



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

**Amendments to Environmental Protection
Regulations 1987 to provide for use of
clean fill and uncontaminated fill**

Department of Water and Environmental Regulation

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About CME

The Chamber of Minerals and Energy of Western Australia (CME) is the peak resources sector representative body in Western Australia. CME is funded by its member companies who are responsible for most of the State's mineral and energy production and are major employers of the resources sector workforce in the State.

In 2016-17, the value of Western Australia's mineral and petroleum industry was \$105 billion. Iron ore is currently the State's most valuable commodity, and saw an increase in iron ore sales by almost 31 per cent on the previous financial year to value almost \$64 billion. Petroleum products (including LNG, crude oil and condensate) followed at \$19 billion, with gold third at \$11 billion. These commodities saw an increase in sales of 5 per cent and 7 per cent respectively from the previous financial year.

The resources sector is a major contributor to the state and the Australian economy. The estimated value of royalties the state received from the resources sector in 2016-17 was \$5.21 billion (iron ore - \$3.6 billion) which accounts for around 19 per cent of the State Government's revenue.

Recommendations

The Department of Water and Environment Regulation released the "Consultation Paper: Amendments proposed following the decision on *Eclipse Resources Pty Ltd v The State of Western Australia [No.4]* (2016) WASC 62" (July 2017) for public consultation via its website on 10 November 2017.

In principle, CME supports DWER's stated intent for the proposed changes:

- *"to ensure that the use of clean fill for development can continue without the requirement for a licence or liability for the waste levy"; and*
- *"to allow for the use of uncontaminated fill that meets environmental and health standards after testing without the need for a licence or payment of the waste levy."*¹

However, CME has identified unintended consequences from the changes as currently proposed for the resources sector which will result in poorer environmental outcomes. As such, CME provides the following recommendations:

- CME does not support the EP Regulations amendments as drafted. Instead, CME recommends the definitions be revised to allow clean and uncontaminated fill acceptance at premises, regardless of premise history, for fill purposes without the need for a licence and without incurring a levy.
- The regulation of clean and uncontaminated fill should be driven by the material's use not use the history or purpose(s) of the premise as a proxy. CME recommends the definition of waste be reviewed to clarify fill (and other materials of use) is not classified as "waste" and therefore not subject to waste licensing or the WARR Levy.
- Should DWER amend the definition of waste, including as it relates to resource recovery, reuse and recycling, industry and other stakeholder consultation must occur as part of the reform.
- Should DWER progress with the changes as proposed to expedite use of clean and uncontaminated fill for new property and urban infrastructure development, this must be an interim measure only. This interim measure must be modified to ensure the resources sector and other industries do not require licences nor incur the WARR Levy from use of clean and

¹ DWER Consultation Paper, Page 2

uncontaminated fill as fill. DWER must clarify how a premise can practically demonstrate it has only ever accepted uncontaminated or clean fill.

- DWER must clarify how a premise can practically demonstrate all waste ever accepted has been clean or uncontaminated fill.
- Any amendments must clearly indicate licensing requirements and liability for the WARR Levy apply to future activities and are not applied retrospectively to past acts pre-dating the definitions.
- The definition for “clean fill” should be based on the current definition amended to remove the content related to uncontaminated fill and modified to become: “Material that will have no harmful effects on the environment or human health when used as fill material, and which consists of rocks or soil arising from the excavation of undisturbed material.”
- Clean fill should include consideration of “potential” acid sulphate soils to minimise the risk of creating new acid sulphate soils impacts and naturally occurring fibrous materials to minimise potential human health impacts from inappropriate use of fill containing minerals such as chrysotile, crocidolite and actinolite.
- Physical processing such as crushing, screening and sizing must be permitted for clean fill.
- DWER should introduce a risk-based and tiered approach to the testing for uncontaminated fill.
- DWER should consult with other relevant agencies such as the Radiological Council of WA and assess implications of the proposed changes under the *Contaminated Sites Act 2003*.

Consequently, CME believes further refinement is required prior to implementation.

Context

The Department of Water and Environment Regulation (DWER) released the “Consultation Paper: Amendments proposed following the decision on Eclipse Resources Pty Ltd v The State of Western Australia [No.4] (2016) WASC 62” (Eclipse Decision) for public consultation via its website² on 10 November 2017.

In order to address the unintended consequences for use of clean fill resulting from the Eclipse Decision, the Consultation Paper proposes amendments to the:

- description for category 63 to 66 and 89 of Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations), and
- “Landfill Waste Classification and Waste Definitions 1996 (as amended December 2009)” (Waste Definitions).

Combined, the purpose of these amendments is to enable clean and uncontaminated fill use without the need for an *Environmental Protection Act 1986* (EP Act) Part V Licence³ or liability for payment of the waste levy under the *Waste Avoidance and Resource Recovery Levy Act 2007* (WARR Levy).

CME, in its submission to DWER on the “Waste Reform Project – Discussion Paper”⁴, highlighted the Eclipse Decision issue and need for urgent action noting the following:

“The outcome of the Eclipse case demonstrates the current regulatory regime is driving perverse outcomes resulting in greater (and avoidable) environmental impacts. Penalising reuse of uncontaminated and clean fill material creates additional unnecessary costs for business and increases waste volumes and resource consumption. The outcome also potentially limits the capacity of some operations to reuse waste rock material to achieve desired rehabilitation outcomes, implement offsets and improve post-mining land use. The Discussion Paper has not addressed this urgent issue.

CME recommends the State pursue the necessary amendments to the EP Regulations to encourage the reuse of virgin and clean fill. Additionally, the DWER should review the criteria and regulatory burden associated with clean fill to ensure desired reuse outcomes are practically achievable.”

In principle, CME supports DWER’s stated objectives for the proposed changes:

- “to ensure that the use of clean fill for development can continue without the requirement for a licence or liability for the waste levy”; and
- “to allow for the use of uncontaminated fill that meets environmental and health standards after testing without the need for a licence or payment of the waste levy.”⁵

However, CME has identified unintended consequences for the resources sector from the changes as currently drafted. CME strongly recommends further refinement of the proposed amendments prior to implementation.

These unintended consequences and alternative approaches are detailed below.

² DWER Consultation Paper available on the Consultation Website at: <https://www.der.wa.gov.au/our-work/consultation/462-amendments-proposed-following-the-decision-on-eclipse-resources-pty-ltd-v-the-state-of-western-australia-no-4-2016-wasc-62t>

³ Licence or licence amendment

⁴ Submission dated November 2017

⁵ DWER Consultation Paper, Page 2

Amendments to category 63 to 66, and 89 of the EP Regulations

The proposed “*Environmental Protection Amendment Regulations 2017*”⁶ introduce a “*clean fill premises*” definition for “...**premises on which all of the waste that is, or has ever been, accepted for burial is uncontaminated fill or clean fill...**” (*emphasis added*). The reform then proposes these “*clean fill premises*” be excluded from Category 63, 64, 65, 66 and 89 definitions in Schedule 1, excluding them from requiring a new or amended Part V licence and the WARR Levy⁷.

Although this approach would appear to achieve DWER’s stated objectives for greenfields construction activities, such as new property development, it fails to do so for other industry groups such as the resources sector.

Rather than exempting fill from licensing and WARR Levy requirements based on the use of the fill, the proposed amendment instead uses all activities which occur or have ever occurred on a “*premise*” as a proxy. This is problematic as it results in unintended consequences for the resources sector.

Resource sector operations need to import fill material for activities such as road construction, road maintenance, building installation and site preparation works, dam wall lifts and other similar activities. Their premises are often large and can incorporate multiple tenements with numerous different activities occurring within different areas of the overall premise. This commonly includes waste management activities auxiliary to the primary mining, refining and processing activities which occur at the premise. Consequently, resource sector premises often are, or have been at some point, licensed under Part V to accept waste for burial.

As of January 2018, 27 resource sector operations had active Part V licences or works approvals for Category 63, 82 had Category 64 and 59 had Category 89. Given the proposed definitions, none of these operations would be able to accept clean or uncontaminated material for fill purposes within their premise without requiring a licence amendment. If these premises were within the defined WARR Levy region, they would also then incur the WARR Levy for using such material as fill. Additionally, any resource sector operation which had ever accepted waste for burial onsite would be in the same position⁸.

The proposed changes, which link to the history of the premises and not the use of the fill, clearly indicate such activities in future would require a licence or licence amendment to enable acceptance of fill. Instead of addressing the DWER’s stated objectives, the proposed definition appears to make certain resource sector operations must treat clean fill as waste and therefore obtain relevant Part V approvals (new or amendment) to accept clean or uncontaminated fill for fill purposes. If these operations are then within the defined levy region, they will also become liable for a levy payment, a clear deviation from DWER’s stated reform intent.

Further, the areas within the premise that had then accepted the fill (such as a road) would then be licenced as a “landfill” which may have future implications for the *Contaminated Sites Act 2003*, tenement transfers, insurances, near neighbour perceptions, disclosure requirements, closure, relinquishment and other approvals.

It is also worth noting the need to import fill (accept fill) is more common for resource sector operations within the defined WARR Levy region. These operations tend to be on smaller land parcels with fewer on-site fill options available and are less likely to have primary mining activities generating waste rock which may be used as competent fill material.

⁶ Available in Appendix A of the Discussion Paper

⁷ The WARR Levy is only applicable for waste generated or disposed within the specified region.

⁸ It is common for resource sector operations to require onsite inert waste disposal during initial project construction and hence the above figures for “active” licences and works approvals would underestimate the scale of the impact on the resources sector.

CME does not support the EP Regulations amendments as drafted. Instead, CME recommends the definitions be revised to allow clean and uncontaminated fill acceptance at premises, regardless of premise history, for fill purposes without the need for a licence and without incurring a levy.

The regulation of clean and uncontaminated fill should be driven by the material's use not use the history or purpose(s) of the premise as a proxy. CME recommends the definition of waste be reviewed to clarify fill (and other materials of use) is not classified as "waste" and therefore not subject to waste licensing or the WARR Levy. Such an approach would avoid unintended consequences such as mineral waste from the resources sector (for example, in-pit back fill of overburden and waste rock) inadvertently causing mine sites to be classified as "landfills") and would also encourage reuse and recycling of materials thereby reducing natural resource consumption – a positive environmental outcome. **Should DWER amend the definition of waste, including as it relates to resource recovery, reuse and recycling, industry and other stakeholder consultation must occur as part of the reform.**

DWER should note fill may be required at different premises beyond just the resources sector, including at waste premises. For example, landfills may be required to import clean or uncontaminated fill at the end of their operational life in order to achieve necessary capping and closure outcomes. It would be inconsistent with the stated reform objectives for the importation of this fill to require further licensing and incur the WARR Levy. This further demonstrates the necessity to regulate fill by its use rather than through underlying land uses and history.

CME is cognisant of the urgency of addressing clean and uncontaminated fill for use in new construction development. **Should DWER progress with the changes as proposed to expedite use of clean and uncontaminated fill for new property and urban infrastructure development, this must be an interim measure only. This interim measure must be modified to ensure the resources sector and other industries do not require licences nor incur the WARR Levy from use of clean and uncontaminated fill as fill.**

A further complication of the propose definitions is how to demonstrate for a premise "*all waste is, or has ever been*" uncontaminated or clean fill. Many of WA's lands, particularly within the region liable for the WARR Levy, have had agricultural, residential and industrial usage of some form back to the 1800s. It would be difficult and costly to demonstrate even for seemingly "*new*" developments that there was never any history of other waste at the premise, thus the proposed definition will likely be unsuccessful in meeting even DWER's urgent needs for reform.

Should DWER proceed with the changes as proposed, **DWER must clarify how a premise can practically demonstrate all waste ever accepted has been clean or uncontaminated fill.**

It is also unclear from the Consultation Paper how the new definitions will be applied to historic activities. For example, if a premise received fill material which is later deemed not to have met the "*clean*" or "*uncontaminated*" definitions in accordance with Appendix B, will the premise need to retrospectively rectify Part V licensing approvals and potentially become liable for retrospective payment of the WARR Levy? CME recommends **any amendments must clearly indicate licensing requirements and liability for the WARR Levy apply to future activities and are not applied retrospectively to past acts pre-dating the definitions.**

Amendment of Waste Definitions

The Consultation Paper proposes to amend the definition for "*clean fill*" and introduce a definition for "*uncontaminated fill*". CME supports the separation of "*clean fill*" from "*uncontaminated fill*" in the Landfill Waste Classification and Waste Definitions 1996, however, the definitions as currently proposed are impractical and will likely fail to achieve the DWER's stated reform objective.

Concerns with each definition are addressed separately below.

Clean Fill

The Consultation Paper proposes to define clean fill as:

“Clean fill means raw excavated natural material such as clay, gravel, sand, soil or rock fines that:

- (a) has been excavated or removed from the earth in areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities;**
- (b) does not contain any acid sulfate soil;**
- (c) does not contain any other type of waste; and**
- (d) has not, since it was excavated or removed from the earth, been used or subject to processing of any kind.”**

As previously mentioned, much of WA has been exposed to agricultural, industrial and residential activities since the 1800s. It is highly probably, particularly in the region subject to the WARR Levy, areas will contain trace or small quantities of waste such as inert rubble, wind blown litter and historically discarded items. Definition points (a) and (c) would therefore be difficult to meet and providing certainty to a level which would withstand future court proceedings would be prohibitively expensive.

Point (d) also appears to exclude material which has undergone treatment such as crushing, screening and sizing (physical processing) which are necessary in order to separate clean fill from plant debris and other material, and to segregate different sized fractions for different fill purposes.

Including the word “*fines*” is problematic as it is poorly defined and unnecessarily restricts the potential volume of clean fill available in WA without any clear link to a negative environmental or human health outcome. Its removal would maintain consistency with the current definition, which does not specify “*fines*”.

Further, no clarity is provided in the Consultation Paper as to the type of evidence, sampling or testing required to demonstrate the definition has been met for any of the four sub-points.

Given these issues, practically and economically obtaining “*clean fill*” in WA becomes unlikely.

Consequently, it may become necessary for clean fill to be sourced from very remote areas, away from any historic development and in virgin bushland, in order to minimise the risk of encountering trace evidence of waste and to reduce the cost of demonstrating compliance with the definition.

This outcome would be counter to the objectives of the EP Act as it promotes clearing of new bushland and increases transportation emissions. Additionally, it will increase the cost of sourcing fill material, particularly within the metropolitan region and likely reduce the amount of clean fill readily available in WA.

CME instead recommend the definition for “clean fill” be based on the current definition⁹ amended to remove the content related to uncontaminated fill and modified to become:

“Material that will have no harmful effects on the environment or human health when used as fill material, and which consists of rocks or soil arising from the excavation of undisturbed material.”

⁹ The current definition for clean fill is: “Material that will have no harmful effects on the environment and which consists of rocks or soil arising from the excavation of undisturbed material. For material not from a clean excavation, it must be validated to have contaminants below relevant ecological investigation levels (as defined in the document Assessment Levels for Soil, Sediment and Water, Department of Environment, 2003).” Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009), pg 4

As can be seen, three minor amendments have been made to the current definition. These amendments are based on the following rationale:

- Potential human health impacts associated with naturally occurring fibrous materials should be considered for clean fill. For example, soil and rock types known to contain high levels of chrysotile, crocidolite and actinolite; and
- The intended use of the fill material will affect its appropriateness as fill for example in uses where it is capped, used in adjoining areas naturally elevated in certain parameters and present no environmental harm.

Should DWER instead retain their proposed definition, **CME recommends including consideration of “potential” acid sulphate soils to minimise the risk of creating new acid sulphate soils impacts and naturally occurring fibrous materials to minimise potential human health impacts from inappropriate use of fill containing minerals such as chrysotile, crocidolite and actinolite.**

Additionally, physical processing such as crushing, screening and sizing must be permitted for clean fill.

Uncontaminated Fill

The Consultation Paper proposes to define uncontaminated fill as:

“Uncontaminated fill means inert waste type 1 (excluding asphalt and biosolids) that meets the requirements set out in Table 1, as determined by sampling and testing carried out in accordance with the requirements set out in Table 2.”

Table 1 then presents a list of more than 50 parameters to be tested (both maximum concentration and leaching) in order to verify material is “uncontaminated” fill. Key issues include:

- There is no acknowledgement or allowance for regional differences in materials and areas with naturally higher concentrations of natural substances such as metals. It is well known some areas demonstrate enrichment of certain parameters. Due to the bulk volume, low value of fill material, it is typically sourced as close as practical to where it is to be used. If a region has naturally elevated background levels of a particular parameter, it is unreasonable to consider material naturally similar in composition is inappropriate for use in the area. Such an approach would unnecessarily reduce the availability of locally sourced clean fill and increase transportation costs without reducing the environmental impact.
- There is no link between what has rendered the material ineligible as “clean” fill and what parameters are to be tested. Instead, all parameters must be tested in every instance. The testing of parameters should be based on risk and the likelihood a particular contaminant will be present at a level of concern. For example, if an area has a history of agricultural use, testing for pesticides would be logical. In contrast, if an area had a history of petrochemical use or hydrocarbon spills, testing for organic compounds should occur. Requiring testing for all parameters in all instances regardless of known history and risk would be prohibitively expensive and unnecessary. A risk-based approach would be more logical, reduce sampling and testing costs to only those items relevant and increase the availability and potential for economic reuse of uncontaminated fill.
- The Consultation Paper provides no rationale as to what parameters have been included. The list of parameters is far more extensive than the current list contained in Table 3 of the Definitions¹⁰. Additionally, the proposed Table 1 footnote requires both concentration and leaching analyses be assessed regardless of concentration level.

¹⁰ Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009), pg 12.

Currently, leach tests are only required above a certain threshold. Such a tiered approach is more sensible. No justification has been provided for the change.

- No rationale or references are provided for the (low) levels listed for both the maximum concentration levels or leach test values (Table 1). Hence it is unclear why such low levels are required in order to protect the environment or human health. For many parameters, the values are orders of magnitudes lower (100 to 1000 times lower) than used in other similar legislation and technical guidance. In some instances, the level are so low, they cannot even be readily tested for at a sufficiently low detection limit in WA to demonstrate compliance. Given currently specified levels, it would seem unlikely even clean fill would meet the requirements of uncontaminated fill.
- The testing regime as currently specified would be prohibitively expensive. This will likely reduce the availability of fill in WA and significantly increase the costs for users of fill to procure fill.

CME recommends **DWER introduce a risk-based and tiered approach to the testing for uncontaminated fill**. Parameters to be tested must be linked to the history of the area and take in to account the intended use of the fill and natural background levels of the parameters. A tiered approach should be implemented to ensure leach testing is only be required for those parameters identified as a concern. Additionally, DWER should review the list of parameters and provide references justifying their inclusion and the levels chosen.

Other Matters


CME recommends **DWER consult with other relevant agencies such as the Radiological Council of WA and assess implications under the Contaminated Sites Act 2003 for proposed changes** as part of their consultation period. It is unclear from the Consultation Paper whether DWER has done this prior to developing the Consultation Paper.

Conclusion

CME welcomes the opportunity to provide comments on the Consultation Paper and supports DWER's stated intent to rectify the unintended consequences for use of clean and uncontaminated fill resulting from the Eclipse Decision.

We look forward to ongoing engagement with DWER to address the unintended negative consequences for the resources sector and on wider waste reform for Western Australia.

If you have any further queries regarding the above matters, please contact Bronwyn Bell, Manager – Natural Resources, on (08) 9220 8533 or b.bell@cmewa.com.

Authorised by	Position	Date	Signed
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