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NSW Environment Protection Authority  
4 Parramatta Square, 12 Darcy Street,  
PARRAMATTA NSW 2150

Dear EPA

## RE: Submission on the NSW Biosolids Regulatory Review

The Australian Sustainable Business Group (ASBG) welcomes the opportunity to comment on the [NSW Biosolids Regulatory Review](#) (Biosolids Review.)

The [Australian Sustainable Business Group](#) (ASBG) is a leading environment and energy business representative body that specializes in providing the latest information, including changes to environmental legislation, regulations and policy that may impact industry, business and other organisations. We operate in NSW and Queensland and have over 100 members comprising of Australia's largest manufacturing companies and other related businesses.

## 1 OVERVIEW

A number of members operate in house biological wastewater treatment systems. Many using similar anaerobic digestion systems, as used by sewage treatment plants, as either a primary or secondary process. The functions of many of these generates similar output, a biological sludge residue, to that of sewage treatment facilities. At issue is not the main changes to the Biosolids Guidelines, but the differences between how industrial biological sludges are treated under the Resource Recovery Framework compared to sewage treatment plant's biosolids and the use of the Biosolids Guidelines as a main reference for environmental criteria.

## 2 Current Definition of Biosolids

The term *biosolids* is exclusively defined and reserved for sewage treatment plant, or STP biological sludges. Many industrial biological systems produce similar residues; in this submission these will be termed *biological sludges*. However, biosolids from non-Sewage Treatment Plants (STP) can have similar, worse or better environmental characteristics than biosolids from STPs. An issue is the EPA's need to identify and regulate those non-STP plants, which has poorer *biological sludges* than STP's biosolids, but in practice all non-STPs are treated this way. These differences include:

- All industrial *biological sludges* must apply for a Specific Resource Recovery Order and Exemption (SRROE), individually on a site by site basis. In contrast Biosolids can use the Biosolids Resource

Recovery Order and Exemption, by-passing the SRROE assessment and approval process. This is a significant regulatory burden on industrial *biological sludges*.

- The [Biosolids Resource Recovery Exemption](#) (RRE) has no limitation on which lands sewage sludge can be applied to. In fact, any land in NSW are suitable, where it meets RRE criteria. There are limits on how it is applied to land, but this does not restrict or require listing which land is used. In contrast, a *biological sludge* must apply for a SRROE, identifying all the receiving agricultural land to which it will be applied. As a consequence, a highly restricted pre-identified and EPA accepted lands limits apply to such SRROEs.
- In most cases an industrial *biological sludge* has a lower set of levels of heavy metals and non-biological contaminants than biosolids from a typical sewage treatment plant.
- Industrial biological sludge may have a higher levels of pathogens than most biosolids. This is considered the main limiting issue from a regulatory perspective on such biological sludges.

As a consequence, ASBG calls for a more consistent method to regulating biological sludges and allow them similar outcomes to those applied to biosolids where applicable. ASBG is not calling for non STP *biological sludges* to be defined as biosolids, but where they have similar or better environmental criteria they should receive the same or similar regulatory assessment and overview as biosolids. Where there are issues with *biological sludges* then appropriate controls will be required, however the current process imposes a regulatory burden on *biological sludges*.

**R1 ASBG recommends that for non-STP biological sludges:**

- a) Be permitted a simplified assessment process, such as the SRROE application, but with a reduced set of requirement, such as focusing on pathogenic characteristics.***
- b) After an assessment if they are equivalent or lower than biosolids criteria, they can be considered similar to or defined as Biosolids, enabling them to use the Biosolids Guidelines and Biosolids RROEs.***

### **3 Use of the Biosolids Guidelines as a Basis for Resource Recovery**

In the process of gaining a SRROE for *biological sludges*, use of the Biosolids Guidelines is used as a key reference points and main guidance documents, rather than other methods and criteria. To permit a less harsh regulatory approach to biological sludge SRROEs, a more flexible approach is developed.

**R2 ASBG recommends, the:**

- a) Limits used under the Biosolids Guidelines for non-pathogenic contaminants are also used for industrial biological sludges. Where exceedances occur then biological sludges would need to be limited to a specific land applications or sent to landfill for disposal as per the Biosolids Guidelines. Note there may need to be a set of upper limits used if required.***
- b) Use of an additional set of pathogenic assessments, if necessary, be used where the industrial wastewater biological system is likely to contain unconsidered pathogens in the Biosolids Guidelines. For example, abattoirs. If detected over threshold levels the biological sludges be treated where possible using the Biosolids Guideline methods.***
- c) Need for acceptable biological sludges to identify prearranged land for applications be dropped in favour of the approach applied to biosolids.***

- d) *Biological sludges to be subjected to the same or similar treatment methods for pathogenic assessment and management as identified in the Biosolids Guidelines to achieve a suitable level for land types used by biosolids.***

ASBG accepts the changes in table 2 of the Biosolids Review paper, but would like biological sludges to receive the same treatment if they meet the other environmental criteria in the Biosolids Guidelines.

## **4 Improved Specific Resource Recovery Application Process**

Overall this submission is more about non-STP *biological sludges* than biosolids. If these sludges can be shown to comply with the Biosolids Guidelines, then can they should be subject to the Biosolids RROEs. This approach would improve the resource recovery of many non-STP *biological sludges*.

ASBG considers that to be able to qualify for such use of the Biosolids RROEs, the non-STP *biological sludges* would require a simplified application process demonstrating the quality of their sludges. In effect it would be a simplified Specific Resource Recovery Order and Exemption application process for such plants. Perhaps a set of sampling and analysis testing, in addition to showing it is a food based biological process.

Expanding the application of the Biosolids RROEs is also consistent with a number of recommendations in the Resource Recovery Framework Review including recommendations:

*12. The EPA should investigate whether some activities that use, process and/or store recovered materials should be excluded from certain aspects of the waste regulatory framework to reduce administrative and regulatory burdens and enhance circular outcomes.*

ASBG is calling for a reduced set of requirements for biological sludges due to their similarity with biosolids, where this can be demonstrated. Perhaps what is required is an EPA testing regime which will identify where and where not a biological sludge is similar to biosolids.

*13. The EPA should seek to work with relevant agencies across government to develop a resource recovery innovation pathway to support the development, demonstration and assessment of new and innovative technology and processes. This could include consideration of approaches across the environment protection and environmental planning legislation.*

Some biological systems will be innovative, so the application of the Biosolids RROE would apply where the outcomes –the biological sludges— of innovative systems are captured under the EPA testing regime as discussed above. Hence the focus is on the outcomes, the sludge and not the innovative process.

*14. The EPA should periodically develop and publish regulatory plans targeting specific waste and resource recovery industry sectors. The plans should make better use of the full range of elements in the EPA's regulatory approach, outlined in the Regulatory Strategy 2021–2024, by identifying the specific elements that the EPA intends to use. Plans should also include more opportunities to engage with stakeholders.*

EPA should consider the industrial processes, which generate biological sludges and the application of the Biosolids Guidelines and Biosolids RROE to these systems, where it fits.

Should you require further details and clarification of the contents of this submission please contact me.

**Yours Sincerely**

A handwritten signature in black ink, appearing to read "Andrew Doig". The signature is fluid and cursive, with a large initial 'A' and 'D'.

**Andrew Doig**

**CEO**

**Australian Sustainable Business Group (ASBG)**

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