

IN THE MATTER

of the Resource Management
Act 1991

AND

IN THE MATTER

of submissions and further
submissions by Rangitata
Diversion Race Management
Limited to the proposed
Canterbury Land & Water
Regional Plan (pL&WRP)

STATEMENT OF EVIDENCE OF NIGEL ROLAND BRYCE (HEARING 3)

1.0 INTRODUCTION

- 1.1 My name is Nigel Roland Bryce. I am an Associate Director and Planner at Ryder Consulting Limited. My experience and qualifications are set out in my primary planning evidence for Hearing 1. As a consequence, I do not repeat them in this statement.
- 1.2 This planning evidence addresses those submissions and further submissions to the pL&WRP raised by the RDRML and as this relates to issues applicable to Hearing 3 (Section 13 – Ashburton).
- 1.3 I confirm that I have read and agree to comply with, the Code of Conduct for Expert Witnesses, as set out in the Environment Court’s Consolidated Practice Note.

2.0 STRUCTURE OF EVIDENCE

- 2.1 The RDRML made a number of submissions to the provisions contained within Section 13 of the Regional Plan. My evidence will address those submission and further submission points that are of particular concern to the RDRML. I do this by briefly summarising the response of the Officers to the submission points made by the RDRML and then offering my own evidence in relation to the same.
- 2.2 The issues addressed in this statement have been grouped into five topics, being:
 - a. Proposed minimum flow and the consequential loss of reliability for the shareholders of the Rangitata Diversion Race and associated irrigation schemes under Section 13 the Regional Plan;
 - b. Raising the minimum flow for instream values and the justification for this as it relates to the Ashburton River;
 - c. Setting long term minimum flows for the Ashburton River;
 - d. Alternative Minimum Flows proposed by other submitters;
 - e. Exemptions for stock water and community supply schemes from minimum flow and allocation regimes.

2.3 When preparing this evidence I have reviewed the following statutory planning instruments, reports and statements of evidence:

- The proposed pL&WRP;
- The Operative Canterbury Regional Policy Statement (2013) ('RPS');
- The Section 32 report supporting the pL&WRP ('Section 32 Report');
- The Environment Canterbury Section 42a Hearing 3 Officers' Report ('Officers' Report');
- The NIWA Report prepared by Mr Graeme Horrell titled 'Ashburton/Hakatere River flow and allocation regimes: Update of modelling results' and dated November 2012 (attached as Appendix 2 to the Hearing 3 Section 42a Report).
- The Canterbury Water Management Strategy ('CWMS');
- The National Policy Statement on Freshwater Management ('NPS FM');
- The Canterbury Natural Resource Regional Plan ('NRRP');
- The Resource Management Act 1991 ('the Act' or 'the RMA');
- The submissions and further submissions of the RDRML;
- The statement of evidence of Mr Ben Curry on behalf of RDRML;
- The statement of evidence of Dr Ryder on behalf of RDRML;
- The statement of evidence of Mr Richard de Joux on behalf of RDRML;
- The statement of evidence of Mr Andrew McFarlane on behalf of RDRML;

3.0 THE OFFICERS' REPORT

3.1 I have reviewed the Officers' report. The Officers have recommended a specific amendment to address the concerns raised by the RDRML. There are a number of additional matters raised in the RDRML's submissions that I consider should be addressed. I discuss these submissions in sections 4.0 to 8.0 of this evidence.

3.2 Further, I set out, within **Annexure A**, those amendments to the Regional Plan that I consider appropriate to address the concerns that I raise in sections 4 to 8 of this evidence.

3.3 Further still, I note, for completeness, that when I refer to the plan "*as amended*" I am referring to the recommendations proposed by the Officers (which the Commissioners are not obliged to accept).

4.0 PROPOSED MINIMUM FLOW, ASSOCIATED IMPLEMENTATION TIMEFRAME AND LOSS OF RELIABILITY FOR THE RDR

Policy 13.4.1 and Table 12

4.1 The RDRML made a submission¹ opposed (in part) to the water allocation provisions contained within Section 13 (Hakatere/Ashburton Sub Chapter) ('Section 13'). The RDRML did not oppose (in principle) the short to medium term allocation provisions² contained within Table 12 (Hakatere/Ashburton River Catchment Environmental Flow and Allocation Limits) ('Table 12'), which imposes an increased

¹ Submissions 197.92, 197.193 197.94.

² When I use the phrase short to medium term allocation provisions I am referring to the proposed changes to the RDR's residual flow regime that would have to be given effect to by August 2017.

minimum flow in the South Branch of the river (immediately downstream of the RDR) intake from October to April each year of 3,200 L/s. The Company did, however, ask that the following outcomes were provided for:

- (a) The minimum flow set within Table 12 as it relates to the RDR intake on the South Branch be retained at 2,300 L/s (as per the consented regime) until the Canterbury Regional Council can properly demonstrate that the RDR will not be adversely affected through any loss in reliability.
- (b) That Section 13 be amended to make it clear that a reduction in the Ashburton District Council stockwater take will lead to an increase in the minimum flow.
- (c) That Table 12 be amended to include a new implementation timeframe for the increase in short to medium term minimum flows for existing abstractors (including the RDR intake on the South Branch) and that this increase not come into effect until August 2017.

Officers' Report

- 4.2 The Officers address the RDRML's submissions in a number of locations within the report. In addressing concerns about loss of reliability, the Officers at page 49 of their Report state:

"The hydrological model undertaken by Graeme Horrell shows that an increased residual flow restriction and reduced A Block allocation for RDRML will help offset the higher minimum flow at SH1. The modelling shows that the reliability of downstream users will not be compromised by the increased minimum flow or by RDRML retaining a residual flow restriction."

The hydrological model undertaken by Graeme Horrell shows that an increased residual flow restriction coupled with a reduced A Block allocation for RDRML will not compromise the reliability of downstream users. The model also shows that high reliability can be achieved while maintaining a 6,000 L/s at SH1."

- 4.3 I note that the Officers have not actually addressed any loss of reliability to the RDR, only to downstream abstractors below the RDR Intake.³ This, in my opinion, is inappropriate, particularly given the size of the RDRML's take and the social and economic benefits that it brings.

- 4.4 Further, in addressing the implementation timeframe for the proposed allocation and minimum flow regime within Table 12, the Officers state at page 55 that:

"In its submission, RDRML highlights inconsistencies between the timeframes set out in Section 13, the Section 32 report and its discussions with the Zone Committee."

Figure 1 of this report illustrates the timeframe to meet the requirements of the flow and allocation regime and acknowledges that the increase in minimum flow may not occur immediately. It is understood that increased minimum flow will be implemented through conditions on any granted resource consent arising from any application that seeks to change consent conditions or for a replacement consent. The remaining resource consents will need to be reviewed to align their minimum

³ This is a point also raised within the evidence of Mr de Joux who notes that the Horrell report does not attempt to show the impact on reliability of the RDRML abstraction, and simply notes that it is difficult to describe the impacts on the RDR take. This appears to be a contradiction to section 9.2 of the S42A report which states that modelling undertaken by Graeme Horrell (2012) indicates that the increase in flows will work to maintain or, in some cases improve the existing reliability.

flows with Table 12. It is understood that the review of the consents will not occur immediately after the plan becomes operative.”

Comments

Potential Loss of Reliability to the RDR

- 4.5 The RDR and the infrastructure that comprises the RDR is a significant physical resource, servicing both irrigation and hydroelectric power scheme interests in mid Canterbury. In my opinion, when considered in the context of section 5(2)(a) of the Act, the RDR is an important physical resource and the taking of water from the Ashburton River is a keystone to ensuring that the RDR is able to operate.
- 4.6 The Regional Plan reflects this importance in Section 13, given that the RDR is specifically recognised as a large water take which delivers reliable water for a number of properties. The flow and allocation regime, therefore, does not restrict the RDR take in the same manner as other takes, given that it is expected that RDRML will play an active role in providing a reliable supply of water to irrigators.
- 4.7 It is therefore surprising to see that the Officers have not sought to resolve a number of the concerns raised in RDRML’s submissions. The evidence of Mr de Joux and Mr MacFarlane demonstrate that the Section 13 flow and allocation regimes have the potential to adversely affect the RDR.
- 4.8 In addressing the issue of reliability, Mr de Joux states *“[t]hat in simple terms to maintain the existing reliability of RDRML, the ADC intakes upstream of RDRML would need to be reduced by 900 L/s to offset the RDRML higher minimum flow.”*⁴
- 4.9 Currently, there is no rule framework seeking to directly reflect this outcome, which in my opinion, means that the outcomes within Table 12 are open to interpretation as to when and how they are implemented. Good planning practice dictates that provisions, especially rules, be unambiguous, such that it is apparent to the reader how an outcome is to be achieved. I seek to address this through the amended provisions set out within **Appendix A** to this statement.
- 4.10 Mr de Joux, in discussing the ADC stock water reduction required under Policy 13.4.1, states that in theory the ADC could reduce its abstractions from the North Ashburton River and other tributaries while still abstracting the full existing consented flow upstream of RDR intake (at the Brothers Intake and Stoney Creek Intake).⁵ Expanding upon this point, Mr de Joux states that if RDRML are required to meet the pLWRP minimum flows and there is no reduction in ADC takes upstream of the RDR intake, the average reliability of supply to RDRML will be dramatically reduced by a maximum -19% of days in March (based on flow rates taken from the South Ashburton at Mt Somers between 1979 – 2010 inclusive).
- 4.11 Further, Mr de Joux states *“[t]hat while the modelling undertaken by Mr Horrell for*

⁴ refer paragraph 33 of Mr de Joux evidence and states that the model assumes a total reduction of 544 l/s (510 l/s reduction from Brothers Intake, 34 l/s reduction from Woolshed Creek intake). I note, for completeness, that Mr Horrell’s assessment of the consented volumes for the ADC consent for Brothers Intake (consent SCY10033) of 1699 L/s and Stoney Creek (SCY710044) of 113 L/s within Table 4.2 of Mr Horrell’s report have now been changed under the new combined consent CRC012123 which was granted in 2012 (where the Brothers Intake was increased to 1955 L/s and Stoney Intake reduced to 110 L/s). For the purposes of the figures set out in Mr de Joux’s evidence, I understand these are based on the historical volumes consented under consents SCY10033 and SCY710044. In terms of the changes that I recommend under Appendix A of this evidence, I revert back to the consented volumes under CRC012123 (which I attach as Appendix B to this evidence).

⁵ refer paragraph 31 of Mr de Joux evidence.

the South Branch reduces the total abstraction from ADC intakes upstream of the RDR intake by 30%⁶, a reduction of this magnitude is still less than the 900 l/s increase in the minimum flow proposed for RDRML.” Reinforcing this point, Mr de Joux calculates that a reduction in ADC take of 560 l/s (slightly higher than the 544 l/s modelled by Mr Horrell), the average reliability during the irrigation season is still 7 percent less than the current reliability.

- 4.12 The figures set out in paragraphs 4.10 and 4.11 of this statement are based on averages over the entire record period⁷, however when applied to a dryer year, such as 2005, Mr de Joux reinforces that modelled effect of the proposed regimes shows that if there is no reduction in the ADC takes upstream of RDRML, the change of reliability of supply in 2005 would be -42% in November, -46% in December, -24% in March and -45% in May.⁸ Should the ADC takes above the RDR Intake be reduced by 560 l/s, the change in reliability of supply in 2005 would be -16% in November, -18% in December, -9% in March and -18% in May.⁹
- 4.13 Relying on the evidence of Mr de Joux, Mr MacFarlane states that an average loss of irrigation season reliability (8 months) in the Ashburton take of 12%, rising to 30.5% in drier years such as 2005 and this would equate to an economic loss from a permanently reduced reliability of \$220/ha, or 2.77% return on total farm capital and this could potential result in total on farm impacts of \$17,160,000.¹⁰
- 4.14 Mr MacFarlane notes that this potential economic impact is dramatically more than what was set out in the section 32 report,¹¹ which states “[i]n the short to medium term, minimum flows create a small change in reliability of supply for abstractors and do not have a major effect on farm production. A report (Ashburton River: Economic Impact of Changes to Flow Regime and Allocation) by Harris Consulting shows that irrigators will be better off with the proposed scenario except for the RDR. The impact on RDR is likely to be minor (<1% change) and the change could be cost approximately 2.5 million per year. It is envisaged that regional storage potentials would mitigate this effects in the future.”
- 4.15 Mr MacFarlane concludes that the total level of capital investment in RDR farms (on and off farm) over the past 10 years, and committed for the next three years, to be \$1.996 billion of \$28,000/ha on the existing 70,000ha.¹² In my opinion, this reinforces the RDR’s (including the associated irrigation schemes and generation assets) status as a significant physical resource. Equally, it highlights the cost (in terms of the ongoing investment) necessary to deliver efficiency gains as directed by higher order statutory planning instruments such as the NPSFM and the RPS. Lastly, it also reinforces the magnitude of any adverse economic impacts that may result if a loss of reliability to the RDR was to eventuate. Put another way, I believe that Mr MacFarlane’s evidence reinforces the potential for a loss in reliability to fetter and constrain the considerable infrastructural investment that has occurred, and that needs to continue for on-going development and efficiency improvements to be

⁶ The model assumes a total reduction of 544 l/s (510 l/s reduction from Brothers Intake, 34 l/s reduction from Woolshed Creek intake.

⁷ based on flow rates taken from the South Ashburton at Mt Somers between 1979 – 2010 inclusive.

⁸ refer paragraph 40 of Mr de Joux evidence.

⁹ refer paragraph 41 of Mr de Joux evidence.

¹⁰ At paragraph 24 of Mr MacFarlane’s evidence and is based on RDR irrigation schemes, under a piped scenario can irrigate 78,000 ha without further storage.

¹¹ at page 173 of the Section 32 report.

¹² At paragraph 26 of Mr MacFarlane’s evidence.

realistically achieved. I see this as adverse outcome, which has the potential to undermine those key policy outcomes¹³ geared towards delivery efficiency improvements to existing infrastructure.

- 4.16 In my opinion, Mr de Joux and Mr MacFarlane's evidence reinforces (a) the potential adverse effects on the reliability of the RDR and associated adverse economic impacts should the ADC not be required to reduce its takes above the RDR Intake by 900 L/s, and (b) the need for Section 13 being supported by a rule that seeks to give effect to this outcome in order to ensure that a loss of reliability for the shareholders of the Rangitata Diversion Race is avoided. I believe that the latter point is critical in ensuring that the proposed residual flow for the RDR does not negatively impact upon the RDR (and associated irrigation schemes) and the use of this physical resource.
- 4.17 As reinforced by the Officers, the reductions to the ADC's existing stock water abstractions (as reflected within Policy 13.4.1) is a critical component of the 'integrated package' reflected within Figure 1 (Implementation Timeline)¹⁴. The Reporting Officers' state "[t]he Ashburton flow and allocation regime can be viewed as an integrated package comprising a number of provisions deemed necessary by the community and stakeholders. The regime depends on the implementation of the package within the specified timeframes. If any one action (as directed by the policies) is not undertaken or is not in accordance with the specified timeframe, the whole package fails."¹⁵
- 4.18 Given the importance of each one of the actions set out by the Officers, it is surprising that the policy framework is not underpinned by a supporting rule framework which seeks to ensure that each action point is implemented in a coordinated and timely manner. Using Policy 13.4.1 as an example, currently neither the Regional Plan (as notified) nor the amendments to Section 13 recommended by the Officers incorporate a rule that seeks to ensure that the ADC's stockwater takes are reduced by 1st July 2015. Equally, there is no supporting methods that signal how this is to be implemented. Further, as reinforced by Mr de Joux, Policy 13.4.1 refers to the reduction in total stock water supplies generally and not in a site-specific manner that removes any question as to how the outcome sought is to be achieved. There is no rule framework (or indication within Table 12) that requires that the total ADC abstraction upstream of the RDR intake on the South Branch will be reduced or how this is to occur. As discussed above, this leaves it open for the reliability of the RDRML's existing take on the South Branch to be adversely affected.
- 4.19 In order to address the issues I have raised above, I have set out (in **Appendix A**), amendments to the existing rules, which seek to ensure that the ADC's existing takes above the RDR Intake are reduced by 900 L/s.

Implementation Timeframes

- 4.20 Another key issue raised by the RDRML is the timeframe and implementation of the flow and allocation regime proposed within Section 13 and the manner in which the Council proposes to implement the proposed flow and allocation regimes with

¹³ The NPS FM provides a clear emphasis on promoting both the efficient supply and use of water under Objective B3. Policy 7.3.11 (Existing activities and infrastructure) and Policy 7.3.8(2) of the RPS require improvements in water use efficiency and the Regional Plan through Policy 4.47 overlays key outcomes in increasing efficiency improvements.

¹⁴ set out on page 43 of the Officer's report.

¹⁵ Page 55 of the Officer's report.

respect to existing lawfully authorised takes.

Officers' Report

- 4.21 In its submission¹⁶, RDRML highlights inconsistencies between the timeframes set out in Section 13, the Section 32 report and its discussions with the Ashburton Zone Committee. The Officers address RDRML's submission at page 55. As set out in paragraph 4.4 of this statement the Officers reinforce that the implementation of the proposed flow and allocation will be advanced through a combination of changes to consent conditions, re-consenting and through reviews of existing consents.

Comments

- 4.22 I note that while helpful, Figure 1 sits outside of the Regional Plan and has no statutory weight in the context of setting the flow and allocation regimes for the Ashburton River. Other than Policy 13.4.1 (which is relevant to the reduction of the abstractions for stock water supplies by 1st July 2015), the implementation of the flow and allocation regime falls to Table 12, which itself, sits outside of the rules in Section 13.
- 4.23 Further, I note that the Officers rely on the fact that the flow and allocation regime will be implemented through a combination of changes to consent conditions, re-consenting and through reviews of existing consents. Currently there is no policy or underlying method/s supporting Section 13 that reflect this outcome. Therefore, the Regional Plan (as notified) and as recommended to be amended by the Officers, provides for no clear pathway setting out how this process will be given effect to and importantly, the timeframe for implementation of the increased minimum flow as this relates to the RDR Intake.
- 4.24 With respect to the review of existing consents, I assume here that the Council is proposing to rely on existing review conditions of those existing takes on the Ashburton River or alternatively section 128 of the RMA. I note that with respect to reviewing a consent for the purposes of aligning the consent with a new minimum flow or allocation rate the Council must rely on one of two processes:
- Either the review of an existing consent via a review condition already imposed on this consent; or
 - A review process advanced under section 128(1)(b) of the Act where there is a rule in the regional plan relating to maximum or minimum levels or flows or rates of use of water.
- 4.25 I have reviewed the RDRML and the ADC's existing resource consents to take water¹⁷ that are relevant to the Ashburton River and, in my opinion, the Council may be constrained in its ability to initiate a review via review of a condition attached to these existing consents.
- 4.26 I note that the review condition (condition 14) of the ADC water take (CRC012123) (attached as **Appendix B** to this statement) states that:

"The Canterbury Regional Council may, once per year, on any of the last five working

¹⁶ Submission 197.94

¹⁷ The RDRML's existing water permit CRC011245 and ADC water permit CRC012123.

days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment." [Emphasis added]

- 4.27 Based on the wording of Policy 13.4.1 (as amended by the Officers') any review of the ADC water take (CRC012123) to give effect to Policy 13.4.1 would be undertaken "[i]n order to increase the minimum flows in the river", not as a result of dealing with adverse effects on the environment as set out in condition 14. I also note that this consent was recently renewed (issued February 2012) and therefore the Council must have been satisfied that the abstraction rates set out in condition 1 were appropriate to achieve the purpose of the Act. I therefore question if the Council could rely on condition 14 to increase the minimum flows in the Ashburton River. For completeness, I note here that the RDRML's own water take on the South Branch (attached as **Appendix C** to this statement) does not contain a review clause (other than that relevant to address fish passage).
- 4.28 Alternatively, the Council would need to rely upon section 128 of the RMA to initiate this review process, which sets out the circumstances when consent conditions can be reviewed. Section 128(1) states "*[a] consent authority may, in accordance with section 129, serve notice on a consent holder of its intention to review the conditions of a resource consent—*
(b) *in the case of a coastal, water, or discharge permit, when a regional plan has been made operative which sets rules relating to maximum or minimum levels or flows or rates of use of water, or minimum standards of water quality or air quality, or ranges of temperature or pressure of geothermal water, and in the regional council's opinion it is appropriate to review the conditions of the permit in order to enable the levels, flows, rates, or standards set by the rule to be met; or..*" [Emphasis added]
- 4.29 Importantly, I note that the Council can only initiate a review under section 128(1)(b) where a regional plan has been operative which sets rules relating to maximum and minimum levels or flows or rates of use of water. In the context of Section 13, there are no rules that relate to these matters. As such, in my opinion, there would be limited scope for the Council to initiate a review of these existing consents in order to give effect to the flow and allocation regimes proposed with Table 12.
- 4.30 In order to address this matter, I have recommended a number of amendments to the rules supporting Section 13, which I set out in **Appendix A** to this statement. The amendments seek to provide for the following outcomes:
1. Introduce a new flow and allocation limit for the ADC takes above the South Branch RDR Intake and the timeframe that this is to be implemented by in accordance with Policy 13.4.1;
 2. Incorporate a new rule that refers to the Table 12.
 3. Introduce a method that sets out how the Council may advance a review of the existing resource consents in order to give effect to the flow and allocation limits set out in Table 12.
- 4.31 The proposed provisions that I set out in **Appendix A** to this statement seek to address the apparent shortcomings that I have raised at paragraphs 4.20-4.30.

- 4.32 To ensure that the Regional Council has the ability to initiate a review under section 128(1)(b) of the Act, I propose to include a new rule (new Rule 13.5.5) which requires the ADC to reduce its takes above the RDR Intake down to 1,165 L/s (which is combination of the Brothers and Stoney Creek Takes minus 900 L/s).¹⁸ To ensure that the Council also has the ability to initiate a review for all other takes that are subject to the flow and allocation regimes in Table 12, I have resited Table 12 into the rules and referred to Table 12 in my proposed Rule 13.5.5(b).
- 4.33 Underpinning new Rule 13.5.5 (set out in Appendix A) I have included a new method to Rule 13.5.5, which sets out the manner in which reviews under section 128 of the Act may be undertaken. Importantly, the method signals that the Regional Council may review the ADC Brothers and Stoney Creek takes in order to reduce these by 900 L/s (with either the Brothers take being reduced singularly or alternatively both takes being reduced collectively to achieve the 900 L/s reduction). The method signals that the review of existing consents may be commenced within six months of when the Regional Plan becomes operative and that the Regional Council may undertake a review of the ADC takes on the South Branch before 1st July 2015, which aligns with the outcome sought within Policy 13.4.1.
- 4.34 I note here that the recommended Rule 13.5.5 (set out in **Appendix A**) does not contain an activity class (which I understand is not required under section 76A of the Act), and is introduced purely as a mechanism to enable the Council to initiate a review process. Up until the Council proposes to initiate the review process, all existing takes would continue to operate under the conditions of their respective consents.

5.0 RAISING OF THE MINIMUM FLOW FOR INSTREAM VALUES

- 5.1 The RDRML opposed (in part) the water allocation provisions contained within Chapter 13 (Hakatere/Ashburton Sub Chapter). The RDRML submission identified that the proposed increase in the residual flow (and the associated period over which it is to be held) is promulgated on the basis of enhancing salmon passage. The Company, questioned whether the October to April period for increasing the residual flows is warranted and based on robust science.
- 5.2 The RDRML sought the deletion of the minimum flow for A permits of 3,200 L/s (October – April) and replace with the following;

*“3,200 (~~October~~ February – April)
2,300 (May – ~~September~~ January)”*

Officers' Report

- 5.3 The Officers state *“[t]hat RDRML’s submission refers to evidence provided by Dr Ryder as part of the NRRP hearings. The Officers’ state that the flow regime discussed at the NRRP hearings in 2010 is not identical to the regime set out in Section 13 of the Regional Plan. As set out in Section 8.1 of this report, the flow and allocation regime is to be considered as a package. The hydrological modelling undertaken by Graeme Horrell demonstrates that the residual flow, alongside the*

¹⁸ In terms of the changes that I recommend under Appendix A of this evidence, I revert back to the consented volumes under CRC012123 (which I attach as Appendix B to this evidence) and 1,165 L/s is the difference between the consented 1955 L/s at the Brothers Intake plus 110 L/s at Stoney Creek Intake minus 900 L/s (1955+110= 2,065 – 900 = 1,165 L/s).

other components of the package, will assist with the attainment of the key outcomes prioritised by the community.”

Comments

- 5.4 I note that Dr Ryder has considered the higher minimum flow requirement in the South Branch Ashburton River during October to April. I rely upon the evidence of Dr Ryder.
- 5.5 The section 32 report provides limited detailed ecological justification for setting the minimum flow in the manner proposed for the RDR Intake. Further, the Officers’ report does not introduce any further evidence to shed light on the ecological justification for setting the minimum flows at the RDR Intake. I note here that the section 32 report highlights that Mary Beech (CRC, Ecologist) recommended minimum flows for the Ashburton River based on RHYHABSIM model. Ms Beech's recommendations are appended to the section 32 report as Appendix 2 (at page 189). I note that Ms Beech’s Appendix 2 does not address or justify any ecological reason for setting the minimum flows at the RDR Intake, which I find concerning.
- 5.6 Notwithstanding the shortcomings of the ecological assessment underpinning the section 32 report, I note that Dr Ryder has undertaken an extensive review of background assessments addressing salmon passage in the Ashburton River and concludes that an increased minimum flow from October through to April (inclusive) is unnecessary to provide for salmon passage.¹⁹ Importantly, Dr Ryder also reinforces that that upstream adult salmon passage is stimulated by freshes and floods, which act as a stimulus for upstream migration by adult salmon and concludes that minimum flows may be less critical. Given these conclusions, I understand Dr Ryder supports the RDRML’s submission for the alternative increased minimum flow period of February to April.
- 5.7 In terms of the overarching statutory planning documents that are relevant to the setting of minimum flows and associated policy outcomes that seek to safeguard the life supporting capacity of ecosystems, of which salmon would form a part, the NPSFM, the RPS and objectives and policies of the Regional Plan are of particular relevance.
- 5.8 Objective B1 of the NPSFM seeks *“[t]o safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water.”*
- 5.9 Further, Policy 7.3.4 (Water Quantity) of the RPS states that *“[i]n relation to the management of water quantity: (1) to manage the abstraction of surface water and groundwater by establishing environmental flow regimes and water allocation regimes which:*
(c) protect the flows, freshes and flow variability required to safeguard the life-supporting capacity, mauri, ecosystem processes and indigenous species including their associated ecosystems...”

¹⁹ refer paragraph 3.7 of Dr Ryder’s evidence.

- 5.10 Policy 4.4 of the Regional Plan (as notified) seeks to ensure that water is managed through the setting of limits to maintain the life-supporting capacity of ecosystems as a first order priority.
- 5.11 As set out in paragraph 5.3, the Officers conclude that “*..the residual flow, alongside the other components of the package, will assist with the attainment of the key outcomes prioritised by the community.*” It is important to reinforce here that the Zone Implementation Programme (‘ZIP’) is a result of a period of local discussion and consultation, and the outcomes of the ZIP should not be seen to override the requirements of the Act or other higher documents.²⁰ I also note that the extent to which the ZIP represents the view of the community is also questionable given that it was largely informed through input with key stakeholders and has been formulated based on technical reports that have never been robustly scrutinised. That said, I note that while the ZIP seeks to promote the minimum flows in the river and that these need to be increased in a timely fashion, it also balances this by stating that this needs to be undertaken in a manner that does not undermine current reliability for abstractors.²¹
- 5.12 In my opinion, if the flow and allocation regimes of Section 13 are to be considered as an ‘integrated package’ then the importance of raising minimum flows to benefit instream values must be supported by a more detailed and robust assessment. This is particularly the case where the increase in minimum flows may constrain and fetter the social and economic benefits of the use of this water. Based on my review of the section 32, I consider that there is a lack of technical justification for the residual flow regime applying to the RDR Intake. Reinforcing this point, and as noted at paragraph 5.5 of this statement, Ms Beech’s Appendix 2 does not address or justify any ecological reason for setting the minimum flows at the RDR Intake, however the minimum flow of 6,000 L/s set for the Ashburton River at SH1 is largely derived to provide for salmon passage.²²
- 5.13 I note that the Act does not seek to protect all indigenous ecosystems. Section 6(c) of the Act provides for the protection of significant indigenous vegetation and significant habitats of indigenous fauna, while section 7(d) of the Act requires that particular regard be given to the intrinsic values of ecosystems and 7(h) requires particular regard to be given to the protection of the habitat of trout and salmon. Dr Ryder concludes that an increased minimum flow from October through to April (inclusive) is unnecessary to provide for salmon passage and supports the alternative regime advanced by RDRML in its submission. In my opinion, this appropriately addresses issues raised under section 6(c), 7(d) and 7(h) of the Act, on the basis that salmon passage will not be adversely affected by the residual flow sought by the RDRML.
- 5.14 On this basis, I consider that the amended period over which higher minimum flows are to occur, promoted by the RDRML, will appropriately safeguard the life-supporting capacity of ecosystems, including providing for salmon passage over the February to April period and will seek to give effect to the policy outcomes of the NPSFM, RPS and the Regional Plan, itself.

²⁰ I note that this conclusion was reinforced by the Commissioners to the Hurunui Waiau Rivers Regional Plan at paragraph 28.

²¹ Page 16 of the Ashburton ZIP and as reinforced within Aspect 1.2.8.

²² As per Appendix 2 of the Section 32 relating to Section of the Regional Plan.

6.0 SETTING LONG TERM MINIMUM FLOWS FOR THE ASHBURTON RIVER

- 6.1 The RDRML opposed the long term (10 year increase) in minimum flows, which seeks to increase the minimum flow to 10,000 L/s at State Highway 1 Bridge ('10,000 L/s at SH1'), were this to apply to the RDR.
- 6.2 The RDRML reinforced within its submission that there is no modeling work carried out to assess the flows that must be retained in the river, at or below the existing point of abstraction to achieve a minimum flow 10,000 L/s at SH1. There is also no scientific justification for it being advanced within Table 12. The Company further understands that the 10,000 L/s at SH1 is largely derived from the Proposed National Environmental Standard on Ecological Flows and Water Levels²³, which is not adopted and has no 'weight' under the Act.

Officers' Report

- 6.3 The Officers address the RDRML's submission and states:

"It is agreed that the current wording of the Policy does not reflect Table 12. However, it is expected that RDRML will be subject to a minimum flow of 10,000L/s from 1 August 2022. It is understood that a higher minimum flow is required to keep the mouth of the Ashburton River open, and all abstractors are required to adhere to the 10,000L/s minimum flow to enable this to occur."

RDRML also seeks that Table 12 is amended to ensure it is clear that the increase to 10,000L/s does not apply to the RDR take. As discussed in Policy 13.4.7 above, the 10,000L/s minimum flow is to apply to all abstractors. As such, it is recommended that the amendment sought is rejected."

- 6.4 Further, the Officers in addressing the submission of Ashburton Forest and Bird, as this relates to setting of a minimum flow of 10,800 L/s at SH1 states:

"One submission seeks that the minimum flow at the State Highway 1 recorder is raised to 80% of the 7DMALF (10,800L/s). The submitter has not justified why 80% of the 7DMALF is more appropriate, however it is noted that the requested minimum flow is consistent with the proposed NES for Ecological Flows. However, the proposed NES is on hold pending advice from the Land and Water Forum and in the absence of national guidelines and taking into account the impacts of a higher minimum flow on existing users' reliability, the proposed minimum flow of 10,000 L/s is considered appropriate. The submitter may wish to provide additional information in support of their submission."

Comments

- 6.5 As reinforced by Mr Curry (at paragraphs 6.1 to 6.4 of his evidence) the RDRML is opposed to a minimum flow of 10,000 L/s at SH1. This is largely due to the lack of technical evidence underpinning this long-term minimum flow and the potential implications that the raising of the flow regime to this level will have on the reliability of existing abstractors, including the RDRML and the broader adverse social and economic outcomes that this could cause.

²³ Herein referred to as 'pNESEF'

- 6.6 I note that the section 32 report²⁴ goes on to states *“Mr Horrell's hydrological model is based on the flow values shown as the New Regime in Appendix 1, ...The main aim of the model was to understand the catchment-wide flow requirements to achieve a flow of 6,000 L/s at SH1.”*
- 6.7 Further, the section 32 report²⁵ states *“there is no modelling work carried out to understand the contributing tributary specific minimum flow requirements to achieve a minimum flow 10,000 L/s at SH1. It is envisaged that the increase of SH1 minimum flow from 6,000 L/s to 10,000 L/s is likely to safeguard most ecological values in the Hakatere/Ashburton catchment.”*
- 6.8 I note that with respect to the Fish and Game submission identified at paragraph 6.4 of this statement, that the pNESEF has no legal status and as such there is no requirement for the Hearing's Committee to consider its contents. I note that the RDRML (under further submission to Save The Rivers Mid Canterbury Inc)²⁶ reaches a similar conclusion. However, based on my review of the section 32 report it would appear that the pNESEF has been used to inform the long term 10,000 L/s minimum flow at SH1.
- 6.9 The pNESEF states *“that for rivers and streams with mean flows greater than 5 m3/s – A minimum flow of 80% of MALF as calculated by the regional council and an allocation limit of, whichever is the greater of:*
a) 50% of MALF as calculated by the regional council
*b) the total allocation from the catchment on the date that the NES comes into force.”*²⁷
- 6.10 Within the LWRP default column of Table 1 within the section 32 report²⁸ it states that the *“7DMALF at SH1 is 13,460 L/s.* I note here that 80% of this flow equals 10,760 L/s which is similar to that proposed under the Regional Plan. As I have reinforced above, the pNESEF has not legal status and it would be inappropriate, in my opinion, to apply this to a minimum flow regime, without the proposed regime being supported by a robust and detail assessment of the potential implications of setting this minimum flow (including, but not limited to, a detailed assessment of how this flow regime will impact upon the reliability of existing abstractors). As I have set out above, such an assessment has not been carried out to a level that could give abstractors, such as the RDRML, an appropriate level of certainty.
- 6.11 The Officers in addressing the submission by F&G concludes that *“...in the absence of national guidelines and taking into account the impacts of a higher minimum flow on existing users' reliability, the proposed minimum flow of 10,000 L/s is considered appropriate.”* I do not see how the Officers can reach this conclusion given that neither the section 32 report, subsequent updates to the modelling undertaken by Mr Horrell (November 2012)²⁹ nor the Officers' assessment addresses how a minimum flow of 10,000 L/s at SH1 will impact upon the reliability of existing

²⁴ refer bottom of page 172 of the section 32 report.

²⁵ refer bottom of page 172 of the section 32 report.

²⁶ Submission 18.9.

²⁷ Page 25 of the Proposed National Environmental Standard on Ecological Flows and Water Levels: Discussion Document

²⁸ at page 170 of the section 32 report.

²⁹ Mr de Joux who notes that the Horrell report does not attempt to show the impact on reliability of the RDRML abstraction, and simply notes that it is difficult to describe the impacts on the RDR take.

abstractors. I therefore cannot reconcile how the Officers' have reached the conclusion that a minimum flow of 10,000 L/s at SH1 is appropriate.

- 6.12 Conversely, Mr de Joux concludes that *"[i]n simple terms, raising the minimum flow at State Highway 1 Bridge from 6,000 l/s to 10,000 l/s must have a substantial impact on reliability of supply for all abstractions."*³⁰ Reinforcing this point, Mr de Joux states that *"[t]he Horrell flow model shows that the recorded (residual) flow for the Ashburton River at State Highway 1 Bridge for the period June 1996 to November 2011 was at 6000 l/s for 54% of the time and was at 10,000 l/s for 37.5% of the time, a difference in time of 16.5%. Although detailed modelling would be required to confirm the change in reliability, it seems that a reduction in the order of 16% may be required."*
- 6.13 Further, Dr Ryder concludes that based on his review of background assessments, that he can find no ecological basis for this increase in a minimum flow of 10,000 L/s at SH1.³¹
- 6.14 While I appreciate that in a resource management context the ongoing operation of the RDR must be considered in the 'round', with competing environmental considerations also needing to be taken into account when setting minimum flows, it is of concern that the potential impacts upon existing abstractors associated with the setting of the minimum flow of 10,000 L/s at SH1 has not been given greater emphasis, given the social and economic benefits associated with the conveyance and use of water that are linked to the RDR. In my opinion, this has the potential to cut across policy outcomes reflected within higher order statutory planning documents, as well as the Regional Plan itself. I am also concerned that it does not accord with Part 2 of the Act.
- 6.15 More particularly, I note that the RPS provides for clear policy support for the continuation of existing infrastructure. Policy 7.3.11 (Existing activities and infrastructure) of the RPS, states:
"In relation to existing activities and infrastructure:
(1) *to recognise and provide for the continuation of existing hydro-electricity generation and irrigation schemes, and other activities which involve substantial investment in infrastructure; but*
(2) *require improvements in water use efficiency and reductions in adverse environmental effects of these activities, where appropriate."*
- 6.16 Further, I note that the Principal reasons and explanation supporting Policy 7.3.11 states *"Policy 7.3.11 takes a pragmatic approach to existing hydro-electricity generation and irrigation schemes, and other activities which involve substantial investment and infrastructure, by recognising them and providing some certainty in regional plans that these activities can continue. This may include provision for these activities within environmental flow and water allocation regimes."*
- 6.17 Further still, I note method 1(a) supporting Policy 7.3.4 (Water Quantity) of the RPS states that the Council will set objectives, policies and methods in regional plans that *"[e]stablish and implement environmental flow and water allocation regimes for surface water resources in the region, in accordance with all relevant policies,*

³⁰ refer paragraph 39 of Mr de Joux's evidence.

³¹ refer paragraph 3.8 of Dr Ryder's evidence.

including but not limited to Policy 7.3.4, Policy 7.3.10 and Policy 7.3.11...". Put another way, the RPS seeks to ensure that objectives and policies that deal with flow and allocation regimes in regional plans are considered in parallel with other relevant provisions, including those that address the continuation of existing irrigation schemes and hydroelectric power schemes. In my opinion, this is an important consideration when considered in the context of a flow regime that has the potential to adversely affect the reliability of significant physical resources, such as the RDR.

- 6.18 Should the setting of the minimum flow of 10,000 L/s at SH1 adversely impact upon the reliability of the RDR, this would have the potential to undermine the Regional Plan's own policy outcomes including Policy 4.8 which seeks that *"[t]he harvest and storage of water for irrigation or hydro-electricity generation schemes contribute to or do not frustrate the attainment of the regional concept for water harvest, storage and distribution set out in Schedule 16 or the priority outcomes expressed in the relevant ZIP."* For completeness, I note, that the RDR is seen as a critical component for delivery some of the outcomes for the Ashburton catchment.
- 6.19 In my opinion, without a detailed analysis supporting a minimum flow of 10,000 L/s at SH1, it is extremely difficult to see how a conclusion can be reached that the minimum flow is appropriate. The evidence of Mr de Joux reaches the conclusion that the reliability of existing abstractors (including the RDRML) will be adversely impacted by this flow regime.³² This then calls into question the validity of advancing a minimum flow regime where the potential adverse effects could compromise the ongoing operation of significant physical resources, such as the RDR. I would expect that notable environmental benefits would have to be generated before such an outcome could be achieved. None of the material provided by the Council leads me to that conclusion. Neither does the evidence of Dr Ryder, Mr de Joux or Mr MacFarlane.
- 6.20 In my opinion, until such time as a more detailed and robust assessment has been undertaken of this long-term minimum flow, the Act's purpose would not be promoted by its adoption into the Regional Plan.

7.0 ALTERNATIVE MINIMUM FLOWS PROPOSED BY OTHER SUBMITTERS

- 7.1 The RDRML opposed a number of submissions relating to alternative minimum flows proposed for the Ashburton River on the basis that they have the potential to adversely affect the reliability of the RDR and were not required to support instream values.

Fish and Game

- 7.2 The RDRML opposed the submission of F&G³³, which related to Section 13.6.1 of the pLWRP and sought to amend the flow regime for the Ashburton River as follows:

"Amend the minimum flows for A permits from August 2012 to August 2022 as follows:

³² Mr de Joux states that this minimum flow will have a substantial impact on reliability of supply at paragraph 45 of his evidence.

³³ 347.190

SH1:	7,000l/s
Sth Branch d/s RDR:	4,000l/s all year
Nth Branch:	2,100 l/s
Pudding Hill:	200l/s
Taylor's Stream:	700 l/s
O'Shea Ck	500 l/s
Mt Harding Ck	600 l/s"

Forest & Bird

- 7.3 Further, the RDRML opposed the submission of Royal Forest & Bird Protection Society of NZ Inc, Ashburton Branch ('F&B')³⁴, which sought that Section 13.0 be amended through the addition of an objective that sought to keep the mouth of the Hakatere/Ashburton River open most of the time (say 90% of time) and that this be achieved with flows above 6,000 L/s at SH1.
- 7.4 The RDRML opposed the submission of F&B³⁵ relating to Section 13.6.1. The submission sought to amend Table 12 (South Branch of Ashburton River Downstream of the RDR) such that a minimum flow is set at 3,200 L/s all year.
- 7.5 The RDRML opposed the submission of F&B³⁶ relating to Section 13.6.1, which sought to ensure the Ashburton River flow at the mouth is not less than 7,000 L/s from October to April and 5,000 L/s from May to September.

Save The River

- 7.6 The RDRML opposed the submission by Save the Rivers Mid Canterbury Incorporated³⁷ as this related to Policy 13.4.7 and which sought that the RDR should not be treated as a special case and that the RDR be subject to SH1 minimum flows.

Officers' Report

- 7.7 The Officers' report addresses F&B's submissions as follows:

"Royal Forest & Bird Protection Society of NZ Inc, Ashburton Branch seeks that a number of the minimum flows set out in Table 12 are amended. The submitter has not provided information to support the requested minimum flows, although it refers to observations over seven years regarding the flow requirements to keep the mouth of the Ashburton River open. The submitter may wish to provide further information at the hearing to support its submission."

Comments

- 7.8 I note here that Dr Ryder has reviewed and assessed the proposed flow regimes requested by F&G and F&B at Section 4.0 of his evidence. Dr Ryder concludes that based on studies undertaken by Duncan (2009) of salmonid instream habitat studies, and Dr Ryder's own reading of these studies and the fact that salmon passage is not required year round, that there is no requirement for a year round flow of 4,000 L/s immediately downstream of the RDR intake, as submitted by F&G, to sustain fisheries values nor for a year round flow of 3,200 L/s as submitted by

³⁴ 31.43

³⁵ 31.51

³⁶ 31.55

³⁷ Submission 18.9

F&B. Further, I note that based on Dr Ryder assessment of the technical literature, he supports a minimum flow of 5,000 - 6,000 L/s at SH1 in order to maintain an adequate frequency of mouth opening as well as provide good habitat for instream biota and river feeding birds in the lower reaches.³⁸

- 7.9 F&B submitted that Table 12 of the Plan should be amended, as a flow at the Ashburton River mouth of 7,000 L/s from October to April and 5,000 L/s from May to September is needed in order to keep the river mouth open most of the time (i.e., 90% of the time). Dr Ryder concludes that a minimum flow of between 5,000 and 6,000 L/s appears sufficient to achieve this objective. Consequently, he does not consider the request for a 7,000 L/s minimum flow from October to April at the SH1 bridge to be justified.
- 7.10 In addressing those submissions that support a minimum flow of 10,000 L/s at SH1, I Dr Ryder concludes that he can find no quantitative information to indicate that a 10,000 L/s minimum flow at this site will provide additional protection or improvement to ecosystem health and biodiversity.
- 7.11 As I set out at paragraphs 5.8 to 5.10 of this statement, the relevant objectives and policies of the NPSFM, RPS and Regional Plan seek to safeguard the life-supporting capacity of ecosystem. Further, Policy 7.3.4(1) of the RPS also seeks to *“protect the flows, freshes and flow variability required to safeguard the life-supporting capacity, mauri, ecosystem processes and indigenous species including their associated ecosystems...”*. The evidence of Dr Ryder reinforces that ecological processes will not be compromised by the minimum flow of 6,000 L/s at SH1. Given, this there is a very clear potential that raising the minimum flow above 6,000 L/s at SH1 could cut across policy outcomes that seek to provide for the continuation of existing infrastructure and seek to maintain reliability, as I have set out in paragraphs 6.15 to 6.18 of this statement.
- 7.12 In my opinion, having considered the submissions and Dr Ryder’s assessment of the respective minimum flows sought by the submitters, increasing the minimum flow beyond the 6,000 L/s at SH1 provided for within the Regional Plan (as notified) is not justified on ecological grounds or necessary to maintain an adequate frequency of mouth openings. Further, increasing the minimum flows beyond that considered in the Regional Plan has the potential to compromise the reliability of existing abstractors, given that any further increase in minimum flows would likely need to met through reductions in abstraction.

8.0 EXEMPTIONS FOR STOCK WATER AND COMMUNITY WATER SUPPLIES FROM MINIMUM FLOW AND ALLOCATION REGIMES

- 8.1 The RDRML prepared a further submissions opposed to ADC’s submissions³⁹ to Policy 13.4.1 and Policy 13.4.7. The ADC sought that Policy 13.4.1 be deleted. Further, the Council also sought that Policy 13.4.7 be amended so that the Ashburton District Council stock water system or community water supplies will not be the subject of minimum flows or flow restrictions. The Council also sought the

³⁸ Paragraph 3.10 of Dr Ryder’s evidence.

³⁹ Submissions 146.79, 146.80 and 146.81.

addition of rule (in section 13.5) to give effect to amendment sought to Policy 13.4.7.

- 8.2 In relation to the deletion of Policy 13.4.1, the RDRML identified that the flow specified in the Plan is predicated on the ADC reducing its stockwater take to 2,900l/s by the 1st of July 2015. The Company understands that the Plan framework (and underlying hydrological modeling underpinning this) relating to the increase in minimum flows for the South Branch of the Ashburton River is predicated on ADC's stockwater take being reduced. The deletion of Policy 13.4.1 would not achieve or be aligned with this outcome.
- 8.3 In relation to the proposed amendment to Policy 13.4.7 which seeks to remove any requirement for the ADC's stockwater system to comply with or be subject to the minimum flow and flow restrictions under this policy, the RDRML submitted that this would suggest that parties such as the RDRML would be asked to reduce their abstractions. The RDRML is opposed to this submission as it has the potential to significantly fetter the RDR through a loss of reliability should the ADC's existing stockwater take not be reduced in the manner provided for within the Plan.

Officers' Report

- 8.4 The Officers' report addresses ADC's submissions as follows:

"Three submissions seek that the policy is amended to clarify whether the reduction of the Ashburton District Council (ADC) stockwater abstraction to 2,900 L/s represents a reduction of their 'paper allocation', or that physically less water is taken. One submission states that the effectiveness of the policy for maintaining river flow reliability for other water users depends on a genuine reduction.

Another submitter opposes the policy and seeks that it is made clear that a reduction in the ADC stockwater take will then lead to an increase in minimum flow.

For clarification, the policy seeks a reduction in the volume of existing abstractions, which in turn will result in increased flows in the Ashburton River. This is distinct from a decrease in consented volumes, where a resulting increase in flows is unlikely. As shown in Figure 1, it is anticipated that the increase in minimum flow for other users will not occur until there are increased flows in the Ashburton River resulting from a reduction in the ADC stockwater abstraction. It is recommended that the policy is amended to clarify its intent".

- 8.5 Further the Officers' in addressing the ADC's submission to Policy 13.4.1 in particular states:

"The ADC also opposes the policy, seeking that it be deleted. ADC consider that it is unclear how the 2,900 L/s was identified stating that they have a low level of confidence regarding whether the reduction will have any meaningful contribution to the targets of the ZIP.

ADC state that little consideration has been given to previous CRC decisions and ADC's position on this matter as well as other considerations including animal welfare, productivity, adverse environmental impacts and impacts on groundwater recharge.

ADC does not believe it can surrender stockwater based on the information available. It will, however, not put at risk the achievement of a wider range of ZIP targets, and states that any unrequired water that is within the race network will be made available for community use and benefit.

It is noted that the existing ADC stockwater races are operating at a high level of inefficiency, with an estimated 80-90% of the water abstracted lost to groundwater. While ADC submits that the unused water within the stockwater races could result in benefits for the community, it is considered that a better outcome would be for the water to remain in the river to help achieve sustainable management of the resource. It will also assist in achieving the plan's goals to address over-allocation of the river which is consistent with the NPS Freshwater.

It is acknowledged that there will be a cost for ADC to undertake improvements to deliver stockwater with a reduced water allocation. While 2015 is considered to be a reasonable timeframe (and indeed critical for implementation), it is understood that ADC, has been in discussion with the Canterbury Regional Council and the Ashburton Zone Committee in respect of an alternative implementation timeframe.

It is understood that an alternative timeframe has been discussed and agreed between the parties and it is likely to be presented at evidence to the hearing by ADC.”⁴⁰

8.6 Further still, in addressing Policy 13.4.7 the Officers' state:

“ADC seeks that a new clause be added to the policy to exempt their stockwater system and community water supplies from minimum flow restrictions. ADC considers that the policy should be amended to protect the current access to water for stock and other community uses and that the stockwater system can continue to operate based on existing resource consents, access and reliability.

It is noted that the default regional rules [Rule 5.88] set out in Section 5 of the LWRP apply to community and stockwater supplies in the Ashburton catchment. It is considered inappropriate to amend the policy to exempt the Council from minimum flows when the relevant rule requires an operative water supply strategy to outline the strategies in place to reduce water demand during times of restriction.”⁴¹

Comments

8.7 The Officers, in reinforcing the need for the outcomes in Policy 13.4.1, state that the reduction in the ADC abstraction will assist in offsetting reduced reliability with an increase in minimum flow for existing abstractors and reinforce importance of the reduction in abstraction by ADC, along with the other components of the package illustrated in Figure 1, will collectively improve the flows in the river to meet the targets set out in Section 13.⁴²

8.8 I understand that the key reason for addressing the reduction of the ADC stock water take is to assist with ameliorating the over-allocation of the Ashburton catchment. While community stock water supplies are provided for as a first order

⁴⁰ Page 44 and 45 of the Officers' Report.

⁴¹ Page 49 of the Officers' Report.

⁴² Page 44

priority under Policy 7.3.4 of the RPS and Policy 4.4 of the Regional Plan (as notified)), retaining the ADC's existing rate of abstraction would not seek to give effect to the NPSFM or the RPS policy provisions that seek to avoid further over-allocation (namely Policy A1 of the NPS, and Policy 7.3.4(2) of the RPS). I understand that the ADC takes (which are approximately 5-7% of the total takes for the catchment)⁴³ are highly inefficient (with an estimated 80-90% of water abstracted lost to groundwater) and the takes are not fully utilised when there is water in the river.⁴⁴ The Section 13 provisions, therefore, have focused on the need to maintain stock water necessary to meet the needs of the community while (i) leaving more water in the river to address instream issues, (ii) while also seeking to maintain irrigation interests and their reliability given that they are operating at a higher level of efficiency and (other than the RDR which is subject to a higher residual flow regime) will be subject to pro-rata reductions to protect instream values.

- 8.9 I have noted at paragraphs 4.5 and 4.19 of this statement, the potential for a loss in reliability to the RDR, should the ADC existing abstractions above the South Branch RDR Intake not be reduced in order to offset the increase in the minimum at the RDR Intake. Having considered the evidence of Mr MacFarlane and Mr de Joux, both conclude that to avoid potential adverse impacts on the reliability on the RDR Intake, it is essential that any increase in minimum flow for RDRML occurs at the same time as a comparable reduction in take from ADC Brothers intake. On this basis, I support the Officers' conclusion that the ADC submission to Policy 13.4.1 be rejected, given that, in my opinion, the Act's purpose would not be promoted by removing the need for the ADC to implement reductions to its existing takes.
- 8.10 The request (by the ADC) that Policy 13.4.7 be amended so that the ADC stock water system or community water supplies will not be the subject of minimum flows or flow restrictions, in my opinion, has the potential to fetter the outcome that is sought in Policy A1 of the NPSFM, Policy 7.3.4(2) of the RPS and a broader range of policies relating to existing infrastructure and the continuation of the same (Policy 7.3.11 of the RPS and Regional Plan Policies 4.8 and 4.48). As set out at paragraphs 4.5 and 4.19 of this statement, it would also have the potential to significantly undermine the reliability of the RDRML and the social and economic benefits associated with the conveyance and use of water that are linked to the RDR.
- 8.11 During Hearing 1, the RDRML requested specific amendments to Rule 5.88 which relates to the taking and use of water for a group or community water supply. Essentially, ADC's submission seeks to exempt its own community and stock water supplies from the provisions of the Regional Plan, including Rule 5.88 and Section 13 (through the inclusion of a new rule (in section 13.5) to give effect to amendment sought to Policy 13.4.7.
- 8.12 Ms Hamm on behalf of the RDRML filed supplementary legal submissions (dated 22nd March 2013) addressing issues that arose in the course of RDRML's presentation. One the issues raised by the RDRML and that is linked to the ADC's request for an exemption to the flow and allocation regimes in Section 13, was the need to ensure that Rule 5.88 is amended to ensure that it is subject to compliance

⁴³ Page 182 of the Section 32 report.

⁴⁴ Page 45 of the Officers report.

with the sub-regional sections 6-15 of the Regional Plan. The RDRML sought amendments to Rule 5.88 to address this existing shortcoming. It also, however, requested amendments to the Section 13 provisions. In the case of Section 13, which most directly affects RDRML, the following was suggested as an amendment to Section 13.5 Rules:

“Note 1: For the avoidance of doubt, all applications in the Ashburton Sub-regional area are subject to the rules of this section.”

- 8.13 I agree with the intent of Ms Hamm’s suggested amendment, but have suggested a further amendment so that it is more explicit that the note also encapsulates reference to a group or community water supply scheme. I set out this amendment in **Appendix A** to this statement.

9.0 SUMMARY

- 9.1 In summary, I recommend that those provisions discussed within Sections 5 to 9 of this statement be further amended to ensure that they are consistent with the Resource Management Act 1991 and the direction of the National Policy Statement on Freshwater Management and the operative Canterbury Regional Policy Statement. I consider that my recommended changes promote both good resource management and planning practice and accord with the purpose of the Act and the manner that is should be applied.
- 9.2 For the reasons set out in this statement I do not believe that Section 13 (Ashburton) of the proposed Canterbury Land & Water Regional Plan, as publicly notified or as amended in the recommendations of the Officers’, achieve either of these requirements.
- 9.3 I thank the Panel for affording the time to consider this statement.

Nigel Roland Bryce, B.REP, NZPI.

14th of May 2013

Annexure A – Recommended Changes Proposed by Nigel Bryce to the Provisions of the Proposed Canterbury Land & Water Regional Plan

Track Change Colour Code

Relief sought by the RDRML retained

Recommended amendments of Nigel Bryce

Recommendations of the Officer retained

Amend Policy 13.4.7 as follows:

“Policy 13.4.7 For the Hakatere/Ashburton River, the following restrictions shall be applied in respect of the abstraction of surface water and stream depleting groundwater in the Hakatere/Ashburton River catchment.

- (a) Rangitata Diversion Race A and B allocations shall be subject to the residual flow restrictions specified in Rule 13.5.5(b) and set out in Table 12 to this rule.”

Amend Clause 13.6.1 as follows:

The following flow and allocation limits are to be applied when reading policies and rules in Sections 4 and 5 and 13.

Add new Rule 13.5.5 to Section 13 as follows:

New Rule 13.5.5

“The following environmental flow and allocation limits apply:

- (a) From the 1st July 2015, the total combined rate of abstraction for all water takes required to service the Ashburton District Council’s stock water supply scheme above the South Branch RDR Intake shall be 1,165 L/s.
- (b) For all other takes these shall be in accordance with Table 12 set out below:

Table 12: Hakatere/Ashburton River Catchment Environmental Flow and Allocation Limits.

River or stream (see Planning Maps)	Location of recorder site, or site where flow is measured	Topo 50 Map Reference	From August 2012 <u>Following the implementation of the reduced allocation limit set out in Rule 13.5.5(a) the following minimum flows shall apply no earlier than August 2017</u>				From August 2022			
			Minimum flow for A permits (L/s)	Allocation limit for A permits (L/s)	Minimum flow for B permits (L/s)	Allocation limit for B permits (L/s)	Minimum flow for A permits (L/s)	Allocation limit for A permits (L/s)	Minimum flow for B permits (L/s)	Allocation limit for B permits (L/s)
Ashburton River main	State Highway 1 Bridge	BY21:999-351	6,000	253	14,000	500	10,000 at State Highway 1 Bridge (map reference BY21:999-351)	15,100	14,000	500
South Branch	Residual flow site immediately downstream of the RDR intake	BX20:721-576	3,200 (October – February – April) 2,300 (May – September)	5,100	4,000	2,000				

	point		<u>January)</u>				999-351)			
	South Branch at North Branch confluence	BY21:976-399	4,650	3,905	10,500	100				
North Branch	At above confluence	BY21:976-401	1,000	2,194	4,000	540				
Pudding Hill	At below ADC water race	BY21:976-404	80	528	1,600	-				
Taylor's Stream	At above South Branch Confluence	BX20:808-742	500	4,465	3,700	200				
O'Shea Creek	at by wash to North Ashburton	BY20:885-527	450	556	1,000	-				
Mt. Harding Creek	Aitkens Road	BY21:926-502	500	1562	1,000	-				
Lagmhor Creek	Fraser's Road	BY21:962-366	100	295	-	-				

For all other areas see Rule 5.96(2)"

Add new note to the Section 13 rules set out in 13.5 that states:

Note 1: All applications in the Ashburton Sub-regional area are subject to the rules of this section, including where this relates to a group or community water supply scheme.

Add new method supporting review process of existing water permits, as follows:

"Method to Rule 13.5.5 (Review of Permits):

Environment Canterbury may review water permits in accordance with Section 128 of the RMA in order to achieve the minimum flow of 6,000 L/s at the State Highway 1 Bridge.

The Council may carry out a review of existing water permits held by the Ashburton District Council to achieve this, and this may include:

- (a) reduction of the existing Brothers abstraction (at or about map reference NZMS 260 K36:762-229) located above the South Branch Rangitata Diversion Race Intake to 1,055 L/s; and/or
- (b) reduction of the Brothers abstraction in combination with the Stoney Creek abstraction (at or about map reference NZMS 260 K37:766-242) so that collectively they are reduced by 900 L/s.

This review of water permits may be commenced within six months of the date when the Regional Plan becomes operative. The Council may review of Ashburton District Council's water permits (relating to the South Branch of the River) before 1st July 2015. In all other

respects where other water permits are required to be reviewed to give effect to the flow and allocation limits under Rule 13.5.5(b) these may be reviewed before August 2017 provided that the reduced allocation limit set out in Rule 13.5.5(a) has first been implemented.

Where Environment Canterbury has determined to review water permits as above, notice will be served on holders of water permits affected.”

Appendix B – Ashburton District Council’s existing water permit CRC012123

Details for CRC012123

RMA Authorisation Number:	CRC012123
File Number:	CO6C/17909
Client Name:	Ashburton District Council
To:	To dam, divert, take and use surface water to supply the Methven-Lauriston Stockwater Scheme.
Consent Location:	Stockwater Race Network Ashburton District, MT SOMERS/WILLOWBY SCHEME
State:	Issued - InActive

Use the tabs below to find out further information about CRC012123.

Summary

Documents

Flow Restrictions

Location Map

Events:

Printable Summary

27 Feb 2012	Commencement Date
27 Feb 2017	Lapses
27 Feb 2032	Expires

Subject to the following conditions:

- 1 The damming, diversion, and abstraction of water from the following surface water bodies shall take place at the following map references, and shall not exceed the specified maximum abstraction rates:
 - a. To divert water from the South Ashburton River, to an existing intake structure at the Brothers, adjacent to Quarry Road at or about map reference NZMS 260 K36:762-229, at a maximum rate of 2,500 litres per second, and to dam and take water via the Brothers Intake, at a maximum rate of 1,955 litres per second;
 - b. To divert and take water from Clearwell Springs, via existing structures at the West and East Intakes, both adjacent to Lismore Road, Maronan, at or about map references NZMS 260 K37:921-974 and K37:927-974, at a maximum combined rate of 100 litres per second;
 - c. To dam and take water from Flemington Drain, via an existing structure at the Flemington Drain Booster Intake, adjacent to Fords Road, Flemington, at or about map reference NZMS 260 K36:073-886, at a maximum rate of 100 litres per second;
 - d. To dam and take water from Laghmor Creek, via an existing structure at the Laghmor Intake, adjacent to Mill Road, three kilometres east of Westerfield, at or about map reference NZMS 260 K36:014-069, at a maximum rate of 56 litres per second;
 - e. To dam, divert, and take water from Langdons Creek, via existing structures at the North and South Intakes, both adjacent to Valetta Westerfield Road, Punawai, at or about map references NZMS 260 K36:935-162 and K36:958-139 respectively, at maximum rates of 40 and 120 litres per second respectively;
 - f. To dam and take water from Maginess Drain, via an existing structure at the Maginess Drain Booster Intake, adjacent to Grahams Road, Huntingdon, at or about map reference NZMS 260 K37:085-909, at a maximum rate of 30 litres per second;
 - g. To dam and take water from Remington Creek, via an existing structure at the Remington Creek Intake, adjacent to Mill Road, two kilometres east of Westerfield, at or about map reference NZMS 260 K37:006-069, at a maximum rate of 120 litres per second;
 - h. To dam, divert, and take water from Russells Drain, via an existing structure at the Russells Drain Intake, adjacent to Dawsons Road, Waterton, at or about map reference NZMS 260 K37:075-847, at a maximum rate of 20 litres per second;
 - i. To dam and take water from Shepherds Brook, via an existing structure at the Shepherds Brook Intake, adjacent to Shepherds Bush Road, Westerfield, at or about map reference NZMS 260 K37:996-075, at a maximum rate of 80 litres per second;
 - j. To dam, divert, and take water from Stoney Creek, via an existing structure at the Stoney Creek Intake, adjacent to Ashburton Gorge Road, Mount Somers, at or about map reference NZMS 260 K37:766-242, at a maximum rate of 110 litres per second; and
 - k. To divert, dam and take water from Windermere Cutoff Drain via an existing structure at the Windermere Cutoff Intake, adjacent to Hinds Highway, Hinds, at or about map reference NZMS 260 K37:969-897, at a maximum rate of 200 litres per second.

- 2 The consent holder shall, within three years of the first exercise of this consent, design, construct and commission a fish exclusion device to be applied near, at or within, the Brothers intake or diversion channel subject to:
 - a. Water shall only be taken when a fish exclusion device with the following design criteria, or a device that achieves the same, or better, level of fish exclusion effectiveness is operated and maintained across the intake to ensure that fish and fish fry are prevented from passing through the intake. Design criteria: a maximum mesh width and height size of three millimetres or slot width of two millimetres.
 - b. The fish exclusion device shall be positioned to ensure that there is unimpeded fish passage to and from the waterway and to avoid the entrapment of fish at the point of abstraction, and to minimise the risk of fish being damaged by contact with the face of the exclusion device.
 - c. The fish exclusion device shall be designed and installed to ensure that:
 - i. No less than 50 percent of the exclusion device surface is oriented parallel to the direction of water flow.
 - ii. Where practicable, the exclusion device is positioned in the water column a minimum of 300 millimetres above the bed of the waterway and a minimum of one exclusion device radius from the surface of the water.
 - iii. The approach velocity perpendicular to the face of the exclusion device shall not exceed 0.06 metres per second if no self-cleaning mechanism exists or 0.12 metres per second if a self-cleaning mechanism is operational.
 - iv. The sweep velocity parallel to the face of the exclusion device shall exceed the design approach velocity.
 - d. The fish exclusion device shall be designed or supplied by a suitably qualified person who shall ensure that the design criteria specified in condition (a) –(c)(iv) of this consent is achieved. Prior to the installation of the fish exclusion device, a report containing final design plans and illustrating how the fish exclusion device will meet the required design criteria, and an operation and maintenance plan for the fish exclusion device shall be provided to the Canterbury Regional Council, attention RMA Compliance and Enforcement Manager.
 - e. A certificate shall be provided to the Canterbury Regional Council by the designer or supplier of the fish exclusion device to certify that the fish exclusion device has been installed in accordance with the details provided to the Canterbury Regional Council in accordance with condition (d) of this consent.
 - f. The fish exclusion device shall be maintained in good working order. Records shall be kept of all inspections and maintenance, and those records shall be provided to the Canterbury Regional Council upon request.
 - g. The consent holder shall supply annually in November each year an update to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, on the progress of installing fish exclusion devices, until required devices are in place.
 - h. In the event of a fish exclusion device becoming damaged or ineffective, the consent holder shall, within 24 hours of becoming aware of the failure of the device, notify the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, of the situation, the action that will be taken, as soon as practicable, to correct the failure, and the timeframe within which the repairs will be completed.
- 3 The consent holder shall, within three months of the commencement of this consent, install a water level measuring device at the Brothers intake; in a location that will enable the determination of the continuous rate of flow and volume of water being taken to within an accuracy of plus or minus 10 percent, and
 - a. The measuring device shall, as far as is practicable, be installed at a site likely to retain a stable relationship between flow and water level. The measuring device shall be installed and maintained in accordance with the manufacturer's instructions.
 - b. The level of water in the race, and times of abstraction, shall be recorded by tamper-proof electronic recording system such that the level of water is measured at least once every 15 minutes, and a record made either on site or at a remote location via telemetry of the recorded levels such that the flow volume through the site may be derived for time increments not exceeding 60 minutes using the current site rating relationship. The recorded data shall not be changed or deleted by any person, unless twelve months have passed since the date of recording.
 - c. The measuring and recording devices described in clauses 3(a) and 3(b) shall be available for inspection at all times by the Canterbury Regional Council subject to providing adequate protection against vandalism which may require the consent holder's assistance on site to unlock or remove barriers.
 - d. All data from the recording device described in clause 4(e), and the corresponding relationship between the water level and flow, shall be provided to the Canterbury Regional Council on request.
 - e. Maintain a rating curve to convert water levels to flow in accordance with best hydrological practice.
- 4 Four months after the commencement of this consent, and at two-yearly intervals thereafter, the consent holder shall provide a certificate to the Canterbury Regional Council Attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying that the accuracy of the measuring and recording devices installed in accordance with 3(a) and 3(b) and also certifying that data from the recording device described in condition 3(b) can be readily attained by the consent holder.

- 5 The damming of water shall be limited to that which occurs as a consequence of diversion banks and existing intake structures.
- 6 The diversion of water shall not prevent fish passage or cause erosion of the bed and banks of the watercourse.
- 7 The use of water shall be only for stock drinking water, treated domestic and community drinking water, and essential domestic and community use.
- 8 The consent holder shall, within six months of the commencement of this consent, provide the Canterbury Regional Council with a copy of a 'Stockwater Network Management Plan' (the Management Plan) that sets out the practices and procedures with respect to the operation and maintenance of the network that are to be adopted in order that compliance with the conditions of any relevant resource consents.
- 9
 - a. The Management Plan shall include, but not be limited to, setting out practices and procedures covering the following:
 - i. All systems, procedures and processes enabling the effective and efficient management of the network;
 - ii. Appropriate monitoring and reporting undertaken in accordance with the resource consent conditions;
 - iii. Informing water users of their obligations in respect of accessing water from the network; and
 - iv. Systems, procedures and processes to recognise and minimise adverse effects of management processes on the environment.
 - b. In particular the Management Plan shall address the following:
 - i. A description of the intakes;
 - ii. Methods for recording and reporting on water use;
 - iii. Methods for maintaining and monitoring water quality;
 - iv. Operational procedures, including during floods and droughts;
 - v. Methods and procedures for undertaking in-stream works;
 - vi. Maintenance procedures for the raceways, including race cleaning;
 - vii. Procedures for further education of race users in relation to the contents of the Management Plan;
 - viii. Procedures to be employed by the consent holder to protect against inappropriate or negligent activity; and
 - ix. Stakeholder consultation and reporting.
- 10 The Management Plan:
 - a. shall be consistent with the relevant conditions of any relevant resource consents. Where there is an apparent contradiction between the Management Plan and consent conditions, the conditions shall be complied with; and
 - b. may be amended as the consent holder considers appropriate, during the period of these consents. Any amendments to the Management Plan must be submitted to the Canterbury Regional Council within 10 working days of the amendments being made; and
 - c. shall be reviewed at least every two years.
- 11 As part of the first two yearly review of the Management Plan, the consent holder shall submit to the Canterbury Regional Council an updated version of the Management Plan that includes, but is not limited to:
 - a. an assessment of the ecological values of the stockwater race system;
 - b. management objectives that address those ecological values and their enhancement;
 - c. a strategy, plan and/or programme for management of ecological values;
 - d. operational guidelines or procedures to manage ecological values throughout the race system;
 - e. a monitoring programme for ecological values, including water quality in accordance with the associated discharge consents; and
 - f. information about consultation with stakeholders carried out during its preparation.
- 12
 - a. When making any changes (other than routine maintenance) to the intake, channel alignment, channel design or discharge points in any part of the race, the consent holder shall take into account potential adverse effects on ecological and amenity values and opportunities for their enhancement. To achieve this, an ecological assessment shall be undertaken by a suitably qualified expert in advance of the proposed works.
 - b. The consent holder shall implement, as far as practicable, any recommendations made in the ecological assessment.
 - c. The assessment shall be submitted to the Canterbury Regional Council within 20 working days of its completion together with a report outlining the practicable options that have been considered together with a date by which the proposed works will be implemented by the consent holder.

- 13
- a. The consent holder shall, in consultation with the Canterbury Regional Council, appoint a suitably qualified person experienced in the design of water race systems, to undertake a technical efficiency audit of the scheme (the audit), within 18 months of the date of commencement of this consent. The audit shall identify:
 - i. any physical improvements that can reasonably be made to the scheme to minimise the loss of water and to improve the efficiency of water use; and
 - ii. measures, which can be implemented in the management of the scheme, to minimise the loss of water and to improve the efficiency of water use.
 - b. The audit shall consider the whole scheme, including, but not limited to, intake structures, gates, race bed sealing, flow rates along races, the race system, infrastructure, and control mechanisms. The audit shall include investigating the potential use of alarms or automated gates at main intakes, the establishment of indicator points and assessment of need for additional flow control structures within the network, and the identification of key discharge points to be monitored so as to ensure the taking of water does not exceed requirements.
 - c. Within two years of the commencement of this consent, the consent holder shall provide the Canterbury Regional Council with:
 - i. a copy of the audit report, and
 - ii. a programme of any measures the consent holder has agreed to implement as a result of the audit.
 - d. The consent holder shall supply a copy of the audit to the Department of Conservation and Fish and Game New Zealand.
- 14 The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment.

Appendix C - RDRML's existing water permit CRC011245

Consent details

Details for CRC011245

RMA Authorisation Number:	CRC011245
File Number:	CO6C/11184
Client Name:	Rangitata Diversion Race Management Limited
To:	To dam the South Ashburton River by means of a weir and intake structure to a maximum height of 1.5 metres above the riverbed, and to divert and take water continuously at a maximum rate of 7.1 cubic metres per second from the South Ashburton River into the Rangitata Diversion Race via an intake structure, at or about map reference NZMS 260 K36:819-192, and to use water for irrigation and stockwater purposes, and to generate electricity at Highbank Power Station.
Consent Location:	South Ashburton River, RDR ASHBURTON DISTRICT
State:	Issued - Active

Use the tabs below to find out further information about CRC011245.

Summary Documents Flow Restrictions Location Map

Events:

Printable Summary

16 Apr 2008	Commencement Date
17 Apr 2008	Given Effect To
16 Apr 2013	Lapses
16 Apr 2043	Expires

Subject to the following conditions:

- 1 The maximum rate at which water may be diverted and taken shall be 7.1 cubic metres per second, such that the combined take with that from the Rangitata River does not exceed 35.4 cubic metres per second.
- 2 The consent holder shall measure and record the rate at which water is taken and diverted at not greater than 30 minute intervals and shall make such records available to Canterbury Regional Council upon request.
- 3 The consent holder shall measure and record the rate at which water is passed below the South Branch Ashburton Intake at not greater than 30-minute intervals and shall make such records available to Canterbury Regional Council on request. The range within which these flow records are to be kept is between zero and eight cubic metres per second (m^3/s). The consent holder shall cease to take water when the flow measured at this point falls below 2.3 cubic metres per second.

- 4 The consent holder shall take such measures as are appropriate to ensure that, so far as is reasonably practicable fish are able to pass the dam and are prevented from becoming entrained in the Rangitata Diversion Race. To that end:
- The consent holder shall ensure that a fish pass over the dam be provided and maintained so the passage of fish is not significantly impeded;
 - By 1 August 2009 the consent holder shall install and commission a system for the purpose of diverting fish so that they are not entrained in the Rangitata Diversion Race. The system will be installed and commissioned in accordance with consents CRC082583, CRC080840 and CRC070275;
 - Within three years of the commencement of this consent the consent holder shall provide the consent authority with a report, prepared by a person appropriately qualified and experienced in freshwater fisheries biology, detailing the extent to which the pass referred to in paragraph (a) and the fish diversion system referred to in paragraph (b) above is meeting the object of this condition and making recommendations, if such are thought by that person to be necessary, as to the way in which that object may better be met;
 - At any time within the fourth year of this consent and during every fourth year thereafter the consent authority may review this condition (pursuant to s 128) for the purpose of determining what steps should be taken by the consent holder so as better to achieve the object of this condition;
 - The consent holder may at any time apply to the consent authority for a change to this condition, but for the sole purpose of the better achievement of its object.
- 5 The term of this consent shall be 35 years.
- 6 The abstraction of water from the South Ashburton River shall occur in accordance with the following table:

Ashburton River Abstraction Restrictions

MONTH	RESTRICTION			STOCKWATER 80%
	RDR + INDIVIDUAL IRRIGATION 50% ¹	25% ²	0% ³	
January	5.0	4.5	4.5	4.5
February	4.0	3.5	3.5	3.5
March	4.0	3.5	3.5	3.5
April	5.5	5.0	5.0	5.0
May	5.5	5.0	5.0	5.0
June	5.5	5.0	5.0	5.0
July	5.5	5.0	5.0	5.0
August	7.0	6.5	6.5	6.5
September	8.5	8.0	8.0	8.0
October	8.5	8.0	8.0	8.0
November	7.0	6.5	6.5	6.5
December	5.5	5.0	5.0	5.0

[Notes:

All flows are expressed as cubic metres per second measured at State Highway 1 Bridge.

¹ = Both the RDR and Individual Irrigation is cut by 50% of the consented abstraction maximum when the flow at State Highway 1 Bridge reaches this level.

² = When the flow at State Highway 1 Bridge reaches these flows, the RDR is restricted to 25% of consented abstraction rate, and individual Irrigators are to cease the abstraction of water from the Ashburton River.

³ = When the flow at State Highway 1 Bridge falls to these minimum flows, then the RDR is to cease abstraction.]