Government of **Western Australia**
Department of **Environment Regulation**

REPORT

# Consultation summary

*Environmental Standard: Assessing leachates from waste-derived materials*

**Version: Final**

September 2015

**Produced and published by**
Department of Environment Regulation, 168 St Georges Terrace, Perth, Western Australia

September 2015



**Questions regarding this report should be directed to:**
Department of Environment Regulation
Locked Bag 33 Cloisters Square
PERTH WA 6850
Phone: +61 8 6467 5000
Fax: +61 8 6467 5562
Email: info@der.wa.gov.au
Web: www.der.wa.gov.au

**Accessibility** This document is available in alternative formats and languages upon request.

# Background

On 3 July 2015, the Department of Environment Regulation (DER) released the draft *Environmental Standard: Assessing leachates from waste-derived materials* (ES) and background paper: '*The use of leaching tests for assessing the disposal and re-use of waste-derived materials"* for public comment. Consultation closed on 3 August 2015.

This document summarises the key issues raised and responses within the scope of the ES. The final ES reflects the outcome of consultation.

# Summary of consultation submissions

Three submissions were received in relation to the draft ES. The respondents were generally supportive of the development of the ES. The key issues raised were:

- a need for clarification on when the ES applies, who is the applicant and when to use the leachate testing methods;
- the cost to the applicant of sampling and analyses and its potential impact on business and markets for waste-derived materials (WDMs);
- for soil amendment products, whether leach testing is to be undertaken on the final blended product or on each component; and
- the capacity of National Association of Testing Authorities (NATA) accredited laboratories in Western Australia to undertake Leaching Environmental Assessment Framework (LEAF) testing and timeliness for providing test results.

# Summary of responses to submissions

The following addresses or clarifies key issues raised in the consultation:

- LEAF testing applies to an application made through DER's *Guideline: Submitting an application for the use of waste-derived materials* (2015) for application of WDMs to land or for use as soil amendment agents. The ES outlines LEAF testing methods 1313, 1314, 1315, 1316 that have been adopted by the DER for this purpose.
- the extent of information (including LEAF testing) required for an application is based on the potential risk to public health and the environment and the need for controls on the WDM. It is therefore reasonable that where detailed information is necessary to support the use of the WDM, the cost of the application is borne by the business.
- for soil amendment agents, leach testing is to be carried out on the final blended product.
- DER confirms that a transition period will be necessary while the capacity for Western Australian laboratories to build LEAF testing capability and gain NATA accreditation is developed.

## Consultation submissions

The consultation sought comments in relation to any aspect of the draft ES and background paper. Three submissions were received as listed in Table 1.

**Table 1: Consultation submissions received**

| Organisation |
|---|
| City of Busselton |
| Southern Metropolitan Regional Council |
| Western Australian Local Government Association |

Respondents sought clarification on the general purpose, scope and application of the ES, including:

- who are the "applicants" as referred to in the introduction of the draft ES.
- whether the ES applies to all WDMs including soil improvement materials (compost) irrespective of the quantity and nature of the material.
- whether leach testing on soil amendments would apply to the final blended product or to each component (before blending), and the circumstances in which each testing regime would be required.
- the sampling densities that would be required and where the sampling needs to be undertaken (at the point of use of the WDM or, at a production facility).
- that the testing methods are to be performed by analysts who are formally trained in at least the basic principles of chemical analysis and in the use of the subject technology.
- that experienced assessors are required to analyse the extensive data sets that the LEAF testing methods would produce.
- if sampling regimes at production premises can be modified based on historical experience with product quality.
- what constitutes/determines an acceptable outcome from the use of the LEAF testing methods.
- that the timeframes to conduct LEAF testing by laboratories can vary from seven days to potentially a few weeks, and that there are no NATA accredited laboratories in Western Australia currently equipped to perform the required testing.
- that the ES should adopt a risk based tiered approach so that sampling is only required for high risk WDMs. LEAF testing methods should be limited to only those circumstances where the environmental risk warrants the administrative, cost and time overheads associated with comprehensive leach testing.
- the impacts and cost to business in developing comprehensive application information; and capacity of DER to assess and approve applications.
- that further consultation be undertaken.

## Consultation responses

The final ES clarifies the applicant as the person or organisation submitting an application to DER for the use of WDMs through the *Guideline: Submitting an application for the use of waste-derived materials* (2015) and, if applicable, the *Manufactured fill Addendum to the Guideline: Submitting an application for the use of waste-derived materials (case-by-case determination)* (2015).

The applicant must use the guideline and if applicable, the addendum to determine the application information required for a case-by-case determination by DER. The ES may apply in circumstances where the WDM is proposed to be applied to land or to be used as for soil amendment. Applicants would need to include the quantity and nature of the WDM as part of their application to DER.

DER's material guidelines on WDMs will be explicit when LEAF testing is required, noting that there is no requirement for LEAF testing in current material guidelines for clean fill and construction products. DER has released a draft *Environmental Standard: composting* for public comment until 18 September 2015 that provides that products from composting facilities will not be considered as waste where they meet the product standards in that document.

For soil amendment agents, leach testing is to be carried out on the final blended product using the appropriate test method as determined by a suitably qualified person.

The final ES outlines the processes and testing methods that are required for assessing chemical constituents of environmental concern that may be leached from WDMs applied to land and/or used as soil amendment agents. The ES refers to United States Environmental Protection Agency (USEPA) for information on tests rather than reproducing this information.

As set out in the guideline, sampling, testing and data analysis will be undertaken by a suitably qualified person who will have an understanding of the requirements to conduct LEAF testing. Applicants should refer to the guideline if they wish to amend sampling regimes.

The USEPA states that SW-846 is not intended to be an analytical training manual. The method procedures are written based on the assumption that they will be performed by analysts who are formally trained in at least the basic principles of chemical analysis and in the use of the subject technology.

The ES should be read in conjunction with the background paper: *The use of leaching tests for assessing the disposal and re-use of waste-derived materials*. The background paper sets out the limitations of the Australian Standard Leaching Procedure tests and the advantages and outcomes of the proposed LEAF testing methods.

Timeframes to conduct LEAF testing will be dependent on the extent of sampling and analysis required by the applicant, the LEAF testing method/s used and the laboratory. The background paper notes that quantitative results on leaching can be determined within a few hours or days. DER acknowledges that a transition period will be necessary while the capacity for Western Australian laboratories to build LEAF testing capability and gain NATA accreditation is developed.

The guideline sets out the requirements for risk-based assessment of WDMs. The extent of information (including LEAF testing) required for an application is based on the potential risk to public health and the environment and the need for controls on the WDM. It is therefore, reasonable that where detailed information is necessary to support the use of the WDM the cost of the application is borne by the business.

DER's end-of-waste framework consists of the *Guidance Statement: Regulating the use of waste-derived material* finalised in November 2014, and associated material guidelines for clean fill and construction products published in January 2015. The guideline and addendum were finalised in July and September 2015 respectively. DER anticipates the outcome of applications made through these documents will inform improvements to the application process, as well as the development of any additional application information requirements for specific WDMs.

All end-of-waste documents including previous consultation summary reports are available on DER's website at : http://www.der.wa.gov.au/your-environment/waste/waste-derived-materials.