

ECOLOGY EVIDENCE

IN THE MATTER OF

Proposed Plan Change 1 to the Regional Land and Water Plan (*PCI*)

AND

IN THE MATTER OF

A hearing into the above pursuant to the Resource Management Act 1991

DATE OF HEARING

18-21 June 2018

**REVIEW OF ECOLOGY MATTERS RELATED TO SUBMISSIONS AND
FURTHER SUBMISSIONS OF SUPERSHPAG LTD AND COASTPAK TO
PROPOSED PLAN CHANGE 1 TO THE REGIONAL LAND AND WATER
PLAN - SPHAGNUM MOSS HARVESTING
(MISCELLANEOUS CHANGE N)**

Evidence of Jan Derks

1.0 INTRODUCTION

- 1.1 My name is Jan Derks and I am the sole Director of TACCRA Ltd., a forestry and environmental consultancy provider.
- 1.2 I have been engaged by Supersphag Limited and Coastpak to provide ecology evidence in regard to issues related to Proposed Plan Change 1 to the Regional Land and Water Plan (*PCI*) as they relate to the harvesting of sphagnum moss (Miscellaneous Change N: Glossary – Vegetation Disturbance), and more particularly recommendations and amendments set out in the Section 42A Report and associated S32AA Report.
- 1.3 My role in this hearing process is to provide evidence on relevant ecological issues to assist the Commissioners in considering the matter.

2.0 SUBMITTER

- 2.1 The submitter is: Supersphag Ltd (*Supersphag*) – Submitter Reference 41
Coastpak – Submitter Reference 11

3.0 WITNESS

- 3.1 As above I have been requested by the submitters to present evidence on the ecological issues relating to certain matters which were the subject of submissions and further submissions to PC 1 – Moss Harvesting.
- 3.2 I am the sole Director and consultancy service provider of TACCRA Ltd., a forestry (indigenous forest management) and environmental consultancy company based in Harihari. A component of this environmental consultancy work for clients is conducting ecological assessments (indigenous vegetation and habitat) for Resource Consent applications and preparing environmental management plans. I have been self-employed in this role since 1998. Prior to that I managed the sustainable management (indigenous) forests working circle in south and central Westland for Timberlands West Coast, studied at university, and was involved in the indigenous sawmilling and logging industries in south Westland.

- 3.3 I have had specific experience with *Sphagnum* spp. moss literature research and with growth trials, resource assessment and management potential (physical site treatment, weed and competing species control, re-stocking and fertiliser) trials undertaken for Coastpak on its landholdings and other private landholdings in central Westland, and for the Office of the Maori Trustee on land it administers in South Westland. This work has been undertaken periodically from 2000 until now.
- 3.3 I have a Bachelor of Forestry Science degree from Canterbury University.
- 3.4 I am a current registered member of the New Zealand Institute of Forestry.
- 3.5 I have read and understood the Code of Conduct for Expert Witnesses contained in the Environment Court's Consolidated Practice Note 2014 and agree to comply with it. The report presented is within my area of ecological expertise and I confirm that I have not omitted to consider material facts that might alter or detract from the opinions given in this evidence.

4.0 SCOPE OF EVIDENCE

- 4.1 Supersphag and Coastpak made submissions to PC1 in support of the proposal to allow moss harvesting in scheduled wetlands, and later in the process further submissions. Since the lodging of submissions a number of activities have been undertaken, including;
- An independent review of *Sphagnum* spp. moss harvesting practices and their potential effects on wetland values has been undertaken (Landcare Research – Identifying the Environmental effects of Sphagnum Moss Harvesting on Wetlands – August 2017).
 - A workshop to review options and develop a potential rule to permit harvesting subject to meeting certain standards, including monitoring. The proposed rule set out in the Section 42A Report and the Section 32AA Evaluation Report reflects that process.
- 4.2 I can confirm that I have had an involvement in the activities set out in paragraph 4.1 in my role as an adviser to Supersphag and Coastpak on ecological matters.

- 4.3 This evidence is submitted for purpose of providing my opinion and recommendations in regard to the recommended outcomes, in their current form, in the Section 42A Report and the Section 32AA Evaluation Report as they relate to the ecological effects of moss harvesting on Scheduled wetlands.

5.0 CONCLUSION

- 5.1 The process to date has provided a sound opportunity for considering *Sphagnum spp.* moss harvesting as an appropriate method for protecting, maintaining and often enhancing wetlands' natural values, in particular in respect of anthropogenic wetlands although not necessarily restricted to these.
- 5.2 I agree with the recommendations of the Section 42A Report in their current form.
- 5.3 Based on a consideration of the ecological issues arising, as they relate to the harvesting of *Sphagnum spp.* moss within Scheduled wetlands it is my opinion that the proposed Rule 7a is appropriate and will achieve the outcome of sustaining the values of the wetlands within which moss harvesting occurs.

6.0 STRUCTURE OF EVIDENCE

- 6.1 To assist with this evidence the following section is provided:

Summary of ecological considerations pertaining to harvesting *Sphagnum spp.* moss from Scheduled wetlands. (Section 7.0)

7.0 SUMMARY OF ECOLOGICAL CONSIDERATIONS

- 7.1 Having reviewed the Section 42A Report, the Section 32AA Report (including the proposed Rule 7a and the Landcare Research Report) The Landcare Research Report is ecologically robust and reasonable and its key findings have been carried through in the proposed Rule 7a. I provide the following summary of what in my opinion are the key ecological considerations.
- 7.2 *Sphagnum spp.* moss harvesting areas with some of the longest management histories occur on outwash terrace landforms originally covered by forest of

predominantly podocarp species. Historical clearfelling removed the forest cover, and logging-associated activities e.g. high-lead cable hauler use and access (tramway and later, roadway) construction altered natural drainage patterns. Together, these effects resulted in elevated water table levels and creation of areas now being classed as wetlands, such areas being human induced, in contrast to having developed via entirely natural processes. Anthropogenic effects resulted in the creation of these areas. Similarly, it is my opinion that anthropogenic effects, in this case those from *Sphagnum* spp. moss harvesting, appropriately managed, are compatible with retaining and sustaining what are being recognised as their natural values now. It is my opinion that the proposed Rule 7a can ensure activities are appropriately managed in this regard. Other wetland areas I have visited, not originally forested, for example areas occurring on recent alluvial floodplains, also have *Sphagnum* spp. moss harvesting histories. My opinion on appropriately managed harvesting of *Sphagnum* spp. moss as per proposed Rule 7a being compatible with retaining and sustaining wetlands' natural values also applies to these sites.

7.3 *Sphagnum* spp. moss harvesting is not a new activity being proposed for Scheduled wetlands – some currently scheduled wetlands have a prolonged and continuing moss harvesting history. This has not been to their detriment, actually the reverse, where harvesting activities have retained and often enhanced the values that see these areas a.) being classed as Schedule 2 wetlands with their harvesting history, and b.) remaining wetlands today, not having been converted to other land uses because of the value that *Sphagnum* spp. moss harvesting has as a sustainable activity on these sites.

7.4 Observations at various sites on landholdings administered by the Office of the Maori Trustee at Bruce Bay, Department of Conservation land at Harihari, Ngai Tahu (previously Timberlands West Coast) land at Ianthe Forest, Harihari, and other private landholdings at Franz Josef, Arahura Valley and Hokitika Valley where *Sphagnum* spp. moss harvesting occurred and was subsequently suspended or held in abeyance for longer periods, verify that change in site characteristics occurs. Generally, this involves proliferation of fern species, indigenous shrub and

forest tree species regeneration, and, frequently, gorse, or a combination of these. A closed canopy cover can develop in a matter of a few years. These sites cease to display the characteristics of wetland and, in time appear to be reverting to a shrubland or, over a longer time, forest. Where *Sphagnum spp.* moss harvesting is undertaken in rotations, in particular where crushing has been conducted as a component of management and with a proportion of original *Sphagnum spp.* moss cover retained as a reproductive base, this reversion/change does not usually occur, the sites retaining their wetland species' cover type and ecology. If the aim is to protect and retain wetlands for their attributes now, appropriately managed *Sphagnum spp.* moss harvesting is consistent with achieving this. The proposed Rule 7a can ensure activities are appropriately managed in this regard.

- 7.5 If hydrology of the site is not markedly altered, it can be expected its vegetation characteristics will remain relatively unchanged. Ecologically this is a key criterion, and provided activities do not result in significant and long term changes to a site's hydrology, they should not adversely affect its ecological characteristics. My opinion is that the proposed Rule 7a conditions are appropriate to achieve that purpose.

Name: Jan Derks
Designation: Director
(Company) TACCRA Ltd.

Date: 30 May 2018