



COMMENTS ON

**WATER NEW ZEALAND GOOD PRACTICE GUIDE
BENEFICIAL USE OF ORGANIC WASTE PRODUCTS ON LAND**

To:

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From:

Medical Officer of Health
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WHANGAREI

Beneficial Use of Organic Waste Products on Land – Draft for public comment

Thank you for the opportunity for the Public and Population Health Services, Northland District Health Board (NDHB) to provide comment on the above draft *Guide* for public comment.

The submission is from the Medical Officers of Health, Public and Population Health Unit, Northland District Health Board (DHB), Whangarei. The Medical Officers of Health are public health physicians who provide independent specialist advice on matters that relate to population health, and have an overall statutory role to improve, promote and protect the health of Northlanders. Northland Public and Population Health Unit (the Unit), one of 12 in New Zealand, is the only provider of comprehensive, regional public health services in Northland.

The revision of the 2003 Biosolids Guidelines is welcomed; however, the current draft document could be improved in a number of ways.

Firstly, this document is just a guideline. Guidelines allow people who want to do the right thing to do the right thing. However, they carry no regulatory weight. To strengthen this document, it needs to have more regulatory clout. This could be achieved by making it a Standard, or a National Policy Statement.

Secondly, this document needs to be owned by a government department. In other jurisdictions this document would be owned by the relevant Environmental Authority. In New Zealand, the relevant Environmental Authority is the Ministry for the Environment. Without this organisational endorsement, it is possible that this document will simply be ignored. The document could also be improved by: stating who the target audience is; providing a clearer format for the regulatory requirements to be followed, and including easy to follow step-by-step flowcharts and checklists as relevant, to assist with the decision-making process (both by proponents and regulators). Finally there is currently no accreditation



process run by any agency to ensure that Organic Waste Products meet recommended *Guide* requirements.

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**Beneficial Use of Organic Waste Products on Land – Draft for public comment**

This submission is presented in three components – the first relates to the questions posed by the draft document; the second relates to more specific comments on the content of the *Guide*, and the final section provides concluding comments.

Comments in relation to Questions posed on page 3 of Volume 1:

Should the word ‘waste’ be included in the title and descriptive text ? Should it just refer to ‘Organic products’ or ‘Organic materials’ ?

- Waste needs to be included to differentiate the guide from other reference material relating to organically produced products. The reality is that we are talking about waste products. Waste is waste regardless of whether it can be utilised as a resource or not.

Should be proposed ‘Type’ 1A, 1B etc be used or revert back to the previous Aa, Ab etc nomenclature used in the 2003 Biosolids Guidelines ?

- What is the rationale for changing the nomenclature and the advantages of using different nomenclature ? This change could cause confusion, if the Aa etc terminology has been adopted by industry and currently in widespread use.

Should measurement of emerging organic contaminant limits be mandatory for all biosolids applied to land so that a New Zealand database can be established more quickly, giving a greater ability for evidence based review ?

- If this information is lacking, and would provide good evidence for informing best practice in New Zealand, then it should be collected. This may either be via a mandatory approach (although it is not clear who would be responsible for sampling and how data collection and collation would occur) or via a funded research project undertaken by a research institution. This is important given current concerns regarding emerging contaminants of concern, and would also assist with waste stream catchments and how these could best be managed. Ideally, measurement should be mandatory (implies a standard), so that trends can be monitored and effectively controlled (ie inform future practice).

Volume 1 The Guide is intended to give practical guidance. Is this information clear enough, in the correct format, split adequately between background/supporting information (Technical Manual) and the Guide ? How could it be improved ?

- Although considerable work has gone into the Guide and Technical manual, I do not think the Guide is clear, as the target audience is not well specified. The Guide gives an overview, and the Technical Manual provides useful reference material to assist understanding how various limits, etc, were reached in the Guide. However, from an operational level, it does not give clear guidance as to how proponents are regulated, and how regulatory bodies actually regulate these type of businesses. It would be useful to have a flowchart that provides checklists/decision trees as appropriate so that it is clear who has what responsibility for what eg review of process plans – who does this ?; review of sampling results – who does this ?; audit of compliance with the Guide – who does this ? In addition, the guide would be useful if it provided a clear and practical path for successful setup and practice for those entities wishing to use this resource commercially. Technical data could be referenced in text or footnotes with brief descriptions/explanations in the main text. The roles and responsibilities of various agencies should be clearly outlined; the commercial entity should come away with a clear and practical “how to” guide for safe and effective operation.
- The Guide gives useful information on requirements once a proponent sets up, but does not assist the proponent in what is required to set up, or assist regulatory authorities in



what their responsibilities are. This is because the Guide is a guideline (ie used on a voluntary basis), and has not been formally adopted under a head of power. This will result in proponents operating outside these Best Practice Guidelines, and as a result may cause harm to both the environment and public health.

Are there any concerns over the proposed changes ? What are they ?

- The key changes as summarised on pg 3 are reasonable. It would be useful to have a more specific section on vermicomposting (and worm tea) requirements to ensure an acceptable end product. It could be improved by categorising various activities with a roadmap to successful operation in terms of control of pathogens etc. Why only minimum compliance level for contaminant grading and why not measure historical banned substances - are these no longer an issue? Why no mass application limits? Nitrogen management controls are suitable for good quality product, what about poor quality products?

What positive or negative impacts will the proposed changes have on your business ?

- N/A as we are not a proponent.

Are the changes to the guidelines able to be aligned with current regional and district plans ?

- Yes, if the guidelines are adopted by Councils, however, there is currently no requirement for them to do this. Biosolids are not mentioned in the current Northland Regional Council Plan, although the issue has been raised in the latest Regional Plan review (in 2016). We recommend a move from guidance documents to an appropriate standard which is then useful both to regulators and everyone else, and provides consistency.

In using the NES for Assessing and Managing Contaminants in soil to Protect Human Health, April 2012 an acceptable means of protecting human health in the urban environment ? If not, what do you suggest as an alternative ?

- The NES is suitable for a focus on chemical contaminants, however makes insufficient reference to the pathogenic risks to human health of biosolids and other organic waste. The NES should be reviewed on a regular basis to ensure the latest scientific evidence regarding chemicals of concern is included.

Additional Comments:

1. Include section on 'Target Audience'. This will assist to refine the draft, to be more usable from an operational perspective.
2. Pg 2 Statement regarding The Guide "will be regularly reviewed in light of future research...." Who will undertake this and what is the time frame? It is suggested this should occur on a 5 yearly basis, unless there is a rapid change in scientific information.
3. 3.1 Overview of Requirements – it would be useful to have a list describing what type of "organic materials" we mean (eg biosolids, etc) and where they may be sourced from (eg WWTP, other). Vermicomposting should also be considered, and the scientific evidence regarding accumulation of heavy metals in worms and resultant impact on the food chain.
4. 4.2.3 The last paragraph refers to an appropriate withholding period – what is this period ? An appropriate table or reference inserted here would clarify this statement.
5. 4.3.2 This refers to buffers ("too close to watercourses...etc") but the actual details of this are in 4.6. To a certain extent 4.3 Environmental risks have been repeated in 4.6 Sensitivity of Receiving Environment, 4.7 Soil Chemical and Physical Properties, 4.8 Proximity to Aquifers and Surface Water Bodies, 4.9 Presence of Sensitive Areas. This section could be further refined/streamlined.



6. 4.4 Needs a table regarding withholding periods that gives clear, concise advice.
7. 5. Product Standards and Processing. Again who is the target audience ? Who oversees this process ? Who is responsible for compliance ? Who is responsible for sampling ? Who is responsible for auditing ? Will proponents need accreditation to ensure they are operating to best practice standards ? How will this accreditation be set up ? Else, what is the mechanism ? (This implies the need for standards).
8. 5.1.2.1 Stabilisation requirements “The product has a documented quality assurance system.” – who is this checked by ?
9. 5.1.2.3 Verification sampling – who oversees this process ?
10. 5.1.3 Typo – Table 5-5 put in twice
11. Pg 17 3. Blending to Achieve Contaminant Grades. Second paragraph. This refers to catchment measures, and this should be highlighted in its own section to reinforce the importance of this measure ie “Catchment management measures” Catchment measures are important to reduce hazardous substances entering the waste stream Consideration could be given to doing a Sanitary Survey by the proponent to understand the waste stream coming into the system for processing, and whether changes can be made to the “catchment” to improve the quality of the waste being processed. Healthier catchment, healthier waste.
12. Pg 18 4th paragraph – mention of Vermicomposting. This is not adequate – Vermicomposting requires its own section including definition of process, risks, management process, requirements, how it fits into table re end use of product. Worm tea should also be recognised as a way of utilising organic waste, and guidance should be provided as to how this can be done safely.
13. 13. 5.2.1 Long term storage – suggest rewriting with a table to give clear guidance about what long term storage is and defined time frames as a guide.
14. 5.3 Should this be titled Animal Manure vs Biosolid Requirements ? Not clear what the intent of this paragraph is – it would also be useful to have a reference to any relevant animal manure guidelines.
15. 6.1 Responsibility for Monitoring. This states that the producer is responsible for monitoring. However, who oversees this/audits it and if there is a non-compliance how is this managed ? It would be appreciated if this could be developed into a flowchart that clearly indicates who does what in terms of routine operations vs when there is a transgression.
16. 7.3 Nutrient Management Plan. It is noted that “some regional councils require a specific NMPetc”. It would be best practice if Regional Council practice was consistent across New Zealand. Could this be something the Ministry for Environment could review ? Additionally, again implies the need for a standard.
17. 7.5 Labelling standards. Paragraph 2 – mention is made of a “registration number” – who provides this ? How does this fit into the overall regulation of product ?
18. 8.2 Storage – last paragraph. Should this apply to vermicompost ? If so, it should be more explicit (or contained in a separate section on vermicompost – recommended). Warnings regarding potential bacterial regrowth after prolonged storage should be displayed.
19. 9.6 Background Pathogen Level Effects. Standard required for uniformity and assurance of quality and public health risk minimisation across the country. Reference is made to the Medical Officer of Health. Contamination to land is now dealt with under the *RMA 1991* (ie Regional Council), so depending on the situation



this scenario would need to be discussed with Regional Council and/or Local council (who administer s29 Nuisances under the *Health Act 1956*) and/or the Medical Officer of Health (who would provide more of a support/advice role). Again this states “decisions about... should be made on a case-by-case basis after consultation with....” but it is not clear as to who is making the decisions. Note that proponents who carry out septic tank desludging and disposal of sludge are captured under the *Health Act 1956* Schedule 3 Offensive Trades (consents and registration required by Local Council) unless a resource consent has been granted under the *RMA 1991*. There may also be local Bylaws that apply.

20. Table 9-1. Prefer the original table found in the Biosolids Guidelines which is now labelled as Table 2.5 in the Technical Manual. Table 9-1 is more difficult to interpret – the ticks and crosses format makes it unclear as to what you are trying to achieve and is counter-intuitive (some of the crosses could be better replaced with N/A).

21. Pg 47 Glossary – Please include definitions of Vermicompost and Worm Tea

Conclusion:

The Guide contains a large amount of information and assumes that readers will have a good level of literacy. It would be useful to have a series of flowcharts (and/or checklists) to assist both proponents and regulators with the steps required to produce an end product of the required quality, and steps that are required if sampling/monitoring shows that the product does not meet the necessary requirements. There needs to be a clearer section within the Guide (rather than the Technical Manual) of the regulatory requirements. The Guide should be adopted by the Ministry for Environment (or assimilated into any National Environmental Standard that may be developed to capture application of organic waste products to land) to ensure that organic waste products applied to land (or made available for sale to the consumer) do not pose an environmental and/or public health risk to the community.

Thank you for the opportunity to provide this feedback. I would be more than happy to discuss these comments further.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'V. McLaughlin'.

Dr Virginia McLaughlin
Medical Officer of Health