Managing our Wetlands

DairyNZ Submission

28 October 2021

DairyNZ

Introduction

DairyNZ appreciate the opportunity to submit on the *Managing our Wetlands* consultation.

DairyNZ recognises the important role wetlands can play in enhancing water quality and biodiversity outcomes in dairy farm systems. Wetlands contribute to carbon sequestration and store, assimilate and transform contaminants (especially nitrogen but also phosphorus, sediment and bacteria) lost from farmland before they reach waterways (**McKergow et al. 2017**). They also provide habitats for important biodiversity and ecological connectivity as well holding significant cultural value. Dairy farmers have the opportunity to play a significant role in reversing wetland loss, and with that improve water quality outcomes, through restoration and construction of wetlands on farmland. Wetlands feature as a key part of the dairy sectors commitment to protect and enhance biodiversity under Dairy Tomorrow. Specifically, DairyNZ is actively promoting the protection of wetlands on dairy farms for both biodiversity and water quality outcomes (for example, see Wetlands - DairyNZ).

In addition to goals of leading efforts to improve the health of our rivers and streams and protect and enhance biodiversity outlined in the Dairy Tomorrow commitments, DairyNZ continues to carry out work with dairy companies to help farmers protect and increase the extent of natural and constructed wetlands on dairy farms including:

- As part of industry assurance schemes where dairy companies work with farmers to produce Farm Environment Plans, these plans will identify stock excluded and planted land, including wetlands.
- Commissioned literature reviews to summarise the current understanding of seepage and constructed wetland efficacy (**McKergow et al. 2017, Rutherford 2017, Tanner et al. 2021.**)
- With NIWA, regional councils, MfE and MPI, New Zealand Fish and Game Council and other stakeholders, developed endorsed and published key design guidance and performance estimates for constructed wetlands to reduce contaminant loss from pastoral farms (**Tanner et al (2021).** [Link])
- Soon to be published technical practitioner guidelines for constructing wetlands for the treatment of pastoral farm run-off
- With regional councils and central government, seeking a process to ensure farmers are recognised in limit setting processes through nutrient budgets for protecting and increasing the extent of wetlands on-farm
- Commissioned work to understand regulatory barriers to uptake of farm-scale diffuse pollution mitigation measures, and assessment of Regional Plan requirements and regional council incentives to help reduce barriers and promote incentives to assist uptake of constructed wetlands (and other mitigations; **Milne and Luttrell (2020)**)
- Developing a tool to help farmers correctly size constructed wetlands relative to catchment receiving area and contaminant reduction efficacy
- Developed a tool (at beta testing stage) to support rural professionals and farmers select most appropriate mitigation options for their farm based on typology (e.g., soil type, rainfall, slope) and catchment water quality state. In many cases this will include wetland protection/construction for the treatment of nitrogen loss.

While we support the intent of the *Managing our Wetlands* consultation, particularly in clarifying and defining constructed wetlands, we have a number of issues we'd like to see addressed to ensure that the rules do not inadvertently disincentivise their protection and enhancement.

Definition of 'Natural Wetland'

1. *Do you agree with the proposed changes to the definition of 'natural wetland'? Why/why not?*

> **(c) any area of ~~improved~~ pasture that~~, at the commencement date, is dominated by (that is more than 50% of)~~ has more than 50 percent ground cover comprising exotic pasture species or exotic species associated with pasture ~~and is subject to temporary rain-derived water pooling~~.**

We agree with the rationale in the discussion document that changes to part (c) are needed, but the suggested change does not work in our view.

The MfE wetland delineation tool definition (**page 62**) of hydrophytic vegetation does not distinguish vegetation by whether or not it is indigenous. Defining the proportion of exotic species will be difficult for farmers to determine in order to know whether or not the permitted activity status applies and may change within seasons and from year to year. We agree with the intent in the consultation document to amend part (**c**) of the definition of natural wetland so to not capture areas of highly modified wetted pasture, however the proposed wording is still complicated and will be difficult to interpret on farm. The RMA definition of wetland[1] and the wetland delineation tool may be a more effective way of determining whether or not an area is a natural wetland.

DairyNZ are keen to continue to work with MfE to develop wording that will meet the intent and be workable on farm.

2. *Should anything else be included or excluded from the definition of 'natural wetland'?*

We support the recognition of constructed wetlands as being a distinct category of wetland that is created to reduce nutrients and sediment entering streams, rivers and lakes, and being exempt from the definition of a 'natural wetland' in part (**a**) of the definition.

The NES should not create barriers in the form of onerous consenting and monitoring requirements, or restrictions for farmers who seek to use a constructed wetland to reduce diffuse contaminants leaving their farm, or when protecting natural wetlands. Restoring wetlands should be enabled and encouraged and the dairy sector is committed to understanding and baselining extent of wetlands and increasing farmer understanding of water quality and biodiversity benefits created by wetlands.

The NPS–FM definition for natural wetland is as follows:

> Natural wetland means a wetland (as defined in the Act) that is not:
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> **a.** a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or
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> **b.** a geothermal wetland; or
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> **c.** any area of improved pasture that, at the commencement date, is dominated by (that is more than 50% of) exotic pasture species and is subject to temporary rain derived water pooling.

We agree with part (a) that the definition of a 'natural wetland' is not a wetland constructed by artificial means. However, do not agree that this is exempted where it was constructed to offset impacts on, or restore, an existing former 'natural wetland'.

Part (**a**) of the definition should exclude all constructed wetlands from being considered a natural wetland without any caveats about the status before the constructed wetland was created. Our reasons are:

- It is difficult to determine with any accuracy the extent of former natural wetlands
- Constructing a wetland on a farm to mitigate environmental impacts of farm activities is a particular activity that is usually on a low lying site that no longer meets the RMA definition of a wetland
- If the site of a potential constructed wetland is an existing natural wetland (at the time of the proposed works), then all the checks and balances in the NES-F regulations will ensure scrutiny of impacts on the values of that natural wetland.

Once a constructed wetland is in place, it should remain exempt from the definition of a natural wetland. For instance, we want to see farmers to be able to periodically clean out silt traps using heavy machinery to ensure the constructed wetland is doing its job as a sediment mitigation tool. Where these wetlands are constructed after undergoing a consent process, the consent conditions will ensure their ongoing management.

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[1] Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.

We wish for this distinction to be clear in regulations and supported through guidance. It is important that this distinction is made to ensure the NES-F regulations do not act as a disincentive or barrier for wetlands protection and restoration. In our view it is likely that as written, the regulation will be misinterpreted to include all constructed wetlands. This is because most constructed wetlands are constructed in low lying areas (due to obvious hydrological reasons), and that historically, significant areas of land now used for farming would have once been natural wetlands, but we do not have the means to identify past land use at the farm scale.

Recommended Solution:

- Amend the regulation to:

  natural wetland means a wetland (as defined in the Act) that is not:

  (**a**) a wetland constructed by artificial means (unless it was constructed to offset impacts on, or restore, an existing or former natural wetland); or

- Alternatively, the definition should be amended to:

  natural wetland means a wetland (as defined in the Act) that is not:

  (**a**) a wetland constructed by artificial means for a specific purpose, which includes, but is not limited to, reduction of nitrogen, phosphorus, sediment and microbial contaminants.

- In addition, an explanation included in guidance to confirm wetlands constructed to enhance water quality of a farm system should not be interpreted as a natural wetland.

Better Provision for Restoration, Maintenance and Biosecurity Activities

3. *Should maintenance be included in the regulations alongside restoration? Why/why not?*

Yes – Maintenance is important to maximise the ecosystem services provided by wetlands. Maintenance for the betterment of wetlands or pest/weed control to reduce biosecurity risks should not be restricted.

The definition of maintenance should also include installing or mending fenceposts as this will support effective stock exclusion. If the installation or mending of fenceposts is not prohibited by the regulations, this should be made clear in guidance.

4. *Should the regulations relating to restoration and maintenance activities be refined, so any removal of exotic species is permitted, regardless of the size of the area treated, provided the conditions in regulation 55 of the NES-F are met? Why/why not?*

Yes – Activities that are intended to improve environmental or biosecurity outcomes should be encouraged and permitted.

5. *Should activities be allowed that are necessary to implement regional or pest management plans and those carried out by a biosecurity agency for biosecurity purposes? Why/why not?*

Yes – Activities that are intended to improve environmental or biosecurity outcomes should be encouraged and permitted to support greater uptake.

6. *Should restoration and maintenance of a 'natural wetland' be made a permitted activity, if it is undertaken in accordance with a council-approved wetland management strategy? Why/why not?*

Yes – Provided the council-approved wetland management strategy is not overly onerous or disincentivises the maintenance/pest management outcomes sought.

7. *Should weed clearance using hand-held tools be a permitted activity? Why/why not?*

Yes – But should be extended to include machine operated activities where they are undertaken to improve environmental or biosecurity outcomes. Weed clearance using of hand tools is likely to have little impact due to their light nature. Machine operated maintenance should be permitted where the activity is undertaken in alignment with environmental/biosecurity outcomes sought (e.g., helicopter spraying on large wetlands, excavation to maintain or improve the water table).

References

- *McKergow, L.A., Hughes, A., Rutherford, J.C. (2017). Seepage wetland protection review. NIWA Client Report 2016048HN*
- *Milne, J. and Luttrell, J. (2020). Regulatory barriers to uptake of farm-scale diffuse pollution mitigation measures. An assessment of Regional Plan requirements and regional council incentives. NIWA Client Report No: 2019131HN.*
- *Rutherford, J.C., (2017). Review of nitrogen attenuation in New Zealand seepage wetlands. NIWA Client Report 2017241HN*
- *Tanner, C., Sukias, J., Woodward, B. (2021). Technical guidelines for constructed wetland treatment of pastoral farm run-off. NIWA Client Report: 20200208.120200208.1HN*

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