



Environment,  
Climate Change  
& Water

# Waste and Environment Levy

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## Operational Guidance Notes

December 2009

Version 2.1

## **Disclaimer**

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Where necessary, users of this document should seek expert advice in respect of the circumstances of their situation.

This operational guidance note replaces and supersedes previous written operational guidance information produced by DECCW relating to the waste and environment levy.

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## About this document

*Waste and Environment Levy – Operational Guidance Notes* is for scheduled waste facility occupiers who are required to pay a contribution (known hereafter as the 'waste and environment levy') under section 88 of the *Protection of the Environment Operations Act 1997* on waste received at their facility.

This document consists of a series of operational guidance notes that will assist occupiers in:

1. Paying the waste and environment levy
2. Claiming an exemption from the waste and environment levy
3. Claiming deductions for transported waste
4. Claiming deductions for waste used for an approved operational purpose
5. Claiming deductions for waste used for land application purposes
6. Complying with record-keeping requirements
7. Dealing with weighbridges and associated recording systems
8. Using vehicle weight conversion factors
9. Using volumetric surveys
10. Stockpile management

The operational guidance notes in this document relate to the waste and environment levy payable on **solid waste** and **non-trackable liquid waste** only. They do not relate to:

- waste facilities that **only** dispose of coal washery rejects. Separate operational guidance notes for the coal washery reject levy are provided in *Coal Washery Reject Levy – Operational Guidance Note* (visit [www.environment.nsw.gov.au/waste/CWRlevy.htm](http://www.environment.nsw.gov.au/waste/CWRlevy.htm)).
- **trackable liquid waste** – separate operational guidance notes are provided in *Waste and Environment (Liquid Waste) Levy – Operational Guidance Notes* (visit [www.environment.nsw.gov.au/wr/index.htm](http://www.environment.nsw.gov.au/wr/index.htm)).

Some of these operational guidance notes are guidelines published by the EPA for the purposes of the Protection of the Environment Operations (Waste) Regulation 2005.

Note that the Environment Protection Authority (EPA) is part of the Department of Environment, Climate Change and Water (DECCW). DECCW officers carry out certain statutory functions and powers of the EPA. Throughout this document, references to DECCW should be taken to mean the EPA.

# Operational guidance note 1 – Paying the waste and environment levy

Under Section 88 of the *Protection of the Environment Operations Act 1997* (POEO Act), occupiers of certain scheduled waste facilities are required to pay the waste and environment levy. The requirements regarding the amount, manner and timing of payment are set out in Part 2 of the Protection of the Environment Operations (Waste) Regulation 2005 (the Waste Regulation).

The waste and environment levy is designed to encourage resource recovery and recycling of waste. It is generally added to the disposal charges set by landfills. It provides businesses, councils and individuals with an incentive to reduce the amount of waste they generate and encourages them to seek legitimate alternatives to landfill disposal (consistent with the 'Objects of the Act' in Section 3 of the POEO Act).

## Who is required to pay the waste and environment levy?

A 'scheduled waste facility' is a waste facility that is required to be licensed under Schedule 1 of the POEO Act.

The waste and environment levy is required to be paid by:

- occupiers of scheduled waste facilities anywhere in NSW that receive waste generated in or sourced from the **regulated area**, or
- occupiers of scheduled waste facilities in the **regulated area** that receive waste generated in or sourced from anywhere in NSW.

The **regulated area** includes the:

1. **Sydney metropolitan area** (SMA), being the following local government areas in the Sydney region:
  - Ashfield, Auburn, Bankstown, Baulkham Hills, Blacktown, Botany, Burwood, Camden, Campbelltown, Canada Bay, Canterbury, Fairfield, Holroyd, Hornsby, Hunters Hill, Hurstville, Kogarah, Ku-ring-gai, Lane Cove, Leichhardt, Liverpool, Manly, Marrickville, Mosman, North Sydney, Parramatta, Penrith, Pittwater, Randwick, Rockdale, Ryde, Strathfield, Sutherland, Sydney, Warringah, Waverley, Willoughby and Woollahra
2. **extended regulated area** (ERA), being the following local government areas in the Hunter and Illawarra regions:
  - Cessnock, Gosford, Hawkesbury, Kiama, Lake Macquarie, Maitland, Newcastle, Port Stephens, Shellharbour, Shoalhaven, Wingecarribee, Wollongong and Wyong
3. **regional regulated area** (RRA), being the following local government areas in outer Sydney and along the north east coast of NSW:
  - Ballina, Bellingen, Blue Mountains, Byron, Clarence Valley, Coffs Harbour, Dungog, Gloucester, Great Lakes, Greater Taree, Kempsey, Kyogle, Lismore, Muswellbrook, Nambucca, Port Macquarie-Hastings, Richmond Valley, Singleton, Tweed, Upper Hunter and Wollondilly.

Other arrangements exist for trackable liquid waste and coal washery rejects. For further information on applying the levy to these wastes, visit [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

## Who is not required to pay the waste and environment levy?

Occupiers are not required to pay the levy when they are occupiers of scheduled waste facilities that are used **only**:

- for reusing, recycling, processing or recovering waste, or
- for disposing of slags or virgin excavated natural material, or
- as a waste storage facility, transfer facility or waste treatment facility (that is, not an incinerator).

## How is the waste and environment levy calculated?

Clause 5 of the Protection of the Environment Operations (Waste) Regulation 2005 sets out how the waste and environment levy is determined. Before the beginning of each financial year, DECCW notifies scheduled waste facilities of the levy rates (including adjustments for the consumer price index) applicable for the SMA, ERA or RRA for that year. The waste and environment levy rates are also published on [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au).

The levy rate to be paid by the occupier of a scheduled waste facility is based on a combination of where the waste was generated or originally sourced from and where it was received. The applicable rates are set out below.

Waste source	Waste received in	Applicable levy rate
SMA	SMA	SMA
SMA	ERA	SMA
SMA	RRA	SMA
SMA	rest of NSW	SMA
ERA	SMA	SMA
ERA	ERA	ERA
ERA	RRA	ERA
ERA	rest of NSW	ERA
RRA	SMA	SMA
RRA	ERA	ERA
RRA	RRA	RRA
RRA	rest of NSW	RRA
rest of NSW	SMA	SMA
rest of NSW	ERA	ERA
rest of NSW	RRA	RRA

Those scheduled waste facilities required to pay the waste and environment levy must submit monthly reports (a waste contributions monthly report, also known as the WCMR) to DECCW of all waste received at the facility to substantiate their levy liability.

Where the facility has kept inadequate records, DECCW will estimate the levy liability in accordance with clause 6 of the Waste Regulation.

## Waste Contribution Monthly Report

All scheduled waste facilities required to pay the waste and environment levy must provide DECCW with a waste contributions monthly report (WCMR) to verify the facility's waste and environment levy liability and to report exemptions or deductions.

Monthly reports are generally required to be provided to DECCW within 56 days of the end of each month, and must include information for that month on:

- the quantity of waste received at the facility
- the types of waste received at the facility
- any other information specified by DECCW.

Alternative timing for the submission of the WCMR may be varied by DECCW by notice in writing (Section 88(3) of the POEO Act).

Visit [www.environment.nsw.gov.au/wr/h\\_wcmr.htm](http://www.environment.nsw.gov.au/wr/h_wcmr.htm) for more information on WCMRs, including how to report online.

DECCW also publishes an approved form for WCMRs – visit [www.environment.nsw.gov.au/wr/paperforms.htm](http://www.environment.nsw.gov.au/wr/paperforms.htm). This approved form must be used by waste facility occupiers and provides details on all information that must be provided.

## Further information and contacts

If you have any questions about the levy rate or submitting a WCMR, you should contact DECCW's Waste Management Section on (02) 9995 5740.

A copy of the *Protection of the Environment Operations Act 1997* and the *Protection of the Environment Operations (Waste) Regulation 2005* can be obtained from the NSW Government Information Bookshop (phone: 1300 656 986) or viewed on [www.environment.nsw.gov.au/legislation/](http://www.environment.nsw.gov.au/legislation/).

## **Operational guidance note 2 – Claiming an exemption from the waste and environment levy**

This guidance note explains when the occupier of a scheduled waste facility may claim an exemption from paying the levy for certain wastes.

### **Which wastes are exempt?**

Under clause 10(1) of the Protection of the Environment Operations (Waste) Regulation 2005 (the Waste Regulation), the waste and environment levy does not need to be paid on the following types of waste:

#### **Dredging spoil**

Spoil from dredging activities is exempt from payment of the waste and environment levy. For the purposes of claiming an exemption from the levy, dredging is defined as the excavation of natural material to provide and/or increase the dimensions of a waterway, or ensure that existing channels, berths or harbour works are maintained according to their design specifications.

#### **Waste collected as part of a community service**

An exemption from the waste and environment levy may be claimed by groups performing a community service that involves the collection or receipt of waste for which they would not ordinarily be responsible (i.e. waste they did not generate). A community service is any activity that benefits the NSW community and the environment and is undertaken voluntarily, not for profit or involves the provision of emergency relief.

The exemption would generally be provided for waste collected:

- as part of direct voluntary action such as Clean Up Australia Day
- incidental to a community service such as unusable goods (waste) collected from community donations
- as part of provision of emergency relief, such as assistance with the clean up and disposal of waste generated from significant state emergencies.

The exemption does not apply to wastes 'generated' by an organisation in the normal course of its business or to waste left behind by previous occupiers.

To apply for an exemption, the group collecting the waste must write to DECCW and provide information on:

- the organisation
- types of waste
- approximate quantity of the waste
- details of the scheduled waste facility where the waste is proposed to be taken
- alternatives to disposal that have been considered.

Address all correspondence to:

Manager Waste Management  
Department of Environment, Climate Change and Water  
PO Box A290  
Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

Where an exemption application is approved by DECCW, to **claim** an exemption the relevant group will need to present a record of the approved exemption to the scheduled waste facility where the waste will be received.

## **Waste from a natural disaster or biological outbreak**

An exemption from the waste and environment levy may be claimed for waste collected as a result of a natural disaster or biological outbreak, where the person or group collecting the waste would not ordinarily be responsible for that waste.

A natural disaster is a serious disruption to a community caused by the impact of a naturally occurring event that requires a significant and coordinated multi-agency response, such as a bushfire or severe storm. A biological outbreak may similarly affect a community or a plant or animal population, such as QX disease in oysters or avian flu.

To apply for an exemption, the person or group collecting the waste must contact DECCW either by mail or by fax (see contact details below), providing details of the biological outbreak or natural disaster, the types of waste and approximate quantity. If approved, the exemption will generally be valid for a period of months from the date of the application.

## **How to claim an exemption**

Claims for exemptions are made by the scheduled waste facility through the waste contributions monthly report (WCMR). Claims for exemptions from a community service or activity, biological outbreak or natural disaster must be pre-approved by DECCW before being listed in the WCMR.

Address all correspondence to:

Manager Waste Management  
Department of Environment, Climate Change and Water  
PO Box A290  
Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

## **Record-keeping requirements for exemption claims**

Occupiers of scheduled waste facilities that are allowed an exemption must keep adequate records of all waste received at the facility to substantiate their claim for an exemption.

The onus for proving claims for exemptions rests with the occupier of the facility. Failure to maintain proper records could result in facilities having to pay additional levy amounts or repay previous exemption claims.

## Operational guidance note 3 – Claiming deductions for transported waste

This guidance note explains the circumstances under which an occupier of a scheduled waste facility can claim a deduction for transporting waste from the facility.

The second paragraph in the section entitled 'When a deduction cannot be claimed' is a guideline published by the EPA for the purposes of clause 11A(3AAA) of the Waste Regulation.

### When can an occupier claim a transported waste deduction?

Only the occupier of a waste facility that is required to pay the waste and environment levy may claim a transported waste deduction in the following circumstances:

#### (i) Processed, recovered, or recycled waste

An occupier of a scheduled waste facility may claim a deduction for:

- each tonne of waste received at the facility that is **processed, recovered or recycled on-site and transported from the facility for lawful use**. To be lawful, the use must be carried out in accordance with any necessary approvals (such as development consent or an environment protection licence) and must comply with all legal requirements that apply, such as compliance with relevant resource recovery exemptions issued by the EPA under clause 51 of the Waste Regulation.
- each tonne of waste received at the facility that is **transported from the facility to another facility for lawful processing, recovery or recycling**. To be lawful, the processing, recovery or recycling must be carried out in accordance with any necessary approvals (such as development consent or an environment protection licence) and must comply with all legal requirements that apply.

#### (ii) Waste transported to another facility for disposal

A transported waste deduction may be claimed on each tonne of waste that is transported to another facility for lawful disposal. The waste and environment levy must be paid on each tonne of waste received at the facility. A deduction can be claimed by the first facility only when the waste is transported to another facility for lawful disposal. To be lawful, the disposal must be carried out in accordance with any necessary approvals (such as development consent or an environment protection licence) and must comply with all legal requirements that apply, such as compliance with any relevant planning instruments under the *Environmental Planning and Assessment Act 1979* (such as development consent) and an environment protection licence under the *Protection of the Environment Operations Act 1997* if required.

The second facility must pay the waste and environment levy when this waste is received at the facility.

## When a deduction cannot be claimed

A transported waste deduction cannot be claimed for any of the following types of waste:

- any waste that has already been exempted from the waste and environment levy
- waste that was received more than 24 months before the date on which the deduction is claimed
- waste for which the waste and environment levy was not required to be paid (e.g. because it was received before the facility was required to be licensed or before the facility was required to pay the waste and environment levy on that waste).

While a transported waste deduction is only available for waste that is received at a facility, a transported waste deduction is not available, even if received, for the following:

- landfill gas or anything derived from landfill gas
- landfill leachate or anything derived from landfill leachate.

## Calculating a deduction for mixed waste

Sometimes a facility will mix leviable waste with non-leviable waste or non-wastes and send this mixed waste material off-site for re-use or disposal elsewhere. In these cases, a deduction can be claimed only on the leviable waste component. In this situation, facilities should use the following formula to calculate the deduction amount:

<b>Deductible waste</b>	=	Total mixed material (waste and non-waste) transported from the facility (tonnes)	-	Non-leviable waste and non-waste material (tonnes)
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Non-wastes refer to material won on-site, such as virgin excavated natural material. Any material brought into a scheduled waste facility is deemed to be a waste if it is reasonably capable of being applied to land.

## Calculating a deduction when waste has been stockpiled

A transported waste deduction is calculated using the levy rate that applied when that waste was received at the facility.

A deduction cannot be claimed on waste that has been held at a waste facility for more than two years (i.e. waste received more than two years before the date on which the deduction is made).

'Operational guidance note 10 – Stockpile management' provides guidance on how a waste facility can manage its waste stockpiles to enable deductions to be made lawfully.

## Calculating a deduction for green waste

Due to the potential weight lost when green waste is composted, there might be a difference in the weight between incoming green waste and composted green waste leaving the waste facility.

As a matter of operational policy, the transported deduction for green waste must be calculated on the basis that over a financial year the dollar value of the green waste leaving the premises cannot exceed that of green waste received.

The occupier can only receive a transported waste deduction for green waste that has left the premises for **lawful use**, less any waste disposed to the landfill.

To calculate a transported waste deduction for green waste, prior arrangements must be agreed to with DECCW. For further information, contact the DECCW's Manager Waste Operations on (02) 9995 5760.

## How to claim a transported waste deduction

Transported waste deductions must be claimed on a facility's waste contributions monthly report (WCMR). The WCMR must be accompanied by any evidence required by DECCW to support a deduction claim.

The deduction must be calculated on the weight (in tonnes) of waste transported from the site using either the weight recorded by the weighbridge or, if no weighbridge is installed or used, the weight determined in accordance with the vehicle weight conversion factors referred to in 'Operational guidance note 7 – Dealing with weighbridges and associated recording systems'.

## Where deductions are disallowed

DECCW may disallow a deduction if it does not meet the requirements of the Waste Regulation. Where this occurs, occupiers will be required to repay the deduction.

## Record keeping for deductions

The onus for proving the deduction claims rests with the occupier of the facility. Failure to maintain proper records could result in a deduction claim being disallowed and the occupier having to pay additional levy amounts.

# Operational guidance note 4 – Claiming deductions for waste used for an approved operational purpose

This guidance note explains the deductions that may be claimed by the occupier of a scheduled waste facility on wastes and other materials that will be used at the facility for an approved operational purpose (AOP).

## When can an AOP deduction be claimed?

The occupier of a scheduled waste facility required to pay the waste and environment levy may claim a deduction for any waste received at the facility that will be used on-site for an AOP.

## Eligible operational purposes

In accordance with clause 4 of the Waste Regulation, the following operational purposes will be considered by DECCW for approval:

### Final capping works

A deduction may be available for material used as part of final capping works at the facility. To be eligible for an AOP deduction, final capping works must be specified in the environment protection licence for the facility.

### Disposal of virgin excavated natural material below the water table

A deduction may be available for placement of virgin excavated natural material (VENM) below the natural water table to rehabilitate a sandmine. To be eligible for an AOP deduction, disposal of VENM below the water table must be specified in the environment protection licence for the facility.

## How to apply for approval of an operational purpose

The occupier of a scheduled waste facility should apply to DECCW for approval of an operational purpose deduction **before** receiving the waste intended to be used for that purpose.

The application for an approved operational purpose deduction must contain the information required under clause 11 of the Waste Regulation and set out in the form entitled 'Application for operational purpose deductions' at the end of this guidance note.

Address all correspondence to:

Manager Waste Management  
Department of Environment, Climate Change and Water  
PO Box A290  
Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

### Final capping

The occupier of a scheduled waste facility should use the form entitled 'Application for operational purpose deductions' at the end of this guidance note to apply for an AOP deduction. In addition to the information required in the form, an application for an AOP deduction must include the following supporting information:

- a final capping profile including the depth in centimetres, hydraulic permeability and, where relevant, agronomic information for each layer in the final cap
- a plan of the proposed area to be capped drawn to scale – the plan should include major features such as sedimentation or leachate ponds, boundary fences and a weighbridge
- the bulk density of each layer in the proposed final capping system, including a supporting laboratory analysis.

If approved, DECCW will provide a specific approval (in tonnes) for each layer of the final capping profile.

### **Disposal of virgin excavated natural material below the water table**

The occupier of a scheduled waste facility should use the form entitled 'Application for operational purpose deductions' at the end of this guidance note to apply for an AOP deduction. In addition to the information required by the attached form, an application for an AOP deduction must include the following supporting information:

- a plan of the disposal pond drawn to scale, including major features such as boundary fences and weighbridge
- the surrounding groundwater level relative to Australian height datum
- where the occupier wishes to use a bulk density factor other than 1.6 t/m<sup>3</sup>, the specific laboratory analysis to confirm the alternative bulk density factor.

An AOP **must first be approved by DECCW** and a certificate, including a deduction identification number, must be issued to a facility **before** a deduction can be claimed.

Once DECCW has approved an application, and issued a certificate and deduction identification number, a facility can claim a deduction for the amount and within the period specified by DECCW. Typically, an approval will be valid for a 12-month period.

The levy does not need to be paid on waste received at a facility that will be used in accordance with a pre-approved operational purpose.

### **Applying for an operational purpose deduction *after* waste is used**

Where an occupier fails to submit an application and has paid the levy on waste intended for use as an eligible operational purpose, the occupier may apply to DECCW for a retrospective approval of the operational purpose. A retrospective deduction must be made at the levy rate that applied when the waste was received at the facility. Where this application is successful, a rebate for the approved quantity of waste at the applicable levy rate will be granted to the occupier.

### **Determination of operational purpose applications**

Occupiers of scheduled waste facilities will be advised in writing of DECCW's decision regarding an application for an operational purpose deduction.

Where an application has been approved, DECCW will provide the occupier with a certificate detailing the terms of the approval, including the type of operational purpose allowed under the approval, the quantity of waste allowed to be used, the period in which the waste must be used and any conditions of use. Each AOP will also be allocated a deduction identification number.

## **When a deduction cannot be claimed**

An AOP deduction cannot be claimed for:

- any waste that has already been exempted from the waste and environment levy
- waste that was received more than 24 months before the date on which the deduction is claimed
- waste that was not subject to the waste and environment levy (e.g. because it was received before the facility was required to be licensed or before the facility was required to pay the waste and environment levy on that waste).

## **Where deductions are disallowed**

DECCW may disallow an AOP deduction if it does not meet the requirements of the Waste Regulation or is not consistent with the terms of the approval. Where this occurs and a deduction has already been made, waste facilities will be required to repay the deduction.

## **Record keeping for AOP deductions**

Occupiers must ensure that the receipt and use of all waste and other substances covered by an AOP deduction is carried out in accordance with the Protection of the Environment Operations (Waste) Regulation 2005 and any other legal requirements.

The onus for proving claims for AOP deductions rests with the occupier of the facility. Failure to maintain proper records could result in facilities having to pay additional levy amounts or repay deductions.

For more information on claiming a deduction for an AOP, phone DECCW's Waste Management Section on (02) 9995 5740.

## Application for operational purpose deductions

This form is designed to ensure scheduled waste facility operators provide the Department of Environment, Climate Change and Water (DECCW) with all the information they need to accurately assess an application for an operational purpose deduction.

The occupier of a scheduled waste facility must apply to DECCW for approval for an operational purpose deduction before receiving the waste intended to be used for that purpose.

For more information, contact the Manager Waste Operations on (02) 9995 5760.

This form replaces and supersedes previous forms produced by DECCW relating to operational purpose deductions.

Applicants should complete the following sections of this form:

- all applicants – sections 1–3
- final capping applications – sections 1–4
- pond filling applications – sections 1–3 and 5.

Send the form and information to DECCW by mail to:

Manager Waste Management  
Department of Environment, Climate Change and Water  
PO Box A290  
Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

### 1. Applicant details

<b>Licensee name:</b>	
<b>Facility name:</b>	
<b>POEO licence no:</b>	
<b>Timeframe of proposed works:</b>	

## **2. Site description**

The applicant should provide a brief overview (of not more than half an A4 page) of the waste facility which includes:

- the location of the waste facility
- annual input notes
- a good quality scaled map
- the expected life of the waste facility
- a brief description of the operations (waste disposal/reprocessing or recycling operations) occurring on-site
- specific project identification (such as landfill cell number or site description)
- any other information the applicant considers necessary.

### **3. Description of proposed works**

The applicant should provide a detailed description of the proposed works to be conducted, addressing the specific details listed in 'Operational guidance note 4 – Claiming deductions for waste used for an approved operational purpose'.

The applicant should provided detailed calculations for each element of the operational purpose deduction.

If there is insufficient space below, the applicant should attach further separate sheets.

#### 4. Final capping applications

Table 1 must be completed for final capping applications only.

Attach a diagram of a cross-section of the proposed capping layers as Appendix 1.

The following formula should be used in table 1 to calculate the total tonnages that are being claimed:

Area x depth of layer x bulk density - material won on site = total tonnages

**Table 1 Calculation of capping layers**

	Layer type	Area (m <sup>2</sup> )	Depth (m)	Bulk density* (t/m <sup>3</sup> )	Material won on site (t)	Claimed tonnages
Layer A	Sealing					
Layer B	Clay sealing					
Layer C	Drainage					
Layer D	Gas layer					
Layer E	Revegetation					
Layer F	Other – detail					
<b>Total tonnages</b>						

\* A bulk density factor of 1.6t/m<sup>3</sup> is the standard default value. Laboratory results will need to be submitted as Appendix 2, justifying any alternative bulk density factors.

Final capping layers should be based on the *Environmental Guidelines: Solid Waste Landfill* or otherwise as approved by DECCW. Note: To be eligible for an AOP, final capping works must be considered in accordance with an environment protection licence.

#### 5. Pond filling applications

Table 2 must be completed for pond filling applications only.

The following formula should be used in table 2 to calculate the total tonnages that are being claimed:

Area of pond x depth of pond x bulk density – material won on site = total tonnages

**Table 2 Calculation of material for pond filling**

	Area (m <sup>2</sup> )	Depth (m)	Bulk density* (t/m <sup>3</sup> )	Material won on site (t)	Claimed tonnages
Tonnages					

\* A bulk density factor of 1.6t/m<sup>3</sup> is the standard default value. Laboratory results will need to be submitted as Appendix 2, justifying any alternative bulk density factors.

Note: To be eligible for an AOP, pond filling must be considered in accordance with an environment protection licence.

## Checklist

Before submitting the completed application form for approval, the applicant should ensure the following:

- sections 1-3 have been completed
- a good quality scaled map has been attached
- the authorisation below has been signed.

For final capping applications:

- table 1 in section 4 has been completed
- a cross-sectional diagram has been attached (as Appendix 1)
- justification for alternative bulk density factors has been attached, where relevant (as Appendix 2 ).

For pond filling applications:

- table 2 in section 5 has been completed
- justification for alternative bulk density factors has been attached, where relevant (as Appendix 2 )

Authorisation	
Name	
Position	
Signature	
Date	

## **Operational guidance note 5 – Claiming deductions for waste used for land application purposes at the landfill**

This guidance note explains the deductions that may be claimed by an occupier of a scheduled waste facility on wastes and other materials that are applied to land at the facility.

### **Application of the levy to substances received at landfill**

Under the Waste Regulation, any substance that is reasonably capable of being applied to land is deemed to be a waste when it is received at a scheduled waste facility to which section 88 of the *Protection of the Environment Operations Act 1997* applies.

The occupier of such a facility is therefore required to pay the waste and environment levy on any substance received at the facility that is reasonably capable of being applied to land at the site.

### **Substances not considered capable of being applied to land**

Substances that would **not** be considered capable of being applied to land are limited to:

- operational equipment and consumables, being only earth-moving machinery, fleet vehicles, fuel, operational plant machinery or materials used for the assembly of weighbridges, amenity blocks or machinery sheds
- new office equipment and supplies, being only computers, office furniture, stationery and canteen supplies to be used on-site. Such substances do not attract the waste and environment levy.

All other substances received at the facility would be considered capable of being applied to land, whether or not the substance is placed in an active cell or elsewhere on the site.

### **When can a land application purpose deduction be claimed?**

The occupier of a scheduled waste facility that is required to pay the waste and environment levy may claim a deduction for any waste received at the facility that will be used on-site for a land application purpose.

### **Eligible land application purposes**

In accordance with clause 11A(3A) of the Waste Regulation, the following land application purposes will be considered by DECCW for approval:

- new asphalt or concrete used for roads or other construction works at the facility that are obtained from a batching plant
- the following substances used at the facility for leachate collection systems (in accordance with conditions of an environment protection licence):
  1. geonets
  2. geotextiles
  3. drainage layer media (having a thickness not greater than 300 millimetres) placed over landfill base liners
  4. piping

5. electrical equipment
  6. any other machinery
- the following substances used at the facility for **landfill lining systems** (including landfill cell bases and sides) or associated **stormwater management systems** in accordance with conditions of an environment protection licence:
    1. geomembranes
    2. geotextiles
    3. clay liners (having a thickness not greater than 900 millimetres)
    4. piping
  - the following substances used at the facility for **landfill gas collection systems** in accordance with conditions of an environment protection licence:
    1. drainage gravels (not exceeding the minimum amount required in any applicable licence)
    2. piping
    3. electrical equipment
    4. any other machinery
  - plastic sheeting used at the facility as a daily cover for waste.

## How to apply for approval of a land application purpose

A land application purpose **must first be approved by DECCW** and a certificate, including a deduction identification number, must be issued to a facility **before** a deduction can be claimed. The occupier of a scheduled waste facility must apply to DECCW for approval of a land application purpose deduction **before** receiving the waste intended to be used for that purpose.

The application for an approved operational purpose deduction must contain the information required under clause 11 of the Waste Regulation and set out in the form entitled 'Application for land application purpose deductions' at the end of this guidance note.

Send the form and information to DECCW by mail to:

Manager Waste Management  
 Department of Environment, Climate Change and Water  
 PO Box A290  
 Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

Once an application has been approved by DECCW, a facility can claim a deduction for the amount and within the period specified by DECCW. Typically an approval will be valid for a 12-month period.

The levy does not need to be paid on substances received at a facility that are to be used in accordance with a pre-approved land application purpose.

## New asphalt or concrete roads

The occupier of a scheduled waste facility should use the form entitled 'Application for land application purpose deductions' at the end of this guidance note to apply for a land application purpose deduction. In addition to the information required by the attached form, an application for a land application purpose deduction for asphalt or concrete roads must include the following supporting information:

- a plan of the proposed area for road construction or maintenance drawn to scale, including major features, sedimentation or leachate ponds, boundary fences, weighbridge
- a diagram of the proposed road profile, including engineered designed sub-base materials
- details of the road surface and the depth of each layer of the road profile in centimetres
- bulk density data for each layer of the road profile, including a laboratory analysis.

If approved, DECCW will provide a specific approval in tonnes for each layer of the road profile.

### **Leachate collection systems**

The occupier of a scheduled waste facility must use the form entitled 'Application for land application purpose deductions' at the end of this guidance note to apply for a land application purpose deduction. In addition to the information required on the form, an application for a land application purpose deduction for leachate collection systems must include the following supporting information:

- a plan of the proposed leachate collection construction drawn to scale, including major features, sedimentation or leachate ponds, boundary fences, weighbridge
- the estimated surface areas for leachate collection systems in square metres
- bulk density data for each layer of the leachate collection system, including a laboratory analysis
- the length of piping, and bulk density information for each type of piping material.

### **Landfill lining and stormwater collection systems**

The occupier of a scheduled waste facility should use the form entitled 'Application for land application purpose deductions' at the end of this guidance note to apply for a land application purpose deduction. In addition to the information required on the form, an application for a land application purpose deduction for landfill lining and stormwater systems must include the following supporting information:

- a plan of the proposed landfill lining and stormwater construction drawn to scale, including major features, sedimentation or leachate ponds, boundary fences, weighbridge
- estimated surface areas for the landfill liner and stormwater collection systems in square metres
- bulk density data for each layer of the landfill lining and stormwater system, including laboratory analysis
- length of piping and bulk density information for each type of piping material.

### **Landfill gas collection systems**

The occupier of a scheduled waste facility should use the form entitled 'Application for land application purpose deductions' at the end of this guidance note to apply for a land application purpose deduction. In addition to the information required on the

form, an application for a land application purpose deduction for landfill gas collection systems must include the following supporting information:

- a plan of the proposed landfill gas collection construction drawn to scale, including major features, sedimentation or leachate ponds, boundary fences, weighbridge
- bulk density data for each layer of the drainage gravels used in landfill gas collection systems, including a laboratory analysis
- length of piping, and bulk density information for each type of piping material.

## **Applying for a land application purpose deduction after waste is used**

Where an occupier fails to apply to DECCW for pre-approval of a land application purpose deduction and has already paid the levy on waste intended for use as an eligible land application purpose, the occupier may apply to DECCW for retrospective approval.

A retrospective deduction must be made at the levy rate that applied when the waste was received at the facility. Where this application is successful, a rebate for the approved quantity of waste at the applicable levy rate will be granted to the occupier.

## **Reporting requirements**

While all wastes and other materials received at a facility must be **recorded**, not all these other materials need to be **reported** in a facility's waste contribution monthly report (WCMR).

To simplify reporting arrangements, the following substances do not have to be reported on a facility's WCMR as waste received:

- new concrete or asphalt used for road or other construction
- plastic sheeting used as alternate daily cover, geonets, geomembranes, geotextiles (including GCLs), electrical equipment, machinery or piping used for leachate collection or gas collection – but only if the use of the material for these purposes is authorised under the facility's licence.

The WCMR must be completed for all other substances received at the facility that are reasonably capable of being applied to land. For these materials, the WCMR must be accompanied by any evidence required by DECCW to support a deduction claim, including the deduction identification number.

Where a material is eligible for a deduction but is applied to land at the facility without the appropriate authority under the facility's licence, that waste must be recorded in the facility's WCMR and the levy paid. A deduction may be claimed only if and when the licence has been varied to authorise the land application of this waste.

## **When a deduction cannot be claimed**

A land application purpose deduction cannot be claimed for:

- any waste that has already been exempted from the waste and environment levy
- waste that was received more than 24 months before the date on which the deduction is claimed
- waste for which the waste and environment levy was not required to be paid (e.g. because it was received before the facility was required to be licensed)

or before the facility was required to pay the waste and environment levy on that waste).

### **Where deductions are disallowed**

DECCW may disallow a deduction if it does not meet the requirements of the Waste Regulation or is not consistent with the terms of an environment protection licence or approved deduction identification number. Where this occurs and a deduction has already been made, the occupier will be required to repay the deduction.

### **Record-keeping for land application deductions**

Occupiers must ensure that the receipt and use of all waste and other substances covered by a land application deduction is in accordance with Protection of the Environment Operations (Waste) Regulation 2005 and any other legal requirements.

The onus for proving claims for land application deductions rests with the occupier of the facility. Failure to maintain proper records could result in facilities having to pay additional levy amounts or repay deductions.

If you have any questions about claiming a land application deduction, you should contact DECCW's Waste Management Section on (02) 9995 5740.

## Application for land application purpose deductions

This document is designed to ensure scheduled waste facility operators provide the Department of Environment, Climate Change and Water (DECCW) with all the information they need to assess an application for a land application purpose deduction.

The occupier of a scheduled waste facility should apply to DECCW for approval of a land application purpose deduction before receiving the waste intended to be used for that purpose.

Further guidance regarding land application purpose deductions can be found in the *Waste and Environment Levy – Operational Guidance Notes*. For more information, contact the Manager Waste Operations on (02) 9995 5760.

This form replaces and supersedes previous forms produced by DECCW relating to land application purpose deductions.

Applicants should complete all sections of this form.

Send the form and information to DECCW by mail to:

Manager Waste Management  
Department of Environment, Climate Change and Water  
PO Box A290  
Sydney NSW 1232

or fax it to (02) 9995 5930 for the attention of the Manager, Waste Management.

### 1. Applicant details

Licensee name:	
Facility name:	
POEO licence no:	
Timeframe of proposed works:	

Type of application:

Pre-approval

Retrospective deduction

## **2. Site description**

The applicant should provide a brief overview (of not more than half an A4 page) of the waste facility, which includes:

- the location of the waste facility
- annual input notes
- a good quality scaled map (as Appendix 1)
- the expected life of the waste facility
- a brief description of the operations (waste disposal/reprocessing or recycling operations) occurring on-site
- specific project identification (such as landfill cell number or site description)
- any other information the applicant considers necessary.

### **3. Description of proposed works**

The applicant should provide a detailed description of the proposed works to be conducted, addressing the specific details listed in 'Operational guidance note 5 – Claiming deductions for waste used for land application purposes at the landfill'.

The applicant should provide detailed calculations for each element of the land application deduction.

If there is insufficient space below and over the page, the applicant should attach further separate sheets.

#### 4. Waste used for land application

All applicants should complete table 3 below. Supporting calculations for each use should be included in the same appendix (e.g. calculations for all materials being claimed for 'leachate collection systems' should all be included in Appendix 3 – see 'Supporting calculations' column).

**Table 3 Calculation of claimable tonnages**

Use	Area or length	Thickness or volume	Density*	Claimable tonnages	Supporting calculations
<b>Road construction or other construction works</b>					
Asphalt					Appendix 2
Concrete					Appendix 2
Sub-base					Appendix 2
Other – detail					Appendix 2
<b>Leachate collection systems</b>					
Geonets					Appendix 3
Geotextiles					Appendix 3
Drainage layer media					Appendix 3
Piping (by different pipe diameters)					Appendix 3
Electrical equipment					Appendix 3
Other – detail					Appendix 3
<b>Landfill lining or storm management systems</b>					
Geomembrane					Appendix 4
Geotextiles					Appendix 4
Clay liners					Appendix 4
Piping (by different pipe diameters)					Appendix 4
Other – detail					Appendix 4
<b>Landfill gas collection systems</b>					
Drainage gravels					Appendix 5
Piping (by different pipe diameters)					Appendix 5

Use	Area or length	Thickness or volume	Density*	Claimable tonnages	Supporting calculations
Electrical equipment					Appendix 5
Other – detail					Appendix 5
<b>Daily cover</b>					
Plastic sheeting					Appendix 6

\* A bulk density factor of 1.6t/m<sup>3</sup> is the standard default value. Laboratory results will need to be submitted in Appendices 2–6, justifying any alternative bulk density factors.

## 5. Checklist

Before submitting the completed application form for approval, the applicant should ensure the following:

- sections 1–4 have been completed, including the complete table in section 4
- a good quality scaled map has been attached (as Appendix 1)
- supporting calculations have been attached (in Appendices 2–6)
- justification for alternative bulk density factors have been included in Appendices 2–6 if necessary
- the authorisation below has been signed.

<b>Authorisation</b>	
Name	
Position	
Signature	
Date	

# Operational guidance note 6 – Complying with record-keeping requirements

This guidance note explains the record-keeping requirements that apply to an occupier of a scheduled waste facility who is required to pay the waste and environment levy.

The section titled 'Format of records' is a guideline published by the EPA for the purposes of clause 12(6)(a) of the Waste Regulation.

## Overview

The records required to be kept cover four key areas of landfill operations:

- the receipt and placement of waste
- the use of waste on-site for operational or infrastructure purposes
- the stockpiling of waste destined for recycling, processing or transport off-site
- the removal of waste or waste-derived products from the site.

Additional records must also be kept for waste received at the facility that is exempt from the levy.

In addition to providing monthly reports to DECCW, scheduled waste facilities are required under the Waste Regulation to maintain general records for audit purposes. Details on the information that must be included in these records is set out below.

## What information needs to be recorded?

Scheduled waste facilities required to pay the waste and environment levy must maintain records on all waste and other material (e.g. non-waste material that might be mixed or blended with waste) received by the facility, used by the facility on-site or transported from the facility for reuse, recycling/processing or disposal. Records must include **all** the following information:

### 1. For waste and other material received at the facility

For **all waste and other material received at the facility** you must record:

- the amount (in tonnes) and type of waste and other material delivered (this should include the relevant material composition code/s)
- the date the waste/other material was delivered
- the registration number of any vehicle delivering the waste and other material to the facility
- the location on the site the waste/other material was placed (for example, the relevant stockpile number, active cell)
- where the waste is exempt from the levy pursuant to 'Operational guidance note 2 – Claiming an exemption from the waste and environment levy':
  - details of the community service, activity, biological outbreak or natural disaster
  - date and number of DECCW approval for the exemption.

## **2. For waste used on-site at the facility**

For ***all waste used on-site for an approved operational purpose (AOP) or land application purpose deduction (LAD)*** you must record:

- the nature of the AOP or LAD for which the waste was used
- particulars of any approval or certificate issued by DECCW relating to the use of waste for an AOP or LAD (including the deduction identification number);
- the amount (in tonnes) and type of waste used for an AOP or LAD
- the date the waste was used for an AOP or LAD.

## **3. For waste and other material stockpiled at the facility**

For ***all waste and other material stockpiled at the facility*** you must record:

- a stockpile identification number
- the amount (in tonnes) and type of waste and other material held in each stockpile as at 30 June and 31 December each year
- the amount and type of waste or other material added to or removed from the stockpile on a daily basis.

## **4. For waste and other material transported from the facility**

***For all waste that has been processed, recovered or recycled by the facility and transported to another place for lawful use, or transported to another place for lawful recovery, recycling or processing or transported to another facility for lawful disposal,*** you must record:

- the amount (in tonnes) and type of waste, waste-derived material, and other material contained in the load that was transported from the facility
- the date the waste, waste-derived material, and other material was transported from the facility
- details of the recycling, mixing, blending or processing applied to the waste leaving the facility, including the composition (as a proportion of waste and other material) of any waste-derived material in the load
- the registration number of the vehicle that transported the waste, waste-derived material, and other material
- the address of the place to which the waste was transported.

## **5. For waste eligible for an exemption**

In addition to the requirements above, for all waste that is eligible for an exemption you must record the details outlined in clause 10(2) of the Waste Regulation, which include:

- the amount (in tonnes) and type of exempted waste retained at the facility
- details of any process (e.g. treatment or recycling) applied to the exempted waste and the date this occurred
- details of what happened to the exempted waste (e.g. disposed of, treated, recycled or processed) and the date this occurred.

## **Format of records**

For the purposes of clause 12(6)(a) of the Waste Regulation, records must be kept in accordance with the requirements set out below.

### **Facilities with weighbridges and integrated data recording systems**

Commercially available software packages can be used to record a range of data relating to the movement of waste in and out of the facility. These applications may also be used to produce reports which can be used by occupiers to prepare their waste contributions monthly report (WCMR). Some occupiers may decide to develop their own software application to meet the specific need of their operations.

Whether programs are 'off the shelf' or an in-house design, all programs must be able to record not only the specific details required by the Waste Regulation, but also additional information which is essential for a complete understanding of a specific transaction.

For example, all waste moving in and out of a facility must be recorded. Thus a truck carrying concrete into the facility may also carry concrete out of the facility after it has undergone some form of processing. To understand the nature of the transaction the direction that the vehicle takes, either **in** or **out**, should form part of the record.

Similarly, the Waste Regulation requires the facility occupier to record the amount of waste received, that is, its net weight. This can only be calculated by reference to the gross and tare weights of the vehicle, therefore both these weights should be recorded to enable a more complete understanding of the transaction.

All database fields should be able to be downloaded in either an .xls, .csv or .dbf format. All downloaded records must have a header row.

### **Facilities using manual records**

Essentially there is no difference between records kept on a computer database or those kept on paper.

### **Computer based records**

Commercial software packages usually have a provision which allows the data held in the database to be exported in formats that can be read by programs such as Microsoft's Excel or Access. The exported data will have an extension such as .xls, .csv, or .dbf.

Records may be requested during a site inspection of the facility and would normally be copied to a USB memory stick, or burned to a CD or DVD. At other times records may be requested by telephone or email in which case they can be sent via email to the officer making the request. If the file is too large to be emailed, it may have to be burned to a CD or DVD and sent by registered post.

Note: When extracting records from the database it is essential that each field in the record have a heading as the first row.

### **Manual records**

It is suggested that manual records be kept in duplicate. When requested, the duplicate record can then be provided. Records may be requested as part of a site inspection or by telephone or email.

If manual records are transferred to a computer based application and that application is used to prepare the WCMR, a copy of that data and the manual record should be provided.

## **Production of records on request**

Any record required to be kept under the Waste Regulation must be produced to DECCW if requested by an authorised officer.

## **Failure to keep records**

All records are liable to periodic audit by DECCW. If records have not been maintained as required by the Waste Regulation, or claims are found to be false, deductions or exemptions already granted to the facility will need to be repaid to DECCW. Penalty notices (also known as on-the-spot-fines) may be issued, or prosecution action may be taken, if appropriate.

Where inadequate records have been kept by a facility, DECCW may estimate the tonnage of waste received by a facility by using any information available, such as volumetric surveys, other facility records and information provided by DECCW officers that have inspected the facility. This estimate will be used to determine a waste facility's levy liability.

## **How long should records be retained for?**

The occupier of the waste facility must retain all records for at least three years from the date that the record was made, or, in relation to waste for which an exemption or deduction was claimed, three years from the date that the exemption or deduction was claimed.

For example, in relation to waste for which a deduction was claimed, records of both the **receipt** and **removal** of the waste must be kept for three years from the date on which the deduction was claimed in the WCMR.

# Operational guidance note 7 – Weighbridges and associated recording systems

This guidance note explains the procedures to be adopted by an occupier of a scheduled waste facility when installing a weighbridge.

## When a weighbridge should be installed

Occupiers of scheduled waste facilities that receive more than 10,000 tonnes of waste or other material in any financial year must install an approved weighbridge.

From 1 July 2011, scheduled waste facilities that receive more than 5,000 tonnes in any one year will be required to install an approved weighbridge (as specified in clause 15 of the Waste Regulation).

In accordance with clause 15(3) of the Waste Regulation, the EPA may, by notice in writing given to the occupier of a waste facility, exempt the occupier from any requirements under clause 15(1) or (2) of the Waste Regulation until such time as the EPA decides to revoke the exemption.

Where a weighbridge is installed, records of all waste and materials entering and leaving the facility should be based on the weight (in tonnes) recorded by the weighbridge.

## Vehicle flow control plan

After a weighbridge is installed, the occupier of a scheduled waste facility must submit a vehicle flow control plan to DECCW. The plan should show all vehicle entry and exit points, including emergency exits, where waste is transported into and out of the facility.

Where two or more waste facilities are co-located on one site, for example a recycling facility adjacent to a landfill, the vehicle flow control plan should show all entry and exit points between the two facilities.

A copy of the latest plan must be kept at the facility and produced when requested by a DECCW officer. DECCW must be notified of any changes to the plan.

## Weighbridges and small vehicles

Occupiers may choose not to weigh small vehicles (cars, utes, trailers). If this is done, the occupier must use the weight conversion factors referred to in 'Operational guidance note 8 – Using vehicle weight conversion factors' to determine the weight of waste. However, if small vehicles are weighed using the weighbridge, the actual weight must be used to calculate the levy liability.

Where the weighbridge is not used to record the weight of waste carried in by small vehicles, all other details relating to that vehicle and its load must still be recorded.

## Weighbridge certification

Occupiers must ensure that the weighbridge is certified at least once a year in accordance with the *Trade Measurement Act 1989*.

A copy of the latest certification must be kept at the facility and produced when requested by an authorised officer.

## Stored tare weights

To assist with vehicle flow, many computer-based weighbridge recording systems store the unladen weights of vehicles (tare weights) that frequently enter the facility. By storing the tare weight of a vehicle, that vehicle need only be weighed on entry (if they are leaving the facility empty). The system then calculates the net weight based on the gross weighbridge weight less the stored tare weight.

Occupiers may adopt this method of recording the weight of waste, subject to the following:

- the stored tare weights are reviewed at least once each quarter
- vehicle owner/drivers should not be forewarned that tare weights are to be reviewed
- occupiers should carry out random checks on vehicles with stored tare weights
- weighbridge staff should not be able to adjust stored tare weights
- the system should allow weighbridge staff to override a stored tare weight and use actual weighed weights on entry and exit to calculate the net weight
- a register should be maintained of all vehicles using stored tare weights, with the following details recorded:
  - the registration number of the vehicle
  - the customer name
  - the stored tare weight and the date it was entered into the system
  - previous stored tare weights must be retained for audit purposes.

If weight discrepancies are found with vehicles using stored tare weights, occupiers may be liable for additional levy payments for under-reported waste. Similarly, 'overweighing' may result in occupiers having to apply for a refund of overpaid contributions.

## Weighbridge failure

In accordance with clause 15(2)(g) of the Waste Regulation, the occupier must notify DECCW if the weighbridge is out of operation for more than 7 days. In any event, it is recommended that the occupier notify DECCW of a malfunction as soon as possible to ensure that proper alternative weighing and recording processes are put in place.

When the weighbridge is out of operation, weighbridge staff must use the weight conversion factors referred to in 'Operational guidance note 8 – Using vehicle weight conversion factors to determine the weight of waste received at the facility'. All other information relating to the vehicle and its load must still be recorded in accordance with 'Operational guidance note 6 – Complying with record-keeping requirements'.

Once the weighbridge and its data recording system have been restored, all data which has been manually recorded should be entered into the system. DECCW should be notified once normal operations resume.

## Operational guidance note 8 – Using vehicle weight conversion factors

This guidance note explains the vehicle weight conversion factors that are to be used to determine levy liability where unweighed waste is received at a scheduled waste facility.

### Recording unweighed waste

Where a facility does not have a weighbridge installed, or where the facility's weighbridge is not used to weigh waste transported in small vehicles (such as a car or ute) the vehicle weight conversion factors set out below should be used.

Note: where the weight of the waste is not being measured, the weight conversion factors apply regardless of the actual weight of the waste being transported.

**Table 4 Vehicle weight conversion factors**

Vehicle type	Description	Weight factor		
<b>Small vehicle</b>		<b>All mixed waste</b>		
A	Car/station wagon	0.06		
B	Van/ute/trailer	0.30		
<b>Open truck</b>		<b>Municipal, commercial and industrial waste</b>	<b>Construction and demolition waste</b>	<b>Virgin excavated natural materials</b>
C	Single rear axle with two rear wheels or four small rear wheels	0.62	0.98	2.47
D	Single rear axle with four normal size wheels	1.16	2.76	5.58
E	Tandem rear axle (bogie drive)	3.74	7.14	10.97
F	Twin steer with twin rear axles	5.57	7.61	10.97
G	Tipping semi-trailer	5.79	15.00	15.00
<b>Enclosed truck and compactor</b>		<b>All mixed waste</b>		
H	Single steer with single rear axle	2.72		
I	Single steer with tandem rear axle	6.38		
J	Twin steer with tandem rear axle	7.96		
K	Waste transfer truck	19.89		

Note: although occupiers may choose whether a small vehicle uses the weighbridge when entering a site, if the weighbridge is used, the actual weight recorded by the weighbridge must be used to calculate the levy liability.

### Example

On 5 December 2006, Landfill X receives a ute full of mixed waste. Landfill X uses DECCW's weight conversion factors to calculate the amount of waste received:

1 ute of waste            x        0.30    =        0.30 tonnes  
(Vehicle type B)

In its records, Landfill X records that: on 5/12/06 it received 0.30 tonnes of mixed waste (material composition code: MIX) from vehicle registration number ZIG 433, which was placed in stockpile A.

### Mobile garbage bins and single counted item factors

The following conversion factors for mobile garbage bins and single items may only be applied for scheduled waste facilities located in the ***regional regulated area***.

Description	Weight factor
Mobile garbage bins	0.06 per bin
Counted items	0.06 per item

# Operational guidance note 9 – Using volumetric surveys

This guidance note helps occupiers of scheduled waste facilities to understand the requirements for undertaking volumetric surveys.

## What is a volumetric survey?

A volumetric survey is the comparison of the results of two or more topographical surveys conducted at different moments in time.

## Why are volumetric surveys required?

Volumetric surveys provide DECCW with information relating to:

- the rate at which available landfill capacity is being consumed
- the management of stockpiles of waste awaiting recycling or processing
- the monitoring of the waste and environment levy system.

## When should a volumetric survey be undertaken?

### Initial survey

All new landfills or existing landfills that must pay the waste and environmental levy for the first time must be surveyed either before operations commence or, if the facility is an existing facility, on the date the facility commences to receive waste that is the subject to the waste and environment levy. This survey is referred to as the **baseline survey**. The baseline survey establishes the **total design capacity** of the facility and sets the benchmark against which all other surveys will be compared.

### Routine survey

Unless DECCW agrees to an alternate time frame, occupiers must have their waste facility surveyed each June and December. This is known as the survey period.

DECCW may also direct an occupier, by notice in writing, to undertake a volumetric survey at any time. For example, the occupier may be directed to undertake a volumetric survey before placing the waste in a newly constructed cell.

## Who can undertake a survey?

Surveys must be carried out by a qualified surveyor.

## What is required to be surveyed?

DECCW provides each occupier with a document referred to as the **form and manner** before commencing each survey period. The form and manner document details the scope of the survey information required, including instructions for the surveyor.

A copy of the latest form and manner document is included below for information.

Occupiers will need to advise the surveyor of the number of tonnes placed in each active cell since the previous survey to calculate the number of tonnes per cubic metre (compaction rate).

## Submitting the survey results to DECCW

The survey results must be submitted to DECCW by the end of the month following the survey period. That is, the survey results must be submitted by 31 July for the December–June survey period and by 31 January for the June–December survey period.

The results must be submitted to DECCW using the form provided below. That form is the approved form for the purposes of cl 14(1) of the Waste Regulation.

### Volumetric survey checklist

Facility:

Licence number:

Survey period:

	yes
Survey must be carried out by a person registered under the <i>Surveying Act 2002</i> .	
Survey results and calculations must be presented in the form of a topographical plan. <b><i>Plan information extends to boundaries or other points as determined by the EPA.</i></b>	
The plan must be drawn at scale 1:250, 1:500 or 1:1000 on A1 size sheets Different scales or plan sizes may be adopted after approval by the EPA.	
Terrain levels must be represented on the plans by contours at 1 metre intervals.	
All levels must be related to Australian Height Datum and the origin of levels noted on the plan.	
Spot levels must be taken at sufficient frequency to allow interpolation of levels from the plan to $\pm 0.2$ metres at the 90% confidence level.	
Boundaries of the site, adjoining title information, the limits of the volume determination and date of survey must be clearly denoted on the plan.	
The boundaries of all active cells which received waste during the survey period must be clearly denoted on the plan by use of the Map Grid Australia (MGA)..	
The boundaries of all active cells which are currently being mined or quarried must be clearly denoted on the plan.	
Stockpiles must be clearly denoted on the plan.	
Details of all stockpiles and their volume must be noted on the Landfill Facility Information Certificate.	
The Landfill Facility Information Certificate must be completed and attached to the plan.	
The plan must be signed by a registered or qualified surveyor to certify correctness.	

Signed ..... Date .....

Name .....of.....

(Surveyor) (Organisation)

This form along with the Landfill Facility Information Certificate may be submitted by conventional mail or in an electronic format. See Formal Notice for details.

Note: The survey plan cannot be lodged electronically

Protection of the Environment Operations (Waste) Regulation 2005

### Landfill facility information certificate

Licence no: .....

Survey period: .....

Facility name: .....

Facility address: .....

.....

Occupier's name: .....

Title details:

Site area: ..... hectares.

Lot ..... D.P. ....

Lot ..... D.P. ....

Lot ..... D.P. ....

Lot ..... D.P. ....

MGA co-ordinates of cadastral boundary: .....

MGA co-ordinates of active cell/s: .....

Landfill capacity details:

Total design capacity

Void space remaining at beginning of survey period

Change in void space during this survey period

Void space remaining as at end of survey period

## Stockpile details

Stockpile no.

Stockpile no.	Volume
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )
	(m <sup>3</sup> )

If space is insufficient, attach a separate schedule. The surveyor should sign the schedule.

## Surveyor's certification

I, .....of .....

a surveyor registered under the *Surveyors Act 2002*, certify that the above information is correct and that the survey and computations represented in the attached plans have been conducted in accordance with the approved form and manner requirements of the Protection of the Environment Operations (Waste) Regulation 2005.

.....  
Signature Date

This form along with the volumetric survey checklist may be submitted by conventional mail or in an electronic format. See Formal Notice for details.

Note: The survey plan cannot be lodged electronically

## Explanatory notes

<b>Accuracy</b>	The tolerance of +/- 0.2m is a measure of the accuracy referred to above. This figure is considered reasonable for the type of survey and task required.
<b>Boundaries, site area</b>	The site boundaries should clearly identify the extent of the site covered by the licence. The adjoining title information puts the site in context with surrounding parcels and owners. See also title information
<b>Boundaries, active cells</b>	An active cell is one that either received waste for landfilling or was mined or quarried, during the survey period. The plan should clearly show the boundaries of these areas. The boundaries of the active cells should be determined at the commencement of operations and will remain unchanged during the life of the cell. Areas occupied by bund walls, lining material etc. are to be enclosed within the denoted boundary.

<b>Change in void space during this survey period</b>	This is the net change in void space since the last survey. Where a facility is used for both landfilling and extracting and removing material from site, it is possible that this figure may be positive, that is more void space may have been created by extraction and removal from the site than was consumed by landfilling.
<b>Contours</b>	Lines drawn in plan which represent the nominated level along their entire length. The locations of these lines are interpolated between measured heights, and the accuracy of those locations is directly dependent on the distance between the heights and the irregularity of the topography i.e. rough terrain should have a greater density of measured heights to ensure accurate contours.
<b>Occupier</b>	The occupier is the entity who has management or control of the facility.
<b>Prescribed date</b>	For surveys carried out in December, the following 31 January. For surveys carried out in June, the following 31 July.
<b>Registered surveyor</b>	Surveyor registered under the <i>Surveying Act 2002</i> .
<b>Scale</b>	The scales quoted are commonly used for engineering purposes and should allow plans to be free of overlapping/crowded information. An A1 sheet is 841mm x 594mm.
<b>Stockpile details</b>	Stockpile locations must be cross-referenced to the landfill facility information certificate for identification purposes. Numbers must correlate with the stockpile information certificate.  Occupiers have been provided with a separate set of instructions dealing with the stocktake of stockpiles and the stockpile information certificate.  Occupiers will provide the surveyor with the stockpile identification number to be shown against the relevant stockpile on the survey plan.
<b>Survey plans</b>	Show site detail and levels. Items of detail which should be shown for landfill facilities are buildings, roads, fences, stockpiles, ponds, landfill cells, extraction areas, weighbridges and any other significant details likely to impact on volume usage or landfill lifetime.
<b>Title details</b>	Site area to be shown in hectares.  The lot and development plan (DP) covered by the landfill licence. All lot and development plan numbers within the site must be denoted on the plan.  Where the landfill does not occupy a unique lot or development plan, that is, the licence might be referred to as to part of lot 1, lot 2 in development plan 234567, the plan must show the Map Grid Australia (MGA) coordinates of the cadastral boundary.  The MGA coordinates of the active landfill site must be denoted on the plan and must remain unaltered over the life of the cell.
<b>Void space remaining at beginning of survey period</b>	The void space remaining before total design capacity is reached.

# Operational guidance note 10 – Stockpile management

This guidance note provides an occupier of a scheduled waste facility with assistance in managing their waste stockpiles.

## Overview

For waste facilities, stockpiling waste before re-using or recycling it, or transporting it off site, means they may be eligible to claim a transported waste or approved operational purpose deduction.

The following restrictions apply to deduction claims:

- deductions for waste that has been used for an approved operational purpose or transported off site are calculated on the basis of the rate that applied to the waste when it was received
- deductions cannot be claimed for waste that was received more than 24 months before the date of the proposed deduction (note: approved operational purposes may require the waste to be applied within a lesser period).

Therefore, in order to make a lawful deduction for waste, occupiers will need to know **when** that particular waste was received. Occupiers must adopt a suitable system to account for this waste so any later claims for either a transported waste deduction, operational purpose deduction or land application deduction may be substantiated. Deductions that cannot be substantiated may be disallowed by DECCW.

## The preferred method for stockpiling waste

Since deductions are calculated at the levy rate that was applicable at the time the waste was received, waste received in different financial years should be stockpiled separately wherever possible.

### **Example : Waste received over two years – separately stockpiled**

Between 1 January and 30 June, a facility received 5,000 tonnes of mixed building and demolition waste (levy rate: \$50). Between July and 31 August a further 3,000 tonnes was received (levy rate \$65). Note the levy rates are for this example only.

During September, 6,000 tonnes is crushed and progressively removed from the site. The 6,000 tonnes is drawn from the waste received after July with the balance from the previous year.

The value of the transported waste deduction will be calculated as follows:  
 $3,000 \text{ tonnes} \times \$65.00 \text{ plus } 3,000 \text{ tonnes} \times \$50.00 = \$345,000$

## FIFO: the first in, first out rule

Each facility will have its own limitations regarding space and the nature of processing that may make separate stockpiling based on financial years impractical.

As a result, stockpiles awaiting processing may contain waste which has been received in two or more financial years, including waste that was received more than two years ago. Similarly, it may not be possible to distinguish between waste

received in particular years where the waste has been processed and is stockpiled awaiting transportation off-site.

Where this occurs in relation to a particular stockpile, the accounting principle known as the first in, first out (FIFO rule) will be applied when calculating deductions for waste from that stockpile.

Under the FIFO rule, the value of a deduction will be calculated by first applying the lowest levy rate applicable to waste in the stockpile. Once all that waste in that stockpile has been accounted for (i.e. either transported off-site, used pursuant to an approved operational purpose or disposed of in an active cell), the value of a deduction can be calculated at the next highest levy rate and so on.

In this case, occupiers should consider the waste awaiting processing and removal as being part of a continuous process. Occupiers will be required to keep records of the amount and value of waste entering the process and the amount and value of waste leaving the site.

#### **Example : Waste received over two years – stockpiled together**

The following example assumes that all waste is removed within two years of receipt and is not stored in separate stockpiles by financial year of receipt. Note the levy rates are for this example only.

Between 1 January and 30 June a facility received 5,000 tonnes of mixed building and demolition waste (levy rate \$50). Between July and 31 August a further 3,000 tonnes is received (levy rate \$65).

During September, 6,000 tonnes is crushed and progressively removed from the site. The transported waste deduction will be calculated as follows:

$$5,000 \text{ tonnes} \times \$50.00 \text{ plus } 1,000 \text{ tonnes} \times \$65.00 = \$315,000$$

## **Stockpile identification**

Regardless of the method of stockpiling, each stockpile must be given a unique stockpile identification number and the amount and type of waste added to or removed from the stockpile each day must be recorded. Each stockpile will be surveyed at least twice a year in accordance with 'Operational guidance note 9 – using volumetric surveys.'

## **Summary**

Where an occupier stockpiles waste before processing it or transporting it off site, they should ensure that they record on a daily basis:

- the amount of waste in tonnes and dollar value (i.e. applicable levy rate) added to the stockpile and recycling process
- the amount of waste in tonnes and dollar value transported from the site.

When waste exceeds the two year rule, occupiers will need to exclude this waste from the calculation of the transported waste deduction.

Many of these problems can be avoided if waste is stored in discrete stockpiles by year of receipt.

If you have any questions about stockpile management, phone DECCW's Waste Management Section on (02) 9995 5740.