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**Subject:** PC7 EIC - As One Inc (submitter number 387) [DC-Documents.FID2837222]  
**Date:** Friday, 17 July 2020 4:38:23 pm  
**Attachments:** [image003.png](#)  
[15072020\\_20069\\_CLWRP\\_PC7\\_Waimak\\_evidence\\_Mike\\_Freeman\\_FINAL.pdf](#)  
[Evidence of Mark Nalder for As One Inc \( 11769417 1\).PDF](#)  
[Evidence of Julie Mehrtens for As One Inc \( 11769253 1\).PDF](#)  
[Evidence of Alan Hawkins for As One Inc \( 11769411 1\).PDF](#)  
[Gavin Reed PC7 evidence \( 11769244 1\).PDF](#)

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Good afternoon,

Please find **attached** the following evidence. This evidence is filed on behalf of As One Incorporated (submitter number 387), and also on behalf of individual submitters, where a second submission number is provided:

- Dr Michael Freeman (expert evidence);
- Mark Nalder (submitter number 272);
- Julie Mehrtens;
- Alan Hawkins (submitter number 413).; and
- Gavin Reed (submitter number 374).

I have copied Hans van der Wal into this email, who is also counsel for As One Inc.

We note that additional information was loaded onto the Plan Change 7 hearings website yesterday. Our witnesses have not had the opportunity to review that information, or comment on it in this evidence. We reserve the right to file further evidence in response to those matters, if required.

Kind regards,  
Jamie.

**Jamie Robinson**  
Associate

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**BEFORE THE HEARING PANAL OF THE CANTERBURY REGIONAL  
COUNCIL**

**IN THE MATTER of the Resource Management Act 1991**

**And**

**In the matter of Plan Change 7 to the Canterbury Land and Water  
Regional Plan**

# Statement of evidence of Gavin Raymond Reed

## Introduction:-

My full name is Gavin Raymond Reed.

I lodged a submission (submitter number 374) on proposed plan change 7 of the Canterbury Land and Water Regional Plan. I have also been involved in the submission made by As One Inc (submitter number 387), and have reviewed the expert evidence of Dr Michael Freeman that As One has filed. I am in full support of the As One submission, and Dr Freeman's evidence.

I have lived at Bennetts, Oxford for my entire life on a family farm owned since 1872.

I am 57, married with 3 adult children, all with careers off-farm.

I own in partnership with my wife, a 227 hectare mixed Cropping and Beef operation.

I am a shareholder of Waimakariri Irrigation Ltd (WIL).

## Qualifications/experience

- WIL Director for 10 years ( 2008 – 2018)
- WIL Chairman for 8 years (2010 -2018)
- ECan Overseer Farm advisory group member for 3 years (2015-2018)
- NIWA irrigation research group member for 9 years
- Awarded a New Zealander of the Year Local Hero award in 2019
- Received a WDC Community Services Award in 2019
- Member of Oxford Rural Drainage group ( 2010 – present)
- Current member of Oxford A & P association committee (32 years )
- President of Oxford A & P Association 2006
- President Oxford Farm Discussion Group 2000
- Owned and operated a mixed cropping and beef farm for 33 years
- Diploma in Agriculture 1982 at Lincoln College
- Held many positions in Sports/ community clubs over 37 years (Rugby coach for 9 years)

## Scope of Evidence

My evidence provides:

- An overview of my farming operation and environmental compliance requirements
- Changes and improvements already actioned towards GMP
- The implications and effects of the proposed rule framework

## Our Farming operation

- I am the 5<sup>th</sup> generation of my family to farm this property with 227 ha in area
- It is currently farmed as a mixed arable /beef finishing/ dairy heifer grazing property
- Originally farmed as predominantly sheep (80%)/ arable farm(20%) dryland property
- When the opportunity to join the Waimakariri Irrigation scheme arose in 1999, the operation changed from sheep, to beef 60% and cropping 40%. Farming sheep proved uneconomic under irrigation. Sheep numbers were reduced from 1700 to 40. Beef numbers increased from 0 to 5-600 over the summer period. Economics and the requirement to meet irrigation costs, were the sole reason for these changes.
- Taking on irrigation was necessary to reduce other impact of droughts. We would not be farming now if we had not changed. Irrigation came at a huge financial cost and debt has increased markedly (400%) as we have developed the farm.
- We have enough irrigation shares to irrigate half of the farm area, the actual area changes from year to year depending on crop location.
- We use 3, 100m wide irrigators, 2 of which are Linear fixed boom and one Rotorainer. All of our irrigation is under the WIL scheme
- Only 2 irrigators are in operation at any one time while the 3<sup>rd</sup> is being moved to set up for the next location.
- Current crops grown are wheat, barley, grass seed, peas, radish and pak choi. Cropping approximately 90 ha each year.
- Net returns have been falling for the last 5 years. The best returns were when we wintered large herds of milking cows (700) but this was environmentally unsustainable and affected the soil structure and quality for the arable side of our operation. We ceased wintering cows and chose to grow young stock instead. We now winter only 350 beef and dairy animals. This has halved the income from cattle during the winter period.
- Crop income is also reducing as costs have increased while gross income has remained static.

## Operational Changes to improve farm practice

### Irrigation management

- All irrigation is managed using scheduling and continuous monitoring using 7 ground moisture probes. NIWA, Agri-Optics ( Vantage NZ) and Hydroservices (Aqualinc) monitor soil moisture levels each week. I use the information provided by the probes along with rainfall to manage irrigation scheduling. This has been done since 2010 as the technology has grown. All irrigation is scheduled on a 10 day rotation with different crops being irrigated as required. Soils are maintained between the 90% full down to 50% available soil moisture levels. A buffer is maintained to allow for unexpected rainfall events.

- Changed irrigator type from 3 Rotorainers to 1 Rotorainer and 2 Linear Fixed boom. –This has improved our application rate – more consistent, efficient and uniform
- Move 3 irrigators every 2 days to make more efficient use of the water available. Only 2 irrigators are in operation at any one time, allowing one to be moved to its new location. 2 irrigators are going for approx. 23-24 hours each day. Staggered finish times allow more consistent use of the water.
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### **Stocking and management changes**

- Changed from wintering mixed age cows (700) on 30ha kale down to no wintering of cows.
- Started grazing dairy heifer calves from December to May (18 months later) (150 calves) This means that they are only kept over one winter period.
- Increased the grass area of farm over winter – this manages run-off, leaching of N, and soil damage. The kale area of the farm has been reduced from 30 ha to 10 ha, and is grazed by the heifer calves mentioned above.
- Started grazing 8 mth old beef steers – keeping until 18 months of age (150 calves)
- Grow 50 beef cattle to finishing
- Increased area of crops grown from 40 – 90 ha
- Selling baleage instead of grazing large cattle over the winter.
- Total cattle number grazed over the summer is now reduced from 600 down to 500 head

### **Fertiliser application**

- N Fertilizer is used under guidance of Fertilizer consultants (Fert' Rep.)
- Only 2-4 application of N are applied on each grass paddock per year. Each application is between 33kg and 47kg N with a maximum total of approx. 145 kg N per year.
- All crops are grown using a nutrient budget – budgets are targeted to meet specific crop requirements while considering growth periods. Fertilizers are only applied when weather conditions are suitable. They are not applied to water saturated areas. Budget targets for crops are to have little or no N left at crop finish.
- Fertilizer spreader has been upgraded at a cost of \$15K to a machine that has constant weighing of spreader with regulated flow rate regardless of speed. Also uses double row spreading to improve application, consistency, efficiency and uniformity.
- GPS fitted to the tractor to allow more accurate application of fertilizer.

### **Other changes**

- Upgraded seed drill with an Airseeder disc drill at a cost of \$85K. The new drill reduces mechanical cultivation and downtime between crops. This reduces the N loss from the soil between grass and crop production. Also improves soil structure and organic composition of soil (increased organic matter in soil also decreases N losses from bare soil)
- Farm environment plans are used to manage the farm. These are prepared annually and audited every second year. These have helped to move towards Good Management Practice by highlighting any issues for future development. The FEP included monitoring

irrigation scheduling and performance accuracy of the irrigators, and I have upgraded these systems as outlined above. The last remaining matter to address in my FEP is the stock water access for cattle. I have fenced off all waterways to prevent stock access, however that was previously a stockwater source. Animals currently have to walk back over grazed areas to access stock water troughs, which is not best practice. This is something we are working on, however it comes at a significant cost as it is a major process, and so can't all be done at once (particularly given the other costs we have recently incurred to improve our practice)..

## **The effect changes have had on financial viability**

- Reducing cow wintering numbers has severely reduced grazing income.
- Increased finance costs due to buying cattle to grow versus winter grazing (\$200 –\$ 250K)
- Grazing dairy heifers all year round has reduced some of the financial cost but has also reduced net income.
- Increased finance risks – large fluctuations in costs of buying young stock each April and then selling them in December. If prices in December are poor, we are forced to continue growing stock to finish them in the following winter and spring.
- Large increase in total debt to carry the irrigation upgrades along with improved machinery and implement upgrades. (\$250K+)
- Stock water improvements are still required when finances become available.
- Crop costs are increasing every year but yields and gross returns are remaining static. Nett returns are reducing every year.
- Higher value crops have a much higher risk associated with them. Yields and gross returns are highly variable.
- Reducing nitrogen fertilizer on crops has an immediate effect on yield, thus reducing nett returns.

## **GMP / Overseer Figures and Portal Issues**

- Currently we are close to meeting all GMP booklet requirements (Not currently an A grade because of the stock water issue)
- We operate within the WIL scheme so the farm was assessed using MRB look up tables. Our last 2 audits were at B+ with the stock water system the only outstanding issue that isn't at GMP booklet standard. The cost of replacing this means that fixing this is a long term proposition.
- Overseer figure is currently 57 and has reduced from 65, 3 years ago. As I have outlined below, the Overseer number doesn't capture all of the improvements we have made, and is not particularly accurate when assessing cropping losses.

- Previous changes in stock grazing policy (i.e. stopping the winter grazing of cows), occurred before the initial assessment took place, so no reduction in overseer number occurred.
- Changes to irrigation type, practice, seed drill type, fertilizer spreader type, and GPS equipment aren't easily measured by the Overseer system so have had little or no effect on our Overseer number.
- Crop types i.e. radish, grass-seed, peas aren't easily assessed by Overseer and the Portal, so changes to these systems aren't easily recognised.
- Reducing our Overseer number below GMP from current cropping operations will be very difficult without reducing our yield and nett returns. 5% reduced N input on Barley reduces nett income by 18%, and wheat by 20%.
- Reducing stock numbers to meet reductions will be impossible to achieve without reducing income.
- ECAN Overseer Farm Advisory Group work showed that on average a 1% reduction in Overseer number below GMP showed an equal 1% reduction in nett income.
- There is confusion over the starting point for GMP. Farmers who started acting earlier to improve practices will be penalised further if their previous changes are not taken into account.
- There is confusion between GMP booklet, MRB look up tables and Portal figures. These are widely variable and inconsistent. These differences make our ability to meet new rules, or measure progress, extremely difficult to achieve.
- The modelling used to show why N reductions are necessary is highly debatable. The research done by Dr Mike Freeman shows that proposed reductions in N outputs by farmers to improve groundwater and river N figures may be totally un-necessary. The resulting financial harm to farms in the district could also prove to be un-necessary.
- Capital farm values have been reduced already with the announcement of the PC7 plan.
- Future N reductions proposed in the plan will further reduce Capital farm values as they take effect.
- The options available to me to change our farm practices are very limited.

## Conclusion

- The financial stability of my farm will be at serious risk if the current PC7 plan goes ahead as proposed
- My family have expressed serious doubts as to our farm staying in the family after I retire
- Meeting GMP has already come at a huge financial cost to me increasing our farm debt by \$200 - \$300 K
- Changes to our farm practices to improve our environmental footprint haven't shown an improvement in our Overseer number
- Further changes to meet Overseer number reductions of 5% will put my entire farm business at risk
- The proposed PC7 changes are putting Capital farm values at risk of collapsing

- The options available to sell our property will be to our neighbouring Dairy farm with a higher N output than the current operation. There are no other viable farming operations which would be profitable with the reduced N outputs proposed. The only other option would be to sell the farm for lifestyle subdivisions. To be viably sold as a sheep operation, capital value would need to drop by 50% or more.
- Increasing farm costs are already placing our entire farm operations at risk. We are constantly looking at ways to create new income streams and reduce costs, to help us survive.
- The new PC7 rules will have a huge effect on us even though we aren't considered as one of the target contributors to the N losses within our district's waterways
- The whole community will suffer financially if farms like mine are forced out. The flow-on effect of the operating expenses which we spend within the district would mean approximately \$1.5 m less would be spent within the district ( factor of 4x our operating expenses)
- I have spent 33 years building up my business putting all my income into the farm. This was to create financial stability and retirement security for me and my family. This is all at risk with the introduction of the new PC7 rules. My wife returned to full-time employment off-farm to help give us some financial independence, but it won't be enough if the new rules are imposed as they are currently proposed.
- I have found the whole ZIP addendum process along with the PC7 plan, stressful on me personally along with my family. The proposed changes have meant that I have had to focus on fighting these changes instead of focussing on my core farming business.
- The effect on the whole farming community surrounding our family is also quite distressing. Many of my neighbours will be affected even more severely than we are.
- I have also found that all the effort of the Working party which went into submitting to the ZIP addendum process, along with a considerable number of meetings to discuss it, were essentially a waste of time. The PC7 plan which came out as a result of the zone meetings was totally different to the plans presented to us for discussion. The resulting process which allowed no questioning of the information used to formulate the PC7 plan has caused a huge amount of stress and uncertainty to our community.
- The table 8-9 has no coherent basis for how it has been drawn. It does not follow catchment areas, nor soil type. It also excludes half of the farms which will contribute to the surface N loadings in the rivers within the zones (the Cust River has only half the dairy farms included as contributors to the catchment). This means that even with all the reductions proposed to be placed on farms within the NPA, the results will not be as good as they could be. Table 8-9 seems entirely focussed on the reductions, and not on the actual water quality we are trying to improve.
- Table 8-9 should be deleted and the entire Waimakariri District should be treated on the same basis. If all farms meet GMP, the resultant N loss reductions will go a long way to decreasing N loads within the groundwater and river systems. In my view, significantly more benefit would be derived if ECan focussed its money on fixing the issues with the Farm Portal, so all farmers knew what GMP Baseline looks like, and supporting farmers with education and alternatives to reach those numbers.



## Support for other submissions

- I fully support the AS ONE INC submission and their alternative plan to the current PC7 plan proposal.
- I support the WIL proposal to monitor our ground-water and rivers. This monitoring should then be used to form the basis for future plan reviews, rather than the blanket reductions set out in Table 8-9.

## Signed

Gavin Raymond Reed,

17 July 2020