

CALCULATING THE LANDFILL LEVY AND RECYCLING REBATES

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INTRODUCTION

The Environment Protection Act 1970 ("the Act") requires the holder of a licence for a landfill to pay a levy for each tonne of waste deposited. The landfill levy is an integral component of the waste management system and was introduced in Victoria in 1992 in metropolitan and provincial centres and extended to the whole of Victoria in 1996.

Landfill levies play an important role in providing funding assistance to establish waste management infrastructure, support programs for industry, education programs and the resourcing of the bodies responsible for waste planning and management in Victoria. The levies also act as an incentive to minimise the generation of waste and promote investment in developing alternatives to disposal to landfill.

CHANGES AS FROM 1 JULY 2002

Under the provisions of the Environment Protection (Resource Efficiency) Act 2002 landfill levies will be increased progressively over a six year period.

While significant progress has been made in reducing municipal waste, much less has been achieved with commercial and industrial waste. Thus a higher levy for commercial and industrial waste has been introduced to drive new and expanded programs to reduce waste from this sector. The landfill levy will continue to be charged at a lower rate in rural areas for both municipal and industrial waste. The new levy rates come into effect on 1 July 2002 and are shown in the table below:

Year	Levy (\$/tonne)				
	Rural Municipal	Rural Industrial	Urban Municipal	Urban Industrial	Prescribed Industrial
2002-3	2	3	4	5	10
2003-4	3	5	5	7	14
2004-5	4	7	6	9	18
2005-6	5	9	7	11	22
2006-7	6	11	8	13	26
2007-8	7	13	9	15	30

Note that "urban" refers to municipalities listed in Schedule C of the Act (Metropolitan Melbourne and Mornington Peninsula, Greater Geelong, Greater

Bendigo, Ballarat and Golden Plains Municipalities). "Rural" refers to all other municipalities in Victoria.

Privately owned landfills that only receive wastes that consist of substances that were owned by the owner of the landfill before they became wastes are exempt from the levy entirely.

It is the responsibility of the landfill operator to ensure that levy payments are made in accordance with the requirements of the Act. In particular the landfill operator needs to make an assessment on the type of waste being disposed (ie municipal or industrial). The Act defines municipal and industrial wastes according to the type of activity generating the waste. The following is designed to assist landfill operators in making this determination.

MUNICIPAL WASTE

The Act defines municipal waste as 'any waste arising from municipal or residential activities, and includes waste collected by, or on behalf of, a municipal council, but does not include any industrial waste'.

Therefore municipal waste is associated with the day-to-day activities of households and maintenance of a clean municipality, for example:

- garbage & domestic household waste,
- residential kerbside collections
- residential hard waste collections
- residential self-haul waste
- residential garden waste
- municipal litter collections
- municipal street sweepings
- park waste

INDUSTRIAL WASTE

Industrial waste is defined under the Act as;

- (a) any waste arising from commercial, industrial, or trade activities or from laboratories; or
- (b) any waste containing substances or materials which are potentially harmful to human beings or equipment.

Industrial waste includes waste arising from all commercial, industrial, building and demolition activities, including;

- manufacturing activities
- wholesale/retail trade
- commercial services including services provided to households (eg gardening services, skip/bin hire etc)
- accommodation, cafes, restaurants
- building/demolition waste from building construction, renovations or repairs and road construction and maintenance
- waste from primary industries including agricultural, forestry and fishing.

WASTE FROM TRANSFER STATIONS

For the purpose of the collection of the levy, landfill operators must obtain sufficient information from transfer station operators to determine the rate at which the levy should be collected.

Transfer station operators must therefore maintain adequate records identifying the origin (ie municipal or industrial) of the waste being disposed to landfill.

Once recyclable items are sorted and removed from the waste stream, the remaining waste is disposed of to landfill. The transfer station operator should provide the landfill operator with information on the proportion of municipal and industrial waste leaving the site for disposal to landfill so the levy can be correctly charged and recorded.

It is the responsibility of landfill operators to collect and pay the landfill levy. Therefore landfill operators need to satisfy themselves that the transfer station records are correct.

In some cases reliable records of incoming waste will not be able to be kept, such as transfer stations provided by rural Councils. In these cases, landfill operators will need to work with Councils to establish a means of suitably estimating the proportion of municipal and industrial wastes. Such estimates may be based on information such as periodic audits.

PRESCRIBED WASTE

The Environment Protection (Prescribed Waste) Regulations 1998 list those wastes classified as prescribed wastes for the purposes of the Act. These wastes are listed in Schedule 1 of the Regulations, and include wastes from chemical, paint and plastic manufacturers.

Landfill licences stipulate whether a certain prescribed waste can be accepted at the landfill.

PAYMENT OF THE LEVY

Payment of the levy is made quarterly as follows:

- July-September quarter – paid on or before 31 December
- October-December quarter – paid on or before 31 March
- January-March quarter – paid on or before 30 June
- April-June quarter – paid on or before 30 September.

All payments are to be accompanied by completed forms showing how the payments have been calculated.

The levy amounts for the different waste categories are to be shown separately on these forms. The levy payments may be combined in a single cheque.

The April – June payment is calculated by reviewing the whole year's operation and calculating the net amount owing, taking into account the payments already made and any rebates owing.

Late Payments

If any payment is not made when it is due:

- interest will accrue from the date that a payment is due at a rate determined by the Treasury.
- EPA may suspend the licence until such a time as payment (plus interest) is made.
- EPA may seek a Magistrate's payment order for the full amount owed.

LEVY REBATE FOR COVER MATERIAL

The Act specifies that all material deposited in the landfill is subject to the levy. A fixed rebate of 15% is provided for in the Act to allow for a sufficient amount of cover material. This rebate is to be

claimed on the quarterly payments at the municipal levy rate. Therefore where clean soil is used as cover, the municipal rate levy applies.

All cover material used must be included in the levy calculations. The only exceptions are material won on site and materials used in the construction of the landfill, eg liners.

QUARTERLY PAYMENTS

Calculating the Levy by Weight

Where a weighbridge is available for measuring material deposited during a quarter, the weighbridge weight measurements must be used to calculate all levy payments, including that for prescribed industrial waste.

All cover material used on the site unless exempted as described above is to be included in the amount of municipal waste deposited.

Calculating the Levy by Volume – Municipal and Industrial Waste

Where a weighbridge is not available, EPA has approved several methods to be used to estimate the weight of waste. It is essential that the landfill licence holders separately and accurately record the volumes of municipal and industrial waste received at the site.

Volume-based method using gate records

The preferred method is the volume-based method, which requires landfill licence holders to estimate the volume of municipal and industrial waste delivered to sites. This volume is then converted to a

tonnage using the calculation described below. The weight of the cover material is calculated separately by an approved method, as described under the heading “Cover Material”.

It is the responsibility of licence holders adopting this method to ensure that:

- all loads delivered to the site are assessed and recorded in terms of the appropriate waste stream (ie municipal and industrial waste).
- people assessing volumes are provided with accurate information about the volumetric capacity of vehicles commonly used to deliver waste to the site.
- the content of partly filled vehicles is assessed systematically and accurately.

Such systems are subject to audit by EPA.

Gate records can be converted to estimates of volume filled by applying a factor (f) derived from the annual volume placed in the landfill (L) and the annual volume of waste recorded through the gate (G).

Formula

$$f = \frac{L}{G}$$

L = Total volume of airspace filled over a time period (excluding cover material). The value of L must be derived from a reliable site survey.

G = Total volume of waste (excluding cover material) recorded at the gate over the same time period. The value of G must be based on estimates of delivered load and

supported by appropriate records which will be audited.

Illustrative Example

- The ABC Landfill Company charges customers on the basis of visual estimates of load volume. Financial records show that ABC charged for 35,000 cubic metres of waste (excluding cover material) last year (G).
- Last year's survey of landfill space consumed shows that 20,000 cubic metres (L) space was used in the same year.

Therefore

$$f = \frac{L}{G}$$

$$= \frac{20,000}{35,000}$$

$$= 0.57$$

If the value of f is not known but the licence holder has reason to believe it is less than or equal to 0.55, then the value of 0.55 may be used as a default (this value is based on experience at sites levied in 1996). If the licence holder does not have such reasons, the site specific factor (f) should be determined and used. Licence holders should expect to be required to submit evidence to support a site specific factor.

The value of f for each site must be determined from the previous year's levy records, or the first year in which a new landfill is subject to the levy, unless the licence holder has reason to believe that the value of f has changed significantly. In such cases, a new

site-specific factor and supporting evidence should be submitted to EPA for approval.

To estimate the weight of material disposed of in a quarter (W_{EST}), the following calculation is approved.

Formula

$$W_{EST} = (G_M + G_I) \times F \times \rho$$

G_M = The volume of municipal waste (excluding cover material as this is estimated separately) disposed of in the quarter, as recorded through the charging procedure (based on estimates of delivered load size).

G_I = The volume of industrial waste disposed of in the quarter, as recorded through the charging procedure (based on estimates of delivered load size)

f = Compaction factor calculated as above.

ρ = The in-ground density of waste (tonnes/m³).

If the actual density is not known, but the licence holder has reason to believe it is less than or equal to 1 tonne/m³, then the default value of 1 may be used. If this is not the case, the site specific density should be determined and used. Licence holders should expect to be required to submit evidence to support a site specific density.

Cover Material

Due to the different characteristics of cover material, its weight is to be estimated separately to the waste.

Unless information supporting a lower density is submitted, the weight of cover material, W_c , is to be estimated by the following formula:

$$W_c = V_c \times 1.4$$

Where V_c = estimated uncompacted volume of cover material in m^3 .

Divide by 4 Method

This method allows a quarterly estimate to be made by dividing the previous year's gross volume deposited (including cover material volume) by 4. The resultant estimated volume is then to be multiplied by a density of 1.1 tonnes/ m^3 unless a different site specific density has been established. This density allows for the higher density of cover material included in the volume.

The 'Divide by 4' method is only to be used where the site was operational for the whole of the previous financial year. In addition the licence holder must provide accurate information to EPA that verifies the relative proportions of the different waste streams received.

Volumetric survey method

The decrease in airspace over the quarter is to be calculated using a reliable survey technique. The weight of deposited materials is to be calculated using the site specific compacted densities of materials demonstrated to and approved by EPA. In the absence of site specific information, a figure of 1.1 t/ m^3 is to be used. This density allows for the higher density of cover material included in the surveyed volume.

Records must be kept to determine the proportion of the volume occupied by municipal and industrial waste so the appropriate levy rate may be applied.

The approved method for estimating the weight of prescribed industrial waste is described below.

Prescribed Industrial Waste

For guidance on completing transport certificates that accompany prescribed industrial waste consignments, refer to EPA Publication 395a Industrial Waste Strategy – Instruction for Completion of Waste Transport Certificates

Landfill operators are to record the amount of waste actually received on Part C of the certificate, ie separate from the amount entered by the waste producer in Part A of the certificate. A landfill operator must only record the amount of waste in kilograms, using the following factors to convert volumes to weight.

- For asbestos, 1 m^3 is equivalent to 0.4 tonnes.
- For asbestos – contaminated soil & asbestos sheeting, 1 m^3 is equivalent to 1 tonne.
- For all other prescribed industrial waste, 1 m^3 or 1000 litres is equivalent to 1 tonne.

The prescribed industrial waste levy payment for that quarter must then be calculated using the total of the weights of waste entered in Part C of the transport certificates.

THE ANNUAL ASSESSMENT

The annual assessment relates to the waste deposited during the whole financial year. The balance of levy owing is calculated, taking into

account allowable rebates and is to be paid by 30 September. EPA is currently updating this information to allow for the different waste categories. This update will also include guidance on calculating licence fees based on annual tonnages, in accordance with the Environment Protection (Fees) Regulations 2002.

RECYCLING REBATE

Materials removed from the premises for recycling within 12 months of being deposited may be subject to a rebate.

Prescribed industrial waste removed from the premises for recycling or similar operations is also subject to a rebate of the prescribed waste levy if it is removed within three years of being deposited but only if the prescribed waste levy was paid on it when deposited. Transport Certificates must be used to record these movements unless a formal exemption has been granted by the Authority.

To claim a rebate, the licence holder must supply details of the amount of waste (in tonnes) which was deposited, levied and removed for recycling and when it was deposited.

RECORDS TO BE KEPT

Sufficient records must be kept to enable the levy payable to be calculated. These records are to include:

- operational measurements of waste disposed of quarterly.
- annual assessments of:
 - total weight of municipal waste deposited

- total weight of industrial waste deposited
- total weight of prescribed industrial waste deposited
- space won via extraction
- airspace remaining
- sales and other records to substantiate recycling rebate claims including information on deposition dates.
- any data used to determine site specific values for the compaction factor or the site specific density.

CALCULATION ACCURACY

All calculations carried out of weights and volumes are to be rounded to two decimal places, and the levy payment calculated on the basis of this rounded figure. Values less than #.##5 are to be rounded down and values of #.##5 or greater are to be rounded up.

REVISION OF ESTIMATES

If EPA determines that an estimate on which a levy instalment is based is too low, it may substitute its own estimate.

In such cases, the licence holder will be able to respond to EPA within 14 days of receiving notice of the revised estimate.

The licence holder will be required to pay any excess within 30 days of receiving the final notice.

The licence holder may apply to the Victorian Civil and Administrative Tribunal to have an EPA estimate reduced within 30 days of receiving the final notice.

METROPOLITAN AND PROVINCIAL MUNICIPALITIES

Ballarat	Casey	Hobsons Bay	Melbourne	Port Phillip
Banyule	Greater Dandenong	Hume	Melton	Stonnington
Bayside	Darebin	Kingston	Monash	Whitehorse
Greater Bendigo	Frankston	Knox	Moonee Valley	Whittlesea
Boroondara	Greater Geelong	Manningham	Moreland	Wyndham
Brimbank	Glen Eira	Maribyrnong	Mornington Peninsula	Yarra
Cardinia	Golden Plains	Maroondah	Nillumbik	Yarra Ranges

All other municipal districts, are classified as rural for the purpose of the landfill levy.

WASTE STREAM REPORTING

EcoRecycle Victoria has been working with landfill operators to implement systems that will allow the reporting of waste data to EPA Victoria in the three highest-level categories in the Australian Waste Database (municipal, commercial & industrial and building & demolition waste). The proposed waste stream reporting requirement is intended to provide data to better target Victoria's efforts in waste reduction. The forms used for reporting of landfill levy returns will be amended to include data to support the reporting of this information.

FURTHER INFORMATION

EPA Information Centre

40 City Road, Southbank 3006

Tel: (03) 9695 2722 Fax: (03) 9695 2780

EPA Regional Offices

Gippsland

7 Church Street, Traralgon 3844

Tel: (03) 5176 1744 Fax: (03) 5174 7851

North-East

24 Ely Street, Wangaratta 3677

Tel: (03) 5721 7277 Fax: (03) 5721 2121

North-West

43 Williamson Street, Bendigo 3550

Tel: (03) 5442 4393 Fax: (03) 5443 6555

South Metro

45 Princes Highway, Dandenong 3175

Tel: (03) 9794 0677 Fax: (03) 9794 5188

South-West

Cnr Lt Malop and Fenwick Streets, Geelong 3220

Tel: (03) 5226 4825 Fax: (03) 5226 4632

EPA internet site

www.epa.vic.gov.au