Government of **Western Australia**
Department of **Water and Environmental Regulation**

Consultation summary report

Consultation paper – Amendments proposed following the decision on *Eclipse Resources Pty Ltd v The State of Western Australia [No.4]* (2016) WASC 62

Department of Water and Environmental Regulation

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1 Introduction

The decision of Justice Beech in *Eclipse Resources Pty Ltd v The State of Western Australia [No 4] (2016) WASC 62* (Eclipse case) of 9 March 2016 clarified the application of the waste levy in Western Australia. It had unintended consequences for the use of clean fill in development including waste levy liability under the *Waste Avoidance and Resource Recovery Levy Act 2007* (WARR Levy Act) and licensing under the *Environmental Protection Act 1986* (EP Act).

The *Consultation Paper: Amendments proposed following the decision on Eclipse Resources Pty Ltd v The State of Western Australia [No.4] (2016) WASC 62* proposes amendments to address these issues.

The paper also proposes amendments that allow for uncontaminated fill that meets environmental and health standards after testing to be used without a licence or payment of the waste levy.

The consultation paper was published on Department of Water and Environmental Regulation's (DWER) website on 10 November 2017 and closed on the 2 February 2018. Thirty two submissions were received.

This report summarises feedback including on key issues the scope and application of the amendments, the definitions for clean fill and uncontaminated fill, contaminant thresholds and testing and sampling requirements.

Some submissions raised issues that were outside the scope of this consultation and these are not considered further in this report. Broader waste reforms, including to the definition of waste and the application of the levy and licensing requirements, are being progressed separately and relevant issues will be considered as part of this. This includes changes to the *Landfill Waste Classification and Waste Definitions* document (Waste Definitions) beyond those necessary to address the Eclipse decision.

The Department of Water and Environmental Regulation thanks all respondents to this consultation process.

2 Summary of submissions

Scope and application

Submissions

Respondents sought clarification of the scope and application of the proposed amendments to categories 63 to 66, and 89 of the *Environmental Protection Regulations 1987*.

Some respondents suggested the amendments should apply to premises that had previously accepted waste other than clean fill or uncontaminated fill.

Response

The proposed amendments allow for the use of clean fill, or uncontaminated fill that meets environmental and health thresholds after testing, without the need for a licence or payment of the waste levy.

The application of the proposed amendments is limited to premises (such as development sites) that accept and, have only ever, accepted clean fill and/or uncontaminated fill. The current amendments are focused on resolving the outcomes of the Eclipse case. The amendments are not relevant to the reuse of material on the site of origin as licensing as a landfill premises and payment of the waste levy only applies to waste accepted for burial. The reburial of treated acid sulfate soils on the originating site would not be subject to the waste levy.

The levy only applies to waste disposed of to a category 63, 64 or 65 landfill premises. The reuse of materials for other purposes is not subject to the levy.

Clean fill or uncontaminated fill that is disposed of to a category 63, 64 or 65 landfill premises not in accordance with these amendments will continue to both require a licence and be liable for the waste levy.

Definition of clean fill

Submissions

Respondents suggested that the definition of clean fill be amended to be consistent with the *Contaminated Sites Act 2003* (CS Act) and to allow for screening and crushing.

Respondents considered that the re-use of neutralised acid sulfate soil has generally low environmental risks and its omission from the revised definition of clean fill or uncontaminated fill may result in the unnecessary disposal of neutralised acid sulfate soils to landfill.

Clarification was sought on the meaning of ‘raw’, why the source of contaminants (industrial, commercial, mining and agricultural activities) is relevant and whether the excavation process is a polluting activity.

Some respondents sought clarification of the type of evidence required to demonstrate that the definition of clean fill has been met.

Response

Clean fill is natural material removed from areas that have not been subject to historic land uses including industrial, commercial, mining or agricultural activities or subject to processing that may cause contamination. The intent is that clean fill is not contaminated with manufactured chemicals or process residues. The definition has been amended to clarify that mechanical processing to produce a consistent basic raw material is permitted for clean fill.

Clean fill by definition cannot include neutralised acid sulfate soils. The inclusion of neutralised acid sulfate soils in uncontaminated fill is discussed below.

“Raw” excavated natural material has the ordinary dictionary meaning of “in its natural state or unprocessed”. This is consistent with the term “basic raw materials” which is often used to describe materials such as sand, clay, limestone and hard rock. Physical processing without chemicals would not affect whether the material was clean fill for the purposes of the definition.

Material that meets the clean fill definition does not require a landfill category 63, 64 or 65 licence under the EP Act and is not liable for the waste levy. Records of the site’s history of activities should be retained. Material that does not meet the definition of clean fill may meet the definition of uncontaminated fill subject to testing.

The original definition of clean fill under the Waste Definitions was for the purpose of regulating waste under Schedule 1 of the EP Regulations. It is not an appropriate standard for the use of material without testing or restriction.

The new definition for uncontaminated fill will allow material that meets thresholds for concentrations of chemical substances to be used. The CS Act is not an appropriate regime for regulating the broad reuse of material.

Definition of uncontaminated fill

Submissions

Respondents noted that some thresholds for uncontaminated fill are below ambient and standard laboratory detection levels (e.g. asbestos), are more stringent than other jurisdictions, and differ from the National Environment Protection (Assessment of Contamination) Measure (as made in 1999) ecological investigation levels.

Respondents indicated that material may exceed the specified thresholds in the revised Waste Definitions document at natural background levels.

Clarification was sought on why asphalt was specifically excluded from the definition of uncontaminated fill.

Respondents sought clarification of the derivation of Table 6 thresholds and whether materials must meet both maximum concentration and leaching test concentration.

Some respondents sought clarification of the type of evidence required to demonstrate that the definition of uncontaminated fill has been met.

Response

The contaminated sites regime, including the health and ecological investigation levels, is not intended for application in decisions about waste reuse suitability. In particular, the National Environment Protection (Assessment of Site Contamination) Measure (as amended 2013) states that "c*ontamination, or further contamination, of a site should be prevented. Investigation or Screening Levels provided as part of this policy framework process should not be construed as desirable soil/water quality criteria or levels up to which contamination may be allowed to occur".*

The criteria in Table 6 facilitate the reuse of the material on any sites at any location without increasing the risk to human health, the environment or any environmental values at that location, and are therefore conservative.

These criteria allow the reuse of material in close proximity to the most sensitive receptors and have been derived from key source documents set out in Appendix B. They are particularly aimed at use on the Swan Coastal Plain with its highly leachable soils and important groundwater resources. Table 7 in the Waste Definitions document (testing requirements) has been amended to clarify that chemical substances to be tested are to be determined based on history of land use, including referencing the list of potentially contaminating activities, industries and land uses in Appendix B of the *Assessment and management of contaminated sites* document (DER 2014).

The inclusion of asphalt or biosolids is inconsistent with this approach and would not meet the uncontaminated fill thresholds.

The Department has amended the definition of uncontaminated fill in the Waste Definitions to include neutralised acid sulfate soils that meets the requirements for relevant metals, metalloids and sulfate set out in Table 6, as determined by relevant sampling and testing carried out in accordance with the requirements of Table 7.

A case by case risk based regulatory approach would require amendments to the *Environmental Protection Act 1986* and *Waste Avoidance and Resource Recovery Act 2007*, as well as new regulations. It is the Department's intention to progress such amendments but given the broad ranging changes, these will not be available in the short term and therefore the current amendments to the EP Regulations are required as soon as practicable.

Evidence retained as records should include a site's historic activities, the tested contaminants and testing results in accordance with the Waste Definitions document requirements.

Table 6 of the Waste Definitions has been amended to provide for a pH range of 5.5 to 8.5 to reflect the natural background levels of soils in Western Australia and the threshold for aluminum has been removed.

Testing and sampling standards for uncontaminated fill

Submissions

Some respondents sought clarification on the Australian Standard Leaching Procedures testing methodology, accreditation of laboratories and the type of leaching agent; with one suggesting that the Leaching Environmental Assessment Framework (LEAF) tests be included.

Respondents considered that parameters to be tested could be linked to the history of the site and take into account intended use and natural background levels.

Submissions noted that testing for every substance would be prohibitively expensive given the extensive list of contaminants, and may not be relevant to the history of the site.

Respondents sought clarification on whether there is flexibility for testing of material (such as a statistical approach) if one or more of the thresholds is exceeded.

Response

The limitations of the Australian Standard Leaching Procedures leaching methodology are acknowledged. The alternative (LEAF) will be considered as in future revisions of the Waste Definitions document.

Laboratories should hold NATA[1] accreditation for the testing undertaken as the accreditation is for a specific method and not for the laboratory itself.

The testing and sampling regime (Table 7) has been amended to allow for testing for substances based on land use history of the site of origin for uncontaminated fill; and statistical evaluation of the laboratory results.

[1] National Association of Testing Authorities, Australia

3 Appendix A – Consultation submissions

Thirty two submissions were received during the consultation period as listed in Table 1.

Table 1: Consultation submissions

#	Respondents
1	Alcoa of Australia Limited
2	Association of Mining and Exploration Companies
3	BMT Oceanica
4	Bowman & Associates Pty Ltd
5	Bowman & Partners Environmental
6	Calytrix Consulting Pty Ltd
7	Cement Concrete & Aggregates Australia
8	Chamber of Mineral and Energy of WA
9	ChemCentre
10	Civil Contractors Federation Western Australia
11	Department of Communities
12	Eclipse Soils
13	Environment Institute of Australia and New Zealand Inc.
14	Forrestdale Recycling
15	G&G Corp
16	Golder
17	Holcim (Australia) Pty Ltd
18	Housing Industry Association Ltd
19	Instant Waste Management
20	The Law Society of Western Australia
21	Main Roads Western Australia
22	MBS Environmental
23	NatCASS
24	PEET
25	Public Transport Authority
26	Senversa Pty Ltd
27	Urban Development Institute of Australia (WA)
28	Urban Resources
29	WA Limestone
30	Waste Management Association of Australia
31	Waste and Recycling Industry Association of WA
32	Wesfarmers Chemicals, Energy & Fertilisers

4 Appendix B – References

The following key source documents were considered in the development of the thresholds for uncontaminated fill:

Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand 2000, *National Water Quality Management Strategy Document 4: Australian and New Zealand Guidelines for Fresh and Marine Water Quality – 2000*. http://agriculture.gov.au/water/quality/nwqms

Canadian Council of Ministers of the Environment 2014, *Environmental Quality Guidelines*. http://st-ts.ccme.ca/en/index.html.

Dutch Ministry of Infrastructure and Water Management Rijkswaterstaat Environment 2013, *Soil Remediation Circular (July 2013).* http://rwsenvironment.eu/subjects/soil/legislation-and/soil-remediation/.

National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013). https://www.legislation.gov.au/Details/F2013C00288

National Health and Medical Research Council and Natural Resource Management Ministerial Council 2011, *Australian Drinking Water Guidelines 6 (2011).* https://www.nhmrc.gov.au/_files_nhmrc/file/publications/nhmrc_adwg_6_version_3.4_final.pdf

Olszowy, H, Torr, P & Imray, P 1995, *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia*, Contaminated Sites Monograph Series no. 4, Department of Human Services and Health, Environment Protection Agency & South Australian Health Commission. http://www.urbanleadpoisoning.com/Trace%20Elements%20Surface%20Soils%20Urban%20onurbna.pdf

Prakongkep, N, Gilkes, R J, Singh, B & Wong, S 2011, *Mineralogy and chemistry of sandy acid sulphate soils in the Perth metropolitan area of the Swan Coastal Plain*. Report to Department of Environment and Conservation, June 2011. https://www.der.wa.gov.au/images/documents/your-environment/acid-sulfate-soils/tech_reports/mineralogy_and_chemistry_sass_perth.pdf

Van Vlaardingen, P L A, Posthumus, R, & Posthuma-Doodeman, C J A M 2005, *Environmental Risk Limits for Nine Trace Elements*, RIVM report 601501029/2005. http://rivm.openrepository.com/rivm/bitstream/10029/7385/1/601501029.pdf