



## **Appendix E**

### **Economic Assessment**

**APPLICATION FOR A PLAN CHANGE TO ESTABLISH A DAIRY PROCESSING  
MANAGEMENT AREA COVERING ROLLESTON INDUSTRIAL HOLDINGS LIMITED SITE IN  
MADDISONS ROAD**

**ASSESSMENT OF ECONOMIC IMPACTS**

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## **1. INTRODUCTION**

### **Background**

- 1.1** Rolleston Industrial Holdings Limited (RIHL) own land in Maddisons Road, adjacent to the IPort industrial area at Rolleston and wishes to establish a Dairy Processing Management Area (DPMA) on the site. At this stage there is no particular tenant identified to utilize the DPMA, but rather RIHL wishes to create the opportunity for such a facility to be established and to provide some flexibility given there currently are no development plans available. The site has a total area of 27 ha and it is proposed that the area covered by dairy processing activities will be up to 25 ha.
- 1.2** In 2014, Synlait Milk Limited (Synlait) submitted a request to the Selwyn District Council for a private Plan Change to introduce a DPMA for its existing Dunsandel milk processing site to recognise the existing dairy processing activities on the site and to provide for their continued use and expansion. The decision to accept the Synlait Plan Change was made by the Council on 25 March, 2015. The Synlait DPMA site has a total area of 187 ha and currently dairy processing activities cover 113.6 ha.
- 1.3** In 2016 Fonterra sought a Plan Change enabling a DPMA to cover its Darfield site, again to recognise the existing dairy processing activities on the site and to provide for their continued use and expansion. The decision to accept the Fonterra Plan Change was made by the Council on 14 June, 2017. The Fonterra DPMA site has a total area of 680 ha and currently dairy processing activities cover 132 ha.
- 1.4** As with the Plan Changes establishing the Synlait and Fonterra DPMAs, the RHIL proposed Plan Change 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.

## Report Objective

- 1.5** The objective of this report is to assess the economic effects of RIHL's proposed Plan Change enabling a DPMA to cover its Maddisons Road 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

- 1.6** This report is divided into 5 parts (in addition to this introductory section). These are:
- (a) A consideration of the relevance of economic effects under the RMA;
  - (b) A description of the Selwyn District, and Canterbury regional economies;
  - (c) The economic benefits from the establishment of a DPMA on RIHL's site in Maddisons Road;
  - (d) A discussion of some potential economic costs from the establishment of a DPMA on RIHL's site in Maddisons Road; and
  - (e) Some overall conclusions.

## 2. ECONOMICS AND THE RMA

### Community Economic Wellbeing

- 2.1** 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.
- 2.2** 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 must be taken into account. This is underpinned by the definition of "*environment*" which also extends to include people and communities.

- 2.3** How the establishment of a DPMA on RIHL's site in Maddison Road will enable the residents and businesses of the Selwyn District, Christchurch City and the Canterbury region to provide for their social and economic wellbeing is discussed later in this report.

## **Economic Efficiency**

- 2.4** 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 efficiency<sup>1</sup>. 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"*<sup>2</sup>.

- 2.5** 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.

- 2.6** The proposed Plan Change to enable, at least cost, dairy processing activities to be established at RIHL's site in Maddisons Road is consistent with the efficient use of resources, especially in regard to reducing consenting costs and enabling economies of scale and scope through grouping similar and related activities together. These economic efficiency benefits are discussed later in this report.

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<sup>1</sup> 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.

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

## Viewpoint

- 2.7** An essential first step in carrying out an evaluation of the positive and negative economic effects of the Plan Change 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.
- 2.8** RIHL's Maddisons Road 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 will benefit from the DPMA's establishment since firstly, many of the staff likely to be employed at the facility will reside in Christchurch (as well as Selwyn), and secondly, Christchurch businesses as well as Selwyn based businesses will provide goods and services to the facility and its employees. 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 regional economy (incorporating Christchurch City effects).
- 2.9** There will also be private or financial benefits associated with the DPMA's establishment. 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 RIHL, the eventual occupier of the site and its customers. Economists refer to such effects as "externalities"<sup>3</sup>.

## 3. BACKGROUND TO SELWYN DISTRICT AND CANTERBURY REGION'S ECONOMIES<sup>4</sup>

### Population

- 3.1** Statistics New Zealand's June 2019 population estimate for the Selwyn District is 65,600 or 1.3% of New Zealand's population. In 2013 population in the District was estimated to be 46,700, implying an increase of 40.5% over the period 2013 to 2019, as compared to only 10.7% for New Zealand as whole. Statistics New Zealand's 'medium' population projections<sup>5</sup> have the Selwyn District's population

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<sup>3</sup>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.

<sup>4</sup>Data in this section from Statistics New Zealand.

<sup>5</sup>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.

increasing to 99,500 in 2043 – i.e. an average rate of increase of 1.8% per annum over the period 2019-43, compared to an average rate of growth for New Zealand of 0.8% per annum.

- 3.2** Statistics New Zealand's June 2019 population estimate for the Canterbury region is 628,600 or 12.8% of New Zealand's total population. It is the second largest region in New Zealand in terms of population. In 2013 population in the Region was estimated to be 562,900, implying an increase of 11.7% over the period 2013 to 2019. Statistics New Zealand's 'medium' population projections have the region's population increasing at an average rate of 0.8% per annum to 767,300 over the period 2019-43.

## **Employment**

- 3.3** Employment data highlights the dependence of the Selwyn District on the agriculture sector. In February 2019, 3,150 jobs (16.7%) of the Selwyn District's 18,900 jobs were in the agriculture, forestry and fishing industry group, with most (an estimated 3,060 jobs) being agricultural jobs<sup>6</sup>. Dairy cattle farming accounted for 1,100 jobs (5.8% of total employment) and sheep, beef cattle and grain farming 590 jobs (3.1% of total employment). There were 2,900 jobs (15.3% of total employment) in the manufacturing sector, including 1,600 jobs (8.5% of total employment) in food manufacturing of which dairy product manufacturing accounted for 940 jobs (5.0% of total employment). Taken together, dairy cattle farming and dairy product manufacture directly account for 10.8% of total employment in the District.
- 3.4** Other important employment sectors in the District are education and training (2,100 jobs or 11.1% of the total), construction (1,800 jobs or 9.5% of the total), public administration and safety (1,550 jobs or 8.2% of the total), retail trade (1,300 jobs or 6.9% of the total), professional, scientific and technical services (1,300 jobs or 6.9% of the total), and accommodation and food services (1,250 jobs or 6.6% of the total).
- 3.5** Statistics New Zealand estimates total employment in the Canterbury region in February 2019 at 305,300 which represents 13.4% of the total persons employed

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<sup>6</sup>Including agriculture support jobs.

in New Zealand.<sup>7</sup> The agriculture, forestry and fishing industry group employed 16,400 persons (5.3% of total jobs) of which most (14,424) were engaged in agriculture.<sup>8</sup> Other significant sectors are manufacturing employing 36,100 or 11.8% of total jobs (of which the most significant subsectors are food products manufacturing (12,500 jobs), machinery and equipment manufacturing (5,400 jobs), fabricated metal products manufacturing (3,800 jobs) and transport equipment manufacturing (2,950 jobs)), health care and social assistance (34,400 jobs or 11.3% of total jobs), retail trade (30,600 jobs or 10.0% of total jobs), construction (29,700 jobs or 9.7% of total jobs), education and training (23,200 jobs or 7.6% of total jobs), professional, scientific and technical services (23,100 jobs or 7.6% of total jobs) and accommodation and food services (21,700 jobs or 7.1% of total jobs).

**3.6** The key drivers of the Canterbury economy remain largely agriculture, manufacturing and tourism, the last of which includes parts of the retail trade, accommodation and food services and education and training sectors. Employment in other sectors is to a large extent driven by the demand for goods and services by these industries and their employees with the so called “multiplier” effects creating additional jobs for the region’s economy.

**3.7** The agriculture, forestry and fishing industries and the manufacturing industry together generate an estimated 52,500 jobs or 17.2% of total employment in the Canterbury region and underpin much of the economic activity of Greater Christchurch and the wider Canterbury region.

## **4. ECONOMIC BENEFITS OF PROPOSED PLAN CHANGE**

### **Additional Employment, Incomes and Expenditure**

**4.1** Although there is as yet no specific tenant in mind, the DPMA enabled by the proposed Plan Change is expected to attract dairy processing activity to the site. Engineering consultants to RIHL, Babbage Consultants Limited, advise that given the size of the site it is more likely that it will accommodate the production of a value added product, rather than a primary milk powder production facility, though either is a possibility. If this activity would otherwise have been located within the

<sup>7</sup>Statistics NZ, NZ Stat, Business Demography Statistics; Geographic Units by Industry and Statistical Area.

<sup>8</sup> Including agriculture’s proportionate share of agriculture, forestry and fishing support services.



Selwyn District, then from a District (and Regional) perspective the Plan Change will not create additional employment, incomes and expenditure for the local economy. However there will be efficiency benefits for the operator reflecting the choice of this site over other alternative sites within the District.

**4.2** If the DPMA enabled by the proposed Plan Change attracts an activity, which would not otherwise have located within the Selwyn District, there will be additional employment, incomes and expenditure generated for the local District economy. This will be in relation to the activity itself – i.e. the direct economic impacts – and the indirect or “multiplier impacts as a result of:

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

**4.3** 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 underemployment<sup>9</sup> 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.

**4.4** Although the additional economic activity likely to generated by the DPMA proposed for the Maddisons Road site will be relatively small (e.g. in comparison to that generated by Fonterra's Darfield DPMA site), such activity that will be generated by the site will contribute to these types of economic benefits for the Selwyn District economy.

**4.5** Alsoto the extent that the Maddisons Road DPMA generates additional employment opportunities for the Selwyn District, it will reduce the reliance of local residents on employment opportunities in Christchurch City and therefore potentially reduce their commuting transport costs.<sup>10</sup>

### **Other Efficiency Benefits**

**4.6** The establishment of a DPMA on the Maddisons Road site will reduce the reliance on the resource consent process for the initial establishment of dairy processing activity on the site and any subsequent changes in scale or configuration of that activity. Also locating dairy processing activity on the site will provide agglomeration economies<sup>11</sup> in that the site is in close proximity to other industrial

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<sup>9</sup>Underemployment 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.

<sup>10</sup>There may be additional commuting costs for Christchurch residents attracted to jobs at the DPMA, depending on their place of residence and the location of alternative employment for them.

<sup>11</sup> Agglomeration economies or agglomeration effects are cost savings or revenue increases which occur as a result of firms locating near to each other in industrial clusters.

activities located in Rolleston. Also the site is close to two inland ports and has good access to both rail and road networks.

## **5. POTENTIAL ECONOMIC COSTS OF PROPOSED PLAN CHANGE**

### **Lost Agricultural Production**

- 5.1** The site of the proposed DPMA is zoned “Rural Inner Plains” and is used for pastoral grazing. However, any lost agricultural production is not an external cost of using the site for the proposed DPMA. 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 RIHL 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.

### **Utilities**

- 5.2** 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 the proposed Maddisons Road DPMA no such externality costs arise.
- 5.3** RIHL and any subsequent occupier of the site will meet the capital costs of infrastructure connections required for the site’s development via development charges. The payment by the site’s owners/occupiers of rates, user charges, petrol taxes and road user charges will meet the ongoing operation and maintenance costs of infrastructure. Therefore other Selwyn District ratepayers, residents and businesses will not be required to cross-subsidise the proposed development.

## **6. CONCLUSIONS**

- 6.1** RIHL’s proposed Plan Change enabling a DPMA for its Maddisons Road site at Rolleston will provide for the efficient initial and future development of dairy processing activity on the site. It will reduce 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.

**6.2** If the DPMA attracts an activity which would not otherwise be located within the Selwyn District, the Plan Change will contribute to the economic well being of the Selwyn District by:

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

**6.3** It will also maintain and improve resource use efficiency by:

- (i) Increasing economic activity and population in the Selwyn District, enabling increased economies of scale in the local provision of goods and services;
- (ii) Reducing commuting costs for local residents; and
- (iii) Providing the potential for agglomeration economies to occur.

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