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Subject: FW: Brief of evidence on plan change 7 to the Canterbury LWRP by Larundel Dairy Partnership
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Subject: Brief of evidence on plan change 7 to the Canterbury LWRP by Larundel Dairy Partnership

Good afternoon,

Please find **attached**, on behalf of Larundel Dairy Partnership (*Larundel*), a joint brief of evidence of Larundel, Gordon Fulton, Ben McKerchar and Bradley Sutton on the proposed Plan Change 7 to the Canterbury Land and Water Regional Plan.

Nga mihi,

Kirsty

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Before the Hearings Panel of the Canterbury Regional Council

under: the Resource Management Act 1991
in the matter of: Proposed Plan Change 7 ('PC7') to the Canterbury
Land and Water Regional Plan ('CLWRP')

**Statement of evidence from LARUNDEL DAIRY
PARTNERSHIP (LDP), GORDON HAMISH FULTON, BEN
PAUL MCKERCHAR AND BRADLEY JOHN SUTTON**

(Submitter No. 179)

Dated: 17 July 2020

INTRODUCTION

1. Larundel Dairy Partnership (LDP) is a large scale high performing dairy farm collectively owned and operated by four farming families. Gordon and Wendy Fulton, Graeme and Jan Sutton and John and the late Erica Trebilco are shareholding partners of LDP. Ben and Tracy McKerchar and their team of staff have managed the on-farm operations of the business for the past 11 years.

THE HISTORY OF LARUNDEL

Gordon Fulton, LDP partner and 2nd Generation Owner.

2. My father John bought the 400ha West Eyreton property "Larundel" in 1965. At the time it was a rundown sheep and cropping farm managed through share-cropping arrangements and running 1000 sheep.
3. After working on the farm for a year in 1966 I spent 12 months in Australia, working on a large Merino stud farm. I then went to Lincoln College for three years, where I obtained a Diploma in Agriculture and a Diploma in Valuation and Farm Management.
4. I managed Larundel until 1979, when my father moved to Christchurch and I took over ownership. After successive droughts, we drilled two wells for irrigation in 1977 and installed angle-towed sprinklers.
5. Five years later, in 1982, we drilled another well and installed a Roto-Rainer irrigator, followed by a second Roto-Rainer in 1987.
6. The water levels in the wells were very dependent on rainfall and could easily go dry. By the year 2000 I was running 3500 ewes, 1000 hoggets and 100ha of crop.
7. Since this time, I have been a shareholder of Waimakariri Irrigation Limited ('WIL').
8. When WIL increased the size of the races running through the property, I decided in 2001 to sell part of the property as dairying seemed to be the best option for the family. We sold 361ha by deadline private treaty with the intention of it being converted to dairying and ourselves being a partner in the conversion.
9. Looking back on this decision some 20 years later, as a family we realise what an opportunity farming gave us.

10. My children, John, Tim, Peter and David, would arguably have never been able to have the careers that they did, without having grown up in a strong, stable, rural community. John, my eldest son, forged a career in the seeds industry and now operates his own seeds business, Heartland Seeds, while Tim is a journalist, media consultant and author, specialising in the agriculture sector. Peter is perhaps best known as a professional cricketer – and now Canterbury’s Head Coach – but has maintained strong ties to rural Canterbury community initiatives, including a cricket scholarship that he initiated for promising young players in the Canterbury Country region. The youngest son, David, is a chartered accountant who is currently applying his analytical skills to a role as Commercial Manager for the Good Oil, a producer of rapeseed oil products.
11. My wife, Wendy, forged her own professional career in physiotherapy and health sector management. As a couple, we combined our income to support the farm and our family. An ability to farm and generate off-farm income went hand-in-glove for us over a period of more than 30 years.
12. I would argue that, if agriculture in our region had been allowed to wither in the way that it might under the proposed nutrient management rules, families like ours would never have an opportunity to develop viable, valuable careers like these. Agriculture is a huge economic engine and it must not only be maintained, but nourished.
13. The Larundel Dairy Partnership has done precisely this over the past two decades.
14. Under the new structure, our family has a 28% share in Larundel Dairy Partnership. I originally retained 39ha with WIL shares, which I had used to irrigate 23ha with a Roto-Rainer. In 2018 I sold the 23ha, along with the associated WIL shares, to the partnership. I now have 15ha on which I run 150 sheep.
15. My community activities include:
 - Secretary of Mandeville Sports Club – 25 years.
 - Ohoka Rugby – Seniors for 10 years and Coach for 15 years.
 - Chairman of the Swannanoa School Board of Trustees; Chairman of the Canterbury Jockey Club.
 - Swannanoa Cricket Club – player since 1965, Secretary from 1974-2012 and in 2019 I represented New Zealand Over ‘70s in Australia.
16. Since the property was converted to dairying and pivot irrigation installed, the depth of the lighter soils has increased, and dry matter production has risen. The water levels in the wells are considerably higher, with the shallowest well pump at six metres. It has never gone dry in nearly 20 years.
17. The wetter areas have been fenced off and drains dug to allow water to drain off the property. Without irrigation in the ‘60s and ‘70s, pastures did not last long, and I have seen the water races on the farm filling up with sheep dung when the nor’west winds blew.

18. The channels where the undercurrent ran, eastward of the farm, have been filled in, built on and altered to the detriment of the immediate area and Waimakariri district. Flooding has occurred in the Swannanoa and Mandeville areas where houses were allowed to be built in areas that have traditionally flooded – and which will continue to do so.
19. In the 1980s the Mandeville Sports Club's water supply was deemed to be unsafe, with high nitrate levels. At the time there would not have been a single dairy farm between Mandeville and Oxford township.

Ben McKerchar, Operations Manager, Contract Milker, Key Stakeholder

20. I grew up in Invercargill where my family had a 160-acre sheep farm in Makarewa, West of Invercargill. After leaving school I went to Telford Rural Polytechnic where I completed my Diploma of Agriculture in 1998.
21. After two years of working and travelling overseas I returned home to pursue a dairy career, and to get married to my wife Tracy. After working in Greenpark, Christchurch, then in Valetta as a variable order sharemilker, we moved to Larundel.
22. We have three children, all whom have been born while on the farm, aged 10, 8 and 5. They currently attend the local school in West Eyreton while Tracy is a relieving teacher at Cust Preschool. Tracy is currently studying a Batchelor in Learning and Teaching with Early Childhood at Canterbury University. She has been chairperson of the Swannanoa Preschool Governance Board for 6 years and has helped teacher aide in the New Entrants class at West Eyreton School which gave her the interest to pursue her career in teaching.
23. Tracy and I have been employed by Larundel Dairy Partnership as Operation Managers / Contract milkers since the 2009 season. Over the last 11 years we have overseen various capital improvements not only on the milking platform, but over the 3 dairy support blocks we operate as well. All of these improvements have been undertaken with the environment at the forefront of the project in hand and we have provided a table of our timeline of these improvements in this evidence.
24. We have also hosted many discussion groups, Fonterra Open Days, an Environment Canterbury, and Ministry of Environment field day on the property, which showcase many of our Good Management Practice (GMP) improvements.
25. Our business currently employs 5 full time staff and 2 part time staff during spring. All of our staff take great pride in our operation where it is respected and where it is considered their home. They are involved in various community groups / activities including church and sporting groups. They also continue to upskill and train locally through Agriculture ITO training.

Brad Sutton, Farm Consultant, Shareholding Family Stakeholder.

26. I live near Darfield, Canterbury with my wife and three teenage daughters. My parents Graeme and Jan Sutton are shareholding partners in LDP and supervised the conversion of the farm to dairy in 2001 and have overseen the farm operations and management liaison on behalf of the other partners for the past 20 years.
27. I have provided farm consultancy and management support and advice to LDP over the past 7 years in my role as a farm consultant with Dairy Farm Management Services Ltd, a rural consultancy firm of which I am an owner and director.
28. I have been involved in the Canterbury dairy farming and consultancy industry for the past 25 years and work throughout Canterbury with engaged dairy farming businesses promoting and improving efficient and profitable farm systems. Hand in hand with this focus is working to achieve environmental sustainability and improvement for our clients.
29. The two go hand in hand and are mutually inclusive, you must have one in order to have the other. In other words, *"in order to be green you need to be in the black"*. Our business has invested in this focus and now have three environmental consultants working in this space to improve environmental outcomes for our farmer clients, the wider region, and the industry as a whole.
30. We strive to do this in a way that compliments efficient profitable farming businesses and gives the ability to continue to farm and provide ongoing opportunities for our children and their future families.

SCOPE OF EVIDENCE

31. LDP have provided a submission (Number PC7-179) and further submission (Number FPC7-179) on proposed Plan Change 7 to the Canterbury Land and Water Regional Plan (PC7).

32. Our evidence provides:

- An overview of our farming operation and environmental compliance performance.
- The implications and effects of the proposed rule framework.
- Support for the WIL alternative solution to PC7.

Our Farming Operation



Figure 1 Cows waiting to be milked at Larundel Dairy Shed.

33. As noted previously, LDP is a family-based business owned by 3 shareholding families, operating a 425ha dairy platform and a further 200 ha of leased dairy support land.

34. Ben and Tracy McKerchar operate the farm under a contract milking structure and are responsible for managing the farm. They employ all the farm staff and contribute to some of the other farm costs. In return, they receive a portion of the milk price based on the milk solids production achieved.

35. The farm peak milks 1,400 cows in a self-contained operating system, with all young stock grazing, winter feed and supplementary feed requirements provided from within the wider business operation.
36. The whole property is irrigated with WIL water and holds 2,800 WIL shares. LDP also uses bore water takes CRC143843 and CRC022057, to augment irrigation in times of WIL water restriction. LDP also hold a dairy effluent consent CRC012481.2.

Significant investments in the property

37. **ALL** the stakeholders in LDP are environmentally focused and passionate farmers who have invested heavily in both infrastructure and technology over the past 10 years to achieve environmental improvements on the property. These improvements and the associated investments include, but are not limited to:

38. Irrigation

2011	Flow meters	\$50,000	Real time accurate measurement of water use
2012	Replace Midhurst Roto-rainer with new pivot	\$140,000	Improvement in water use efficiency and >80% Distribution Uniformity (DU). Reduction in water used.
2014	Replace Winter Creek K-line with new pivot	\$220,000	Improvement in water use efficiency and >80% DU.
2016	Replace Gilchrist Roto-rainer with new pivot.	\$300,000	Improvement in water use efficiency and >80% DU.
2018	Replace Fulton Roto-rainer with 3x new pivots and new fixed grid sprinklers.	\$280,000	Improvement in water use efficiency and >80% DU.
2018	Replace long lateral sprinklers with three span pivot.	\$40,000	Improvement in water use efficiency and >80% DU.
2019	Replace long lateral sprinklers with fixed grid pivot.	\$160,000	Improvement in water use efficiency
2018	Regen soil moisture probes and monitoring	\$35,000	Real time data for accurate irrigation scheduling
	<u>Total</u>	<u>\$1,225,000</u>	Invested in improved irrigation infrastructure

39. Effluent Upgrades

2012	Upgrade effluent storage	\$200,000	20 day storage, improved effluent application
2014	Install feed pad and effluent catchment	\$200,000	Improved feed utilisation and capture of nutrients
2018	Install solids separation, and improved application underslung on pivots.	\$300,000	Improved use of nutrients and targeted application, increased application area
	<u>Total</u>	<u>\$700,000</u>	Invested in improved effluent infrastructure



Figure 2 Upgraded effluent sump installed in 2018 and native plantings.



Figure 3 Updated effluent storage pond installed in 2012.



Figure 4 New solid separator installed in 2018.

40. Fencing water ways /other improvements

2010	Native plantings along water ways, boundaries, buffer strips, and biodiversity areas	\$60,000	Improved biodiversity
2014	Fencing off all water ways	\$80,000	Stock excluded from all waterways
2016	Ephemeral Stream Crossings, fencing and native planting	\$40,000	Further stock exclusion and create biodiversity areas
2017	Improving gateways and paddock entry	\$20,000	Buffer strips, and plantings in wedge shaped paddocks, improve gateway entry
	<u>Total</u>	<u>\$200,000</u>	Invested in fencing and biodiversity

41. Total Invested

	<u>Total</u>	<u>\$2,125,000</u>	Invested in environmental Improvements
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42. Other Capital improvements

2010	In shed feeding infrastructure	\$120,000	Improved feed utilisation and reduced feed wastage, better feed use efficiency
2014	Dairy Shed Automation, Protrack, cup removers	\$300,000	Improved herd management, genetic recording and herd improvement efficiency
2017	Refrigeration upgrade	\$100,000	Improved energy use efficiency
2017	Replace pivot pipeline spans	\$300,000	Ensure correct irrigation application and distribution
2018	DNA testing of the dairy herd	\$50,000	Improved genetic gains, breeding and feed conversion efficiency
	<u>Total</u>	<u>\$870,000</u>	Invested in efficiency improvements

Future improvements

Future improvements planned include:

- Upgrading more lateral sprinkler irrigation to fixed grid irrigation,
- Installing Variable Rate Irrigation on some pivots,
- Regulator and sprinkler upgrades on some pivots,
- Concreting the silage pit area,
- Installing more Regen moisture monitoring sites for improved irrigation scheduling (currently 5 sites), and
- Continuing with more native planting, biodiversity and mahinga kai efforts.

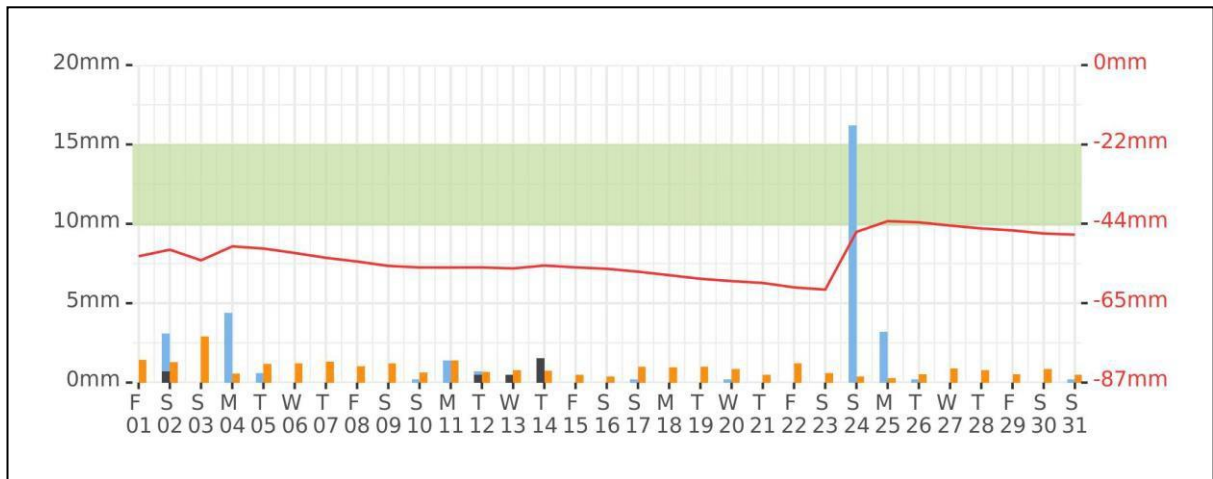
Good Management Practices on the Farm

43. LDP have been carrying out GMPs on the property for the last 10 years and strive for continuous improvement. These practices are highlighted in our Farm Environment Plan (FEP) and include comments from the auditor like:

“You have made excellent progress in identification and analysis the environmental risks, putting thought and systems in place and actual physical work and changes on farm to change practices and mitigate risks and improve environmental performance. Your management of the irrigation is excellent with good processes and systems in place. These provide a high level of confidence the irrigation management is of a high priority and the operation is quality. You have embraced the use of the information provided by the forecasts and REGEN service and are using it to very good effect. I have a high level of confidence with the support and willingness from yourself, your staff and the owners that the improvements will continue. The ongoing Burgess stream project and the business’s willingness to be involved will further improve this management area and environmental performance. The thought and effort that you and your staff put into the management of the property is of a high quality.”

Paul Reece, Auditor (Water Strategies)

44. As already outlined, LDP has Regen soil moisture monitoring as part of our WIL requirements and this is used to inform irrigation scheduling and decision making. All irrigation takes are monitored and measured. An example of Regen data for the LDP property is shown below, where the green shaded band is the optimum zone for soil moisture, the red line is the soil water deficit and bars at the bottom of the graph represent rainfall, irrigation and evapotranspiration.



Regen soil moisture data used to make irrigation decisions and scheduling.

45. Our FEP drives the environmental improvement on farm and is a key document for monitoring performance and driving change towards improving the environmental impact of LDPs farming activities.
46. As outlined, this has included the upgrading from Roto-rainer and long lateral sprinklers to pivots, improved effluent storage and application, along with extensive native planting and fencing of waterways and buffer strips. The property has previously been involved in a NIWA Canterbury Water Project which included soil moisture monitoring, lysimeters and a weather station.
47. The auditing of our FEP through WIL gives LDP a clear direction of how the business is performing against its environmental objectives. LDP maintains a B++ grade following audit with high levels of confidence in the key audit grade areas. This process also highlights the areas we need to continue to focus on. The FEP gives LDP that direction.
48. LDP have undertaken with WIL to retire approximately 3.2 ha of land under the Burgess Stream Enhancement Initiative, with a funding application through the Freshwater Improvement Fund. This application has been made by WIL on behalf of its shareholders. The aim is to plant out this area in natives, further supporting biodiversity and mahinga kai considerations.
49. LDP's planting plan and an example of riparian planting on the LDP property are shown below.



Figure 6 Riparian planting plan for Larundel Dairy Partnership



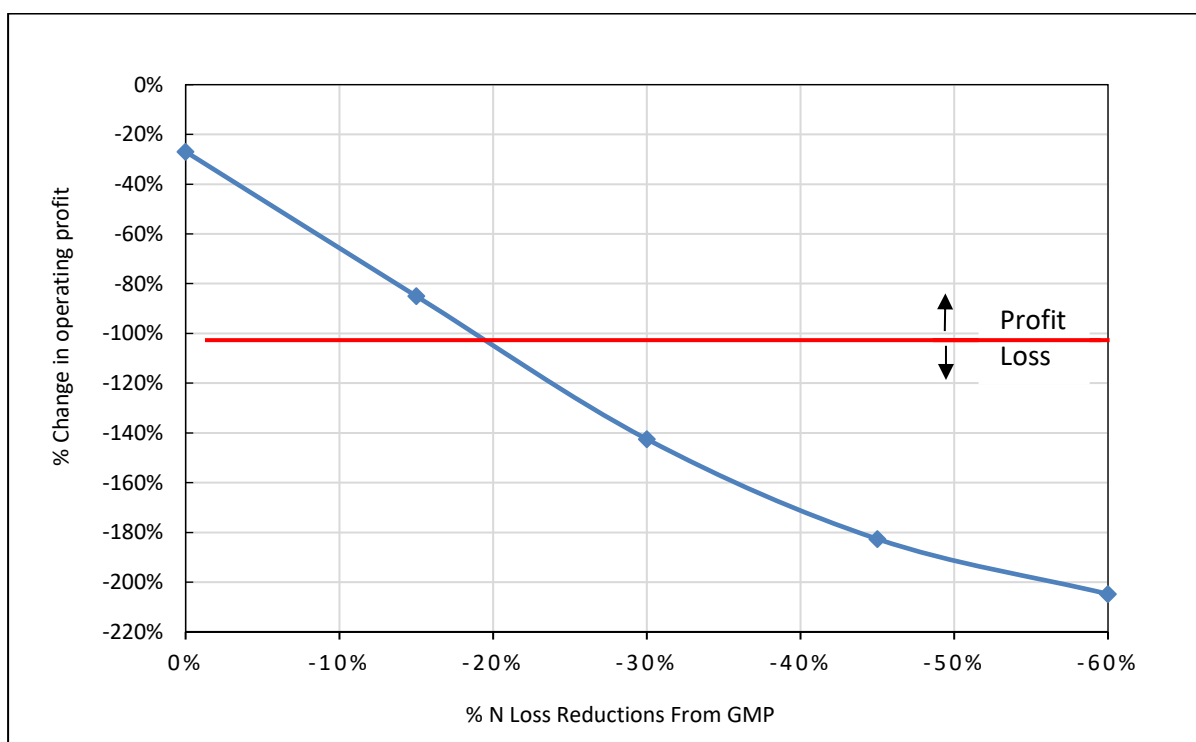
Figure 7 Native Plantings

THE EFFECTS OF PLAN CHANGE 7 (PC 7)

50. Under PC7 in its current form, LDP would have to drastically change its farming practices. This is because although LDP has invested heavily in environmental improvements, and is operating with good management practices with high confidence based on an audited level, the property cannot meet its baseline (2009-2013) GMP number through the Environment Canterbury Farm Portal and still remain a viable and economic business. This is shown in the table below:

51. Economic impacts of PC7 rules

	Current N loss (2020)	Baseline GMP N loss	Baseline GMP - 15%	Baseline GMP - 30%	Baseline GMP - 45%	Baseline GMP - 60%
N loss (kg N/ha/yr)	86	49	42	34	27	20
% reduction	-	0%	-15%	-30%	-45%	-60%
Farm profit/Ha (Incl. Debt) before tax	\$2,206	\$1,612	\$331	-\$937	-\$1,823	-\$2,311
% change in operating profit	-	-27%	-85%	-142%	-183%	-205%



52. As can be seen in the above table, our present N loss is 86 kg N/ha/yr. Our baseline GMP number through the Environment Canterbury Farm Portal is 49 kg N/ha/yr. The reason for the difference between the current loss and the baseline GMP loss rate appears to be mainly attributable to the Farm Portal. From this so-called starting point LDP would need to reduce a further 60% over the next 40 years under Table 8-9 - a number we will never be able to meet.

53. We note that under PC 7, in its current form, the restrictions on farming in the Nitrate Priority Sub-area E over the proposed time frame would ultimately mean that LDP would need to meet an N loss of 4.9 kg N/ha/yr (90%) by 1 January 2080, except that the net effect of Note 3 of Table 8-9 and Policy 8.4.25 is that reductions are not required beyond 20 kg N /ha/yr.

54. Under PC 7, we would have to remove any crops on the property, remove all young stock and winter grazing and drastically reduce stock numbers and become a largely cut and carry dairy support operation. Current staff numbers would also need to drastically reduce. This is not economic or viable for our business.

55. **Change in farm system from Current N loss to Baseline GMP + 60%**

	Current N loss (2020)	Baseline GMP	Baseline GMP - 15%	Baseline GMP - 30%	Baseline GMP - 45%	Baseline GMP - 60%
Stock wintered	1,420*	0	0	0	0	1,397**
Off-farm Grazing	0%	100%	100%	100%	100%	0%
Peak Cows Milked	1,381	1,381	1,069	776	627	0
<i>% reduction</i>	-	0%	-23%	-44%	-55%	-100%
Milk Solids total	655,437	655,488	506,016	367,738	296,851	0
<i>% reduction</i>	-	0%	-23%	-44%	-55%	-100%
Silage made	732	2,189	2,544	3,651	3,939	5,016
<i>% increase</i>	-	(299%)	(248%)	(399%)	(438%)	(585%)
Area in crop	75.2 ha	0	0	0	0	0

*MA cows and young stock; **Young stock only on the property.

56. We are concerned that the impact of an unviable dairy sector will have far-reaching effects on the wider community and the Canterbury region, with decreased spending with local suppliers. LDP alone injects around \$2.8 million annually into the Waimakarari and wider Canterbury economy and includes \$160,000 annually to Rangiora Vets, \$120,000 annually to BA Murray contractors, \$150,000 annually to Gilchrest Brothers contracting along with numerous other suppliers who provide goods and services to the farm.

57. Furthermore, McKerchar Investments Limited directly employ seven people with a salary and wage bill of approximately \$300,000 per annum. These employees and their families, along with Ben and Tracy, have 3 children at local schools and are involved with a wide range of community activities. Between the shareholding partners and contract milking operators and their staff and their wider families, three generations including over 50 people, are stakeholders in, and benefit from, the farming activities of LDP. This plan change threatens the livelihood and future opportunities of ALL stakeholders for both current and future generations.

SOLUTIONS

58. Based on our own experience and the expert knowledge provided by our associates and advisors we believe that:

“OverseerFM is being used for a purpose that was never intended. It is a model made up of a series of models based on research trials. It works backwards from the animal and what the animal is producing including land, feed, fertiliser and climate data to calculate nutrient balances. OverseerFM is a long-term average annual model characterised by equilibrium (e.g. 30-year climate data). It has a range of flaws and it is a work in progress. The Ecan farm portal is flawed and does not work as the proxies are wrong and broken. It would be far better to concentrate our efforts on actual environmental benefits that are tangible, measurable and real as a result of actual action and management rather than a flawed model”

- Dave Ashby (DARCL).

59. In addition to the points made in our submission and further submissions, we suggest that:

- a. the Farm Portal should not be used and instead farms should focus on their individual FEPs as the vehicle for change,
- b. if a farm achieves an A grade FEP audit, it should be deemed to be operating at GMP,
- c. in addition, reductions should still be made on a farm's GMP Baseline number, however Baseline GMP numbers need to be more accurate and sensible, and
- d. finally, measuring and monitoring nitrate concentrations in surface waterways and groundwater should be increased to see what progress is being made and inform future steps required.

CONCLUSIONS

60. Based on our own experience and the expert knowledge provided by our associates and advisors we believe that the Baseline GMP starting point that the Environment Canterbury Farm Portal generates and subsequent reductions are impossible for LDP to achieve and still remain a viable business. We are concerned that this will have catastrophic economic outcomes, not only for LDP and our stakeholders but also to the wider community at large.
61. A better way of achieving GMP is to use FEPs and farm auditing to measure progress and make reductions. If a farm achieves an A grade FEP audit, it should be deemed to be operating at GMP. Also, if reductions are required on a property, they should be made using industry agreed GMPs that are more achievable and sensible.
62. LDP has invested considerable time, money and effort into championing environmental improvement and outcomes over the past 20 years and is recognised as succeeding and leading on this front. LDP is concerned that PC 7 would see much of that success laid to waste and left redundant, which seems entirely counterproductive to what the plan change is setting out to achieve.
63. LDP is also concerned about the large amount of uncertainty around the modelling and an unclear starting point for reductions in PC 7. There seems to be a complete lack of consideration and understanding of the economic outcomes to the Waimakariri district and wider Canterbury region. LDP is concerned that the potential outcomes of PC 7 would be devastating to the region.
64. LDP understand that WIL has proposed an alternative rule framework and LDP support their proposal and the outcomes sought.

LARUNDEL DAIRY PARTNERSHIP, GORDON HAMISH FULTON, BEN PAUL MCKERCHAR AND BRADLEY JOHN SUTTON

17 July 2020