

Tabled at Hearing 30/09/14.

Before the Independent Commissioners

In the Matter of the Resource Management Act 1991

And

In the Matter of the hearing of submissions and further submissions on
Proposed Variation 1 to the Proposed Canterbury Land
and Water Regional Plan

**Evidence in Chief of Dallas Paul Woodford
on behalf of ANZCO Foods Limited
(Submitter ID 52274)**

Dated: 30 September 2014

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Introduction

1. My name is Dallas Paul Woodford.
2. I am the Plant Manager of ANZCO Foods Rakaia's (**ANZCO**) livestock processing plant that is located in Knyvetts Road, Rakaia (**Plant**).
3. I have held this position at the Plant since February 2006. Prior to that appointment, I was the Plant's Operations Manager from November 2004 firstly for Independent Processing Services (**IPS**), secondly a joint venture with IPS and ANZCO (Rakaia River Meats Limited), and then CMP Rakaia Limited.
4. I have been involved in the meat industry for over 30 years. I hold a Diploma in Meat Inspection and a Diploma in Internal Auditing.
5. I am authorised to provide evidence on ANZCO's behalf in this matter.
6. In preparing this statement of evidence, I have reviewed the statements of evidence prepared by ANZCO's other witnesses: Mr Mark Clarkson, Mr Stephen Douglass and Mr Tim Ensor.
7. I am familiar with Variation 1 to the Proposed Canterbury Land and Water Plan (**Variation 1**) and the issues raised in ANZCO's submissions on Variation 1.

Scope of Evidence

8. The purpose of my evidence is to:
 - (a) Provide an overview of the Plant and its day to day operations;
 - (b) Provide an overview of the water use and wastewater discharges associated with the Plant's operations; and
 - (c) Summarise the consenting framework within which ANZCO operates the Plant.

Summary of Evidence

9. The Plant is a livestock processing facility situated in Knyvetts Road, Rakaia. The Plant operates 13 hours/day, 5 days/week for 10 months of the year (August to May). During the peak season (August/September), the Plant operates 7 days/week.
10. The Plant currently processes 270,000 stock units per annum sourced from farms located through the South Island, which represents 12% of the livestock processed in the South Island annually. ANZCO currently employs 92 staff at the Plant, of which more than 70% are residents of the local community.
11. However, ANZCO's resource consents make provision for the Plant to increase its processing capacity to one million stock units per annum. At that capacity, ANZCO could be operating the Plant 20 hours/day, 7 days/week and employing 150 full-time employees.
12. ANZCO not only supports the local community through employment at the Plant, but also through the engagement of local contractors and other local suppliers of goods and services to the Plant. It has been estimated that the Plant generates in the order of \$28.4 million per annum of expenditure, 207 jobs and \$9.5 million per annum in additional wages and salaries in the Ashburton District alone.
13. The on-going viability of ANZCO's Rakaia livestock processing operation is reliant on a secure potable ground water supply as the Plant has no access to reticulated water services. Without that supply, processing at the Plant would have to cease and livestock would need to be transported to other plants for processing, resulting in higher cartage costs and lost margins.
14. Land based irrigation of wastewater produced by the Plant is an integral part of the entire Rakaia processing operation. ANZCO considers that it is ideally suited when considering the composition of the wastewater and is the most sustainable method of wastewater disposal available. The costs associated with any change to the current method of wastewater disposal or system design could incur great cost to the Plant. This could mean that it would not be financially viable for ANZCO to continue its Rakaia operations.

15. The livestock processing industry is dependant on the agricultural industry that it supports. The Plant's operations can therefore vary from season to season, as a result of changes in farming activity and livestock production. Operations can also change during dry weather conditions, when lack of available feed and animal welfare concerns can result in stock being sent to early slaughter. Such periods often coincide with peak processing season, which can place ANZCO's processing facilities under significant pressure.
16. ANZCO therefore requires sufficient flexibility (through its resource consents) to be able to adjust its processing operations to match present demand and the changing needs of the agricultural industry into the future.

The Plant

17. The Plant was originally established by IPS in 2005. It is situated on land in Knyvetts Road, Rakaia, which ANZCO leases from Mountain River Processors Limited (**Mountain River**) as shown in the aerial photo and location plan attached as **Annexure A** to my evidence. The Plant shares this site with Mountain River's venison plant.
18. The entire Plant, including buildings, plant and equipment have a current replacement value of 12 million. Much of this value is sunk cost, which means that it would be lost if the Plant was forced to downsize, close or be relocated.
19. The Plant is a slaughter only facility. There are no cutting facilities or additional processing facilities at the Plant, although ANZCO may look at this possibility in the future as demand for service increases and other ANZCO plants are operating at capacity.
20. The Plant processes sheep, lambs and bobby calves. At present livestock are slaughtered and then refrigerated in carcass form either to be boned at Seafield or bagged and transferred to an off-site Cold Store facility. The leftover solids and fleeces go to ANZCO's Seafield Plant for processing. The Seafield Plant is located on the outskirts of Ashburton, which is approximately 20 minutes from the Plant.

21. At present the Plant is relatively small in comparison to other meat work plants. It processes approximately 270,000 stock units per annum, which are sourced from farms located from Marlborough to Southland. This represents approximately 12% of the livestock produced annually within the South Island.
22. However, as I will discuss later in my evidence, ANZCO holds resource consents which allow the Plant to increase its processing capacity up to one million stock units per annum.

Employment

23. ANZCO currently employs 92 staff at the Plant. There are 75 full-time staff working on the processing line for approximately 10 months of the year. The remaining staff are in supervisory, management or administrative positions.
24. ANZCO and Mountain River also share an employee who acts as a “groundsman”, manages and moves the irrigators, and undertakes other simple maintenance on the ANZCO and Mountain River site.
25. It is ANZCO’s policy to employ, where possible, local residents or those willing to move into the area. Currently only 12 people travel from Christchurch and 15 people from Ashburton daily. The balance live in the local community from the Rakaia Huts, Rakaia, Leeston, Dunsandel and Southbridge areas.

The Plant’s Contribution to the Regional Economy

26. ANZCO not only supports the local community through employment at the Plant, but also through the engagement of local contractors and other local suppliers of goods and services to the Plant.
27. Mr Michael Copeland gave evidence on behalf of ANZCO to the Hearings Panel on the Proposed Canterbury Land and Water Regional Plan regarding the economic impacts of ANZCO’s operations in Canterbury.¹ A

¹ Statement of Evidence of Mr Michael Copeland on behalf of ANZCO Foods Limited, CMP Canterbury Limited and Five Star Beef Limited (dated 4 February 2013).

copy of Mr Copeland's evidence is attached to my evidence as **Annexure B**.

28. In relation to ANZCO's operations at Rakaia, Mr Copeland estimated² that the Plant contributes:
 - (a) in the order of \$28.4 million per annum of expenditure into the Ashburton District economy, 207 jobs for Ashburton District residents and \$9.5 million per annum in additional wages and salaries for Ashburton District residents.
 - (b) in the order of \$58.0 million per annum expenditure in the Canterbury economy, 236 jobs for Canterbury residents and \$10.8 million per annum in additional wages and salaries for Canterbury residents.
29. Mr Copeland concluded that ANZCO's operations within the Canterbury region enhance the well-being of Ashburton and Canterbury residents.³

Overview of Current Plant Operations

30. The Plant generally operates from Monday to Friday, up to 13 hours per day from 5:30am to 6:30pm for up to 10 months of the year (August to May). In peak season (August/September), the Plant operates 7 days per week. At present, the Plant processes around 1400 lambs or 2300 calves each day.
31. In the following paragraphs I provide an overview of Plant operations on a typical day:
 - (a) Livestock for the day's kill is delivered to the Plant the previous day and held in holding pens where they await cleaning and preparation for processing. If the Plant is at capacity and the holding pens are full, livestock is held in an adjacent grazing paddock until space is available in the pens.
 - (b) At the start of the day, pre-operations staff check the plant facility is clean, hygienic and ready for slaughter.

² At paragraphs 55 to 56.

³ At paragraph 66.

- (c) Ante-mortem checks are carried out. Yard employees and a Veterinarian check all livestock for any exotic diseases or defects that preclude the livestock being slaughtered.
 - (d) Slaughtering then commences. All ovine (sheep and lamb) are washed prior to slaughtering. Ovine are washed with a belly spray system. The livestock then walk through yards into a restraining conveyor to immobilise them, prior to stunning.
 - (e) The plant uses Halal slaughter practices. Blood from the slaughter area is collected in a blood collection vat. The blood is taken off-site to Seafield and further processed. Carcasses are hung on the production line where the pelts/hides are removed followed by the internal organs.
 - (f) By-products from the slaughtering process (heads, hocks, pelts, and other renderables are collected in the gut house situated on the lower floor of the Plant. These are sorted and then transported off-site to Seafield for rendering. Edible offal including; hearts, lungs, kidney, sweetbreads, skirts, etc are blast-frozen on-site until they are at the required temperature (which can take a couple of days) and then transported to a coldstore located near the Seafield Plant. Carcasses are either transported in refrigerated vehicles that day or they are placed in the Plant's chillers overnight. Carcasses remain whole, including bobby calves.
32. At the end of each day, the Plant is cleaned ready for the next day. Other than the blood collected in a vat from the initial throat cutting, all other blood and waste material including fleshings, bits of wool, skin and fat remains on the floor. The solids are collected and placed into the rendering bins prior to the floor being washed down. Washing down is initially done with cold water and then with hot water. A small washing down occurs three times a day at smoko breaks. At the end of the day, a full sanitational washdown is completed.
33. Inedible waste such as liquid contents are transferred over to the contra shear where the solids are screened out and the liquids are irrigated to

land. I will discuss that aspect of the Plant's operations in more detail below.

34. The chiller is washed down daily when it is emptied of carcasses.

Variations Due to Changes in Supply and Weather Conditions

35. The livestock processing industry is dependant on the agricultural industry that it supports. The Plant's operations can therefore vary from season to season, as a result of changes in farming activity and livestock production.
36. For example, in recent years ANZCO has seen a vast increase in the production of bobby calves in Canterbury, which is a direct result of the dairy expansion in the region. ANZCO has had to adapt to this change by increasing processing capacity at critical periods to match supply combined with demanding animal welfare standards that are consumer driven.
37. The Plant's operations can also alter during dry weather conditions. In such conditions, stock is often sent to slaughter earlier than usual due to a lack of available feed and animal welfare concerns. If that occurs, the Plant must adjust its operations in order to be able to process this increase in supply.
38. This situation arose during the prolonged drought period throughout the North Island in February and March 2013. As a result of that drought event, due to the reduced processing capacity in the North Island, North Island stock was shipped to the South Island for processing. This placed significant pressure on ANZCO's processing facilities at both Rakaia and Seafield.
39. It is therefore essential that ANZCO's resource consent provide sufficient flexibility to allow for variations in operating capacity to meet the needs of the agricultural industry which it supports.

Water Use

Plant Operations

40. The on-going viability and future sustainability of the Plant is dependant on a secure potable water supply for cleaning livestock, processing, washing down plant facilities, staff drinking and showering.
41. A secure potable water supply is required for processing at the Plant in order to adhere to Overseas Market Access Requirements and New Zealand Drinking Water Standards. Without this supply, processing would cease and livestock would therefore need to be transported to other plants for processing, resulting in higher cartage costs lost margins and lost jobs.
42. As the Plant has no access to reticulated water services, all water required for operating the Plant is abstracted from groundwater. The level of water used at the Plant can vary depending on the volume and type of livestock being processed. Typically, the Plant would use between 500 and 800m³ of water per day.
43. ANZCO is conscious that water is a limited resource and is careful to ensure that it is used at the Plant as efficiently as possible.
44. There are certain aspects of processing that require a continuous water flow. This is mainly due to the volume of work completed on that part of the line or the uncleanliness of the job being undertaken, such as in the pelting area.
45. However, in all other areas of the Plant, flow restrictors have been placed in the waterlines, so that if a hose or tap is turned on that is not sensor operated, the water flow is sufficient to allow enough water to do the job and little else.
46. ANZCO employs various other water efficiency measures at the Plant. For example, there are sensors on the Apron Washes and Sterilisers so that these machines do not run continuously. Water will only flow in these machines once equipment has been placed on it for washing/sterilising.

Pasture Irrigation

47. The Plant not only uses groundwater for its processing operations, but also to irrigate the pasture and crops which are grown within the area that the wastewater generated by the Plant's processing operations is disposed of.
48. I understand that this aspect of ANZCO's operations is necessary to maximise plant growth and therefore the uptake of nutrients contained in the wastewater discharged from the Plant.

Wastewater

49. An essential part of the slaughter process is the discharge of wastewater. The volume of wastewater produced by the Plant varies depending on the number and the type of stock being processed.
50. All wastewater generated by processing operations is fed into a collection sump at the rear of the Plant, which settles out solids and liquids. After separation, the water is pumped to the contra shear and the liquid is pumped to a concrete sump between the Plant and Mountain River's plant. Here the Plant's wastewater is mixed with wastewater from Mountain River's plant. The combined wastewater from both plants is then fed to the main irrigation line. The wastewater is discharged onto land via spray irrigators located around the property.
51. The wastewater is discharged over some 200 hectares of land owned by Doug Hood Limited to the north/west of where the Plant and Mountain River's Plant are located, along the Main Rakaia Road and Knyvetts Road.
52. Plant material (pasture, fodder and cereal crops) is grown on this land to assist in the uptake of nutrients in the wastewater discharge. It is then harvested and exported off-site (commonly known as "cut and carry") to dairy farmers and to ANZCO's Five Staff Beef operation. Where harvest and export is not feasible (e.g. in the April to September months), stock are used to feed on the surplus in growth.
53. As Mr Douglass has noted, this aspect of ANZCO's processing operations is carefully managed in accordance with a detailed environmental management plan and the conditions of its discharge consent.

54. That consent (CRC082192)⁴ places limits on the loading rate of nitrogen applied to land from the Plant and Mountain River's plant. In particular, Condition 6 of the consent provides as follows:

"The total loading rate of nitrogen applied to any part of the discharge area from all sources including; any discharge under consent CRC021784.2 and any first flush stormwater and wastewater discharge under this consent onto the discharge site shall:

(a) Not exceed 300 kilograms of nitrogen per hectare per year, and

(b) The two year rolling average of the difference between the mass of nitrogen applied to the discharge area from all sources and the total nitrogen in herbage harvested and removed from the same area, shall not be greater than 150 kilograms of nitrogen per hectare per year."

55. Land based irrigation of wastewater produced by the Plant is an integral part of the entire Rakaia processing operation. ANZCO considers that it is ideally suited when considering the composition of the wastewater and the most sustainable method of wastewater disposal available (discussed in further detail by Mr Douglass). The method is well proven in ANZCO's other livestock processing operations and the wider meat industry.
56. Any change to the current method of wastewater disposal or system design could incur great cost to the Plant. Such cost could mean that it would not be financially viable for ANZCO to continue its Rakaia operations.

Stormwater

57. Stormwater discharged from the site is made up of rainwater from the building roofs, run-off from the carparking area, the incoming and outgoing stock hardstand areas, plus other hardstand areas around the Plant.
58. Stormwater from the building roofs is discharged via soak-pits located at the Plant. The carpark area discharges into a stormwater drain. Stormwater from the incoming and outgoing hardstand areas discharge into a contaminant sump, then into the ground through dish channels into soak-pits. Gravel hardstand areas percolate stormwater to ground and

⁴ Copy included in **Annexure C** to my evidence.

any runoff from large rainfall runs into the drain system for the hardstand area.

59. An open concrete area is located in the stock pens, which is designed so that any rainfall collected in these areas is diverted to the contra shear. In other holding paddock and gravel areas no stormwater collection takes place and rain soaks into the ground.

Resource Consents

60. As I have explained, the Plant is located on the same site as Mountain River's venison plant.
61. ANZCO currently uses part of two resource consents held by Mountain River to take and use groundwater for its livestock processing operations, and discharge wastewater onto land.⁵ This arrangement forms the basis of an agreement between the parties which is for a 19 year term (to 31 July 2024), with a further right of renewal of 13 years (until 23 August 2037).
62. However, the amount of water that ANZCO has access to under this agreement is not sufficient to enable ANZCO to increase capacity at the Plant in the future, should that be necessary to match demand from its suppliers in the agricultural industry.
63. The relationship between livestock processors and its suppliers is direct and complex; one cannot operate without the other. However, expansion of livestock processing capability typically tends to lag behind expansion in the agricultural industry. This can create difficulties for livestock processors in terms of securing new water and obtaining authorisations to discharge processing waste, particularly in areas that are fully allocated and where competition for available resources is strongest.
64. Future expansion in the livestock processing industry is likely to be constrained unless the water quantity and quality issues facing the region can be overcome. However, as I have discussed earlier in my evidence, ANZCO requires flexibility to be able to meet the changing needs of its suppliers into the future by having the capacity to process increased supply of livestock during critical periods.

⁵ CRC021858.2 (groundwater take) and CRC021784.2 (wastewater discharge).

65. It is for this reason that in 2010 ANZCO secured its own suite of regional resource consents for the Plant. Those consents⁶ make provision for the:
- (a) take and use of an annual volume of 408,000 m³ of groundwater for meat processing and irrigation of land (Consent No. CRC062093);⁷ and
 - (b) discharge up to 1,800 m³/day of wastewater from meat processing and stormwater to land (Consent No. CRC082192).⁸
66. Collectively, the consents allow the capacity for a double shift so that the Plant could run for 20 hours per day, 7 days per week if required. At that operating capacity, the Plant could be processing as much as one million stock units per year and would be employing approximately 150 full-time employees.
67. In the coming months, ANZCO will be taking steps to commence groundwater abstraction for the Plant's operations under its own resource consent, CRC062093.
68. I also note that ANZCO and Mountain River are currently taking steps to amalgamate the resource consents authorising wastewater discharges for the parties' respective processing activities at the Knyvetts Road site.

Conclusions

69. The on-going viability and sustainability of ANZCO's Rakaia livestock processing operation is reliant on a secure potable water supply. Without that supply, processing at the Plant would cease and livestock would need to be transported to other plants for processing, resulting in higher cartage costs and lost margins.
70. Land based irrigation of wastewater produced by the Plant is an integral part of the entire Rakaia processing operation. ANZCO considers that it is ideally suited when considering the composition of the wastewater and is the most sustainable method of wastewater disposal available. Any

⁶ CRC082192 (discharge of contaminants to land), CRC084651 (discharge stormwater to land) and CRC062093 (take and use groundwater) (attached as **Annexure C**).

⁷ Expires February 2025.

⁸ Expires February 2045.

change to the current method of wastewater disposal or system design would incur great cost to the Plant, which could ultimately result in the operation ceasing.

71. The Plant's operations are largely governed by the volume and type of livestock that are supplied from the agricultural industry. ANZCO therefore requires sufficient flexibility (through its resource consents) to be able to adjust its processing operations to match present demand and the changing needs of the agricultural industry into the future.

Dallas Woodford

30 September 2014

List of Annexures:

- A** Aerial Photo and Location Plan of ANZCO's Rakaia Plant
- B** Evidence of M Copeland for Proposed Land and Water Plan hearing (dated 3 February 2013)
- C** ANZCO Foods Limited's Resource Consents: CRC062093 (groundwater take), CRC082192 (wastewater discharge) and CRC084651 (stormwater discharge).

ANNEXURE A

Aerial Photo and Location Plan of ANZCO's Rakaia Plant

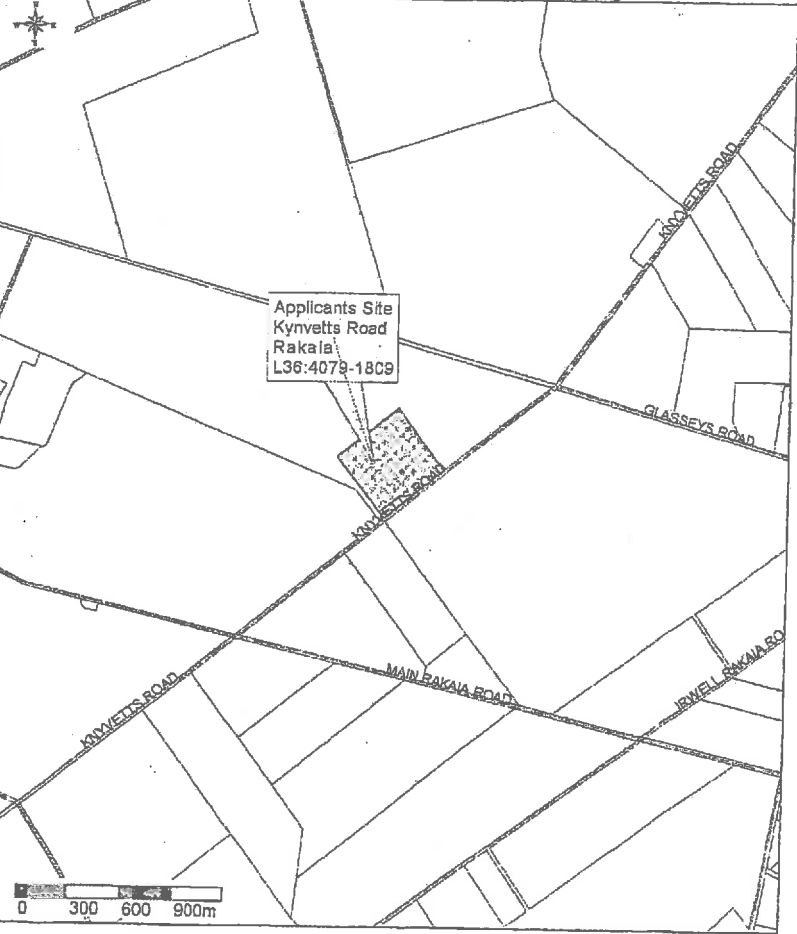
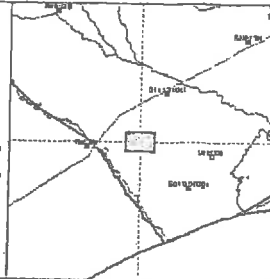


Plan CRC082192

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This plan was created using
 information from the most recent
 Canterbury's REPORT. It is
 intended to assist with, and
 every effort has been made to
 ensure the accuracy of the
 information shown. However, no
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 information shown is relied on in
 connection with a proposed project,
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ROAD
 Road Centreline
 Road Boundary
 ROAD NAME
 LANDMARKS
 Pond
 TA BOUNDARY



ANNEXURE B

Evidence of M Copeland for Proposed Land and Water Plan hearing (dated 3 February 2013)

Before the Independent Commissioners

In the Matter of the Resource Management Act 1991

And

In the Matter of the Proposed Canterbury Land and Water Regional
Plan

Evidence of Michael Campbell Copeland
on behalf of ANZCO Foods Limited,
CMP Canterbury Limited and
Five Star Beef Limited

Dated: 4 February 2013

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INTRODUCTION

Qualifications and experience

1. My name is Michael Campbell Copeland and I am a consulting economist. Currently I am joint managing director of Brown, Copeland and Company Limited, a firm of consulting economists which has undertaken a wide range of studies for public and private sector clients in New Zealand and overseas. During the period July 1990 to July 1994, I was a member of the Commerce Commission and between 2002 and 2008 I was a lay member of the High Court under the Commerce Act. Prior to establishing Brown, Copeland and Company Limited in 1982, I spent six years at the New Zealand Institute of Economic Research and three years at the Confederation of British Industry.
2. I hold a Bachelor of Science degree in mathematics and a Master of Commerce degree in economics. A summary of my curriculum vitae is attached as **Appendix 1**.
3. With respect to the Resource Management Act 1991 (**RMA**), I have prepared evidence for clients covering a number of development projects, plans and policies. A selection of these is listed in my curriculum vitae in Appendix 1.
4. In preparing my evidence I have reviewed:
 - 4.1 Data provided to me by ANZCO Foods Limited (**ANZCO**) on its operations in New Zealand and overseas;
 - 4.2 Data from Statistics New Zealand's website on population, employment and overseas trade; and
 - 4.3 The evidence of Mr Stephen Douglass and Mr Tim Ensor and the draft evidence of Mr Andy MacFarlane.
5. I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note (updated 1 November 2011) and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

The Proposed Canterbury Land and Water Regional Plan

6. The Proposed Canterbury Land and Water Regional Plan (**PLWRP**) was notified late 2012 and ANZCO is seeking provisions that better recognise the economic significance of ANZCO's three Canterbury region operations, namely CMP Canterbury Limited's (**CMP's**) two meat processing plants: CMP Rakaia located in the Selwyn District and CMP Seafield located in the Ashburton District, and Five Star Beef Limited's (**FSB's**) beef feedlot, located 6 kilometres south of Wakanui in the Ashburton District.
7. At each of its two meat processing plants, CMP holds resource consents to take and use water, including associated bore permits, and to discharge wastewater and stormwater to land. Clean and secure water supply is essential for each of CMP's plants as is the ability to effectively dispose of wastewater generated through livestock processing and wash down activities. CMP is also totally reliant on its livestock suppliers, as they are on CMP. Therefore all aspects of the PLWRP that relate to or affect farming activities are also of relevance to CMP.
8. For its beef feedlot operation, FSB hold a range of resource consents including those to take or use water, discharge animal effluent to land and to discharge stormwater to land. FSB relies on the ability to discharge solid animal waste to land including that of neighbouring farms. FSB is also reliant on feed sources from surrounding farms. Therefore all aspects of the LWRP that relate to or affect farming activities are also of relevance to FSB.
9. My evidence reports on an assessment of the economic significance at the district, regional and national level of the CMP Rakaia and CMP Seafield meat processing plants, the FSB beef feedlot and ANZCO's head office activities in Christchurch and the economic costs that would arise if the PLWRP imposes additional constraints on these operations.

SCOPE OF EVIDENCE

10. In my evidence I will address:
 - 10.1 a consideration of the relevance of economic effects under the RMA;
 - 10.2 a description of the key economic drivers of the Canterbury regional economy and the Ashburton District economies;
 - 10.3 the economic significance of ANZCO's Canterbury operations; and

- 10.4 the economic costs that would arise from the PLWRP imposing additional constraints on ANZCO's Canterbury operations.

SUMMARY OF EVIDENCE

11. Community and economic wellbeing and the efficient use and development of natural and physical resources are relevant considerations under the RMA.
12. The key economic drivers of the Canterbury region are agriculture, manufacturing and tourism. The production and processing of livestock is an important part of the Canterbury regional economy and especially the Ashburton District economy.
13. The reliance of the Canterbury region's economy on the agricultural sector and agricultural product processing industries outside of Christchurch is clearly illustrated by the ongoing contribution of these key sectors following the 2010 and 2011 earthquakes.
14. ANZCO's core purpose is to procure, process and market New Zealand beef and lamb to domestic and overseas consumers. In the year ending 30 June 2012, ANZCO's total sales were \$1.21 billion, of which 94% were overseas export sales.
15. The New Zealand economy remains heavily dependent upon the agricultural sector and the export of agricultural commodities. In the year ending June 2012, meat and edible offal and raw hides, skins and leather and other animal originating products made up 13.1% of the value of New Zealand's commodity export trade.
16. Within the Ashburton District, ANZCO's operations are estimated to generate expenditure of almost \$400 million per annum, more than 2,600 jobs and wages and salaries of \$165 million per annum. Within the Canterbury region, ANZCO's operations are estimated to generate expenditure of almost \$700 million per annum, 3,000 jobs and \$190 million in wages and salaries.

17. The PLWRP has the potential to impact on ANZCO's activities within the Canterbury region. Unless relief is granted with respect to certain of the objectives, policies, definitions and rules of the PLWRP, significant ongoing economic benefits for the Canterbury region, and especially the Ashburton District, are at risk.

ECONOMICS AND THE RMA

Community Economic Wellbeing

18. 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 2 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.

Economic Efficiency

19. Part 2 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 includes the economic concept of efficiency¹. 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"*².

20. More generally economic efficiency can be considered in terms of:
- a. Maximising the value of outputs divided by the cost of inputs;
 - b. Maximising the value of outputs for a given cost of inputs;
 - c. Minimising the cost of inputs for a given value of outputs;
 - d. Improving the utilisation of existing assets; and
 - e. Minimising waste.

¹ 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.

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

Viewpoint

21. An essential first step in assessing the economic significance of ANZCO's Canterbury operations is to define the appropriate viewpoint that is to be adopted. This helps to define which economic effects are relevant to the analysis. In this case it is appropriate to consider district, regional and national perspectives.
22. ANZCO's CMP Seafeld meat processing plant and FSB beef feedlot are both located within the Ashburton District, whilst its CMP Rakaia meat processing plant is just to the north of the Rakaia River in the southern part of the Selwyn District. It is also significantly smaller (less than 10% in total annual sales) than the CMP Seafeld plant. Therefore in my evidence, the district level economic effects are considered for the Ashburton District.

THE ASHBURTON DISTRICT AND CANTERBURY REGIONAL ECONOMIES

Ashburton District Economy

23. Statistics New Zealand's June 2012 population estimate for the Ashburton District is 30,600 or 5.4% of Canterbury's population and 0.7% of New Zealand's total population. In 2006 the population in the Ashburton District was 28,000 persons, which represented 5.2% of Canterbury's population. The Ashburton District's population over the period 2006 to 2012 has grown by 9.3%, as compared to growth of 3.5% for the Canterbury region and 5.9% for New Zealand as whole. Part of the faster growth in Ashburton's population in recent years has been the relocation of Christchurch residents after the 2010 and 2011 earthquakes.
24. Statistics New Zealand's 'medium' population projections³ have Ashburton's population increasing at an average rate of 0.5% per annum over the period 2012-31, compared to an average rate of growth for the Canterbury region and New Zealand of 0.8% per annum.
25. Employment data highlights the dependence of the Ashburton District economy on agriculture and agricultural product processing. In October 2012, 3,310 jobs (21.9%) of Ashburton's 15,090 jobs were in the

³ 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. Also the projections have not been updated since the Christchurch City earthquakes.

agriculture, forestry and fishing industry group, with most (an estimated 3,290 jobs or 99%) being agricultural jobs. The manufacturing sector accounted for 2,910 jobs or 19.2% of total employment, with 2,060 jobs in food manufacturing), and of this meat and meat product manufacturing engaging 1,660 persons. Other important sectors are retail trade (1,560 jobs or 10.3% of total employment), construction (1070 jobs or 7.1% of total employment), health care and social assistance (950 jobs or 6.3% of all jobs), and accommodation and food services (800 jobs or 5.3% of total employment).

26. Apart from tourism which accounts for some but not all⁴ of the jobs created in the retail trade and accommodation and food services sectors, the key economic drivers of the Ashburton District economy are agriculture and agricultural product processing (and in particular meat and meat products manufacturing). 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" effects⁵ creating additional jobs for the District's economy.

The Canterbury Regional Economy

27. Statistics New Zealand's June 2012 population estimate for the Canterbury region is 558,800 or 12.6% 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 1.2% due to Christchurch City's population falling by 13,600 (3.6%) after the earthquakes and only some of the consequent out-migration relocating to neighbouring districts within the Canterbury region. Statistics New Zealand's 'medium' population projections have Canterbury's population growing at an average rate of 0.8% per annum over the period 20012-31, the same as the average rate of growth projected for New Zealand as a whole.
28. Statistics New Zealand estimate total employment in the Canterbury region in October 2012 at 256,570, which represents 13.3% of the total persons employed in New Zealand. The agriculture, forestry and fishing industry

⁴ Employment 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.

⁵ These are discussed in greater detail in the next section of my evidence.

group employed 14,360 persons of which approximately⁶ 13,520 were engaged in agriculture. Other significant sectors are manufacturing employing 33,650 (of which the most significant subsectors are food products manufacture (11,370)⁷, health care and social assistance (29,100), retail trade (26,990), education and training (20,680), construction (20,420), professional, scientific and technical services (16,390) and accommodation and food services (16,320).

29. Future employment growth and associated economic well being for the Canterbury region is likely to be largely associated with the three key economic drivers of agriculture, manufacturing (including agricultural product processing) and tourism, although in the short to medium term at least, disruptions due to the 2010 and particularly 2011 earthquakes in and around Christchurch City will impede tourism growth. Also in the short to medium term construction activity associated with the Christchurch City rebuild will provide an economic stimulus for the region.
30. Employment in other sectors is to a large extent driven by the demand for goods and services by agriculture, manufacturing and tourism and their employees with the so called "multiplier" effects creating additional jobs for the region's economy.
31. The reliance of the Canterbury region's economy on the agricultural sector and agricultural product processing capacity outside of Christchurch is clearly illustrated by the ongoing contribution of these key sectors following the 2010 and 2011 earthquakes. In the year ending 30 June 2011 Lyttelton Port (the largest port in the South Island and the third largest in New Zealand) moved 9.6 million tonnes of cargo, only slightly down from the 9.8 million tonnes moved in the previous year despite the disruptions caused by the earthquakes.⁸ With respect to the container trade which includes exports of meat and other animal products, 290,842 twenty-foot container equivalent units (TEUs) were moved through the Lyttelton Port, an increase of 6.2% on the previous year. This has further increased by 15.6% to 336,182 TEUs for the 2011/12 financial year. Fertilizer imports at the port in 2011/12 increased by 9.8%.⁹

⁶ Equates to the sum of agriculture and agriculture and fishing support services industry groups. Because fishing is not a significant industry group for the Canterbury region most of the agriculture and fishing industry support workers will be in the agricultural sector.

⁷ Including meat and meat products (5,200), dairy products (1,220) and seafood (1,130).

⁸ Data from 2011 Annual Report for Lyttelton Port.

⁹ Data from 2012 Annual Report for Lyttelton Port.

32. In the year ending 30 June 2011, cargo moved through PrimePort (Timaru) also increased over the previous year tonnages. Non-containerised cargo handled through the port was the equivalent of 989,000 tonnes, 108,000 tonnes up on the previous year. Containers handled through the port increased from 44,800 TEUs to 49,100 TEUs.¹⁰ In 2011/12 non-containerised trade fell by 6% and containers handled through the port by 67%, largely reflecting the re-direction of a number of trades to Lyttleton.¹¹ However the combined trades for Lyttleton and Timaru ports still showed overall growth in 2011/12.
33. This data on port tonnages and container movements highlights that Canterbury's farming and agricultural product processing industries in the region's rural and provincial areas (including ANZCO's three activities within the Ashburton and Selwyn Districts) have helped sustain the Canterbury region's economy in the face of significant disruption to businesses and residents within metropolitan Christchurch as a result of the 2010 and 2011 earthquakes.

THE ECONOMIC SIGNIFICANCE OF ANZCO'S CANTERBURY OPERATIONS¹²

ANZCO's National and International Operations

34. ANZCO is a multinational group of companies, whose core purpose is to procure, process and market New Zealand beef and lamb to domestic and overseas consumers. In the year ending 30 June 2012, ANZCO's total sales were \$1.21 billion, of which 94% were overseas export sales, ANZCO employed 2,880 staff worldwide and 2,810 of these staff were located in New Zealand. Wages and salaries paid to New Zealand employees totalled \$149.1 million.
35. Although the New Zealand economy has diversified with growth in non-agricultural industries, it remains heavily dependent upon the agricultural sector and the export of agricultural commodities. In the year ending June 2012, meat and edible offal and raw hides, skins and leather and other animal originating products¹³ made up 13.1% of the value of New Zealand's

¹⁰ Data from 2011 Annual Report for PrimePort.

¹¹ Data taken from 2012 Annual Report for PrimePort.

¹² Unless stated otherwise, data in this section of my evidence provided by ANZCO.

¹³ Excludes meat preparations and animal oils.

commodity¹⁴ export trade, second only to dairy product exports¹⁵ which made up 26.7%.

36. Merchandise trade enables New Zealand to specialise in the production of certain products in which New Zealand has a comparative advantage enabling production surplus to domestic consumption to be exported. The production of meat and other animal products is an area in which New Zealand has comparative advantage. Exports of these products provide foreign exchange, enabling New Zealand to finance the purchase of competitively priced imported goods and services.
37. The alternative model of "fortress New Zealand"¹⁶ would see higher priced goods and services, reduced choice in the range of goods and services available in New Zealand and a less efficient use of our physical and natural resources. This would result in lower incomes and a lower standard of living for New Zealanders.
38. New Zealand's reliance on overseas trade is highlighted by the total volume of containers (which are used to ship meat and other animal product exports) handled across all New Zealand ports representing almost 1% of annual global container throughput.¹⁷ New Zealand's population of 4.4 million people is only 0.06% of the world's population.

CMP Seafield Meat Processing Plant

39. The CMP Seafield meat processing plant buildings, plant and equipment have a current replacement value of \$173.5 million and much of this value is sunk – i.e. it could not be recovered if the plant was forced to downsize, close or be relocated.
40. In 2011-12, the CMP Seafield meat processing plant processed approximately 1,150,000 sheep and lambs, 90,000 cattle and 37,000

¹⁴ A distinction is made between "commodity trade" (or "merchandise trade") and total trade. Commodity trade relates to the exporting and importing of goods only, whereas total trade includes the exporting and importing of both goods and services. In 2011 New Zealand's export of services made up 21% of the total export of goods and services. Most of these relate to earnings from services related to tourism.

¹⁵ Milk powder, butter, cheese, casein and caseinates.

¹⁶ I.e. a situation where New Zealand's trade with the rest of the world is constrained and it is not possible for New Zealand to specialise in the production of those goods and services in which it has a comparative advantage, nor access cheaper goods and services from overseas.

¹⁷ Source: The Question of Bigger Ships - Securing New Zealand's International Supply Chain. New Zealand Shippers' Council; August 2010.

calves. The total carcass weight produced of meat from sheep and lambs was 21,612 tonnes, 50% of the total tonnage within the Canterbury region. The total carcass weight of beef and calves meat produced was 27,401 tonnes, also 50% of the total tonnage produced within Canterbury.

41. The annual value of meat and other animal products produced in 2011-12 from the CMP Seafield meat processing plant was \$333.8 million¹⁸. Of this, \$243.3 million (73%) was sold in export markets. Payments to farmers supplying the plant with livestock in 2011-12 totalled \$204.1 million, of which \$50.8 million was to Ashburton District farmers, \$34.7 million was to other Canterbury farmers and \$118.6 million was to other South Island farmers.
42. The Plant employs up to 870 staff on-site in the peak of the season which is estimated to equate to around 691 fulltime equivalent (FTE) staff. The wage and salary payments to these staff in 2011-12 were \$44.4 million. In addition, the CMP Seafield meat processing plant in 2011-12 spent around \$9.8 million in the Ashburton economy and \$30.2 million in the Canterbury regional economy for contractors and other local suppliers of goods and services. Local firms engaged to provide goods and services to the plant include rural suppliers, machinery suppliers, training institutions, packaging and freight suppliers, energy suppliers and other service suppliers.
43. In other words, the direct injection of expenditure into the Ashburton economy from the CMP Seafield meat processing plant totals around \$105.0 million per annum (i.e. payments to farmers, plant staff wages and salaries and payments to contractors and other local suppliers of goods and services to the plant). The direct injections into the Canterbury regional economy are \$160.1 million per annum.
44. However, in addition to these direct economic impacts there are indirect impacts arising from:
 - 44.1 The effects on suppliers of goods and services provided to the plant from within the region (i.e. the "forward and backward linkage" effects). For example, the CMP Seafield meat processing plant generates expenditure, jobs and incomes from farms supplying

¹⁸ Valued at the plant door.

stock and stock transport operators (the "backward linkage" effects). The plant also generates expenditure, jobs and incomes from freight and port companies involved with exporting meat and meat products (the "forward linkage" effects); and

- 44.2 The supply of goods and services to employees at the plant 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 in the retail sector to meet the needs of supplier farmers and their staff, CMP Seafield meat processing plant employees and other employees of local firms providing goods and services to the plant.
45. Regional multipliers for expenditure, employment, and wages and salaries 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 region's economy is self-sufficient in the provision of goods and services and the region's proximity to alternative sources of supply. Also, in the case of a meat processing plant, the multipliers for employment and wages and salaries are high relative to other activities because of the significant number of on-farm employees and their wages and salaries for farms supplying livestock to the plant (i.e. the significant "backward linkage" effects).
46. Work undertaken for the Christchurch City Council and the Canterbury Regional Council¹⁹ by Mr Geoffrey Butcher estimated employment and household income (i.e. wages and salaries) multipliers for the Canterbury region of around 4. Assuming multipliers of 3.5 for the smaller Ashburton District²⁰ implies estimated total economic impacts (i.e. direct plus indirect impacts) of:
- 46.1 \$367.5 million per annum expenditure in the Ashburton District economy;
- 46.2 2,419 FTE jobs for Ashburton District residents; and

¹⁹ 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.

²⁰ The Ashburton District will have a lower multiplier than the Canterbury region since it is less self-sufficient in the provision of goods and services.

- 46.3 \$155.4 million per annum in additional wages and salaries for Ashburton District residents.
47. For the Canterbury regional economy, the economic impacts are:
- 47.1 \$640.4 million per annum expenditure in the Canterbury economy;
- 47.2 2,764 FTE jobs for Canterbury residents; and
- 47.3 \$177.6 million per annum in additional wages and salaries for Canterbury residents.
48. Economic impacts in terms of increased expenditure, incomes, and employment within the Ashburton and Canterbury economies are indicators of levels of economic activity. They are not in themselves measures of improvements in economic welfare or economic well-being. However, there are economic welfare enhancing benefits associated with increased levels of economic activity. These relate to one or more of:
- 48.1 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;
- 48.2 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;
- 48.3 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 underutilised resources within the local economy at the time and the match of resource requirements of a

²¹ 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.

project and those resources unemployed or underemployed within the local economy; and

48.4 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.

49. Increases in economic activity (i.e. ongoing expenditures, incomes and employment) within the Ashburton District and Canterbury regional economies as a consequence of CMP Seafield meat processing plant will contribute to these four welfare enhancing economic benefits for the local community within Ashburton District and the wider Canterbury region.

CMP Rakaia Meat Processing Plant

50. The CMP Rakaia meat processing plant buildings, plant and equipment have a current replacement value of \$16.9 million and much of this value is sunk – i.e. it could not be recovered if the plant was forced to downsize, close or be relocated.
51. In 2011-12, the CMP Rakaia meat processing plant processed approximately 147,000 sheep and lambs and 81,000 calves. The total carcass weight of sheep and lamb meat produced was 3,241 tonnes, representing 7% of sheep and lamb meat produced within the Canterbury region. The total carcass weight of beef and calf meat produced was 1,349 tonnes or 5% of total Canterbury production.
52. The annual value of meat and other animal products produced in 2011-12 from the CMP Rakaia meat processing plant was \$30.5 million²². Payments to farmers supplying the plant with livestock in 2011-12 totalled \$22.7 million, of which \$4.9 million was to Ashburton District farmers, \$5.5 million was to other Canterbury farmers and \$12.2 million was to other South Island farmers.

²² Valued at the plant door.

53. The Plant employs up to 70 staff on-site in the peak of the season which is estimated to equate to around 59 FTE staff. The wage and salary payments to these staff in 2011-12 were \$2.7 million. In addition, the CMP Rakaia meat processing plant in 2011-12 spent around \$0.5 million in the Ashburton economy and \$1.4 million in the Canterbury regional economy for contractors and other local suppliers of goods and services. Local firms engaged to provide goods and services to the plant include rural suppliers, machinery suppliers, training institutions, packaging and freight suppliers, energy suppliers and other service suppliers.

54. In other words, the direct injection of expenditure into the Ashburton District economy from CMP Rakaia meat processing plant totals around \$8.1 million per annum (i.e. payments to farmers, plant staff wages and salaries and payments to contractors and other local suppliers of goods and services to the plant). The direct injections into the Canterbury regional economy are \$14.5 million per annum.

55. Assuming multipliers of 3.5 for the Ashburton District sub-region implies estimated total economic impacts (i.e. direct plus indirect impacts) of:
 - 55.1 \$28.4 million per annum expenditure in the Ashburton District economy;
 - 55.2 207 jobs for Ashburton District residents; and
 - 55.3 \$9.5 million per annum in additional wages and salaries for Ashburton District residents.

56. For the Canterbury regional economy, the economic impacts are:
 - 56.1 \$58.0 million per annum expenditure in the Canterbury economy;
 - 56.2 236 jobs for Canterbury residents; and
 - 56.3 \$10.8 million per annum in additional wages and salaries for Canterbury residents.

FSB Beef Feedlot

57. The FSB beef feedlot buildings, plant and equipment have a current replacement value of \$31.5 million and much of this value is sunk – i.e. it could not be recovered if the plant was forced to downsize, close or be relocated.
58. In 2011-12, the FSB beef feedlot produced cattle for processing having a value of \$80.8 million. The feedlot in 2011-12 spent \$40.5 million purchasing cattle, of which \$8.4 million was from Ashburton District farms and \$15.1 million was from other Canterbury farms.
59. The feedlot employs 30 FTE staff. The wage and salary payments to these staff in 2011-12 were \$1.9 million. In addition, the FSB beef feedlot in 2011-12 spent around \$30.7 million²³ in the Ashburton District economy and \$34.1 million in the Canterbury regional economy for contractors and other local suppliers of goods and services. Local firms engaged to provide goods and services to the feedlot include cattle suppliers, feed suppliers, machinery suppliers, freight suppliers, energy suppliers and other service providers.
60. In other words, the direct injection of expenditure into the Ashburton District economy from the FSB beef feedlot totals around \$41.0 million per annum (i.e. cattle purchases, plant staff wages and salaries and payments to contractors and other local suppliers of goods and services to the feedlot). The direct injections into the Canterbury regional economy are \$59.5 million per annum.
61. Assuming multipliers of 2.0²⁴ for Ashburton District implies estimated total economic impacts (i.e. direct plus indirect impacts) of:
 - 61.1 \$82.0 million per annum expenditure in the Ashburton District economy;

²³ Includes \$9.1 million paid to CMP Seafield toll processing fees.

²⁴ Based on multipliers of around 2.5 for livestock and cropping farming for the Canterbury region – 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.

- 61.2 60 jobs for Ashburton District residents; and
- 61.3 \$3.8 million per annum in additional wages and salaries for Ashburton District residents.
- 62. For the Canterbury regional economy, the economic impacts are:
 - 62.1 \$148.8 million per annum expenditure in the Canterbury economy;
 - 62.2 75 jobs for Canterbury residents; and
 - 62.3 \$4.8 million per annum in additional wages and salaries for Canterbury residents.

ANZCO's Christchurch Head Office

- 63. At its Christchurch headquarters, ANZCO employ 24 staff, with wages and salaries in 2011-12 estimated at \$4.6 million. Expenditure on goods and services from suppliers within Christchurch City in 2011-12 are estimated at \$ 7.0 million.
- 64. Assuming multipliers of 1.5²⁵ for Christchurch City implies estimated total economic impacts (i.e. direct plus indirect impacts) of:
 - 64.1 \$17.4 million per annum expenditure in the Christchurch City economy;
 - 64.2 36 jobs for Christchurch City residents; and
 - 64.3 \$6.9 million per annum in additional wages and salaries for Christchurch City residents.
- 65. For the Canterbury regional economy, the economic impacts are:

²⁵ Based on multipliers of around 1.75 for 'other business services' for the Canterbury region – 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.

65.1 \$20.3 million per annum expenditure in the Canterbury economy;

65.2 42 FTE jobs for Canterbury residents; and

65.3 \$8.1 million per annum in additional wages and salaries for Canterbury residents.

Aggregate Economic Impacts for Ashburton District and Canterbury Economies

66. Combining the direct and indirect economic impacts for the two CMP meat processing plants – i.e. CMP Rakaia and CMP Seafield – gives conservative estimates for the combined expenditure, employment and income effects of ANZCO's operations within the Ashburton District and the Canterbury region. For the Ashburton District economy, these combined economic impacts are:

66.1 \$395.9 million per annum expenditure in the Ashburton District economy;

66.2 2,626 FTE jobs for Ashburton District residents; and

66.3 \$164.9 million per annum in additional wages and salaries for Ashburton District residents.

67. For the Canterbury regional economy, the combined economic impacts are:

67.1 \$698.4 million per annum expenditure in the Canterbury economy;

67.2 3,000 FTE jobs for Canterbury residents; and

67.3 \$188.4 million per annum in additional wages and salaries for Canterbury residents.

68. Since the FSB beef feedlot economic impacts are part of the indirect effects of the CMP Seafield meat processing plant (which processes all of the stock produced by the FSB beef feedlot) there is no need to aggregate them with those for CMP Seafield and CMP Rakaia. Also some of the office functions of ANZCO's head office in Christchurch are part of the indirect effects of

the two meat processing plants and double counting would occur if the economic impacts of the Christchurch head office were aggregated with those for the two meat processing plants. However the combined impacts estimated above are conservative to the extent that ANZCO's head office also performs functions for its activities located elsewhere in New Zealand.

Other Economic Benefits

69. Increased Economic Diversity. Although the Ashburton District and Canterbury regional economies are heavily reliant on both agriculture and agricultural product processing, the CMP Seafield and CMP Rakaia meat processing plants provide the Ashburton District economy with greater resilience against cyclical variations in agricultural product prices. Whilst lower agricultural product prices lower returns to farmers, their livestock still need to be processed and therefore processing capacity within the local economies helps cushion the effects of cyclical downturns in agricultural product prices. If processing capacity within Ashburton District and the Canterbury region was reduced, the local and regional economies would be more sensitive to changes in farm profitability.
70. Also having CMP's two meat processing plants and the FSB beef feedlot located within the Canterbury region, increases the likelihood that ANZCO's head office functions will be retained within Christchurch City. If ANZCO's meat processing and beef feedlot activities within Canterbury were closed or downsized, there is a greater chance that ANZCO would relocate its head office elsewhere in New Zealand.

Increased Rates Revenue for the Ashburton District Council

71. In 2011/2012 rates paid by ANZCO subsidiaries to the Ashburton District Council totalled \$91,178 (excluding GST).²⁶ Because of economies of scale²⁷ it is likely that these rates payments will be greater than the increase in Council's costs as a consequence of ANZCO's operations within the District. From the perspective of the Ashburton District Council and other ratepayers in the District, this broadening of the rating base provides the opportunity for a greater range of Council provided services or a reduction in the rates burden for other ratepayers.

²⁶ Rates paid to the Selwyn District Council in 2011-12 by CMP Rakaia were \$4,152.

²⁷ I.e. there are fixed costs in the provision of goods and services to ratepayers and therefore unit costs fall with increases in scale.

THE ECONOMIC IMPLICATIONS OF THE PLWRP CONSTRAINING ANZCO'S OPERATIONS IN CANTERBURY

Retention of Expenditure, Employment and Incomes

72. I understand from the evidence of Mr Tim Ensor and Mr Stephen Douglass, that the PLWRP has the potential to have the following impacts on ANZCO's Canterbury operations:
- 72.1 An inability to obtain new water permits as CMP Rakaia, CMP Seafield and FSB are all located in over allocated zones;
 - 72.2 An increased complexity in applying for and obtaining discharge permits for livestock processing due to such operations potentially falling within a range of rules such as a "farming activity" and thereby subject to additional rules over and above industrial activities;
 - 72.3 An increased difficulty in the ability to make longer term investments or strategic decisions as a result of the above; and
 - 72.4 An increased risk of not being able to renew permits on the same terms.
73. Particular relief sought by Mr Ensor in his evidence relates to the granting of a higher priority for accessing water by livestock processing plants (both generally and at times of when minimum flow or other water restrictions are in place); and having discharges from livestock processing activities assessed under rules addressing industrial discharges rather than farming discharges. The evidence of Mr Ensor and Mr Douglass discuss the environmental effects of allowing such relief.
74. Unless relief is granted with respect to certain of the objectives, policies, definitions and rules of the PLWRP, significant ongoing economic benefits for the Canterbury region, and especially the Ashburton District, are at risk. This may result in a reduction in (or forgone increases in) expenditure, employment and incomes for the region. The Ashburton District would be particularly hard hit since livestock processing is in

proportionate terms much more significant for the Ashburton District than for the Canterbury region.

Other Economic Effects

75. The above impacts may in turn reduce competition within the South Island's livestock processing industry, reduce the diversity of the Ashburton District economy, reduce the Ashburton District Council's rates revenue and reduce the contributions from ANZCO, its employees and its suppliers to the Ashburton, Christchurch and Canterbury communities.

CONCLUSIONS

76. ANZCO's operations within the Canterbury region enhance the economic well being of Ashburton and Canterbury residents and businesses by:
- 76.1 Increasing expenditure, employment and incomes in the local and regional economies;
 - 76.2 Increasing population in Ashburton and Canterbury, thereby increasing or maintaining the quality of some central government provided services;
 - 76.3 Providing the local and regional economies with greater diversity and resilience;
 - 76.4 Helping to underpin the Canterbury regional economy following the major Greater Christchurch earthquakes of September 2010, February 2011 and June 2011 and ongoing aftershocks;
 - 76.5 Providing greater employment choice for local residents;
 - 76.6 Broadening the rating base of the Ashburton District Council; and
 - 76.7 ANZCO and its employees contributing to the Ashburton, Christchurch and Canterbury communities.
77. ANZCO's operations within the Canterbury region improve resource use efficiency by:

- 77.1 Increasing economic activity and population in Ashburton and Canterbury, enabling increased economies of scale in the local provision of goods and services; and
- 77.2 Increasing competition within the the South Island meat processing industry.
78. Constraints on CMP's meat processing plants at Rakaia and Seafield, FSB's beef feedlot and the production of livestock for processing from other supplier farms as a consequence of provisions within the PLWRP will restrict ANZCO's (and other farmer suppliers) ability to produce and process livestock within the Ashburton District and Canterbury region, potentially undermining the significant economic benefits of ANZCO's operations to the Ashburton and Canterbury economies.

Dated: 4 February 2013

M C Copeland

APPENDIX 1

CURRICULUM VITAE OF MICHAEL CAMPBELL COPELAND

DATE OF BIRTH	3 October 1950
NATIONALITY	New Zealand
EDUCATIONAL	Bachelor of Science (Mathematics) 1971
QUALIFICATIONS	Master of Commerce (Economics) 1972

PRESENT POSITIONS

(Since 1982)	Economic Consultant, Brown, Copeland & Co Ltd
(Since 2010)	Director, Southern Pastures
(Since 2010)	Director, Healthcare New Zealand Holdings Limited
(Since 2012)	Director, McIsaacs Healthcare Limited
(Since 2012)	Director, Panacea Healthcare Limited

PREVIOUS EXPERIENCE

1978-82	NZ Institute of Economic Research Contracts Manager/Senior Economist
1975-78	Confederation of British Industry Industrial Economist
1972-75	NZ Institute of Economic Research Research Economist
1990-94	Member, Commerce Commission
2001-06	West Coast Regional Council Trustee, West Coast Development Trust
2002-08	Lay Member of the High Court under the Commerce Act 1986
2003-11	Director, Wellington Rugby Union

GEOGRAPHICAL EXPERIENCE

- New Zealand
- Australia
- Asia (Cambodia, India, Indonesia, Kazakhstan, Malaysia, Nepal, Pakistan, People's Republic of China, Philippines, Tajikistan, Sri Lanka, Uzbekistan, Viet Nam)
- South Pacific (Cook Islands, Fiji, Tokelau, Tonga, Vanuatu, Western Samoa)
- United Kingdom

AREAS OF PRIMARY EXPERTISE

- Agriculture and Resource Use Economics (including Resource Management Act)
- Commercial Law and Economics (including Commerce Act)
- Development Programme Management
- Energy Economics
- Industry Economics
- Transport Economics

SECTORAL COVERAGE

Agriculture	Aluminium	Airports	Aviation
Electricity	Fertiliser	Flood Control	Forestry
Natural Gas	Pharmaceuticals	Public Transport	Rail
Road Transport	Sea Ports	Tourism	Utilities

RESOURCE MANAGEMENT ACT SPECIFIC PROJECTS

- New supermarkets in Dunedin, Rangiora and Kaiapoi;
- Port storage facilities at Westport;
- The proposed Clifford Bay ferry terminal;
- The proposed pipeline and related facilities to utilise water from the Waikato River for metropolitan Auckland;
- A container terminal expansion by the Ports of Auckland;
- The designation of the Transmission Gully motorway route;
- The proposed Variation No. 8 to the Wellington City District Plan covering height and other controls on development of the airspace above the Wellington railway yards;
- A proposed Town Centre Zone within the Kapiti Coast District;
- Wellington City Council's heritage preservation policy;
- Solid Energy's proposed West Coast Coal Terminal at Granity;
- The proposed Waimakariri Employment Park;
- The designation of land for a proposed motorway extension in the Hawke's Bay;
- The Hastings District Council's Ocean Outfall;
- A proposed new shopping and entertainment centre in Upper Hutt;
- New regional correctional facilities in Northland, South Auckland, Waikato and Otago;
- Proposed controls on wake generation by vessels travelling within the waterways of the Marlborough Sounds;
- Southern Capital's proposed new township at Pegasus Bay, north of Christchurch;
- Renewal of water resource consents for the Tongariro Power Development Scheme;
- Economic analysis inputs to a Section 32 report for the Waitaki Water Allocation Board;
- The imposition of land use restrictions within noise contours surrounding Christchurch International Airport;
- The expansion of the Whangaripo Quarry in Rodney District;
- A proposed five star hotel development for Wanaka;
- Holcim's proposed new cement plant near Weston in the Waitaki District;
- TrustPower's proposed new wind farm at Mahinerangi in Central Otago;

- TrustPower's proposed new Arnold hydroelectric power scheme on the West Coast;
- McCallum Bros and Sea Tow Limited's appeal before the Environment Court regarding extraction of sand from the Mangawhai-Pakiri embayment north of Auckland;
- The development of the Symonds Hill pit at Winstones' Hunua Quarry;
- The rezoning of land for residential development at Peninsula Bay, Wanaka;
- The rezoning of land for more intensive residential development at Peka Peka on the Kapiti Coast;
- A gondola development for the Treble Cone skifield;
- A gondola development for the Snow Farm and Snow Park skiing and snowboarding facilities;
- The extraction of gravel from the bed of the Shotover River;
- The proposed Hilton hotel development on Wellington's Queen's Wharf;
- Land use restrictions in relation to the Runway Extension Protection Areas for Christchurch International Airport;
- A new residential and commercial development by Apple Fields at Belfast on the outskirts of Christchurch;
- A proposed business park development on land at Paraparaumu Airport;
- The proposed redevelopment of Wellington's Overseas Passenger Terminal;
- The proposed Central Plains irrigation scheme in Canterbury;
- The staging of residential and business development at Silverdale North in the Rodney District;
- The redevelopment of the Johnsonville Shopping Centre;
- A Plan Change enabling the relocation of existing development rights for a residential and commercial development on Mount Cardrona Station in the Queenstown Lakes District;
- A new Pak'n Save supermarket at Rangiora;
- New supermarkets at Whitby and Silverstream;
- The extension of the Te Rere Hau wind farm in the Tararua District;
- MainPower's proposed new wind farm at Mount Cass;
- Fonterra's proposed new milk processing plant at Darfield;
- Designation of land for NZTA's Waterview motorway project in Auckland;
- Resource consent extensions for Oceana Gold (New Zealand) Limited's gold mining operations at Macraes Flat in north-east Otago;
- Designation of land for NZTA's Transmission Gully motorway project in Wellington;
- Designation of land for NZTA's MacKays to Peka Peka Expressway;
- Assessment of economic effects of a Queenstown Airport Corporation's proposed Notice of Requirement for the designation of additional land for aerodrome purposes;
- Assessment of the retail effects of proposed Plan Change 19 to the Queenstown Lakes District's District Plan;
- Assessment of the regional and national economic significance of Lyttelton Port;
- Meridian's proposed new Mokihinui hydro scheme;
- Assessment of the economic effects of alternative wreck recovery options for the MV Rena;
- Assessment of economic effects of proposed extension to Arrowtown's urban boundary.

ANNEXURE C

ANZCO Foods Limited's Resource Consents: CRC062093 (groundwater take), CRC082192 (wastewater discharge) and CRC084651 (stormwater discharge).

RESOURCE CONSENT CRC082192

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO: CMP Rakaia Limited

A DISCHARGE PERMIT: To discharge contaminants to land and air.

COMMENCEMENT DATE: 16 February 2010

EXPIRY DATE: 15 February 2045

LOCATION: Knyvetts Road, RAKAIA

SUBJECT TO THE FOLLOWING CONDITIONS:

- 1) The discharge shall only be wastewater including:
 - (a) Meat processing plant and ancillary activities water;
 - (b) Stormwater from the hardstand area located around the solids bin area; and
 - (c) The first twenty cubic metres (first flush) of stormwater from the incoming stock hardstand area; produced at the meat processing plant located at Knyvetts Road, Rakaia, as shown on Plan CRC082192.
- 2) The wastewater shall pass through a balance tank and be screened before being discharged to land via spray irrigation onto the area labelled as the discharge area on the attached plan CRC082192A.
- 3) The total volume of wastewater shall not exceed 1,800 cubic metres per day.
- 4) The maximum application rate from all wastewater sources shall not exceed 30 millimetres per day and there shall be a minimum of 7 days between the application of wastewater onto the same area of land.
- 5) The application depth of the discharge from all wastewater sources including any supplementary irrigation water applied within the discharge area, within 24 hours before or after the discharge, shall not exceed half the available water holding capacity of the soil.
- 6) The total loading rate of nitrogen applied to any part of the discharge area from all sources including any discharge under consent CRC021784.2 and any first flush stormwater and wastewater discharge under this consent onto the discharge site shall:
 - (a) Not exceed 300 kilograms of nitrogen per hectare per year, and
 - (b) The two year rolling average of the difference between the mass of nitrogen applied to the discharge area from all sources and the total nitrogen in herbage harvested and removed from the same area, shall not be greater than 150 kilograms of nitrogen per hectare per year.
- 7) There shall be no discharge within:
 - (a) 20 metres of any water race, surface drain or other surface water, or
 - (b) 20 metres of any property boundary;
 - (c) 30 metres of any well.
- 8) There shall be no ponding of effluent on the land surface.
- 9) There shall be no surface runoff of wastewater to adjoining properties (including roads), or to any surface water.

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- 10) A Management Plan shall be submitted to the Compliance and Enforcement Section of the Canterbury Regional Council within nine months of the commencement of this consent. The Management Plan shall set out the procedures to be adopted in order to achieve compliance with the conditions of consent including but not limited to:
- (a) Definition of waste streams;
 - (b) Land treatment and disposal area;
 - (c) Irrigation management to avoid odour and aerosol effects beyond the property boundary;
 - (d) Nitrogen budget;
 - (e) Monitoring and reporting;
 - (f) Complaints procedure;
 - (g) Self-compliance assessment;
 - (h) Remedial measures and emergency responses.
- The Management Plan may be amended at any time provided that any such amendment is for the purpose of improving the efficiency and/or quality of operation. Any amendments shall be submitted to Environment Canterbury within one month of the amendments being made.
- 11) Wastewater shall be stored for no longer than 24 hours prior to discharge.
- 12) Shelter belt planting shall be maintained around the periphery of the discharge area.
- 13) The discharge of any odour beyond the boundary of the site shall not be noxious, dangerous, offensive or objectionable.
- 14) The dispersal or deposition of particles or liquid droplets from wastewater irrigation shall not cause noxious, dangerous, objectionable or offensive effects beyond the boundary of the property where the wastewater is discharged.
- 15) The consent holder shall take five day composite samples of wastewater at least once per month from the outflow to the discharge area and have analysed for the following parameters:
- (a) Total nitrogen in milligrams per litre
 - (b) Nitrate nitrogen in milligrams per litre
 - (c) Escherichia coli in most probable number per 100 millilitres
- 16) Groundwater monitoring shall be undertaken as follows:
- (a) Monitoring bores shall be established on the up-gradient and down gradient property boundary of the discharge area in terms of the direction of groundwater flow in the uppermost saturated aquifer layer.
 - (b) The monitoring bores shall be established within six months of commencement of this consent.
 - (c) The monitoring bores shall be constructed to allow access to groundwater at the water table and in the gravel aquifer beneath the discharge area.
 - (d) Water samples shall be taken from the monitoring wells within one month of installation, and thereafter in accordance with condition (17).
- 17) During the months of January, April, July and October a groundwater sample shall be taken from each of the monitoring bores established in accordance with condition (16) and analysed for:
- (a) Total nitrogen in milligrams per litre;
 - (b) Nitrate nitrogen in milligrams per litre;
 - (c) Escherichia coli in most probable number per 100 millilitres.
- 18) To ensure that groundwater samples are representative, before sampling any bore, it shall be purged by pumping at a low rate until the electrical conductivity of purged water stabilises, or alternatively, purging may be undertaken by other suitable methods.

- 19) When samples are taken in accordance with conditions (16) and (17), the consent holder shall measure and record the date, time and water level (before purging the bore), in each of the monitoring bores. The water level shall be measured from the top of the casing, and shall be recorded to the nearest 0.01 metres.
- 20) At least four soil sampling locations shall be established within the wastewater discharge area. At each soil sampling location, composite soil samples, to at least a depth of 0.075 metres shall be taken annually in October and analysed for the following:
 - (a) Total nitrogen;
 - (b) Available nitrogen determined by the anaerobic incubation method;
 - (c) Available phosphorus (Olsen P);
 - (d) Base saturation;
 - (e) Cation Exchange Capacity;
 - (f) pH;
 - (g) Bulk density;
 - (h) Organic matter.
- 21) All samples required under this consent shall:
 - (a) Be taken by a suitably qualified and experienced person; and
 - (b) Be analysed using methods approved by the American Public Health Association or the American Society for the Testing of Materials by a laboratory that is accredited for that method of analysis by International Accreditation New Zealand or an equivalent authority.
- 22) The consent holder shall maintain records of the discharge, including the following:
 - (a) Daily volume discharged in cubic metres
 - (b) Date, time and location of the discharge within the discharge area and the depth of application.
 - (c) Total nitrogen applied to any application area in kilograms
 - (d) Any incidents or equipment malfunctions that resulted or could have resulted in adverse environmental effects. Any incidents and malfunctions shall be reported to Environment Canterbury as soon as practicable.
- 23) The consent holder shall maintain records of any herbage harvested including:
 - (a) The discharge area where crops are harvested.
 - (b) The date of harvesting for each area and the weight of dry matter removed.
 - (c) The nitrogen content of the dry matter removed
- 24) A record shall be kept of any complaints received about the discharge of wastewater. All complaints received shall be reported to Environment Canterbury as soon as practicable, and within 48 hours, and the log of complaints shall be made available to the Council upon request.
- 25) An annual report shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, by the 30th April each year. The report shall include as a minimum:
 - (a) A summary of monitoring, analyses and records collected in accordance with the conditions of this consent;
 - (b) An interpretation of the analysis and records; and
 - (c) A comment on the extent that each consent condition has been complied with.
- 26) The Canterbury Regional Council may, on the last five working days of May or November each year, serve notice of its intention to review the conditions of this consent for the purposes of:
 - (a) dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage;
 - (b) complying with the requirements of a relevant rule in an operative regional plan;
 - (c) requiring the consent holder to conduct monitoring instead of, or in addition to, that required by the consent; or

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- (d) specifying limits and trigger values instead of, or in addition to, those specified in the consent.
 - (e) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
- 27) The lapsing date for the purposes of section 125 shall be 31 March 2015.
- 28) Duration shall be 35 years from commencement of this consent.

Issued at Christchurch on 1 April 2010



Carly Steers

TEAM LEADER CONSENTS OPERATIONS
on behalf of the Canterbury Regional Council

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Canterbury**

RESOURCE CONSENT CRC084651

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO: CMP Rakaia Limited

A DISCHARGE PERMIT: To discharge stormwater into land.

COMMENCEMENT DATE: 16 February 2010

EXPIRY DATE: 16 February 2045

LOCATION: Knyvetts Road, RAKAIA

SUBJECT TO THE FOLLOWING CONDITIONS:

- 1) The discharge shall only be stormwater from roofing, car park and hardstand areas associated with a meat processing facility, on Knyvetts Road, Rakaia, at the site as shown on the attached plan CRC084651 for Lot 1 DP54486.
- 2) Stormwater shall be disposed to land at or about NZMS 260 L36:408-181 via soakage holes as shown on the attached plan CRC084651A.
- 3) Within nine months of the commencement of this consent, the first flush (defined as a minimum of 20 cubic metres) of stormwater from the incoming stock hardstand/goods area shall be captured and subsequently discharged to land via spray irrigation to the area shown on Plan CRC084651B. The first flush may be stored prior to being discharged via spray irrigation.
- 4) Stormwater from any car parking areas shall pass through an oil and grit interceptor before discharging into any soakage hole.
- 5) Stormwater from the outward goods loading areas shall pass through a sump before discharging into any soakage hole.
- 6) Within three months of the installation of the stormwater system, a certificate signed by an appropriately qualified engineer with at least three years professional experience, shall be submitted to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, to certify that the stormwater system complies with Conditions (1) to (5) of this consent. The person certifying the engineering work shall also sign a statement confirming that they are competent in the practice of stormwater engineering.
- 7) Any oil and grit interceptor shall be inspected at least once every three months. Any visible hydrocarbons, sediment and litter shall be removed immediately.
- 8) In the event of a spillage of fuel or any other contaminant, emergency response procedures shall be undertaken to prevent contaminants from entering the stormwater treatment system:
 - (a) Any oil and grit interceptor shall be inspected visually after any on-site contaminant spill event to determine the presence of contaminant(s); and
 - (b) Following inspection the consent holder shall immediately remove any contaminant(s) present in the interceptor; and
 - (c) Inform the Canterbury Regional Council of any significant contaminant spill event (in excess of 50 litres) within 3-hours of the event occurring.

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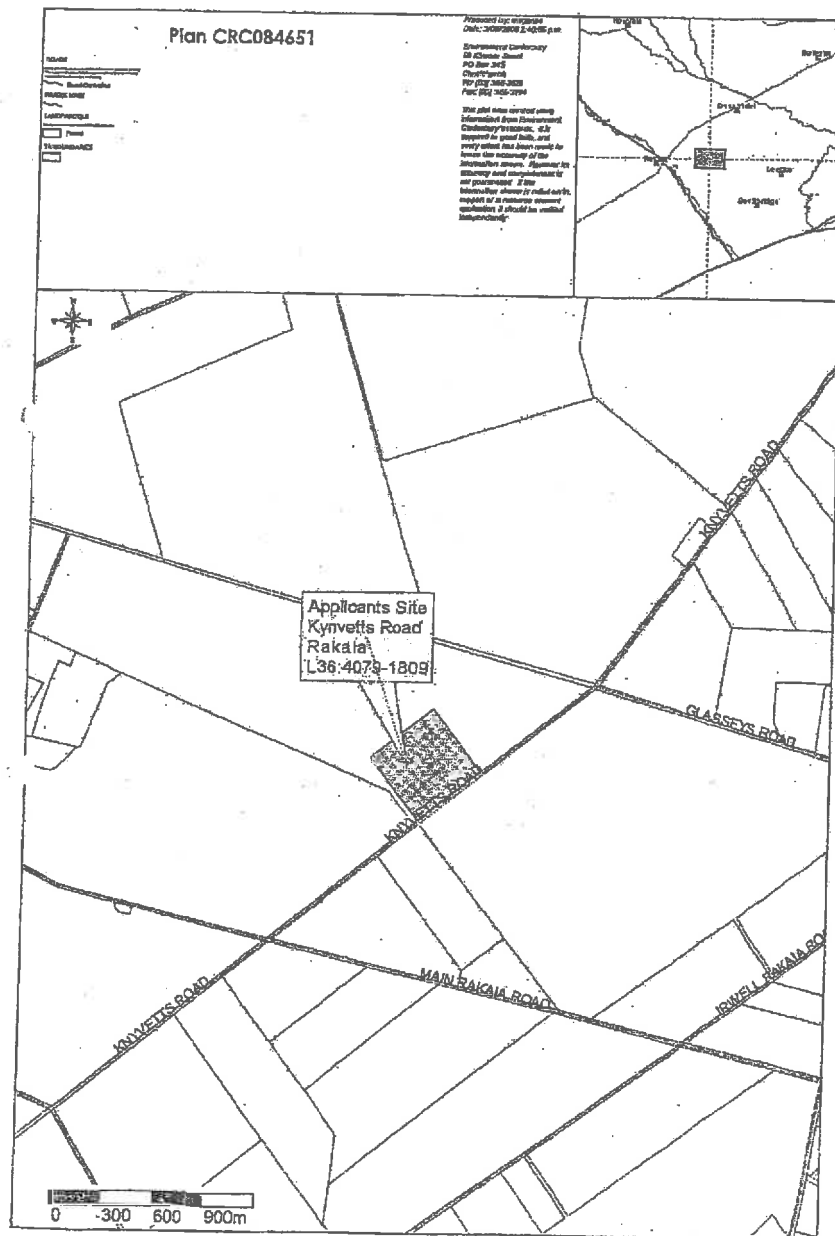
**Environment
Canterbury**

- 9) The consent holder shall maintain a record of any spill where contaminants enter the stormwater system. The record shall be made available to staff at the Canterbury Regional Council within 48 hours of any such incident and upon request. The record shall include the following information:
- (a) The date, time and duration of the incident.
 - (b) The type, including proprietary names where appropriate, of contaminant(s) spilled.
 - (c) The location of any such incident marked on a site plan.
 - (d) An estimate of the volume of contaminant(s) spilled, and an estimate of the volume of contaminant(s) removed from within any stormwater treatment or discharge infrastructure.
 - (e) Details of the steps taken to control and remediate the effects of any such spill event on the receiving environment.
- 10) Any material removed in accordance with Conditions (7) and (8) shall be disposed of at an appropriate facility, and the consent holder shall provide the Canterbury Regional Council with written confirmation of such disposal within 10 working days.
- 11) A Management Plan for the stormwater treatment and disposal system shall be prepared and implemented. A copy of that Management Plan shall be submitted to the Canterbury Regional Council within 12 months of the commencement of this consent. The Plan shall set out how the system will be operated and maintained. The Management Plan may be amended at any time provided that any such amendment is for the purpose of improving the efficiency and/or quality of operation. Any amendments shall be submitted to Environment Canterbury within one month of the amendments being made.
- 12) The Canterbury Regional Council may, once in any year, on any of the last five days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:
- (a) Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or
 - (b) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.
- 13) The lapsing date for the purposes of section 125 shall be 31 March 2015.
- 14) Duration shall be 35 years from commencement of this consent.

Issued at Christchurch on 1 April 2010


Carly Steers
TEAM LEADER CONSENTS OPERATIONS
on behalf of the Canterbury Regional Council

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This is a detailed architectural floor plan of a building, oriented with the entrance at the top. The plan includes several labeled areas and structural features:

- Entrance:** Located at the top center, labeled "1000 West 10th Street Entrance".
- Reception Area:** Situated directly below the entrance, labeled "Reception Area".
- Office Space:** A large area on the left side, labeled "Office Space".
- Meeting Room:** A room on the right side, labeled "Meeting Room".
- Storage Room:** A room on the right side, labeled "Storage Room".
- Restroom:** A room on the right side, labeled "Restroom".
- Break Room:** A room on the right side, labeled "Break Room".
- Corridor:** A central hallway labeled "Corridor".
- Staircase:** A staircase labeled "Staircase".
- Structural Elements:** The plan shows numerous columns, beams, and walls, with some areas marked "Structural Steel".
- Room Numbers:** Various rooms are numbered, including "101", "102", "103", "104", "105", "106", "107", "108", "109", "110", "111", "112", "113", "114", "115", "116", "117", "118", "119", "120", "121", "122", "123", "124", "125", "126", "127", "128", "129", "130", "131", "132", "133", "134", "135", "136", "137", "138", "139", "140", "141", "142", "143", "144", "145", "146", "147", "148", "149", "150", "151", "152", "153", "154", "155", "156", "157", "158", "159", "160", "161", "162", "163", "164", "165", "166", "167", "168", "169", "170", "171", "172", "173", "174", "175", "176", "177", "178", "179", "180", "181", "182", "183", "184", "185", "186", "187", "188", "189", "190", "191", "192", "193", "194", "195", "196", "197", "198", "199", "200".

CMP Rakala - 'Incoming Goods Handstand Area' and 'Vehicle Access Road' Collection Drains and Soak-aways

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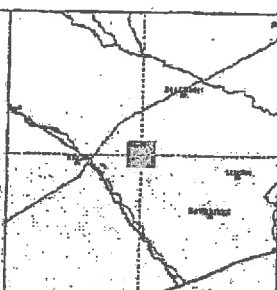
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Pin-out

SEALED

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 Emergency Contingency
 38 Robert Street
 PO Box 343
 CLARKSON
 PA 17027-3433
 Tel: 717 395-3394

This place was created using information from Environmental Community records. It is compiled in good faith, but every effort has been made to ensure the accuracy of the information shown. However, its accuracy and completeness is not guaranteed. All the information shown is subject to change without notice. Opportunities to comment are provided, if necessary.



Discharge Area

Applicant's Site
Knyvetts Road
Rakata
L36-4006-1858

WATERBURY BANK BUILDING

1374655 RD

~~SECRET~~

MAJALAKSA, 20



RESOURCE CONSENT CRC062093

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO: CMP Rakaia Limited

A WATER PERMIT: To take and use groundwater.

COMMENCEMENT DATE: 16 February 2010

EXPIRY DATE: 16 February 2025

LOCATION: Knyvetts Road, RAKAIA

SUBJECT TO THE FOLLOWING CONDITIONS:

- 1) Water may be taken only from bore L36/2279, 300 millimetres diameter and between 100 and 150 metres deep, at map reference NZMS 260 L36:4083-1810.
- 2) Water may be taken from bore L36/2279:
 - A. Subject to Part B below:
 - (a) At a rate not exceeding:
 - (i) 63 litres per second, with a volume not exceeding 12,600 cubic metres in any period of seven consecutive days, 47,971 cubic metres in any calendar month ("peak monthly allocation"); and
 - (ii) A maximum annual volume of 408,000 cubic metres between 1st July and the following 30th June which shall consist of:
 - A base-allocation of 204,000 cubic metres; and
 - A variable (adaptive) allocation up to a maximum of 204,000 cubic metres per year.
 - B. Should the groundwater level in monitoring well L36/1738, which is currently monitored by Environment Canterbury on a monthly basis, fall below 22 metres below the ground level reference, the following restrictions shall apply (unless otherwise indicated in writing by the Environment Canterbury RMA Compliance and Enforcement Manager):
 - (a) In the following calendar month, the peak monthly volume of groundwater shall be reduced by a percentage of the mean monthly allocation volume (34,000 cubic metres). The reduction shall be determined as follows using Figure 1 - The exponential weighted moving average (EWMA) of dryland rainfall recharge for the Rakaia-Selwyn Groundwater Allocation Zone shall be applied against the x axis to determine the corresponding reduction to the peak monthly volume (read from y-axis).

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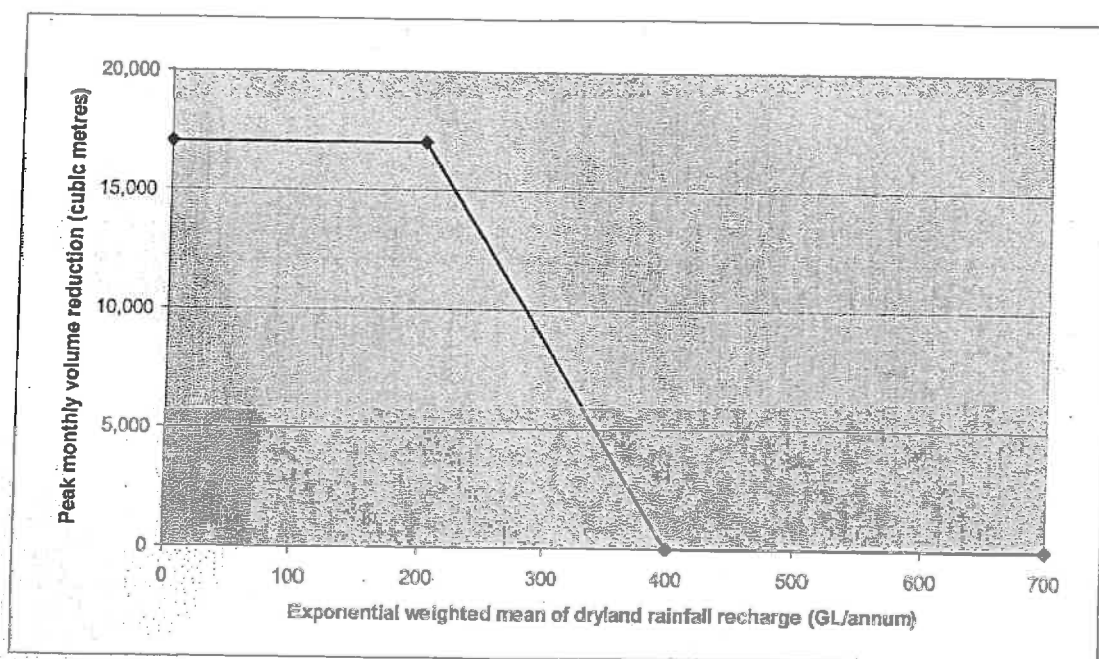


Figure 1: Peak monthly volume reduction as a function of EWMA dryland rainfall recharge

- (b) Any reductions in peak monthly allocation volume shall be totalled and subtracted from the annual volume to determine a new annual volume for the current year beginning 1st July to the following 30th June.
 - (c) The consent holder shall assess the water level in Environment Canterbury's observation well L36/1738 each calendar month. Water levels for this well are available on the Environment Canterbury website.
 - (d) On or before the last working day of each calendar month, where the water level is below 22 metres below the ground level reference in well L36/1738, the consent holder shall advise Environment Canterbury's Team Leader, Environmental Protection (Rural) Compliance Section of such circumstances.
 - (e) The consent holder shall be advised of the EWMA of dryland rainfall recharge for the Rakaia-Selwyn Groundwater Allocation Zone on or before 1st July each year, and Environment Canterbury may provide a revised figure on or before the 1st October and the following 1st March only if that results in an increase in the annual volume for that year, by:
 - (i) Creating NIWA virtual climate data records for the relevant months;
 - (ii) Running Environment Canterbury in-house Rakaia-Selwyn recharge programme;
 - (iii) Updating Class A model located electronically at: O:\Hearings\CMP, and
 - (iv) Making the EWMA of dryland rainfall recharge series available on the Environment Canterbury website.
- 3) Water shall only be used for industrial use in the meat processing plant located at Knyvetts Road, Rakaia, and for irrigation on the area of land shown in attached Plan CRC062093.
- 4) The consent holder shall, before the first exercise of this consent, install an easily accessible straight pipe, with no fittings or obstructions that may create turbulent flow conditions, of a length at least 15-times the diameter of the pipe, as part of the pump outlet plumbing or within the mainline distribution system.

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- 5) The consent holder shall before the first exercise of this consent:
- Install a water meter that has an international accreditation or equivalent New Zealand calibration endorsement and has pulse output, suitable for use with an electronic recording device, which will measure the rate and volume of water taken within an accuracy of plus or minus five percent, as part of the pump outlet plumbing, or within the mainline distribution system, at a location that will ensure the total take of water is measured.
 - Take a reading from the water meter at least once per month; record the date and the meter reading either electronically or in a log book kept for that purpose; and supply these data to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, each year during the month of June, or when requested in writing.
 - Ensure that the water meter is accessible to the Canterbury Regional Council at all times for inspection.
 - Ensure that the water meter is installed, maintained and operated throughout the duration of the consent in accordance with the manufacturer's instructions.
 - Take all practicable measures to ensure that the water meter is fully functional at all times.
- 6) The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be informed immediately on first exercise of this consent by the consent holder.
- 7) The consent holder shall, on notice in writing by the Canterbury Regional Council, within six months from such notice:
- Install a tamper-proof electronic recording device(s) such as a data logger(s) that shall time stamp a pulse from the flow meter at least once every 60 minutes and have the capacity to hold at least one season's data of water taken as specified in clauses (b)(i) and (b)(ii), or which is telemetered, as specified in clause (b)(iii).
 - The recording device(s) shall:
 - be set to wrap the data from the measuring device(s) such that the oldest data will be automatically overwritten by the newest data (i.e. cyclic recording); and
 - store the entire season's data in each 12 month period from 1st July to 30th June in the following year, which the consent holder shall then download and store in a commonly used format and provide to the Canterbury Regional Council upon request in a form and to a standard specified in writing by the Canterbury Regional Council; or
 - shall be connected to a telemetry system which collects and stores all of the data continuously with an independent network provider who will make that data available in a commonly used format at all times to the Canterbury Regional Council and the consent holder. No data in the recording device(s) shall be deliberately changed or deleted.
 - The recording device(s) shall be accessible to the Canterbury Regional Council at all times for inspection and/or data retrieval.
 - The recording device(s) shall be installed and maintained throughout the duration of the consent in accordance with the manufacturer's instructions.
 - All practicable measures shall be taken to ensure that the recording device(s) is fully functional at all times.
- 8) Within one month of the installation of the measuring or recording device(s), or any subsequent replacement measuring or recording device(s), and at five-yearly intervals thereafter, and at any time when requested by the Canterbury Regional Council, the consent holder shall provide a certificate to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, signed by a suitably qualified person certifying, and demonstrating by means of a clear diagram, that:
- The measuring and recording device(s) has been installed in accordance with the manufacturer's specifications; and
 - Data from the recording device(s) can be readily accessed and/or retrieved in accordance with clauses (b) and (c) of condition (7).

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AQUIFER TEST

- 9) Within twelve months of the commencement of this consent:
 - (a) The consent holder shall arrange for a suitably qualified person to undertake a constant rate discharge aquifer test ("aquifer test") in the production bore. Subject to (b) below, the minimum duration of the aquifer test shall be three days unless hydrogeological conditions allow the test to be terminated earlier. Hydrogeological conditions in this instance include:
 - (i) the existence of steady state leakage for a period of 24 hours; or
 - (ii) no further evidence of delayed yield, if it occurs.
 - (b) The aquifer test shall be undertaken in accordance with Council technical report No. R98(10), 1998 or any subsequent replacement pumping test guidelines published by Council available at the time of testing.
 - (c) The aquifer test shall:
 - (i) monitor water level in an appropriate monitoring bore screened in the uppermost water bearing strata;
 - (ii) monitor water level in the production bore; and
 - (iii) subject to access and availability, monitor water level in at least one observation bore screened in the same aquifer as the production bore and located within 2,000 metres of the production bore.
 - (iv) where practical, a bore in the same strata as the production bore in which effects would not be expected to be observed during the constant rate discharge test shall be monitored throughout the test so as to identify background effects.
 - (d) The data obtained from the aquifer test shall be used to determine:
 - (i) the magnitude of Transmissivity, Storativity and Leakage; and
 - (ii) the existence of a direct hydraulic connection between the pumped aquifer and the overlying aquifer unit (direct hydraulic connection means a > 5 cm drawdown in the overlying aquifer following the 3-day pumping test, followed by a typical recovery response); and
 - (iii) if there has been insufficient data collected in accordance with clause (c)(iii) within the pumped aquifer unit, then Storativity and Leakage are not required to be determined under clause (i).
 - (e) Prior to commencement of the test, the aquifer test specifications shall be certified by a suitably qualified person acceptable to the Council, as being consistent with the requirements of this condition.
 - (f) Data, results and analysis of the test data shall be forwarded to the Canterbury Regional Council. Attention: RMA Compliance and Enforcement Manager, within three months of completion of the test.
 - (g) If the Council does not accept the aquifer test results as being adequate for the intended purpose, it may require that a repeat analysis or repeat of the test be carried out. (Such a requirement must be on reasonable grounds).
- 10) The taking of water in terms of this permit shall cease for a period of up to 48 hours, on reasonable notice from the Canterbury Regional Council, to allow measurement of natural groundwater levels.
- 11) In the event that the Consent Authority is unable to provide the current monthly water level (via the Environment Canterbury website or otherwise) for well L36/1738, the consent holder shall monitor water levels (at least monthly), prior to the last working day of each calendar month, in well L36/1738 for the purposes of ensuring that the groundwater mounding signature associated with the exercise of consent CRC991035 is present, with the results of this monitoring being reported to the Canterbury Regional Council upon request.

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- 12) Backflow prevention
- (a) A backflow preventer manufactured in accordance with AS 2845.1 (1998) or the American Society of Sanitary Engineers standards shall be installed within the pump outlet plumbing or within the mainline, to prevent the backflow of water into the bore.
 - (b) The backflow preventer shall be tested to the standard set out in AS 2845.3 (1993) or an equivalent method within one month of its installation and annually thereafter by a suitably qualified person. A test report shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within two weeks of each inspection.
- 13) The consent holder shall take all practicable steps to:
- (a) Ensure that any water used for irrigation does not exceed that required for the soil to reach field capacity; and
 - (b) Avoid leakage from pipes and structures; and
 - (c) Promote the efficient use of water.
- 14) The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, upon the 5th, 8th and 11th years after commencement of this consent, serve notice of its intention to review the conditions of this consent for the purposes of dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.
- 15) The lapsing date for the purposes of section 125 shall be 31 March 2015.
- 16) Duration shall be 15 years from commencement of this consent.

Issued at Christchurch on 1 April 2010

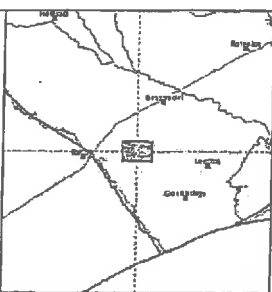


Carly Steers
TEAM LEADER CONSENTS OPERATIONS
on behalf of the Canterbury Regional Council

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Applicants Site
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Rakaia
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