Before the Freshwater Hearings Panel convened by the Chief Freshwater Commissioner

In the matter of Freshwater parts of the Proposed Otago Regional Policy Statement 2021

Rebuttal Evidence of Jayde Couper on behalf of Otago and Central South Island Fish and Game Councils

17 July 2023

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Introduction

1 My full name is Jayde Couper.

2 I prepared a statement of evidence on the Freshwater Parts of the Proposed Otago Regional Policy Statement 2021 (**pORPS**) dated 28 June 2023 (**EiC**). My qualifications and experience are set out in my EiC.

Wetlands

3 The evidence of Luke Kane and Logan Wallace who both farm in the Pomahaka catchment discuss the importance of wetlands on their farms particularly the benefits to downstream water quality. Mr. Kane's evidence talks about constructed wetlands potentially reducing nitrogen, phosphorus and turbidity by three quarters and E. Coli by up to 99%. This evidence aligns well with my FPI EIC and shows the importance of on-farm wetlands that would not be considered "natural inland wetlands" due to being located within a grazing area and not containing the required biodiversity.

4 Following review of the evidence put forward it appears that all the experts agree on the enormous value of the wetlands remaining in the Region and that they require strong protection. I agree with the evidence of Mr. Bruce McKinlay that the Lake Tuakitoto wetland complex has high value as a large and complex wetland and that it should be recognised in the RPS. I would add to this, that the site is also a significant site for gamebirds and highly valued for recreation, particularly waterfowl hunting.

5 Mr. McKinlay also talks about the importance of the braided rivers. Braided rivers and the braidplains they sit in are internationally rare and provide crucial habitat for some of the countries most threatened species.

Water Quantity and abstraction

6 In her evidence for Kāi Tahu, Ms Sandra McIntyre[1] highlights a lack of state of the environment reporting on water quantity and allocation for the region and that the panel would benefit by being provided that information. I support this idea and this concern is also noted in my non-FPI EIC[2].

7 Despite the lack of overall reporting, there is relatively good information available on a select few catchments. My non-FPI EIC uses the

[1] Sandra McIntyre – FPI EIC – Paragraphs 20-22

[2] Jayde Couper – non-FPI EIC – Paragraphs 58-71

Manuherekia as an example[3]. The Manuherekia River has an estimated 7-day MALF[4] of 4 cumecs and a voluntary minimum flow of 0.9 cumecs at the Alexandra campground. In an average year the water take from the catchment averages over 2.9 cumecs and peaks at over 8.2 cumecs[5]. Due to the scale of this abstraction, the river flow characteristics of the river have been drastically altered, diminishing in flow as you move down the catchment and spending a large amount of time at flows which would not occur naturally. I leave it to commissioners to interpret if regimes like this prioritise the health and well-being of the waterbody.

8 The extent of flow reductions mentioned above worsens the impacts of water quality degradation and reduces the availability and suitability of habitat for valued species, while also promoting the proliferation of undesirable algae growth.

Water Quality

9 I note that the evidence of Dr Michael Joy aligns extremely well with my evidence on the ecological status of fresh water in Otago, however Dr Joy's evidence goes further in depth on risk to human health and economic costs of waterway degradation. I consider this analysis to be particularly useful.

Native Fish in the Lindis Mainstem

10 The evidence of Mr Bruce Jolly, the current chairman of the Lindis Catchment Group makes the statement that trout have eaten native fish to extinction in the main stem of the Lindis river[6]. This is incorrect; native fish are found throughout the Lindis mainstem. The NIWA freshwater fish database[7] 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.

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[3] Jayde Couper – non-FPI EIC – Paragraphs 65-67

[4] LAWA definition: This is how low the flow gets in a typical year. The lowest flow for each year is averaged across recorded years to estimate the MALF (Mean Annual Low Flow). Flows were averaged across 7-days before calculating the minimum for each year.

[5] Manuherekia Scenarios: A discussion of freshwater management in the Manuherekia catchment. ORC

[6] Bruce Jolly – FPI EIC – Paragraph 22

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

11 Based on my understanding of the Lindis catchment, multiple factors play a role in determining the species composition. These factors, as highlighted in my EIC, include the adverse impacts of water extraction for agricultural purposes, interactions between species, and the influence of downstream dams on the migration patterns of diadromous fish. These aspects contribute to the overall ecosystem dynamics and influence the presence and distribution of various species within the Lindis catchment.

17 July 2023

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