

IN THE MATTER OF the Resource Management Act 1991
(Act)

AND

IN THE MATTER OF hearing of the submissions and further
submissions on the proposed Timaru
District Plan: Hearing D – Open Spaces,
Hazards and Risk and Natural
Environment.

**STATEMENT OF EVIDENCE OF TONY MCCORMICK ON BEHALF OF
RANGITATA DIVERSION RACE MANAGEMENT LIMITED**

Introduction

1. My name is Tony McCormick. I am the Chief Executive Officer of Rangitata Diversion Race Management Limited (**RDRML**), which is based in Ashburton.
2. RDRML is a water conveyance company which operates the Rangitata Diversion Race (**the Scheme**) for the benefit of its shareholders and customers who utilise the water for irrigation, hydro-generation, supply of stockwater and environmental enhancement.
3. The purpose of my statement of evidence is to provide the panel with some background information on RDRML and the Scheme.
4. I confirm that I am authorised to provide evidence on behalf of RDRML.
5. In this evidence I cover:

- (a) The Scheme and its operation, with a particular focus on those parts of the Scheme which fall within the Timaru District; and
- (b) An outline of the maintenance and repair operations associated with the rock weir in the Rangitata River near the Klondyke intake.

The Scheme

- 6. The Scheme diverts water from the Rangitata River into a 67km long canal/race that starts at the Rangitata River, below the gorge at Klondyke, and journeys northward across the top of the Canterbury Plains to its discharge point on the Rakaia River at Highbank.
- 7. Whilst most of the Scheme's associated infrastructure is located within the Ashburton District, the rock weir at the Klondyke intake stretches the width of the Rangitata River and is partially located in the Timaru District.
- 8. Construction of the Scheme started in 1938 and it was completed in 1945 when the Highbank Power Station at the end of the Scheme on the Rakaia River was commissioned. The Scheme was built to provide water to Mid Canterbury for irrigation, hydroelectric generation and stockwater. That remains the primary purpose of the Scheme today, with over 100,000ha of irrigated land, two hydroelectric power stations and an extensive stockwater network supported by the Scheme. The Scheme is often referred to as 'the lifeblood of Mid Canterbury', and a recent economic study determined the Scheme supports an estimated \$612m of value-add (GDP) to the economic activity in the region.
- 9. The Scheme has two river intakes – the main intake just below the Rangitata Gorge at Klondyke and a secondary intake off the Hakatere/South Ashburton River below the inland scenic route road. The Scheme operates continuously, all year round, and because of its multi-use capability, all the water is fully allocated and used for either irrigation, electricity generation or stockwater,

depending on irrigation demand. In the winter months (May to August) there is no irrigation from the Scheme and, after stockwater needs are met, all the water is used for electricity generation and discharges to the Rakaia River via the Highbank Power Station.

10. The main intake at Klondyke diverts part of the river flow into the Scheme's canal through a robust concrete structure on the left/north bank of the river. To be able to operate over the wide range of river flows, the intake facility includes a level control weir that extends across the full width of the river. This weir is constructed entirely from rocks and gravels from within the riverbed. Towards the right/southern side of the weir, a gap in the weir provides a navigable channel for fish and recreational river users such as kayakers and rafters.
11. The following two pictures illustrate the Scheme's intake and the rock weir.



Fig 1: Aerial view looking downstream of the Scheme's intake at Klondyke. The intake is on the left bank under the six concrete pillars. The Scheme's canal can be seen running parallel to the river approximately 150m downstream of the intake. The rock weir is clearly visible, extending across the river with the

navigable 'gap' located approximately two-thirds of the way across. In this illustration, the weir is in need of some maintenance.



Fig 2 This photo is taken at river level looking out across the rock weir. The intake structure is on the right of the picture. The level control function of the weir is evident – the water level behind the weir is higher than below it – and the navigable gap can be seen towards the far side of the weir. In this illustration, the weir has been recently maintained.

Maintenance

12. The weir is intended to be 'fusible', meaning that when the river is in flood, a significant amount of the weir will be washed away to provide an unrestricted flow path for the flood waters. The last major flood, in December 2019, washed out approximately 65% of the weir. If the weir is eroded by a flood event, we wait until the river flow has receded enough to enable safe access with heavy machinery to the riverbed and rebuild the weir by reinstating dislodged rocks and infilling with gravel.

13. If the weir is not maintained, then at low river flows, the water level behind the weir gets too low to divert enough water into the Scheme to provide for the irrigation, hydrogeneration and stockwater requirements.
14. RDRML has a land use consent from the Canterbury Regional Council for the maintenance and reconstruction of the rock weir.¹ A copy of this consent is attached to my evidence as Appendix One. This resource consent allows RDRML to deposit material on, excavate and disturb the Rangitata River, and to divert water within the riverbed for purposes associated with the aforementioned maintenance and reconstruction of the rock weir.
15. The resource consent allows RDRML to disturb the bed of the Rangitata River for maintenance both 1km upstream and downstream of the weir. Whilst in reality, it is not typical that rocks and gravel are removed from the riverbed at the maximum 1km limit, these upper limits demonstrate that riverbed disturbance associated with the weir's maintenance is not confined to the footprint of the weir. The rock weir's height is limited by conditions in the resource consent to the level of the concrete intake caissons, which sit at a height that is greater than 2m above the ground level of the riverbed.
16. The Water Conservation (Rangitata River) Order 2006 (WCO) provides for the maintenance of the Scheme's rock weir at Klondyke. Clause 8 Restrictions on damming of waters, prohibits consents or rules authorising the damming of the river but provides, in Subclause 8(3), that "Subclauses (1) and (2) do not apply to the maintenance authorised by the Canterbury Regional Council of existing rock weirs and river works to the same level and extent as occurring as at 1 January 2000 ..."
17. The following three images illustrate the fusible aspect of the weir and the typical post-flood maintenance activity.

¹ CRC011239.



Fig 3 View of the Rangitata River in flood (Dec 2009). The rock weir is fully submerged and approximately 65% of the weir was eroded by this event.



Fig 4 An excavator replacing rocks onto the right abutment of the rock weir.



Fig 5 Recovering large rocks downstream of the rock weir to be re-placed on the weir.

Conclusion

18. The Scheme operates today as it was intended when it was commissioned in 1945, providing significant economic benefit to the Mid Canterbury region through the continuous supply of water for irrigation, hydroelectric generation and stockwater.
19. The rock weir in the Rangitata River is an integral part of the Scheme operation, and its low-impact design requires regular maintenance after high-flow events.

Tony McCormick
25 October 2024

Appendix One

10/2/24, 3:13 PM

Consent search | Environment Canterbury

Details for CRC011239

Record number	CRC011239	Client name	Rangitata Diversion Race Management Limited
Consent location	Rangitata River Bed, RDR KLONDYKE	Status	Issued - Active
To	to deposit material on, excavate and disturb the bed of the Rangitata River, and divert water within the riverbed, for the purpose of maintaining and reconstructing the rock weir, Klondyke intake structure and causeway.		
Commencement date	12 Feb 2005		
Date this record number was issued	12 Feb 2005		
Permit type	Land Use Consent (s13)		
Record type	New Consent		
Expiry date	12 Feb 2040		
<p>Please note there has been a change to how we represent the date fields. The 'Date this record number was issued' is the date this version of the consent was issued. The 'Commencement date' is when the original version of this consent was issued as per s116 of the Resource Management Act 1991.</p>			

- **1** The average height of the rock weir shall not exceed 365.5 metres above mean sea level (the height of the concrete intake caissons).
- **2** The reach of riverbed disturbed by maintenance works shall be restricted to 1000 metres upstream and 1000 metres downstream of the rock weir.
- **3** The Canterbury Regional Council shall be notified within 48 hours of exercising this consent on each and every occasion that his consent is exercised.
- **4** The activities shall not significantly impede the passage of fish in the main stem of the Rangitata River.
- **5** The term of this consent shall be 35 years.
- **6** Notwithstanding the provisions of section 125 of the Act, this consent may be first exercised up to 35 years after the date of commencement of the consent. If at any time the consent holder does not exercise this consent for a continuous period of two years, the consent shall not be cancelled under section 126 of the Act.

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