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Subject: Plan Change 7: Opihi Flow and Allocation Working Party (PC7-382) - Evidence in Chief
Date: Friday, 17 July 2020 5:50:39 pm
Attachments: [Evidence of Mark Webb 17.7.20.pdf](#)
[Evidence of Gregory Anderson 17.7.20.pdf](#)
[Evidence of Mark Hawkins 17.7.20.pdf](#)
[Evidence of Grant Porter 17.7.20.pdf](#)
[Evidence of Caroline Saunders 17.7.20.pdf](#)
[Evidence of Murray Bell 17.7.20.pdf](#)
[Evidence of Dan Davies 17.7.20.pdf](#)
[Evidence of Keri Johnston 17.7.20.pdf](#)
[Evidence of Dr Gregory Ryder 17.7.20.pdf](#)
[Evidence of Gregory McAlister 17.7.20.pdf](#)
[Evidence of Timothy Ensor 17.7.20.pdf](#)
[Evidence of Jonathan Sutherland 17.7.20..pdf](#)

Dear Tavisha

We act for the Opihi Flow and Allocation Working Party (**OFAWP**), submitter no. PC7-382.

We **attach** for filing, in relation to the above matter, statements of evidence in chief of the following witnesses on behalf of the OFAWP:

1. Mark Webb (OFAWP representative – Fish & Game);
2. Gregory Anderson (OFAWP representative – North Opuha);
3. Murray Bell (OFAWP representative – Upper Opihi);
4. Deiniol Davies (OFAWP representative – South Opuha);
5. Mark Hawkins (OFAWP representative – Te Ana Wai);
6. Keri Johnston (hydrology);
7. Dr Gregory Ryder (ecology/freshwater quality);
8. Grant Porter (economics);
9. Dr Caroline Saunders (economics);
10. Tim Ensor (planning);
11. Gregory McAlister (drone footage);
12. Johnathan Sutherland (drone footage).

Kind regards,

Georgina Hamilton
Partner



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**BEFORE INDEPENDANT HEARING COMMISSIONERS
APPOINTED BY THE CANTERBURY REGIONAL COUNCIL**

UNDER: the Resource Management Act 1991

IN THE MATTER OF: Proposed Plan Change 7 to the
Canterbury Land and Water Regional
Plan – Section 14: Orari-Temuka-Opihi-
Pareora

**STATEMENT OF EVIDENCE IN CHIEF OF MARK HAWKINS ON BEHALF OF THE
OPIHI FLOW AND ALLOCATION WORKING PARTY
(SUBMITTER NO. PC7-382)**

Dated: 17 July 2020

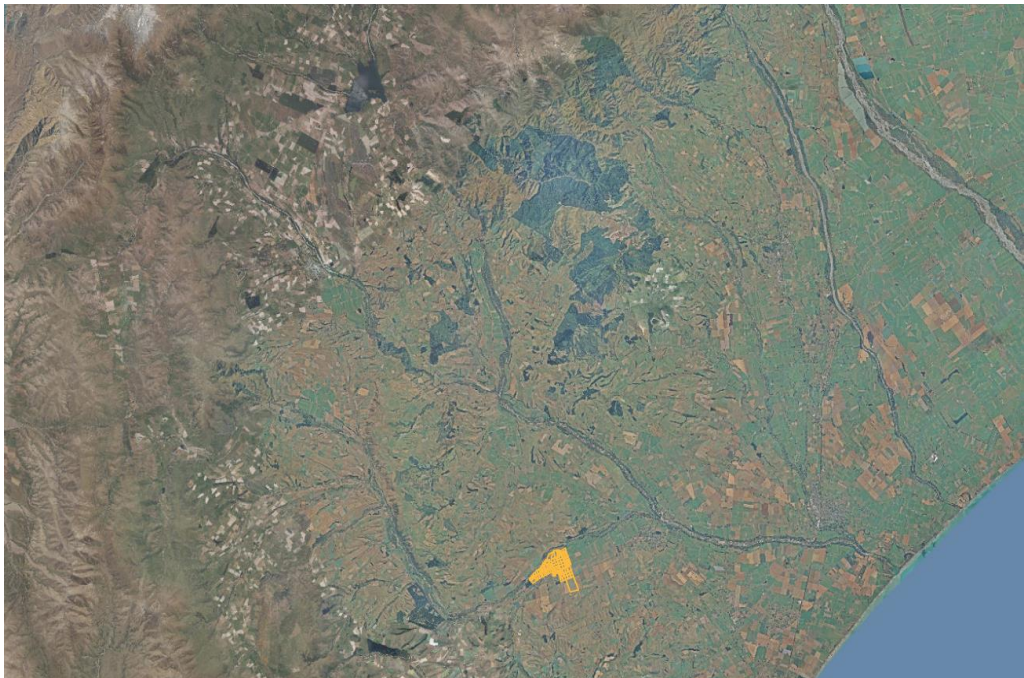
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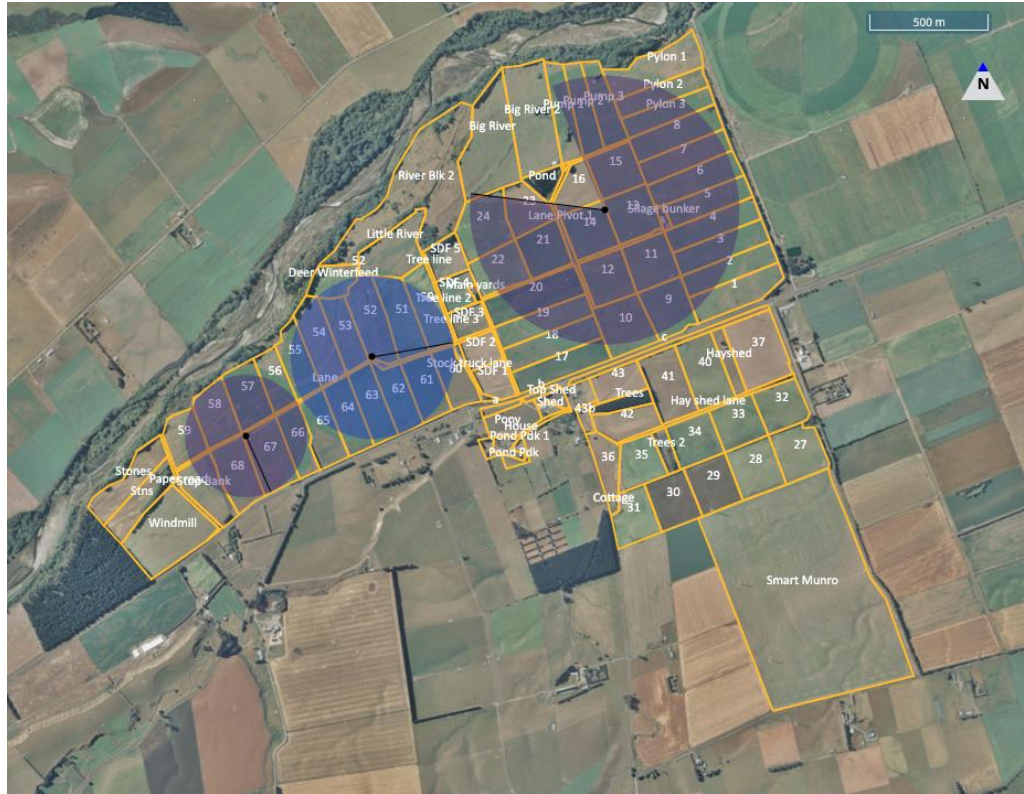
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1. INTRODUCTION

- 1.1 My full name is Mark Hawkins.
- 1.2 I studied Agriculture at Hertfordshire College of Agriculture and Horticulture (1981-1984) and in 1999 was awarded a Nuffield Farming Scholarship (UK).
- 1.3 I am currently Chairman of the Rabobank Upper South Island Client Council. I previously held the following roles: Chairman BDFA, Executive Committee and SAP member NZDFA, Company Chairman of Craigmore Farming Co., Director of Cervena Trust, Deputy Chairman (Board Of Proprietors) Craighead Diocesan School and Managing Director of Sutherlands Export Co.
- 1.4 I run a family business, farming in partnership with my wife, Anna, at Sutherlands Farm, 14 Sutherlands Road, Pleasant Point, on the Southernmost tip of the Canterbury Plains.
- 1.5 Our farm lies adjacent to the Te Ana Wai River downstream of Cave and is shown in the maps below.





- 1.6 We farmed in the UK for twenty years, before emigrating to New Zealand in August 2001 with our three young children and purchased Sutherlands Farm. At that time, it was 245ha, and we purchased adjoining blocks in 2010 and 2017. The farm is now 408ha, approximately 390ha effective, with 223ha able to be irrigated.
- 1.7 We are passionate about farming, both our daughters have worked on the farm to pay their way through university and our son is passionate about agriculture and is studying Agricultural Science at Lincoln University.
- 1.8 We are primarily beef finishing, some small seeds production, arable, deer (Velvet) and dairy support. Last year we supplied approximately 1000 cattle, predominantly Angus steers to Silver Fern Farms and are proud to have been selected to supply their 100% Angus beef programme, we also supplied 300 head Angus steers to Five Star. We have two full time on the farm and also employ several part time or casuals.
- 1.9 We take water from an underground gallery on the Te Ana Wai (Tengawai) River, which is a tributary of the Opihi River, for irrigation. Our current consent CRC992793 was one of a group of consents granted to farmers in the Te Ana Wai catchment by ECan following consent hearings and Environment Court

appeals in 2001. We have been part of the Opuha Dam Scheme since its inception and are “AA” (affiliated) irrigators.

- 1.10 We are members of the Te Ana Wai Water Users Group (**TWUG**), and I am currently the Chairman of TWUG. TWUG has been operating for over twenty years.
- 1.11 I am also a member of the Opihi Flow and Allocation Working Party (**FAWP**). I am authorised to provide this evidence on behalf of the FAWP, which focuses on aspects of the FAWP’s submission on PC7 concerning the minimum flow and partial restriction regimes for the Te Ana Wai River, and implications of those regimes for the TWUG.

2. SCOPE OF EVIDENCE

- 2.1 In my evidence, I provide an overview of my farm operations and background to the FAWP’s submission as it relates to the Te Ana Wai. I also address the implications of PC7 and recommendations made in the Section 42A Report for TWUG.
- 2.2 My evidence follows the following structure:
- (a) An overview of Sutherlands farm and the investment we have made in the farm over the last twenty years;
 - (b) An overview of the characteristics of the Te Ana Wai catchment, the current minimum flow regime and TWUG;
 - (c) An overview of the OTOZ Zone Committee’s Zone Implementation Programme Addendum (**ZIPA**) process and the FAWP’s proposal for the Te Ana Wai;
 - (d) The implications of PC7 and recommendations made in the Section 42A Report and June 2020 Supplementary Report for TWUG; and
 - (e) Conclusions.

3. EXECUTIVE SUMMARY

- 3.1 The Te Ana Wai has a unique history. It is a small, healthy, clean, river. The current minimum flow regime was developed specifically as a result of consultation between ECAN, Fish & Game and TWUG as part of the original consent process, informed by expert advice from NIWA (Don Jellyman and Ian Jowett), and in my view, delivered an environmentally sound outcome.
- 3.2 The TWUG supported the FAWP's proposal for minimum flow increases in the Te Ana Wai at 2025 on the basis of expert advice that these flows were required for ecological needs with pro-rata partial restrictions to take effect from 2035 but were made prior to the economic impact of each being fully understood. The Zone Committee's last minute change to step two with pro-rata partial restrictions taking effect from 2030 was, in my view, an abuse of the process, with no consultation – it has significant financial implications for TWUG members' farming businesses, and consequently irrigators must be given more time to prepare for the financial hit and on-farm operational changes.
- 3.3 The TWUG therefore strongly opposes the proposals in PC7, and more so the officers' recommendations to bring forward the timing of the minimum flow increases, and pro-rata partial restrictions proposed by PC7.

4. SUTHERLANDS FARM

- 4.1 When we originally purchased Sutherlands Farm it was already irrigated; it had one of the first centre pivots in Canterbury being a 200m towable high pressure pivot (c1970) and two hard hose gun irrigators. All were inefficient, high pressure, with high application rates and slow return times. Today, we have three centre pivots covering 162ha, long lines on 28ha and hard hose gun on 33.1ha. For efficiency, the majority of water is used by the pivots. Due to lack of water availability, the long lines and hard hoses are only used to establish or save crops where the in-ground infrastructure is in place.
- 4.2 In an effort to fully engage with the new era, we had our first Farm Environment Plan prepared in June 2014 and ran Overseer at the same time. We have a soil moisture metre to monitor soil moisture, plate meter to monitor pasture growth, and use the FarmIQ Farm Management Programme extensively. We were

amongst the first to have our FEP audited (in 19/12/2016) and were awarded a B+.

4.3 We have a well-balanced property with a variety of soil types and irrigation ranging from well drained sandy/stony silt loams on the Flats (Eyre, Ashburton and Templeton) through to silt loam over clay (Waitohi). We grow a variety of pastures and crops according to soil type: lucerne, tall fescues, ryegrass (IRG and PRG), maize, fodder beet, fodder rape, wheat/barley, and small seeds mustard and IRG. We follow fodder beet with maize to improve the soil structure and have tried oats into fodder beet ground to soak up excess nutrients. Soils are tested annually and a fertiliser plan produced according to soil indexes and crop requirements. Pasture pH is maintained above 6.0.

4.4 We have invested millions of dollars into our property through the following improvements:

- three new centre pivots (all low pressure replacing previous inefficient high pressure system);
- gallery for extracting water for irrigation (6m below river bed) after ECAN insisted we change from our surface take.
- New three bedroomed house for staff accommodation.
- significant renovation on homestead.
- clearing of waste ground and old crack willows and levelling to turn into productive pasture.
- new stock water scheme.
- new laneways and tracks.
- fenced and planted areas for flood protection and bird life.
- extended on farm irrigation storage pond.
- new cattle yards.
- raised soil pH across farm.

5. TE ANA WAI CATCHMENT AND TWUG

- 5.1 The Te Ana Wai is geographically quite a large catchment (the largest in the OTOZ zone) with low rainfall. There are only five AA irrigation consents in the catchment and the holders of those consents form the TWUG.
- 5.2 The irrigators in the TWUG have worked collaboratively with EKAN for over twenty years. TWUG was amongst the first to have water meters and telemetry installed as we trialled them with EKAN, using Boraman Consultants for all reporting.
- 5.3 During the original consenting process twenty years ago, the irrigators on the Te Ana Wai river were forced by EKAN to become part of the Opuha Dam development, being shareholders became a condition of our consents. The TWUG holds a total of 310 shares with a Capital Value of \$2,480,000, with annual OWL water charges totalling \$61,082.4 per year.
- 5.4 It was originally promised that water would be put into the Te Ana Wai higher in the catchment to supply our needs, but this never eventuated. Instead water is released from the Opuha Dam into the main stem of the Opihi River to compensate for our takes and their effect on mainstem flows. This has major ecological benefits, with water travelling 37km from the Opuha Dam to the confluence of the Te Ana Wai and the Opihi rivers, and a total of 55km from the Dam out to sea. Three of the TWUG farms are located approximately 6km from that confluence.
- 5.5 In addition to our being shareholders and governed by the consent conditions associated with this, we are also governed by a separate minimum flow on the Te Ana Wai River. This minimum flow was developed specifically for the Te Ana Wai in consultation with EKAN, Fish & Game and TWUG. It was a long drawn out and expensive process, but one that with hindsight delivered an environmentally sound outcome.
- 5.6 The current regime has been in place for nineteen years. The TWUG work well together and comply with our consents. Water sharing comes into effect when flows get down to our first trigger point (500L/sec) at which we go onto 50% restrictions. We have engaged Boraman Consultants to monitor all our

consents/pumps via telemetry. Boramans email me and send me a text message whenever there is a change in the irrigation conditions and I notify our group (and cc OWL and ECAN) as well as who's turn it is on the roster to be on or off. At 400L/sec we are all on full restriction.

- 5.7 Our minimum flow consent conditions, which are based on flows at the Cave recorder, are:

1 May – 31 August: 600L/sec

1 September – 30 September: 500L/sec

1 October – 30 April: at 500L/sec the TWUG water sharing regime takes effect and each member can take our water on alternative days achieving a 50% reduction in our consented takes.

1 October – 30 April: at 400L/sec minimum flow – full restrictions.

- 5.8 Our catchment is different in that the flow recorder site is in the middle of the catchment, with consent holders above and below the recorder site – this was taken into account when the minimum flows were set. The conditions are that the consent holders' ability to take water changes when restrictions are implemented, including one consent holder has to take his water lower down the course of the river. Four out of the five consents have storage ponds which helps us continue irrigating through the 50% restriction periods.
- 5.9 We have worked well with ECAN for over twenty years, we have pioneered water meters, telemetry, and water user groups. We have all invested millions of dollars by switching to spray irrigation and water storage.
- 5.10 Due to its nature, the Te Ana Wai's flows increase and decrease many times over the season. In many discussions during the ZIPA development it appeared the other parties had no concept that the river flow decreases due to the dry weather/catchment and continues to, so long after all irrigating has ceased. The discussion was as though we were setting a minimum flow that the river would adhere to. The reality is that the river flow is increasing and decreasing all the time and it will have the effect of imposing restrictions as the river passes through the 'zone'. There is not a tap at the source where we can set the flow.

- 5.11 We watch the river closely. Over time we have observed that when we go onto full restriction, the river is still flowing along its entire length. This can be seen in the photos below, which I took in 2017. I took a number of photos every time we went onto full restrictions i.e. no-one was irrigating on all occasions the river was still flowing past us (we are the last of the irrigators, there are no further abstractions below us). OWL engaged Vector Charlie Charlie to produce a drone video of the river when 100% restrictions were in place and no irrigation extraction was occurring – this also showed that the river is still flowing for its entire length at this stage, and is referred to in the evidence of Dr Greg Ryder.
- 5.12 Ms Johnston has explained the unique hydrology of the Te Ana Wai catchment further in her evidence.



- 5.13 I understand that the Te Ana Wai is one of the best fishing rivers in the whole of Canterbury. In drought conditions, Fish and Game take the fish out of the Te Ana Wai and other surrounding rivers, and move them to the Opihi river. These matters are addressed further by Mr Mark Webb and Dr Greg Ryder in their evidence, together with an overview of relevant ecological habitat and water quality considerations for PC7.

6. ZIPA PROCESS AND THE FAWP

- 6.1 I joined the FAWP in late 2017 together with two other members of the TWUG, Herstatt Ulrich and Dermott O'Sullivan, who have also sat on the OTOP Zone Committee at separate times.
- 6.2 Mr Webb has explained the basis on which the FAWP was formed and its work during since 2017. The FAWP engaged fully in the Zone Committee's process for developing the OTOP ZIPA, which was issued in December 2018. The FAWP was the only part of the process where you had all affected or interested parties around the table, working through the various issues and expert advice and reaching a consensus view.
- 6.3 The FAWP's proposal for the Te Ana Wai originally comprised increases in current minimum flows at 2025, with stepped partial restrictions. This was initially accepted by the Zone Committee. However, at the request of the Zone Committee and further consideration, the FAWP reluctantly agreed to pro-rata partial restrictions to take effect at 2035. TWUG was not happy with the proposal as we felt that the Te Ana Wai was different because we had already specifically scientifically debated the minimum flow for the river back in the consent hearing in 2000. Also, we were all shareholders in the Opuha dam and this was not recognised. I know it's an old cliché, but we took the view at the time that "if it 'ain't' broke, don't fix it".
- 6.4 However, in an effort to recognise the wishes of the Zone Committee and the public we felt it was possible for us to get to step one (increased minimum flows), and step two (pro-rata partial restriction), so long as there was time for us to prepare for the financial hit and on-farm operational changes. It would provide time to see if there was any ecological benefit of the proposed regime before moving forwards to any further steps.
- 6.5 The FAWP made its recommendations with consultation from all parties and expert opinions around the table. The regime was informed by advice received from Dr Greg Ryder and Mr Mark Webb about ecological considerations. It should be noted that the proposals were made without a full understanding of the economic implications of the minimum flow increases and pro-rata partial restrictions.

- 6.6 Mr Porter's economic analysis was not available to the FAWP at the time of its recommendations and this paints a very bleak picture for the members of the TWUG at both 2025 and 2030. It is doubtful whether the TWUG would have been able to support the FAWP's recommendations if Mr Porter's analysis had been available at that time.
- 6.7 A last-minute change to the regime was made by the Zone Committee without any consultation and the ZIPA released in December 2018 recommended that the timing of pro-rata partial restrictions be brought forward to 2030. The ZIPA recommendation was carried through into PC7.

7. IMPACTS OF PC7 FOR TWUG

- 7.1 The harsh reality of the PC7 proposals is set out in Mr Porter's evidence. For the Te Ana Wai catchment, all farms other than dairy farms with low debt will become uneconomic.
- 7.2 The members of TWUG have all invested significantly financially by installing spray irrigation and storage ponds. In short, we can do no more.
- 7.3 Mr Porter's analysis shows that there would be a significant drop in farm values due to the reduced availability which would severely compromise the ongoing viability of farms in the Te Ana Wai.
- 7.4 Mr Porter's summary table shows for our farm a reduction in gross farm income in the order of \$24,519 under 2025 and \$42,085 under 2030. With all respect to Mr Porter, that is on the light side – the reality is that for 260 dairy heifers that figure represents 7.5 weeks grazing. These changes move us from 'irrigated' to 'partially irrigated', we would not attract dairy grazers, and whereas at present we could consider dairy farming if we increased our water storage, under this regime we could not. The effect on Capital value is catastrophic. Our investment in the property will cease and our discretionary spending will disappear. Our tree planting program will cease, our employment of casual labour will cease. With hindsight we would not have invested in the farm or South Canterbury.
- 7.5 The Section 42A Report recommends that PC7's 2025 minimum flows for the Te Ana Wai be adopted, with pro-rata partial restrictions brought forward to 2025. The July 2020 Supplementary Report takes things significantly further,

with PC7's 2025 minimum flows and partial restrictions taking effect as soon as PC7 becomes operative. There is no rationale for either policy in my view. Dr Greg Ryder's evidence indicates that there may be little benefit ecologically by moving from step one to step two, whereas there are severe financial implications.

8. CONCLUSIONS

- 8.1 The Te Ana Wai has a unique history. It is a small, healthy, clean, river. The current minimum flow regime was developed specifically as a result of consultation between ECAN, Fish & Game and TWUG as part of the original consent process, informed by NIWA advice, and in my view, delivered an environmentally sound outcome.
- 8.2 Studying the evidence of Dr Greg Ryder and Mr Grant Porter would indicate that any change in minimum flow would deliver little environmental benefits at significant economic and social cost to the families and districts involved.
- 8.3 The TWUG supported the FAWP's proposal for minimum flow increases at 2025 on the basis of expert advice that these flows were required for ecological needs (but were made prior to the economic impact being known), and the FAWP's reluctant agreement (following requests by the Zone Committee) to pro-rata partial restrictions at 2030. The Zone Committee's last minute change to bring forward pro-rata partial restrictions to 2030, which has carried through into PC7, has significant financial implications for TWUG members' farming businesses, and consequently irrigators must be given more time to prepare for the financial hit and on-farm operational changes.
- 8.4 The reporting officers' most recent recommendations, which would have PC7's 2025 minimum flows and 2030 pro-rata partial restrictions taking effect from when PC7 becomes operative, take things a significant step further. There is no rationale for either policy and both are strongly opposed by the TWUG.

Mark Hawkins

17 July 2020