

APPENDIX 8:

Economic Report

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**APPLICATION FOR A PLAN CHANGE TO INTRODUCE A DAIRY PROCESSING
MANAGEMENT AREA COVERING FONTERRA'S DARFIELD MILK PROCESSING SITE**

ASSESSMENT OF ECONOMIC BENEFITS

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1. INTRODUCTION

Background

- 1.1** Fonterra's Darfield milk processing plant is located on a 680 hectare site on State Highway 73, just north of the township of Darfield. It was opened in 2012 when the first milk powder dryer was commissioned and a second milk powder dryer was commissioned in August 2013. When operating at full capacity, the plant processes 8.6% of New Zealand's peak milk production. It is one of five milk processing operations in the Canterbury region¹ and was developed in response to increasing milk volumes and a shortage of processing capacity in the region. Currently the plant produces 220,000 tonnes of regular and instant whole milk powder per annum, with 7.2 million litres/day of milk processed at the peak of the season. The milk powder produced is exported through the Port of Lyttelton to markets in South East Asia, the Middle East and the People's Republic of China. The Darfield plant is estimated by Fonterra to account for approximately 15% by value of New Zealand's dairy exports.
- 1.2** In May 2014, Synlait Milk Limited (Synlait) submitted a request to the Selwyn District Council for a private Plan Change to introduce a Dairy Processing Management Area (DPMA) within the Rural (Outer Plains) Zone of the District Plan. The boundary of this DPMA surrounds Synlait's existing Dunsandel milk processing site. The decision to accept the Synlait Plan Change was made by the Council on 25 March, 2015.
- 1.3** Fonterra now wishes to seek a Plan Change enabling a DPMA to cover its Darfield site to recognise and better reflect the existing dairy plant established on the site and to provide for its efficient continued use and expansion. The Plan Change sought will reduce the ongoing reliance on the resource consent process for variations or changes in the future use of the site. It has therefore been prepared to provide for the maximum envisaged scale of milk processing development that is likely to occur in the foreseeable future. This will reduce the time, costs and uncertainties associated with seeking future consents for what is largely the consolidation of an existing established dairy plant.

¹ The others are at Kaikoura, Culverden, Clandeboye and Studholme.

Report Objective

- 1.4** The objective of this report is to assess the economic effects of Fonterra's proposed Plan Change enabling a DPMA to cover its Darfield site. The report will form part of the Assessment of Environmental Effects (AEE) to be lodged in relation to the application for the Plan Change.

Report Format

- 1.5** This report is divided into 7 parts (in addition to this introductory section). These are:

- (a) The background to Fonterra's existing and future use of its Darfield milk processing site;
- (b) A consideration of the relevance of economic effects under the RMA;
- (c) A description of the Selwyn District, and Canterbury regional economies;
- (d) The economic benefits from the continued operation of Fonterra's existing milk processing activities at Fonterra's Darfield site;
- (e) The economic benefits from future expansion of milk processing activities at Fonterra's Darfield site;
- (f) A discussion of some potential economic costs of the continued operation and future expansion of milk processing activities at Fonterra's Darfield site; and
- (g) Some overall conclusions.

2. BACKGROUND TO FONTERRA'S EXISTING AND FUTURE USE OF ITS DARFIELD MILK PROCESSING SITE²

- 2.1** New Zealand is the world's largest exporter of milk products and Fonterra, which processes 92% of New Zealand's total milk production, is the largest dairy exporter to the global open market. Fonterra is New Zealand's biggest company and is responsible for 25% of New Zealand's total exports by value. Last dairy

²Material in this section provided by Fonterra.

season Fonterra exported 2.2 million tonnes of dairy products to customers and consumers in over 140 countries.

- 2.2** Each year Fonterra processes more than 15 billion litres of milk at 26 processing sites in New Zealand, employing 6,250 people and provides \$525 million in wages and salaries. Fonterra has an annual turnover of approximately \$20 billion. The company is co-operatively owned by over 10,500 shareholders, who are a mix of family owned farms and corporate entities.
- 2.3** Fonterra's Darfield plant farmer suppliers are largely located in the Canterbury region. Unlike in the North Island's more mature dairy areas, milk supply growth in South Island dairy areas is averaging around 4-5% per annum and this rate of growth is expected to continue in the future. Also, under section 73 of the Dairy Industry Restructuring Act (DIRA), Fonterra is required to accept all new applications to become Fonterra shareholder farmers and all applications to increase the volume of milk supplied by shareholding farmers.³ Therefore Fonterra is required to maintain and expand processing capacity to meet future growth in the supply of milk from existing and new Fonterra farmer suppliers.

3. ECONOMICS AND THE RMA

Community Economic Wellbeing

- 3.1** Economic considerations are intertwined with the concept of the sustainable management of natural and physical resources, which is embodied in the RMA. In particular, Part II section 5(2) refers to enabling "*people and communities to provide for their ... economic ... well being*" as a part of the meaning of "*sustainable management*", the promotion of which is the purpose of the RMA.
- 3.2** As well as indicating the relevance of economic effects in considerations under the RMA, this section also refers to "*people and communities*" (emphasis added), which highlights that in assessing the impacts of a proposal it is the impacts on the community and not just the applicant or particular individuals or organisations, that

³ In some exceptional circumstances, Fonterra can refuse to accept additional volumes of milk for processing. These circumstances relate to minimum volumes of milk solids and where transport costs for a new applicant exceed those of its highest transport cost existing supplier.

must be taken into account. This is underpinned by the definition of “*environment*” which also extends to include people and communities.

- 3.3** The continued operation and expansion of Fonterra's dairy product manufacturing capacity at the Darfield site will enable the residents and businesses of the Selwyn District, Christchurch City and the Canterbury region to provide for their social and economic wellbeing.

Economic Efficiency

- 3.4** Part II section 7(b) of the RMA notes that in achieving the purpose of the Act, all persons “*shall have particular regard to ... the efficient use and development of natural and physical resources*” which include the economic concept of efficiency⁴. Economic efficiency can be defined as:

“the effectiveness of resource allocation in the economy as a whole such that outputs of goods and services fully reflect consumer preferences for these goods and services as well as individual goods and services being produced at minimum cost through appropriate mixes of factor inputs”⁵.

- 3.5** More generally economic efficiency can be considered in terms of:
- Maximising the value of outputs divided by the cost of inputs;
 - Maximising the value of outputs for a given cost of inputs;
 - Minimising the cost of inputs for a given value of outputs;
 - Improving the utilisation of existing assets; and
 - Minimising waste.
- 3.6** The proposed Plan Change to enable at least cost the continuation and expansion of dairy product manufacturing capacity at the Darfield site is consistent with the efficient use of resources, especially in regard to reducing consenting costs, minimising milk collection transport costs, continued utilisation of substantial

⁴ See, for example, in *Marlborough Ridge Ltd v Marlborough District Council* [1998] NZRMA 73, the Court noted that all aspects of efficiency are “*economic*” by definition because economics is about the use of resources generally.

⁵ Pass, Christopher and Lowes, Bryan, 1993, *Collins Dictionary of Economics* (2nd edition), Harper Collins, page 148.

assets with remaining economic life and enabling economies of scale in production that can be achieved at the site.

Viewpoint

- 3.7** An essential first step in carrying out an evaluation of the positive and negative economic effects of a development project is to define the appropriate viewpoint that is to be adopted. This helps to define which economic effects are relevant to the analysis. Typically a district (or city) and wider regional viewpoint is adopted and sometimes even a nationwide viewpoint might be considered appropriate.
- 3.8** The Darfield dairy manufacturing site is located in the Selwyn District, which is part of the Canterbury region. However Christchurch City is also part of the local economy which significantly benefits from the continuation and expansion of milk processing capacity at the site since firstly, many of the staff reside in Christchurch (as well as Selwyn), and secondly, Christchurch businesses as well as Selwyn based businesses provide goods and services to the plant. Also there will be increased employment and expenditure in the local Selwyn and Christchurch economies during any expansion of the plant at the site. Therefore in this report the economic effects are considered in relation to the local Selwyn District economy and also in relation to the broader Canterbury region (incorporating Christchurch City effects).
- 3.9** There are also private or financial benefits associated with the continuation and any expansion of Fonterra's operations at the Darfield site. Generally these benefits are not relevant under the RMA and the main focus of this report is therefore on the wider economic effects on parties other than Fonterra and its customers. Economists refer to such effects as "externalities"⁶.
- 3.10** However, Fonterra is owned by its farmer shareholders and financial benefits to Fonterra impact on the *"economic (and social) well being"* of these farmer shareholders including those within the local community – i.e. the Selwyn District and wider Canterbury region. Also financial benefits to Fonterra are relevant with respect to the *"efficient use and development of natural and physical resources"*

⁶ Defined as the side effects of the production or use of a good or service, which affects third parties, other than just the buyer and seller.

and New Zealand's export competitiveness, given the importance of dairy product exports to the New Zealand economy.

4. BACKGROUND TO SELWYN DISTRICT AND CANTERBURY REGION'S ECONOMIES⁷

Population

4.1 Statistics New Zealand's June 2014 population estimate for the Selwyn District is 49,500 or 1.0% of New Zealand's population. In 2009 population in the District was estimated to be 39,600, implying an increase of 15.9% over the period 2009 to 2014, as compared to only 4.8% for New Zealand as whole. Statistics New Zealand's 'medium' population projections⁸ have the Selwyn District's population increasing to 89,400 in 2043 – i.e. an average rate of increase of 2.0% per annum over the period 2014-43, compared to an average rate of growth for New Zealand of 0.7% per annum.

4.2 Statistics New Zealand's June 2014 population estimate for the Canterbury region is 574,300 or 12.7% of New Zealand's total population. It is the second largest region in New Zealand in terms of population. The Canterbury region's population is estimated to have declined between June 2010 and June 2012 by 11,700 (2.1%) due to Christchurch City's population falling by 21,200 (5.6%) after the earthquakes and only some of the consequent out-migration relocating to neighbouring districts within the Canterbury region. The region's population over the period 2009 to 2014 has grown by 2.4%. Statistics New Zealand's 'medium' population projections have the region's population increasing at an average rate of 0.8% per annum to 729,200 over the period 2014-43.

Employment

4.3 Employment data highlights the dependence of the Selwyn District on the agriculture sector. In February 2014, 2,990 jobs (19.9%) of the Selwyn District's 15,010 jobs were in the agriculture, forestry and fishing industry group,

⁷ Data in this section from Statistics New Zealand.

⁸ Statistics New Zealand prepare three sets of projections – high, medium and low – according to natural population change (i.e. the net effect of birth and death rate assumptions) and net migration assumptions. These projections do not explicitly incorporate assumptions about different rates of economic development.

with most (an estimated 2,878 jobs) being agricultural jobs. Dairy cattle farming accounted for 980 jobs (6.5% of total employment) and sheep, beef cattle and grain farming 760 jobs (5.1% of total employment). There were 1,730 jobs (11.5% of total employment) in the manufacturing sector, including 1,170 jobs (7.8% of total employment) in food manufacturing of which dairy product manufacturing accounted for 470 jobs (3.1% of total employment). Taken together, dairy cattle farming and dairy product manufacture directly account for 9.7% of total employment in the District. With the inclusion of the flow on, or “multiplier” effects, (see next section of this report), the dairy sector accounts for around 15% of total employment in the District.

4.4 Other important employment sectors in the District are education and training (1,830 jobs or 12.2% of the total), public administration and training (1,770 jobs or 11.8% of the total), construction (1,500 jobs or 10.0% of the total), retail trade (970 jobs or 6.5% of the total), professional, scientific and technical services (940 jobs or 6.3% of the total), and health care and social assistance (610 jobs or 4.1% of the total).

4.5 Statistics New Zealand estimate total employment in the Canterbury region in February 2014 at 275,210, which represents 13.8% of the total persons employed in New Zealand. The agriculture, forestry and fishing industry group employed 15,300 persons, of which 14,380 were engaged in agriculture (including 93% of agriculture and fishing support industry employees based on the proportionate shares in agriculture and fishing). Other significant sectors are manufacturing employing 34,140 (of which the most significant subsectors are food products manufacturing (11,600)⁹, machinery and equipment manufacturing (5,390), fabricated metal products manufacturing (3,170) and transport equipment manufacturing (2,350)), health care and social assistance (30,350), construction (29,830), retail trade (28,090), education and training (20,640), professional, scientific and technical services (19,120) and accommodation and food services (17,490). Besides the tourism related aspects of sectors such as retail trade, education and training and accommodation and food services, the key drivers of the Canterbury economy remain largely agriculture and manufacturing.

⁹ Including meat and meat products (4,800), seafood (1,080) and dairy products (1,690).

- 4.6** There are important linkages between the performance of the Canterbury regional economy (which is heavily dependent upon agriculture and agricultural product processing) and the Christchurch City economy. Apart from construction activities associated with the Christchurch rebuild, and tourism which accounts for some but not all¹⁰ of the jobs created in the retail trade and accommodation and food services sectors, the key economic drivers for Christchurch City are manufacturing and services provided to the agriculture and agricultural product processing activity within the wider Canterbury region.

5. ECONOMIC BENEFITS OF MAINTAINING CURRENT OPERATIONS OF THE FONTERRA'S DARFIELD MILK PROCESSING PLANT

- 5.1** Before Fonterra developed the Darfield milk processing plant, milk from the Selwyn District and the surrounding North and Mid-Canterbury catchment areas was processed at Fonterra's Clandeboye plant near Timaru, and when this plant had capacity constraints, at Fonterra's Edendale plant in Southland. The opening of the Darfield plant not only led to a significant reduction in truck and tanker kilometres (up to 30,000 truck and tanker kilometres per day) but also spread capacity risk across the two largest Fonterra plants within Canterbury and the three largest Fonterra plants in the South Island.
- 5.2** In addition, there are a number of advantages in maintaining production capacity at the Darfield site as compared to relocating production capacity to potential new sites and/or the expansion of other existing plants. The key advantages are:
- (a) The continued optimum use of existing relatively new "sunk" assets, which otherwise would be largely "stranded" – i.e. the continued use of plant, machinery and buildings with significant remaining economic life but which would have little if any residual value if the plant reduced its operating capacity or ceased operating and these assets had to be sold or relocated to other sites;
 - (b) The surrounding area has dairy growth potential;
 - (c) The site is large enough to allow for future expansions to cope with predicted future increases in North and Mid Canterbury milk supply;

¹⁰Employment in tourism is difficult to identify from official statistics since the relevant sectors such as retail trade and accommodation and food services for which data is collected meet the needs of domestic and international visitors, business travellers and local residents and businesses.

- (d) The site is on a main road with good road network links;
- (e) The site is adjacent to the rail network for delivery of inputs and export of milk products;
- (f) The site is close to Lyttelton Port;
- (g) The site is close to Darfield and Christchurch City for skilled staff and support industries;
- (h) The site has a sufficient supply of good quality water, a reliable electricity supply and is of sufficient size to enable on-site wastewater disposal; and
- (i) The site is some distance from neighbours and effects on them can be mitigated.

5.3 Most of the plant's operational input supplies other than milk and employee labour come from Christchurch City. Some local Selwyn District firms also provide goods and services to the plant including, for example security services, laundry services, gardening services, canteen outsourcing, electrical maintenance services and mechanical maintenance services. Fonterra estimate around 10% of the value of operational input supplies (other than milk and employee labour) are supplied from within the Selwyn District.

5.4 The Darfield milk processing plant currently employs 200 permanent full time equivalent (FTE) staff, as well as a significant number of contractors and temporary staff. It is estimated that at least 50% of the staff directly employed at the plant reside permanently within the Selwyn District, whilst a number of contractor staff will also be local residents. For the 100 staff residing in the Selwyn District, their estimated wages and salaries are \$7.5 million per annum.¹¹

5.5 In addition to these direct economic impacts there are indirect impacts arising from:

- (a) The effects on suppliers of goods and services provided to the site from within the District (i.e. the "forward and backward linkage" effects); and
- (b) The supply of goods and services to employees at the site and to those engaged in supplying goods and services to the site (i.e. the "induced" effects). For example, there will be additional jobs and incomes for

¹¹i.e. based on an average annual salary of \$75,000.

employees of supermarkets, restaurants and bars as a consequence of the additional expenditure by employees living within the Selwyn District.

5.6 District multipliers can be estimated to gauge the size of these indirect effects. The size of the multipliers is a function of the extent to which a district economy is self-sufficient in the provision of a full range of goods and services and the district's proximity to alternative sources of supply. District multipliers typically fall in the range of 1.5 to 2.0¹² and taking the low point of 1.5, given the Selwyn District's close proximity to Christchurch, implies total impacts (i.e. direct plus indirect impacts) of Fonterra's current operations at its Darfield site of:

- (a) 150 additional jobs for local Selwyn District residents; and
- (b) \$11.25 million per annum in additional wages and salaries for local Selwyn District residents.

5.7 In addition to the additional revenues, employment and incomes generated by the Darfield plant itself, condensate and process water from the plant is used to irrigate a neighbouring farm owned by Fonterra (492 hectares irrigated) and two other third party farms (the first 174 hectares irrigated and the second 121 hectares irrigated). The Fonterra farm is used for supplement production, with the third party farms being used for dairy support and irrigated sheep farming respectively. The irrigation using condensate and process water from the Fonterra plant is estimated to improve farmer returns by \$250-\$500 per hectare for dairy support and \$650 per hectare for irrigated sheep farming¹³. This implies additional earnings from the irrigation using the plant's condensate and process water of \$0.25 million to \$0.41 million per annum across the three farms.

5.8 Further there are important economic linkages between Christchurch City's economy and farming and agricultural product processing in the rural hinterland of the Canterbury region. The Darfield milk processing plant, its dairy farm suppliers, its local suppliers of goods and services and their employees purchase goods and

¹²Work undertaken for the Christchurch City Council and the Canterbury Regional Council by Mr. Geoffrey Butcher estimated employment and household income (i.e. wages and salaries) multipliers for the Canterbury region of around 2.5. (See Appendix 8 of evidence of Mr. Geoffrey Butcher (dated 27 August 2010) for the Christchurch City Council and for the Canterbury Regional Council Regional Council, in the matter of appeals pursuant to Clause 14 of the First Schedule to the RMA in relation to Proposed Change 1 to the Canterbury Regional Policy Statement.)

¹³ Ford S.J. (2011); Farmer Returns from the Irrigation of Condensate Water; a report prepared for Fonterra.

services from Christchurch City businesses providing employment and incomes for Christchurch City residents. For example, Lincoln University's Agribusiness and Economic Research Unit (AERU)¹⁴ has estimated farms in the Selwyn and Waimakariri Districts spend \$306 million per annum¹⁵ in Christchurch City, whilst rural businesses (which will include Fonterra's plant at Darfield) within the two Districts account for a further \$511 million per annum. Combining these expenditure flows with the indirect ("multiplier") expenditure flows raises this to \$2.2 billion, and this is estimated to generate around 10% of the City's gross domestic product (GDP) and more than 12,500 fulltime equivalent jobs for Greater Christchurch residents.¹⁶

5.9 Conservative¹⁷ estimates for the direct and indirect effects of Fonterra's Darfield plant's existing operations for the Canterbury region (principally in the Selwyn District and Christchurch City) are the creation of 400 jobs and incomes of \$30 million per annum.

5.10 Consequently restrictions or unnecessary regulation placed on Fonterra's milk processing plant's current operations impacts negatively not just on Fonterra shareholder suppliers but also businesses and residents within the Selwyn District, Christchurch City and the wider Canterbury region.

6. ECONOMIC BENEFITS FROM THE EXPANSION OF PROCESSING CAPACITY AT FONTERRA'S DARFIELD SITE

Increased Economic Activity during Construction of Additional Dryers and Related Facilities¹⁸

¹⁴ See AERU: *The Wheel of Water; Agricultural Expenditure Flows for Selwyn and Waimakariri Districts into Christchurch*. Report prepared for Aqualink. September, 2013.

¹⁵ Of which dairy farm expenditure is \$68 million.

¹⁶ The analysis is conservative in that it excludes the activity associated with agricultural product processing plants within Christchurch City and it only focuses on Selwyn and Waimakariri Districts and not districts further south within the Canterbury region.

¹⁷ Relates only to Fonterra's fulltime workforce of 200 staff and assumes a regional multiplier of 2.0. Note: No account is taken of on-farm employment and incomes since without the Darfield plant it is assumed milk production would be unchanged.

¹⁸ Unless stated otherwise data in this section provided by Fonterra.

- 6.1** The next (Stage 3) expansion of processing capacity on Fonterra's Darfield site (i.e. the addition of a third new dryer and related facilities) is likely to commence within the next 5 years and will take around two years to complete. The Stage 4 expansion (i.e. the addition of a fourth new dryer and related facilities) will take a further two years to complete, but is likely to be completed three to five years after the Stage 3 expansion. Each of the two remaining expansion stages is expected to cost around \$390 million (excluding land costs). The majority of the equipment, materials and services required for the plant's expansion will be sourced from within New Zealand, with the remainder imported from overseas. Local Selwyn District suppliers will be used wherever possible, but realistically most suppliers from the Canterbury region will be predominantly located in Christchurch City. Goods and services, which may be supplied locally (i.e. from businesses located within the Selwyn District) include excavation services, concrete, road construction materials, fencing, shelter belt planting, re-grassing, catering services, laundry services, accommodation, security services and construction labour.
- 6.2** During each expansion construction phase, an on-site workforce starting at 50 employees and peaking at 700 employees will be required with an estimated monthly average of around 300 employees. Wage and salary payments for these employees are estimated to average \$18.75 million per annum.¹⁹ It is expected round half of the construction workforce will reside permanently within the Selwyn District or Christchurch City, providing additional jobs and incomes within the local economy.
- 6.3** However in addition to these direct economic impacts will be the direct (or 'multiplier') impacts. Using a multiplier for the Selwyn District of 1.5 and assuming half of the construction workforce will reside within the District, implies total impacts (i.e. direct plus indirect impacts) during each of the two construction phases of:
- (a) 225 additional jobs for local Selwyn District residents; and
 - (b) \$14.1 million per annum in additional wages and salaries for local Selwyn District residents.

¹⁹Based on an average salary per employee of \$62,500 per annum.

- 6.4** For the Canterbury region, 2.0 is a more realistic conservative multiplier, given the greater self-sufficiency of the total region, which includes Christchurch City. The total impacts for the Canterbury region during each of the two construction phase are estimated to be:
- (a) 600 additional jobs for Canterbury residents; and
 - (b) \$37.5 million per annum in additional wages and salaries for Canterbury residents.

Increased Economic Activity during Expanded Plant's Operation²⁰

- 6.5** After the expansion of processing capacity, the site will require additional inputs of materials and services. These are likely to be largely drawn from the Canterbury region, with some of these goods and services provided by local Selwyn businesses. Around 10% of Fonterra's current Darfield plant maintenance expenditure is with contractors based within the Selwyn District and this is likely to continue after the plant expansion. Locally provided goods and services are likely to include security services, laundry services, building and grounds services, canteen outsourcing, electrical maintenance services, waste treatment sludge disposal and mechanical maintenance services.
- 6.6** Once the two new dryers and related facilities are operational Fonterra expects the current workforce at the site (including milk tanker drivers) will grow from 200 to 435 – i.e. there will be 235 additional jobs. Their additional wages and salaries are estimated at \$17.6 million per annum (on the basis of an average salary for plant employees and drivers of \$75,000 per annum). These additional workers are likely to reside in the Selwyn District or Christchurch, further increasing levels of expenditure in the local economy.
- 6.7** Again using a local multiplier of 1.5, and assuming a 50/50 split between workers residing in the Selwyn District and Christchurch implies an increase in direct plus indirect employment of 176 jobs and an increase in direct plus indirect household income of \$13.2 million per annum for the Selwyn District economy.

²⁰Unless stated otherwise data in this section provided by Fonterra.

- 6.8** For the Canterbury region, using a multiplier of 2.0, the total increase in employment is 470 jobs and the total increase in household income is \$35.2 million per annum.

Economic Benefits from Increased Economic Activity

- 6.9** As indicators of levels of economic activity, economic impacts in terms of increased expenditure, incomes and employment within the local and regional economies are not in themselves measures of improvements in economic welfare or economic wellbeing. However, there are economic welfare enhancing benefits associated with increased levels of economic activity. These relate to one or more of:

- (a) Increased economies of scale: Businesses and public sector agencies are able to provide increased amounts of outputs with lower unit costs, hence increasing profitability or lowering prices;
- (b) Increased competition: Increases in the demand for goods and services allow a greater number of providers of goods and services to enter markets and there are efficiency benefits from increased levels of competition;
- (c) Reduced unemployment and underemployment²¹ of resources: To the extent resources (including labour) would be otherwise unemployed or underemployed, increases in economic activity can bring efficiency benefits when there is a reduction in unemployment and underemployment. The extent of such gains is of course a function of the extent of underutilized resources at the time and the match of resource requirements of a project and those resources unemployed or underemployed; and
- (d) Increased quality of central government provided services: Sometimes the quality of services provided by central government such as education and health care are a function of population levels and the quality of such services in a community can be increased if increased economic activity maintains or enhances population levels.

²¹Underemployment differs from unemployment in that resources are employed but not at their maximum worth; e.g. in the case of labour, it can be employed at a higher skill and/or productivity level, reflected in higher wage rates.

- 6.10** It is reasonable to presume that increases in economic activity (i.e. expenditures, incomes and employment) within the local Selwyn District economy as a consequence of expansions of milk processing capacity at Fonterra's Darfield site will give rise to one or more of these four welfare enhancing economic benefits for the local community.

7. POTENTIAL ECONOMIC COSTS OF EXPANSION OF MILK PROCESSING CAPACITY AT FONTERRA'S DARFIELD SITE

Lost Agricultural Production

- 7.1** Lost agricultural production is not an external cost of continued use and expansion of milk processing capacity at the Darfield site. The productive value of the land in alternative uses (such as agricultural and other use) has been internalised into the cost structure of the development – in other words Fonterra in purchasing the land has paid a price reflective of future net returns from alternative uses for the land. Such costs are not costs to be borne by the wider community.
- 7.2** In any case the increase in the land's rateable value is indicative of the land being used more efficiently than if it continued only in its previous use of lifestyle blocks (this being the area where the factory itself and any proposed expansion will be primarily located).
- 7.3** Furthermore the plant and roads on the site currently require less than 2% of the site (13 hectares²² out of 680 hectares), and the remainder of the site continues to be used for agricultural purposes with an improved supply of irrigation water from the plant's treated wastewater system. Also there is an additional 212 hectares of third party irrigation, increasing production from these properties which are not currently irrigated.

Reductions in Tourism²³

²²The Stage 2 expansion only involved an additional 0.5 hectares of site coverage.

²³The tourism impacts of the development of a milk powder plant on the site were covered in detail in the evidence of Mr. Rob Greenaway for Stage 1.

- 7.4** Whilst tourism is not as significant a driver of the District economy as other industries (e.g. agriculture), the District is the home to several ski-fields (Broken River, Mt Cheeseman, Craigieburn, Mt Olympus, Porters Ski Area and Temple Basin) and the Arthurs Pass National Park and offers a wide range of outdoor activities for visitors to the District to enjoy.
- 7.5** The plant does not impact on outdoor pursuits in the District such as skiing, tramping, mountain climbing or fishing. The evidence of Mr Greenaway in relation to the initial Stage 1 development of the plant concluded that it would not cause adverse impacts on regional tourism activity. Therefore the plant or any proposed expansion of it will not have any discernable negative impact on tourist visitor numbers, their length of stay in the District and tourist expenditure in the District.
- 7.6** In fact the presence of a major manufacturing plant within the District is likely to lead to some increase in visitor numbers to the District and benefits in terms of additional visitor spending on locally provided accommodation and hospitality.

Utilities

- 7.7** Externality costs can arise when utilities provided by central or local government (e.g. roads, water supply, storm water and flood control systems and wastewater disposal) are not appropriately priced. In the case of Fonterra's milk processing plant at Darfield no such externality costs arise.
- 7.8** Fonterra has met the costs of improvements onto State Highway 73 and the level crossing providing access to the site from the existing road network. Fonterra and its farmer suppliers also make payments via road user charges and rates for ongoing maintenance and necessary upgrades to the state highway and local district council road networks.
- 7.9** With respect to water supply, on-site bores are used for the plant. For storm water and wastewater disposal the plant is totally self-sufficient.

- 7.10** Therefore the plant does not use the Selwyn District Council provided services and there can be no concerns that other ratepayers of the District are providing subsidised services to the plant.

8. CONCLUSIONS

- 8.1** Fonterra's proposed Plan Change enabling a DPMA to cover its Darfield site will provide for Fonterra's Darfield milk processing plant's efficient continued use and expansion. It will reduce the ongoing reliance on the resource consent process for variations or changes in the future use of the site and reduce the time, costs and uncertainties associated with seeking future consents for what is largely the consolidation of an existing established dairy plant.

- 8.2** The Plan Change will continue to contribute to the economic well being of the Selwyn District and broader Canterbury regional Canterbury communities by:

- (i) Providing employment and incomes for local residents and businesses;
- (ii) Providing the local economy with greater diversity and resilience;

- 8.3** The proposed Plan Change will maintain and improve resource use efficiency by:

- (i) Retaining and increasing economic activity and population in the Selwyn District, enabling increased economies of scale in the local provision of goods and services;
- (ii) Reducing transport costs for the collection of milk and the export of finished products; and
- (iii) Reducing externality costs associated with road transport including road accident costs, road transport pollution costs and travel time costs for other road users.

- 8.4** The Plan Change will not give rise to economic externality costs.