DDPR_feedback_0116s				
	Name	Simon Williamson		
	Organisation			
	Email			
	Response Date	Aug 31 22		
	Notes			
Q1	Select the chapter you want to provide feedback on			
Q2	In general, to what extent do you support the contents of this chapter?			
Q3	Objective/Policy/Rule/Standard	d reference:		
Q4	Feedback/Comments			
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Q8	Feedback/Comments			
Q9	Objective/Policy/Rule/Standard reference:			
Q10	Feedback/Comments			
Q11	supporting documents?			
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Q12	If you need more space, or have any other general comments, please leave them here			

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Dear Rachael,

Please see attached in relation to our submission regarding Land Use in the Upper Waitaki Draft District Plan.

As you are aware I found WDC website portal very complicated and difficult to use. Any questions or further discussion please contact Simon - 0212859303 or at above email.

"The explicit understanding in completing Tenure Review was that the resulting Freehold Land was to be available for pastoral farming "

Regards

Kirsty

On 29/08/2022, at 12:48 PM, Rachael Bason < rbason@waitaki.govt.nz > wrote:

Hi Kirsty,

Just a very quick email to say we have your initial feedback and comment that the process is complicated. I just want to advise that if you are finding the online feedback complicated, then you are welcome to provide us feedback by way of a word document and then email it to –

#### planreview@waitaki.govt.nz

Happy to chat if you have any other questions.

Kind regards,

# Rachael Bason

Resource Management Planner - Policy

Email: rbason@waitaki.govt.nz Web: www.waitaki.govt.nz Tel: +64 3 433 0300 Waitaki District Council 20 Thames Street Private Bag 50058 Oamaru Waitaki District Otago 9444 New Zealand





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# Waitaki District Plan Vegetation Classification Revision

Vegetation classification is important in relation to land use in the Waitaki District Plan.

Regulations differ for indigenous and introduced vegetation. However indigenous and introduced species intergrade in many communities, making classification problematic (Figure 1).

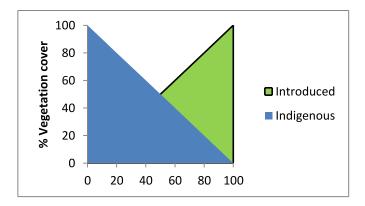


Figure 1. Relationship between introduced and indigenous vegetation cover.

The simplest logical classification involves a two way split, based on the midpoint. For example, using ground cover as the determinant, 50% cover would be the classification threshold. This is has the advantage of simplicity but the resulting classes are too broad to be useful in practise.

The next simplest is a three way classification. Here the thresholds are ~33% and 66% (Figure 2).

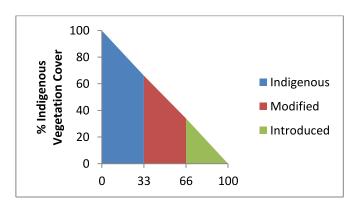


Figure 2. Three class vegetation classification.

Using this guide vegetation classes would be defined as:

**Indigenous Vegetation**: Means a plant community where species native to New Zealand dominate and comprise in total between 66% to 100% ground cover.

**Mixed Vegetation**: Means a plant community comprised of species native to, or introduced into, New Zealand where cover of each group comprises between 33% to 66% ground cover.

**Introduced Vegetation**: Means a plant community where species introduced into New Zealand dominate and comprise in total between 66% to 100% ground cover.

Note that this definition focuses on vegetation cover which is the most widely used attribute in ecology for community classification. Using this it is intuitively obvious that native beech forest or unmodified tussock grassland comprise indigenous vegetation or that pasture under a centre pivot is introduced vegetation.

Further 4 or 5 way classifications are possible but are more complex. A 3 class classification is simple and the most useful for policy and management.

Other vegetation attributes such as species composition and structure can be included to refine classification.

The Waitaki District Plan definition of indigenous vegetation is: *Indigenous vegetation* 'means a plant community in which species indigenous to that part of New Zealand are important in terms of coverage, structure and/or species diversity. For these purposes, coverage by indigenous species or number of indigenous species shall exceed 30% of the total area or total number of species present, where structural dominance is not attained. Where structural dominance occurs (that is indigenous species are in the tallest stratum and are visually conspicuous) coverage by indigenous species shall exceed 20% of the total area'.

Here the District Plan cover % threshold value for classification as indigenous vegetation is far lower than three way classification limits. A community with 70% introduced cover is therefore classified as indigenous vegetation (Figure 3). This is anomalous.

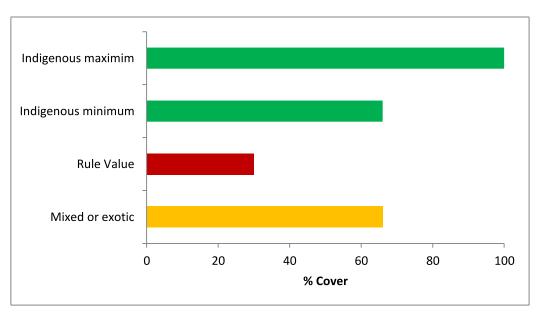


Figure 3. District Plan vegetation % cover threshold criterion in relation to three class classification thresholds.

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<sup>&</sup>lt;sup>1</sup> Waitaki District Council District Plan, Part III Zone Rules, p159.

The next criterion 'Where structural dominance occurs (that is indigenous species are in the tallest stratum and are visually conspicuous) coverage by indigenous species shall exceed 20% of the total area' conflicts with the first criterion, where 30 % cover is used 'where structural dominance is not attained'.

It is an error to assert that the cover where structural dominance occurs is less than the cover where structural dominance does not occur. Under this criterion vegetation with 80% mixed or introduced vegetation cover is classified as indigenous vegetation.

Here the District Plan is attempting to address a genuine issue in vegetation classification: ground cover operates in two dimensions, vegetation structure, incorporating height, occurs in three dimensions. Ecologists commonly use vertical classes, tier heights, to include this complexity in vegetation description. A frequently used way to integrate this information is to describe vegetation cover in each tier, and then produce an aggregate index, for example average or aggregate cover across tiers.

The final criterion, where the '... number of indigenous species shall exceed 30% ... of the total number of species present' is similarly far lower than the 66% threshold derived from a three way classification.

There is a further problem. This criterion can conflict with the structural dominance /cover criteria if it is applied independently from them (Table 1).

Table 1. Application of District Plan Vegetation Classification Criteria

Criterion	Indigenous	Introduced
Non Dominant Cover < 30%		Yes
Dominant Cover < 20%		Yes
Species Composition > 30%	Yes	

In community ecology it is almost universal that a few species comprise the greatest biomass with a long tail of minor species, which can be visualised like an inverted hockey stick. Thus a vegetation community that has structural dominance from introduced species, for example improved pasture or shelter belts where a single of a few introduced species comprise the predominant cover but with low species diversity, could be classified as indigenous vegetation, if they contain a very low number of indigenous species. This criterion, applied alone, can directly lead to incorrect classification.

Which of the criteria should take precedence if there is a conflict is unresolved in the District Plan.

There are further issues in the District Plan requiring examination regarding determination of 'Significant Indigenous vegetation'. By definition, there is indigenous vegetation that is non-significant<sup>2</sup>.

#### 1. Extent of Existing Protection.

Currently there is no formal provision in the district plan requiring evaluation of the adequacy of existing protection of a vegetation community in the district.

This particularly applies to high country properties that have completed Tenure Review. Council should consider using the data-sets that have been produced under Tenure Review as a starting point for evaluating proposals that may affect indigenous vegetation. Properties that have been through Tenure Review have been subject to rigorous assessments. Areas of significant inherent value (including biodiversity, ecology, landscape, and conservation) have been identified and either returned to the Crown/ DOC or protected through conservation covenants. The explicit understanding in Tenure Review was that resulting freehold land should be available for pastoral farming.

# 2. Improved and Semi-improved Grassland

Improved pasture is defined in the Waitaki District Plan as:

'3. For the purposes of Rule 4.4.8, improved pasture means an area of pasture where species composition and growth has clearly been modified and enhanced for livestock grazing by cultivation with or without associated burning, or by topdressing and over-sowing with or without associated burning, or by direct drilling, and where exotic improved pasture species dominate (i.e. where either the coverage of indigenous species or the number of species present, as estimated on a per hectare basis, does not exceed 30%. Improved pasture includes species such as ryegrass and clovers but excludes sweet vernal and browntop'

In the Draft National Policy Statement on Indigenous Biodiversity 3.12 (5) improved pasture is defined as:

'Improved pasture means an area of land where exotic pasture species have been deliberately sown or maintained for the purpose of pasture production, and species composition and growth has been modified and is being managed, for livestock grazing'.

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<sup>&</sup>lt;sup>2</sup> Resource Management Act 1991. Part 2 Section 6 (c)

This definition includes as pasture vegetation where low-fertility tolerant pasture species such as browntop and sweet vernal grasses and clovers 'were deliberately sown or maintained ... for livestock grazing'. This occurred under early European settlement, and has subsequently been maintained, but is excluded under the District Plan. As these species, together with other introduced species, are widespread in the Waitaki district and frequently are the dominants in extensive communities, the District plan need to either be amended to include them under improved pasture or to create a new category of Semi-Improved pasture.

#### 3. Incorrect Designation of Significant Natural Areas.

An ecological assessment for plantation forestry on Glenbrook Station evaluated a proposed new Significant Natural Area on the block and found the ecological evidence used to support this designation was incorrectly used and the designation invalid<sup>3</sup>. This raises a question regarding the adequacy other proposed new Significant Natural Areas in the District Plan. They require re-evaluation.

# 4. Incorrect Assessment of Vegetation Clearance.

The assessment of tussock burning as vegetation clearance in the District Plan is quite simply incorrect.

Clearance of canopy cover is not vegetation clearance any more than mowing a lawn or a deciduous tree shedding its leaves is not clearance as the plants are not killed. While tussock burning followed by close grazing can kill snow tussock, this is prohibited under the District Plan, so will not occur.

It is evident the current Waitaki District Plan has serious deficiencies regarding indigenous vegetation policies and rules. For widespread community acceptance and implementation they need to be revised.

We suggest adoption of a three way classification that clearly and simply classifies plant communities according to scientific rather than what appears to be arbitrary selection of thresholds<sup>4</sup>. This will form the basis for a genuine partnership approach with landholders that will both protect significant values and promote community and ecological wellbeing.

<sup>&</sup>lt;sup>3</sup> Espie, P.R. 2021. Glenbrook Ohau River Block Ecological Assessment August 2021. AgScience Contract Report.

<sup>&</sup>lt;sup>4</sup> This also applies to the allowed vegetation clearance area which are entirely arbitrary and not related to management area.

DDP	DDPR_feedback_0247s					
	Name	Simon Williamson				
	Organisation	Glenbrook station				
	Email					
	Response Date	Jun 30 22 08:44:24 pm				
	Notes	Simon185				
Q1	Select the chanter you want to no	rovide feedback on				
Qī	Select the chapter you want to provide feedback on  Natural Features and Landscapes					
Q2	In general, to what extent do you support the contents of this chapter?					
	Strongly oppose					
Q3	Objective/Policy/Rule/Standard reference:					
	We strongly oppose the change in change from rural scenic to outstanding NL on ground that has been					
0.4	farmed and developed over the last 150 years.					
Q4	Feedback/Comments					
	We require a onsite meeting with the planning manager please					
Q5	Objective/Policy/Rule/Standard reference:					
Q6	Feedback/Comments					
Q7	Objective/Policy/Rule/Standard reference:					
Q8	Feedback/Comments					
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