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RE: Early feedback on the NSW composting guidelines

Thank you for the opportunity to provide some early comments for your consideration ahead of drafting revised “Composting and Related Organics Processing Facilities” (NSW) (“NSW composting guidelines”), and Henry’s attendance at the August 2025 NSW Branch Committee Meeting.

As you know, WMRR circulated Arup’s request for early feedback to the NSW Branch, encouraging members to attend the August Branch meeting in person to provide any comments within the meeting, or reply directly to ARUP, or if preferred, to WMRR for collation. In preparing this response, WMRR also spoke to a handful of composters directly about their view of their current composting guidelines and anticipates that those comments will be echoed in the responses to Arup from AORA and directly from individual organics processors.

As an association representing the breadth and depth of the WARR sector, WMRR’s comments provided herewith are aligned to our strategic objectives of advocating for the waste and resources hierarchy, and our advocacy for systems-based approaches that seek to maximise the recovery and reinvestment of resources back into supply chains. This includes advocacy for regulatory and policy alignment across jurisdictions where possible to facilitate growth and security of recovered product end-markets.

WMRR appreciates that the intent and purpose of the NSW composting guidelines is to:

- guide site selection, design, operation, and environmental management of composting and similar organics processing facilities;
- support licensing and DA processes, rather than act as a compliance document (i.e. compliance not enforceable unless incorporated into specific licences), and
- primarily focus on managing environmental and public health risks across the entire lifecycle of processed organics: input, processing, and output.

WMRR assumes the first pass of the revised guidelines will necessarily update the outdated references from the 2005 document and has not included specific commentary on this but notes that the NSW EPA is implementing the recommendations from the Wilkinson review of the Resource Recovery Framework, including updating Resource Recovery Exemption Order and Exemptions, Waste Classification Guidelines and Innovations Pathway. The voluntary product standard referred to by the existing guidelines, AS4454, is also under review. In updating

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these references, the definitions of waste should be aligned with other regulatory instruments for consistency. References to new biosecurity legislation-phyloxera, restricted animal materials RAM (ruminant feed ban) and appropriate controls should also be included in the update.

Our comments address a key gap in the guidelines: supporting the shift to a circular economy that halves organic waste to landfill by 2030. In NSW, mandated source-separated Food and Garden Organics collections have driven major changes in the sector, including on-site modular processing technology such as insect bioconversion, increased development of enclosed organics facilities at resource recovery sites in Greater Sydney, and greater viability of thermal and dehydrating technologies for food waste. This is a very different landscape from 2004, when open windrow composting of garden organics was the norm.

Although they do allow for other site-based technologies (such as in-vessel, anaerobic digestion, and vermiculture), the guidelines primarily address site specific environmental risks such as leachate, stormwater, odour, dust, litter, and vehicle movements as specified in the guideline tables. There is a notable gap in that modular technologies have since emerged such as black soldier fly, which need not be restricted to a specific site, can be self-contained and therefore do not pose the same environmental and public health risks. It is anticipated that these mobile units may play a significant role for the processing of food waste in particular. As these technologies do not carry the same site requirements, the usefulness of the existing guidelines to support approvals and licensing is limited.

What works well with the current Guidelines?

1. *The emphasis on operators selecting and applying the best mix of techniques suitable to the category of incoming organics in order to meet environmental performance requirements.*

The current guidelines emphasise "...a performance-based approach by setting objectives rather than prescribing particular environmental techniques that must be used. This approach intends to encourage facility operators to develop cost-effective solutions that not only achieve the right environmental outcomes but also are the most sensible and appropriate to particular operations." (p3. of guidelines). This is particularly important given the specific and varying needs of communities and business in terms of volumes and types of feedstock, and the viability of different technologies.

For example, Armidale Regional Council own and operate an organics processing facility "City to Soil" (since 2012) and are keen for the revised guidelines keep the current performance-based approach and ability of operators to develop fit-for-purpose solutions, particularly being in a regional environment navigating towards household FOGO collections by 2030.

It follows that greater emphasis should be placed on emerging and innovative technologies, such as black soldier fly and biochar for organics. Given the opportunity for councils, in particular, to explore using new technologies on their existing licenced sites, the revised guidelines emphasis on performance will necessitate a review of the current site-based design standards, which assume that a site is tied to a static piece of processing infrastructure. For example, Blue Mountains City Council has conducted a Circular Economy Hub Feasibility Study for its Katoomba Resource Recovery & Waste Management Facility Site. One of the key initiatives identified for initial implementation is a modular organics bioconversion technology – using insects to process food waste generated

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by local businesses and organisations. Blue Mountains City Council would expect any update to Guidelines to enable streamlined establishment of such processing technology on a site with an existing licence (EPL) that allows for processing.

WMRR expects the revised guidelines will necessarily refer to current policy and legislation (noting the emphasis on circular infrastructure, resource recovery and reduced emissions) and will broaden the environmental performance requirements for organics processing technologies to capture these with reference to emissions, end markets/uses for recovered materials and beneficial reuse or processed organics (soil health).

2. Flexibility for product outputs.

The current guidelines allow compost producers the flexibility to make fit for purpose products. This is particularly important for new technologies and feedstocks, with developing markets for end products such as biochar and digestate. As noted earlier, the revised guideline should include updated references to the NSW Resource Recovery Orders and Exemptions, which set contaminant limits (e.g., for heavy metals, physical contaminants, pathogens) before the product can be sold or applied to land.

What could be better?

1. More guidance is needed on feedstock inputs.

Front of mind in this review must be the change in organics feedstocks towards mandatory food and garden organics collections. The revised guidelines should:

- Provide guidance on physical contamination, potentially using thresholds that protect FOGO streams from being presented with overt contamination. This may be resolved through aligning the definitions of food and garden organics between the guidelines and the mandates and considering thresholds for FOGO contamination levels.
- Make it clear that a pathway and criteria for rejection of contaminated feedstock is required.
- Set out protocols for detection of hazardous material (unexpected finds).

It should be noted that WMRR is advocating nationally for a consistent framework for compost inputs and outputs including clear standards and testing criteria that recognise a safe level of PFAS exposure. All states have adopted significant diversion of organics from landfill targets and the WARR industry is committed to making safe, quality products at scale that can be used on land for beneficial purposes. However, to do this we require regulatory certainty and safe inputs. PFAS NEMP 3.0 did not address PFAS levels for FOGO (albeit it did identify that it required a lower level of assessment and management than biosolids) and as such, we are calling on all states to close this obvious gap in determining nationally consistent PFAS levels for safe application to land, including an agreed testing and sampling methodology.

2. It should be easier for planning authorities to assess fit-for-purpose organics solutions.

The guidelines should be technology and methodology agnostic – that is, flexible enough to allow for the management of material in a way that meets the unique environmental conditions. For example, not all FOGO

processors may need enclosed storage and processing facilities: this should be determined on a risk basis depending on location, volume, sensitive receptors and other environmental risk factors and outcomes of an odour assessment. Similarly, the revised guidelines should explicitly incorporate fit-for-purpose modelling protocols - noting that mobile, modular technologies such as insect bioconversion units, do not require the same odour, traffic, and noise modelling studies of a site based composting facility.

What are the gaps?

1. The three (3) risk-based categories of waste should align with licence conditions.

The concept of high, medium and low risk categories for types of wastes recognises different levels of environmental risk across input streams is good in principle in terms of helping assessors identify the levels of environmental controls that should be in place.

However, these categories do not align with licensing approvals. Currently operators require a licence variation to take a different type of material within its licence limit thresholds even if that material is in the same or lower risk waste category. This undermines the initial benefit of the risk categories establishing the benchmark for the level of controls needed.

The allowable feedstocks for a facility are specified on a facility's environmental protection licence. When adequate management controls are already in place for a category of waste, it should not be necessary to apply for a licence variation to take a different type of material within that category if licence limits are not exceeded.

2. Provision for effective licensing for non-site-based organics processing.

The guidelines are based on technology being site based, meaning that emerging mobile technologies face licensing challenges and require separate licences for separate sites. Given the transition to commercial food waste collection, it would be ideal if businesses with large volumes of food waste were able to employ these technologies across multiple sites where the waste is generated (i.e.: hotels, hospitals, shopping centres).

WMRR trusts you find these comments useful and welcomes further engagement on the revised guidelines.

Yours sincerely



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