

**BEFORE THE ENVIRONMENT COURT
I MUA I TE KOOTI TAIAO O AOTEAROA**

Decision No. [2018] NZEnvC 134

IN THE MATTER of the Resource Management Act 1991
AND of appeals under clause 14(1) of the First
Schedule of the Act in relation to the
Proposed Invercargill District Plan
BETWEEN DIRECTOR-GENERAL OF
CONSERVATION
(ENV-2016-CHC-91)
POWERNET LIMITED
(ENV-2016-CHC-92)
ROYAL FOREST AND BIRD
PROTECTION SOCIETY OF NEW
ZEALAND INCORPORATED
(ENV-2016-CHC-99)
TRANSPower NEW ZEALAND LIMITED
(ENV-2016-CHC-100)
Appellants
AND INVERCARGILL CITY COUNCIL
Respondent

Court: Environment Judge J R Jackson
(Sitting alone under section 279(1) of the Act)

Hearing: in Chambers at Christchurch
Final submissions received 8 August 2018

Date of Decision: 14 August 2018

Date of Issue: 14 August 2018

FINAL DECISION



A: Under clause 15(2) of the First Schedule to the Resource Management Act 1991 the court directs that the definition of “Indigenous Vegetation” in the proposed Invercargill District Plan be amended to read:

Indigenous vegetation means vegetation containing vascular and/or non-vascular plants and/or lichens that are indigenous in or endemic to all the ecological districts of which the City is part.

B. The appeals are referred back to mediation as a matter of priority for the parties to resolve any remaining changes to objectives, policies or rules in the light of the definition in Order A.

REASONS

[1] The court issued its interim decision – [2018] NZEnvC 8 – on 1 June 2018, reserving leave for the parties to address the court on the issues raised in part 5 of the Reasons provided the issue was raised with the Registrar by 22 June 2018. There have been responses from the parties.

[2] The Registrar has referred to me the memoranda of:

- Mr P Anderson for The Royal Forest and Bird Protection Society of New Zealand Incorporated (“Forest and Bird”) dated 14 June 2018;
- Mr M D Morris for the Invercargill City Council (“City”) dated 20 June 2018;
- Ms P Williams for the Director-General of Conservation (“DCG”) dated 20 June 2018;
- Ms K M Reilly for Federated Farmers of New Zealand Inc (“Federated Farmers”) dated 20 June 2018;
- reply for DCG dated 1 August 2018;
- reply for Forest and Bird dated 1 August 2018;
- response from Mr Morris for the City dated 8 August 2018.



[3] The Council advised¹ that it took no issue with the proposed wording². All parties agreed the definition should refer to the ecological districts of which the City is part.

[4] The Forest and Bird confirmed that in its view³:

... that the reference to fungi should remain. This is because fungi are technically not plants (Kingdom Plantae) and belong to a different Kingdom (Fungi). However, many plants and vegetation communities depend on associations with fungi to exist.

Forest and Bird also⁴ considered:

... that a reference to lichen should also be included in the definition as lichen are not technically plants, but composite organisms made up of algae (Kingdom Protista) or cyanobacteria (Kingdom Eubacteria) and fungi.

[5] The DGC largely agreed⁵ with Forest and Bird.

[6] However, the position of Federated Farmers was quite different. Ms Reilly stated⁶:

7. We respectfully disagree with the proposed extension of the definition to include fungi. Living things are placed into certain 'kingdoms' based on how they obtain their food, the types of cells that make up their body, and the number of cells they contain. The term 'vegetation' rightly captures those species that fall into the Plantae kingdom of classification. This group contains vascular and nonvascular plants, flowering and nonflowering plants, as well as seed bearing and non-seed bearing plants.
8. Fungi on the other hand are so vastly different in life-form from plants, they have their own kingdom. Fungi include both unicellular (yeast and moulds) and multicellular (mushrooms) organisms. Unlike plants, fungi are not capable of photosynthesis, and they may lie dormant for extended periods underground and not be at all visually discernible apart from during their fruiting/reproductive phase, being the mushroom body itself.

¹ Memorandum of Mr M D Morris dated 7 June 2018 [Environment Court document 20].

² The Council seeks the appeals be referred back to mediation as a matter of priority so that the corresponding objectives, policies and rules can be resolved.

³ Memorandum of Mr P Anderson 14 June 2018 para 3 [Environment Court document 21].

⁴ Memorandum of Mr P Anderson 14 June 2018 para 4 [Environment Court document 21].

⁵ Memorandum of Ms P Williams 22 June 2018 para 4 [Environment Court document 22].

⁶ Memorandum of Ms K M Reilly 22 June 2018 para 4 [Environment Court document 23].



9. The proposal to include fungi into the definition of 'indigenous vegetation' has the potential to have a significant impact on the consequent usability of the plan and the corresponding rule framework. It will not enable plan users to easily ascertain if the land in question is captured within the definition or whether consent is consequently required at any given time.
10. When fungi are not fruiting, they are simply a filamentous fibre (hyphae) in the soils. It is near impossible to determine the species of that fungi by the hyphae themselves. As fungi tend to fruit in the cooler months, a landowner may have no fruiting bodies visible to use for species identification for much of the year. This compounds the challenges and impracticality of including fungi into the definition of indigenous vegetation.
11. We also do not consider there is sufficient expertise in this area at a national level, but even less so within the Invercargill District, to provide the level of assistance that would be required to clarify any uncertainty in each and every given case.

[7] The parties were then given the opportunity to respond to each other. The Council takes a neutral position⁷.

[8] For the DGC, counsel passed on the views of Mr B D Rance, its ecologist in the proceeding. He wrote⁸:

Indigenous ecosystems contain a wide range of species/life forms including plants, fungi, lichen, algae and animals. The dominant species tend to be plants and generally vascular plants. Non-vascular plants (notably bryophytes) are widespread and can be locally dominant (e.g. Sphagnum moss bog within the Awarua Plains). Likewise lichens are also widespread occasionally locally dominant (e.g. Tiwai Peninsula). Fungi while being widespread are seldom if ever visually dominant (except at a small scale). However, fungi are of immense ecological importance in an ecological functioning sense. They may form relationships with vascular plants which allow these plants to thrive (i.e. mycorrhizal fungi are important for many plants including manuka and beech trees). Further fungi are important ecological indicators.

In a practical sense the exclusion of lichens or fungi is likely to have limited impact within ICC, as only locally do they dominate the vegetation. However, in other places they may dominate. Further some of the ecosystems/vegetation types dominated by lichens are rare, threatened or otherwise notable. Therefore, the exclusion of these taxonomic groups from a definition [of "indigenous vegetation"] in ICC may have an impact if the same definition is used elsewhere.



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Memorandum of Mr M D Morris dated 8 August 2018.
From memorandum of Ms P Williams dated 1 August 2018 at para 5.

Another concern is that the Department of Conservation oversees threatened species lists for a wide range of species groups/lifeforms including lichens and fungi. Therefore, if they are not included in a definition of indigenous vegetation will threatened lichen and fungi be able to be recognised?

As an ecologist I do prefer a definition that considers a broad range of vegetation. I would like the full range of indigenous vegetation/ecosystems to be covered.

Forest and Bird supports the DGC approach.

Consideration

[9] I will not repeat the analysis in the Interim Decision. The two essential legal points I need to bear in mind are first that “vegetation” normally means “plants collectively” or, and I overlooked this in the Interim Decision, “ground cover”⁹ and second that section 6(c) does not refer to “ecosystems”. It is clear that Parliament intended distinctions between “ecosystems” and “areas of ... vegetation” and “habitats of ... fauna”.

[10] As for the scientific meaning of vegetation the taxonomic concept of a “kingdom” of plants (Plantae), indeed “kingdoms” generally, is at present somewhat troubled. Further, even if the concept of “kingdoms” is accepted, it is not universally agreed how many there are. Regardless of the number neither fungi nor lichens are contained in the kingdom of plants.

[11] Some of the parties consider that ecosystems (in particular the biotic components) are not adequately covered in objectives and policies under section 6(c)’s “mandatory obligation” – see *Property Rights Institute New Zealand Inc v Manawatu-Wanganui Regional Council*¹⁰ – to preserve aspects of our indigenous biodiversity, and say in effect that the application of the word “vegetation” in section 6(c) should be extended to fungi. I do not accept that. The most direct answer to the problem is to look at what is an even higher order obligation under section 5(2)(a) – the duty to safeguard the life-supporting capacity of ecosystems. An indirect, but equally valid answer may, in particular instances, be that an area of indigenous vegetation is significant for the purposes of section 6(c) RMA – precisely because of the presence of, for example, mycorrhizal fungi.

⁹ See the Merriam-Webster online definition of vegetation as “plant life or total plant cover (as of an area)” (searched 11 August 2018).

¹⁰ *Property Rights Institute New Zealand Inc v Manawatu-Wanganui Regional Council* [2017] NZHC 1272 at [31].



[12] But on the direct question before me – “what is the appropriate definition of vegetation in this particular plan?” – given the practical complexities raised by Ms Reilly, I consider that the extension to fungi suggested by the Interim Decision is inappropriate. Accordingly fungi¹¹ should be excluded from the definition.

[13] In relation to lichens the position is more difficult, because they may more obviously be ground cover which is also a part of the ordinary meaning of “vegetation”.

Outcome

[14] In the end I consider the definition of vegetation should include biotic elements that are relatively obvious to lay-people but should exclude non-faunal biota that are not capable of being groundcover. There are obvious scientific inconsistencies, but that cannot be helped. Nor are the problems posed by fungi and algae etc. unsolvable. Objectives may be set and implementing policies and methods may be adopted under section 5(2) RMA to protect those biota.

[15] Accordingly, I hold that the definition of “vegetation” should read “Indigenous vegetation means vegetation or groundcover containing vascular and/or non-vascular plants and/or lichens that are indigenous in or endemic to all the ecological districts of which the City is part” and will make orders accordingly.

[16] I will issue a Final Decision incorporating those changes, and confirming that the mediation should be reconvened urgently if that is still (or now) necessary.



J R Jackson
Environment Judge



¹¹ I do not overlook the increasing understanding of the underground connections of fungi and their importance to different ecosystems, but despite their widespread particular interconnectivity with the root systems of undoubted plants, fungi filaments are not ground cover.