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Exemptions from waste (landfill) levies: what are the options available across Australian jurisdictions?



Scope of presentation

Included

- This presentation focuses on:
 - Operational purpose deductions at landfills
 - Exemptions for asbestos

Other options mostly not discussed in this presentation

- Waste levy deductions for when waste is received at the landfill that is taken offsite for reuse or recycling elsewhere
- Exemptions for landfills prior to accepting waste
- Resource recovery exemptions
- Levy rates and levy exemptions that apply to transfer stations

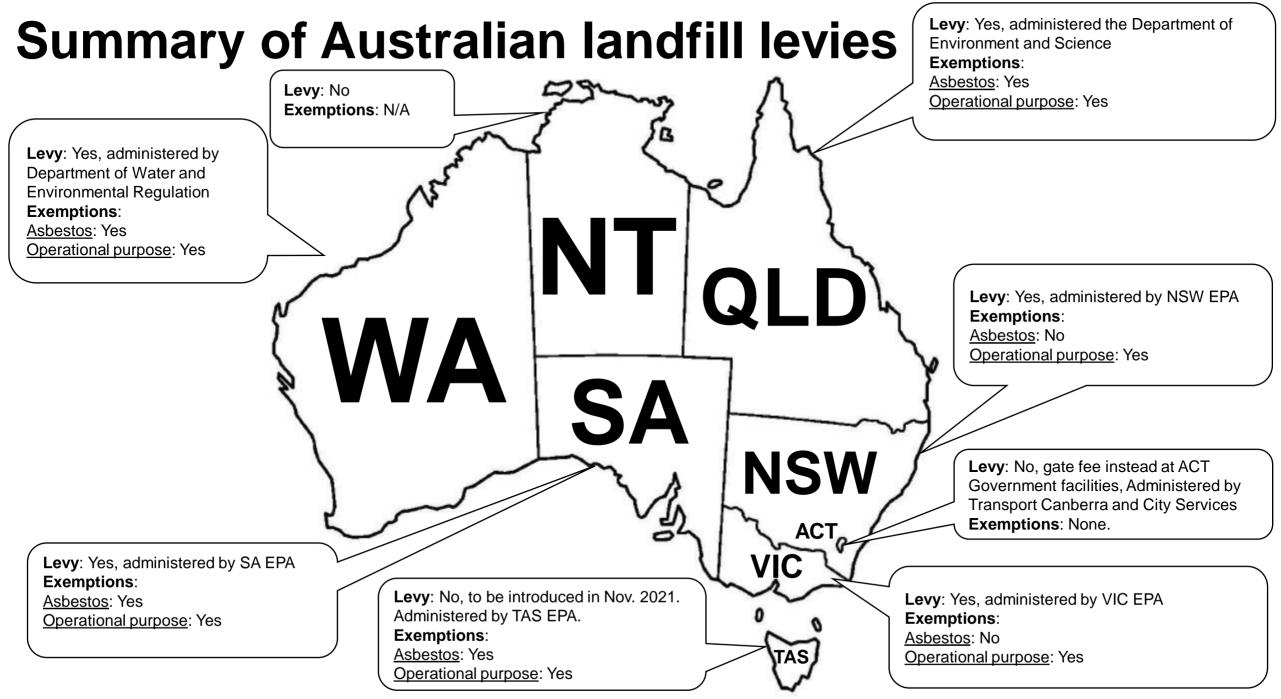


Waste (landfill) levies in Australia



Introduction: Waste (landfill) levies in Australia

- Levies aim to minimise the disposal of waste in landfills and encourage recycling and resource recovery.
- A number of jurisdictions permit exemptions from their waste levies for certain waste types to be used for operations purposes and for the receipt of asbestos waste.
- It is commercially important for landfill operators to understand the operational purpose deduction levy exemption options that are available and how to achieve these in a timely manner.



Exemptions from waste (landfill) levies: what are the options available across Australian jurisdictions? I GHD



New South Wales

→ Waste levy

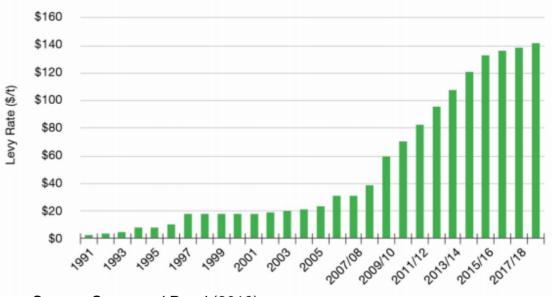




Source: NSW EPA (2020)

NSW Landfill Levy

- Administered by NSW EPA
- Applies to regulated area of NSW (metropolitan and regional)
- Paid on all waste received at licensed landfills in the regulated area as well as on waste received at licensed landfills in the non-regulated area that originated from the regulated area and vice versa
- Obligation triggered when waste is received on site, with payment and reporting monthly



NEW SOUTH WALES - Levy rate (\$/t) vs. year

Source: Serpo and Read (2019)

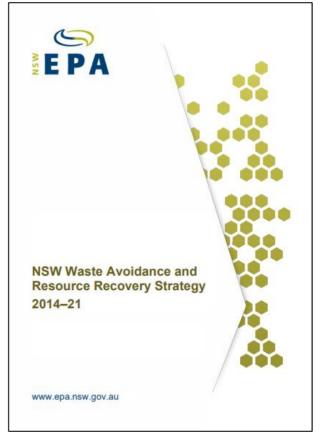
Exemptions from waste (landfill) levies: what are the options available across Australian jurisdictions? I GHD

NSW waste levy regulations and strategy

The current underpinning strategy for the NSW waste levy is the **NSW Waste and Resource Recovery Strategy 2014 – 21.**

NSW legislation governing the levy:

- Protection of the Environment Operations Act 1997 (POEO Act)
- Protection of the Environment Operations (Waste) Regulation 2014



In 2019-20, NSW EPA collected around \$750 million via the waste levy in NSW.



Waste Less, Recycle More

A \$337 million grants and funding initiative 2017–2021 extension



Revenue raised

- 1/3 of revenue raised via the waste levy in NSW was spent on waste and environmental programs (Audit Office of New South Wales, 2020).
- The Waste Less, Recycle More program was funded using this revenue. This is a NSW Government initiative that provides grants and funding for waste and recycling projects.

NSW Waste levy rates (2021-2022)

Material type	Metropolitan levy area (\$/tonne)	Regional levy area (\$/tonne)
Waste levy rate	147.10	84.70
Concessional waste levy rate: virgin excavated natural material	132.40	76.20
Concessional waste levy rate: recovered fines alternative daily cover	36.80	21.20
Concessional waste levy rate: prescribed shredder floc	84.60	48.70
Trackable liquid waste	78.80	78.80
Coal washery rejects	15.30	15.30

Levy exemptions

→ New South Wales

Broad exemptions from the NSW landfill levy

Wastes exempted from the levy at EPA licensed landfills

- Waste collected as part of a community service or activity
- Waste from a natural disaster or biological outbreak (at EPA discretion)
- Dredging spoil
- Waste mostly made up of whale carcasses
- Waste transported offsite for reuse and recycling
- 10% discount on the levy for VENM used for cover
- 75% discount on the levy for recovered fines from construction waste used as daily cover
- Operational purpose deductions (NSW EPA, 2020)

Claiming deductions for waste used for an approved operational purpose

Materials that do not attract the waste levy:

- Plant or vehicles (operational equipment and consumables e.g., earth-moving machinery)
- Office supplies that are used on-site e.g., computers (NSW EPA, 2017)

Operational purposes:

- Roads or other construction works
- Roads specified in the Waste Levy Guidelines
- Leachate collection systems
- Landfill lining systems
- Stormwater management systems
- Landfill-gas collection systems
- Groundwater management collection systems
- Drainage systems
- Alternative daily cover
- Rehabilitation of sand mines
- Landfill final capping works
- Bedding layers to protect landfill lining systems
- Biofilters

An operational purpose deduction cannot be claimed for:

- Waste already exempted from the levy
- Waste received more than 24 months before the deduction claim date (for scheduled waste disposal facilities)

Operational purpose deductions can be applied for EPA approval before or after the waste has been used for the operational purpose. The approval will typically be valid for a **12-month** period.

^{*} NSW has no appeal mechanisms under the legislation against the EPA's decision regarding operational purpose deductions.

Conflict between the landfill levy exemptions and the NSW EPA Solid Waste Landfill Guidelines

POEO (Waste) Regulation 2014

Clause 15 – Approval of operational purpose

"Any one or more of the following – (a) geomembranes, (b) geotextiles, (c) clay liners (having a thickness not greater than 900 millimetres), (d) piping, (e) drainage layer media (having a thickness not greater than 300 millimetres) placed over landfill base and side liners."

General solid waste landfills

This primary barrier system should include the following components, from bottom to top:

- a compacted sub-base 200 millimetres thick to provide a firm, stable, smooth surface of high bearing strength on which to install the liner
- a compacted clay liner at least 1000 millimetres thick, with an in situ hydraulic conductivity of less than 1 x 10⁻⁹ metres/second; for landfills receiving more than 20,000 tonnes of waste per year, the liner should include a geomembrane over the compacted

Environmental Guidelines: Solid waste landfills

1.4 Gravel drainage layers

The gravel drainage material should:

- consist of hard, strong, durable and clean gravel that will maintain the required performance under the maximum loads likely to be imposed on it in service
- have a saturated hydraulic conductivity greater than 1 x 10⁻³ metres/second when tested in accordance with Australian Standard AS 1289.6.7.1 Determination of the Permeability of a Soil (constant head method)
- be relatively uniform in particle size, with a nominal particle size greater than 20 millimetres and a maximum particle size of 40 millimetres, and with not more than 10% of particles smaller than 20 millimetres in diameter and not more than 3% smaller than 0.075 millimetres
- be non-reactive in mildly acidic conditions and chemically resistant to the leachate in the landfill, with a calcium carbonate content of less than 8.5% by mass
- not have a shape and angularity that will damage the underlying geomembrane liner (the best type of gravel is rounded and smooth-surfaced)
- be installed in a continuous layer at least 300 millimetres thick across the entire base of the landfill cell, sloped with at least a 1% longitudinal gradient and 3% transverse gradient.

Source material should be tested to show that the gravel drainage material meets these requirements.

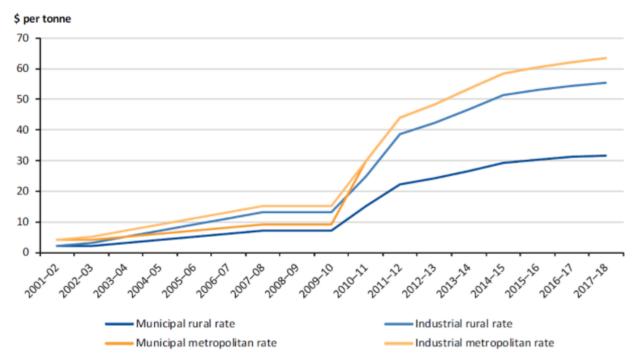


Victoria → Waste levy



VIC Landfill Levy

Changes in the Victorian Municipal and Industrial Landfill Levy rates over time



Source: Victorian Auditor General's Office (2018)

- Administered by VIC EPA
- Landfill levy applies to:
 - All of Victoria
 - A levy must be paid for all wastes that are deposited onto land at the premises, as defined in the license
 - Landfill levy statement submission and payment is made quarterly

(EPA Victoria - Publication 332.7, 2016)

VIC waste levy regulations and strategy

The VIC waste levy is underpinned by:

Recycling Victoria: A new economy (2020)



- Environment Protection (Amendment) Act 2006
- Environment Protection (Industrial Waste Resource) Regulations 2009

In 2019-20, VIC EPA collected around \$239 million via the waste levy in VIC.

2019-20 Sustainability Fund Activities Report

Investing in a more sustainable future



Revenue raised

- The waste levy is paid into the Municipal and Industrial Landfill Levy Trust Account.
- \$150 million was spent on waste and recycling activities.
- Revenue is split between the VIC EPA, Sustainability Victoria, Waste Resource Recovery Regional Groups, other agencies and the Sustainability Fund.



VIC waste levy rates

Levy	2020-21 \$/tonne rates	2021-22 \$/tonne rates	2022-23 \$/tonne rates
Metropolitan municipal and industrial landfill levy	85.90	105.90	125.90
Rural municipal landfill levy	42.95	52.95	62.95
Rural industrial landfill levy	75.59	93.19	110.79
Prescribed industrial waste category B	250.00	250.00	250.00
Prescribed industrial waste category C	85.90	105.90	125.90
Prescribed industrial waste category D	85.90	105.90	125.90
Packaged waste asbestos	30.00	30.00	30.00

 A fixed rebate of 15% of all waste deposited onto land at the premises (from external sources) is provided for cover material

19 Source: EPA Victoria (2021)

Levy exemptions → Victoria

Broad exemptions from the VIC landfill levy

- Waste from **natural disasters** (license holders must apply to the EPA)
- Landfill levy rebates apply e.g., recycling of municipal and industrial waste

Landfills:

- Privately owned landfills that only receive wastes that consist of substances that were owned by the owner of the landfill before they became waste
- Municipal council owned landfills that only receive the municipal wastes of an area with a population less than 5000 (EPA Victoria, 2016)

Operational purpose waste materials that are not subject to levy

Waste materials:

- Cell construction and final capping material (do not include in calculation of levy liabilities or disposal tonnage reported)
- Materials directly suitable for the construction of roads external to the licensed waste disposal area, i.e., do
 not require reprocessing (not subject to levy)
- Materials used for the **construction of roads inside** the licensed waste disposal area (not subject to levy)
- Cover material sourced from onsite excavations (do not include in calculation of levy liabilities or disposal tonnage reported)
- It appears that materials imported to site for stormwater controls could be subject to the levy.

Records of all materials used in cell construction (this includes EPA approved capping) must be kept to allow appropriate use to be verified. (EPA Victoria, 2016)

There is no time limit on materials not subject to the levy, however each site has an annual audit of its levy obligations.

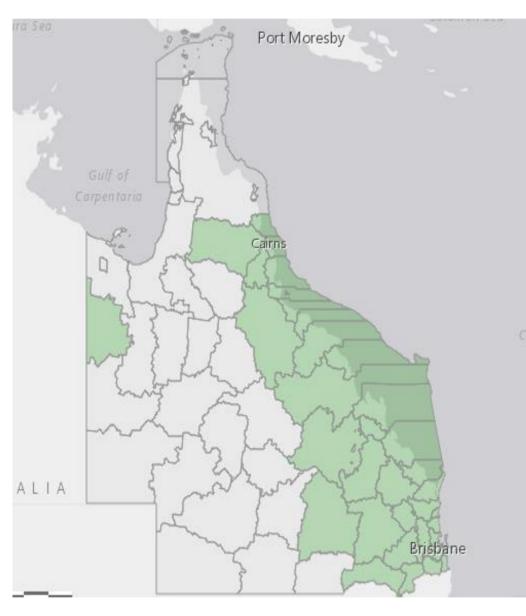


Queensland

→ Waste levy



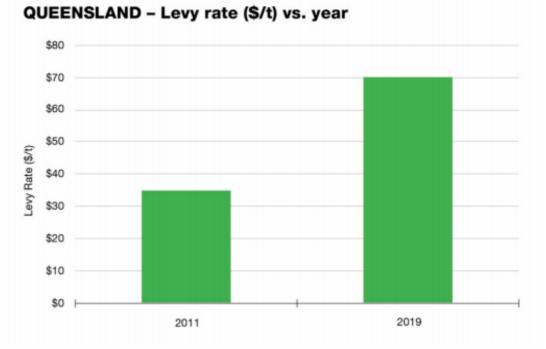
Levy zones below in green



Source: Queensland Government (2020)

QLD Waste Levy

- Administered by Queensland Government, Department of Environment and Science
- Applies to 39/77 local governments
- All waste disposed of in landfills in Queensland will incur the waste levy unless the waste is both generated and disposed of in the non-levy zone



Differential rate applies from July 2019, based on the waste type

Exemptions from waste (landfill) levies: what are the options available across Australian jurisdictions? I GHD

The current underpinning strategy for the QLD waste levy is **Waste Management and Recovery Strategy (2019)**

QLD documentation governing the levy:

Waste Reduction and Recycling (Waste Levy) Amendment Act 2019

QLD waste levy regulations and strategy

- Waste Reduction and Recycling Regulation 2011
- Waste Reduction and Recycling Act 2011

Waste Management and Resource Recovery Strategy

In 2019-20, QLD Government collected around \$248 million via the waste levy in QLD

Resource recovery industry development program

The \$100 million <u>Resource Recovery Industry Development Program</u> (RRIDP) (982 KB) supports our goal to make Queensland a world leader in recovery projects. It provides funding to Queensland's resource recovery industries through support for projects and initiatives that divert waste from landfill, reduce stockpiling and create jobs.

Funding is available to local governments, established businesses and not-for-profits looking to use proven resource recovery technologies to improve existing operations or bring significant new facilities to Queensland. Applications are also welcome from consortia offering integrated supply chain solutions.

Revenue raised

 Between 2019-2022, it is expected that **70%** of waste levy revenue will be allocated to advance payments to councils, scheme start-up and operational costs, industry programs and other environmental priorities e.g., Resource recovery industry development program (Queensland Government, 2021).

QLD waste levy rates (FY 2020-2021)

Waste type	Levy rate (\$/tonne)		
	1 July – 31 December	1 January – 30 June	
Treated timber sawdust and shavings	75	80	
Earth contaminated with a hazardous contaminant from land recorded on the environment management register or contaminated land register	75	80	
Regulated waste (Category 1) – highest risk	155	160	
Regulated waste (Category 2) – moderate risk	105	110	
Other leviable waste	75	80	

Source: Queensland Government (2020)

Levy exemptions

→ Queensland

Broad exemptions from the QLD landfill levy

- Natural disaster waste (local council must notify the Department of Environment and Science)
- Serious local event waste (decided by council)
- Lawfully managed and transported asbestos waste (if certain criteria are met)
- Dredge spoil
- Clean earth (earth that is not mixed with another type of waste and is not contaminated with hazardous material)
- Litter and illegally dumped waste collected by government, councils of forestry plantation licenses

- Acid sulphate soil that is:
 - Not contaminated with waste or a hazardous contaminant, other that naturally occurring iron sulphides
 - Has been **treated** in accordance with best practice environmental management for the treatment and management of acid sulphate soils
- Other exempt waste prescribed in Section 8 of the Waste Reduction and Recycling Regulation 2011 (Queensland Government, 2021)

Waste exempt following pre-approval by the Department of Environment and Science

- Waste received as part of **charity donations** that cannot be practically re-used, recycled or sold
- Litter and illegally dumped waste which is collected as part of an organized community clean up
- Waste necessary for the operation of leviable waste disposal sites, such as for building infrastructure (liners and drainage layers), temporary or daily cover, progressive or final capping, batter construction, profiling and site rehabilitation
- Some types of earth contaminated with a hazardous contaminant from land listed on the environmental management register or contaminated land register
- Biosecurity waste
- Serious local event waste (extension of time request) (Queensland Government, 2021)

Landfill operators can request to amend (for a fee) an approval of waste as exempt operational purpose waste under the *Waste Reduction and Recycling Act 2011* (section 33(2)).

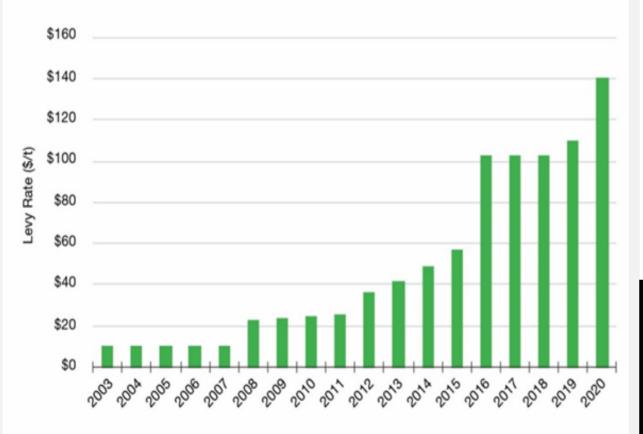


South Australia

→ Waste levy



SOUTH AUSTRALIA - levy rate (\$/t) vs. year



Administered by the SA Environmental Protection Agency

- Levy rates vary in SA depending on whether the waste is collected within the metropolitan Adelaide or outside its boundary
- A levy is payable by the licence-holder of a landfill for all waste received that is to be disposed of at that landfill.

South Australia – Waste Levy

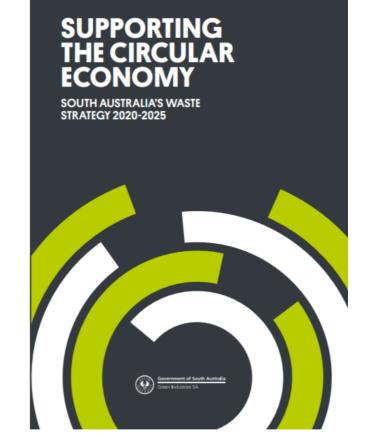
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SA Waste levy regulations and strategy

The waste levy is SA is guided by South Australia's Waste Strategy 2020 - 2025.

It is also underpinned by the following documents:

- Environment Protection Act 1993
- Environment Protection Regulations 2009



In 2019-20, SA EPA collected around \$70 million via the waste levy in SA.



Government of South Australia

Green Industries SA

Revenue raised

- It is estimated that 50% of waste levy revenue raised in 2019-20 in SA went to Green Industries SA, 45% went to SA EPA and the remaining 5% was allocated to the Environment Protection Fund (Serpo and Read, 2019).
- Green Industries SA helps develop the green economy and promotes the more efficient use of resources, and the conservation and recovery of scarce resources (Government of South Australia, 2021).

SA waste levy rates (FY 2020-2021)

Waste item	Metropolitan Adelaide	Non-metropolitan
Solid waste depot levy (\$/tonne)	143.00	71.50
Shredder floc (\$/tonne)	71.50	35.75
Charitable waste (\$/tonne)	71.50	35.75

Source: South Australia EPA (2021)

Levy exemptions

→ South Australia

Changes to SA waste levy occurring 1 December 2021

- Waste fill (i.e., clean soil): the \$0 levy on waste fill will be removed, meaning the full applicable solid waste levy rate applies to the disposal of waste fill.
- Daily cover: a 10% daily over deduction on waste levy payments will apply to landfills required to use daily cover. This will apply as of 1 December 2021. This is understood to be an automatically applied exemption.
- Stockpiles: stockpiling at waste disposal facilities which is in contravention of applicable EPA license conditions will attract the solid waste levy

(South Australia EPA, 2021)

Levy exemptions at SA

- No levy applies for the disposal of packaged asbestos waste (this excludes asbestos contaminated soil). Waste must be disposed according to Chapter 8 of the Work, Health and Safety Regulations 2012.
- Exemptions for approved operational use of waste at waste facilities (as of 1 Dec. 2021) must be approved in writing by the EPA or undertaken in accordance with the EPA published Approved Operational Use Standard (currently being developed). Examples include:
 - Construction or maintenance of internal roads
 - Interim cover of landfill where no additional waste will be placed for at least **30** days. Cover of landfill on a daily or more frequent basis is NOT exempt
 - Final capping of landfill cells
 - Mulching
 - A court appeal process will exist for disputes regarding EPA approvals on operational purpose exemptions

(South Australia EPA, 2021)



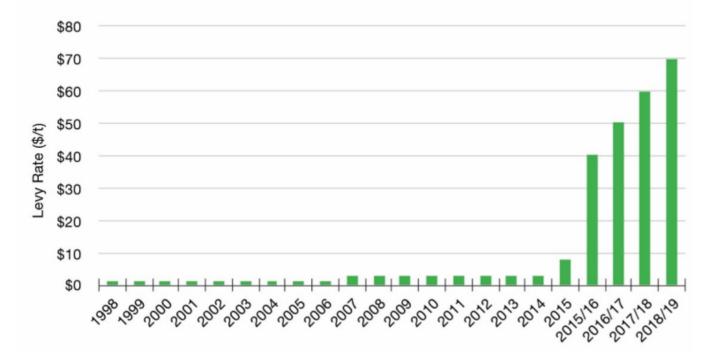
Western Australia

→ Waste levy



WA Waste levy

- Administered by the Department of Water and Environmental Regulation (WA Government)
- The waste levy applies to waste received at licensed landfills in the Perth metropolitan region and waste collected within the Perth metropolitan region that is disposed of to licensed landfills outside the metropolitan region (Government of Western Australia, 2021)



WESTERN AUSTRALIA - Levy rate (\$/t) vs. year

WA waste levy regulations and strategy

- The WA waste levy is guided by the Waste Avoidance and Resource Recovery Strategy 2030.
- The waste levy is also underpinned by the following documents:
 - Waste Avoidance and Resource Recovery Act 2007
 - Waste Avoidance and Resource Recovery Regulations 2008
 - Waste Avoidance and Resource Recovery Levy Act 2007
 - Waste Avoidance and Resource Recovery Levy Regulations 2008



In 2019-20, WA Government collected **\$85** around **\$85** million via the waste levy in WA.

Waste Avoidance and Resource Recovery Strategy 2030

Western Australia's Waste Strategy

Revenue raised

- 25% of the revenue raised by the WA waste levy is to be allocated to the Waste Avoidance and Resource Recovery Account each year (Department of Water and Environmental Regulation, 2020).
- Funds in the Waste Avoidance and Resource Recovery Account are applied to programs for the management, reduction, reuse, recycling, monitoring or measurement of waste and to support implementation of the Waste Strategy (WA Waste Authority, 2021).

WA waste levy rates (FY 2020-21)

Date	Putrescible waste (\$/tonne)	Inert waste (\$/tonne)	Inert waste (\$/m ³)*
1 July 2019 onwards	70	70	105

*Note than one cubic metre of inert waste in situ within the landfill is treated as equivalent to 1.5 tonnes

Source: Government of Western Australia (2015)

Levy exemptions

→ Western Australia

Levy exemptions for licensees to claim

- Waste that was accepted by the licensee at **no charge**
- Waste that is used as daily cover subject to set requirements, e.g., potentially 8% deduction for the total waste
- Waste that is not disposed of to landfill but is collected and stored at a licensed landfill for reuse, reprocessing, recycling or use in energy recovery
- Waste reasonably removed from an orphan site as defined in the Contaminated Sites Act 2003 section 32 by a public authority to mitigate or prevent risk of harm to human health or the environment
- Hazardous waste reasonably removed by a public authority
- Waste resulting from storm, fire, flood or other natural disaster that cannot reasonably by reused, reprocessed, recycled or used in energy recovery
- Waste that is deposited on a shoreline by the action of water, is reasonably removed from the shoreline by a public authority to mitigate or prevent a risk of harm to human health or the environment, and cannot reasonably be reused, reprocessed, recycled or used in energy recovery (Department of Water and Environment Regulation, 2020)

Levy exemptions for licensees to claim (cont.)

- Waste used for construction or maintenance work carried out by the licensed landfill if the amount of waste is specified in advance in a plan prepared by a registered builder or an engineer and no charge is made by the licensee for accepting the waste
- Waste used for final capping on the licensed landfill if a closure notice has been given in respect of the licensed landfill under the *Environment Protection Act 1986*
- Asbestos containing material (in compliance with conditions)

(Government of Western Australia, 2021) (Department of Water and Environmental Regulation, 2020)

Operational purpose exemptions must be claimed for by the licensee. Licensees can apply to the State Administrative Tribunal for a review (appeal) of the decision.



Australian Capital Territory → Waste levy



Australian Capital Territory waste levy

 The ACT government are currently in the process of considering the introduction of a waste levy.



ACT Waste Management Strategy

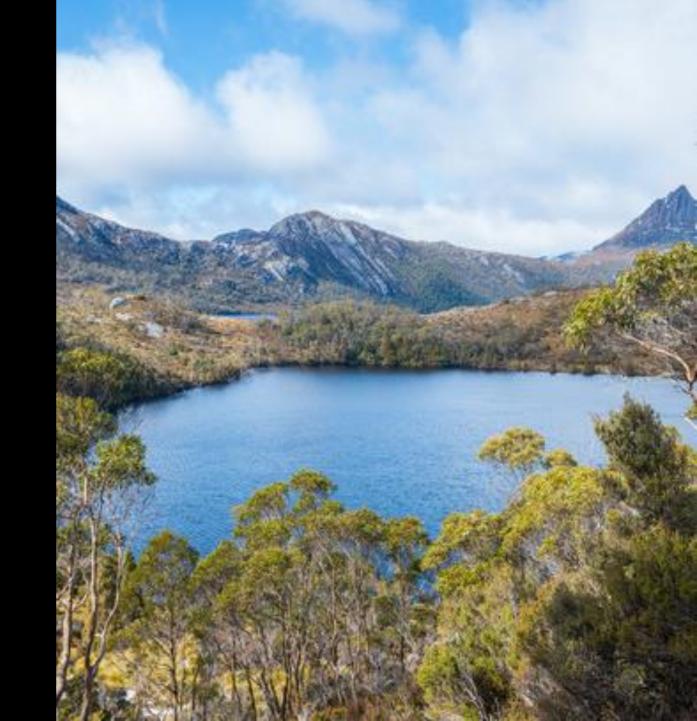
Towards a sustainable Canberra Reducing waste and recovering resources to achieve a sustainable, carbon-neutral Canberra

2011-2025





Tasmania → Waste levy



TAS waste levy

- Levy to be introduced in November 2021
- Administered by TAS EPA
- Rate increase staggered over three years
- All funds raised from the landfill levy will be deposited into the Waste and Resource Recovery Account (Department of Primary Industries, Parks, Water and Environment, 2021)

Date	Rate (\$/tonne)
1 November 2021	20
1 November 2023	40
1 November 2025	60

Source: Tasmanian Government (2021)

Levy exemptions

→ Tasmania

Broad exemptions from the TAS landfill levy

Facilities that are exempt

- Facilities that are too small
- Facilities where waste disposal is incidental to the primary business
- Where waste disposal provides a **benefit** e.g., for mining and extractive industries
- Charitable recyclers (Department of Primary Industries, Parks, Water and Environment, 2021)

Wastes that are to be exempt from the TAS landfill levy

- Asbestos
- Illegally discarded wastes that have been collected by public authority
- Wastes brought into the landfill site for use in the operation of the landfill e.g., gravel for roads, construction materials and any material required to meet licensing requirements (such as daily or intermediate cover)
- Exempt waste from the levy by order published in the Gazette (intended to cover urgent or emergency situations, such as a clean-up from a flood or bushfire) (Department of primary Industries, Parks, Water and Environment, 2021)



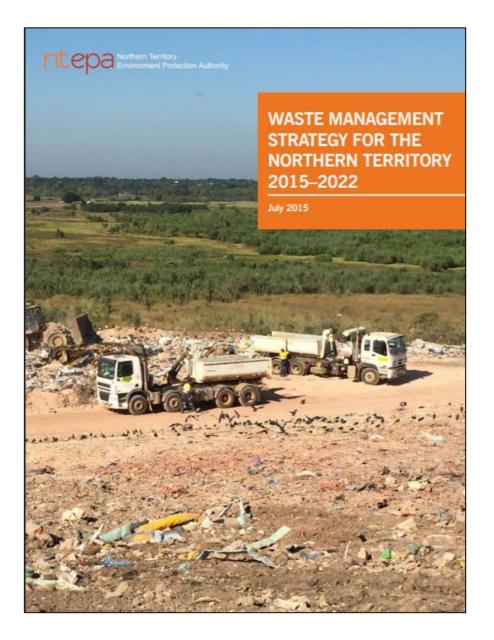
Northern Territory

→ Waste levy



NT Waste levy

- There is **no landfill levy** for waste disposal in the NT
- The current waste strategy in the NT is the "Waste Management Strategy for the Northern Territory 2015 2022" (Northern Territory Environment Protection Authority, 2015)



Tips and techniques

→ Waste levy

Tips and techniques

- Operational purpose deductions should be sought and obtained prior to receiving waste on site
- Operational purpose deductions should be based on the 'for construction design' bill of quantities and take into account material tolerances
- Design considerations should consider the use of waste materials for operational purposes where the material is fit for purpose and lawful to optimise operational purpose deductions

Conclusions

→ Waste levy

Conclusions

Should there be a consistent approach to waste (landfill) levies across the States/Territories?

- Yes, but realistically it would be unlikely for the legislative changes to happen to align the levy rules.
- The levy rules are detailed, and landfill operators should take the time to become familiar with the rules to ensure lawful levy deductions can be obtained
- Landfill operators should periodically review their upcoming operational purpose deductions (when
 preparing designs, operational and closure plans) to assess that they are able to claim the full extent
 of the eligible deductions