Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

Submission to Water New Zealand

GUIDELINES FOR BENEFICIAL USE OF ORGANIC MATERIALS ON PRODUCTIVE LAND

[9 March 2018]

Environment Canterbury
Regional Council
Kaunihera Taiao ki Waitaha

Details of submitter

1. Environment Canterbury (Canterbury Regional Council)

Details of submission

2. Environment Canterbury is grateful for the opportunity to comment on the latest version of the Water New Zealand document: Guidance for the beneficial use of organic materials on productive land.

3. This submission is presented in relation to Environment Canterbury's roles, functions and responsibilities under the Resource Management Act 1991 (RMA) and the Local Government Act 2002 (LGA).

General comments

4. Environment Canterbury is concerned that the application of biosolids to land in accordance with this guideline could negatively impact soil health and pose a human health risk.

Specific comments

5. Soil contaminants: Given the Hazardous Industries and Activities List (HAIL) classification (G5) specifically excludes the application of biosolids to land as a soil conditioner it is very important that appropriate controls over contaminants are included.

6. Where application of biosolids is as a soil replacement, the guideline proposes the use of NZ soil guideline values (ECO-SGVs). However, where application of biosolids is as a soil conditioner, the guideline proposes the use of a maximum concentration of trace elements (Grade B) above soil contaminant standards (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health). The application of trace elements above the environmental standards poses a number of risks around concentration loading and contaminant availability. We consider that by not uniformly applying contaminant limits protective of human health the guideline could create legacy issues for future changes in land-use and misinterpretation of application concentrations.

7. We support alignment of the biosolids application limits with existing soil guideline values and soil contaminant standards. This will prevent the contamination of soil where it may pose a risk to environmental receptors and human health.

8. Consenting requirements: The intention of the guideline, to allow application of compliant biosolid grades (A1, B1) without a resource consent, could pose issues if soils were overloaded with trace elements. The guideline suggests that both grades of compliant biosolids (A1, B1) can be added without restriction if trace element concentration is within the proposed biosolids application limits (Grade B). The effect

on total trace element concentrations in soil would be difficult to monitor without requirement for a resource consent. It is important to understand how regional councils and other regulatory authorities will have visibility over the application of biosolids to land, particularly in the situation where biosolids are applied above the allowable limits.

9. Access: Community access to land where grade A1 biosolids have been applied must be restricted. Requirements for buffer distances, setbacks from sensitive receptors and other controls need to align with regional rules and address potential public access. A key concern is the buffer distance from waterways and the potential for pathogen migration during application, high winds or surface flooding. Health risks associated with uncontrolled transportation of pathogens (A1), including contamination of surface water takes could also be an issue.

10. In addressing bioavailability, the guideline provides references historical and overseas based studies which do not necessarily reflect current science around the uptake of contaminants in New Zealand. We strongly advocate for further investigation into the potential bioavailability of trace elements of concern.

11. Contaminant characterisation: The estimates of trace element concentrations in the guideline are from studies over 20 years old and may no longer be an accurate estimate of the current New Zealand situation. We recommend an up to date New Zealand based study into trace element concentrations in biosolids to understand more about the current situation. In addition, we recommend a regular assessment of emerging contaminant limits with specific focus on residual medicines and perfluoroalkyl substances (PFAS's).

Recommendations

12. Soil contaminants: Consistently align contaminant concentrations with the soil contaminant limits and soil ecological values.

13. Consent requirements: Develop clear guidance on consent criteria categories including, permitted, controlled, discretionary, restricted discretionary, non-complying and prohibited categories.

14. Access: Provide management controls which align with Regional rules. Undertake further investigation and continually update information on bioavailability of contaminants of concern.

15. Contaminant characterisation: Provide relevant New Zealand based evidence on trace element concentrations. And require a regular assessment of emerging contaminant limits.

Conclusion

16. Environment Canterbury does not wish to be heard in support of this submission.

17. If others make a similar submission, the submitter will not consider presenting a joint case with them at the hearing.

18. Thank you for the opportunity to submit on Beneficial Use of Organic Waste Products on Land Consultation.

This submission has been made for and on behalf of Environment Canterbury

Name of Submitter:

Stefanie Rixecker, Director Science

For further enquiries

Please contact:

Rowan Latham, Senior Advisor (Hazardous Substances and Waste)

email: rowan.latham@ecan.govt.nz

Environment Canterbury

PO Box 345

Christchurch 8140