BEFORE COMMISSIONERS APPOINTED BY
QUEENSTOWN LAKES DISTRICT COUNCIL

IN THE MATTER of Resource Management Act 1991

AND

IN THE MATTER of submission of Jeremy Bell Investments Limited and Submission 782/784 and FS1030/1091

EVIDENCE OF AMANDA JANE BATCHELOR BELL IN SUPPORT OF SUBMISSION BY JEREMY BELL INVESTMENTS LIMITED

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APPENDIX 1

1. My name is Amanda Jane Batchelor Bell ("Mandy"). I am a director of Jeremy Bell Investments Limited, along with my husband, Jeremy Arthur Bell ("Jerry").

2. Jeremy Bell Investments Limited is the owner of Criffel Station, an approximately 2000 ha freehold station adjacent and above Mt Barker Road and State Highway 6 in the Upper Clutha Basin. Criffel Station contains a mix of dry land hill country, and spray irrigated flats adjacent to Mt Barker Road. The irrigation water supply is fed from the Luggate Creek by way of a series of mining privileges dating back to the 19th century.

3. Criffel Station's irrigation water supply is currently fed from a weir constructed by a group of farmers, in Luggate Creek in 1967. In recent times the irrigation group has formed a company called Criffel Water Limited to advance renewal of the mining privileges that are due to expire in 2021. I am a director and Chair of Criffel Water Limited.

4. My academic and professional background includes a doctoral degree in veterinary science and running the high performance deer operation on Criffel Station. My veterinary science specialist interest relates to proactive animal health programmes, agricultural technology and One Health. I also have a particular interest in aspects of water quality in public health, and the development of water catchment management solutions that positively affect human, animal and ecosystem health. The purpose of this evidence is to explain the importance of irrigation to farming in the Upper Clutha and the reliance on irrigation for economic sustainability. The risk is that if the officer's report is adopted, the QLDC District Plan will end up with a contradictory policy framework that will seriously undermine the economic sustainability of farming in the Upper Clutha.

Economic Difficulties Facing Farming in the Upper Clutha

5. Farms in the Upper Clutha enjoy relatively high capital values compared to their production values. In one sense this is a benefit to a farm balance sheet, but on the other hand it makes satisfactory returns on investment highly problematic if relying solely on agricultural returns. We are owners and caretakers of land that has a number of resources that

provide opportunities to diversify incomes and improve the rates of return on the asset. It was for this reason that we (Jeremy Bell Investments Limited) engaged with Marc Bretherton in the preparation of the District Plan to include policy support for diversification of rural activities that supports the sustainability of farms. That policy is found at objective 21.2.10 and policy 21.2.10.1. For example, in Jeremy Bell Investments Limited's case, we operate a function hosting business in our woolshed on Mt Barker Road which is an important source of revenue utilising an existing farm asset and aligns with the government and local government support for growth in tourism.

6. Farm production in the Upper Clutha is challenging. It is characterised by low summer rainfalls and highest average daily evapotranspiration rates in Otago[1].. Climate change predictions indicate an increase in droughts in the coming years. Pasture growth from September through to May is dependent upon reliable soil moisture availability. Particularly over the height of summer (December through to the end of March) grass growth is dependent on irrigation. This has been a feature of farming in the Upper Clutha for well over a century and explains the complex network of water races and mining privileges that have developed over the years.

7. Historically the principal means of irrigation was wild flood and border dyke. That form of irrigation is very efficient from a cost point of view because the energy and infrastructure requirements are low. However, cyclical flooding is relatively inefficient in terms of moisture availability to plants at the root zone level. Put simply, most of the water runs off (usually for collection and re-use). This is not appropriate for water use efficiency and management of water quality.

8. Efficient use of water for irrigation has long been a policy concern of the Otago Regional Council. The Otago Regional Council Regional Plan: Water has water use efficiency policies (e.g. policy 6.40A). Advice received by Criffel Water Limited in its current round of renewals for its mining privileges indicates that wild flood and border dyke irrigation methods are no longer regarded as offering acceptable efficiency to the

[1] Aqualinc Research Limited, Water Requirements for Irrigation Throughout the Otago Region, prepared for the Otago regional Council, Report L05128/2, October 2006, Appendix F.

Otago Regional Council and existing water rights will not be renewed on that basis.

9. Acceptable rates of efficiency (80%[2]) can only be achieved through direct spray application, typically through k-line or centre pivot irrigation. The basic problem for farmers is that if renewal of water rights can be secured then farmers have to commit to conversion from traditional irrigation techniques to spray.

10. Irrigation is a complex multi-disciplinary issue. Decisions to convert to spray irrigation are not taken in isolation. Irrigation projects involve ecological considerations arising from the take of water; engineering, economic, and productivity considerations relating to infrastructure design; and water quality and public health issues arising from the discharge of water back to natural systems. These issues need to be managed in an integrated way since each has an effect on the other. My understanding is that it is the Regional Council that is tasked with the integrated management of the use of water, not the District Council. Yet the District Council now seems to want to carve off this small corner of the water use issues and risks approaching water use issues in a blinkered way that will lead to poorly integrated decisions. I do not believe that the QLDC is equipped to fully evaluate the range of issue arising from irrigation.

11. I support the idea that significant indigenous vegetation should be offered protection in the District Plan. The difficulty I have with the use of the LENZ classification system is that it does not identify the actual presence of indigenous vegetation, but rather those areas where habitat may exist and indigenous vegetation is "under threat". The interesting point about the LENZ threat classification map for Upper Clutha is that it is almost the same as Aqualinc's 2006 Appendix C "Land Suitable for Irrigation" prepared for the Otago Regional Council (attached as appendix 1 to this evidence). This is an example of the poor integration of the issues that I am concerned about.

[2] Aqualinc, ibid, section 3.4 page 14: Aqualinc's water demand model assumes an irrigation application efficiency for pasture of 80%. This has been adopted by the Otago Regional Council as an acceptable rate of water use efficiency.

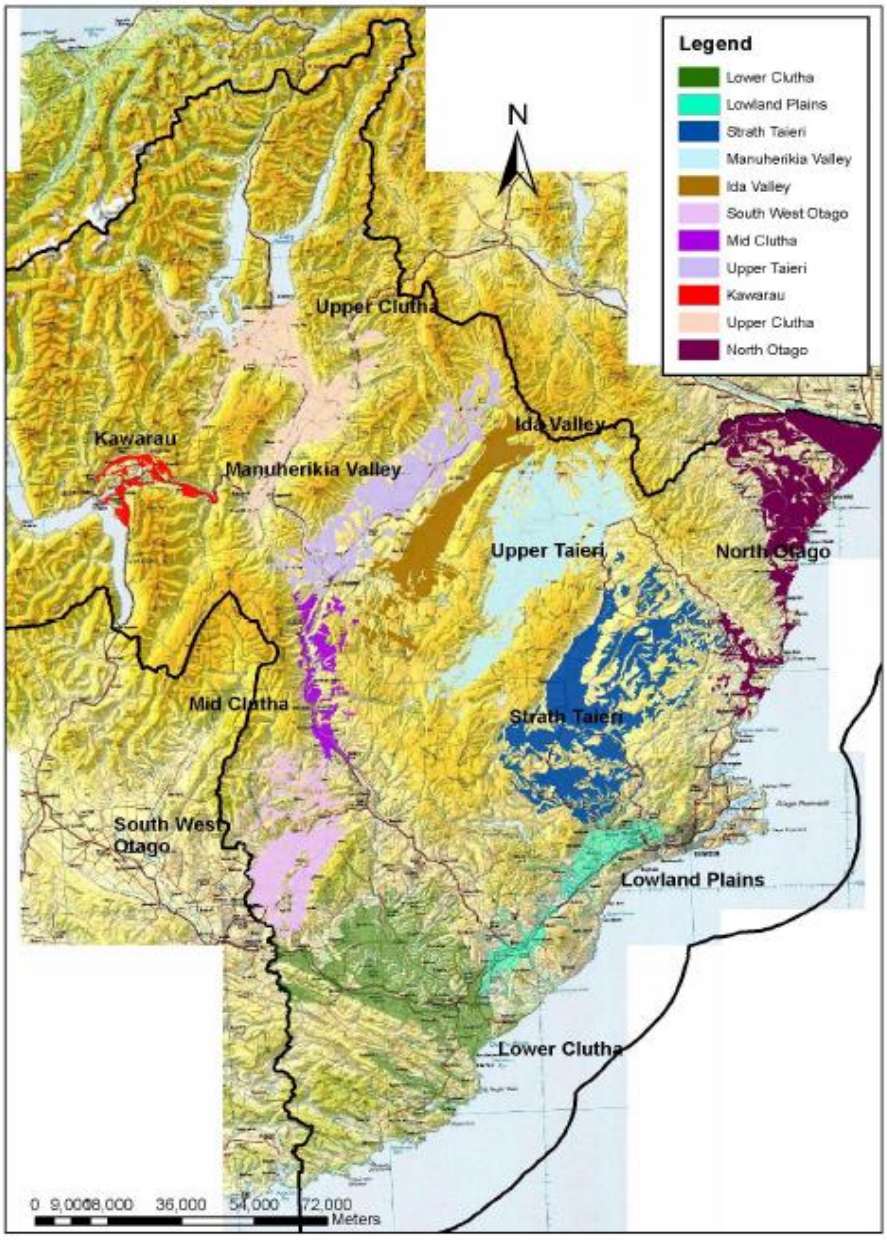
12. As a farmer the idea that the land most suited to irrigation has an additional layer of protection (the LENZ level IV classification) is completely nonsensical. This is our best, most developed, and easiest to irrigate country. Farmers need to be able to drive production from these areas as efficiently as possible, and are being encouraged by the central government and the Regional Council to do so. Driving production on our flat low country also helps to take pressure off our higher country, where indigenous vegetation tends to be most intact.

13. I also have concerns about rule 33.5.6, which is a standard requires that permitted indigenous vegetation clearance does not include a single specimen from the threatened species list. Unlike the mapped SNAs, nobody knows where those species are. It seems that what is being proposed is that land owners are required to prove the absence of threatened indigenous vegetation, before conversion to spray irrigation, rather than the Council being required to prove its presence. As a scientist this strikes me as counter-intuitive: proof of a negative is notoriously difficult. Yet that is what I perceive is being asked of us as land owners for conversion to spray irrigation (proposed to be defined as "indigenous vegetation clearance").

14. I would support a rigorous field study that set about to positively identify the presence of significant or threatened indigenous vegetation in the Upper Clutha. Land owners and the community are then able to have notice of the locations of that through a mapping technique which will make management and enforcement straightforward. Through this means the focus will be on good science rather than compliance, which is where I would prefer to see energy devoted.

Mandy Bell
22 April 2016

Appendix C: Land suitable for irrigation



Irrigable areas by regions