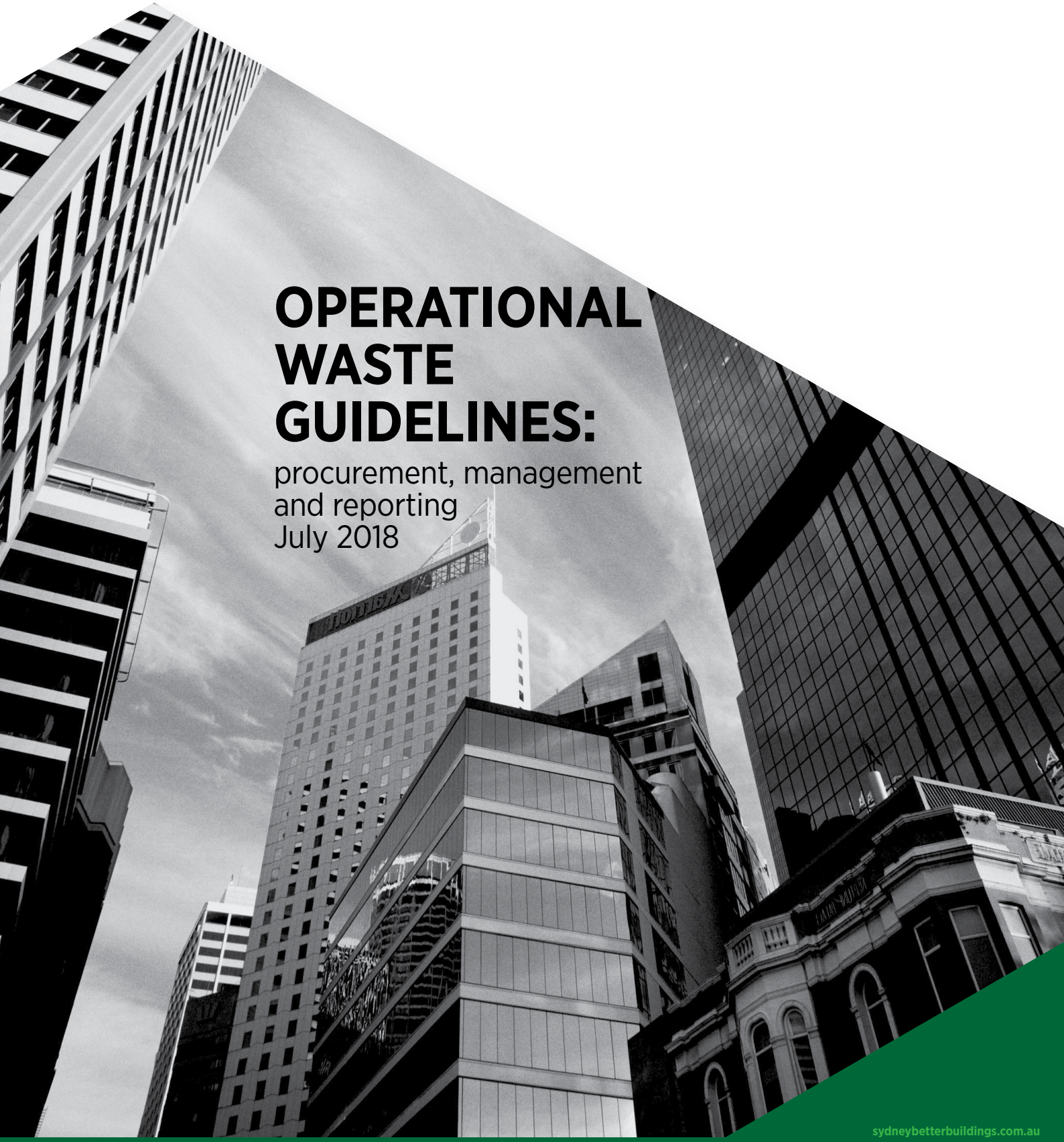
BETTER BUILDINGS PARTNERSHIP



OPERATIONAL WASTE GUIDELINES:

procurement, management and reporting
July 2018

sydneybetterbuildings.com.au

contents

acknowledgments

Operational waste is an area of opportunity for better management, measurement and outcomes. The Better Buildings Partnership (BBP or Partnership) recognises the importance of waste as a material with importance and value to tenants and occupants due to its environmental and economic impacts. The Partnership has created these guidelines with the intention of improving the outcomes of operational waste in buildings.

These guidelines were developed with the expertise of the Better Buildings Partnership waste technical working group members, including Robyn Pearson, Oliver Batchelour, Mark McKenzie, Steve Ford and Kathryn Cassidy.

The Partnership would like to thank them for their expertise and assistance in the development of these guidelines.

Kim Host
Waste Technical Working Group Chair
(2017–)
Mirvac Group

Prepared by:
Waste Technical Working Group
Better Buildings Partnership

For more information visit: http://betterbuildingspartnership.com.au

10 steps to good practice

1	Specify and communicate your corporate outcomes.	Clear outcomes enable everyone involved (building management, contractors, cleaners, tenants, etc) to understand how they can contribute to the waste management systems in place.
2	Develop a Waste Management Plan (WMP) in collaboration with your contractors and stakeholders.	This is the core document that fosters a successful collaboration to ensure you reach your targets. Include sub-contractors where joint waste/cleaning contracts are held.
3	Incorporate best practice ratings such as NABERS Waste and standards, such as GECA Waste Management standard into your operations.	Aim for NABERS ratings and GECA certified waste contractors.
4	Agree the fees and rebates per waste stream and the nominated facilities.	Knowing your fees by stream will create shared incentives for resource recovery.
5	Know where your waste is going.	Document acceptance criteria for each facility. Your compliance helps increase their recovery rate.
6	Ensure your systems from tenancy to dock support correct segregation and the easy identification of contamination.	
7	Preference onsite weighing over lifts/volume.	Where actual site weights or site-specific density conversions are not known, use the NABERS Waste conversion figures.
8	Audit your current practice.	Require periodic reporting on the building's performance by floor/area on waste stream weights. Review recycling rates/diversion and contamination rates – both at loading dock and at facility.
9	Rate your data quality.	Using the BBP Data Integrity Matrix (which favours one or more independent source).
10	Meet regularly to address challenges and make system improvements.	Consider education, training and signage for contractors, cleaners and occupants.

executive summary

The Better Building Partnership (BBP) is committed to continuous improvement in the management of waste generated by commercial buildings' operations.

Drawing on its extensive expertise, it has developed these Guidelines to assist building owners and property managers to work more effectively and consistently with their waste and cleaning contractors. The Guidelines include a number of tools to create, procure and implement effective waste management programs. Using these tools will promote comparable data, clearly articulated accountabilities and transparent reporting processes.

The BBP hopes that by working together as an industry we can drive better standards, improve industry benchmarking and increase positive outcomes for waste reduction and resource recovery in the sector.

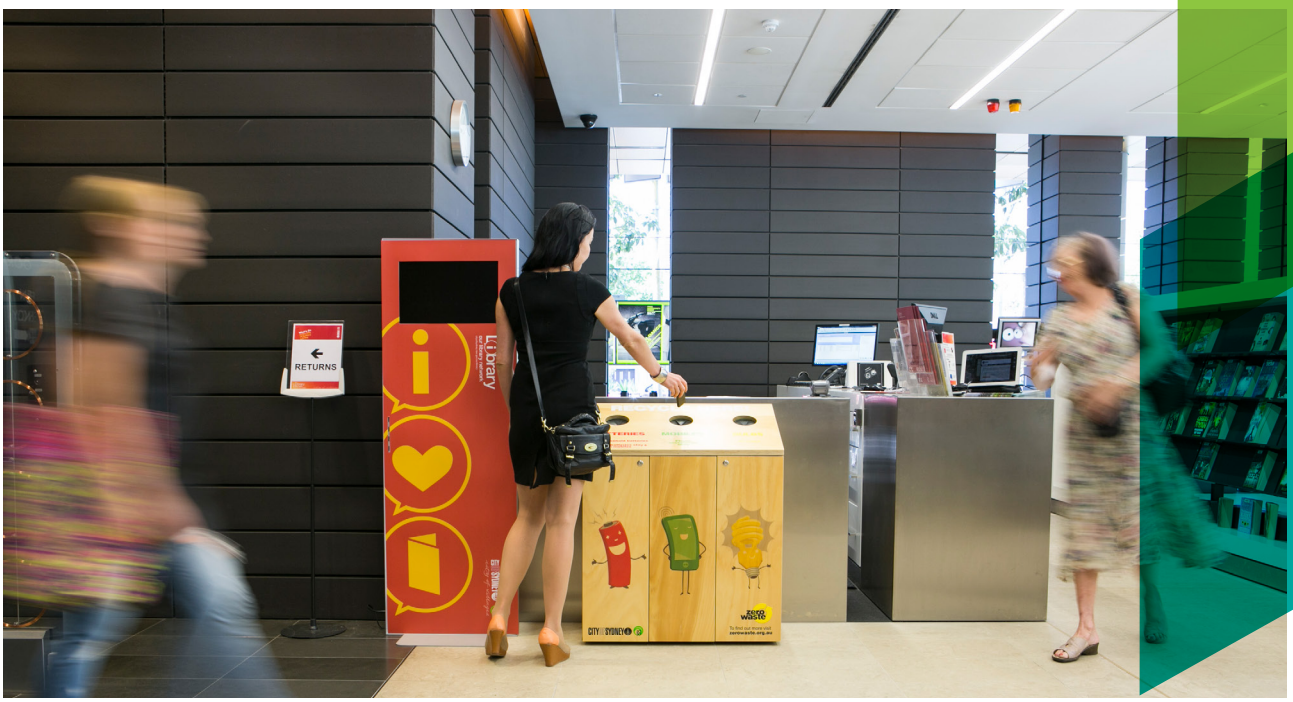
To this end the BBP has worked with NABERS and GECA to develop two supporting programs:

- NABERS Waste, and
- Good Environmental Choice Australia, (GECA) Waste Collection Services Standard.

We encourage leading organisations to embrace these two initiatives as part of their waste improvement program.

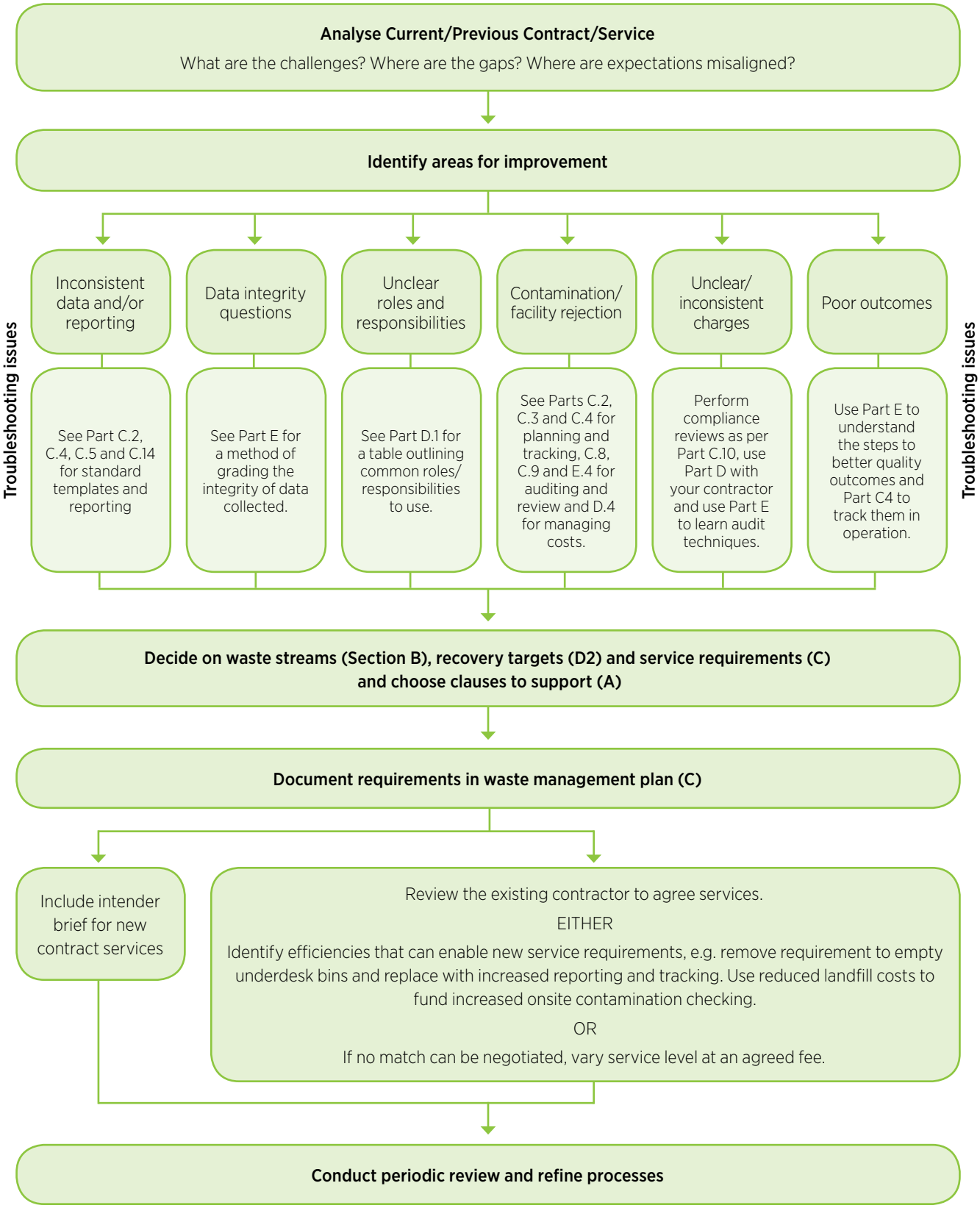
Robust waste management programs require clear contracts and articulation of roles. Model contract clauses have been developed to assist with this process **(Part A)**. A range of related tools that collectively form a waste management system are also described **(Appendices B-E)**. The appendices are available in Excel format so they can be used as a set or as enhancements to supplement your current waste management systems.

These Guidelines do not assume that all buildings will operate the same waste streams, have the same level of reporting or target the same recovery rates. Instead, they are a framework. Each organisation will choose its priorities, level of service and reporting based on its market position, customer/ tenant requirements. The Guidelines simply seek to provide a common set of measures, a transparent method of comparing performance and a mechanism to iteratively improve performance over time.



how to use this guide

When beginning or reviewing a contract:



BBP Guidelines and Connections to NABERS Waste and GECA Waste Services Standard

It is important that all parties work together to achieve best practice waste management. As noted the BBP has worked with NABERS Waste and GECA to develop standards and tools to assist Buildings achieve best practice.

The relationship between these guidelines, NABERS Waste and GECA is described below:

- **BBP Guidelines** provides a holistic approach to best practice waste management within the whole building. It identifies the roles and responsibilities of all parties from building management to tenants to cleaners and waste contractors.
- **NABERS Waste** is a rating tool providing an independent rating of a building based on the percentage diverted from landfill. Current focus is on streams managed directly by Building Management only.
- **GECA is an environmental** standards body that certifies products and services. The GECA Waste Services Collection Standard certifies Waste Contractors. The certification is NSW only at this stage. Certification may be sought for the whole State; for a specific portfolio or for a nominated standard of buildings (ie A Grade).

The overlapping area of commonality is waste data; waste reporting and waste auditing.

If a site undertakes a NABERS audit; to comply with the BBP data Integrity rating, only those streams NOT covered by NABERS require further auditing. This will be those streams that are managed directly by Tenants and represent more than 2% of total site operational waste.

If a site undertakes a NABERS audit, the outcomes in respect to waste reporting comply with the requirements of a GECA audit. Additional business and operational aspects are covered under the GECA audit.

section 1: procurement

The procurement of waste management services sets the framework for clear responsibilities and effective reporting. Effective waste management programs require robust contracts that clearly articulate the responsibilities of each party. Waste contracts are often multi-year agreements and the impact of entering into a poorly drafted agreement can significantly affect the management, operation and performance of an asset.

A range of model contract clauses that can be added to procurement documents are included in **Part A**, which is supported by the other management plans and tools developed by the BBP. Tenants and building managers/ landlords should conduct a gap analysis of current contracts to ensure that all clauses are reflected. Where sub-contractors are to be used, terms of the contract should be passed through and responsibility for non–compliance made clear. This is of particular importance where cleaning contractors sub-contract to the waste contractors. In addition, alignment between multiple contracts (cleaning and waste separate) and leases within the building should be a targeted outcome for any building manager.

For building owners, additional benefits lie in tenant engagement. Tenants are demanding greater engagement on waste outcomes due to the tangible nature of waste with building occupants. A quarter of all leases in prime-grade buildings in Sydney include requirements for waste management and reporting between tenant and landlord – more than require energy or water management.[1] Waste management programs provide an opportunity for enhanced tenant engagement which may lead to greater tenant retention.

The development of a 'green lease' between landlords and tenants provides a mechanism to ensure tenants are accountable to the waste management system and to help increase their level of buy in. Responsible tenants will seek to report on their waste outcomes. This can be reflected in the reporting requirements with your waste contractor.

The BBP has developed the BBP Leasing Standard template clauses to enable collaboration between landlord and tenant, including clauses focused on maximising outcomes through sharing data and waste management.

Download the clauses >

1 Dawson, B., Bailey, E. and Thomas, B. (2014, December 9). Progress of Best Practice Leasing: Better Buildings Partnership Leasing Index Results Sydney CBD. Research presented at the BBP Progress of Best Practice Leasing Evening by Sparke Helmore Lawyers, Sydney, NSW.

section 2: waste management

Effective waste diversion relies upon management programs that improve transparency and accountability. Ensuring these programs are carefully integrated with standard building management, contract delivery and engagement with tenants will deliver the best outcomes. Management plans, targets, education and safety all benefit from identifying responsible parties and key performance indicators to ensure continuous improvement across the term of the contract.

Operational Waste Management Plan

An operational Waste Management Plan (WMP) is a document that sets out the process by which contractors and cleaners transport and dispose of all waste material generated at the building, as required by the building owner/tenants and environmental law. Importantly, the WMP is also the document that sets out how building management will manage waste and the roles and responsibilities of all parties involved in the generation, management and final recovery/disposal of waste.

To assist you in the development of this document, the BBP has developed a WMP template which is provided in **Part C**. The operational WMP should be reviewed annually (at a minimum).

An operational WMP must:

- Identify the waste streams separately collected and stored for collection for that building.
- Identify the waste facilities to which the contractor will transport each stream – including interim and final processing/disposal facilities (Identified Facility).
- References documentary evidence that the Identified Facility is authorised to accept the type of waste. This document can be an environment protection licence or other environmental permit or exemption issued by a government agency.
- Specify any license stipulations for the Identified Facility, including details of acceptable materials and contamination limits.
- Specify that the Identified Facilities are the only waste facilities to which waste from the building will be taken, except in the event of an emergency or an unforeseen event that prevents waste being taken to an Identified Facility (refer contract clauses).
- Identify any other permitted waste facilities to which waste may be taken in the event of an emergency or unforeseen event. This may be referred to as the backup facility.
- Specify the records and documents that the contractor must obtain and retain in relation to waste handled.
- Describe the roles and responsibilities of each party involved in the handling of the waste.
- Set out the education and training that must be provided to the personnel performing the services.
- Describe the location of the waste facilities within the building – such as the loading dock and the bins – and identify who is responsible for supervising and maintaining those facilities.
- Details of the number and size of waste infrastructure including collection frequency.
- Describe and lay out the contamination process, including the steps that will be taken to mitigate the risk for contamination within the recycling streams.
- Describe how any incident in connection with the services must be responded to, including the steps taken in regard to any event which may pose a risk to humans or the environment.

Roles and responsibilities

It is important to clearly document and describe the roles and responsibilities of the all parties involved in commercial waste management. Making all parties aware of their obligations will help ensure sufficient provision of staff to undertake contracted activities such as:

- performance monitoring and reporting
- rectifying contamination and separating waste into required streams
- liaison with and education of staff and tenants.

Part D provides suggested roles and responsibilities for each party.

section 3: reporting

Poor reporting results in poor outcomes. Transparency, accuracy and consistency are the most important factors for effective reporting.

Guidance on general operational reporting procedures is provided within the operational Waste Management Plan (WMP) template in **Part C**. Data integrity guidance is provided within the Waste Data Integrity Rating Protocol in **Part E**.

Becoming NABERS Waste certified ensures compliance with the waste reporting and waste integrity standards.

Weights and density estimates

Commercial waste collection contracts should be based on the actual weight of the material collected. Weights provide significantly greater accuracy of waste data, especially for mixed materials and general waste. Two primary methods can enable weight-based collection:

- Method 1: Where space is available and waste volumes sufficient, compactors allow for effective weight-based charges and tonnage reports for most streams
- Method 2: Where calibrated and tested by the *National Measurement Act*, scales on trucks may be used for weight-based charging with wheelie bin systems. Scales on loading docks can also be used to gain actual bin weights. As a minimum, these systems enable accurate weights to be determined to validate site waste charges.

Where weights cannot be obtained, knowing the density of the waste being collected and the amount charged per lift or bin volume is useful. It enables management and cleaning staff to make more informed decisions on collection frequency and consistent benchmarking over time and between sites. Site-specific densities, established through periodic audit, should be obtained where actual weights are not available.

The cost of collecting different waste streams depends upon the method and frequency of collection. Waste streams with lower bulk density – such as plastic and cardboard – will contribute a higher portion of waste management costs per unit volume than those with higher density – such as paper and glass. There are ways to increase the density of material to be collected, such as using balers or compactors for cardboard, plastics and other recyclable materials.

Where waste is collected by volume or bin lift, unused bins should be padlocked/managed so there is clarity on how many bins are "full" and ready to be lifted by the contractor.

Densities will also vary dependent on the number of separate streams collected. For example, a mixed recycling stream with paper will likely have higher density than one containing no paper. A landfill stream with organics/wet waste will have a higher density than one with no organic waste.

Where neither actual weights nor site-specific density conversion factors are available, the BBP recommends the NABERS Waste conversion factors. These densities have been developed from actual data obtained from Commercial buildings. This will enable like-for-like comparison between multiple sites and with other best practice users.

Waste data integrity

When reporting waste outcomes and recovery, it is important to understand the quality of the data. Preference is given to management systems that provide more than one source of information and include actual primary data from the collection site rather than just assumptions and averages.

High-quality waste data can:

- improve the overall level of accuracy, transparency of, and confidence in, waste data
- enable meaningful and accurate comparisons and benchmarking to be conducted both within portfolios and between waste contractors
- inform strategic resource planning
- provide insight into equipment/operational efficiency i.e. compactor collection weights
- ensure accuracy of invoicing and fees
- achieve greater resource recovery by more accurately measuring current performance.

The BBP has developed a Waste Data Integrity Rating Protocol to assist in the determination of your data integrity rating. For a detailed summary of this protocol see **Part E**. The party responsible for reporting should self-assess your data integrity rating in accordance with this protocol. *(Note: NABERS Waste certification ensures compliance with these protocols).*

It is suggested that the required level of data integrity rating (or options) be included in tender documents so that it can be costed in appropriately

section 4: other resources

Ford, S. (2014). Taking the rubbish out of recycling data: A discussion paper about an outcomes-based reporting approach to waste management. B. Thomas & S. Lemoine (Eds.), Sydney: Better Buildings Partnership. Retrieved from https://drive.google.com/file/d/0B7TfBUAVGwHTMGk1VjR3S1c1U3JsVWZyLVN0UkthT0V6WlRB/view?usp=sharing

NSW Environmental Protection Authority, Better Practice Guidelines for Waste Management and Recycling in Commercial and Industrial Facilities, 2012. Retrieved from http://www.epa.nsw.gov.au/resources/warr/120960wastecif.pdf

part a: model contract clauses for contractors and cleaners

Notes:

- Where items of the contract are to be sub-contracted, requirements should be passed through and responsibility for non–compliance clearly articulated. This is of particular importance where cleaning contractors sub-contract to the waste contractors.

Alignment between multiple contracts (cleaning and waste separate) and leases within the building should be a targeted outcome.

- The development of a 'green lease' between landlords and tenants would provide the ideal mechanism to ensure tenants are accountable for their behaviour in relation to recycling contamination, adhering to the requirements of the waste management system and increasing their level of buy-in. Many large tenants will seek to report on their waste outcomes. Where this is the case, this should be reflected in the reporting requirements with your waste contractor.

More details about the BBP Leasing Standard template clauses are available at betterbuildingspartnership.com.au

A.1 Model Contract Clauses – CONTRACTORS

In drafting your waste contract terms there are two pathways you may follow.

Option 1 requires the waste contractor to be GECA certified or show evidence they can meet the GECA standard. Using this option, the BM then simply needs to clarify the waste and recycling streams to be included in the contract, reporting timeframe; KPIS and other normal contract terms.

Option 2 sets out the best Practice clauses included in the GECA standard. Option 2 allows the BM to modify these clauses to meet their specific needs.

Both options are detailed below.

A.1 Model Contract Clauses – Waste Contractors

OPTION 1 – GECA Certification

SECTION	CLAUSES
General	a) Waste Contractor to be GECA Accredited to the Waste Collection Services standard. If not currently accredited, the Contractor is to map their current compliance with each criteria and detail any CURRENTLY non-compliant clause. b) For waste contractors new to the site, ie where they do not have 12 months of historical data, the Waste Contractor will commit to becoming GECA Certified within the first 14 months of the Contract commencing. c) **Where clauses stated below vary to those detailed in the GECA standard, the clauses as stated below take precedent.** d) The Contractor will supply waste management services for all the waste streams as set out in **Part C and D**. e) Where the Contractor does not offer a service for a waste stream nominated in **Part C3**, the Principal may seek those services from an alternate provider
Additional Clarifications	a) The Contractor may suggest alternative processing facilities from time to time. Any changes must be approved by the Principal b) The Contractor to state if their audits comply with NABERS Waste auditing requirements. c) The Contractor is obliged to adhere to occupational health and safety rules; building safety and security protocols and good auditing procedures when assessing; auditing and/or weighing bins.
Reporting	a) The Contractor will supply waste data in compliance with the NABERS Waste protocols. b) The Contractor is to provide periodic reports to the Principal in line with the Reporting Frequency Schedule **Part C.14.**
Cost	a) The Contractor is expected to have costed into its Agreement Fee the cost of providing all labour and equipment necessary to adequately perform all functions **(Part D).** b) All waste contractor costs for the supply, collection, reporting, auditing and removal of the various waste streams must be properly accounted and identified **(Part D).**

A.1 Model Contract Clauses – Waste Contractors

OPTION 2 – Detailed Clauses

SECTION	CLAUSES
General	a) The Contractor will provide evidence that they can meet the requirements of the GECA Waste Collection Services Standard and detail any criteria they are currently unable to meet. b) The Contractor will supply waste management services for all the waste streams as set out in **Part C and D**. c) Where the Contractor does not offer a service for a waste stream nominated in **Part C3**, the Principal may seek those services from an alternate provider. d) The Contractor shall structure its waste streams for reporting as per **Part B**. e) Where the Contractor does not offer a service for a waste stream with grade insert Grades recovery outcomes **(Part E)**, the Principal may seek those services from an alternate provider.
1. Responsibility for performance	a) The Contractor acknowledges and will use reasonable endeavours to assist the Principal to reach the waste targets agreed with the Principal and in accordance with the Key Performance Indicators (KPIs), as set out **Part D**, and will ensure that sufficient processes are in place to deliver these targets. b) Where targets are not achieved, the Contractor will explain variances from the targets and will work with the Principal or their nominated representative and site cleaners in order to develop solutions to enable the targets to be met. c) Cn **Part E**. d) Where the Contractor sub-contracts out any services referenced within this document, responsibility for compliance remains with the lead Contractor and the obligations will be passed through to any sub-cont racted entity. e) The Contractor is required to nominate Identified Facilities for processing all waste streams set out in **Part C3**. f) The Contractor may suggest alternative processing facilities from time to time. Any changes must be approved by the Principal **(Part C6)**. g) The Contractor shall work with the Property Manager of the Principal to ensure the effective operation of the Waste Management Systems to ensure the timely resolution of emerging issues. h) The Contractor shall provide evidence that waste is disposed of within the state of generation or provide details where this is not occurring. i) When waste generated in Australia is shipped to an overseas processing facility, that facility shall comply with the following requirements: i. Have ISO 14001 and OHSAS 18001 certification, or meet the requirements within these ISO standards; and ii. Have an ethical waste disposal policy. This policy shall outline: – The name, location and relevant operating licence of the overseas waste facility; – Compliance with that nation's environmental, health and safety regulations; – That no illegal, environmentally harmful dumping of waste is taking place; and – No child or slave labour is used at the waste facility. j) The Contractor will annually review the Waste Management Plan (WMP) with the Principal, Property Manager and other involved parties to determine enhancements, sustainability initiatives and other waste management initiatives.

A.1 Model Contract Clauses – Waste Contractors continued

OPTION 2 – Detailed Clauses

SECTION	CLAUSES
2. Operations	a) The Contractor must comply with the operational WMP, adhering to minimum operational and safety standards **(Part C)**. b) The Contractor must be able to attribute a weight to each bin collected. Weight must be measured according to the individual waste stream and evidence is required regarding the maintenance and integrity of any scales/meters used. Where Site Density (SD) averages are used, the basis for the assumptions should be documented. Weights must be recorded in an agreed format and forwarded on as per the Reporting Frequency Schedule **(Part C.14)**. c) Where the Contractor observes contamination in a recycling container ,the Contractor is to follow the site Contaminated Bin procedure. As a minimum, the container must be weighed and added to the contamination report **(Part C.8)** and monthly operational Waste Management Report **(Part C.4)**. The contents in the contaminated container must then be disposed of as general waste and the incident reported to the Principal in line with the Reporting Frequency Schedule **(Part C.14)**. d) The Contractor is expected to operate well within the maximum contamination rate accepted by the nominated Industry Facility to minimise load rejection at the Facility **(Part C.8)**. e) The Contractor is responsible for the provision and periodic maintenance of ,waste and reycling bins, containers and equipment necessary for waste containment, management and weighing. f) The Contractor must supply equipment (bins, signage/stickers etc.) colour-coded in accordance with Australian Standard 4123 and approval by the Principal. g) The Contractor must ensure that collection services are done periodically and only when necessary to maintain: i. Bins not greater than three quarters full ii. Odour free environment iii. Hygienic environment iv. Value for money. h) The Contractor shall ensure that waste collection service reviews are carried out periodically, at least twice a year, and as necessary to maintain: i. Service efficiency (appropriate number and size of bins, skips and compactors); ii. Collection frequency of all on-site bins iii. offers efficiencies and value.
3. Monitoring/ audit	a) The Contractor will quantify the amount and types of waste in accordance with **Part C**. b) The Contractor will monitor, report and address contamination through regular monitoring/ bin inspections, composition audits and weighing of contaminated materials, quantifying the amount and types of waste **(Part C.8)**. *Waste audits of all recycling streams will be conducted over the course of 1 day and shall be undertaken annually as a minimum. Visual inspections of recycling streams to be undertaken quarterly.* c) *The Contractor will verify through annual audits the weights/ site density of each stream .* d) *The Contractor to state if their audits comply with NABERS Waste auditing requirements.* e) The Contractor acknowledges that the Principal has the right to audit processes and reporting standards of the Contractor at any time with 48 hour notice as per **Part E** and agrees to provide reasonable cooperation to that process. f) The Contractor is obliged to adhere to occupational health and safety rules; building safety and security protocols and good auditing procedures when assessing; auditing and/or weighing bins.

A.1 Model Contract Clauses – Waste Contractors continued

OPTION 2 – Detailed Clauses

SECTION	CLAUSES
4. Reporting	a) The Contractor is to provide periodic reports to the Principal in line with the Reporting Frequency Schedule **(Part C.14)** plus: i. Details and quantities of chemicals and hazardous chemicals identified within the waste streams. iii. Details and quantities of chemicals and hazardous chemicals identified within the waste streams.A detailed list of consumables and supplies used within the report period and percentages of recycled content material. iii. Details and quantities of chemicals and hazardous chemicals identified within the waste streams.A detailed list of consumables and supplies used within the report period and percentages of recycled content material. Maintain records and evidence to substantiate data contained within reports to the nominated standard in the Waste Data Integrating Reporting Protocol **(Part E)**. iv. Maintain up-to-date information about the acceptable levels of contamination and contamination values, weights and volumes as per waste streams. v. Maintain and communicate up to date information about Site Densities for each waste stream.
5. Costs	a) The Contractor is expected to have costed into its Agreement Fee the cost of providing all labour and equipment necessary to adequately perform all functions **(Part D)**. b) All waste contractor costs for the supply, collection, reporting, auditing and removal of the various waste streams must be properly accounted and identified **(Part D)**.

A.2 Model Contract Clauses – Cleaners

SECTION	CLAUSES
1. Responsibility for performance	a) The Cleaner acknowledges its responsibilities to the Principal's waste targets as set out in **Part D**. b) The Cleaner is responsible for the successful operation of the on-site recycling system and is required to provide educational material, and undertake regular tenant and cleaner training in order to maximise effectiveness of the service **(Part C.10)**. c) The Cleaner is expected to promote and require tenant engagement from the on-site supervisor (Property Manager) and to adhere to any green leasing requirements. d) The Cleaner shall submit a signage plan or agree to an already established plan at inception. The Cleaner must ensure that for each recycled stream, all waste handling bins have consistent signage, labeling and colour-coding according to the Australian Standards. e) The Cleaner shall provide a rapid feedback mechanism on each floor to provide tenants insights as to their contamination performance. f) The Cleaner will annually review the operational Waste Management Plan (WMP) with the Principal, Property Manager and other involved parties to determine enhancements, sustainability initiatives and other waste management initiatives.
2. Operations	a) The Cleaner must perform its services in accordance with the operational WMP **(Part C)** and in a way that adheres to the operation standards in relation to environmental, health and safety practices in carrying out the cleaning service. b) The Cleaner shall conduct operations referring to streams to be collected as per the WMP **(Part C)**. c) The Cleaner must achieve the performance Key Performance Indicators (KPIs) set out in the WMP (verified by Contractor reporting) **(Part D)**. d) The Cleaner is expected to maintain appropriate records regarding the waste streams where possible and recommend system improvements. e) The Cleaner will use clear colour-coded bags to minimise load rejection at waste facility.
3. Monitoring/ audit	a) The Cleaner will address contamination through regular monitoring/bin inspections, composition audits and weighing and setting aside of contaminated materials **(Part C.8)**. i. Bins must be inspected for contamination or leakage before collection. Once identified the bin should be marked/taped as contaminated and left in a separate area so that cleaning staff are aware of the issue and action taken if required, subject to WHS guidelines **(Part C.8)**. b) The Cleaner will support the Principal to drive performance from tenants through [weighing/ measuring] the contents of waste and recycling bins on each tenant floor and providing a rapid feedback mechanism to tenants on total [volume/weight], proportion of waste per stream and level of visual contamination **(Part C.8)**. c) The Cleaner/Principal will provide coloured translucent bags and portable weighing/ measuring equipment to assist the Cleaners in making a visual inspection **(Part C.8)**. d) Any additional costs for this service should be detailed in the schedule of prices **(Part D)**.
4. Reporting	a) The Cleaner is to provide periodic reports to the Principal in line with the Reporting Frequency Schedule **(Part C.14)** plus: i. A monthly report on environmental initiatives of staff for waste reduction. ii. Education planned or undertaken to address performance
5. Costs	a) The Cleaner should include cost for quarterly contamination weigh-offs as an option. Weigh-offs will be to determine the level of contamination in each waste stream that can be applied to the sites. b) Where the Principal finds that the Cleaning staff are causing contamination of the recycling, or not making all reasonable efforts to keep waste streams separated throughout the collection and disposal process, the Cleaner will pay any financial penalty for costs incurred due to the contamination (e.g. landfill levies and the costs incurred as a result of engaging the third party auditor). **(Part E)**.

A.3 Clause Definitions

Actual Weight means the weight of a waste stream from the floor or loading dock of a building at point of a collection.

Cleaner means the Contractor to the Principal for the cleaning services described herein.

Contractor means the deliverer of waste and/or cleaning services.

Industry Facility means any facility with adequate license to process specific forms of waste material.

Identified Facilities means the waste processing facility as agreed in the Waste Management Plan (WMP). May include a primary and a backup facility.

Key Performance Indicator (KPI) means a specified performance requirement against which the Service of the Contractor or Cleaner is reviewed by the Principal.

Mixed General Bin (MGB) means bin or other receptacle for the collection of waste material.

Principal means the building owner or the Property Manager, who is signatory to the Contract and client for the services described herein.

Recovery Grade means the value of the final output from a recycling path.

Reporting Frequency Schedule means the list of expected reports, their descriptions and the frequency of their expected, as set out in **Part C.14**.

Waste Management Plan (WMP) means the process and requirements for delivering the service as agreed between the parties.

Waste Management System means the holistic approach to the movement and processing of materials. An efficient and effective Waste Management System will minimise material generation and maximise resource recovery. A Waste Management System can include various key stakeholders (waste contractors, cleaners,property managers and waste producers), strategies & processes(WMP) and equipment..

Site Density means the site-specific bin density as determined through a bin audit or weigh-off. Bin density = net weight of waste bin (as presented) / bin volume. It is expressed as kgs/m^3.

part b: material streams

Guidance Notes:

The purpose of **Part B** is to set out the primary material wastes to be collected and reported for a facility. The different materials are set out as part of streams and categorised in a hierarchy to develop a consistent method that can be used for comparison over time and between different facilities.

Part B1 is designed as a template so an organisation may work with it directly when procuring waste collection services and subsequent reporting. When procuring waste collection services, copy and paste these streams to establish the expected service provision, units and reporting frequency.

For data integrity, preference should be for units providing actual weights (AW). Where densities (m^3) is opted, Site Densities (SD) or NABERS Waste (NW) will be used for conversion **(Part B2)**.

Mixed recycling is sometimes referred to as commingled waste. The term mixed is used in this tool to prevent confusion with mixed residue for materials recovery facilities (MRFs), which is also commonly referred to as commingled.

Some waste materials (e.g. hazardous waste) are regulated by legislation. These materials are not included in this tool. Ensure any special waste materials are dealt with according to the appropriate legislation.

L and m^3 are interchangeable units of volume, where $1m^3$ = 1000 L in this guide, m^3 is the preferred volumetric unit. L is available for use predominantly for cooking oil, as this material is tracked in L.

B.1 Materials for collection and reporting

TABLE B.1: MATERIAL STREAMS

Stream	Materials	Units	Collection Units	Report
Mixed recycling	Aluminium/metals Glass Liquid paper board (milk cartons) Plastics – soft Plastics – hard (1–7) Plastics – polystyrene Plastics – other (incl. containers)	kg	AW	Quarterly
Organic	Food waste Other food organics (fish, meat, etc.) Rubber Wood			
Paper	Paper			
Secure paper	Paper			
Cardboard	Loose Compacted (baled)			
Liquid	Cooking oil	L		
Other	Fluorescent tubes/light globes Toner cartridges Batteries e-waste Textiles			
Mixed residue for AWT	Mixed residue			
General waste for landfill	Waste to landfill			

B.2 Reporting hierarchy

When reporting across sites and portfolios, rolling-up collection streams to larger aggregate recovery streams may be required for consistency and benchmarking. The table B.2 structures the hierarchy of this roll-up.

B3 Density Conversions

As discussed site densities are preferred where actual weights are not available.

It is important to note the difference between Bin density and Material density.

When undertaking site audits to gain site specific densities a bin weigh-off is typically undertake (Bin Density audit). This type of audit weighs bins "as presented" for collection by stream. This audit will provide you with a density per bin presented per stream. This formulae takes into account the fact that bins may be presented less than 100% full.

Bin density (kg/m^3) = net weight of waste bin AS PRESENTED(kg) / bin volume (m^3).

Material density, as shown below, is the actual density of the material specified. In a bin situation, this density assumes the bin is 100% full.

Material Density is calculated as follows:

$$\text{Density} = \frac{\text{(weight of material (kg)}}{\text{(volume of material (m}^3\text{)}}$$

Note, the reference points are the material and not the size of the bin. To use material Density you need to know how much of actual material you have generated, and NOT simply the volume of the bins collected.

For example, you may have collected 5 x 120L bins of Glass. These bins may all be only 50% full.

So, in terms of **bin volume** you have (5 x 120) – 0.6 m^3 (600 litres) of glass collected. This is what would be reported on your waste invoice. In fact, the amount of glass actually collected was (5 x 120 x 50%) – 0.3m^3 (300 litres) of glass.

Hence, knowing the actual quantity of glass collected (0.3m^3), you can apply the material density of 200 kgs/m^3 to arrive at your actual weight of 60 kgs.

If you had conducted a site bin density audit, you may have found that on average your glass bin density was 100kgs/m^3. Hence applying a site bin density to your collections you would get 5 bins x 120L = 0.6 m^3. Multiply this by your **site bin density** and you get 0.6 x 100 kgs/m^3 = 60 kgs.

Where site densities are not available, and cannot be obtained, the NABERS Waste densities should be used. Where a specific stream or material is not available in NABERS Waste, the following table should be referenced.

TABLE B.2: REPORTING HIERARCHY AND DENSITY CONVERSION

Stream	Sub-category	Specific Material	Material Conversion density factor kg/m³)
Mixed recycling	Mixed recycling (commingled)	Paper and containers (e.g. paper, plastic, glass, metals)	110
		Containers (plastic, glass, metals)	60
	Aluminium/metals	Aluminium cans	65
		Non-ferrous metals	140
		Tin cans	85
	Glass	Glass	200
	Plastics	Soft (e.g. film)	35
		Hard	170
		Polystyrene	20
		Containers (only plastic and metal, no glass)	45
Fibre	Paper	Paper	115
		Secure paper (i.e. collected for secure document destruction)	300
	Cardboard	Loose	55
		Compacted	130
Organic	Food waste	Food waste	350
		Other food organics (e.g. fish, meat, etc)	Varies
	Other organics	Rubber	200
		Wood (wood, crates, etc.)	185
Liquid	Cooking oil	Cooking oil	n/a
Other	Fluorescent tubes/ light globes	Fluorescent tubes/light globes	230
	Toner cartridges	Toner cartridges	190
	E-waste	Appliances and electrical goods	230
		Computers and office equipment	265
	Batteries	Batteries	Varies
	Textiles	Textiles	90
AWT mixed residue	Mixed residue	Dry (excluding organics)	70
		Wet (including organics)	115
General waste for landfill	General waste, uncompacted	Dry (excluding organics)	70
		Wet (including organics)	115

B.4 Refurbishment material

Refurbishment and fitout materials are not currently part of the daily operational waste management systems of commercial buildings. Initial BBP work/trials in this area indicate the scale of waste from refurbishment is up to five times that of operational. Due to different structures of the responsibility, contracts and controls for fitout waste streams, refurbishment is not included in these guidelines. For more: BBP Stripout Waste Guidelines

part c: waste management plan (wmp) template

This operational Waste Management Plan (WMP) template will assist you to detail the waste and recycling streams in place at your site and identify how these waste streams should be managed, so as to minimise risk of harm to humans or the environment.

This WMP is to be complied with by all parties, including property managers, tenants, contractors and cleaners. Any non-compliance is to be immediately reported to the Principal.

Frequency of reporting and updating details in this WMP are laid out in **Part C.14**

C.1 Site and contractor details

TABLE C.1: SITE AND CONTRACTOR DETAILS

Date WMP completed	
Next review date	

Site Details		
Site address		
Site contact	Name	
	Telephone	
	Email	
	Position	

Contractor Details		
Waste contractor	**Company name**	
	Contact details	
Cleaning contractor	**Company name**	
	Contact details	
Waste contract type		
Waste contract expiry date		

C.2 Current waste and recycling streams for reporting

The current waste and recycling streams in place are detailed in the following table. **Part B** provides a detailed list of Material Streams and their reporting hierarchy.

Where a waste stream is not offered by the Contractor (e.g. organic waste), the Principal should retain the right under the contract terms to seek those services through an alternate provider. Note: include all streams from **Part B**.

TABLE C.2: WASTE AND RECYCLING STREAMS

Stream category	In place	Managed by	Covered by current contract	Interim facility/ address/ licence number	Destination facility	Recovery rate
Mixed recycling	*Yes*	*Cleaning contractor*	*Yes*		*e.g. Bailey Tip*	*e.g. 90%*
Organic	Choose	Choose	Choose			
Paper	Choose	Choose	Choose			
Secure paper	Choose	Third party	Choose			
Cardboard	Choose	Choose	Choose			
Liquid	Choose	Choose	Choose			
Other	Choose	Choose	Choose			
Mixed residue	Choose	Choose	Choose			
General waste	Choose	Choose	Choose			

C.3 Additional waste streams

It is important to maximise transparency when identifying target waste streams. It is understood that there are waste streams that lie outside the control of the building owner.

Additional waste streams managed by tenants may include, but are not limited to:

- Secure document destruction
- Toner cartridges
- IT & e-waste.

The following step-by-step guide can be used to capture data from any of the waste streams listed above. For the purposes of the BBP guidelines, the example of secure document destruction data has been used as it may account for anything between 20–50 per cent of tenant waste activity, depending on the type of tenant.

The capture of waste data from tenants can be managed by utilising the following methods:

1. Ask the loading dock/building security to oversee the weighing of all secure document destruction bins that leave the building. As each secure document destruction contractor arrives back in the loading dock after visiting the tenant, the weight and tenancy origin of each bin can be recorded very quickly (using the buildings on-site scales) as the bins are loaded onto the Contractor's truck.

OR

2. Contact the tenant to ask to be included in their data reports from their secure document destruction contractor. The data may be provided in one of two ways:
   a. Document destruction contractors may provide a recycling report to their clients stating the quantity of paper collected for recycling each month.
   b. Frequently, document destruction contractors provide their clients with reports that include the number of Mixed General Bins (MGB's) collected each month. Actual bin weights or site specific densities should be obtained as detailed elsewhere in this document.

OR

3. Ask the loading dock manager to keep a tally of the number of bins collected from the building. As each secure document destruction contractor arrives in the loading dock, they can be asked to provide a number of bins collected and from which tenant. Again, a site density or NABERS density can be applied.

NOTE: Often, secure destruction companies provide weight based reports to clients. It has been shown that in many instances these reports are based on an average and can be extremely misleading. These reports should not be used unless the contractors method of obtaining weights has been independently verified as required for all other streams.

C.4 Monthly Operational Waste Management Report

The following Operational Waste Management Report Template will assist the Principal or their representative to manage and report on a building's waste streams. This template is provided for guidance and does not have to replace any other existing formats or templates. Where another template is in use, it should be updated to cover the included fields for data collection, at a minimum.

The weight of each material should be recorded monthly, including evidence of how this weight was calculated (use sheet C4 for guidance), e.g. based on actual weight (AW) at point of loading or calculated using the most recent audit site (bin)density (SD) or using NABERS Waste densities (NW).

Data entries should be supported by documentary evidence (see acceptable forms in C6). While documentary evidence is not proof of recycling or diversion, it provides a chain of custody assurance that can be linked with the facility recovery rate to understand the likely diversion outcome.

For convenience, all materials covered in **Part B** – Material Streams have been included in this template. Where your facility does not create these material wastes, simply delete these materials from your report.

Note: The Operational waste management report covers all day-to-day waste generated by a building and its tenants. This differs from the NABERS Waste rating tool that only currently covers waste directly under the control of Building Management. The BBP adopts a best Practice approach recognizing that Building Managers can work with their tenants and impact on practices and systems that tenants may directly manage and hence improve overall resource recovery of the site. Leading Companies are being proactive in this area resulting in significant improvements in the overall performance of the building's waste.

TABLE C.4: MONTHLY OPERATIONAL WASTE MANAGEMENT REPORT

Site address			
State		**Month/year**	
Person completing		**Company**	
Contact number		**Email**	
Email completed form to			

Material	Weight or volume	Data type	Weight	Facility name	Link to evidence (see C6)	Facility recovery rate	Adjusted recovery weight
Mixed recycling							
General – paper, containers							
General – containers							
Aluminium cans							
Non-ferrous metals							
Tin cans							
Glass							
Plastics – soft							
Plastics – hard							
Plastics – polystyrene							
Plastics – other							
Fibre							
Paper							
Secure paper (shredded)							
Cardboard – loose							
Cardboard – compacted							

Material	Weight or volume	Data type	Weight	Facility name	Link to evidence (see C6)	Facility recovery rate	Adjusted recovery weight
Organics							
Food waste	25	AW		e.g. Darling Harbour Organics Facility		70%	17.5
Other organics (fish, meat, etc.)							
Rubber							
Wood							
Other							
Fluoroscent tubes/light globes							
Toner cartridges							
e-waste							
Batteries							
Textiles							
Mixed residue							
Dry							
Wet							
Landfill							
General waste							
Other landfill							
Contamination redirected to landfill							
		AW				0%	
		AW				0%	

C.5 Waste management systems

Current systems in place for all streams falling within the responsibility of contractors and cleaners.

TABLE C5: CURRENT SYSTEMS

Dock	Stream	System in place	How many?	Management protocols	Collection frequency
e.g. 1	*General waste*	*240 L MGB*	*6*	*Cleaners transport bagged waste from tenancies to bins in docks*	*Mon to Fri*
	Mixed	*1.1 m^3*			
	Choose	Choose			

C.6 Facility acceptance criteria

The table below details the acceptable and unacceptable materials per stream as per the facility licence conditions. Where a bin contains any unacceptable materials it is to be isolated and immediately reported to the Principal for action.

Note: details of facility acceptance criteria can be accessed from the national database.

TABLE C6: FACILITY ACCEPTANCE CRITERIA

Stream	Acceptable materials	Unacceptable materials
General waste	*e.g. Solid, non-hazardous, putrescible*	*Liquids, hazardous waste*

C.7 Facility recovery rates

Outcomes-based reporting is focused on maximising the retained value of the materials and helping to meet the closed loop objective for waste management. To enable outcomes-based reporting, the recovery rate and recovery pathway of nominated facilities must be known so that reporting can be adjusted.

Work is currently being undertaken to enable an environmental rating to be applied to different recovery pathways. In the interim, based on your Company's Sustainability and Social priorities, you may decide which pathways best fit with these objectives. The important thing is that not all recycling is equal in terms of environmental outcomes, and Best Practice companies are now determining not only what materials are recycled, but how they are recycled. In the example below the company has determined that Recovery Grades "A" and "B" meet their Corporate objectives, while Recovery pathways designated as a "C" do not. Hence only A and B recovery tonnes are included as "Recovered".

The targeted recovery rate for facilities should be subject to the Key Performance Indicators (KPIs) as set out by the Principal **(Part D)**.

The following data is required from all waste facilities annually. If licence compliance checks occur more frequently, update together.

TABLE C.7.1: FACILITY RECOVERY RATES

Facility	Stream	Process	% A	% B	% C	Landfill	Recovery rate
Redfern Paper Mill	Paper	Low grade paper and cardboard are pulped for low grade cardboard. High grade office paper is shipped to China to create recycled office paper.	400	105			100%
Darling Harbour Organics Facility	Organic	Processes food waste and green waste to produce high grade compost for Council parks or low grade compost for mine site rehabilitation. Inputs go through a tunnel composter with contaminants sifted at the end. Tests are carried out to determine park suitability.	700		300	0	70%
Bailey Tip	General Waste	Materials recovery facility and landfill which sorts all material for the best diversion rate for mixed waste loads.	50	100	350	500	15%

The above example is based on the criteria as detailed in the Table below. You may wish to amend these grades to better reflect your own Corporate objectives. Further industry work is being undertaken to arrive at a common definition of the various grades of recycling pathways.

TABLE C.7.2: FACILITY RECOVERY GRADES

A Grade	B Grade	C Grade
Where materials meet a closed loop objective and can be used over and over again without being downgraded. For example paper, cardboard, PET, organics, glass and metals generally come under this grade.	Where materials are down cycled into a lower grade product, this can only be done a limited number of times before the resource loses all value. In example, most plastics in Australia are down cycled into lower-grade plastics, often as insulations.	Materials that are produced in a waste diversion process where the product can only be used once. For example, organics recovered from mixed source waste at AWT's and Bedminster facilities fall into this category. Restrictions usually apply on the application of these products due to contamination.

More details on BBP's waste recovery work is available at http://betterbuildingspartnership.com.au

C.8 Contamination management

Contamination is a critical issue, both for the recycling program and for the "owners of the waste".

The management of contamination should occur at two or more points in the collection and disposal process. "Owners of waste" have an obligation under section 143 of the Protection of the Environment Operations Act (POEO Act), such that contamination, within the recycling stream, or within the general waste stream may lead to a breach of compliance by both the facility and the "owner of the waste."

Where the Cleaner notes contamination through a visual inspection on the floorplate or at the loading dock, reference should be made to the acceptance criteria and maximum level of contamination for that stream in C4 Facility Acceptance Criteria and Recovery Rate. For example, food waste within a takeaway container may result in a breach of the POEO Act and therefore the contents of the bin should be treated with caution. The Cleaner should put all contents into the landfill stream, or if not picked up by the Cleaner, the Collector should treat the contents as landfill waste.

The Cleaner should note the type of contamination and provide feedback to the originating location using the rapid feedback mechanism, where possible, and to the Property Manager through a contamination report daily.

Where loads can easily and safely be decontaminated, the Cleaner should do so. Where time and/or WHS assessment does not permit decontamination, the load should be set aside for landfill and recorded in the WMP table below.

Where contamination has not been noted by the Cleaner and has been rejected at the facility, the Collector must note the type of contamination and provide feedback to the Property Manager through a contamination report within 24 hours. This report can be submitted by photos and email notifications or via a more formal report. The rejection should also be noted in the WMP by the Property Manager.

TABLE C.8: CONTAMINATION MANAGEMENT

Date	Stream	Cleaner/ collector name	Building level/ location (if known)	Type of inspection	Contam-ination %	Contam-ination type	Action taken	Action/ feedback
	Mixed		Tenancy level 3	Visual	5%	Coffee cups	Accepted	Tenants advised
	Paper		Dock 1	Visual	10%	Hazard-ous waste	Rejected	Property Manager advised. Incident report completed
	Organic		Facility	Visual	17%	Paper	Rejected	Property Manager advised

C.9 Incident management

In the case of a waste incident the following protocols will be followed:

TABLE C.9.1: WASTE INCIDENT PROTOCOLS

Waste spill within building perimeter	Waste spill after waste leaves the site
1. Prevent the spill from escaping into immediate environment – bund spills to prevent flowing into storm water drains or onto land; enclose/cover litter to prevent wind blowing litter into environment. 2. Take action to stop further spilling/leakage if safe to do so. Use appropriate PPE if required to handle waste or waste equipment. 3. Notify Senior Engineering Manager; Property Manager or Principal immediately. 4. Ensure area is secured to prevent access by public. 5. Await further direction by senior site personnel.	1. Contractor to follow their spills procedure to limit environmental impacts. 2. Comply with any Corporate reporting/response procedures. 3. Comply with any regulatory reporting procedures. 4. Notify Principal, in writing, with 24 hours of the spill occurring.

Any incident or injury should be recorded in an incident log and reported to the Principal immediately. Photographic evidence should be obtained where possible and applicable. .

TABLE C.9.2: WASTE INCIDENT MANAGEMENT LOG

Incident	Location	Volume of spill	Specific type of waste	Action taken	By whom	Date	Link to photo-graphic evidence	Reported to	Regulatory reporting require-ment?
Injury									
Hazardous waste									

C.10 Education and training

Appropriate training will be provided to all those with responsibility for implementing the WMP. Training will be conducted annually as a minimum and as part of new employee inductions. Training will be evidenced and validated to ensure those responsible are competent and fully aware of their responsibilities.

In addition, education materials and ongoing support will be provided to tenants and anyone else likely to use the waste management systems covered by the WMP.

See **Part D** for delineation of roles and responsibilities.

TABLE C.10: EDUCATION AND TRAINING LOG

Staff name	Role	Training 1 – date	Training 1 – competence assessment	Training 2 – date	Training 2 – competence assessment
			PASS		*PASS*

C.11 Compliance reviews

A compliance review will be undertaken for each waste contractor and for each stream as determined by the level of risk presented. These reviews will be on an ad hoc basis with no warning provided to the Contractors. The compliance reviews will be conducted by the Principal's team or independently appointed consultants.

The reviews must be undertaken so that a chain of evidence can be provided from the point of generation to the final approved receiving facility. This will include checking the Facility Acceptance Criteria and Recovery Rate for the stream in question, profiling that stream's composition and ensuring proper education of waste generators (e.g. tenants).

C.12 Annual review and commitment

All parties to the Contract will meet annually to discuss and agree:

1. Initiatives to demonstrate commitment to waste management for:
   a. Tenants
   b. Owner
   c. Contractors
   d. Cleaning staff.
2. Sustainability initiatives.
3. Enhancements to the WMP, including:
   a. Education plans
   b. Signage
   c. Infrastructure
   d. Monitoring regimes.

C.13 Documentary evidence and facility receipts

To ensure that waste is being correctly managed and recorded, supporting documents will be retained for review and cross referencing by the Property Manager or their delegate.

TABLE C.13: DOCUMENTARY EVIDENCE LOG

Source document	Details to be reviewed	Cross reference document
Waste invoice	Bin numbers collected by stream	1. Cleaner dock tally sheet 2. Systems in place
Tipping docket and/or truck GPS data	Tipping facility – date and vehicle registration	1. Security records of vehicles collecting each stream 2. Building records of vehicle on-site (date and vehicle registration)
Bin audit	Contents of bins	Acceptance criteria of receiving facility
Facility site review	Activities conducted on-site	Site licence conditions

C.14 Reporting frequency schedule

The following table details the frequency with which each of the preceding reports must be completed and provided to the Principal.

TABLE C.14: REPORTING FREQUENCY SCHEDULE

Report	Part reference	Frequency
Site and contractor details	C.1	At inception and then as services or contractor information is updated
Current waste and recycling streams	C.2	At inception and then annually thereafter (or as services or facility information is updated)
Monthly operational waste management	C.4	At inception and then monthly thereafter
Waste management systems	C.5	At inception and then annually thereafter (or as management protocols are updated)
Facility acceptance criteria	C.6	At inception and then annually thereafter (or as services or facility information is updated)
Contamination management	C.8	Within 24 hours of contamination occurrence (cleaners and collectors) Monthly from identified facility invoices
Incident management	C.9	At inception and then annually thereafter (or as changes to services or legislation requires)
Education and training	C.10	At inception then monthly
Compliance review	C.11	At inception then annually (or as services or facilities change)
Documentary evidence and facility receipts	C.12	At inception and then annually thereafter Monthly with invoicing
Annual review and commitment	C.13	At inception and then annually thereafter
KPI review meeting minutes	D1	Annually and following site meetings

part d: responsibilities, kpis and pricing

D.1 Roles and responsibilities

The following table sets out the roles and responsibilities relating to waste management. These roles and responsibilities should be referenced in contracts with property management, contractors and sub-contractors to ensure best outcomes.

All relevant responsible parties noted below will be reviewed annually with the Waste Management Plan (WMP). The frequency of responsibilities is as noted or as specified in **Part C14**. Site specific Key Performance Indicators (KPIs) identified in **Part D** should be included in this document.

TABLE D.1: ROLES AND RESPONSIBILITIES

Area	Activity	Responsibility	Part refer-ence	Client Responsible Party	Contractor Responsible Party	Associated KPI Reference
Contract management	Cleaning contract	Issue and execute contracts	A			
		Review/renew contracts	A			
		Review KPIs	D			
	Waste contract	Issue and execute contracts	A			
		Review/renew contracts	A			
		Review KPIs	D			
		Complete waste pricing template	D			
		Review and approve waste pricing template	D			

Area	Activity	Responsibility	Part reference	Client Responsible Party	Contractor Responsible Party	Associated KPI Reference
Outcomes management	Operational WMP	Develop operational WMP	C			
		Review/ prove operational WMP	C			
		Identify and agree waste streams to be collected	C			
		Ensure nominated waste facilities are suitably licensed	C.4			
		Complete and submit Monthly Waste Management Report	C.4			
		Update the operational WMP annually	C			
	Data integrity/ compliance	Ensure compliance report is completed and submitted	C			
		Complete waste stream acceptance templates for facilities	C.6			
		Complete outcomes-based reporting templates for facilities	C			
		Manage site audits for density and contamination weightings	A B.2 C.8			
		Manage independent audits for waste management	A C10			
		Complete criteria for data integrity reporting target	E			
		Review waste reports and investigate variances	C			
	Education/ training	Develop education materials for on-site management of waste	C.10			
		Complete and submit training log	C.10			
		Provide communication and rapid feedback mechanisms for tenant education	C.10			
		Manage and maintain appropriate signage for waste streams	C5			
		Coordinate annual review of education, training, and signage	C.10 C.13			

Area	Activity	Responsibility	Part reference	Client Responsible Party	Contractor Responsible Party	Associated KPI Reference
On-site management	Waste systems	Ensure contractor manages waste streams in line with operational WMP	C			
		Ensure suitable waste systems in place for tenants' waste needs	C.5 C.6			
		Ensure suitable waste systems in place for site/ building needs	C.5			
		Coordinate monthly waste review meeting	C.4			
		Attend monthly waste review meeting.	C.4			
	Operations	Submit waste management reports daily	C.4			
		Ensure waste areas kept clean and safe and waste streams managed as per operational WMP.	C			
		Transfer waste from tenancies to waste collection area.	C.2 C.3 C.5			
		Complete dock bin tally sheet.	C.5			
		Weigh/count bins before collection occurs	B.2 C.4			
		Collect and transport each waste stream to the facility identified in the operational WMP.	C.5 C.6			
		Provide invoices or documentary evidence of facility receipt and acceptance	C.12 D2			
		Record actual weights/ bins collected by stream	C.4			
	Contamination	Ensure tenants' waste and recycling is correctly segregated within tenancy and placed in the dedicated bins provided.	C.2 C.3 C.5			
		Provide rapid feedback of non-compliance to tenants and building management	E.5			
		Report any non-compliance to on-site supervisor via contamination report.	E.5			
		Ensure a contamination report is completed for any load rejected from a facility and diverted to landfill	C.8			
	Safety	Ensure any incident or injury is reported and photographed.	C.9			

D.2 Key performance indicators (KPIs)

The Contractor/Cleaner must, during the Term, meet the KPIs set out in the following table below in respect of all Sites at all times. Ahead of review meetings, the Contractor/Cleaner may be asked to self-rate themselves according to these KPIs to inform the review meeting.

TABLE D.2: KEY PERFORMANCE INDICATORS

KPI #	KPI Type	KPI	Consequence of non-compliance
1.	**Invoicing**	The Contractor/Cleaner must submit invoices to the Manager within 30 days of the end of the period in which the Services were performed and to which the invoice relates.	
2.	**Site requirements and performance criteria**	In respect of each Site, the Contractor must meet all site requirements and performance criteria which are set out in the Scope of Works, any Work Order, or any other document under which the Manager orders Services to be performed by the Contractor under this Agreement. This includes all pick-ups that the Contractor is required to perform at each Site.	
3.	**Reporting**	The Contractor/Cleaner must provide reports under this Agreement within 30 days of the end of the reporting period to which the report relates. Data must be provided in a format and consistent with the requirements of the NABERS Waste platform.	
4.	**Data integrity reporting standard**	The Contractor must provide sufficient documentation to support a *Platinum/Gold/Silver/Bronze* reporting standard as detailed in **Part E**.	
5.	**Account management**	The **Contractor/Cleaner** must appoint an "Account Manager" to oversee the performance of this Agreement. The Account Manager must, at a minimum, fulfil the roles and responsibilities of the Response to the Request For Submission. The Account Manager must have expertise in compliance management, customer service management, operational management and environmental management.	
6.	**Target: diversion rate**	The contractor will work cooperatively with the property manager and the integrated services manager to achieve the desired diversion rate. The contractor's focus will be on the identification of recycling opportunities such as: Leakage within the general waste, the addition of "new" recycling opportunities, attendance to monthly waste meetings, and the continual management of system efficiency. "Diversion Rate" means, in respect of each category of Site, the weight of waste collected by the Contractor across all the Sites in that category under this Agreement that is diverted away from disposal in landfill. This rate must be expressed as a percentage of the total weight of waste disposed of by the Contractor across all the Sites in that category under this Agreement.	
7.	**Target: total waste**	5% reduction in total waste – all streams	
8.	**Target: waste recovery rate**	40% of waste recovered for Grade A-B use from any facility/ total waste generated	
9.	**Target: mixed recycling**	10% increase in recycling measured at loading dock on previous period	

KPI #	KPI Type	KPI	Consequence of non-compliance
10.	**Target: contamination (facility)**	<5 incidents of contamination resulting in load rejection at facility per month	
11.	**Target: contamination (on-site)**	<100 incidents resulting in load rejection at loading dock per month	
12.	**Target: Other**	TBC	
13.	**Outcomes management: service level**	Complies with (90%) of waste management systems and processes – (signage, audits, communications etc)	
14.	**Outcomes management: performance improvement**	(85%) attendance at waste management meetings	
15.	**Outcomes management: processes for improvement**	[<5] complaints from tenants about waste management systems and recycling [targets/rates]	
16.	**Outcomes management: processes for improvement**	The [Contractor/Cleaner] provides response to Manager requests within [48) hours	
17.	**Outcomes management: processes for improvement**	Contribute [>4] recommendations for waste management improvement [annually/quarterly]	
18.	**Third party Endorsement**	Progress towards/(achieves) GECA Certification in XX sites.	

D.3 KPI Performance Review

As set out in the contract, the KPIs must be met by the Contractor and/or Cleaner and the owner may conduct reviews of this performance. The review may include an assessment of the performance of all or any of the services or its obligations under the agreement and will be graded according to the contract.

Where the Contractor and/or Cleaner does not meet the acceptable or higher level of service expected across the KPIs reviewed, they should provide guidance and support on the corrective action required to raise the quality of service to an acceptable level. The Owner may provide a further review any time before the next scheduled review according to the contract.

D.4 Waste pricing

It is important for all parties to have certainty in costs. To enable this, the expectation regarding the level of service should be nominated at the earliest possible point in the tender process. Additionally, the Contractor should include cost options based upon differing levels of service.

The fees and other charges are as indicated in the tables below. These rates are fixed, but can be subject to adjustment as part of periodic contract reviews or legislative change. All fees associated with the provision of the services as outlined in this document are to be detailed in the tables below.

TABLE D.4.1: RATES

Waste stream	Unit	Collection frequency (per week)	Rental $/month	Total no of bins cleared/ month	Clearance fees $/bin/ collection	Disposal/ Rebate $/tonne/ bin	Waste levy $/tonne	Other $/tonne
Choose	*tonne*							
Choose	*bin*							
Choose								
Choose								

D.4.2 Changes in fees over time

The Contractor is to detail in the following table the percentage of the fee that will increase in Years 2 and 3 as a result of the landfill levy increase, and the percentage of the levy increase that will be passed on.

Fees quoted below are fully inclusive of all fees and tariffs and exclude GST.

Waste stream	Unit	Disposal rate in Year 1 (see above)	% of fee subject to landfill increases (Year 2 and Year 3)	% of landfill levy to be passed through
Choose	1 tonne	$200	30%	100%
Choose				
Choose				

D.4.3 Consumables and other fees

The Contractor is to detail in the table below any additional fees associated with their service provision. Items detailed in the table must be addressed.

Where the item is not applicable to the Contractor offer, "NA" should be shown in the Fee column. Items in the table may be optional, such as education and waste profiling.

The fees will include all ancillary expenses associated with the Service proposed, for example twine required for use in baling systems. The fees should also include maintenance for all equipment specified.

TABLE D.4.3: CONSUMABLES AND OTHER FEES

Description of item/service	Fee	Basis of fee	Comment
Baler twine			
Education/Training			Optional
Compliance audits			
Contamination Weigh off (loading dock)			Optional
Visual contamination inspection (on-floor)			
On-floor rapid feedback mechanism			
Clear coloured bags			

part e: waste data integrity rating protocol

When reporting on waste outcomes and recovery, it is important to understand the quality of the data. This rating protocol has been developed to provide organisations with the ability to:

- enable transparency to provide credibility and confidence in waste data
- improve the overall level of accuracy of waste data
- enable meaningful and accurate comparisons and benchmarking to be conducted within portfolios and across the property sector
- achieve greater resource recovery by more accurately measuring current performance.

Organisations should use this protocol in waste/cleaning contracts when specifying waste reporting requirements.

This protocol is designed for site-level reporting and is for use by Building Owners/Managers. If targeting a portfolio-level rating, a limited assurance approach to auditing is acceptable, with disclosure.

The rating system described below is an evaluation of the **quality** and **integrity** of the waste data it is not a rating of actual performance. NABERS Waste is a tool used to rate the actual performance of a building.

The NABERS waste rating is based on an underlying basis of high quality, valid data to determine the diversion rates and hence star ratings.

E.1 Rating

The most accurate data is obtained where a site's waste and recycling streams are weighed at the time of collection and where contamination in recycling streams is accounted for.

The summary rating table below outlines the ratings and the evidence required.

TABLE E.1: RATING

Rating	Evidence requirements
Platinum	Actual weights (AW) Two sources of data Independent audit Site contamination adjustment Adjustment to reflect grading of recycling pathway
Gold	Actual weights (AW) Two sources of data Independent audit Site contamination adjustment
Silver	Site densities (SD) Two sources of data Independent audit Site contamination adjustment
Bronze	Site density (SD) One source of data Measurement and verification Facility contamination adjustment
Nominal	Industry/national density (ID) Contractor unverified data No contamination adjustment

E.2 Evidence criteria

All streams reported on-site and representing more than 2 per cent of the total materials generated on-site from daily tenant activity must be included in the rating process, regardless of how the stream is managed. Grease trap waste is excluded, as this stream often comprises a limited amount of recoverable material.

For example, a confidential document streams managed by tenants, where this stream may equal or exceed 2 per cent of the total waste generated on-site, must be included.

To comply with a Platinum, Gold or Silver rating, a minimum 95 % of the total waste generated by the site (e.g. waste and recycling streams including tenant managed waste streams such as secure paper)must be compliant with the criteria.

Please Note: Ratings of bronze and below should not be publicly reported.

TABLE E.2: EVIDENCE CRITERIA

Criteria	Details
Actual weights (AW)	May be gained from any of the following: ■ the Contractor's on-vehicle scales ■ use of weighbridge – acceptable for compactors/skips only ■ on-site scales used to weigh bins prior to collection. All weighing devices used must be supported by evidence of calibration tests to NMI standards at least every six months. Some waste contractors with on-vehicle scales are calibrated daily. Evidence of this process is acceptable.
Sources of data	Data sources must be independent of each other. Sources may include: ■ Waste contractor invoice ■ Cleaner bin tally ■ Report from on-site scales showing individual bin weights ■ Automated bin readers ■ Weighbridge docket ■ CCTV video For example, a site may have bins weighed on-site by their waste contractor at time of collection. To support this, a cleaner tally of bin numbers would also be required.
Independent audit	The audit must be conducted by someone independent of the "sources of data". This will typically be parties independent of the waste and cleaning Contractor. The audit must comply with the audit guidelines provided in **Part E.5**. A NABERS Waste audit satisfies this criteria.
Measurement and verification	Management and verification processes require collecting data and confirming the credibility of data by a competent person.
Contamination adjustment	Refers to recycling streams only. Site contamination is obtained following an independent compositional audit to determine non-acceptable items, as per the processing facility criteria.

Bin densities for the following wastes vary substantially, as such the BBP has determined that a density calculation method is outside an allowable error for a rating. If the following wastes are included in the waste reported for the site then actual weights are required:

- E-waste
- Printer cartridges
- Lighting (lamps)
- Batteries
- Green waste

E.3 Contamination audit

To determine the contamination rate, a contamination audit of each recycling stream per site is required annually. This audit must be overseen by an independent and competent person. Where the site is also seeking NABERS Waste certification, this audit must be supervised by a NABERS accredited auditor.

Where a site has already undertaken a NABERS Waste Audit, or GECA Waste Audit the contamination results from these audits may be used noting the following:

- Where a NABERS Waste audit was conducted, the audit may not have included ALL recycling streams on site as such additional contamination audits may be required of tenant managed recycling streams to comply with the BBP data integrity rating
- Where a GECA audit was conducted, again not all recycling streams may have been included. In addition the GECA audit must have been conducted at the site in question to allow the findings to be used.

Contamination Audit process:

Some waste streams are not required to be audited because the contamination rates for that waste are very low. Streams NOT requiring contamination rate audits are:

- Landfill stream
- Secure Paper/Confidential documents
- Cooking Oil
- Batteries
- Green waste
- Light globes/tubes
- E-waste
- Printer cartridges

For all other recycling streams, regardless of management (e.g. tenant vs. building management) the following process, (as defined within the NABERS Waste protocol), is to be followed:

- The audit must be conducted on a normal operating day so that the sample is reflective of normal operating conditions. A normal operating day is one where greater than 75% of full-time equivalent staff are present.
- For one full day's generation, the contents of the sample are to be audited to determine the level of "non-acceptable" itemsThe sample will consist of all bins normally presented for collection, If a single waste stream has more than 25 bins, then apply the Slovin's Formula to determine the total number of bins to be audited. The Slovin's Formula is:

n = N/1+ne2 where n is the sample size, N is the population size and e is the margin of error (or a sample size that results in a 90% confidence level)

- Bins are audited as normally presented for collection – this means that a building can perform any operations it normally conducts to sort or consolidate its waste
- Non-acceptable items must be as advised by the receiving facility.

Contamination audits should not occur during the following periods:

- Two weeks before or after the end of the financial year
- Public holidays and public school holidays relevant to the location of the building
- During January
- In the last two weeks of December
- Any other unusual operating day.

The contamination rate is determined as follows:

- The total weight of "non-acceptable" items is expressed as a percentage of the total weight of the contents of all bins in the sample per stream.

For example, if 24 kg of contamination is found in the mixed recycling stream, and the total weight of the contents of all mixed bins presented for the audit period (including the contaminated material) is 300 kg, then the contamination rate is 24/300, or 8 per cent.

If a bin has a contamination rate above the rate allowed by the waste facility then the assessor must record the contamination weight for that bin as if the entire bin is sent to landfill.

Where a change in recycling facility is made (other than on an interim basis), and where the new facility's acceptance criteria differs from the original facility, a new contamination audit must be completed within two months of the change of facilities.

Note: A contamination audit profiles contaminants only, as compared to a full waste audit which profiles the recycling.

Refer to NABERS Waste for the key stages in undertaking a Contamination audit.

E.4 Independent audit

An independent audit must be undertaken to verify the authenticity of the data sources. This audit may be conducted by building management/owners, providing a senior manager reviews and accepts the audit findings.

- The audit must establish that the data presented reflects actual practiceInterested parties must not be advised of the audit date. This would include at a minimum cleaners and waste contractors.

Where a NABERS Waste audit has been undertaken, in compliance with the NABERS protocol, or a GECA audit undertaken as part of GECA Certification, then such audits meets this requirement.

Where a NABERS audit has not been undertaken and is not planned, the following Audit verification processes should be followed:

1. **Verification of bin weights:** The Auditor is to observe the normal on-site weighing procedure. Using calibrated scales, the Auditor is to separately weigh a sample of bins and compare results with those obtained from the normal process. Where the bins are weighed by the waste vehicle as collected, bins will need to be weighed by the Auditor prior to collection. It is important that the bins are weighed as presented and collected. Where the total audit bin weights on average vary by greater than 20 per cent, a "non-compliance" rating is to be noted. The auditor should investigate any reasons for this variation to determine if it is based on activities at the site and hence a change in the nature of the waste stream, or if it is attributed to errors in weighing and reporting.
2. **Verification of total quantities:** based on the previous twelve months average collections, the Auditor is to compare these averages to the audit day for each stream. Where the quantities presented on the audit day vary by greater than 20 per cent of the average, a "non-compliance" rating is to be noted.
3. **Verification of contamination rate:** a visual inspection of, as a minimum, 20 per cent of bins from each recycling stream is to be undertaken and the visual contamination rate noted. The Auditor must be able to determine this rate based on weight. The Auditor must independently obtain from the processing facility their acceptance criteria. Where the contamination rate observed varies by more than 10 per cent, a "non-compliance" rating is to be noted.
4. **Verification of processing facilities:** verification that the material is taken to the nominated facility is required for all streams representing greater than 5 per cent of the total waste and recycling stream. This evidence may include security footage showing registration and times of each stream as it is collected. This data to be matched to tipping dockets from the processing facility. Where a significant time lag exists between collection and tipping, where the streams are not collected separately, or where the streams are not transported to the approved facility, a "non-compliance" rating is to be noted.

   Where "non-compliance" ratings are noted, the Site has one month to address non-compliance. A follow-up audit is required using the process above. Failure to address non-compliance or undertake successful follow-up audits will result in a "nominal" rating.

E.5 Quick reference – waste data integrity rating

Rating	Evidence requirements	Criteria	Comments
Platinum	Actual weights (AW)	95% of all waste generated by the site is weighed on site by cleaners using calibrated scales or waste trucks with weighing capabilities.	
	Two sources of data	Data sources must be independent of each other. Sources may include: Waste Contractor Invoice, Cleaner Bin Tally, Automated bin readers, Weighbridge dockets	
	Independent audit	The audit must comply with the audit guidelines provided in Part E.5.	
	Site contamination adjustment	Site contamination is obtained following an independent compositional audit to determine non-acceptable items, as per the processing facility criteria.	
	Outcomes based Adjustment	Adjustment to reflect grading of recycling pathway reflecting highest resource recovery options	
Gold	Actual weights (AW)	95% of all waste generated by the site is weighed on site by cleaners using calibrated scales or waste trucks with weighing capabilities.	
	Two sources of data	Data sources must be independent of each other. Sources may include: Waste Contractor Invoice, Cleaner Bin Tally, Automated bin readers, Weighbridge dockets	
	Independent audit	The audit must comply with the audit guidelines provided in Part E.5.	
	Site contamination adjustment	Site contamination is obtained following an independent compositional audit to determine non-acceptable items, as per the processing facility criteria.	
Silver	Site densities (SD)	Waste streams are weighed once a quarter. The average weight of each stream is applied to the bin count each night to achieve a weight.	
	Two sources of data	Data sources must be independent of each other. Sources may include: Waste Contractor Invoice, Cleaner Bin Tally, Automated bin readers, Weighbridge dockets	
	Independent audit	The audit must comply with the audit guidelines provided in Part E.5.	
	Site contamination adjustment	Site contamination is obtained following an independent compositional audit to determine non-acceptable items, as per the processing facility criteria.	
Bronze	Site density (SD)	Waste streams are weighed twice a year. The average weight of each stream is applied to the bin count each night to achieve a weight.	
	One source of data	One source of data which may include: Waste Contractor Invoice, Cleaner Bin Tally, Automated bin readers, Weighbridge dockets	
	Measurement and verification	Management and verification processes require collecting data and confirming the credibility of data by a competent person.	
	Facility contamination adjustment	The percentage output of the recycling facility is applied to the overall recycling performance.	
Nominal	Industry/national density (ID)	Average industry weights are applied to a bin count for weight conversions.	
	Contractor unverified data	No verification process to access credibility of data.	
	Facility contamination adjustment	The percentage output of the recycling facility is applied to the overall recycling performance.	

A minimum 95 per cent of the total waste generated by the site (eg. waste and recycling streams) must be compliant with the criteria.

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