Before the Independent Hearings Panel

under: the Resource Management Act 1991

in the matter of: Submissions and further submissions in relation to the proposed Selwyn District Plan.

submitter: **Fonterra Limited**
Submitter DPR-0370

Statement of evidence of Harriet Van Genne-Knape

Strategic Directions

Dated: 23 July 2021

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STATEMENT OF EVIDENCE OF HARRIET VAN GENNE-KNAPE

INTRODUCTION

1 My name is Harriet Van Genne-Knape.

2 I am the Darfield / Upper South Island (USI) Operations Manager for Fonterra Limited (*Fonterra*).

3 My role is to manage the operational aspects of the Darfield, Takaka, Brightwater and Tua Marina Milk Processing Sites (*Darfield site, Takaka site, Brightwater site,* and *Tua Marina site*). This includes staff management, production management, as well as the management of the milk collection staff for the Central and North Canterbury collection area. I have held this role for 18 months.

4 However, I have worked at Fonterra for five years in various roles including Quality Assurance in the Central North Island and Operations Manager for Fonterra's Waitoa site in the Waikato region. Prior to Fonterra, I was employed in various roles with the Dutch company FrieslandCampina in both the Netherlands and China including as a Site Operations Manager, Programme Director and as a Senior Quality and Health and Safety, and Regulatory Manager. I have also been employed at Sara Lee Douwe Egberts in the Netherlands and the United States of America as a Technology Manager and as an Operations Manager.

5 I hold an Engineering Degree in Food Technology from the Van Hall Institute in the Netherlands.

6 I am familiar with the proposed Selwyn District Plan (*proposed Plan*). I was involved in the preparation of Fonterra's submissions and further submissions on the proposed Plan. I am not providing this evidence as an expert. I am authorised to provide this evidence on behalf of Fonterra.

SCOPE OF EVIDENCE

7 In my evidence I will provide or discuss:

7.1 an overview of Fonterra, its South Island and Darfield operations;

7.2 Fonterra's contribution to the Selwyn District;

7.3 the background to Plan Change 50, which introduced a Dairy Processing Site zoning for the Darfield site into the Operative Selwyn District Plan (*Operative Plan*); and

7.4 Fonterra's experiences with issues of reverse sensitivity, and the need to ensure the protection of important infrastructure from these effects.

OVERVIEW OF FONTERRA, ITS SOUTH ISLAND AND DARFIELD OPERATIONS

Fonterra Overview

8 Fonterra was formed with the passing of the Dairy Industry Restructuring Act 2001 (*DIRA*) and a vote among farmer members of the New Zealand Dairy Board, New Zealand Dairy Group and Kiwi Co-operative Dairies to merge those entities.

9 Fonterra is New Zealand's biggest company and a significant employer, with more than 20,000 New Zealand and overseas-based staff. Fonterra owns 30 manufacturing sites in New Zealand that employ 6,950 people.

10 Fonterra is one of the top six dairy companies in the world by turnover (at around $20 billion annually), the leading exporter of dairy products, and is responsible for more than a third of international dairy trade. Fonterra is owned by over 10,500 New Zealand dairy farmers who supply more than 18 billion litres of milk each year. Our global supply chain stretches from farms all over New Zealand to customers in more than 140 countries.

Fonterra's South Island Operations

11 Fonterra owns and operates 30 dairy manufacturing sites throughout New Zealand (refer to **Figure 1**). Nine of these sites are located within the South Island, with four (Clandeboye, Darfield, Studholme and Culverden) being in Canterbury.

12 The South Island sites are a mix of small and large sites and include some of the largest Dairy Manufacturing sites in the world at Clandeboye, Edendale and Darfield.

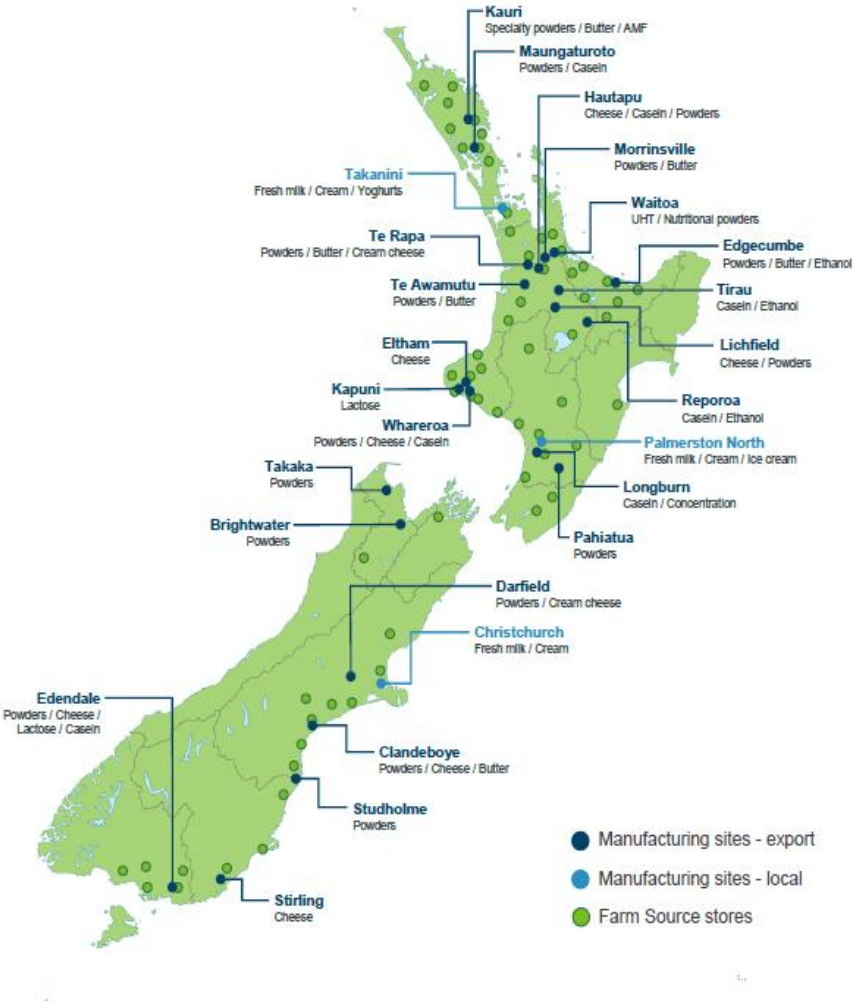

Figure 1: Fonterra's New Zealand manufacturing network and site locations

Fonterra Darfield

13 Fonterra Darfield is a milk processing plant located on a 100 hectare site on State Highway 73, just north of Darfield (refer to **Figure 2**). Fonterra also owns almost 1,000 hectares of farmland surrounding the site which is used for the irrigation of the site's wastewater.

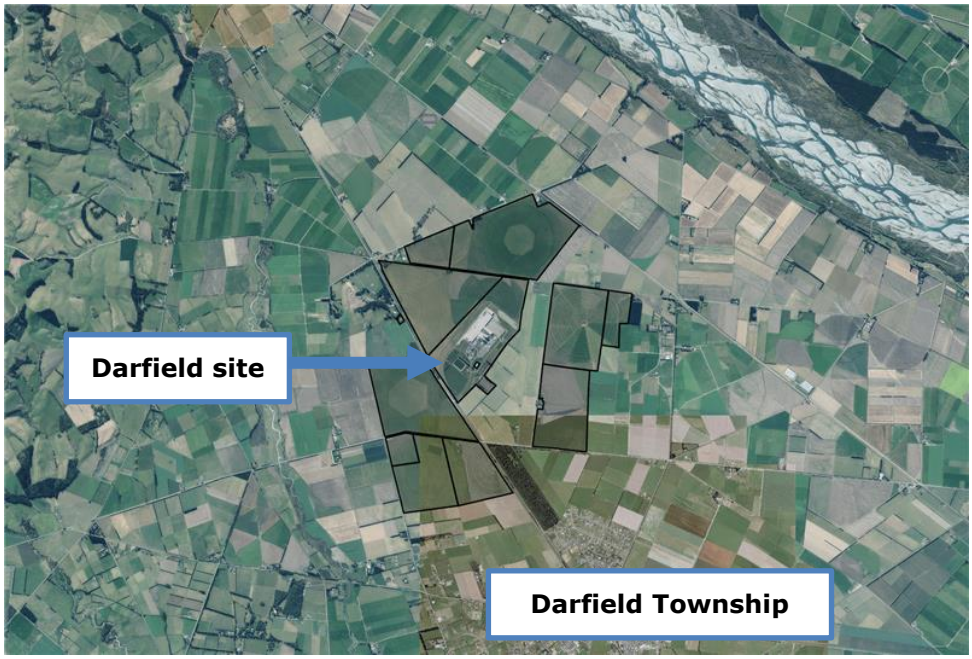

Figure 2: Fonterra's landholdings at Darfield, including the manufacturing site and associated land used for the irrigation of process wastewater

14 Two milk powder dryers are located on the site, with the first opening in 2012 and the second in August 2013. A cream cheese plant was commissioned at the site in August 2018 (refer to **Figure 3**). The site is connected via a 1.5km rail siding to the Midland Railway line.

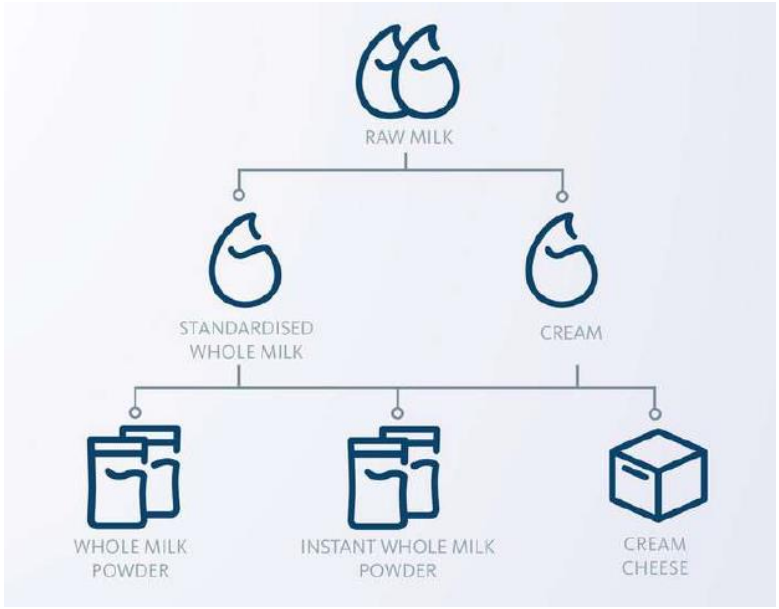

Figure 3: Milk flow and product mix at Fonterra's Darfield site

15 When operating at full capacity, the plant processes up to 7.2 million litres/day of milk, or about 8.6% of New Zealand's peak milk production. Currently the plant produces 256,000 tonnes of regular and instant whole milk powder and 22,000 tonnes of cream cheese per annum.

16 Fonterra developed the site in response to increasing milk production volumes and a shortage of processing capacity in the region (a subject I expand on when discussing the DIRA). The milk powder produced is exported through the Port of Lyttelton, and in the company's estimate it produces approximately 15% by value of New Zealand's dairy exports.

17 The site has a tanker fleet of 45 which generally collects milk from the Canterbury region, including the length and breadth of the Selwyn District. The finished product is railed off-site to the port for export to over 40 international markets.

18 More than 280 people are employed at the Darfield site as well as a range of contractors and temporary staff.

Environmental performance, community initiatives and continuous improvement

19 Fonterra is committed to increasing efficiencies and reducing emissions and effects associated with milk collection and its subsequent processing.

20 A key method for achieving this is through the certification and implementation of an environmental management system (*EMS*), which is certified to the ISO 14001:2004 standard. The ISO standard provides the framework for improving environmental performance over time. It does this by, amongst other things, embedding an ethos around continuous improvement (plan-do-check-adjust cycles) into the company's systems and culture, considering a life-cycle perspective, and ensuring that the site understands the needs and expectations of its stakeholders and community.

21 The site is actively involved in the community whereby it regularly sponsors community events, including Oxman and Farmstrong, and the local foodbank. Furthermore, the site has strong connections to many of the local schools whereby, for example, calves provided by a number of schools are raised on the Fonterra farms at Darfield at no-cost, and when on-sold, all the profits are returned to the school.

22 Fonterra Darfield is also committed to reducing its environmental footprint, and has over the years introduced a number of initiatives including:

22.1 measures to reduce the volume of waste that is sent to landfill;

22.2 the installation of a reverse osmosis water treatment plant which has led to significant water savings, and a reduced reliance on the site's groundwater take; and

22.3 the recent investment in a biodigester which processes the whey resulting from the cream cheese manufacture process, and therefore eliminates the need to spread this by-product to land.

Site selection and development

23 The Darfield site and its selection were carefully considered by Fonterra in terms of its overall design and operation, its proximity to a skilled labour force, its contribution to improving the efficiency of milk collection and processing across the company's wider manufacturing network, and sustainability. For example, the site's location reduced the distance travelled by Fonterra's milk tankers by 30,000 kilometres therefore saving 30,000 kilograms of carbon dioxide entering the atmosphere.

24 Locating Fonterra's newest milk processing plant in the rural environment was deliberate for two key reasons:

24.1 Firstly, there were very few sensitive activities (houses, schools, community facilities and marae) within its proximity. This meant that the potential for reverse sensitivity impacts (being actual, potential or perceived adverse effects rather than non-compliance with resource consents or planning rules) was low; and

24.2 Secondly, Fonterra has been able to acquire over 1,100 hectares of farmland that immediately surrounded its manufacturing site to irrigate its process wastewater. This farmland has also served as a buffer for its operations from neighbouring activities.

FONTERRA'S NEED TO ENSURE PROCESSING CAPACITY ACROSS ITS MANUFACTURING NETWORK

25 Fonterra is legally required (DIRA, section 73) to accept *all* applications made to it to become a shareholding farmer, and to increase the volume of milk supplied by a shareholding farmer. The

only ability Fonterra has to reject 'new' or 'increased' supply is under sections 94 and 95. These sections allow for rejection if the supply of milk is less than 10,000 kilograms of milksolids or if the cost of transporting the milk of the new entrant exceeds the highest cost of transporting another shareholder farmer's milk. Accordingly, Fonterra (in principle) needs to ensure that it has enough capacity across its manufacturing network to process all the milk supplied to it on any one given day. Milk not collected due to a lack of processing capacity would need to, at worst, be discharged on-farm, which can potentially have both environmental and economic consequences.

26 The processing capacity required by Fonterra is based on the projected maximum volumes of milk produced on-farm at any one time. This generally occurs over what is called the 'peak milk' period between September and November each year. This period coincides with the return of cows to milking post-calving (noting that calving is earlier in the North Island (around June/July) compared to the South Island (around July/August) due primarily to climatic conditions that stimulate spring grass growth).

27 Amplifying the importance of Fonterra's ability to maintain an interdependent manufacturing network is that often on-farm milk production in the North Island (which commences before the South Island) exceeds processing capacity during the peak-milk period. Consequently, in some years Fonterra transports large volumes of milk from the North Island by rail to its southern sites for processing. The Darfield site, because of its size and milk-powder driers, has an important role in this transfer process, and is a primary recipient of this North Island excess milk. This noting that in recent years on-farm milk production in the South Island has exceeded processing capacity, and milk has consequently been transported to the North Island.

28 Any excess (available) processing capacity at Darfield also increases the resilience of the South Island manufacturing operations, where Darfield can reasonably swiftly adapt to take and process milk at times when there is production disruption at other South Island manufacturing sites.

Plan Change 50 to the Selwyn District Plan (2017)

29 To enable the continued operation and development of the Darfield site, Fonterra partnered with Synlait Milk Limited (Synlait) in 2016 to prepare a plan change seeking a "Dairy Processing Management Area" overlay for the two sites in the Selwyn District Plan. Both companies had similar interests in establishing an appropriate planning framework which recognises their existing dairy plants in Selwyn District, and which provided for their efficient use and future

expansion. Additionally, the plan changes reduced reliance on resource consent processes, particularly for minor developments, by providing for a maximum envisaged and optimal scale of development that is likely to occur in the foreseeable future.

30 Synlait's Plan Change (PC43) was made operative on 25 March 2015, and Fonterra's (PC50) on 16 August 2017. PC50 largely adopted the same provisions introduced through PC43, with some minor site-specific changes with regard to landscaping and noise provisions and a separate Outline Development Plan to represent the Fonterra site.

31 Key to this process was the establishment of a noise control boundary (*NCB*). The Darfield site's NCB is "drawn" along the 45 dB L_{Aeq} night-time noise contour, and it has three functions:

31.1 to provide certainty to Fonterra as to how far any noise effects may extend, while also providing flexibility to modify and develop the site without having to gain a resource consent for every change;

31.2 to provide certainty for neighbours and Council as to exactly where Fonterra shall comply with noise limits; and

31.3 to provide an easily found line for the purpose of future noise monitoring and assessment, even when such monitoring may be occurring in the dark.

32 The basis of Fonterra's submission, and its evidence on the Proposed Plan, reflects the outcomes of the PC50 process, and the continuation of this planning framework which has been working efficiently and effectively. This framework only recently went through the appropriate private plan change process and was approved by the Commissioner. It was prepared to provide Fonterra with both the flexibility to operate and the ability to expand the Darfield site, while also providing both Council and the surrounding community realistic expectations for the site in the long term. The provisions largely remain current and appropriate for the Special Purpose Dairy Processing Zone, However, Fonterra acknowledges that some proposed changes, such as the proposed signage and lighting provisions, will more effectively provide for operations at the site and support has been shown for these provisions.

Reverse sensitivity

33 I understand reverse sensitivity refers to the vulnerability of established, effects-generating activities (ie industrial land uses) to objections from neighbours as a result of new sensitive activities locating nearby. Such objections can stifle the growth of the

established activities and their redevelopment, or in extreme cases, drive them elsewhere.

34 Importantly, reverse sensitivity and its associated complaints arise in the context of *compliant* activities, being those activities that are authorised by way of resource consent and/or comply with permitted activity standards in regional and district plans. Like other important infrastructure operators, reverse sensitivity issues can, and do, affect Fonterra's activities regardless of our compliance with these planning instruments. This is because it is often the perception of effects, rather than actual effects, that leads to complaints from sensitive land users.

35 Fonterra acknowledges that the continuous improvement of its activities, and particularly its land, air and water discharges is integral to demonstrating its commitment to achieving environmental objectives and continuing to operate. However, and with increased encroachment by sensitive and smaller landholdings within proximity of its manufacturing sites, when it comes to notifying consent applications, the number of affected parties, and corresponding costs for Fonterra will continue to increase. This is a significant issue that Fonterra has faced at other sites.

36 For example, at Fonterra's Te Rapa site a nearby landowner has obtained a plan change and now seeks resource consents for a large residential development. Once residential development has been approved and occupied, this will add a large number of proximate residential landowners that may need to be notified for any future expansion (or even renewing of consents) in addition to residents also seeking more restrictive planning rules when district and regional plans come up for renewal. This adds significant additional cost, delay and complexity to that reconsenting and the plan renewal process. A further example relates to a proposal to install a new large drier at Fonterra's Te Awamutu site. Having worked through the issues associated with that project, it was abandoned on the basis of the proximity of neighbouring residential properties and the inability to maintain "residential" standards of amenity for those properties.

37 These impacts also have implications for where Fonterra chooses to invest and expand. At present, the Darfield manufacturing site is well-insulated from surrounding activities due to Fonterra's significant landholding and the existing rural zoning. However, the presence of sensitive land uses (such as the urban growth overlay proposal up to the boundary of one of its irrigation farms) could effectively limit the further development of its activities.

38 When residential neighbours enter a new residential environment, their amenity expectations are typically congruent with those found

in a *residential* environment – being primarily the absence of non-residential activities and their associated effects (ie noise, lighting, visual amenity and traffic generation) during night-time hours, and on Sundays and public holidays when they wish to enjoy their residential property. Even if landowners moving into a neighbourhood are relatively comfortable with Fonterra's existing operations, subsequent consenting and policy development processes open up opportunities for their involvement (and objection). It is at this stage that expectations of future site use from future residents are often more stringent than current operations (plus improvement, which is not what is typically anticipated in the relevant planning document(s)). Third parties that buy into the area may also have different expectations from previous owners and occupiers.

39 Reverse sensitivity effects generally result from complaints by just a few residents – allowing even a small degree of sensitive development near an existing activity to cause significant issues, and the risk of receiving complaints increases as the number of nearby properties increases. Each complaint can result in hours of staff time investigating its source, communicating with the complainant and relevant council(s), and identifying practicable solutions that ensure the complaints do not endure or result in further cost to Fonterra.

40 For the reasons outlined above reverse sensitivity, and the complaints that can arise from neighbouring sensitive activities and landowners, is a key issue for Fonterra. This is why Fonterra takes a strong interest in policy processes where a proposal provides for the introduction of sensitive activities into at inappropriate locations.

Approach to Strategic Directions

41 To safeguard the future operations of the Darfield site, it is critical to Fonterra that:

41.1 the significance of the site in the District is appropriately recognised;

41.2 the District Plan enables the site, as Important Infrastructure, to meet the needs of the Selwyn community, as well as its processing obligations; and

41.3 that the District Plan protects the site from reverse sensitivity effects.

42 As I have outlined, the Darfield site is significant on a local, regional and national scale. The site provides employment and economic benefits for the Selwyn District, with flow on effects at a regional

scale. Fonterra and its employees are active members of the local community.

43 In order for Fonterra's Darfield site to continue operating effectively and efficiently, the significance of the site must be appropriately recognised in the Strategic Directions, and, in particular, sensitive activities in proximity to the Special Purpose Dairy Processing Zone must be avoided.

44 Fonterra therefore seeks recognition of the importance of its operations in the Strategic Direction section of the Plan, through provisions that will protect and facilitate the safe and efficient operation, use, maintenance, upgrade, and development of the Darfield site. This includes its identification as important infrastructure.

Dated 23 July 2021

Harriet Van Genne-Knape