular monitoring, evaluation, and stakeholder engagement will be crucial in achieving waste management objectives.

References

City of Kwinana. (2024). ***Environment Strategy 2024-2034***. https://www.kwinana.wa.gov.au/council/documents,-publications-and-forms/publications-and-forms-(all)/plans-and-strategies/2024/city-of-kwinana-environment-strategy-2024-2034

City of Kwinana. (2022). ***Disability and Inclusion Plan 2022-2027.*** https://www.kwinana.wa.gov.au/council/documents,-publications-and-forms/publications-and-forms-(all)/plans-and-strategies/2022/disability-access-and-inclusion-plan-2022-2027

City of Kwinana Animal Environment and Amenity Local Law 2024.

City of Kwinana Waste Local Law 2022.

City of Kwinana. (2023). *Corporate Business Plan 2021-2031*. https://www.kwinana.wa.gov.au/council/documents,-publications-and-forms/publications-and-forms-(all)/plans-and-strategies/2021/corporate-business-plan-2021-2025

City of Kwinana. (2023). *Strategic Community Plan 2021-2025*. https://www.kwinana.wa.gov.au/council/documents,-publications-and-forms/publications-and-forms-(all)/plans-and-strategies/2021/strategic-community-plan-2021-2031

City of Kwinana. (2023). *Sustainability Framework*. https://www.kwinana.wa.gov.au/council/documents,-publications-and-forms/publications-and-forms-(all)/plans-and-strategies/2023/sustainability-framework-2023

City of Kwinana. (2021). *Waste Education Plan 2021-2025*.

City of Kwinana. (2021). *Waste Plan 2021-2025*. https://www.kwinana.wa.gov.au/cityofkwinana/media/events/city-of-kwinana-waste-plan-2021-2025.pdf

Government of Western Australia. (2022). *Liveable neighbourhoods*. https://www.wa.gov.au/government/publications/liveable-neighbourhoods

Health (Miscellaneous Provisions) Act 1911 (WA)

Institute of Public Works Engineering Australasia (IPWEA). (2016). *Local Government Guidelines for Subdivisional Development November 2017*. https://secure.ipwea.org/Web/WA_Resources/Specifications_and_Guidelines/Local_gov_guidelines_sub_divisional_dev.aspx

Waste Authority. (2019). *Waste Authority and Resource Recovery Strategy 2030*. https://www.wasteauthority.wa.gov.au/images/resources/files/2019/10/Strategic_Direction_-_Waste_Avoidance_and_Resource_Recovery_Strategy_2030.pdf

Waste Avoidance and Resource Recovery Act 2007 (WA)

Waste Avoidance and Resource Recovery Regulations 2008 (WA)

Waste Avoidance and Resource Recovery (e-waste) Regulations 2024 (WA)

Appendix A: Standard Bin Colors and Sizes

Type	Width (cm)	Depth (cm)	Height (cm)
140	53	56	92
240	55	73	106
360	66	90	110
660	140	80	120
1100	140	130	150

Appendix B: Waste Generation Rates

The City of Kwinana recommends utilising **Waste Authority Multi-Dwelling Development and Mixed-Use Development Waste Calculator** to determine waste generation rates. Alternatively, applicants may use the following method to calculate waste generation rates in the absence of the Waste Authority's calculator.

Residential weekly waste generation rates

	Dwelling Type	Waste 2 bins *	Waste 3 bins	Recycling	Food and Garden Organics
Residential <12 Dwellings	1 Bedroom MUD	70L	30L	40L	40L
	2 Bedroom MUD	130L	50L	60L	80L
	3 Bedroom MUD	210L	70L	120L	140L
Residential >12 Dwellings	1 Bedroom MUD	60L	40L	20L	20L
	2 Bedroom MUD	100L	60L	40L	40L
	3 Bedroom + MUD	140L	80L	90L	60L

Commercial weekly waste generation rates per 1m² floor area

	Waste 2 bins *	Waste 3 bins	Recycling	Food and Garden Organics
Food premises				
Restaurant	44L	35L	21L	9L
Supermarket	49L	35L	17L	14L
Convenience Store	20L	17L	17L	3L
Café	30L	21L	14L	9L
Fast Food Outlet	34L	26L	26L	9L
Takeaway / Café	10L	7L	11L	3L
Tavern / Small Bar	33L	28L	31L	5L
Hotel / Motel (bar)	4L	4L	4L	0L
Hotel / Motel (bar and dining)	30L	21L	14L	9L
Licensed Entertainment / Community Club (Bar)	4L	4L	6L	0L
Licensed Entertainment / Community Club (Bar & Dining)	30L	31L	14L	9L
Butcher / Seafood shop (shop front)	14L	9L	17L	6L
Butcher / Seafood (Wholesale / Processing)	28L	11L	26L	17L
Delicatessen	7L	4L	4L	4L
Greengrocer	36L	11L	26L	26L

Appendix B: Waste Generation Rates *cont'd*

	Waste 2 bins *	Waste 3 bins	Recycling	Food and Garden Organics
Retail				
Shops / Retail	4L	4L	2L	0L
Showroom	3L	0L	0L	0L
Hairdresser	4L	3L	3L	1L
Warehouse (office)	8L	7L	2L	1L
Accommodation				
Serviced Apartment / Boarding House / Backpacker	40L	30L	20L	10L
Hotel / Motel	40L	30L	20L	10L
Retirement Village	70L	30L	40L	40L
Other				
Education / Training Facility	1L	1L	1L	0L
Childcare	4L	3L	3L	1L
Community Centre / Sports Centre / Place of Worship / Recreation	4L	4L	4L	0L
Function Room	20L	14L	14L	6L
Gym	1L	1L	1L	0L
Offices / Medical / Consultation	8L	7L	2L	1L

* It is recommended for new developments to ensure sufficient storage and infrastructure to accommodate a 3-bin system, thereby minimising the necessity for future retrofitting.

Administration

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