

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of the submissions and
further submissions by
Rangitata Diversion Race
Management Limited to the
Proposed Canterbury Land
& Water Regional Plan

STATEMENT OF EVIDENCE OF BENEDICT RODNEY CURRY

1 INTRODUCTION

- 1.1 My name is Benedict Rodney Curry. I am the Chief Executive Officer of the Rangitata Diversion Race Management Limited (**'RDRML'** or **'the Company'**), and I have been employed in this role for five years.
- 1.2 I am also a community member of the Ashburton Zone Committee¹ and since it was established in September 2010, I have been extensively involved with the formulation of the Ashburton Zone Implementation Plan (**'the Ashburton ZIP'**). The Ashburton ZIP seeks to implement the goals and actions of the Canterbury Water Management Strategy (**'the CWMS'**) within the Ashburton District and links with other zone programmes throughout Canterbury.
- 1.3 I am also the representative from the Ashburton Zone Committee to the Regional Water Management Committee, which considers regional issues of environmental restoration and repair, land use impacts on water quality, and water storage, distribution and efficiency options.
- 1.4 This evidence is in support of the submissions and further submissions lodged by RDRML to the Proposed Canterbury Land and Water Regional Plan (**'the pL&WRP'**).
- 1.5 I confirm that I am familiar with this matter and that I am authorised to present this evidence on behalf of RDRML.

2 ROLES AND RESPONSIBILITIES

- 2.1 My duties include managing the operation and strategic development of the Rangitata Diversion Race (**'the race'** or **'RDR'**) and its infrastructure. This involves the economic and efficient management of the race for the delivery of water to each of the four irrigation schemes it serves, as well as the Ashburton District Council for stock water and to TrustPower Limited (**'TrustPower'**) for electricity generation.

¹ For the benefit of the Committee, the boundaries of this zone are the Rakaia River in the north, and the Rangitata River to the south, and from the Main Divide to the sea.

3 SUMMARY OF EVIDENCE

3.1 My evidence will cover:

- a. An overview of the RDR and associated infrastructure;
- b. An overview of the consultation process that the RDRML has undertaken with the Canterbury Regional Council ('**CRC**' or '**Council**');
- c. Water Quality and Nutrient Management;
- d. Operation, Maintenance and Upgrading of existing consented infrastructure
- e. Reconsenting provisions;
- f. RDR efficiency improvements;
- g. Management of Effects;
- h. Surface takes and conversions to storage; and
- i. Conclusion.

4 OVERVIEW OF THE RDR AND ITS ASSOCIATED INFRASTRUCTURE

4.1 RDRML is a water supply company responsible for the (i) delivery of water to its shareholders, and (ii) maintenance, control and management of the RDR and its associated structures. The 67 kilometre long race, which is located wholly in the Ashburton District, provides water to:

- a. The Mayfield Hinds Irrigation Scheme, which can irrigate up to 44,900 hectares of land;
- b. The Valetta Irrigation Scheme, which can irrigate up to 13,245 hectares of land;
- c. The Ashburton Lyndhurst Irrigation Scheme, which can irrigate up to 36,341 hectares of land;
- d. The Montalto Hydroelectric Power Station, which has an installed generation capacity of 1.8MW;
- e. The Highbank Hydroelectric Power Station, which has an installed generation capacity of 28MW;
- f. The Ashburton District Council for stock water purposes; and
- g. Barrhill Chertsey Irrigation Limited ('**BCI**') which has an agreement in place whereby the RDR facilitates the supply of water to BCI shareholders. BCI can irrigate up to 40,000 hectares of land.

4.2 Put simply, the race takes water from the Rangitata and South Ashburton Rivers at a maximum rate of 35.4 cubic metres per second, and delivers it to the two power stations and to the four irrigation schemes. The RDR is the largest race that supplies water for irrigation in New Zealand. Its supply of water to the two hydroelectric power stations enhances the efficiency of its operation.

- 4.3 In this regard, the rural economy in Canterbury is reliant upon water being provided, or conveyed to irrigation, hydroelectric power generation schemes and rural based industries. The use of water clearly generates significant social and economic benefits and the RDR, as a conveyance company, plays a considerable role in providing for the social and economic well-being of the Canterbury regional economy. The RDR is a vital link in supplying irrigation to currently approximately 80,000 hectares across 500 farms and a potential maximum of 134,000 hectares of farmland in the Canterbury Region and in doing so it makes the farming of the area significantly more productive which in turn has a major economic benefit for the Canterbury Region. In reinforcing the positive benefits derived from the RDR, I note that the Ashburton District economy comprised \$946 million GDP for the year ending March 2005. Twenty-five percent of this total, or approximately \$236.5M², resulted from agricultural activities enabled by RDRML.
- 4.4 Operationally, the RDR is unique given that it plays a dual role in abstracting and conveying water. That is, it is not an end user of this water, but simply a conveyance infrastructure to supply irrigation, stockwater and water for power generation. Reflecting this, during the period of September to May priority is given to meeting irrigation needs. Any water surplus to those needs is retained in-race and used for power generation. For the remaining winter months, May to September, the irrigation schemes are shut down and all water is used solely for power generation purposes. Importantly, a key function of the RDR is to ensure that water is available all year round for stockwater supply and forms a cornerstone of the Company's responsibilities to its shareholders (including the Ashburton District Council owned Ashburton Stockwater Supply system).
- 4.5 The RDR does not fall comfortably within the definition of an irrigation scheme or a hydroelectric power scheme. As such the Company has sought submissions that recognise the unique nature of the RDR and schemes of a similar ilk through the inclusion of Principal Water Supplier into the definitions section of the Regional Plan and within associated plan provisions. Further, reinforcing the unique nature of the RDR, I note that a Principal Water Supplier overlaps with both first and second order priority values provided for under the Canterbury Water Management Strategy ('CWMS') (and Policy 4.4 of the Regional Plan), given that it is responsible for conveying water for community stockwater, as well as irrigation and for hydroelectric power generation.
- 4.6 As discussed in the evidence of Mr Bryce (refer paragraphs 7.31 to 7.36, more specifically paragraph 7.36), I note that the Officers' Report has recommended including reference to Principal Water Supplier into some of the Plan provisions, however not all. From the RDRML's perspective, for the RDR to be appropriately recognised and provided for within all of the relevant provisions of the Regional Plan, this definition should be applied to all relevant policies and rules that may be directly applicable. A case in point is the reconsementing provision contained within Policy 4.48 of the Plan, which does not currently provide for the RDR.
- 4.7 Together, the RDR, the irrigation schemes (and associated stockwater networks), and the hydroelectric power stations are important assets, not only to Canterbury, but New Zealand as a whole. Given this, RDRML is concerned with ensuring the provisions of the pL&WRP appropriately provide for the RDR,

² Evidence of Phillip Donnelly on behalf of TrustPower Limited, Rangitata Diversion Race Management Limited, and the Irrigator Forum dated March 2009 and presented at Hearing 31 of the Proposed Canterbury Natural Resources Regional Plan

its associated irrigation schemes, the hydroelectric power stations that it serves and its other water uses.

5 CONSULTATION

- 5.1 The RDRML has proactively involved itself in consultation regarding the pL&WRP since the CRC announced that work on the plan was to commence. The RDRML provided comments to the draft plan, lodged submissions and further submissions to the proposed plan, and met with CRC representatives to discuss concerns on a one-to-one basis, as required. Essentially, the concerns of the RDRML surrounded those key issues that should be included in the operative L&WRP.
- 5.2 Essentially, five key issues were identified at the outset by the RDRML. These included:
- (a) the protection of existing lawfully established activities (including the need for consenting provisions to be included within the Plan);
 - (b) water quantity allocation;
 - (c) water efficiency and transferability;
 - (d) nutrient management;
 - (e) water quality.
- 5.2 The aim of the RDRML's consultation was to keep differences of opinion to a practical minimum during the pre-consultation hearing process. The RDRML's early involvement and collaborative approach to consultation demonstrate a willingness to reach solutions that will improve the implementation of the L&WRP and assist the Company to manage its infrastructural assets moving forward.

6 WATER QUALITY & NUTRIENT MANAGEMENT ISSUES

- 6.1 Water quality is an issue of growing concern to the Canterbury region and is of critical concern to the RDRML and its associated irrigation schemes. The RDRML is supportive of an approach that seeks to improve water quality in a sensible and robust way. However, the RDRML is concerned with the approach adopted by the Council in advancing with the management of water quality embodied within Table 1, as well as the manner in which the nutrient management zones in the pL&WRP have been development.
- 6.2 The RDRML has a critical concern around how water quality is to be managed by the pL&WRP. This centres on both the RDR (and issues around compliance with discharge limits that are to be set for discharges to surface water bodies) as well as the management of the associated irrigation schemes which the RDR supports. This later point is linked to nutrient management processes and issues linked to nutrient discharges to both groundwater and surface water bodies associated with irrigation discharges to land.
- 6.3 The RDRML takes its responsibilities in managing issues around nutrient discharges very seriously and has been proactive in voluntarily adopting

Audited Self Management approaches as part of the ongoing operation of the irrigation schemes. This approach has been advanced before the pL&WRP provisions were notified and reflects the Company's stance on managing nutrients discharges associated with its irrigation schemes and RDRML shareholders.

RDRML is developing a web-based ASM programme, the cornerstone of which will be the Farm Environmental Plans, consistent with Schedule 7 of the pL&WRP. These Farm Environmental Plans will be developed and audited by RDRML as the consent holder (including punitive non-compliance measures), whilst providing for external audit in addition in order to allow the Council visibility and reassurance that the ASM programme is robust and transparent.

- 6.4 Returning back to the Company's submissions to the water quality provisions of the pL&WRP, these are centrally focused on the aspirational nature of some of the standards set within Table 1 (given the way on which they were originally developed under the Natural Resources Regional Plan) and have been carried through into the pL&WRP. This is a matter that Mr Bryce covers in Section 15.0 of his evidence.
- 6.5 The Company made a submission to Table 1a (All river management units) relating to the wording embodied within this part of Table 1a which states that the *"natural colour of the water in the river shall not be altered"*.
- 6.6 While the RDRML has existing consents to discharge sediment laden water to the Rangitata River from the RDR SandTrap (discussed in detail at paragraph 14.4, Consent CRC011237 as attached within Annexure G, and paragraphs 15.4 to 15.14 of Mr Bryce's evidence), the Company is concerned that the wording expressed within Table 1a could pose significant issues for any re-consenting to enable the continued operation of this critically important sediment management infrastructure. As it is currently worded, this provision completely ignores discharges from legally authorised infrastructure such as the RDR. As such, this is of concern for the future operation of the RDR (given the importance of the RDR SandTrap in removing sediments out of the conveyance system). This is also an important point when considering other provisions within the Regional Plan which appear to ignore the operational requirements of schemes such as the RDR. An example of this is Rule 5.99.
- 6.7 The Company has consent (CRC011241) to discharge water and contaminants from the RDR SandTrap to the Rangitata River via a spillway. Condition 2 of this consent states that the discharge of sediment and water in terms of this permit may only be exercised whenever the flow in the Rangitata River, at the Klondyke recorder site (map reference J36:666-149), is greater than 140 cubic metres per second and reflects an outcome that any sediment discharged back into the river is done so in a manner that takes full advantage of higher flows and the reasonable mixing of water.

7 OPERATION, MAINTENANCE AND UPGRADING OF EXISTING CONSENTED INFRASTRUCTURE

- 7.1 The RDRML recognises that it is important to manage natural and physical resources so as to maintain biophysical and metaphysical values under the Resource Management Act 1991 ('RMA' or 'the Act'). The Company is concerned, however, that together with other plans that are currently being

developed in the Canterbury region, the pL&WRP may affect both the operation and the maintenance of irrigation schemes developed within the mid-Canterbury region. The Company considers that the social and economic benefits derived from the operation of the RDR should not be unduly fettered through the imposition of a restrictive policy framework within the pL&WRP. In this regard, providing for the maintenance and upgrading of infrastructure will help to improve the efficiency of the RDRML.

- 7.2 When the RDR was completed in 1944, it was not lined and consequently over time some areas of the RDR have leaked. The RDRML has been progressively upgrading sections of the RDR to make it more efficient for conveying water. This has included lining the existing water race to reduce, if not eliminate the existing water seepages. Further upgrade works are programmed to occur during the Company's planned shutdown periods. This is when the most significant maintenance and upgrade activities are undertaken and involves the shutting down and emptying of the canal. I highlight these considerations as they emphasise the ongoing efficiency improvement programme that is undertaken by the Company and the importance of being able to continue to readily undertake such activities.
- 7.3 The RDRML made targeted submissions that provided for the effective and ongoing operation, maintenance, development and upgrading of existing lawfully established infrastructure. These submissions sought to ensure that the pL&WRP recognise the operational, maintenance and upgrading requirements of existing lawfully established and consented infrastructure activities. One way of achieving this would be to include provisions within the L&WRP that allow RDRML to undertake activities on a permitted basis or at the very least on a controlled activity basis given that this still maintains a high level of certainty when advancing investment decisions governing maintenance works.
- 7.4 Mr Bryce expands on this point under Section 6.0 of his evidence, where he notes that the Reporting Officer has accepted a number of amendments which will better provide for maintenance activities. That said, the Company is concerned that the manner in which maintenance and upgrade activities are provided for within the Plan are applied in a consistent way. The evidence of Mr Bryce (at paragraphs 6.4 to 6.11, specifically 6.6 to 6.9) identifies concerns that this may not be the case. Certainly, from the Company's perspective where the effects generated by different types of infrastructure are the same, they should be treated in the same way. A case in point is the manner in which amended Rule 5.117 and Rule 5.132 are applied when addressing maintenance and upgrading works.
- 7.5 While I acknowledge that the Plan (as amended by the Officers) is more permissive, the Company is concerned that the L&WRP does not unduly restrict the ongoing operation, maintenance, repair, upgrading and reasonable development of the RDR, the associated irrigation schemes and power stations. Any undue restrictions faced by this regionally significant infrastructure will detrimentally affect the way in which the schemes operate.

8 RECONSENTING OF EXISTING INFRASTRUCTURE

- 8.1 The RDRML has experience in reconsenting existing infrastructure. This experience suggests that reconsenting is a time-consuming and costly process. The resource consent process associated with the reconsenting of the RDR costs in excess of five million dollars, and took approximately nine years to complete. Ultimately, RDRML received consent on terms that were acceptable to the Company, without the need for a hearing at the Environment Court. While the outcome is pleasing, the reconsenting process was advanced under planning provisions, which were restrictive and provided the Company with little or no certainty. As such, the Company as part of its initial discussions with the Council sought to provide for planning provisions that provided for greater certainty for those infrastructure providers through the inclusion of rules that specifically addressed reconsenting processes (including rule bundling so as to make consent renewal processes more transparent and more efficient). The RDRML considers that reconsenting lawfully established infrastructure should be a controlled activity to reflect this outcome.
- 8.2 The lack of such provisions within the Plan as notified is disappointing and is reinforced within the relief sought within submissions 18, 32 and 51. These submissions seek the amendment of provisions within the pL&WRP so as to include Principal Water Supply schemes and the consideration of efficiency when reconsenting water takes and existing infrastructure. More particularly, the amendments sought also aim to provide a greater level of certainty to those reconsenting existing infrastructure. Based on the Company's experience, while the assessment of environmental effects is no less rigorous, normally when reconsenting large scale infrastructure such as the RDR, the effects of the infrastructure are well known and understood. To this end, the Company considers that a controlled activity status applied to renewal processes to be wholly appropriate in addressing the Company's submission to this issue.
- 8.3 As discussed in paragraphs 8.1 and 8.2 above, it is essential, in RDRML's view that the pL&WRP embody, expressly recognise and provide for the level of investment and benefits derived from the use of such infrastructure relating to any reconsenting process. Mr Bryce addresses this matter in more detail, at Section 7.0 of his evidence.

9 RDR EFFICIENCY IMPROVEMENTS

- 9.1 As discussed in Section 6 of this statement, the RDRML is continually implementing upgrade programmes as part of the Company's Asset Management Plan which outlines further upgrade works that are programmed to occur during the planned maintenance shutdowns.
- 9.2 Upgrading existing infrastructure, especially when dealing with infrastructure as large as the RDR, needs to be advanced in a manner that appropriately responds to the constraints in achieving a higher level of efficiency. One of the key matters addressed within the Company's submissions and further submissions is the need to provide for efficiency improvements, where this is practicable to do so. Further, another central concern is that these efficiency improvements are not unduly constrained through having to address effects on parties who may rely on groundwater recharge influenced by leakages from existing schemes such as the RDR. Mr Bryce addresses these matters within Section 9.0 of his evidence.

- 9.3 The Company is concerned that in a number of areas, the Plan provides for a requirement that existing schemes are to implement 'significant and enduring improvements' as part of consenting processes and ongoing efficiency measures. It is the Company's opinion, that such outcomes may be difficult to achieve in all instances and fails to adequately consider the operational constraints of individual schemes, as is required under the Canterbury Regional Policy Statement 2013, which the Company was extensively involved with.³

10 MANAGEMENT OF EFFECTS GENERATED BY LARGE SCALE INFRASTRUCTURE

- 10.1 The Company is concerned that the Plan as notified and subsequent amendments made to the Plan's policy and rules, have the potential to generate significant operational constraints on existing infrastructure through the very low effects thresholds applied within the Plan. This is a matter that Mr Bryce discusses in some detail within Section 8.0 of his evidence, specifically paragraphs 8.6 to 8.16. The RDRML is concerned to ensure that the Plan applies appropriate recognition to the operational and functional limitations in managing effects generated by larger scale infrastructure and applying to activities involving the taking and discharging of water to water bodies and activities undertaken within waterbodies relating to the ongoing operation, maintenance and upgrading of infrastructure. The Company considers that presently, the Plan is too restrictive in setting an effects regime at an inappropriately low level that has the potential unduly constrain development.
- 10.2 A case in point is how the Council will assess lawfully consented discharges associated with the RDR as part of any future consenting processes and whether the thresholds set within some of these provisions will compromise or fetter a successful renewal outcome.

11. SURFACE TAKES AND CONVERSION TO STORAGE

- 11.1 While the Company's concerns relating to Section 13 of the Regional Plan will be set out in Hearing 3, a key matter that links back to the setting of flow and allocation regimes is the RDRML's concerns relating to the increase in the residual flow for the South Branch of the Ashburton River and its potential to adversely impact upon the reliability of the RDR. This is a critical issue for the Company and one that has the potential to adversely affect the operation of the RDR on the Ashburton River (South Branch).
- 11.2 Further, it is a desire of the RDRML to develop water storage within the RDR to improve the reliability of supply and it is for this reason that the company lodged submissions relating to surface water takes and conversion to storage. The Company sees water storage as a critical component of the RDRML's future investment aspirations and as such reinforces why the Company has submitted on key policies that address storage infrastructure.⁴
- 11.3 The RDR is a 'run of river' scheme, and currently has no significant water storage. The RDR is therefore currently wholly reliant on the available water taken from the Rangitata and the South Ashburton Rivers, which can be

³ Refer Policy 7.3.8 and 7.3.11 and 5.3.9

⁴ Refer to Objectives 3.11 and 3.15 and Policies 4.50 and 4.67.

subject to very low flows at different times of the year. The ability to store water at times when these rivers are subject to higher flows (or when irrigation demand is low) enhances both the reliability and ongoing functioning of the hydroelectric power generation and irrigation schemes that the RDR serves. Critically, this reliability in turn drives certainty in decisions (including investment decisions) that can then be made by parties that are reliant upon the water supplied by the RDR. For example, certainty in supply gives confidence to investors, be they farmers or generators to drive maximum efficiency out of the resource they have a permit to use. The advent of centre pivots, which have a high capital investment, but increase crop growth with more efficient use of water, would have been unlikely without security of water supply.

- 11.4 When advancing decisions to develop large-scale infrastructure projects, investment decisions underpinning these development processes ultimately rely on the certainty provided by clear and concise policy provisions governing infrastructure development. The RDRML is concerned to ensure that environmental flows and allocation regimes are appropriately managed. In this regard, the Company considers that all flows being abstracted by a consent holder (under a legally authorised consent) should be available for storage (at any time of the year) subject to managing any unacceptable adverse effects. As such, RDRML are seeking amendments to Policy 4.67, which in its current form does not clearly provide for the abstraction and storage of water over a 12 month period. Mr Bryce addresses this matter in Section 13.0 of his evidence.
- 11.5 The reason for this is expanded upon at paragraph 13.8 of Mr Bryce's evidence, however in short, given the "principally dual" nature of the conveyance services provided to the Company's shareholders, the RDRML does not want to be unduly constrained as to when it is able to abstract to storage. Presently, Policy 4.67 does not appear to promote this outcome.
- 11.6 Mr Bryce in paragraphs 13.1 to 13.8, of his evidence sets out further arguments in support of environmental flow and allocation regimes that apply year round. In summary, RDRML holds the opinion that abstraction for storage, should be enabled provided that it does not result in unacceptable adverse environmental effects. In turn, this would improve the operational efficiency of the RDR.
- 11.7 The Company has a desire to enhance the reliability of the regionally significant RDR with water storage at Klondyke. The Company sees this sitting within the regional concept for water harvest, storage and distribution specifically acknowledged within Schedule 16 (Regional Concept Plan), where the Ashburton Zone (and more specifically the area surrounding the RDR) is identified as a critical node in promoting storage and enhanced reliability and water supply.

12 CONCLUSION

- 12.1 It is evident that RDRML take the development of the L&WRP seriously and, as a result, have engaged proactively with CRC from the outset. The Company evidence provided explicitly states those key concerns of RDRML that remain unresolved. In summary, these concerns are as follows:

- a. The L&WRP should include a definition of Principal Water Supplier. Reference to a Principal Water Supplier throughout the L&WRP will provide for the interests of RDRML and others, such as Opuha Water Limited.
- b. The L&WRP should be amended so that the operation, maintenance and upgrading of existing infrastructure can occur as permitted or controlled activities. This will help to improve the efficiency of the RDR.
- c. The L&WRP should enable the consenting of existing lawfully established infrastructure as a controlled activity. Doing so would recognise the level of investment associated with large-scale infrastructure and provide a degree of certainty to water users.
- d. The L&WRP should enable the abstraction and storage of water for irrigation over both winter periods and high flows. This would improve the operational efficiency of the RDR.

12.2 In conclusion, I thank the Commissioners for their consideration of this statement of evidence and indeed the issues raised by Rangitata Diversion Race Management Limited in its submissions and further submissions to the pL&WRP.

Benedict Rodney Curry

4th February 2013