Submission on the Department of Environment Regulation
Draft Environmental Standard: Composting

September 2015

Status of this Submission

This Submission has been prepared through the Municipal Waste Advisory Council (MWAC) for the Western Australian Local Government Association (WALGA). MWAC is a standing committee of WALGA, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management) as well as a number of Local Government representatives. This makes MWAC a unique forum through which all the major Local Government waste management organisations cooperate. This Submission therefore represents the consolidated view of Western Australia Local Government. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

This Submission has been considered and endorsed, out of session, by the Municipal Waste Advisory Council.

Executive Summary

The Association welcomes the opportunity to comment on the Draft Environmental Standard: composting. The Association understands that the Department is putting in place a working group to further develop this Standard and expects that the Submissions put forward in this round of consultation will inform the discussions of the working group.

Local Government is commenting on the Standard in several capacities, as a community representative seeking to ensure the environment is protected, as an operator of and investor in prescribed premises that manufacture products to which the Standards will apply and as a purchaser of products generated by those using the Standard. As such the Association has a keen interest in ensuring the effects of any regulatory change are fully appreciated by the regulator.

Recommendation: That the Department undertake a rigorous cost/benefit analysis of new regulation and provided the analysis publically.

Local Government has a broad scope to its operations and may be undertaking a range of different regulated activities on a site at any one time. The Association therefore considers it vital that the Environmental Standards be as consistent in structure as possible and include a clear purpose and scope, the issues to be addressed by the Standard, how monitoring will occur, a review mechanism for the Standard to assess effectiveness and finally an appeal mechanism.

Recommendation: That any Environmental Standard developed include:

- **Clear purpose and scope**
- **Issues to be addressed**
- **Monitoring considerations**
- **Review mechanism**
- **Appeal mechanism**

The Association considers that an outcomes based approach to regulation is vital, as it allows the regulator to set the essential requirements for protecting the environment but allows industry flexibility in how to deliver on these requirements. To facilitate this outcomes based approach, the process for applicants to deviate from the Standard should be identified.

Recommendations:

- **That the Standard be structured to identify outcomes, then include recommended ways of meeting these outcomes.**
- **That a clear pathway be included in the Standard to articulate the process for applicants who wish to deviate from the Environmental Standard.**

In developing a Standard for WA, it is important that any differences from other States be considered. Of particular relevance are geological and climatic variations.

Recommendation: That the Standards are developed with clear consideration of the WA environment, including geologic and climatic factors.

This Submission addresses specific issues and provides suggested resolutions for specific aspects of the Standard. These are included in Section 4.4 but not listed specifically as recommendations.

In applying any new Standard there needs to be capacity building and training for those implementing it. Concern has been expressed by Local Government about inconsistent interpretation of regulatory requirements in the past.

Recommendation:

- **Training for Department of Environment Regulation officers should be provided as it is essential to ensure the consistent application/implementation of the Standard.**
- **Ensure the Department is appropriately resourced to be able to undertake a risk based regulatory approach.**

The composting sector makes a valuable contribution to the economy, diverting resources from landfill and improving the depleted soils of Western Australia. If regulation is introduced without support, or any increase in demand for the material that is produced, the viability of existing composting operations may be affected. The Association would like to request financial support for the composting industry, where needed, to ensure that additional regulatory requirements do not unreasonably inhibit the sector's ability to process material.

Recommendation: The Department of Environment Regulation provides support, where necessary, for the composting facilities to improve performance and implement testing regimes.

1 Introduction

Local Government welcomes the opportunity to comment on the Draft Environmental Standard: composting (the Standard). Local Government is commenting on the Standard in several capacities, as a community representative seeking to ensure the environment is protected, as an operator of and investor in prescribed premises that manufacture products to which the Standards will apply and as a purchaser of products generated by those using the Standard.

Many of the documents that inform the Departments regulatory reforms and activities are yet to be released or finalised. These documents could have implications for a range of facilities and operators. Local Government understands that the Department is putting in place a working group to further develop this Standard and expects that the Submissions put forward in this round of consultation will inform the discussions of the working group. The Association looks forward to working further with the Department in the development of the Standard.

This Submission provides an outline of the context that will influence the regulation of this particular industry, as well as reflections on the Consultation Paper. In relation to the Standard, this Submission provides feedback on its structure, as well as the documents that have been used in its development. Analysis of the Standard is undertaken section by section, identifying points of

clarification, key issues, suggested resolutions and the rationale for the suggested approach. Finally, the Submission discusses some of the key considerations to be made in the implementation of the Standard.

2 Context

Local Government agrees that the environment has to be protected through the use of sensible and risk based approaches to regulation. Local Government facility operators have had a range of interactions with the Department in the area of regulation. In the mid 2000's the Department began the process of implementing specific regulations for applying organics to land. As a result of the previous activities of the Department, WALGA developed a Policy Statement on Standards for Recycled Organics Applied to Land[1]. The composting industry, which services Local Government via contractual arrangements, is wary of new regulation, as it is well aware of the immediate, negative, outcomes caused by the development of new regulations for organic materials in other States.

In the interests of delivering a consistent, whole of agency approach to organics processing, it is imperative that the regulatory branch of the Department considers the $20 million Better Bins Program launched by the Environment Minister and Waste Authority to encourage the diversion of organics from landfill. This Program provides guidance and funding to support Local Governments in implementing better practice kerbside collection systems that increase resource recovery. Through this Program, the Waste Authority has demonstrated its support for a three-bin system (general waste, co-mingled recycling and green waste). One of the reasons given for this support is that *"…sophisticated technologies are much more expensive to build, and in some cases to operate, than facilities that process source-separated materials. Further, the outputs from processing source-separated recyclable material tend to be of higher quality and a higher market value."*[2] Examples of facilities that use sophisticated technology to process mixed waste are Alternative Waste Treatment (AWT) facilities. In Regional areas, these types of facilities may not be viable.

The Association encourages Better Practice approaches to kerbside collection, which increases recovery of material and landfill diversion, and is concerned that the perception of increased regulation will discourage this. The Three Bin System that is being encouraged as part of the Waste Authority Better Practice approach is relatively new in WA and as such there is limited market demand and processors available to manage material from this source. This is due to concerns with levels of contamination and potential restrictions on areas where the final product could be used[3]. There is a need to support industry in meeting increased regulatory requirements; otherwise there could be unforeseen impacts such as a decrease in the number of licensed composters, and an increase in landfilling or illegal dumping of organics.

3 Comments on the Consultation Paper

The Association appreciates the background information provided by the Department in the Consultation Paper. This document has the potential to provide industry with an understanding of DER's intent and approach to the regulation of composting facilities. Once the Standard has been finalised the Association suggests that the Consultation Paper should be retained in some form (e.g. as a background paper) to provide context for the industry.

With regard to the Consultation Paper Local Government requests clarification on:

- *What is covered by the Standard in relation to Aerobic and Anaerobic Composing:* The Standard is titled 'composting' and the definition of 'composting' is limited to aerobic

[1] WALGA (2007) Policy Statement and Background Paper on Standards for Recycled Organics applied to land. Available from www.wastenet.net.au
[2] Waste Authority (2015). Better Bins: Kerbside Collection Guidelines Reference Report Waste. Available from www.wasteauthority.wa.gov.au
[3] WALGA (April 2014). Compost Commitment Project Major Milestone 1 SPF: Market Report

processes. However the Consultation Paper states that 33 composting operations are licensed under category 67A, three of which are for enclosed anaerobic processes. As there are hybrid systems, this needs to be acknowledged.

- *The scope and application of the Standard:* There is a concern that the broad title of the Standard (i.e. composting) could see the Department apply the Standard to operations outside those of aerobic composting activities. For example, businesses that blend soil to create soil conditioners. This concern is particularly relevant, given that the Standard refers in part to the AS 4454, which includes composts, soil conditioners and mulches.
- *Number and severity of non-compliant composting operations:* In the Consultation Paper, the Department advises that the majority of composting operations have been inspected, with a high proportion found to be non-compliant with their license conditions. The Association requests further information on whether, once the facilities responded to the issues identified by the Department, they were still considered non-compliant. The Association would also like to understand the number and significance of conditions where the facilities were found to be non-compliant. The most direct approach to addressing problems within the composting sector is to ensure operators are compliant with their current conditions (particularly with respect to the material accepted on site). The Consultation Paper states that the Department will be addressing inconsistent licensing of the sector. The Association supports this initiative.
- *Analysis to determine level of impact:* Within the Consultation Paper, the impacts of the Standard on industry have been identified and assessed by the Department. The degree of impact that changes will have on industry is currently described as 'moderate', or 'significant.' There are real concerns within the sector as to how these classifications were assigned. If this Standard "*will be applied to both new applications and to existing licenses*" as is currently written – the impact of conditions relating to infrastructure design, construction, performance standards and product parameters will be significant, as opposed to moderate. For example, any upgrade to infrastructure for permeability will have a significant impact on the majority of license holders. Aside from cost impacts, operations cannot take place while upgrades are underway (that is, composting operations cannot occur when the hardstand area is being replaced). Local Government requests that when the Department undertakes any assessment of the cost/benefits relating to new regulation, this analysis is undertaken in a rigorous way and released publically. Local Government has little confidence in the analysis that was presented in the Consultation Paper.

Recommendation: That the Department undertake a rigorous cost/benefit analysis of new regulation and provided the analysis publically.

4 Draft Environmental Standard on Composting

4.1 Structure of the Standard

It was identified in the Association's Submission on the Guidance Statement for Environmental Standards that it would be useful if there was a similar structure used for all Environmental Standards. For example the *draft Environmental Standard on assessing leachate from waste derived materials* contains a specific section on the scope of the Standard and a two year review mechanism, whereas the Environmental Standard: composting does not include those sections.

To assist those reading the Standard it is also suggested that a consistent structure is used within the various sections of the Standard. For example in Sections 5.1 Composting hardstand, 5.2 Leachate collection systems and 5.3 Leachate storage infrastructure, there is a clearly identified "Performance Standard" and "Design and construction standards" however section 5.4 Leachate storage capacity does not include these headings.

Recommendation: That any Environmental Standard developed include:

- **Clear purpose and scope**
- **Issues to be addressed**
- **Monitoring considerations**
- **Review mechanism**
- **Appeal mechanism.**

4.2 Linkages with Existing Government Guidance

The Association understands the significance of the regulatory reforms underway and the deliverables that the Department will be consulting on. It would be useful for readers to understand how these documents link together as well as to other regulatory areas. It is understood that the Environmental Standards are intended to be quasi regulatory documents however both the policy and regulatory context they occur in should be identified.

An example of guidance from another regulatory area that could be referred to in the Standard is the advice provided in the State Planning Policies 2.2 Gnangarra Groundwater Protection[4] and 2.3 Jandakot Groundwater Protection[5], as well as State Planning Policy 4.1 State Industrial Buffers[6]. The Waste Authority's Strategic Waste Infrastructure Planning Project could also be used to provide valuable information on the type of facilities required to meet the future waste management needs of the Perth and Peel regions. As well as the planning, governance and funding instruments required to support the establishment of this infrastructure.

Providing in text linkages to other relevant Department of Environment Regulation documents would also be useful. Particularly once finalised, the:

- Guidance Statement on separation distances
- Environmental Standard on point source air emissions
- Guidance Statement on environmental risk assessment framework
- Guidance Statement on land use planning.

During the consultation on this Standard, the Guidance Statement on Separation Distances was released. Local Government requests that a consistent approach and terminology is used in both of these documents. The Environmental Standard: composting, only refers to sensitive environmental receptors, whereas the Guidance Statement on Separation Distances has a wider remit that includes '*beneficial use of land*' and '*sensitive land uses*.' It is imperative that linkages are made between both documents, as the guidance on separation distances has shifted from previous advice, and will change the risk classification that the Department assigns to both new and existing operators.

The Guidance Statement on Environmental Risk Assessment Framework is yet to be released, and could have implications for a range of facilities and operators. As such the Association reserves the right to submit feedback to the Department on the potential implications of this document, on the Standard.

4.3 Comparison with Guidelines in other States

In the Consultation Paper, the Department indicates that it has given "*regard to the nature of composting operations within Western Australia"* the Association would like to request more information on the type of factors that were considered. Local Government has concerns that a prescriptive approach will be applied through the Standard, as opposed to the outcomes based

[4] Department of Planning. State Planning Policy 2.2 Gnangarra Groundwater Protection. Available online http://www.planning.wa.gov.au/publications/1164.asp

[5] Department of Planning. State Planning Policy 2.3 Jandakot Groundwater Protection, Available online http://www.planning.wa.gov.au/publications/1165.asp

[6] Department of Planning.State Planning Policy 4.1 State Industrial Buffer. Available online. http://www.planning.wa.gov.au/publications/1176.asp.

approach used in both the Victorian and New South Wales Guidelines. This concern is particularly important for considerations on infrastructure and operating processes (refer to comments on Section 5 and Section 6).

There are a number of instances where the language used in the Standard is more prescriptive than that of the NSW and Victorian Guidelines. The following example, has been included to show how the guidance material from the NSW Guidelines[7], has been translated into a prescriptive requirement in the Standard.

"For processing Category 2 organics… open-air methods for composting have been found to be satisfactory with strict feedstock preparation and operating controls. However, Category 2 organics have a much greater likelihood of odorous emissions than do Category 1 organics and also a greater need for maintenance and careful ongoing operating practices to mitigate potential environmental impacts. Category 2 organics are best processed in enclosed facilities. For this reason, if the applicant intends to use an open-air facility to compost Category 2 organics, they will need to demonstrate clearly at the planning and community consultation stage that the location, design, operating methodology and resources of the facility will prevent odorous emissions and degradation of the local amenity."

In the Standard, the materials that are classified as Category 2 organics have been allocated a medium to high risk category. According to Table 5 of the Standard, material from this risk category must be composted in an enclosed or covered environment. The Association recommends that the Department considers adopting a similar approach to that of the NSW Guideline, which requires operators demonstrate how they will manage risks.

4.4 Environmental Standard Content

This section contains specific comments on each section of the Standard and where appropriate proposes an amendment or alternative approach. This section also provides a rationale for any suggestions that have been made.

General Comments
Many of the comments in this section relate to the language used in the Standard, which tends to be prescriptive (specific examples are provided). As has been identified, it is concerning when material from the Victorian or NSW Guidelines that outlines 'recommended' approaches, has been adapted and used in the Standard as a 'required' approach. Much of the concern that has been expressed by stakeholders in relation to the Standard could be defused by recasting some of the language and making it clear that the document outlines recommended approaches, rather than strict requirements. That they are recommended approaches – rather than strict requirements – is expressed to some degree in the Draft Environmental Standard Guidance document which indicates there is an alternative pathway that can be used instead of the Standard "*where applicants or licensees wish to propose deviations from the Environmental Standard and the CEO is satisfied that such deviations achieve the same or better level of protection for public health and the environment.*" It would be useful for this to be articulated in the Standard and the pathway for seeking such an exemption explained.

Recommendations:

- **That the Standard be structured to identify outcomes, then include recommended ways of meeting these outcomes.**
- **That a clear pathway be included in the Standard to articulate the process for applicants who wish to deviate from the Environmental Standard.**

[7] NSW Environmental Guideline on Composting and Related Organics Processing Facilities (p48).

Another general issue which has been highlighted with the Standard is that the use of the Victorian and New South Wales guidelines may not be applicable to the different areas within WA – due to geological and climatic differences.

Recommendation: That the Standards are developed with clear consideration of the WA environment, including geologic and climatic factors.

The Association also suggests that the document is structured in a way that links the risk level of an operator, with the type of infrastructure upgrades and processing controls that need to be applied in order to protect the environment. For example, if an existing composting facility is located close to groundwater resources and is processing 'risky' feed stocks; it makes sense to require higher specification hardstand areas, and increased groundwater monitoring. For those operators that are sited away from groundwater / sensitive receptors and properly manage their incoming feed stocks, there won't be the need for as many prescriptive controls on infrastructure. Operators need to be given the ability to reduce their risk potential, instead of having to meet blanket requirements for infrastructure, groundwater monitoring etc. that are designed to eliminate all risks. This approach would better align with the application of the Department's Regulatory Principles, as outlined in figure 4 of the Guidance Statement on Regulatory Principles. The Association understands that the Department is developing an Environmental Risk Assessment Framework that is likely to provide further clarity on this issue.

Environmental Standard on Composting	**Comments**
Section 1 Purpose	*Issue* In Section 1 of the Standard, the potential risks to the environment and public health have been identified as contamination of ground water, odour and contamination of products. However, the Consultation Paper outlines other areas of concern, resulting from the recent audits of facilities: *"Specifically, the audit identified the need to ensure that composting facilities had licence conditions specifying standards for infrastructure, were licensed for the taking of liquid waste where required, and had adequate groundwater monitoring requirements to assess potential impacts from composting operations."* There are differences between the Consultation Paper and the Standard regarding what environmental risks need to be addressed through increased regulation. As far as industry is aware, the audits did not identify the need for rigorous product based specifications (refer to comments in Section 7 on Product Specifications). Conditions on facilities should be risk based, rather than blanket conditions which may not apply to that circumstance. *Suggested Resolution* As much as possible, link the risks identified initially to the measure for resolution suggested. *Rationale for the Suggested Resolution* This will provide more clarity for operators in identifying the rationale for a particular requirement. For example, linking the risk of odour to the location of a site.
ADDITIONAL	*Issue* Within Section 1, there is limited mention of the intended audience for the Standard and how the Standard works with existing legislation. *Suggested Resolution* Include the following in Section 1 of the Standard: • Purpose of the Environmental Standard for all stakeholders • Legal status of the Environmental Standard • How to use the Environmental Standard *Rationale for the Suggested Resolution* The headings are taken from the Victorian Guidelines and would assist the reader in using the document. It would also be more consistent with interstate approaches.

Section 2 Application	Refer to previous comments in Section 3 of this Submission.
Section 3 Acknowledgements	*Issue* While documents that have been used in the development of the Standard are acknowledged, the material from these documents is not referenced within the document. *Suggested Resolution* Include references for source material, particularly for risk classifications of feed stock and any specifications. *Rationale for the Suggested Resolution* The NSW Guidelines contain extensive referencing. By specifically citing the reference material used, greater legitimacy is given to the document, which assists with justifying the need for a number of the requirements.
Section 4.1 Excluded locations	*Clarification* This section identifies where composting facilities 'must not' be located. Specifically, within water supply areas or in areas with projected 100 year flood water levels. Clarification is requested on the areas to which this prohibition would apply, and whether this is in line with the State Planning Policies 2.2 Gnangarra Groundwater Protection[8] and 2.3 Jandakot Groundwater Protection[9]. Currently these State Planning Policies allow composting activities to occur in limited areas of the groundwater catchment, with conditions. The information on the Department of Water website, references a Department of Environment document, which includes the same information regarding land use compatibility[10]. The Association is aware that SPPs 2.2 and 2.3 are currently under review.
Section 4.1 Excluded locations	*Issue* In relation to where composting facilities can be sited, the term 'must not' has been applied to sites located within a water supply area or a projected 100 year flood water level. If implemented as written, this is of concern for two reasons: • It will impact existing facilities • It is not a risk based approach. Several facilities are currently operating within these areas, having previously obtained approval through the planning system. This system contains mechanisms that trigger the consideration of environmental factors such as groundwater protection and the flood potential of any given area. Additionally, the planning system has the ability to require operators to implement control measures to manage potential risks to the environment. While the Department may consider it is not ideal that composting facilities are located in these areas, there are ways to manage the risks they present. Operators that process low risk material and/or have appropriate controls in place, will not have the same impact on sensitive environments as those that process high risk materials.

[8] Department of Planning. State Planning Policy 2.2 Gnangarra Groundwater Protection. Available online http://www.planning.wa.gov.au/publications/1164.asp
[9] Department of Planning. State Planning Policy 2.3 Jandakot Groundwater Protection, Available online http://www.planning.wa.gov.au/publications/1165.asp
[10] Department of Water. Priority areas and Protection Zones. Available online http://www.water.wa.gov.au/urban-water/drinking-water/priority-areas-and-protection-zones

	Suggested Resolution The Department provides an assurance that existing facilities within excluded locations can continue to operate, providing appropriate controls are applied which reduce the risk of harm to the environment. It would also be beneficial for the Department to amend the wording of the document to indicate that new composting facilities should 'preferably not be' located within the areas listed. *Rationale for the Suggested Resolution* This change in wording would reflect that while sites close to water supply areas and flood plains are not 'preferable' locations, existing businesses can still operate if appropriate controls are in place as per the planning system. It is interesting to note the approach taken in the NSW and Victorian Guidelines, to excluded locations and separation distances. Table A1 of the NSW Guidelines, contains a list of *"environmentally inappropriate areas for composting and related organics processing facilities."* However, this document also provides guidance on the factors to consider in selecting an appropriate site and buffers, as well as requirements for minimum design and the preparation of a water management plan to demonstrate how groundwater will be protected.
Section 4.2 Separation distances	*Clarification* The Victorian Guidelines state that "*composting facilities should not be situated on land liable to flooding and should be sited at least 100 metres from surface waters*." The Standard requires a 500m separation from surface waters. Clarification is requested on why an additional distance is required in Western Australia.
Section 4.2 Separation distances	*Issue* In the Standard, the only separation distances that are mentioned relate to those associated with environmental receptors. However, a key method of addressing issues such as odour involves maintaining separation distances to sensitive land uses such as housing. *Suggested Resolution* The Standard should include guidance on maintaining separation distances to all sensitive land uses, as well as environmental receptors. Clear linkages between the Standard, and the Guidance Statement: Separation Distances would also be beneficial. *Rationale for the Suggested Resolution* By providing guidance on appropriate siting and separation distances, there will be less potential for offsite impacts on sensitive land uses and environmental receptors. Where offsite impacts are unlikely to occur, the Department could then apply a risk based approach to the minimum infrastructure and operational controls necessary for any particular site. For example, a composting facility in Dalkeith would require higher level of controls than that of a facility located on the outskirts of Leonora, due to the proximity of sensitive land uses in one area, but not the other. Also there may be technological solutions that could be put in place to ensure that a facility can operate in a more sensitive urban environment.

Section 4 - Table 1 Minimum separation distances from composting facilities to environmental receptors	*Issue* In Table 1 the term 'greenwaste composting' has been used. This term has not been used or defined elsewhere in the document. *Suggested Resolution* That the Department use consistent terminology and definitions throughout the document. It is suggested that the terminology used to describe various feed stocks in Table 4 is applied. *Rationale for the Suggested Resolution* Using consistent terminology reduces the potential for confusion.
Section 5 Infrastructure	*Issue* There is a concern in Local Government, that all sites will be expected to meet the infrastructure requirements, regardless of the risk posed by an individual operation. Currently, the Standard reads "*the infrastructure and systems must meet the minimum performance, design and construction standards specified in this section."* *Suggested Resolution* That the Department incorporates a risk and outcome based approach for the infrastructure requirements. For example, this section could be amended to include the following phrase: "*or demonstrate that the facility can meet an equivalent environmental outcome through other means.*" *Rationale for the Suggested Resolution* The Association understands that it is the intent of the Department to allow applicants to propose deviations from the Standard, where the same or a better level of protection is afforded for public health and the environment (Draft Guidance Statement on Environmental Standards). However, it is suggested that this is clearly articulated in the Standard as well.
Section 5 Infrastructure	*Issue* It seems that the infrastructure section uses direct references from the Victorian and NSW Guidelines and doesn't allow for the use of construction materials or alternative approaches that are readily available, and better suited to the conditions in WA. For example, *"the liner must be constructed using one or more of the specified construction materials, which must be constructed at the relevant specified standard."* One Local Government, has questioned if limestone can be used instead of 'silty loam' as a protective layer over a clay liner. *Suggested Resolution* It would be beneficial for the Standard to be reframed, to provide guidance that is appropriate to the Western Australian context. For example, referring to materials that are readily available for use in construction. Operators should be provided with the opportunity to demonstrate that they are able to meet the outcome identified in the relevant performance standard using alternative approaches.

	Rationale for the Suggested Resolution In other states, there may well be a higher risk due to different environmental conditions. In high risk situations, tougher requirements on liners are reasonable. For example, the requirement for 100mm of asphalt / concrete is thought to have resulted from an environment where uneven clays were prevalent, causing liners to crack. If a composting facility is sited away from environmental receptors and sensitive land uses, and the incoming material is properly managed, then some of the infrastructure requirements may not be necessary. In the NSW Guidelines, design and performance requirements have been used, whereas the Victorian Guidelines use recommended design and operational measures. The outcome based approach used in the Victorian Guidelines is supported.
Section 5.2 - 5.5	No comment
Section 5.6 Construction Quality Assurance	*Clarification* From the publically available section of the AS 3798, it appears that this Australian Standard should not be applied to "*water-retaining structures*,"[11] which is one of the purposes of leachate infrastructure. Is this a correct interpretation of the Australian Standard?
Section 6 Operating Methods	*Issue* The language used in the Standard, is much more prescriptive (particularly in terms of 'required composting methods') that than of the Victorian Guidelines. The Victorian Guidelines contain recommendations and guidance for best practice design & operation. Additionally, there is a caveat that identifies the comments on pasteurization, will be "*used as a guide when providing advice to a compost facility (licensed or un-licensed) in an instance where a site is causing offsite impacts*." *Suggested Resolution* The language in the Standard should be recast to reflect an outcomes based approach. *Rationale for the Suggested Resolution* There are different approaches to composting that could meet the environmental outcomes sought by the Department. It is important to have a connection between the actual risk that an individual facility poses, and the operating approach used.
Section 6 Operating Methods	*Issue* The introduction to Section 6 states that the Standard will detail "*limits on accepting waste feedstock types or volumes including liquid waste*." There does not appear to be any further detail provided on limits or volumes, only a reference to those feedstocks that must not be accepted at composting facilities. *Suggested Resolution* That the Department removes the reference to volumes as this information is not included in the Section.

[11] Guidelines on earthworks for commercial and residential developments. Available online http://www.saiglobal.com/pdftemp/previews/osh/as/as3000/3700/3798-2007.pdf

	Rationale for the Suggested Resolution Such restrictions are considered more appropriate for conditions on individual licenses.
Section 6.1 Unacceptable feedstock and Section 6.2 contaminants in waste feedstock	*Issue* The Association is concerned at the potential for confusion regarding Sections 6.1 and 6.2. Local Government feedback indicates that Section 6.1 has been interpreted as a prohibition on the acceptance of these materials, even if these materials are as a contaminant in usual feedstocks. *Suggested Resolution* It would be beneficial to clarify that operators cannot accept loads entirely dedicated to the materials outlined in Section 6.1. However, in the event that some contaminants are found in the incoming feedstock material – that there are processes that can be implemented to address contamination, as per current industry practice (for example, screening out plastics). *Rationale for the Suggested Resolution* The current wording of these sections has caused some confusion. The Association's understanding is that the materials listed in Section 6.1 cannot be accepted as a dedicated feedstock, but that facilities can take organic materials with some degree of contamination, such as municipal source separated kerbside garden waste - providing "*appropriate processes that actively treat contamination*" are in place (Section 6.2).
Section 6.2 contaminants in waste feedstock	*Issue* There are some concerns within Local Government, on the implications of the statement "*contaminated organic waste feedstock must not be accepted at composting facilities to be diluted by other feedstock, before or as part of the composting process."* Depending on the definition of "*contaminated organic waste feedstock*" there is a possibility that an operator accepting materials from AWT facilities (or a food and garden waste collection system) as an input to produce a fit for purpose product would not be able to continue doing so. *Suggested Resolution* That the Department provides some clarification on the definition of "*contaminated organic waste feedstock*." *Rationale for the Suggested Resolution* If appropriate controls are in place at a composting facility to address contamination that is often present in some feedstock materials, the Department should have confidence to license a facility. It is common practice within the composting industry to blend materials from different sources to produce a fit for purpose product.
Section 6 Table 4 – Feedstock risk categories	*Clarification* Local Government would like further information on the methodology and factors used to determine the risk categories in Table 4 of the Standard. It appears that much of the information has been sourced from the Victorian and NSW Guidelines. However,

	there are a few differences in how these classifications have been adopted in the Western Australian context. *Issue* Municipal source separated kerbside garden waste is listed as medium risk in the DER Guidelines. Given that Local Governments do undertake education and enforcement campaigns (which are then backed up by processes that address contamination), it is therefore inaccurate to refer to this material as 'not controlled.' *Suggested Resolution* Remove the phrase "*as this source is not controlled.*" *Rationale for the Suggested Resolution* This material can be somewhat controlled at source and through controls at processing facilities. Additionally, there is no other example within Table 4 that has this kind of justification included on the assigned risk category.
Section 6 Table 4 – Feedstock risk categories	*Clarification* For this section several clarifications are requested: • There has been some concern from Local Government, as to the risk classification assigned to biosolids and aged manure. Specifically, how can this material feedstock be less of a risk than source separated kerbside garden waste/food waste? There is also a need to clarify how this assignment of risk links with that of the WA Guidelines for Biosolids Management. • In the Victorian Guidelines, grease trap wastes have been assigned a medium to high risk rating. In the Standard, the risk classification for this material has been scaled up to the highest level. Clarification is requested on why this is the case. • What would be the risk category assigned to material collected through green waste vergeside collections, specifically does this material belongs to the '*garden and landscaping organics'* waste type? Greenwaste collected on the verge is a major feedstock for many of the composting facilities and contamination of this waste stream is low.
Section 6 Table 5 – required composting method based on feedstock risk category	*Issue* The Victorian Guidelines have "*recommended feedstock to composting technology types*" that places the onus on operators to ensure that the feedstock is appropriate for the chosen technology. The Standard is more prescriptive, with "*required composting method*(s) *based on feedstock risk category*."

<table>
<tr><td></td><td>This requirement of the Standard, will have implications for existing facilities and Local Government operations:
<table>
<tr><th>Waste stream</th><th>Required composting method</th><th>Implications for Local Government</th></tr>
<tr><td>Garden and landscaping organics</td><td>Low Risk:
- Open environment
- Enclosed or covered environment
- Enclosed with secondary controls</td><td>Potential impacts for the Local Governments that collect and process their own landscaping / garden waste, as well as green waste vergeside collections. If the infrastructure requirements were applied, there would be a need for upgrades to all facilities.</td></tr>
<tr><td>Municipal source separated kerbside garden waste</td><td>Medium Risk:
- Open environment
- Enclosed or covered environment
- Enclosed with secondary controls</td><td>As the kerbside collection system is mentioned, Local Governments and/or their contractors with a garden waste kerbside collection service such as Cambridge, Cottesloe, Stirling and Bayswater would be affected.</td></tr>
<tr><td>Mixed source separated kerbside garden waste / food waste</td><td>Medium to High Risk:
- Enclosed or covered environment
- Enclosed with secondary controls</td><td>This will have an impact on the operations of the Bunbury Harvey Regional Council, as well as the assumptions that underline the viability of the 3 bin system.</td></tr>
<tr><td>Municipal putrescible waste from domestic, commercial or industrial premises</td><td>High Risk:
- Enclosed with secondary controls</td><td>This would affect Local Governments providing services to commercial premises that produce organic waste.

It is unclear how this requirement would affect composters that use the outputs from these facilities, for blending with other feedstocks.</td></tr>
</table>

Suggested Resolution
That the technology types are ‘recommended’ approaches rather than ‘required’.

Rationale for the Suggested Resolution
This suggestion would allow a risk based approach to be taken, that considers the constraints of each facility. This approach would allow the Department to provide clear guidance, while still affording flexibility to operators.</td></tr>
<tr><td>Section 7 Products</td><td>Clarification
Section 2.1 of the AS 4454, comments on the use of the Standard by regulators. Specifically, “it is not appropriate for regulators to specify compliance with this Standard as a mandatory requirement for facility operations, licensing or application to land of production outputs.” Clarification is requested from the Department on the use of AS 4454.</td></tr>
<tr><td>Section 7.1 Products</td><td>Issue
The Standard currently only appears to apply to products which are intended for the unrestricted, domestic market. Commercial compost is briefly mentioned, but how it is regulated and the requirements restricted use compost needs to meet are not clarified.</td></tr>
</table>

	Suggested Resolution That the Department clarify what actions that operators must take when material does not meet the AS 4454, in order for it not to be considered as a waste material. *Rationale for the Suggested Resolution* Material from Alternative Waste Treatment facilities does not meet AS4454 – it is intended for the commercial market. The regulatory framework for this product needs to be made clear. Currently the only avenue seems to be that operators submit an application via the Use of Waste-Derived Materials (Case-by-Case Determination). The Victorian Guidelines specify that material is only a waste if it has no designated use. The Victorian Guidelines also state that compost with parameters outside the specified contamination requirements for 'unrestricted use' can be considered acceptable by the regulator, if it is for a 'specific use' (refer to section 8.2 of the Victorian Guidelines). This could be a way to resolve this issue for the WA Standard.
ADDITIONAL	*Issue* Currently the product standards and the requirements for processing are combined in the same section of the Standard. *Suggested Resolution* That the Department separates the requirements for pasteurisation and maturation from that of product standards – as per the Victorian Guidelines. *Rationale for the Suggested Resolution* The separation of these two sections is suggested for clarity, as one refers to a process the material needs to go through (pasteurisation and maturation) whereas the other relates to the specification the end product needs to meet. In the Victorian Guidelines, references to pathogens and plant propagules have primarily been used to demonstrate that the composting process has been carried out correctly and pasteurisation achieved. Whereas references to both chemical and physical contamination limits for unrestricted use relates back to the composition of the feedstock material.
Section 7.2 Pathogen and contaminant limits	*Clarification* Clarification is requested on how the testing parameters identified in Table 6 and 7 of the Standard will be applied. Specifically, if consideration will be given to the risk profile of incoming feedstocks. Local Governments have questioned if they are required to test for chemical and pathogen contaminants that are unlikely to be present in the incoming feedstock material. One example put forward when the Association sought comment identified that the roundworm *Ascaris suum* is not present in the WA population. The Association suggests further investigation is needed by the Department on the appropriate suite of testing for the WA environment.

Section 7.2 – Table 6 Pathogen limits	*Clarification* Clarification is requested on the inclusion of noxious weeds within a table that is dedicated to pathogens.
Section 7.2 – Table 6 Pathogen limits	*Issue* Table 6 contains the same information as the Victorian Guidelines. This information appears to be sourced from the Victorian *Biosolids Land Application – Guidelines for Environmental Management (EPA Publication 943),* which assumes total replacement of the native soil with biosolids, as opposed to application rates. Western Australia has Guidelines for Biosolids Management, which outlines different requirements and default testing regimes to that of the Victorian Guidelines. For example, testing regimes for viable Helminth ova. It is worth noting that any reference to pathogen indicators in AS 4454, are only for high risk material feedstock such as "*manure, animal waste, food and grease trap wastes, mixed waste and biosolids"* (table 3.1A, AS 4454). It would be useful for the Department to consider using this approach, as opposed to placing requirements on all 'products.' *Suggested Resolution* The Association considers the use of WA Guidance as the basis for the Standard (e.g. WA Biosolids Guidelines). Additionally, it would be useful for the Department to consider the risk that various feed stocks present – and the need for pathogen testing as per the approach outlined in AS 4454. *Rationale for the Suggested Resolution* The suggested resolution would ensure that consistent advice is provided by the various State Government agencies to operators that are using biosolids and manures as feedstock materials for composting processes.
Section 7.2 – Table 7 Chemical and physical contaminant limits	*Clarification* A justification is requested for the use of these limits in protecting the environment, particularly for glass which is an inert material. *Issue* The soils of Western Australia are known to be deficient in some of the 'contaminates' listed in Table 7. The agricultural sector periodically applies the elemental form of some of these contaminants to land, to address the deficiencies. It is worth noting, that the limits for Zinc were substantially up scaled in the 2012 version of AS 4454, as the previous limit was not practical. The Association notes that glass and plastic are considered more dangerous than some of the heavy metals listed in Table 7. *Suggested Resolution* It is highly advisable that the Department considers using permissible chemical and physical limits that are linked to application rates, and the intended use of composted products (refer to previous comments on Section 7.1, for information on the Victorian approach to limits for unrestricted use, and specific uses).

	Rationale for the Suggested Resolution Encouraging the development of fit for purpose products, will allow composters to create materials that will be of benefit to the agricultural sector.
Section 8 Groundwater monitoring	*Issue* Implementing the requirements for groundwater monitoring may be expensive and unnecessary for some existing facilities given their risk profile. The Association supports the statement in the Standard regarding the Departments approach to requiring additional boreholes in situations where liquid waste is accepted. *"Additional boreholes will be determined by the Department based on the scale or the operation and the sensitivity of the receiving environment"*. In the NSW Guidelines, there is a minimum design requirement for one monitoring bore per aquifer, located down the hydraulic gradient from the processing area (this document also contains 'advice' on locating a bore up the hydraulic gradient from the processing area). The Victorian Guidelines are not as strict as the Standard, with the advice that *"EPA may require groundwater monitoring bores to be established on premises, for example, when a site is accepting liquid organic wastes."* *Suggested Resolution* That the Department takes a risk based approach and where a facility can demonstrate, due to their location, operation and feedstock, that they are not going to affect the groundwater, then the requirements for 3 monitoring bores be reconsidered. *Rationale for the Suggested Resolution* For those facilities that are processing high risk materials within a sensitive environment, these increased requirements are considered reasonable. For example, if a site is located close to groundwater resources and is processing higher risk material. However, those sites that are located far from groundwater should not have to implement as many groundwater monitoring bores. The Association considers it appropriate that if Groundwater is going to be measured, samples should be taken both up and down the hydraulic gradient from the facility. Comparison between these bores would ensure if there are contaminants already in the groundwater it would not be attributed to the composting facility.
Section 8 Groundwater monitoring	*Clarification* Table 8 identifies a range of parameters that have to be tested; however the specific units of measurement have not been included. For example, the metric of total nitrogen that should be monitored. It would be useful for the Department to specify the parameters of concern with regard to the feedstock, composting method and potential environmental impacts, as a means of reducing the costs associated with testing the entire parameter range.

ADDITIONAL	*Issue* Currently, there is no mention in the Standard of any review mechanism. *Suggested Resolution* That the Department includes a review mechanism in the Standard. *Rationale for the Suggested Resolution* Including a mechanism for review, will allow the Department to apply an approach that is consistent with existing regulatory guidance. It is suggested that the review period align with that of other Environmental Standards.
ADDITIONAL	*Issue* There has been concern expressed by operators on how regulations have been enforced by different Department of Environment Regulation officers. The Standard provides an opportunity to clearly articulate what the expectations are for those operating facilities, as well as providing consistent guidance to the Department officers, community and other stakeholders. However, for the Standard to achieve this, monitoring how it is implemented is vital. The Association includes further comments in Section 5 of this Submission, on ways to address this issue. *Suggested Resolution* Include, as a final section in the Standard, a contact / process for those operators who consider that the Standard has not been applied fairly to their situation. *Rationale for Suggested Resolution* By giving license holders a clear path for any grievance to be heard they will be able to more quickly resolve issues that arise. This approach would also provide the Department with one way to monitor the application of the Standard by officers in the field.

5 Implementation

Feedback from Local Government has indicated there seems to have been an inconsistent interpretation of regulatory requirements by DER officers, and limited communication with industry on acceptable approaches. DER staff tasked with implementing the Standard must have sufficient training and support to ensure the Standard is consistently and effectively implemented.

There are also concerns regarding the capacity of the Department in relation to delivering a risk based approach. This Standard effectively increases the level of expectation on the Department to undertake more risk based approach regulation, as opposed to the reactive (largely complaints based) system that is currently used. Meeting these increased expectations over such a large geographical area will come at a cost.

Recommendation:

- **Training for Department of Environment Regulation officers should be provided as it is essential to ensure the consistent application/implementation of the Standard.**
- **Ensure the Department is appropriately resourced to be able to undertake a risk based regulatory approach.**

The Association is aware that a number of reforms are underway in the controlled waste tracking area of the Department. This system could play a central role in forming the basis of the Departments internal auditing system on the effectiveness of its regulatory activities.

The composting sector makes a valuable contribution to the economy, diverting resources from landfill and improving the depleted soils of Western Australia. If regulation is introduced without support, or any increase in demand for the material that is produced, the viability of existing composting operations may be affected. The Association would like to request financial support for the composting industry, where needed, to ensure that additional regulatory requirements do not unreasonably inhibit the sectors ability to process material.

Recommendation: The Department of Environment Regulation provides support, where necessary, for the composting facilities to improve performance and implement testing regimes.