

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

Southland Proposed Water and Land Plan

BETWEEN

DairyNZ Limited

AND

Southland Regional Council
(Environment Southland)

**STATEMENT OF PRIMARY EVIDENCE OF RICHARD KYTE
FOR DAIRYNZ LIMITED**

15 MAY 2017



70 Forth Street
Invercargill 9810

1. INTRODUCTION

1.1 My full name is Richard Jackson Kyte.

1.2 I have a Higher National Diploma in Business, Finance and Agri, University of Lincoln United Kingdom. I am a Kellogg Scholar and have more than 30 years of international and national experience in the dairy industry, principally in New Zealand.

1.3 I have been employed as Southland Regional Leader for DairyNZ (“DNZ”) since 2012, based in Invercargill. In my role I am charged with leading all extension services for dairy farmers in the Southland-South Otago region. This involves a whole of farm systems approach to promoting dairying Profitability, Sustainability and Competitiveness. A principle part of my role is to lead the extension of environmental messages and driving on farm change.

1.4 Prior to joining DNZ, I was a Farm Systems Consultant and a Dairy Farmer.

1.5 I am familiar with the provisions of the proposed Water and Land Plan (pWALP) and am authorised to provide this evidence on DNZ’s behalf.

Code of Conduct

1.6 I confirm I have read the Expert Witness Code of Conduct set out in the Environment Court Practice Note 2014 and agree to comply with it. I confirm that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed in this evidence.

1.7 In preparing this evidence I have read the proposed Water and Land Plan, the DNZ submission, the DNZ further submission, and S42A Officer’s Report.

2. SCOPE OF EVIDENCE

2.1 My evidence outlines to the Hearing Panel the initiatives that the dairy sector in Southland has already undertaken or is currently leading to improve the environmental sustainability of dairying in the Southland Region. These initiatives are particularly focused on practices targeting water quality improvement.

3. CURRENT DAIRY SECTOR INITIATIVES IN SOUTHLAND

- 3.1 DairyNZ is committed to achieving environmentally and economically sustainable dairying in the Southland region and New Zealand. Our investment and involvement in the region has resulted in numerous environmental extension activities that I have led as Regional Leader.
- 3.2 In conjunction with farm extension activities, DairyNZ has funded (or co-funded) research programmes related to water quality science, farm and regional-scale economics and improving farmer practices.
- 3.3 Several new research programmes are currently being established in the Southland region. This includes the Southern Dairy Hub research farm, funded by DairyNZ, AgResearch, Southland farmers and the Southern Dairy Development Trust, to undertake and demonstrate regionally specific research focused on sustainable farm systems and farm practices, and extension of the Pastoral 21 research program.
- 3.4 DairyNZ was a co-funder of the P21 Research Project (2011-2017). One of the research objectives within this project was to find more environmentally sustainable practices for the wintering of dairy cows. This research developed and demonstrated improved ways to significantly reduce contaminant loss associated with wintering activities.
- 3.5 To support farmers in implementing these practices, DairyNZ developed the 'South Island Wintering Guide'. This document has been the centrepiece of DairyNZ's extension events over the past three years in Southland, especially during the 18 farm systems discussion groups and during the Catchment Groups field days. Included in the guide is a planning tool for farmers to manage critical source areas and impacts on downstream water quality. The guide is also used by the Environment Southland Land Sustainability team. It is my opinion that a large proportion of dairy farmers have endorsed this guide and implemented the recommendations and we are continuing to see strong farmer uptake and support for its use.
- 3.6 All Southland dairy farmers are working towards meeting the obligations of the National Sustainable Dairy: Water Accord (SDWA), which includes targets around stock exclusion, stock crossings and effluent management, as well as requirements for riparian management plans and nutrient budgeting. The Accord demonstrates a sector commitment to environmental stewardship by voluntarily working towards implementing agreed benchmarks of environmentally sustainable performance for water quality protection.

- 3.7 Under the SDWA all Southland dairy farms are expected to have completed stock exclusion by May 2017 and bridge or culvert regular stock crossing points by May 2018. SDWA also outlines dairy farmers' responsibilities in relation to riparian management. DairyNZ published a regional-specific Riparian Management Guide in 2014 to support Southland dairy farmers in meeting these objectives and developed the Riparian Planner Software tool to help landowners develop an online, spatially defined, farm riparian management plan. Environment Southland's Land Sustainability Officers contributed to the development and review of both initiatives.
- 3.8 DairyNZ has developed a flagship environmental farm planning tool known as the "Sustainable Milk Plan" (SMPs). The SMP represents a farm specific, practical plan that helps landowners to focus on the actions that are essential to minimise their environmental footprint and to achieve regulatory requirements. The SMP was first developed in May 2012 to address water quality concerns in the Waituna Catchment and has since been extended to over 60 farms in the Southland Region.
- 3.9 One of the advantages of the SMP is that farm-specific critical source areas are targeted. The full SMP process improves farmer understanding of the links between their farm business and environmental outcomes. Additionally, through on-going auditing and monitoring, valuable information is provided on environmental performance, rates of change and barriers to change.
- 3.10 A recent study led by DairyNZ and co-funded by the Waikato River Authority (WRA), PGP and DairyNZ aimed to implement SMPs on all 700 dairy farms in the Upper Waikato River catchment through a two-year voluntary process. All individual actions targeting nutrients, effluent, land and waterways management, and water use efficiency were documented and tracked. This information was used to estimate the potential reductions in nutrient losses following the successful implementation of all recorded voluntary on-farm actions. Mean reductions in farm nutrient losses following the successful implementation of SMP actions were estimated to be 7% for N and 12% for P. These reduction estimates are expected to increase to 8% for N and 21% for P once all actions across all farms are fully implemented. Potential load reductions on individual farms ranged from 0 to 35% for N and 0 to 73% for P, depending on the number and combination of actions being implemented. This study demonstrated that environmental change through development and implementation of farm environmental management plans could be achieved at scale, given the right framework, process and support.

- 3.11 To help dairy farmers to improve dairy shed effluent management, DairyNZ has invested significantly over the last ten years to develop tools and resources to help design, construct and manage fit for purpose effluent systems. We have also engaged with farmers, consultants, and contractors to get this information out to farmers, their advisors, and their contractors. DairyNZ is also a key Stakeholder in the Southland Dairy Effluent Advisory Group, together with Environment Southland and Dairy Processors, managing on-farm effluent issues and committed to positive outcomes for all parties. The trends in significant dairy effluent non-compliance have improved over the last three Accord years, dropping from 6% to 1.5% as a result of these initiatives and farmers' commitment to the SWDA.
- 3.12 Under the effluent program in DairyNZ we developed 'Codes of Practice' for the design and standards for effluent systems on dairy farms. This includes the:
- Farm Dairy Effluent, Design Standards and Code of Practice;
 - IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction;
 - IPENZ Practice Note 27: Dairy Farm Infrastructure
- 3.13 DairyNZ also developed the following dairy effluent training courses for rural professionals:
- Massey University Farm Dairy Effluent: System Design and Management Course
 - InfraTrain Design and Construction of Dairy Effluent Ponds Course
 - NZMPTA FDE Hydraulic Design Course
 - Farm Dairy Effluent Accreditation Programme. This is a program that ensures that designers meet the Code of Practice and design fit for purpose effluent systems.
 - Dairy Effluent Storage Calculator. This was developed in conjunction with Massey University that helps farmers calculate the correct volume of effluent storage for their farm system.
 - Farm Dairy Effluent Warrant of Fitness Programme. This program trains rural professionals to assess effluent systems and to help farmers with any issues that arise from managing their effluent system.

- 3.14 Specific effluent related farmer engagement in Southland includes effluent management field days, run with farmers as the key audience. As well as this the extension team run bore design and construction field days for rural professionals and contractors.
- 3.15 In response to a need to increase awareness around environmental sustainability and upcoming limit setting processes, DairyNZ has supported dairy farmers in establishing catchment groups within Southland. There are currently 15 Catchment groups supporting cross sectoral participation in water quality issues including understanding local issues and discussing and advocating for good management practices. These catchments groups are currently under the auspices of Landcare Trust, following their successful Sustainable Farming Fund grant. DairyNZ is still supporting these catchment groups with specialist technical knowledge.
- 3.16 DairyNZ established a 'Building Dairy Environment Leaders Programme' nationally which is designed to develop the knowledge and skills of local dairy farmers to participate in the water quality debate. Many of the graduates from Southland have gone on to be active leaders within local catchment groups.
- 3.17 DairyNZ has also established a Southland-based Dairy Environment Leaders Group (DLAG) comprising eleven dairy farmers, most of whom have graduated from the 'Building Dairy Environment Leaders programme'. The purpose of this group is to interact with industry partners and wider stakeholders to provide farmer opinion on policy and environmental decisions and provide an important communication channel for dairy farmers across the region. This gives DairyNZ the opportunity to update the group on policy, economic and science developments within Southland, and provides a sounding board for farmer feedback on these matters.

4. SUMMARY

- 4.1 The dairy sector is committed to the long-term sustainability of dairying in the Southland Region. Many initiatives to improve environmental outcomes are already well underway and are being worked towards voluntarily. Collectively these initiatives will already contribute towards a 'holding the line' approach for water quality management across the region.

- 4.2 Through the various DairyNZ initiatives I have listed above it is my experience that the awareness of good management practices in Southland has increased markedly over the previous five years.
- 4.3 Further to this, it is my experience that many farmers in Southland are following the recommendations of DairyNZ good management guidelines and are incorporating many of the good management practices in their farming operations. This is particularly so with regards to intensive wintering practices and effluent storage and disposal requirements.
- 4.4 In my opinion, there is acceptance from the dairy farming community that I work with that understanding and implementing good management practices on farm will achieve not only efficiency gains in terms of productivity and profitability, but also improvements in water quality.

Richard Jackson Kyte

15 May 2017

