



## **National waste data framework - Standard reporting indicators for territorial authorities**

### **Background:**

In 2015, WasteMINZ, in consultation with industry and with support from central, regional, and local government, completed the first stage of the National Waste Data Framework project (the Framework). The first stage established the data needs of key stakeholders and developed draft definitions, protocols, and roles for gathering the most important types of data identified by stakeholders. When this was completed, consultation on the draft outputs was undertaken, the protocols, roles, and definitions were finalised, and an implementation plan was developed.

In the absence of central government involvement, the Framework identified territorial authorities (TAs) as being the primary agent for collating and analysing waste data and presenting it into the public domain. As a result, the protocols developed for the Framework are intended primarily for use by TAs, with a particular focus on data required for the preparation of waste assessments under section 51 of the Waste Minimisation Act 2008.

One of the initial actions identified in the Framework implementation plan was for WasteMINZ to form a Waste Data Working Group. The first meeting of the Group was held on 16 May 2016. One of the action points of the meeting was to "Identify potential standard reporting indicators".

The identification of standard reporting indicators had been included in the Framework implementation plan as a potential work element that could be undertaken by the Waste Data Working Group. The implementation plan provides the following rationale for standard reporting indicators:

*The Framework establishes how to gather consistent data, but it does not provide any direction for its use. Consistent data will enable benchmarking and data sharing. This action would seek to establish initial measures that TAs could seek to use for benchmarking such as kg/pp/pa kerbside recycling or kg/pp/pa waste to landfill etc. Key to the work would be ensuring that the measures are clear and can be calculated in a consistent fashion.*

This document presents a set of reporting indicators that are recommended for use in conjunction with the Framework protocols. Given the central role of TAs in implementing the Framework, the reporting indicators cover the waste streams and services that are of greatest significance to TAs' involvement in waste management.

While the ability of TAs to gather the data needed for the indicators has been taken into consideration, the ability of all TAs to readily gather the necessary data has not been used as a basis for selecting the indicators. The level of involvement of TAs in waste infrastructure and services varies considerably. Choosing only indicators that could be readily reported on by all TAs would have greatly restricted the range of potential indicators. Instead, indicators have been chosen for which most TAs should be able to gather the data readily but for which a few TAs will need to rely on the data-gathering protocols described in the NWDF. This may involve TAs

requesting waste operators to provide data on a voluntary basis or, alternatively, introducing solid waste bylaws that include the requirement that licensed waste operators provide data.

Another factor that has been taken into consideration is the ability of a non-specialist to understand an indicator. There is often a discrepancy between data that can be readily understood by the general public and data that is the most useful to decision-makers. In most cases, the more easily that data can be understood, the less useful it is to decision-makers. For most of the initial indicators that have been selected, the importance of the indicators being readily understood by the general public has taken precedence over the technical precision of the data.

### **Acknowledgements:**

Our thanks to Bruce Middleton of Waste Not Consulting for his role in developing these standard reporting indicators. We must also recognise Duncan Wilson of Eunomia Research & Consulting for acting as a reviewer.

### **About the indicators:**

Seven standard reporting indicators, covering three waste material streams, have been developed. These reporting indicators, in draft form, were circulated to TAs for comment and clarification prior to being released.

#### **1. Waste to Class 1 landfills**

##### **Indicator 1A - All waste to Class 1 landfills**

*The quantity of waste generated within a district that is disposed of at Class 1 landfill(s) and upon which the waste levy is paid, expressed in kilograms per capita per annum for the usually resident population of that district.*

##### **Indicator 1B - Waste to Class 1 landfills - excluding special wastes**

*The quantity of waste generated within a district, excluding special wastes, that is disposed of at Class 1 landfill(s) and upon which the waste levy is paid, expressed in kilograms per capita per annum for the usually resident population of that district.*

#### **2. Domestic waste**

##### **Indicator 2A - Domestic kerbside waste disposal rate**

*The quantity of domestic kerbside waste collected by the TA (or by a contractor on behalf of the council) or by private waste collectors (through kerbside or similar collections) from residential premises, expressed in kilograms per capita per annum for the usually resident population of that district that is served by such collections.*

##### **Indicator 2B - Domestic waste disposal rate**

*The quantity of domestic waste collected from residential premises by the TA (or a contractor on behalf of the council) or by private waste collectors (through kerbside or similar collections), or similar waste disposed of by other means by the householder, expressed in kilograms per capita per annum for the usually resident population of that district. Domestic waste that is disposed of on-site, such as by burning or burying, is not included in the quantity of waste collected.*

### **3. Domestic recycling**

#### **Indicator 3A - Domestic kerbside recycling recovery rate**

*The quantity of domestic kerbside recycling collected by the TA (or a contractor on behalf of the council) or by private service providers from residential premises, expressed in kilograms per capita per annum for the usually resident population of that district that has access to kerbside recycling collections. Material that is collected and subsequently disposed of to landfill is deducted from the total quantity collected before the recovery rate is calculated.*

#### **Indicator 3B - Domestic recycling recovery rate**

*The quantity of domestic recycling collected from residential premises by the TA (or a contractor on behalf of the council) or private service providers, or similar materials generated by domestic activity and collected by whatever means by a TA or privately, expressed in kilograms per capita per annum for the usually resident population of that district. Material that is collected and subsequently disposed of to landfill is deducted from the total quantity collected before the recovery rate is calculated.*

#### **Indicator 3C - Domestic kerbside recycling contamination rate**

*The quantity of domestic kerbside recycling collected from residential premises, by the TA (or a contractor on behalf of the council) or by private service providers, that is disposed of to landfill rather than becoming a diverted material. The indicator is calculated as being the quantity of landfilled material expressed as a percentage of the quantity of kerbside-collected material.*

The indicators are discussed in detail in the following sections.

# 1 Waste to Class 1 landfills

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## Indicator 1A - All waste to Class 1 landfills

The basic metric for TA waste data reporting is the tonnage of waste generated within the district that is disposed of at Class 1 landfills. This metric can be standardised to facilitate comparisons with other districts by expressing the tonnage on a per capita basis. While generally being too broad a metric for planning or decision-making purposes, this indicator is useful for educational and communication purposes as it is simple and readily understood by the general public with no further explanation required.

**Indicator 1A - All waste to Class 1 landfills** for a TA is defined as:

*The quantity of waste generated within a district that is disposed of at Class 1 landfill(s) and upon which the waste levy is paid, expressed in kilograms per capita per annum for the usually resident population of that district.*

While the metric has the advantage of being straightforward and comprehensible, it has limited value in terms of comparing waste disposal between local authorities and monitoring waste disposal over time. A more technical, and useful, version of this indicator is provided with Indicator 1B, which excludes special wastes from the calculations.

### **Details of indicator:**

1. The indicator is expressed in terms of kilograms of waste per capita per annum.
2. Only waste that originates from waste generators within the district is to be included in the indicator.
3. Only waste that is disposed of at a Class 1 landfill ('disposal facility' as defined by the WMA) is included. This includes Class 1 landfills both within and outside of the district.
4. Only waste upon which the waste levy is paid is included. 'Diverted materials' as defined by the WMA are excluded.
5. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. More accurate per capita data may be used, if available. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes or a high level of tourism activity, this should be stated in any commentary accompanying the indicator.

## Indicator 1B - Waste to Class 1 landfills - excluding special wastes

One of the reasons that Indicator 1A is of limited value for comparing and monitoring waste disposal is the variability of special wastes that are disposed of at Class 1 landfills. 'Special waste' is defined in the Framework as:

*Waste that fits into significant, identifiable waste streams, usually from a single generator. Special wastes are those that cause particular management and/or disposal problems and need special care. This includes, but is not restricted to, hazardous and medical wastes (including e-wastes). It also includes any substantial waste stream (such as biosolids, infrastructure fill or industrial waste) that significantly affects the overall composition of the waste stream, and may be markedly different from waste streams at other disposal facilities.*

'Special wastes' include materials such as wastewater treatment sludges, disaster waste, and contaminated soils. While there is a degree of subjectivity in determining whether a specific waste stream is a 'special waste', most landfills already have weighbridge classification systems that separately identify special wastes.

Special wastes can comprise a significant proportion of waste to landfill, but the quantities can vary significantly between districts and over time. Wastewater treatment sludges, for example, are regularly landfilled by some TAs but stored in lagoons and landfilled intermittently by other TAs. Similarly, the disposal of contaminated soils is often linked to specific infrastructure projects, and this can result in large quantities of material being landfilled over short timeframes. Disasters, such as floods and earthquakes, can generate large quantities of waste that is also landfilled over relatively short timeframes.

Excluding special wastes from landfill disposal figures permits more reliable comparisons between different districts and more accurate monitoring over time. With special wastes excluded, the underlying trends in waste disposal can be more accurately associated with other factors such as population growth and differing levels of economic activity.

**Indicator 1B - Waste to Class 1 landfills - excluding special wastes** for a TA is defined as:

*The quantity of waste generated within a district, excluding special wastes, that is disposed of at Class 1 landfill(s) and upon which the waste levy is paid, expressed in kilograms per capita per annum for the usually resident population of that district.*

Being more technical in nature than *Indicator 1A - All waste to Class 1 landfills*, this indicator is less likely to be easily understood by the general public.

#### **Details of indicator**

1. The indicator is expressed in terms of kilograms of waste per capita per annum.
2. Only waste that originates from waste generators within the district is to be included in the indicator.
3. Only waste that is disposed of at a Class 1 landfill ('disposal facility' as defined by the WMA) is included. This includes Class 1 landfills both within and outside of the TA's district.
4. Only waste upon which the waste levy is paid is included. 'Diverted materials' as defined by the WMA are excluded.
5. 'Special wastes' are those defined as such by the Framework. A degree of subjectivity is involved in classifying special wastes, and each TA will need to make those decisions with the objective of providing the data that is most useful for benchmarking, monitoring, and decision-making.
6. When reporting this indicator, the special wastes that have been excluded should be clearly identified.
7. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. More accurate per capita data may be used, if available. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes or a high level of tourism activity, this should be mentioned in any commentary accompanying the indicator.

## 2 Domestic waste

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### Indicator 2A - Domestic kerbside waste disposal rate

'Domestic kerbside' waste is defined in the Framework as:

*Domestic-type waste collected from residential premises by the local council (or by a contractor on behalf of the council), or by private waste collections (through kerbside or similar collection).*

Most TAs, but not all, provide for a kerbside collection of domestic waste from residential premises in their district. In many areas, private service providers offer competing services. Typically, both TAs and private waste operators use either plastic bags or wheeled bins for the collection of domestic waste.

A variety of kerbside waste and recycling collection systems for residential premises are used by TAs, and comparing the overall performance of the different types of systems is an important method for TAs to assess the effectiveness of their existing system at achieving their waste management and minimisation objectives.

There are a number of factors that make useful comparisons between TAs' kerbside waste disposal rates problematic.

- Some TAs offer a kerbside waste collection service to both residential and commercial premises; others exclude some or all commercial properties.
- Some TAs offer the collection service to all properties in their district; others only service urban and peri-urban properties.
- Private waste collectors provide services to some areas not serviced by TAs, but in some areas, a proportion of remote properties receive no kerbside services.
- In some districts, particularly in rural areas, a substantial proportion of households dispose of their domestic waste directly to transfer stations or dispose of the waste on-site through burying or burning.
- In urban centres, multi-unit developments, such as apartment buildings, may rely on commercial services for the removal of domestic waste.

The most straightforward and reliable metric for making comparisons between different systems for the collection of domestic waste from households is the weight of domestic kerbside waste expressed on a per capita per annum basis for those residents who have access to a kerbside service.

**Indicator 2A - Domestic kerbside waste disposal rate** for a TA is defined as:

*The quantity of domestic kerbside waste collected by the TA (or by a contractor on behalf of the council) or by private waste collectors (through kerbside or similar collections) from residential premises, expressed in kilograms per capita per annum for the usually resident population of that district that has access to kerbside waste collections.*

It is recognised that gathering data that differentiates between kerbside waste from residential and commercial premises is not straightforward for many TAs, particularly when private waste collectors control a significant share of the kerbside waste market. In such cases, requesting that private waste collectors provide data on a voluntary basis may be the only solution. While private waste collectors often can not explicitly differentiate between residential and commercial customers, most are able to provide an informed estimate that is accurate enough for a TA's purposes. Introducing waste bylaws that require private waste operators to provide such data to the TA is an alternative to voluntary measures.

Similarly, while TAs generally hold data on the number of properties serviced by their own kerbside collections, less information is available on the number of properties serviced by private collectors. The co-operation of the private collectors may be required in acquiring this information.

#### **Details of indicator**

1. The indicator is expressed in terms of kilograms of domestic kerbside waste per capita per annum.
2. Only domestic kerbside waste that is ultimately disposed of at a Class 1 landfill is included. This includes Class 1 landfills both within and outside of the TA's district.
3. Only waste that originates from residential premises within the district and is collected directly from the premises is to be included in the indicator. While a high proportion of this waste will be collected from the kerbside in plastic bags or wheeled bins, waste collected from multi-unit dwellings in other containers, such as front-end loader bins, should also be included.
4. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. Population data down to the area unit or meshblock level may be required to accurately determine the number of residents with access to kerbside collections. Alternatively, the number of residents with access to kerbside collections can be calculated by multiplying the number of households with access by the average number of residents per household (using Stats NZ data).
5. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes, this should be mentioned in any commentary accompanying the indicator.
6. When reporting this indicator, detailed information on the background data that has been used should be provided, if possible, or made available. The data itself may be commercially sensitive, so need not be made available in all instances.

#### **Indicator 2B - Domestic waste disposal rate**

This indicator is intended to provide a more comprehensive view of the disposal of domestic waste than *Indicator 2A - Domestic kerbside waste disposal rate*. This indicator should capture most domestic waste originating from households and may be a more appropriate indicator for rural districts with geographically limited kerbside waste collection services.

'Domestic kerbside' waste has been defined in the National Waste Data Framework, but 'domestic waste' has not. For the purposes of this Indicator, 'domestic waste' is defined as:

*Domestic-type waste collected from residential premises by a TA (or by a contractor on behalf of the council) or by private waste collections (through kerbside or similar collection), or similar waste disposed of by other means by the householder.*

Indicator 2A only quantifies kerbside waste collection systems, while Indicator 2B includes other means of disposal. Other means of disposal can include rural and urban drop-off points and transfer station drop-offs of bagged waste. ***On-site disposal of domestic waste, such as through burning or burying, is not included in Indicator 2B.*** While on-site disposal may represent a significant proportion of domestic waste disposal in some areas, the difficulties in accurately quantifying the disposal preclude its inclusion in the indicator at this time.

To reflect the wider scope of the indicator, the per capita disposal rate is based on the entire resident population, not just residents with access to a kerbside collection.

**Indicator 2B - Domestic waste disposal rate** for a TA is defined as:

*The quantity of domestic waste collected from residential premises by the TA (or a contractor on behalf of the council) or by private waste collectors (through kerbside or similar collections), or similar waste disposed of by other means by the householder, expressed in kilograms per capita per annum for the usually resident population of that district. Domestic waste that is disposed of on-site, such as by burning or burying, is not included in the quantity of waste collected.*

**Details of indicator**

1. The indicator is expressed in terms of kilograms of domestic waste per capita per annum.
2. Only waste that originates from residential premises within the district is to be included in the indicator. While a high proportion of this waste will be collected from the kerbside in plastic bags or wheeled bins, waste collected from multi-unit dwellings in other containers, such as front-end loader bins, should also be included.
3. Domestic waste disposed of at rural and urban drop-off points, including those at transfer stations, should be included in the indicator.
4. Even if reliable data is available, domestic waste disposed of on-site by burning or burying should not be included in the indicator. Should reliable data be available, this data, and the methodology used for its collection, should be reported separately or made available in conjunction with the publication of the indicator.
5. As many householders, particularly rural residents, dispose of their domestic waste directly to transfer stations, data on such disposal should be included in the indicator. To accurately quantify domestic waste disposed of in this manner, it may be necessary for a weighbridge survey or other investigations to be undertaken by the TA.
6. The TA may need to rely on the assistance of private waste collectors to differentiate between waste collected from residential and commercial premises.
7. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. More accurate per capita data may be used, if available. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes or a high level of tourism activity, this should be stated in any commentary accompanying the indicator.
8. When reporting this indicator, detailed information on the background data that has been used should be provided, if possible, or made available. The data itself may be commercially sensitive, so need not be made available in all instances.



### 3 Domestic recycling

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As a waste reduction measure, most TAs offer residents a kerbside collection of recyclable materials, such as paper, cardboard, cans, bottles, and plastic containers. This service is provided solely by private operators in a small number of districts. In the few districts where no kerbside recycling collections are available, drop-off points for recyclable materials are provided by the council. Drop-off points for recyclable materials are also provided at transfer stations in most districts.

Although the quantification of recovered materials was not included in the first stage of the Framework project, to assess the effectiveness of kerbside services TAs must know the tonnage of both the kerbside waste and the recyclables that are collected in the district. To compare this data with other TAs and track it over time, it is most usefully expressed on a per capita basis.

While there are two reporting indicators for domestic waste, it is considered necessary for there to be three reporting indicators for domestic recycling. One focuses solely on recyclable materials collected by kerbside recycling collections. The second takes a broader perspective and includes domestic recycling collected through other methods as well. The third indicator quantifies the amount of material that is collected by kerbside recycling collections and then disposed of to a landfill and is therefore not diverted material, as defined by the WMA.

It should be noted that the first two indicators are for “recycling recovery rates”, rather than “recycling collection rates”. All types of recycling collections include contamination that is removed, either during a kerbside sort or during the processing stage. Recycling that is processed at a materials recovery facility (MRF) results in contamination that is subsequently disposed of to landfill. Contamination can constitute up to 5-10% of all material collected, depending on the collection method. The proportion of material that is collected but subsequently landfilled **is not included** when calculating either of the domestic recycling recovery indicators.

Using the net quantity of recycling collected, rather than the gross quantity, gives an indicator that is more easily understood by the public and provides a more accurate comparison between different recycling systems. There are two main systems for the kerbside collection of recyclables - kerbside sorting and commingled. Commingled recycling collections must be further processed to remove contamination that is landfilled. This may not be the case with all kerbside sorting systems, as contamination is usually not collected but is left at the kerbside. The effectiveness of the two systems can only be compared when the landfilled component of commingled recycling collections has been removed.

#### **Indicator 3A - Domestic kerbside recycling recovery rate**

While not pre-empting the development of definitions for diverted materials in the next stages of the Framework, ‘Domestic kerbside recycling’ is defined for the purposes of these indicators as:

*Materials that are collected from residential premises by the TA (or by a contractor on behalf of the council) or by private service providers (through kerbside or similar collections) with the objective of recycling the materials. Organic materials, such as food and greenwaste, and materials collected by inorganic waste collections are not included.*

**Indicator 3A - Domestic kerbside recycling recovery rate** for a TA is defined as:

*The quantity of domestic kerbside recycling collected by the TA (or a contractor on behalf of the council) or by private service providers from residential premises, expressed in kilograms per capita per annum for the usually resident population of that district that has access to kerbside recycling collections. Material that is collected and subsequently disposed of to landfill is deducted from the total quantity collected before the recovery rate is calculated.*

It is recognised that gathering data that differentiates between kerbside recycling from residential and commercial premises is not straightforward for TAs. While most TAs are not readily able to determine whether a premises is used for residential or commercial purposes, it should be possible to develop an estimate that is accurate enough for a TA's purposes.

In the small number of districts where domestic kerbside recycling is undertaken by private service providers, the TA may need to request that the service providers supply data on a voluntary basis. Introducing waste bylaws that require private waste operators to provide such data to the TA is an alternative to voluntary measures.

While TAs generally hold data on the number of properties serviced by their own kerbside recycling collections, less information is available on the number of residential properties serviced by private recycling collectors. The co-operation of the private collectors may be required in acquiring this information.

Contamination rates are generally reported to TAs by the operator of the MRF where the collected material is processed. In some instances, the MRF may process other types of recycling but only be able to report a single, non-specific contamination rate for all material handled.

#### **Details of indicator**

1. The indicator is expressed in terms of kilograms of domestic kerbside recycling recovered per capita per annum.
2. The weight of recovered material is calculated by deducting the tonnes of material that are landfilled (usually, but not always, after processing) from the tonnes that are collected.
3. Materials that are stockpiled after being collected are considered to be recovered materials.
4. Only domestic kerbside recycling that originates from residential premises within the district and is collected directly from the premises is to be included in the indicator.
5. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. Population data down to the area unit or meshblock level may be required to accurately determine the number of residents with access to kerbside recycling collections. Alternatively, the number of residents with access to kerbside recycling collections can be calculated by multiplying the number of households with access by the average number of residents per household (using Stats NZ data).
6. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes, this should be stated in any commentary accompanying the indicator.
7. When reporting this indicator, detailed information on the background data that has been used should be provided, if possible, or made available. The data itself may be commercially sensitive, so need not be made available in all instances.

### **Indicator 3B - Domestic recycling recovery rate**

This indicator is intended to provide a more comprehensive view of the collection of domestic recycling than *Indicator 3A - Domestic kerbside recycling recovery rate* and may be a more appropriate measure for rural districts with limited kerbside collection services or any district with no council-provided kerbside recycling.

For the purposes of this Indicator, “domestic recycling” is defined as:

*Materials collected from residential premises by a TA (or by a contractor on behalf of the council) or by private service providers (through kerbside or similar collection), or similar materials generated by domestic activity and collected by whatever means, including drop-off points, by a TA or privately, with the objective of recycling the materials. Organic materials, such as food and greenwaste, and materials collected by inorganic waste collections are not included.*

Indicator 3A only quantifies material originating from kerbside recycling collection systems, while Indicator 3B includes other means of collection. Other means of collection will primarily comprise stand-alone drop-off points or transfer station drop-off points.

To reflect the wider scope of the indicator, the per capita recovery rate is based on the entire resident population, not just residents with access to a kerbside recycling collection.

**Indicator 3B - Domestic recycling recovery rate** for a TA is defined as:

*The quantity of domestic recycling collected from residential premises by the TA (or a contractor on behalf of the council) or private service providers, or similar materials generated by domestic activity and collected by whatever means by a TA or privately, expressed in kilograms per capita per annum for the usually resident population of that district. Material that is collected and subsequently disposed of to landfill is deducted from the total quantity collected before the recovery rate is calculated.*

MRFs that process TA kerbside recycling generally provide the TA with data on the quantity or proportion of recycling material that is landfilled. In the small number of districts where domestic kerbside recycling is undertaken by private service providers, the TA may need to request that the service providers and their recycling processors supply data on a voluntary basis. Introducing waste bylaws that require private waste operators to provide such data to the TA is an alternative to voluntary measures.

#### ***Details of indicator***

1. The indicator is expressed in terms of kilograms of domestic recycling recovered per capita per annum.
2. The weight of recovered material is calculated by deducting the tonnes of material that are landfilled from the tonnes that are collected.
3. Materials that are stockpiled after being collected are considered to be recovered materials.
4. Per capita calculations are based, by default, on Stats NZ census usually resident population medium projections for the year in question. More accurate per capita data may be used, if available. Should there be significant seasonal fluctuations in population in the area, due, for example, to a large number of holiday homes or a high level of tourism activity, this should be stated in any commentary accompanying the indicator.
5. As some residents dispose of their domestic recycling directly to transfer stations or stand-alone drop-off points, data on such collections can be included in the indicator. To accurately quantify domestic recycling, as opposed to commercial recycling, collected in this manner, it may be necessary for a weighbridge survey or other investigations to be undertaken by the TA.

6. When reporting this indicator, detailed information on the background data that has been used should be provided, if possible, or made available. The data itself may be commercially sensitive, so need not be made available in all instances.

### **Indicator 3C - Domestic kerbside recycling contamination rate**

This indicator is intended to complement *Indicator 3A - Domestic kerbside recycling recovery rate* and allow a more comprehensive view of the kerbside collection of domestic recycling that enables more accurate benchmarking and comparisons between systems.

For the purposes of this Indicator, “kerbside recycling contamination” is defined as:

*Any material that is collected through a domestic kerbside recycling collection but is disposed of to landfill rather than becoming a diverted material.*

While it would be possible to report recycling contamination on a weight per capita basis, the industry standard is to report contamination as a percentage of recycling collected.

Kerbside recycling contamination rates are generally reported to TAs by the operator of the MRF where the collected material is processed. In some instances, the MRF may process other types of recycling but only be able to report a single, non-specific contamination rate for all material handled. In these instances, the MRF’s overall contamination rate would need to be reported.

**Indicator 3C - Domestic kerbside recycling contamination rate** for a TA is defined as:

*The quantity of domestic kerbside recycling collected from residential premises, by the TA (or a contractor on behalf of the council) or by private service providers, that is disposed of to landfill rather than becoming a diverted material. The indicator is calculated as being the quantity of landfilled material expressed as a percentage of the quantity of kerbside-collected material.*

#### **Details of indicator**

1. The indicator is expressed as contamination as a percentage of kerbside-collected recycling.
2. “Landfilled” materials refers to materials disposed of at any class of landfill.
3. Materials that are stockpiled after being collected are considered to be recovered materials, not landfilled materials.
4. Some kerbside-sorted recycling collections sort all materials and, as a result, the material is not subsequently processed at a MRF. It can be assumed that, for all practical purposes, the contamination rate in such instances is zero. If the kerbside sort does not include all materials, the unsorted materials may be processed at a MRF. In such cases, the contamination rate should be reported as for commingled collections.
5. When reporting this indicator, detailed information on the background data that has been used should be provided, if possible, or made available. In particular, the information should include whether the contamination rate provided by the MRF is solely for the TA’s kerbside recycling collection or whether it includes other types of recycling. The background information itself may be commercially sensitive, so need not be made available in all instances.