

**Before Hearing Commissioners at the Canterbury Regional Council in  
Christchurch**

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*under:* The Resource Management Act 1991

*in the matter* Public hearings on Proposed Plan Change 1 to  
*of:* the Hurunui and Waiau River Regional Plan

*between:* **Amuri Irrigation Company Limited**  
*Submitter*

*and:* **Canterbury Regional Council**  
*Respondent*

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**Statement of evidence of Andrew James Barton for Amuri Irrigation  
Company Limited**

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Dated 4<sup>th</sup> of October 2019

1. INTRODUCTION
2. My name is Andrew James Barton. I am the Chief Executive Officer for Amuri Irrigation Company Limited (hereafter referred to as '**Amuri**' or '**the Company**') and I have been employed in this role for over six years.
3. Amuri operates three irrigation schemes, known as the Waiau, Balmoral and Waiareka Schemes (hereafter referred to collectively as the '**Amuri Irrigation Scheme**'), within the Hurunui and Waiau catchments. The Amuri Irrigation Scheme was designed and constructed in the 1970s and 1980s and supplies irrigation water (typically via border dyke allocations) to the Company's shareholders. Currently, over 99 percent of shareholders use spray irrigation as a result of an estimated \$100 million investment by farmers across the scheme in converting border dyke land to spray irrigation.
4. The Waiau Scheme takes eleven cubic metres per second ('**cumecs**') of water from the Waiau River at the Leslie Hills bridge. The abstracted water is used to irrigate approximately 20,000 hectares of land. The Waiau Scheme delivers irrigation water (via an open race canal) to Mouse Point, where the water is distributed to shareholders via a recently upgraded pipe network. Approximately half of the Waiau Scheme is situated within the catchment of the Hurunui River.
5. The Balmoral Scheme takes approximately five cumecs from the Hurunui River, downstream of its confluence with the Mandamus River. The abstracted water is used for the irrigation of approximately 8,000 hectares of land. This Scheme has a main canal running around the contour of the foothill that supplies a pipe network and a pond.
6. The Waiareka Scheme takes 450 litres per second from the Waiau River, downstream of Waiau township, for irrigation of approximately 500 hectares of land via a pipe network.
7. Amuri lodged submissions and further submissions to Proposed Plan Change 1 ('**PC1**') to the Hurunui and Waiau River Regional Plan (the '**HWRRP**')
8. It is noted that PC1 is promulgated on the basis that there will be no net increase in nitrogen in the key water courses / water bodies within the catchments of the Hurunui and Waiau Rivers. In association with the Canterbury Regional Council ('**the Council**' or '**CRC**'), Amuri has advanced an agreement ('**AIC/CRC Agreement**' or '**Deed of Understanding**') whereby Amuri has agreed to offset the agreed nutrient losses to the Hurunui River that PC1 is expected to enable. The AIC/CRC Agreement has been ratified and is attached to the Section 42A Officer's report as Appendix 2. I discuss

the AIC/CRC Agreement in further detail within paragraphs 13 to 28 of my evidence.

9. For completeness, I confirm that I am authorised to present this evidence on behalf of Amuri. I am not presenting technical expert evidence, and as such, this brief should be read as 'Company evidence' expressing the position of Amuri.

10. SCOPE OF MY EVIDENCE

11. In my evidence, in order to provide context to Amuri's fundamental premise submission (Submission Point 1 within Amuri's primary submission) and relief sought by Amuri with regard to the same, I:

- a. set out a background to the Company's environmental practices and the AIC/CRC Agreement;
- b. address the opportunity cost and significant implications to Amuri associated with the application of the AIC/CRC Agreement;
- c. discuss the important role that Amuri plays in enabling PC1 to be advanced in a manner that does not cause the Hurunui Waiau Catchment to be over-allocated and the science behind the AIC/CRC Agreement; and
- d. respond to those submissions that have proposed an alternative nutrient management pathway, highlighting Amuri's concerns to the same.

12. BACKGROUND: THE COMPANY'S ENVIRONMENTAL PRACTICES AND THE AIC/CRC AGREEMENT

13. Amuri takes its environmental responsibilities very seriously and has invested significantly in order to drive efficiency in the use of resources by the Company and its farmer shareholders. The upgrade of the existing open race network to pipe at the Amuri Scheme has reduced leakage and eliminated operational by-wash, allowing a greater area of land to be irrigated, with the same peak rate of water. I note that Farmers have invested significantly on-farm in order to transition from border-dyke to spray irrigation.

14. Amuri has an Environmental Management Strategy ('**EMS**') that has been approved by the Council. The EMS sets out the outcomes that are sought, the audited self-management regime ('**the Collective**'), and the Farm Environment Plan ('**FEP**') requirements in order to achieve the desired outcomes.

15. As FEPs set out the actions required on farm to meet good management practice ('**GMP**'), the Company engages a team of professionals who audit these plans to ensure that farmers are

achieving GMP (A grade) or are implementing plans to achieve GMP (B grade). In cases where farmers do not have a plan to achieve GMP (C grade) or have issues on the farm that need to be addressed immediately (D grade), audits are repeated in 6 or 12 months and education and support is provided so as to lift farm performance. The audited self-management process for FEP audits is subject to an independent audit each year, which is reported to CRC.

16. The Collective is unique because it accommodates non-shareholder farms in the Hurunui and Waiau catchments. Amuri wished to have all irrigators in the Amuri Basin working together for a common goal of improved water and land management. As a company, Amuri provides training and information on key risks to farmers. A recent focus has been on promoting planning for effective winter grazing needs, to start when the crops are planted and to make sure that appropriate buffer strips are in place.
17. The Company has established an Environmental Sub-Committee to oversee the Collective. The Sub-Committee consists of Amuri Directors, Independent Irrigators and Company Shareholders. The Sub-Committee provides guidance on strategic matters relating to the Collective and environmental matters.
18. In the event a farmer has 3 repeat C or D grades, the farmer can be removed from the Collective. This would require the farmer to obtain their own land use consent from the Council. The threat of removal from the Collective has been an effective motivator for farmers to implement the necessary changes on their farms.
19. I note that 94 percent of Collective farmers are at GMP, or are on track to meet GMP. Amuri is now looking ahead to implement a programme to move our farmers beyond GMP, with a focus on maximising nitrogen use efficiency on farms.
20. Amuri undertakes regular monitoring of groundwater and surface water within the Hurunui and Waiau catchments. Leading up to this Plan Change, Amuri commenced monitoring waterways in the Waiau River catchment that were not being monitored by the Council, in order to gain a better insight into the state of the environment and to ensure that a reasonable length of monitoring record was available when this plan change (PC1) came to be considered. Subsequently, the Council has taken over monitoring a number of these sites and the Company has provided the earlier data gathered to the Council.
21. Amuri is investigating opportunities within the Amuri Basin to improve water quality and is currently being advised on a managed aquifer recharge trial, as well as use of wood-chip filters and/or wetland treatment on small lowland drains.

22. As set out in paragraph 8 of my evidence above, PC1 is promulgated on the basis that there will be no net increase in nitrogen in the key water courses / water bodies within the catchments of the Hurunui and Waiau Rivers.<sup>1</sup> However, because there is understood to be no capacity for the further allocation of dissolved inorganic nitrogen rate (or 'DIN') in the Hurunui catchment, it was acknowledged very early in the plan change process that any increase in the nitrogen load likely to come from dryland farming would need to be offset so as to ensure that no increase in the overall DIN load in the Hurunui River would occur as a result of the plan change.
23. Amuri attended all the Nutrient Working Group meetings that preceded this proposed Plan Change. The balance of dryland and irrigated farming in the Hurunui and Waiau catchments contributes to the unique social fabric of this local community. Indeed, the farms that hold shares in Amuri have a total area of 69,000 hectares, and because only 28,000 hectares of this land is irrigated our shareholders farmers have 41,000 hectares of dryland. This is a characteristic of the Amuri Basin, with larger hill and high-country farms holding shares for irrigation of their flatter more productive land on the fringe of the Amuri Basin. I note that irrigated farmers heard the concerns of dryland farmers and wanted to help provide the flexibility that they desired.
24. During the collaborative planning process associated with the development of PC1, Dryland farmers outlined a change to the HWRRP that would permit a plausible dryland development scenario that would, in turn, address their concerns.
25. Once that proposed solution was identified, Amuri began working on how the headroom could be freed up to deliver the desired solution. At the time the solution was discussed, the Company identified that the load for the existing schemes included some headroom but there was insufficient headroom to provide for the surrender that was required for this plan change.
26. Amuri has subsequently taken over Hurunui Water Project Limited ('HWP') and in the process acquired their land use resource consent. The acquisition of the HWP consent has meant that Amuri now has sufficient headroom under both consents to surrender the necessary amount of nitrogen for dryland farmers, while still providing for further irrigation development.
27. While Amuri does not consider the Hurunui River Catchment to be over-allocated, the Company identified capacity within its consented loads that may be surrendered, to allow PC1 to progress without

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<sup>1</sup> Proposed Plan Change 1 to the Hurunui and Waiau River Regional Plan: Dryland Farming Summary of evaluation under section 32 of the Resource Management Act, page 11

risking DIN load exceedances in the Hurunui River. This resulted in the AIC/CRC Agreement as previously discussed.

28. Although Amuri is not the only irrigator in the Hurunui River catchment, we recognised that Amuri is the only entity capable of delivering the outcome dryland farmers were seeking, because individual irrigators were not prepared to reduce their nutrient loss to assist dryland farmers.
29. OPPORTUNITY COSTS AND IMPLICATIONS ON AMURI
30. Amuri, hold resource consents to use land for farming activities, which include conditions that provide for annual discharges of nitrate-nitrogen to be leached below the root zone from farming activities within the consented areas of the Hurunui River Catchment. Amuri own and hold the resource consents applicable to the HWP development and as a result have significant interest and involvement in nutrient management within the wider Hurunui basin, and are the primary party able to implement the changes to achieve the desired outcomes.
31. I understand that the worst-case scenario modelling undertaken by the CRC as part of PC1 indicated that permitted low intensity dryland farming could increase the nitrogen losses in the Hurunui River by 18 tonnes of nitrogen per year (as load in the river), corresponding to an increase of 38 tonnes of nitrogen per year load lost from source (beyond the root zone). I am aware that this was determined using a method that is directly relatable to the source load allocations defined in consents held by Amuri (in terms of its Amuri and HWP schemes). As an outcome of discussions around the required nitrogen load reduction with Council, Amuri has agreed to surrender 38 tonnes of nitrogen per year, subject to PC1 proceeding in accordance with the AIC/CRC Agreement which was ratified on the 30<sup>th</sup> of May 2019.
32. Irrigation has had significant social and economic benefits for the Amuri Basin. In this regard, I understand that irrigation assists in providing security to farmers and, in turn, confidence for farmers to invest in new enterprises and land use changes, resulting in the growth of dairying and rise in per capita value added, which translates into higher wages and incomes. I am informed that the irrigated areas of Amuri have a higher proportion of people employed full-time. Indeed, with irrigation, Amuri has flourished, when compared to surrounding, less irrigated areas. I understand, the economic activity associated with farming in Amuri, has helped to boost medical services, and a range of businesses, including builders, vets and rural supplies and that sports groups and community activities have also benefitted. These changes present

a positive picture of the benefits that irrigation can bring.<sup>2</sup> As a consequence, it is important to note the significant opportunity cost to Amuri associated with the surrender of nitrogen that underpins PC1. In this respect, put simply, the surrender of 38 tonnes of nitrogen per year significantly reduces the potential to sell more shares in the future to irrigate additional land. This in turn reduces the Company's ability to reduce debt and spread operating costs across more land. However, in considering the benefit to the community, Amuri agreed to surrender the maximum of 38 tonnes of nitrogen per year, while noting that any further reduction in the allocation that is available for use will represent both a direct, and opportunity, cost to the Company. While the AIC/CRC Agreement has been ratified, should the commissioners determine that PC1 not be implemented in line with the same, Amuri seeks the withdrawal of the plan change, for the reasons identified above, primarily given that the structure of the plan change is so reliant on the AIC/CRC agreement. Put another way, Amuri considers that the underpinning assumptions of the plan change are so reliant on the AIC/CRC agreement that a decision that does not reflect it significantly compromises the Section 32 analysis and justification for the change. As such, Amuri is opposed to those submissions that seek to introduce a greater nitrogen reduction. I come to this further in paragraphs 37 to 40 of my evidence.

33. AMURI'S ROLE IN ENABLING PC1

34. Amuri sought that the existence of the AIC/CRC agreement should be specifically acknowledged in the HWRRP within its submissions, noting that the Company fulfils an important (critical) role in enabling PC1 to be advanced in a manner that does not cause the Hurunui Waiau Catchment to be over allocated, from a water quality perspective.

35. In reviewing the Section 42A report with regard to Amuri's request to include reference to the agreement within the plan change, the Officer has noted that the agreement sits outside of the plan change process, therefore does not need to be referenced within the same. While Amuri considers that reference of the agreement within the plan change would provide clarity as to the important role that the Company plays in enabling PC1 to achieve its water quality outcomes, given the science behind the same has been set out in the Section 32 report and carried through into the plan change, we accept that specific reference is not critical. We continue to note however, that the effectiveness of PC1 in achieving the desired outcomes is reliant on the implementation of the AIC/CRC

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<sup>2</sup> Refer to the Annexures A and B to Amuri Irrigation Company Limited's submission which provide both Economic and Social Assessments prepared for the Company.

agreement and as such, reiterate the importance, in our view, that PC1 continues to be consistent with it.

36. ALTERNATIVE NUTRIENT MANAGEMENT PATHWAYS PROPOSED
37. Amuri notes that some submitters to PC1 have sought alternative nutrient management pathways. More specifically, both North Canterbury Fish & Game and the Royal Forest & Bird Protection Society have advanced a series of submission points seeking a greater nitrogen load offset (these parties seek 50 tonnes of nitrogen per year of in-river load). In response to these submissions, I note that Amuri is comfortable with the science that was put forward by the Council and that underpins the AIC/CRC Agreement. As such, Amuri is opposed to those submissions that seek a greater nitrogen load offset.
38. In relation to the Royal Forest and Bird Protection Society and North Canterbury Fish and Game Council submissions, I note that these submitters have not accurately portrayed Amuri's previous discussions within the nutrient working group, where the Company sought to offer to use Amuri's land use consent to make up to 50 tonnes of nitrogen available per year from Amuri's nitrogen allocation (source load) to Dryland farmers; to enable that sector of the farming community to further develop their properties without the need for a regional plan change. The offer was made at the time in order to try to avoid the cost, time and uncertainty of a regional plan change, while achieving flexibility for dryland farmers.
39. I record that an offer was made previously as part of a broader conversation prior to our pipe upgrade and expansion. It was never agreed to formally and was ultimately rejected by the dryland farmers. Since that time Amuri has used a significant portion of that allocation for its own development and expansion, meaning that the 50 tonnes of nitrogen per year (source load) is no longer available. I wish to highlight that Amuri has not offered to make 50 tonnes of nitrogen per year of source load available to resolve the allocation issues associated with PC1.
40. I note that the Officer references the AIC/CRC Agreement extensively, together with the science behind the same in response to submissions from other parties suggesting alternative nutrient management pathways. The Officer has not recommended any change to the proposed PC1 provisions that would cut across the AIC/CRC agreement. Amuri supports the Officer's recommendation to the same.
41. CONCLUSION

42. Amuri has invested significantly in infrastructure to deliver and manage water effectively and our farmer shareholders have made equally significant investments on farm to use water efficiently.
43. Amuri is working with farmers in the Amuri Basin to achieve and ultimately better GMP. The Company continues to invest in gathering data and analysis to understand the impact on water quality to target key risk areas and to assess opportunities to improve water quality outcomes.
44. Amuri has taken responsibility for offering the opportunity to provide dryland farmers with more flexibility to farm effectively because of the benefits to the wider farming community in the Hurunui District.
45. Amuri generally supports the framework provided by PC1, so long as the AIC/CRC Agreement is in place. The Company does not support any increase in the amount of nitrogen to be surrendered above that specified in the AIC/CRC Agreement.
46. I thank the Commissioners for their consideration of this statement of evidence.

**Andrew James Barton**

Chief Executive Officer, Amuri Irrigation Limited

4<sup>th</sup> of October 2019