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## Fact sheet

# Amendments to the Environmental Protection Regulations 1987 - clean fill and uncontaminated fill

## Purpose

This fact sheet provides information on clean fill and uncontaminated fill in accordance with the amended Environmental Protection Regulations 1987 (EP Regulations) and the revised [Landfill Waste Classification and Waste Definitions 1996 \(amended 2019\)](#) (Waste Definitions).

## Background

The Environmental Protection Amendment Regulations 2018 (gazetted on 27 April 2018) are intended to address the consequences of the decisions of Justice Beech and the Court of Appeal in *Eclipse Resources Pty Ltd v the State of Western Australia [No. 4] [2016] WASC 62* and *Eclipse Resources Pty Ltd v The Minister for Environment [No 2] [2017] WASCA 90* (Eclipse case). The Eclipse case clarified the definition of waste and the application of the waste levy.

This decision had consequences beyond the Eclipse case, particularly for the use of fill by the development industry, including waste levy liability and licensing under the *Environmental Protection Act 1986* (EP Act).

The effect of this decision is that the use of clean fill and uncontaminated fill in circumstances where they would be considered waste and meet the category descriptions for landfill premises under the EP Act requires licensing and, in certain circumstances, payment of the waste levy.

## Effect of the amendments

These amendments allow for the use of clean fill, or uncontaminated fill, that meets environmental and health thresholds after testing, without the need for a landfill premises licence or payment of the waste levy.<sup>1</sup>

The amendments are only relevant to material that is defined as waste under the EP Act and *Waste Avoidance and Resource Recovery Act 2007* (WARR Act) as interpreted by the Eclipse case, and for premises classified as a landfill category (63,

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<sup>1</sup> Where applicable, based on the defined levy region in the Waste Avoidance and Resource Recovery Levy Regulations 2008.



64, 65, 66 and 89) under the EP Regulations. Further information on considerations for determining whether material is waste is available in the fact sheet [Assessing whether material is waste](#).

## Relevant factors

The WARR Act includes objects that preference reuse and recycling to divert waste from landfill consistent with the waste hierarchy.

The amendments to the EP Regulations and Waste Definitions support this by allowing for the use of clean fill, or uncontaminated fill, that meets environmental and health thresholds after testing, without the need for a landfill premises licence or payment of the waste levy.

The flow diagram (Figure 1, below) sets out the steps that should be taken in determining whether the use of fill will trigger licensing or levy requirements.

### Is the material waste?

These changes only apply to waste.

Sections 3(1) of the EP Act and the WARR Act define 'waste' to include matter:

- a. whether liquid, solid, gaseous or radioactive and whether useful or useless, which is discharged into the environment; or
- b. prescribed to be waste.

The term 'waste' in the EP Act and WARR Act also has its ordinary dictionary meaning:

- a. anything left over or superfluous, as excess material, by-products etc., not of use for work in hand (i.e. unwanted or excess material, viewed from the perspective of its source); and/or
- b. any matter whether useful or useless which is gotten rid of into the environment.

Further information is provided in [Assessing whether material is waste](#).

### Prescribed landfill premises category 63

The amendments only have practical effect for premises that accept inert (Class 1) waste for burial and would otherwise meet the description of a category 63 landfill premises under the EP Regulations. This is because this material may be used as fill for development and would be subject to licensing and the levy where relevant if it was not defined as a 'clean fill premises'.

### Clean fill

The definition of clean fill is contained in section 2 of the Waste Definitions and essentially means raw, excavated, natural material such as clay, gravel, sand, soil or rock fines sourced from land that has not been used for any of the potentially



contaminating land uses listed in Appendix B of the [Assessment and management of contaminated sites](#). A record of the originating site's historic activities should be retained by the proponent.

### **Uncontaminated fill**

Uncontaminated fill includes inert waste type 1 (excluding asphalt and biosolids) and neutralised acid sulfate soils that meet the requirements set out in Table 6 of the Waste Definitions, as determined by relevant sampling and testing carried out in accordance with the requirements in Table 7 of the Waste Definitions.

The thresholds are designed to protect public health, the environment and environmental values when uncontaminated fill is used in urban (residential, commercial or industrial) land development projects – the most likely use of the material. The thresholds seek to balance the protection of human and environmental health with promoting resource recovery and the diversion of waste from landfills, consistent with the objectives of the [Waste Avoidance and Resource Recovery Strategy 2030](#). Available data on ambient background levels in soils of the Swan Coastal Plain was taken into account when setting thresholds.

It is not necessary to test for every substance listed in Table 6. The testing and sampling regime (Table 7) in the Waste Definitions allows for testing for substances based on land use history of the site of origin for uncontaminated fill in accordance with Appendix B of the [Assessment and management of contaminated sites](#). This ensures that only likely contaminants are tested for, reducing the cost and complexity of the testing regime.

The sampling and testing requirements are based on achieving a 95 per cent upper confidence limit (average) and the requirement to characterise each domain or stockpile separately. This ensures that only testing of relevant substances is undertaken, and that the results are practical in their application. Records to be maintained by the proponent should include the originating site/s historic activities, the tested contaminants and testing results.

It is the responsibility of the user to ensure that the material is environmentally suitable for the purpose for which it is being used, including whether its use could be pollution, or an unreasonable discharge under the EP Act, or create a contaminated site within the meaning of the *Contaminated Sites Act 2003*.

### **Clean fill premises**

Clean fill and uncontaminated fill may be accepted at a clean fill premises. Clean fill premises are defined in the EP Regulations and are premises that accept, and have only ever accepted, clean fill or uncontaminated fill for burial.

Where clean fill is accepted for burial at an area that is separate and distinct from a Class I inert landfill site it may qualify as a 'clean fill premises' even where the landfill site and clean fill premises are within one licence boundary.



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## Waste levy

The Waste Avoidance and Resource Recovery Levy Regulations 2008 provide for a levy to be payable in respect of 'waste disposed of to landfill' at 'landfill premises' which are categories 63, 64 and 65 prescribed premises which require a licence under the EP Act whether or not such a licence is held.

## Frequently asked questions

**Q1: My surplus (waste/excess) fill is not 'clean fill' and exceeds some of the 'uncontaminated fill' thresholds in Table 6 of the Waste Definitions. Can I get approval for risk-based reuse of this fill?**

This is not possible currently as a case-by-case, risk-based approval requires amendments to the EP Act and WARR Act, as well as new regulations. It is the Department of Water and Environmental Regulation's (the department) intention to progress such amendments in consultation with stakeholders.

**Q2: Testing of all the substances listed in Table 6 of the Waste Definitions would be prohibitively expensive. Do I have to test for all substances to meet the definition of uncontaminated fill?**

The sampling regime (Table 7) in the Waste Definitions allows for testing for substances based on land use history of the site of origin for uncontaminated fill. This ensures that only substances likely to be present are tested for, reducing the cost and complexity of the testing regime.

**Q3: What if the clean fill contains concentrations of naturally occurring substances which exceed the concentration thresholds for uncontaminated fill?**

Waste that meets the definition of clean fill does not require testing, as outlined in Tables 6 and 7 of the Waste Definitions and nothing alters this. The EP Act places general obligations on users to ensure that the waste material is environmentally suitable for the purpose for which it is being used, including whether its use could result in pollution or an unreasonable discharge.

**Q4: How do these amendments apply in regional areas outside Perth?**

These amendments, including the testing regime, apply throughout Western Australia (WA). The waste levy applies to waste generated in the Perth metropolitan region and disposed of to a category 63, 64 or 65 landfill premises anywhere in WA, or disposed of to the Perth metropolitan region regardless of where it was generated.

**Q5: I intend to store excess material taken from an urban development which was previously undisturbed bushland and stored temporarily offsite for later reuse in another development. Do these amendments apply to this situation?**

They may. The key initial question is whether the material is waste (see [Assessing whether material is waste](#) for guidance). If you consider the material waste, then you



need to determine whether the reuse meets the definition of a category 63 landfill premises (more than 500 tonnes accepted for burial). From the context of the question, it appears that the material would meet the definition of clean fill. Refer to the flow diagram (Figure 1, below) for further information.

**Q6: My large site includes undeveloped native bushland, an area used as a market garden and a smaller fuel and chemical storage area. Contamination investigations have found pesticide contamination in the fuel and chemical storage area. How would these amendments apply to surplus (waste/excess) soil from my site?**

If the undeveloped bushland area has not been used for any of the potentially contaminating land uses listed in Appendix B of the [Assessment and management of contaminated sites](#), waste/excess fill from this area is likely to meet the definition of clean fill and so would not require testing as outlined in tables 6 and 7 of the Waste Definitions.

Market gardens are a potentially contaminating land use listed in Appendix B of the [Assessment and management of contaminated sites](#). If waste fill from the market garden area has been tested in accordance with Table 7 for potential contaminants based on the land use history, and meets the relevant maximum concentration and leaching test thresholds in Table 6, it would meet the definition of uncontaminated fill. Clean fill and uncontaminated fill can be used at clean fill premises.

Waste pesticide-contaminated soil from the fuel and chemical storage area would not meet the definition of either clean fill or uncontaminated fill, and should be disposed of at an appropriate waste treatment or disposal facility.

**Q7: Can I use data from a contaminated site investigation to classify *in situ* surplus waste soil as uncontaminated fill?**

Yes. Table 7 of the Waste Definitions allows for the use of site characterisation data (such as that collected during a detailed site investigation) to assess soil that is *in-situ* but is anticipated to become surplus and unwanted in the future (such as during future land development). Such data may be used where the investigation was undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM) and as long as, since sampling, the material has not been subject to potentially contaminating land uses or activities.

An investigation undertaken in accordance with the ASC NEPM provides sufficient confidence that areas of potential contamination have been appropriately characterised with respect to sampling density and substances tested.

The classification of land under the *Contaminated Sites Act 2003* is not relevant when assessing whether *in situ* material can be classed as uncontaminated fill. Data obtained during a contaminated site investigation are still required to be assessed



against the thresholds in Table 6 of the Waste Definitions to determine whether the material can be classed as uncontaminated fill.

It may also be necessary to undertake additional sampling to carry out leaching tests, if leaching tests were not carried out as part of the original contaminated site investigation. When designing a contaminated site investigation for a future development site where surplus (waste/excess) soil is anticipated, it may be cost effective to ensure all data required, including for comparison against the maximum concentration and leaching test thresholds in Table 6, are collected at the same time.

**Q8: Why specify thresholds for uncontaminated fill in Table 6 of the Waste Definitions? Why not simply refer to investigation and screening levels in the National Environmental Protection (Assessment of Site Contamination) Measure 1999?**

The thresholds in Table 6 provide a simple, objective test for determining whether waste can be classified as uncontaminated fill, which may be used at any location. As a starting point for the Table 6 values, the department took base thresholds (that is, assessment levels) from Australian or Western Australian guidance documents, where available. The primary sources of these levels were the National Environment Protection (Assessment of Site Contamination) Measure 1999 and, for leaching thresholds, the *Australian and New Zealand Guidelines for fresh and marine water quality* (2018) and the *Australian drinking water guidelines* (2011). Where values were not available for a given parameter in these documents, we consulted alternative guidance documents. Taking into account the likely use of uncontaminated fill in urban developments, the department used base ecological thresholds for urban residential and public open space land use settings (rather than for sensitive ecological areas, such as national parks or conservation reserves), as well as the most sensitive health-based land use setting (residential land with gardens and accessible soil, including day care centres and primary schools). To protect both ecological and human health receptors, the lower value was adopted for each parameter.

The department's 2019 [Final report: Review of the uncontaminated fill thresholds in Table 6 of the Landfill Waste Classification and Waste Definitions 1996 \(as amended 2018\)](#) provides more detail on how the maximum concentration and leaching test thresholds for each parameter were derived.

## Feedback and more information

The department is keen to receive feedback on this fact sheet to ensure the content is clear and helpful.

If you wish to provide feedback or for further information, please email the department at [info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au) or phone 08 6364 7000.



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## Legislation

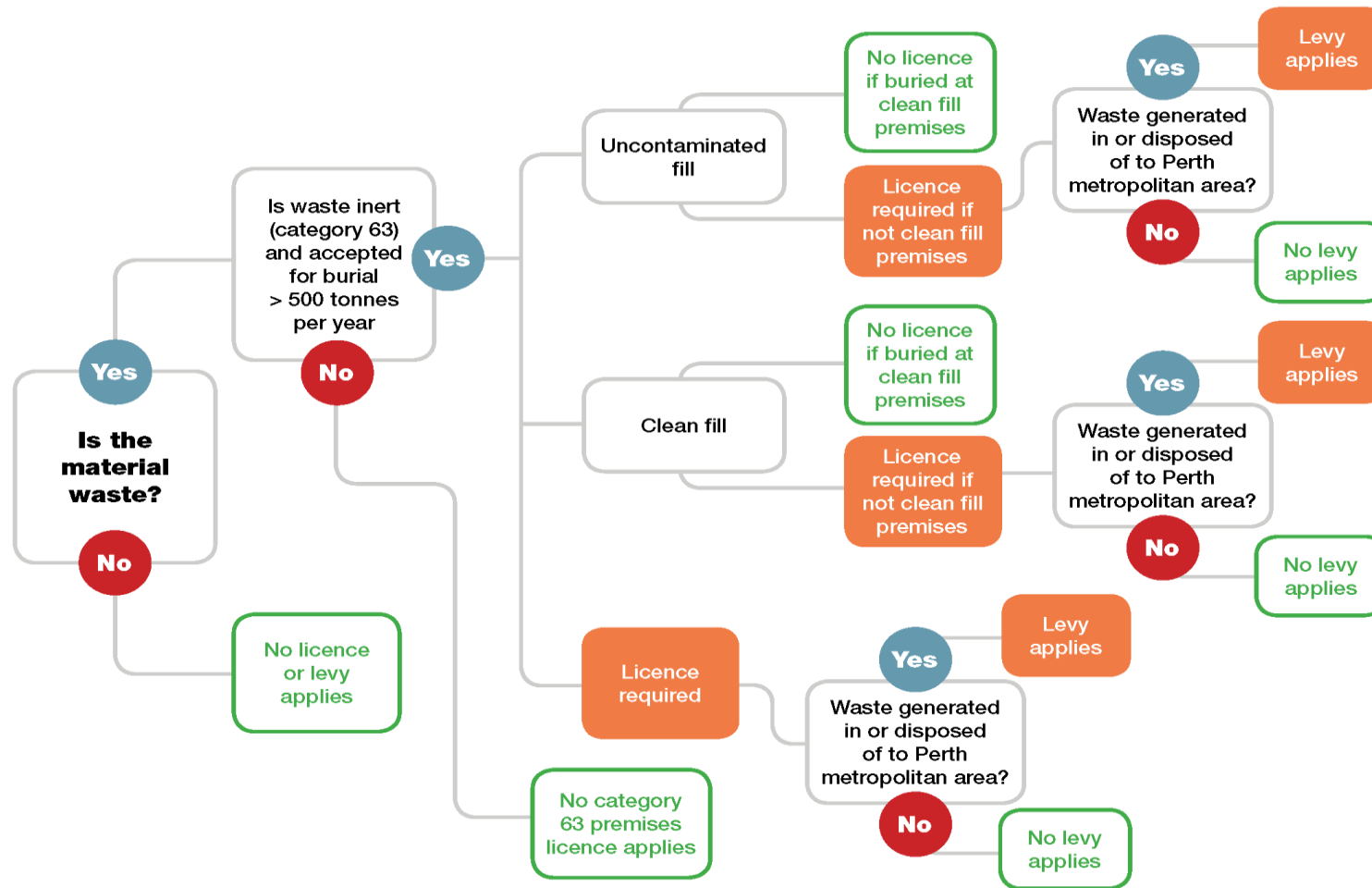
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Figure 1: Flow diagram – inert waste (category 63) proposed to be used for fill



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