

# Review of Environment Southland 'natural wetland' exclusion criteria

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# Contents

Summary.....	iv
1 Introduction.....	1
2 Background.....	1
3 Objectives.....	1
4 Methods.....	2
5 Results.....	2
6 Conclusions.....	4
7 Recommendations.....	5
8 Acknowledgements.....	5
9 References.....	5

# Summary

## Project and client

- Manaaki Whenua – Landcare Research was asked by Environment Southland to provide guidance on any improvements to the definition of 'natural wetland' in their Water and Land Plan, which they considered might be difficult to implement in practice.
- The Southland Water and Land Plan (proposed; operative in part; hereafter referred to as 'the Water and Land Plan') defines a 'natural wetland' as an area that:  
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, but excludes:  
  - (a) wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes;
  - (b) effluent ponds;
  - (c) artificial storage facilities and detention dams;
  - (d) artificial water courses such as conveyance and drainage canals;
  - (e) reservoirs for firefighting, domestic or community water supply; and
  - (f) engineered soil conservation structures.  
(Environment Southland 2024, page 126 in the Water and Land Plan.)
- Specifically, Manaaki Whenua – Landcare Research was asked to provide guidance on clause (a) relating to wet pasture, damp gully heads, temporarily ponded water, and pasture containing patches of rushes.

## Objectives

Provide guidance on the current definition of natural wetlands in the Southland Water and Land Plan, and specifically the exclusion in subclause (a) of the definition.

## Methods

- Review of reports and other documents relating to the exclusion wording.
- Review of the ease of implementation of the current natural wetland definition.

## Results

- It is reasonable to assume the wording of the Water and Land Plan was taken from the 2015 New Zealand Land and Water Forum report which has now been superseded by (a) the definition of inland natural wetland in the National Policy Statement for Freshwater

Management (NPS-FM 2020, as amended 2024 and hereafter 'NPS-FM'); and (b) a methodology to exclude pasture-dominated wetlands (Ministry for the Environment 2022).<sup>1</sup>

- The current wording is not uncommon. A recent review of wetland loss examined regional council definitions of wetlands and found that most plans used the Resource Management Act 1991 (RMA) definition of a wetland, and 12 (including Environment Southland) had exclusions relating to wet pasture, patches of exotic rushes, and constructed or artificial wetlands.
- The current wording is unclear. Practically speaking, it will be difficult to distinguish on a consistent basis between 'damp' vs 'wet' gully heads; how 'pasture containing rushes' is to be determined (e.g. what should be the size of area under consideration; the inclusion criteria for 'rushes'; and how 'pasture' is defined); or for that matter, how 'wet pasture' might be distinguished from a wetland that has exotic grassland species in a wetland that is not used for grazing.

## **Conclusions**

The Southland Water and Land Plan wording reflects the wording of a proposed exclusion that has now been superseded by the NPS-FM as amended October 2024 and the pasture exclusion methodology. Furthermore, the current Water and Land Plan wording is ambiguous and will be difficult to implement in practice.

## **Recommendations**

We recommend two actions to Environment Southland.

- Their Water and Land Plan updates the definition of 'natural wetland' to reflect that in the NPS-FM.
- Their Water and Land Plan incorporates the Ministry for the Environment's (2022) pasture exclusion methodology tool as a consistent method with which the exclusion of pasture wetland areas from natural wetlands can be undertaken.

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<sup>1</sup> Ministry for the Environment 2022. Pasture exclusion assessment methodology. ME 1716. Wellington, New Zealand, Ministry for the Environment. 51 p.



## **1 Introduction**

Wetland loss in New Zealand is high by global standards (Mitsch & Gosselink 2000; Ausseil et al. 2011), and concern has been noted about modern wetland loss in the Southland region (Robertson et al. 2019; Denyer & Peters 2020). Manaaki Whenua – Landcare Research was asked by Environment Southland to provide guidance on any improvements to their definition of 'natural wetland', and particularly the exclusions to it, which they considered might be difficult to implement in practice.

## **2 Background**

The Environment Southland Water and Land Plan (proposed; operative in part; hereafter referred to as 'the Water and Land Plan') defines a 'natural wetland' as:

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, but excludes:

- (a) wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes;
- (b) effluent ponds;
- (c) artificial storage facilities and detention dams;
- (d) artificial water courses such as conveyance and drainage canals;
- (e) reservoirs for firefighting, domestic or community water supply; and
- (f) engineered soil conservation structures.

(Environment Southland 2024, page 126 in the Water and Land Plan.)

Specifically, Manaaki Whenua – Landcare Research was asked to provide guidance on clause (a) relating to wet pasture, damp gully heads, temporarily ponded water, and pasture containing patches of rushes.

## **3 Objectives**

Provide guidance on the current definition of natural wetlands in the Southland Water and Land Plan, and specifically the exclusion in subclause (a) of the definition.

## 4 Methods

I undertook a search of documentation relating to the exclusion wording, and specifically documents discussing the stock exclusion regulations. It was the stock exclusion regulations which provoked early discussions around which wetlands should be excluded to avoid undue impacts on grazed wetlands. I specifically reviewed the Land and Water Forum Report (Land and Water Forum 2015), which to my knowledge is the earliest publication of the wording used in the Environment Southland exclusion, and thus provides the context around why the exclusion wording was originally introduced and how it relates to current national policy.

I also reviewed the ease of implementation of the exclusion wording.

## 5 Results

The Environment Southland exclusion in the current Water and Land Plan wording appears to be derived from a Land and Water Forum report (Land and Water Forum 2015), which suggested that the same exclusion wording should be implemented under any national stock exclusion regulation, such that the named wetland types would not be affected by the proposed stock exclusion regulations (and, consequently, farming could continue). The wording from the Land and Water Forum report is as follows:

Much of New Zealand's natural wetlands have been destroyed, and those remaining need to be protected. To this end, it would be desirable to include wetlands in the list of waterways that a national stock exclusion regulation applies to. [...] Many small damp areas dominated by pastoral species, and/or areas surrounding and including artificial water storage and conveyance infrastructure could potentially be classified as wetlands according to this definition. The Forum agreed that for management and implementation purposes of a national stock exclusion regulation this definition should be refined to clarify the types of wetlands that need to be protected.

(Land and Water Forum 2015, p. 53, section 215)

And:

Recommendation 37: A national stock exclusion regulation should clarify that 'natural wetlands' subject to the regulation are 'wetlands' as defined by the RMA not including:

- a. wet pasture, damp gully heads, or where water temporarily ponds after rain or pasture containing patches of rushes
- b. effluent ponds
- c. artificial storage facilities and detention dams
- d. artificial water courses such as conveyance and drainage canals.
- e. reservoirs for firefighting, domestic or community water supply
- f. engineered soil conservation structures.

(Land and Water Forum 2015, p. 54, recommendation 37)



The wording in Recommendation 37 is identical to that in the Water and Land Plan.

After the Land and Water Forum report, a 2016 report (Ministry for the Environment [MfE] 2016) noted the stock exclusion regulation was proposed that would apply to 'natural wetlands, but not including damp gully heads or places where water temporarily ponds, or built structures, such as effluent ponds, reservoirs or channels.'

Following the 2016 MfE report, the National Policy Statement on Freshwater Management 2020 (hereafter referred to as 'the NPS-FM') was introduced, complemented by the National Environmental Standards for Freshwater (full title: Resource Management (National Environmental Standards for Freshwater) Regulations 2020; subsequently referred to as 'the NES-FW'. The current version of the NPS-FM is as amended in October 2024). That version of the NPS-FM defines natural wetlands, while the NES-FW requires that stock are excluded from natural wetlands. The NPS-FM defines natural wetlands as shown below:

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

- (a) in the coastal marine area; or
- (b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or
- (c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or
- (d) a geothermal wetland; or
- (e) a wetland that:
  - i. is within an area of pasture used for grazing; and
  - ii. has vegetation cover comprising more than 50% exotic pasture species (as identified in the *National List of Exotic Pasture Species* using the *Pasture Exclusion Assessment Methodology* (see clause 1.8)); unless
  - iii. the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply

(Ministry for the Environment 2020, [amended October 2024] clause 3.21(1))

As such, it appears that the NPS-FM definition refined the wording that had originally appeared in the Land and Water Forum report, with a more precise definition of what a 'pasture' and non-natural wetland might be. This definition was supported by a methodology that was developed to apply the pasture exclusion (Ministry for the Environment 2022). The MfE methodology report outlines how to apply the revised pasture exclusion – for example, how to deal with multiple overlapping tiers of vegetation, defines the scale at which the 50% threshold should apply, and included guidance on what species qualify as 'exotic pasture species'.

It is clear that the wording in the version of the Southland Water and Land Plan I reviewed has been superseded by the wording used in the NPS-FM. More specifically, in relation to pasture areas, there is also a pasture exclusion methodology (Ministry for the Environment 2022) which helps implement the exclusion for natural wetlands.

The current wording in Environment Southland's Water and Land plan is not uncommon. A review of wetland loss (Denyer & Peters 2020) examined regional council definitions of wetlands and

found that most plans used the Resource Management Act 1991 (RMA) definition of a wetland, and at that time, 12 regional plans (including that of Environment Southland) had exclusions relating to wet pasture, patches of exotic rushes, and constructed or artificial wetlands. However, in reviewing the current wording, I consider it is ambiguous in some ways and will be difficult to apply in practice.

For example, it is not clear how 'damp' gully heads might be distinguished from 'wet' gully heads, and whether gully heads that satisfy the hydrology tool for wetland delineation (Ministry for the Environment 2021) could be considered 'damp' as opposed to 'wet'. This definitional issue around gully heads was described as 'particularly problematic' by the New Zealand Court of Appeal (Page v Greater Wellington Regional Council 2024 NZCA 51, para [89]). Another element of lexical ambiguity is the usage of the term 'pasture' without defining the species that might be included, or whether grass species that are typical of pasture land uses that establish outside of farmed areas would meet the exclusion.

There are also considerations of spatial and temporal scale.

- *In terms of temporal considerations*, it is unclear whether the wording in the Water and Land plan 'water temporarily ponds after rain' as an exclusion for natural wetlands is intended to be a gloss on the results of the hydrology tool (Ministry for the Environment 2021), which is aimed at identifying areas where inundation and saturation cause the anaerobic and reducing conditions that produce hydric soils and the environment for wetland vegetation.
- *In terms of spatial scale*, the same issues that were addressed in the pasture exclusion methodology (Ministry for the Environment 2022) apply to the wording in the Water and Land Plan. With respect to the Water and Land Plan, it is unclear what spatial scale should be considered for 'wet pasture', for 'where water temporarily ponds after rain', and for 'pasture containing patches of rushes'. There are no thresholds specified for the minimum abundance of rushes to satisfy the last clause, nor is there a maximum specified (beyond which, the pasture abundance is so low, the area might be considered to be a rushland wetland with small areas of pasture species).

## 6 Conclusions

The current wording of the Water and Land Plan for Environment Southland reflects the wording of a proposed exclusion that has now been superseded both by the NPS-FM 2020 (Ministry for the Environment 2020) – and that document's subsequent amendments – and also by the Ministry's pasture exclusion methodology tool (Ministry for the Environment 2022). Furthermore, the current Water and Land Plan wording is ambiguous and will be difficult to implement in practice. The purpose of the exclusion would be satisfied by the adoption of the definition of natural wetland in the NPS-FM. The Ministry's pasture exclusion methodology tool that supports the NPS-FM will provide a method that resolves the current ambiguity of the current wording and would assist in implementation.

## 7 Recommendations

We recommend two actions to Environment Southland.

- Their Water and Land Plan updates the definition of 'natural wetland' to reflect that in the NPS-FM.
- Their Water and Land Plan incorporates the Ministry for the Environment's (2022) pasture exclusion methodology tool as a consistent method with which the exclusion of pasture wetland areas from natural wetlands can be undertaken.

## 8 Acknowledgements

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