Proposed national wastewater environmental performance standard

Beneficial and safe use of biosolids

What are biosolids?

Biosolids are a by-product of the wastewater treatment process made from sludge that is produced by wastewater treatment plants and processed so it can be used safely for other purposes. Biosolids generally are full of nutrients and can improve soil condition.

Right now, in New Zealand, sludge is often treated like waste and sent to landfill. However, in other countries it is very common for it to be processed to become biosolids, which is then reused to deliver financial and environmental benefits.

When using biosolids, potential risks need to be carefully managed to safeguard public health and the environment.

The opportunity

- Biosolids can be applied to land to improve soil condition and increase its ability to hold water. It can also be used to rehabilitate land such as in retired quarries.
- Biosolids can be used to produce heat energy and biofuel. Bricks made from biosolids have been used in construction overseas.
- Reusing biosolids keeps them out of landfills. This is important as not all landfills accept biosolids. Landfills that do accept biosolids are increasingly reducing the amount they can accept. This means that the cost of taking biosolids to landfills is increasing.
- Grading biosolids based on their level of treatment makes it clear how it can be used safely. This enables the local councils that deliver public wastewater services to generate income for their communities by selling biosolids for specific, safe uses.

What this proposed standard covers

This proposed standard:

- sets out an approach for grading biosolids
- sets out how specific grades of biosolids can be safely used
- establishes restrictions for biosolids with a lower grade
- includes monitoring and reporting requirements to ensure that each grade of biosolids is being used appropriately and safely.

This proposed standard aligns with the draft Beneficial Use of Biosolids and other Organic Materials on Land (Good Practice Guide), which was developed by Water New Zealand and tested with the sector in late 2024. It's due to be published in mid 2025.

Proposed standards would only apply to public networks, which are primarily owned and operated by local councils. They do not apply to privately-owned wastewater treatment networks or septic tanks.

Water Services Authority
Taumata Arowai

taumataarowai.govt.nz

Categorising biosolids based on potential risks

This standard proposes an approach for categorising biosolids in two ways to establish a grade. This grading informs how biosolids can be used safely.

1. Stabilisation grade (for bacteria, viruses and other pathogens)

Grade A	Grade B
• Has a quality assurance system that meets the above good practice guide. • Has undergone at least one of the pathogen (e.g. bacteria, virus) reduction processes in the good practice guide above. • Has been treated using an approved process in the good practice guide that makes it less attractive to rats, flies, mosquitoes and other creatures that can spread disease. • Meets all listed product pathogen standards in the good practice guide after processing.	• Has a quality assurance system that meets the above good practice guide. • Has been treated using an approved process in the good practice guide that makes it less attractive to rats, flies, mosquitoes and other creatures that can spread disease.

If a biosolid does not achieve at least Stabilisation Grade B, it is not classified. In this instance, it would sit outside the standards and need to be considered under the existing the Resource Management Act 1991 (RMA) consenting process.

2. Contaminant grade (determined by the levels of metals and organic contaminants).

- **Grade 1 biosolids:** have compliant levels for every contaminant listed in the good practice guide
- **Grade 2 biosolids:** exceeds required levels for one or more contaminants listed in the good practice guide.

The approach to consenting the reuse of biosolids

The standards propose that consenting requirements for the reuse of biosolids would depend on their grade. Grading would determine the activity status – 'permitted', 'controlled', or 'restricted discretionary' – under the RMA.

This table shows how each grade of biosolids, determined through the processes above, could be reused:

	Contaminant grade 1	Contaminant grade 2
Stabilisation Grade A	As a 'permitted activity', the reuse of biosolids that meet an A1 grade would: • not require a resource consent provided they meet specific criteria, e.g. ensuring they aren't used within specific distances of waterways or cultural sites.	As a 'restricted discretionary' activity, reuse of biosolids that meet an A2 or B2 grade would: • require a resource consent under the existing RMA process • need to meet specific criteria, e.g. ensuring biosolids aren't used within specific distances of waterways or cultural sites. Regional councils, as the consenting authority, can choose to decline a consent application for a 'restricted discretionary' activity.
Stabilisation Grade B	As a 'controlled activity', the reuse of biosolids that meet an B1 grade would: • require a resource consent under the existing RMA process • need to meet specific criteria, e.g. ensuring biosolids aren't used within specific distances of waterways or cultural sites. Regional councils, as the consenting authority, cannot decline a consent application for a 'controlled' activity.	

If a biosolid does meet any of the grades above, its reuse will be considered under the existing resource consenting processes.

The proposed biosolids standard would be applied through future resource consents. Consent applications would need to provide evidence that the proposed reuse for each grade of biosolids meets related requirements. This includes verifying the product has been graded correctly.

We will develop guidance to support the implementation of all four standards.

Find out more, and have your say

Visit korero.taumataarowai.govt.nz/regulatory/wastewater-standards to find out more and provide feedback.

There you'll find:

- more resources like this
- the full consultation discussion document, which contains detailed information on what's proposed
- the technical reports and research that helped to inform proposed standards
- how to submit your feedback online, via email, or via post.

Consultation closes at **5pm on Thursday, 24 April 2025** (note that Friday 25 April is Anzac Day).

If you have questions about the proposed standards, please contact us at: kōrero@taumataarowai.govt.nz