Fertiliser Association

Shaping profitable and sustainable farming

SUBMISSION

on

Exposure draft of amendments to the National Policy Statement for Freshwater Management 2020

To

Ministry for the Environment

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Contact:	Vera Power, Greg Sneath
Organisation:	The Fertiliser Association of New Zealand
Postal Address:	PO Box 11519, Manners St, Wellington, 6142
Phone:	(04) 473 6552
E-mail:	info@fertiliser.org.nz

About the Fertiliser Association of New Zealand

1. The Fertiliser Association of New Zealand (the Association) is an industry association funded by member companies to address issues of common public good. Member companies include Ballance Agri-Nutrients Ltd and Ravensdown Ltd. Both are farmer co-operatives with some 40,000 farmer shareholders. Between them, our members supply the majority of all fertiliser used in New Zealand. As co-operatives, they are not driven by maximising the value of product sales, but by delivering best value to farmer shareholders.
2. Our members currently have the largest team of on-farm advisers – around 200 – of any of the primary sector groups. Their staff are all well trained, assisting farmers and growers to make informed, evidence-based decisions for their farm systems.
3. The Association member companies have invested significantly in products, systems and procedures which support responsible nutrient management to enable a viable primary industry within environmental limits.
4. The Association submits on national policy and proposed regulation to support environmental management, with the view that policy and regulation should be enabling, and that controls are both appropriate and necessary while providing for sustainable primary production within environmental limits. Combined, they have invested $28 million in research in the past three years.

Key submission points

1. We are generally supportive of the proposed technical amendments to the National Policy Statement for Freshwater Management with the exception of Clause 3.13.

Requirement to set nutrient criteria

2. Clause 3.13 of the 2020 National Policy Statement for Freshwater Management has a specific focus on managing nutrients to achieve outcomes.
3. As worded, Clause 3.13 (1) requires councils to specify instream nutrient concentrations (and exceedance criteria) to meet a target state for periphyton, any other nutrient attribute and any attribute affected by nutrients**.** The intent firstly is to ensure nutrient concentrations are always managed as a part of achieving the periphyton target attribute state[1] but also trophic state in lakes and any attributes listed in 3.13 (4) that are affected by nutrients.
4. Clause 3.13 (3) outlines the process for setting these instream concentrations. This clause requires Councils to consider the instream concentration that may affect the state of other attributes in streams that do not support periphyton growth. This gives councils a degree of flexibility because they are able to consider whether and what causative role nutrients may play in determining state for other attributes.
5. The current wording is confusing, and we appreciate the attempt to improve and clarify the wording.
6. However, the proposed technical amendments merge the two approaches and removes a degree of flexibility from council decision making. Under the proposed wording councils would be required to set instream nutrient criteria for periphyton, any other nutrient attribute and any attribute affected by nutrients - regardless of whether a causative relationship can be defined. In terms of 'other attributes affected by nutrients', this would mean that instream nutrient criteria would need to be set regardless of whether nutrients are a controlling factor in attribute states.
7. The original wording presumably reflected the uncertainty of understanding of some relationships between nutrients and attribute state, and the lack of catchment level information to support understanding of these relationships.
8. Considerable work has been put in place both monitoring periphyton and defining the relationship between periphyton and drivers including nutrients. The recent MfE publication shows how this work is continuing to advance.[2] There are many gaps in information for other attributes.
9. Other attributes are impacted by nutrients, though often in an indirect way. The proposed merged approach appears to remove flexibility from councils in situations where the link between nutrient concentration and attribute state is indirect. This could have a significant impact in terms of how councils set requirements to meet a particular attribute state.

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[1] Ministry for the Environment. 2021. A guide to setting instream nutrient concentrations under clause 3.13 of the National Policy Statement for Freshwater Management 2020. Wellington: Ministry for the Environment. Published in June 2021

[2] https://environment.govt.nz/publications/guidance-on-look-up-tables-for-setting-nutrient-targets-for-periphyton-second-edition/

10. A simple example would be management of dissolved oxygen in hard-bottomed streams. As worded, councils would be required to set nutrient criteria for dissolved oxygen. However, in hard-bottomed streams nutrients have an indirect impact on dissolved oxygen. Their impact is via periphyton, which has a direct effect. It is therefore sensible to seek to manage dissolved oxygen by controlling periphyton growth. Under the revised wording councils would be required to set nutrient criteria to manage dissolved oxygen, even though they already need it to be set to manage for periphyton.
11. In lakes, management for dissolved oxygen becomes even more complex because councils would be required to set nutrient criteria to manage for dissolved oxygen even though dissolved oxygen levels are often driven by a biosecurity issue such as invasive exotic weeds.
12. Nutrients, along with a range of other factors, can also have an impact on macroinvertebrates. In urban situations habitat space and the presence of heavy metals is more likely in need of management focus. The revised clauses, however, would require councils to manage instream nutrient concentrations in urban streams to achieve improved attribute states for macroinvertebrates regardless of a limited causative relationship.
13. The wording in the 2020 NPS-FM is not clear. However, the proposed revision appears to change the policy intent, and as such is not simply a technical amendment. Any change proposed should be subject to a normal policy development process and impact analysis so that the impact of the changes can be properly assessed and understood. We support better clarification, however we feel the impact of the changes should be understood and communicated before the National Policy Statement is amended.

Option to set instream loads as an alternative to instream concentrations.

14. The proposed amendment to 3.13 (2) includes a new provision to allow councils specify either instream concentrations or instream loads to protect downstream receiving waters. This would provide more options for councils however it also brings more uncertainty to achievement of outcomes. Load estimates are heavily influenced by extreme weather events. Median concentrations provide a better long-term measure of progress and effectiveness[3]. Models associated with median concentration statistics have a greater level of confidence. Where load targets are set based on a median concentration limit multiplied by the mean flow, they are likely to under-estimate the load target to achieve the concentration criteria.

Thank you for considering these comments.

[3] https://www.dairynz.co.nz/media/5795470/relationships-between-instream-concentration-and-river-nutrient-loads_snelder-and-fraser-2020.pdf