

The Rules

Waste for Offices

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Cover photo: A person sorting a disposable coffee cup and lid into a three-bin office waste system.

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1 Introduction

1.1 General

The National Australian Built Environment Rating System (NABERS) is a performance-based rating system managed by the **National Administrator**.

A NABERS Waste Rating is an independent benchmark of a building's waste management performance expressed on a star rating scale. It assesses the environmental impact of **operational waste** materials leaving a building by rating the elements that an organisation has control over. This includes how well a building separates and diverts waste generated in the building into streams that can be re-used and recycled, and whether those materials are likely to go to a facility that will recover the materials.

NABERS rating	Performance comparison
6 stars ★★★★★★	Market leading waste management
5 stars ★★★★★	Excellent waste management
3 stars ★★★	Market average waste management

An accredited NABERS waste rating is awarded when the **National Administrator** certifies a rating completed by an **Assessor**. The **National Administrator** may independently audit the rating and assist in resolving complex technical issues.

This document contains **Rules** for **Assessors** on the topic of waste measurements for office buildings. It is intended that this document be read alongside *NABERS The Rules – Waste*.

For the purpose of a NABERS rating, “offices” are understood as being commercial buildings whose primary use is for administrative, clerical, professional and similar information-based activities.

1.2 Interpretation of Rules and Rulings

These **Rules** are to be read in conjunction with the respective NABERS **Rules** or **Ruling** as they apply to the specific building type. **Rulings** are used to address specific issues that may arise after the publication of the **Rules**.

Note: **Rules** texts are amended as required by additional **Rulings** which are published on the NABERS website at www.nabers.gov.au.

Where a conflict between these **Rules** and existing **Rulings** is present, the requirements of the **Rulings** take precedence over the **Rules**.

1.3 Situations not covered in the Rules

Assessors must comply with these **Rules** unless prior approval has been sought and approved by the **National Administrator**.

Where appropriate, **Assessors** may contact the **National Administrator** to propose an alternative methodology, outlining the circumstances and rationale. Prior approval for use is required and may be granted conditionally, on a case-by-case basis and at the **National Administrator's** discretion.


Procedures not contained within these **Rules** may only be used for a particular rating with prior written approval from the **National Administrator**. Approval to use the same procedure must be sought from the **National Administrator** each time it is proposed to be used. Approval is entirely at the discretion of the **National Administrator**.

1.4 How to use this document

The term "**Rules**" refers to a body of work produced by NABERS that specifies what must be examined, tested and documented when an **Assessor** conducts a rating. Wherever the term is used in this document from Chapter 3 onwards, it refers to this document, *NABERS The Rules — Waste for Offices*. Other **Rules** documents mentioned in the text are distinguished from the present document by the inclusion of their title.

Text appearing **dark green** and **bold** is a defined term. Defined terms can be found in Chapter 2 of these **Rules** or in the terms and definitions chapter of the respective **Rules** document.

The following formatting conventions may appear in this text:

 Important requirements and/or instructions are highlighted by an information callout box.

Note: Text appearing with a grey background is explanatory text only and is not to be read as part of the **Rules**.

Example: Text appearing with a green background is intended to demonstrate a worked example of the respective **Rules** section or **Ruling** section.

 This is a documentation requirement callout box.

1.5 Related documents

The following documents, available from the NABERS website, provide further guidance on the **Rules** and **Assessor** responsibilities and should be considered when assessing a building for a NABERS rating:

- a) NABERS Waste calculation spreadsheet (available from the National Administrator).
- b) Waste data upload spreadsheet for the NABERS Waste Manager platform.
- c) For guidance on how to use the platform, refer to our user support documents.

The following documents have been referenced within these **Rules**:

NABERS The Rules — Waste, v2.0, 2023

All documents are available on the NABERS website.

2 Terms and definitions

This chapter lists the key terms and their definitions that are integral to the proper use of this document.

Term	Definition
base building	Elements that are within the control of the building owner, for the benefit of all tenants. For the purposes of the Waste Rating or Verification the concept of “base building” means only those waste streams that are managed by the building owner or management company and where bins for that waste stream are provided to most tenants in the building can be included in the rating.
bin service	The combination of waste stream , equipment type, equipment size and allocated dock, of any number of bins. Example: <ul style="list-style-type: none"> - Eight 240L [size] general waste [waste stream] bins [equipment type] collected from a site is one bin service, - Two 660L general waste bins collected from the same site is a different bin service.
chain of custody	The chronological documentation (or “paper trail”) that records the sequence of custody, control, transfer and disposition of materials. In the context of the MRS , this must extend to a reprocessing facility .
circular recycling	Recovery process aimed at keeping products and materials in use without degrading their quality or downcycling them into lower valued products, thereby retaining the added value in products and avoiding waste generation. Example: A product stewardship program whereby items are disassembled into their constituent materials and remanufactured to fulfil the same purpose as the original items.
contamination	Any material found in recycling streams that is not where it should be.
contamination audit	An audit of one collection of materials generated on-site for a bin service that is not going to landfill.
contamination rate	The ratio of the weight of contaminants in a waste stream to total weight of that waste stream .

2 Terms and definitions

Term	Definition
core waste stream	A waste stream that must be included in the recycling rate calculation if it is collected from the building.
density audit	An audit of one collection of materials generated on-site for a bin service without actual weight data.
disposal	The end-of-life management of discarded materials in a landfill or through a chemical or thermal transformation that makes them unavailable for further use. In the context of the MRS , this also includes operations which have as a secondary consequence the recovery of energy.
Material Recovery Value	A value between zero and six that is evaluated for each bin service based on the criteria of material stream separation, recovery outcome quality and pollution potential.
NABERS Waste Assessor	An accredited person (“the Assessor”) authorised by the National Administrator to conduct NABERS Waste ratings in accordance with these Rules and NABERS procedures.
NABERS Waste Platform	The online digital service provided by NABERS for the purpose of tracking customers’ waste data. Used by facilities managers to validate building performance over time and by Assessors in the calculation of accredited ratings and verifications.
NABERS Waste Rating	An independent benchmark, according to the system overseen by the by the National Administrator , of a building’s recycling rate as determined by the weight of all materials managed by the building owners (or their representatives) that leave the site .
NABERS Waste Verification	Identical to a NABERS Waste Rating , with the exception that no star outcome is awarded due to the absence of an available NABERS benchmark for the relevant building type.
National Administrator	<p>The body responsible for administering NABERS, in particular the following areas:</p> <ol style="list-style-type: none"> Establishing and maintaining the standards and procedures to be followed in all aspects of the operation of the system. Determining issues that arise during the operation of the system and the making of ratings. Accrediting Assessors and awarding accredited ratings in accordance with NABERS standards and procedures. <p>The functions of the National Administrator are undertaken by the NSW Government.</p>
Net Lettable Area (NLA)	The floor area, determined in accordance with the measurement standard for rated area, of spaces that can be used as offices within the rated premises.

2 Terms and definitions

Term	Definition
operational control	Where the building owner or manager is ultimately responsible for managing a given waste stream through their contracts and on-site management practices. Where the owner or manager has a direct or indirect contract with a company to manage a waste stream , they have influence over whether items are likely to be diverted from disposal or go to the best possible re-use. They do not have control over: <ul style="list-style-type: none"> a) The commodities market. b) Regulation of the waste industry. c) Where facilities are located. d) Whether a facility has capacity to accept their waste on a given day.
operational waste	Waste generated on-site during the normal operations of a building.
rating period	The 12-month base period for the rating, requiring at least 12 continuous months of acceptable data upon which the rating is based.
recovery	Any end-of-life management process wherein materials that have become waste are prepared to fulfill a purpose in place of new materials that would otherwise have been used for that purpose. In the context of recycling rates , this includes waste-to-energy.
recycling	Reprocessing of products or components of products that have become waste, to make new materials.
recycling rate	The ratio of Total Recovered Materials to Total Materials Generated expressed as a percentage.
reprocessing facility	A facility where sorted materials that have become waste are processed in preparation for reuse. The facility can receive its sorted wastes from material recovery facilities and transfer stations, or directly from the producer. <p>Note: Chain-of-custody evidence that material has been received by the reprocessing facility is required to achieve a material recovery value of six.</p>
Rules	Authoritative document produced by the National Administrator that specifies what must be covered by an Assessor in order to produce a rating.
Ruling(s)	An authoritative decision by the National Administrator which acts as an addition or amendment to the Rules .

2 Terms and definitions

Term	Definition
statement of collection destination	<p>A statement from the waste collector specifying the facilities to which 70 % or more of the collections from the building were initially transported, by waste stream.</p> <p>Note: A statement of collection destination from the waste collector is the minimum required evidence to achieve a material recovery value for a given waste stream.</p>
site	The legal boundary of a building that meets the requirements for a specific rating type.
total materials generated	The mass in kilograms, of the contents of every bin, compactor or other waste vessel on site, measured at the point of collection prior to removal from the building.
total recovered materials	The mass in kilograms, of the contents of every bin, compactor or other waste vessel on site except those which have landfill as a primary disposal outcome, measured at the point of collection prior to removal from the building. This figure is adjusted through a contamination rate.
waste	Defined according to the legislation at the site , but otherwise anything that the holder discards, intends to discard, or is required to discard.
waste aggregator	<p>The operator of a facility used as a collection destination, to which items are delivered for sorting and/or accumulation into separated quantities sufficient for efficient transportation to a reprocessing facility.</p> <p>Note: A waste aggregator statement, being from the operator of a facility where items are sorted and/or accumulated is required to achieve a material recovery value of four.</p>
waste aggregator statement	A statement from a waste aggregator , describing the expected outcome of each material stream after being sorted.
waste collector	The party responsible for removal of waste items from the building and transporting them from the point of collection to the collection destination.
waste hierarchy	A set of priorities for the efficient use of resources, aimed at retaining their maximum value. The hierarchy is ordered by most preferable: avoid and reduce; reuse; recycle; recover energy; treat; dispose of waste.
waste stream	In the context of waste sorting, this refers to a collection of items or materials that have been gathered together as a category, to facilitate efficient transport towards a common destination facility or material outcome.

2 Terms and definitions

Term	Definition
whole building	A rating that assesses the entire operations and impact of the building, including the impact of tenants. For the purposes of the Waste Rating or Verification, the concept of whole building means any waste stream in the building can be included in the rating if it meets the measurement criteria.

3 Key concepts and procedures

3.1 Information required for an office building waste rating

In addition to the information required in *NABERS The Rules – Waste*, the following information is required, as a minimum, for an Office Building Waste Rating:

- a) The building's total net lettable area (NLA).
- b) The number, size and type of bin for each **waste stream** service presented for collection.

3.2 Roles and responsibilities

Refer to *NABERS The Rules – Waste* for information on roles and responsibilities. There are no additional roles or responsibilities for Office Building Waste Ratings.

4 Office waste rating types and buildings

4.1 Currently available rating types

NABERS ratings are founded on industry-wide benchmarks, so that similar buildings can be fairly compared. The Office Building Waste Rating benchmarking process produced the results in Table 4.1.

The following rating scopes are available under these **Rules**:

Table 4.1: Currently available rating scopes

Rating scope	Benchmark based on	Benchmark bands
Office buildings (base building)	Verified waste score of building managed waste streams only (see Section 5.1.2)	6 stars > 74% 5.5 stars > 67% 5 stars > 60% 4.5 stars > 53% 4 stars > 46% 3.5 stars > 39% 3 stars > 32% 2.5 stars > 25% 2 stars > 18% 1.5 stars > 11% 1 star > 4% 0 stars > 0 - 4%
Office buildings (whole building)	Verified waste score of any waste stream from the building that can be reliably measured (see section 5.1.3)	6 stars > 84% 5.5 stars > 76% 5 stars > 68% 4.5 stars > 60% 4 stars > 52% 3.5 stars > 44% 3 stars > 36% 2.5 stars > 28% 2 stars > 20% 1.5 stars > 12%

4 Office waste rating types and buildings

		1 star > 4%
		0 stars > 0 - 4%

4.2 Managing non-office waste

Where possible, non-office spaces should be excluded from an Office Building Waste Rating. If this is not possible, small areas of non-office space can be included in the boundary of the building, for example, lobby café. The rating also covers any spaces on the property provided for sole use of office building occupants (e.g. a restricted courtyard attached to an office tower).

In the case of buildings with a significant proportion of non-office space, **Assessors** should contact the **National Administrator**.

4.3 Precincts of office buildings

NABERS prefers to rate single buildings to ensure the rating reflects the operational efficiency of individual buildings. This may not, however, always be possible due to the waste dock design. For precincts, the following should be applied, in order of feasibility:

- a) Each building is rated separately.
- b) The minimum possible number of combined buildings are rated as a single entity.
- c) The entire precinct is rated as a single entity.

Example: A precinct with six office buildings may have two discrete waste docks. In this scenario, bins from buildings A, B and E might use the first dock and would get a combined rating, whilst buildings C, D and F that use the second dock would get a different combined rating. Buildings of the same type should be preferentially combined before creating mixed-use ratings.

For situations b) and c), the **Assessor** must record why the preferred option is not possible, and what steps the precinct is taking to trial individual building allocation in the future, for example, tagging bins that are removed from specific buildings.

The order of priority in Section 4.2 applies to buildings in a precinct.

This concept only applies to the Office Building Waste Rating. For other ratings, if you encounter a scenario which requires multiple buildings to be included in a single rating, contact the **National Administrator** for approval.

5 Waste streams

5.1 Waste types by rating scope

5.1.1 General

The NABERS Office Building Waste Rating rates buildings in two categories:

- a) **Whole building** – All **waste streams** leaving the building that can be reliably measured.
- b) **Base building** – Only those **waste streams** that are managed by the building owner or manager.

The reliability of the data and contract arrangements determine whether a waste stream is in scope for a particular rating type.

5.1.2 Managed waste streams

A **waste stream** that is managed by the building owner or manager is one where they have a direct or indirect contract with a company to manage that **waste stream**. Any **waste stream** deemed to be general waste must be included to ensure a fair **Rating**.

5.1.3 Reliably measured waste streams

Waste streams that are not managed under a direct or indirect contract with the building owner or manager can be included in a **whole building Rating** where the stream is reliably measured. Examples of such streams often include secure paper, printer cartridges and so forth. This means the assessor is confident the data is as reasonable as other data provided for building managed **waste streams**.

5.2 Optional items

The Waste Manager platform allows for the measurement of 51 **waste streams**. Any of these streams can be included in an Office Building Waste Rating. If the building is configured to have bins for these waste types and data is uploaded to the platform and is not excluded under Section 5.3 of these **Rules**, it will form part of the rating calculation. The inclusion of these items will improve the **recycling rate**, so the inclusion of these items is encouraged. Refer to *NABERS The Rules – Waste* for more information on **waste streams**.

Additional **operational waste** types may be added. To request a new waste type, contact the **National Administrator**. There is a significant lead time on reviewing requests and adding a new waste type.

5 Waste streams

5.3 Waste streams excluded from an office building waste rating

The purpose of the rating is to fairly compare **operational waste** from building to building. To meet this objective the following **waste streams** are excluded:

- a) Waste that is not part of the day-to-day operation of the building, including construction and fit-out waste, or any items brought onto site as part of employee engagement philanthropic campaigns (e.g. food drives or clothing collections).
- b) Waste generated from non-office space, such as retail tenancies within the building. If non-office waste cannot be separated due to building operation, then see Section 4.2.
- c) Any waste type listed as clinical or hazardous on the waste platform.
- d) Grease trap waste

6 Calculating the rating

6.1 General

The fundamental calculation for Office Building Waste Ratings is the **recycling rate**:

$$\text{Recycling rate (\%)} = \frac{\text{Total Recovered Materials (kg)}}{\text{Total Materials Generated (kg)}}$$

Total Materials Generated is the mass, in kilograms, of the contents of every bin, compactor or other waste vessel that leaves the site.

Total Recovered Materials is the sum, in kilograms, of the contents of every bin, compactor or other waste vessel that leaves the site, except any bin, compactor or other waste vessel which contains waste sent directly to landfill. This figure is adjusted through a **contamination rate** (refer to *NABERS The Rules - Waste*).

Other factors included in the rating are the data quality score (required for Office Building Waste Ratings) and the material recovery score (voluntary for Office Building Waste Ratings). Refer to *NABERS The Rules – Waste* for information on how these are calculated.

6.2 Floor-by-floor or tenant waste weighing process

In a property where the waste is weighed by floor or by tenant, the weights for each stream may be aggregated and then uploaded to the NABERS Waste Platform. The bin count will be the number of bins the waste contractor collects. For this **density audit** the total waste of a single day's aggregated waste can be applied across the number of bins being serviced for that day.

The process for the **contamination audit** and composition audit is outlined in *NABERS The Rules - Waste*. The **Assessor** is to carry out the audit at point of pick-up once the cleaners have put the waste in the bins. The **Assessor** will still need to confirm two sources of bin count for the data verification.

7 Waste audit methods

7.1 Waste streams by audit type

Some **waste streams** are excluded from a particular type of audit, usually because the **contamination rates** for that waste are very low, or the rating requires a weight to be entered on the platform.

Refer to *NABERS The Rules – Waste* for more information on **waste streams** by audit type.

7.2 Exclusion periods

The **Assessor** must confirm that the day of auditing will be a normal operational day for that property. A normal operational day is a day where the occupancy is representative of the average occupancy of the rating period. Confirmation from the operators or managers of the property is required to fulfill this requirement.

The following periods are unacceptable for conducting any type of waste audit:

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

Note: The audit exclusion periods do not impact the 120 days, for example if the **Assessor** were to carry out the audit in February, the January exclusion period does not get added to the 120 days.

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