BEFORE THE COMMISSIONERS APPOINTED ON BEHALF OF THE OTAGO REGIONAL COUNCIL

UNDER	the Resource Management Act 1991 (the **Act** or **RMA**)
IN THE MATTER	of an original submission on the Proposed Regional Policy Statement for Otago 2021 (**PRPS**)
BETWEEN	**OTAGO WATER RESOURCE USER GROUP** **Submitter OS00235 and FS00235** **FEDERATED FARMERS NZ INC** **Submitter OS00239 and FS00239** **DAIRY NZ** **Submitter FS00601**
AND	**OTAGO REGIONAL COUNCIL** **Local Authority**

EVIDENCE IN CHIEF OF JEREMY THOMAS ANDERSON

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EVIDENCE IN CHIEF OF JEREMY THOMAS ANDERSON

1. My full name is Jeremy Thomas Anderson, I am the General Manager of Maniototo Irrigation Company Limited. I live in Dunedin and Oturehua.

2. Until June 2022 I was Rural Area Manager (Otago and South Canterbury) at ASB Bank Limited. Prior to my current role at ASB, I was employed by Fonterra as Regional Manager, Otago & Southland. A role which I held for 2.5 years in between earlier roles at ASB.

3. I grew up in the Ida Valley where my family farmed sheep and beef. I am also a director of a farming company on the Maniototo Plain and have had investments in farming businesses previously, but do not have any continuing financial interest in farming.

4. In this evidence I describe the irrigation scheme in the upper Taieri catchment (above Waipiata).

5. The Maniototo Irrigation Company (MIC) was set up to receive the headwork assets constructed by the Crown in the 1970s, which were sold by the crown to the farmers that the scheme was designed to serve. MIC is owned by three "distribution" companies: Maniototo West Side Irrigation Company Limited (50.1 %), Maniototo East Side Irrigation Company Limited (31.8%) and the Waipiata Irrigation Company Limited (18.1 %)

6. Maniototo Irrigation Company (MIC) holds the water permits and owns the shared headworks infrastructure (including the Loganburn Dam) for the upper Taieri irrigation scheme. MIC's water permits expire in 2034.

7. MIC also supplies stored (from Loganburn Dam) and run-of-the-river water (Taieri River) to Trustpower for hydroelectric generation at its two power houses on the race network. Water that passes through the power houses is subsequently used for irrigation.

8. I also discuss issues associated with the complexity and investment required to change river flow regimes and irrigation practices in the upper Taieri. Particularly how that dovetails with the types of farming

systems that predominate in Central Otago. These observations are based on my experience in the banking sector and the trends and difficulties I observed during my career.

9. Currently it is not known the extent of change that will be required as a result of the freshwater vision (and other associated provisions) for the Taieri Catchment. I understand that the vision itself will be the subject of a different Freshwater Commission process which the submitters and Maniototo Irrigation Company will be a part of also.

LF–VM–O4 – Taieri FMU vision

By 2050 in the Taieri FMU:

1. *fresh water is managed in accordance with the LF–WAI objectives and policies,*
2. *the ongoing relationship of Kāi Tahu with wāhi tūpuna is sustained,*
3. *healthy wetlands are restored in the upper and lower catchment wetland complexes, including the Waipori/Waihola Wetlands, Tunaheketaka/Lake Taieri, scroll plain, and tussock areas,*
4. *the gravel bed of the lower Taieri is restored and sedimentation of the Waipori/Waihola complex is reduced,*
5. *creative ecological approaches contribute to reduced occurrence of didymo,*
6. *water bodies support healthy populations of galaxiid species,*
7. *there are no direct discharges of wastewater to water bodies, and*
8. *innovative and sustainable land and water management practices support food production in the area and improve resilience to the effects of climate change.*

10. I have no specific knowledge or understanding in relation to what has to change on the ground to give effect to the vision statement. In the

upper Taieri, I contend that much of that is being done already. However, I am also well aware that some interest groups argue for a higher minimum flow in the Taieri River above Waipiata. It is that possibility that my evidence is directed at.

11. The reason for MIC's interest in that subject is because it is MIC that holds the river above its current minimum flow levels, through the release of stored water from MIC's Loganburn Reservoir. Thus, the inevitable consequence of raising minimum flow limits is the release of more stored water, and ironically, reduced drought resilience (including climate change induced drought).

The Scheme

12. The take point for the Maniototo scheme from the Taieri River is at Paerau. However, the flows in the Taieri are augmented with water from MIC's reservoir at the southern end of the Rock & Pillar Range, called the Loganburn Reservoir. Originally constructed at some 85 million m^3 of stored water, the reservoir was reconsented in 2006/7 and raised to store 97.9 million m^3 at the top of the spillway and total capacity of 118.1 million m^3.

13. The Dam and associated discharge and water take permits held by MIC expire on 1 January 2034. We are beginning to prepare for that reconsenting process now.

14. MIC as a condition of its current consent is required to maintain a minimum flow at Waipiata (1000 l/s). This is achieved through the release of Loganburn stored water. Prior to the commissioning of the scheme by the Crown and subsequent transfer to MIC the Taieri River flows at the Waipiata bridge consistently ran below 1000 l/s in dry years. Anecdotal evidence records that the flow actually ceased (0 l/s) in the drought of January 1976.

15. Mr Sheehan and Ms Mckeague provide more detailed information in relation to the operation of the Maniototo Scheme.

Farming Types in Central Otago

16. There is a marked difference in farming types between Coastal Otago and Central Otago. This is determined largely by climate (rainfall, heat, and wind), soil types, and historical farming patterns. My evidence concerns farming in what I call "Central Otago", which includes the Otago Regional Council's Fresh Water Management Units (FMU) for the Dunstan, Manuherikia, and Taieri catchment areas. These are the FMUs that have the majority of the historical deemed permits established under the old mining privilege regime and carried over by the Resource Management Act 1991.

17. In Dunstan, Manuherikia, and Taieri, the vast majority of farming enterprises are sheep and beef. At higher elevations, fine wool still dominates. There are existing dairy farms in the Taieri FMU and in the lower Manuherikia, and relatively new dairy farms in areas such as at Hawea Flat. Much of that development occurred in the dairy boom in the early 2000's or shortly thereafter.

18. By contrast, Coastal Otago, and particularly the lower Taieri Plain and the Tokomairiro, is dominated by dairy farming and has been so for many decades. This is largely due to reliable rainfall and fertile soil where irrigation does not play a significant role. North Otago is an exception, where the establishment of the North Otago Irrigation Company has enabled dairy expansion in the Waitaki District, using long term water rights from the Waitaki River.

19. Before taking up my role with the ASB I held a management position at Fonterra, as Regional Manager, Otago and Southland. There is wide acknowledgement in the dairy industry that the high-water mark for dairy expansion has been reached and that we are likely to see retrenchment over time for both environmental and economic reasons**.**

20. For approximately two decades now irrigation practices in Central Otago have been changing. There has been a growing realisation that water use efficiency can be improved through retiring surface flood techniques e.g. wild flood irrigation and replacing it with spray

application methods. Spray irrigation in turn requires quite different infrastructure, irrigation patterns (moving from cyclic rosters to daily application), and on-farm water storage.

21. The implications of conversion from traditional surface flooding to spray for the banking sector is that the conversion requires access to working capital. In crude terms, we are seeing a need for capital introduction of approximately $1 million per pivot when land development (removing shelter belts, rocks and impediments to pivot irrigators), water storage (header ponds), pivots, electricity supply, and pasture renewal are taken into account.

22. The reality for most farming enterprises is that irrigation development makes an enterprise's debt-equity ratio worse. This makes banks nervous because it increases the bank's risk. It also reduces access to capital for MIC because our shareholder farmers have less borrowing capacity.

23. The fundamental driver of land value for farms in Central Otago is water. Much of a farm's value is tied up in its secure access to water and that is the greatest security asset and security risk for the bank in assessing an application for funding. A traditional sheep and beef farming operation seeking to convert from flood to spray will require lending over a term something in the order of 20 years. That is the current context for many of MIC's farmer shareholders and is a constraint on MIC's ability to respond to regulatory change.

Infrastructure Change

24. I predict that if the achievement of the Taieri FMU vision requires more water to be passed across the Paerau Weir than MIC's consents currently require, then there are in substance only two options for MIC's shareholders:

    (a) Reduce the irrigated area of farms.

    (b) Invest in additional storage capacity to preserve the current irrigation reliability.

25. The problem here for MIC is that only farmers have to pay to achieve the vision. For everyone else, the vision is optional. There is no public funding available to invest in the assets that may be required to pass more water down the Taieri River (if that is what the public wants).

26. To take an example, if the minimum flow at Paerau was raised to 2,000l/s, that would require releasing an additional 1,000l/s from stored water compared with current requirements. That in turn would require something in the order of 20Mm^3 additional storage per irrigation season to supply. Or in other terms, would completely wipe out the benefit of the additional storage created (and funded by farmers) when the dam was raised in 2006/7. This would also require the flooding of yet even more land for irrigation storage and would bring with it a range of new and challenging environmental issues to consider.

27. I doubt that under current economic conditions, farmers would be in a position to raise private capital for building infrastructure that does not lead to greater profitability, and therefore provide the basis for a commercial investment business case.

28. The Taieri Vision has a “do by date” of 2050 in the notified version. That is 28 years away, or effectively one generational farming cycle and one mortgage lending cycle for each farm. MIC’s shareholders need to know what is required to deliver the visions because it will likely take us 28 years to understand, design, fundraise, and deliver capital works against our farmers’ balance sheets.

Other Unintended Consequences

29. What I have described is typical of the Central Otago farming sector, which is still dominated by multi-generational family businesses. Traditionally, those farming businesses rely on the banking sector for access to working capital. There are some that have sufficiently strong balance sheets to enable using existing capital resources but those are relatively few. Most irrigation developments are funded by bank debt.

30. I am concerned about, and I am starting to observe, another effect of risk and uncertainty on farming families. That is the transition of sheep

and beef farms from owner operated family businesses to syndicated investment vehicles. This is not unlike the 1980's "Queen Street Farmer" phenomenon. Where farming families are forced to confront the need for introducing capital, their options are either long term secured debt or to bring in investor capital. Investor capital usually takes the form of syndicated ownership structures where private capital is introduced to a farm rather than using the banking sector.

31. There is nothing inherently wrong with a syndicated farm ownership structure. However, in Central Otago much of the specialist knowledge required to farm in dry, hot (and cold) farming environment lies in the families that have been farming in the area for generations. Those families tend to have a long-term view of farm performance and are prepared to take the good with the bad. In broad terms, intergenerational farming families tend not to work their asset to its maximum potential performance (in terms of stocking rates) all of the time because of the climate and market (product price) fluctuation risk to the farming enterprise.

32. By contrast, private investor syndicates tend to be operated on more traditional commercial lines reflecting the perspective and return expectations of the people putting up capital. Syndicated farms are under pressure to return dividends to people not living on the land. This has a tendency to lead to intensification. It also tends to lead to a loss of knowledge and experience about how to farm successfully in Central Otago as farm managers are salaried employees.

33. More recently still, I am observing corporate acquisition of dryland properties for carbon farming investment products. Pine trees do not require irrigation. In the short term (10 years on current carbon price forecasting) return on carbon farming through carbon credits vastly out-performs dryland sheep and beef. The Taieri FMU vision doesn't say anything about pine trees, but I am confident that the community does not want carbon farming in the upper Taieri, yet that may be one consequence of reduced access to freshwater for farming. It is a case of being careful what you wish for. So far as I can tell, relatively little thought has been put into this as a potential consequence.

Date: 23 November 2022

J T Anderson

General Manager – Maniototo Irrigation Company Limited