

## Introduction and Background

1. My name is Leigh Hamilton. I am a farmer living at Ngapara in North Otago. Our property is located in the North Otago downlands area and is fully irrigated as part of the North Otago Irrigation Scheme.
2. I will present evidence today in my capacity as vice chairman of the North Otago Irrigation Company (NOIC)
3. The NOIC scheme drives water from burtons pond via twin 3000 hp pumps through approx 90 kms of pipe delivering water to 75 offtakes to irrigate 10,000 hectares of downlands with contour variation of up to 200m. This is a large and complex structure that is not easily turned on and off.
4. NOIC water is all piped and metered to farm and all on farm irrigation is spray. This means all water is accounted for and applied with optimal efficiency.
5. With further development the scheme is capable of delivering water to 20 000ha's of land in the North Otago downlands area.
6. Currently the scheme is servicing approximately 8 500ha's of land with a further 1,500ha's to be added this season, and 6 000ha's in the planning stages to be commissioned in the next two to three years

## Reliability of Supply

7. In order for these investments to be made NOIC needs assurance that it has very reliable access to water. The cost of delivering water under our current new initiatives is \$1,400 per ha per year. This is an extremely high price, and is not affordable for all farmers. If reliability of water becomes a significant issue, nobody will invest. It is simply uneconomic.
8. The NOIC scheme operates with an application rate of 0.4lt/ha/sec. This is to keep design capacity and hence costs to an affordable level. This design capacity is only appropriate with the most efficient use of water on farm. The down side of an efficient system is that it has no capacity for catch up, such as would happen after a restriction event. We are designed on having reliable access to water. It is fundamental to economic irrigation development.
7. At the time of planning of the scheme it was taken into account that there was a large area of land that would require irrigation at a later date. To safeguard that opportunity the Waitaki District Council loaned the Company \$10 Million to overbuild the primary infrastructure. The servicing of this loan lies with existing shareholders. If future development does not continue the viability of existing shareholders will be severely compromised and the community's aspirations will not be fulfilled.

## Flow Regime

8. The application of a flow regime, like that proposed by Hunter Downs Irrigation to the river, seriously undermines the viability of development beyond 10 000 ha's (Stage 1). Stage 2 (Additional 10 000 ha) may be subject to a level of water reliability (56% paragraph 10, 11 Mrs Camerons evidence) that would be too low for investment to take place.
9. NOIC in conjunction with LWIC and MGI submitted in opposition to the HDI application sighting the risk and implications of reduced levels of reliability.
10. NOIC would support a minimum flow condition in the river of 100 cumecs from the dam to the sea.  
We support the proposed flow regime outlined by Mr Dave Stewart in his evidence to this hearing. The reason for this being that it delivers reliability of supply and I have outlined why this is crucial for us, especially as we develop stage 2.
11. NOIC is one of the most modern and recently commissioned irrigation schemes in the Waitaki Valley. It is an operative example of what regional council considers to be the most efficient use of water for the purpose of irrigation.
12. Optimal efficiency comes at a price however because NOIC is one of the most expensive irrigation schemes to be built and operated.
13. It's viability and therefore future is dependent on reliable water