

Before the Independent Hearing Panel

Under the Resource Management Act 1991

In the matter of the Proposed Otago Regional Policy Statement 2021

**Statement of Evidence in Reply of Jayde Edward Malthus Couper on behalf of
Otago Fish and Game Council (#0321)**

14 December 2022

Submitter's solicitors:
Maree Baker-Galloway | Rosie Hill
Anderson Lloyd
Level 2, 13 Camp Street, Queenstown 9300
PO Box 201, Queenstown 9348
p + 64 3 450 0700
maree.baker-galloway@al.nz | rosie.hill@al.nz

**anderson
lloyd.**

Qualifications and experience

- 1 My full name is Jayde Edward Malthus Couper.
- 2 My qualifications, experience and acceptance of the Code of Conduct for Expert Witnesses are detailed in my evidence in chief dated 28 November 2022.

Native Fish in the Lindis Mainstem

- 3 In the evidence of Mr. Bruce Jolly, paragraph 21 he makes the statement that trout have eaten native fish to extinction in the main stem of the Lindis river. This is incorrect; native fish are found throughout the Lindis mainstem. The NIWA freshwater fish database¹ shows records for native fish throughout the mainstem of the Lindis, including longfin eel, common bully, upland bully, koaro, Clutha flat head galaxias and unidentified galaxiids.
- 4 Based on my understanding of the Lindis catchment, there will be several factors dictating the species that are present. These are outlined in my evidence in chief and include the negative effects of water abstraction for farming, species interactions and the downstream dams affecting the migration of diadromous fish.

Carbon Farming

- 5 I share the concerns around permanent carbon forestry outlined in the evidence of Maria Bartlett and Evelyn Cook of Kai Tahu Ki Otago. My evidence in chief talks about the effects of forestry in general however these also apply to permanent carbon forestry.
- 6 The conversion of land to forestry can negatively affect the water yield of a catchment. This effect is particularly strong when the conversion to forestry is from tussock lands² but also occurs in conversions from pasture farming³. There also issues around sedimentation of waterways from widening of the stream banks⁴, erosion and mechanical effects, particularly at planting and

¹ Stoffels R (2022). New Zealand Freshwater Fish Database (extended). The National Institute of Water and Atmospheric Research (NIWA). Sampling event dataset

² Davie, T. J. A., Fahey, B. D., Stewart, M. K., & Nz, D. C. (2006). Tussock grasslands and high water yield: a review of the evidence.

³ Smith, P. J. T. (1987). Variation of water yield from catchments under introduced pasture grass and exotic forest, East Otago. *Journal of Hydrology (New Zealand)*, 26(2), 175–184

⁴ Davies-Colley, R. J. (1997). Stream channels are narrower in pasture than in forest. *New Zealand Journal of Marine and Freshwater Research*, 31(5), 599–608.

harvest, although I acknowledge there are likely to be less sedimentation issues in permanent carbon forests relative to traditional plantation forestry.

Jayde Edward Malthus Couper

12 December 2022