

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

**Statement of Evidence of Tim Ensor
on behalf ANZCO Foods Limited,
CMP Canterbury Limited and
Five Star Beef Limited**

Dated: 4 February 2013

Introduction

1. My full name is Timothy Alistair Deans Ensor.
2. I hold a Bachelor of Science and a Bachelor of Arts with honours majoring in Geography, obtained from the University of Canterbury in 2002. In 2012 I graduated with a Post Graduate Diploma in Planning from Massey University. I am an associate member of the New Zealand Planning Institute.
3. I am currently an Associate Environmental Planner with URS New Zealand Limited (URS) and have been employed by the company for approximately four years. Prior to starting with URS I was employed by Environment Canterbury for approximately two and a half years as a consents planner.
4. I have worked throughout the South Island assisting private and public sector clients with obtaining statutory approvals, undertaking environmental impact assessment and policy analysis for projects where water quality and quantity issues are a major component. These clients include the NZ Transport Agency, Environment Canterbury, the Dunedin City Council and Fulton Hogan Limited.
5. I have been asked by CMP Canterbury Limited, Five Star Beef Limited and ANZCO Foods Limited (collectively referred to as **ANZCO** unless otherwise specified) to provide evidence in relation to the Canterbury Regional Council's proposed Land and Water Regional Plan (**pLWRP**). I also lodged submissions and further submissions on behalf of ANZCO.
6. I have read the Code of Conduct for Expert Witnesses in the Environment Court Consolidated Practice Note 2006. I agree to comply with this Code of Conduct. This evidence is within my expertise, except where I state I am relying on what I have been told by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of Evidence

7. My evidence covers the provisions of the pLWRP relating to discharges of contaminants to land generated through livestock processing activities and generated from an intensive beef feedlot, and water abstraction for use for

livestock processing. My evidence is grouped into five general themes. These are:

- a) Livestock processing activities in the context of the pLWRP;
 - b) Provisions controlling discharges from livestock processing;
 - c) The discharge of effluent and vegetative waste from the Five Star Beef Feedlot;
 - d) Water allocation regimes in the pLWRP and their impact on livestock processing; and
 - e) Water restrictions during times of water shortage.
8. In preparing my evidence I have reviewed and relied upon the evidence of or discussions with:
- a) Mr Michael Copeland;
 - b) Mr Mark Clarkson;
 - c) Mr Stephen Douglass; and
 - d) Mr Andrew Macfarlane.

Further Evidence for Hearing Group 2 matters

9. As will be explained in this evidence, the majority of the discharges from ANZCO's operations fall within the scope of industrial and trade waste discharges in Rules 5.69-5.70. However, in the absence of a definition of "farming activities" there is a risk that some of the livestock processing discharges will fall within the "farming" rules.
10. As the Section 42A report for that issue is not due to be released until 15 March 2013, it may be that further evidence will need to be given at a later date to address matters raised in this report

ANZCO's Submission

Introduction

11. ANZCO is a multinational group of companies, whose core purpose is to procure, process and market New Zealand beef and lamb products to the world. ANZCO is one of New Zealand's largest exporters, has sales of NZ\$1.3bn and employs over 3,000 staff worldwide.
12. Each of the businesses which collectively make the ANZCO Group, makes up a separate part of the supply chain in Canterbury. These businesses include CMP Canterbury Limited and Five Star Beef Limited (collectively referred to as ANZCO unless otherwise specified).
13. CMP Canterbury Limited (**CMP**) runs two meat processing plants: CMP Rakaia and CMP Seafield. These plants process lamb, mutton, cattle and bobby calves on a year round basis and process the cattle from the Five Star Beef feedlot.
14. Five Star Beef Limited (**FSB**) has operated a beef feedlot 6 km south of Wakanui since August 1991. This is the largest feedlot in New Zealand with a majority of the specialised marbled beef product destined for the Japanese market. Angus and Angus cross cattle are reared on the feedlot to meet the strict requirements of this market. Feed is sourced from local farming suppliers to cater for year round expectations.

Background

15. ANZCO relies on a range of resource consents to enable them to operate their business. These include nine resource consents to discharge contaminants to land, six consents to abstract groundwater for use within the processing facilities, to irrigate surrounding land and for stock and staff drinking water. ANZCO also hold a number of stormwater, domestic wastewater, effluent and odour discharge consents, and consents relating to the storage of animal effluent at the Five Star Beef feedlot.
16. Because of this extensive involvement in regional planning issues, ANZCO recognise the need for a comprehensive and integrated regional plan addressing the wide range of issues associated with land and water resources.

Submission

17. While ANZCO's original and further submissions commented on a wide range of issues, their main focus is twofold. First is how the pLWRP addresses discharges associated with livestock processing through rules relating to farming, nutrient discharges, stockholding areas and animal effluent and fertiliser application.
18. The second focus is on the relationship between farmers and livestock processors and the implications of the pLWRP approach to the allocation of water in over allocated areas. ANZCO's submission suggested an alternative approach to that in the pLWRP to provide for water to be allocated to livestock processing activities regardless of the allocation status of the catchment.
19. Other issues addressed in the submission include: the language used to draft the objectives and policies of the pLWRP, the appropriateness of objectives that seek to protect values outright (that do not recognise that the RMA is not a 'no effects' legislation), and policies and rules relating to the transfer of water permits.

Livestock Processing Activities in the Context of the pLWRP

The Relationship between Farmers and Processers and Location of Livestock Processors in Rural Areas

20. As will be discussed in Mr Macfarlane's evidence, the livestock processing industry is reliant on the success of the agricultural industry and the agricultural industry is reliant on the livestock processing industry to convert livestock into a saleable product.
21. One does not exist without the other and this relationship is extremely important for realising the economic benefits that can be gained from farming and from the associated use of natural resources such as water used for irrigation.
22. As Mr Macfarlane will indicate in his evidence, the relationship between supplier and processor means that expansion of livestock processing capability follows slightly behind any expansion in agriculture. This creates significant difficulties for the livestock processing industry when securing

new water and obtaining authorisations to discharge processing related nutrient especially in areas of over allocation where competition for available resources is strongest.

Competing Demands for Water

23. Competing demands for water are addressed on pages 50 and 51 of the Section 42A report. The officer correctly identifies that ANZCO seek to have livestock processing specifically recognised when discussing the issue of competing demands for water in Section 1.2.1. However, the officer states:

“As the location for the requested addition is just a list of obvious examples, rather than an exclusive list, the addition does not add any clarity or value and is not supported.”

24. While it may not be an exclusive list, this section of the Plan does outline the main issues being addressed by the pLWRP which then determine the objectives, policies and rules of the Plan.
25. The issue of a secure water supply for livestock or other food processing is an important one, as is explained further in this evidence and the evidence of Mr Douglass and Mr McFarlane. The economic significance of livestock processing and its significant contribution to the Ashburton district and Canterbury regional economy is explained in detail by Mr Copeland. For those reasons and as it is not raised elsewhere in the pLWRP, I consider greater recognition should be given to livestock processing by including it at this early stage to bring attention to it.

Waste

26. The production of waste through the processing of livestock is unavoidable. Due to land use compatibility constraints and associated environmental issues such as odour, livestock processing facilities are necessarily located in rural areas.
27. A consequence of being located in a rural setting is that there is no access to reticulated water and trade waste facilities. Disposal to land or water is therefore the only option with land disposal being the most efficient, effective and sustainable option.

28. Livestock processing waste (which is a combination of blood, water and effluent) is disposed to land. That waste contains nutrients and has potential to be taken up by plant material, go through a process of denitrification or leach into soil (as explained in Mr Douglass' evidence).
29. In the context of activities provided for in the pLWRP, the discharge of livestock processing waste most logically fits within the category of an industrial discharge. That is because the primary purpose of the discharge is to dispose of waste generated through an industrial process. Growing pasture is a secondary but critical component of the industrial activity rather than the primary purpose of the activity. It is grown as part of the nutrient management system to reduce the nutrient in the waste discharge (through plant take up and soil health improvements) and hence to reduce the nutrient lost to groundwater. This process and the nutrient management system which is a critical part of the overall industrial activity is explained in detail by Mr Douglass.
30. The pLWRP is unclear as to how such discharges are intended to be addressed and so are covered by a range of policies and rules which are often conflicting. Such discharges, although more appropriately covered under industrial trade waste discharges, are currently addressed by rules relating to: farming activities, industrial discharges, stockholding areas and animal effluent, nutrient discharges and fertiliser applications.
31. Issues associated with how the pLWRP addresses water supply and waste disposal associated with livestock processing activities are addressed below.

Waste from Livestock Processing Activities

Contaminant Discharge Related Policies

32. Policies are a statement of how an objective is to be achieved. A policy needs to give clear direction as to what is required to achieve a given objective, when and by whom. While policies can either be flexible or inflexible, there are a number of more general policies that provide a level of inflexibility that I consider to be inconsistent with the purpose of the RMA or that may impact ANZCO's ability to address potential adverse effects in the most appropriate manner. These policies either take a 'no effects' approach or are overly prescriptive in the way effects should be managed.

Policies 4.3, 4.11 and 4.20 – appropriateness of “no effects” policies

33. Policies 4.3, 4.11 and 4.20 use language that sets very stringent tests for achieving an objective through the use of terms: ‘shall not diminish’, ‘not have any adverse effect’ and ‘protected from any actual or potential effect’. The use of these terms does not appreciate that an activity can potentially still achieve the purpose of the RMA while having an effect on the environment.
34. The Section 42A report recommends that Policy 4.3 be deleted and replaced with a vastly different policy. The new policy which requires cultural values to be identified in sub-regional chapters is helpful in providing certainty about what these values consist of and is supported.
35. Small amendments to Policies 4.11 and 4.20 will ensure that they recognise that activities may cause adverse effects and still remain consistent with the purpose of the RMA. I consider more appropriate wording for these policies is:

Policy 4.11 “*Any discharge of a contaminant into or onto land where it may enter groundwater shall:*

- (a) *not exceed the natural capacity of the soil to treat or remove the contaminant; and*
- (b) *not exceed available water storage capacity of the soil; and*
- (c) *where this is not practicable:*
 - (i) *meet any nutrient allowance in Sections 6-15 of this Plan;*
 - (ii) *utilise the best practicable option to ensure the size of any contaminant plume is as small as is reasonably practicable, and there is sufficient distance between the point of discharge, any other discharge and drinking water supplies to allow for the natural decay or attenuation of pathogenic micro-organisms in the contaminant plume;*

- (iii) *not result in the accumulation of pathogens, or a persistent or toxic contaminant that would render the land unsuitable for agriculture, commercial, domestic or recreational use or water unsuitable as a source of potable water or for agriculture;*
- (iv) *not raise groundwater levels so that land drainage is impeded; and*
- ~~(v) *not have any adverse effects on the drinking water quality of the groundwater, including any risk to public health.*~~

36. Policy 4.20 “Any water source used for drinking water supply is protected from any discharge of contaminants that may have ~~any actual or potential inappropriate adverse effects~~ on the quality of the drinking water supply including its taste, clarity and smell and group and community water supplies are protected so that they align with the CWMS drinking water targets and meet the Drinking-water Standards for New Zealand.”

Policies 4.28, 4.30 and 4.35

37. These policies use language that potentially sets an overly stringent test for achieving an objective and also departs from the purpose of the RMA. Policy 4.35 is “To minimise the loss of nitrogen to water...”. Similar wording is contained in Policies 4.28 and 4.30.
38. It is my view that this policy should be reworded to better address environmental effects associated with nitrogen loss as opposed to nitrogen loss itself. Also, so that it better reflects the avoid, remedy, mitigate approach of the RMA.
39. A suggested amendment to Policy 4.35 is:
- “To minimise avoid, remedy or mitigate the adverse effects associated with the loss of nitrogen to water prior to 1 July 2017, where the land owner holds an existing water permit to take and use water, or is a shareholder in an irrigation scheme, and there are conditions on the water permit that address nutrient management, any change in farming activities will be enabled subject to*

requirements to prepare and implement a farm environment plan, the regular audit of that plan and to record, on a per enterprise basis, nitrogen discharges.”

40. Similar wording should, in my view, also be used for policies 4.28 and 4.30.
41. There are relevant mitigating environmental factors that will not be able to be considered under Policy 4.35 as notified. An example of a mitigating factor in ANZCO’s case is the location of the Five Star Beef feedlot adjacent to a high energy coastal environment. This means that loss of nutrient is less adverse than if it were sited inland as there are limited sensitive receiving environments that can be adversely affected.

Livestock Processing as an Industrial Discharge

42. For those reasons listed above and discussed in the evidence of Mr Douglass, discharges associated with livestock processing are considered industrial as they arise from waste generated through an industrial process.
43. However, as the pLWRP is currently drafted, there is potential for CMP activities to be inadvertently captured through a wide range of rules.
44. Without a clear definition of what constitutes a farming activity, the pLWRP potentially regulates the discharge of livestock processing waste through:
 - a) Nitrogen loss rules addressing farming activities in Rules 5.39-5.51;
 - b) industrial discharges in Rules 5.69 and 5.70;
 - c) stock holding areas and associated discharges in Rules 5.35 and 5.36; and
 - d) fertiliser applications in Rules 5.52-5.54.
45. Having an activity affected by so many rules places a significant burden on a resource consent applicant given that livestock processors have no other option but to discharge processing waste to land or water. It also creates an inefficient process for what is likely to be no added environmental gain.
46. I also refer to Mr Douglass’ evidence that explains the detailed modelling that is undertaken to record nutrient application and losses on CMP

operational land. Mr Douglass also explains why OVERSEER is not a tool designed to capture discharges from industrial activities.

47. Given there is only one discharge and that discharge is as a result of an industrial process, I consider it most appropriately managed and assessed under the rules relating to industrial discharges.

Definition of Farming

48. Including a definition of 'farming' or 'farming activity' that specifically excludes nutrient discharges associated with livestock processing will ensure these activities are not unintentionally subject to rules addressing land use change and non-point source discharges associated with farming activities.

49. A suggested definition is:

***"Farming and Farming Activities** - the activity or business of growing crops and raising livestock including associated nutrient discharges. For the removal of doubt, this definition does not include the discharge of nutrient from industrial discharges including from livestock processing to land".*

50. The rules in the pLWRP relating to farming (Rules 5.39 – 5.49) rely on the use of OVERSEER to determine the loss of nitrogen from a discharge and then to direct appropriate management methods. As Mr Douglass discusses, ANZCO have in place much more activity specific nutrient management methods that are more effective at managing and recording the type of contaminants present in livestock processing discharges. By specifically excluding industrial discharges from the definition of farming, industrial discharges are able to apply activity specific nutrient management regimes that are more appropriate for the contaminant characteristics produced.
51. Rules 5.50 and 5.51 address nutrient discharges specifically. However, the drafting of the condition for Rule 5.50 means a nutrient discharge may only occur as a permitted activity if it is authorised by the rules addressing farming activities (Rules 5.39 – 5.49).

52. Rules 5.50 and 5.51 should be deleted as they duplicate rules associated with farming activities, industrial discharges and fertiliser discharges and create a less streamlined consent process with potentially no additional benefits¹.
53. Defining farming activities and removing the requirement for an activity to be authorised by farming related rules will better enable discharges from livestock processing activities to be assessed under rules addressing industrial discharges.

Fertiliser Rules

54. The definition of fertiliser in the pLWRP includes any fluid substance that is suitable for sustaining or increasing the growth of plants through the application of, among other things, nitrogen.
55. Discharges from livestock processing activities contain nitrogen and therefore could be defined as fertiliser. Managing the effects of livestock processing discharges through rules addressing fertiliser application as well as rules controlling industrial discharges is inefficient. This inefficiency can be addressed by amending the advice notes associated with Rules 5.52 and 5.53 addressing fertiliser discharges. This amendment would state:

“Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51. However, if resource consent is required for a discharge that may also meet the definition of fertiliser, then no additional resource consent is required under Rules 5.53 and 5.54.”

Conclusion

56. Under these suggested changes, discharges associated with livestock processing would be addressed only by rules controlling discharges of industrial or trade wastes (Rules 5.69 and 5.70)². The discretionary status

¹ For the avoidance of doubt, ANZCO no longer seeks the new policy and restricted discretionary rules (listed respectively at pages 5, 24 and 26 of the original submission and identified as submission points 317.23, 317.49 and 317.51 in the Summary of Submissions notified on 31 October 2012) be added.

² In the primary submission (identified as submission point 317.51 in the summary of submissions notified on 31 October 2012) ANZCO sought a new restricted discretionary rule addressing livestock processing discharges specifically. However, I consider that the existing industrial discharges are more appropriate. I also note that the Section 42A report recommends discretionary activity status.

of Rule 5.70 ensures that all relevant effects associated with a discharge from livestock processing can be considered by the consent authority.

Effluent and Vegetative Waste Discharges

57. The Five Star Beef Limited (Five Star Beef) feedlot at Wakanui captures all effluent runoff in a series of holding ponds. Liquid effluent is discharged to surrounding land via irrigation. The remaining solid animal waste is transported to neighbouring properties and is largely discharged to land during cultivation. This process benefits both the feedlot and the farmers receiving the waste. The land receiving solid waste may or may not be owned by Five Star Beef.
58. Rules 5.33 and 5.34 address the discharge of animal and vegetative waste to land. As Mr Douglass has noted, this activity has a relatively low risk of effects on water quality. Therefore these rules provide an appropriate level of control and are supported.
59. The Five Star Beef feedlot meets the definition of 'stock holding area' within the pLWRP and is therefore addressed by Rules 5.35 and 5.36 (stock holding areas and animal effluent).
60. Rule 5.35 classifies the use of land for a stock holding area, and the subsequent discharge of animal effluent, as a restricted discretionary activity provided conditions are met. If these conditions are not complied with the activity status defaults to non-complying which introduces a significant consenting hurdle.
61. The conditions of Rule 5.35 are largely appropriate considerations for activities of this type. However, Condition 2(b) if taken literally may restrict effluent from being discharged on land other than that on which it has been generated.
62. Condition 2(b) states:

“The discharge of animal effluent or water containing animal effluent and other contaminants:

[...]

(b) does not occur beyond the boundary of the site;

[...]"

63. A 'site' as defined by the pLWRP consists of a parcel of land held in a single certificate of title or for which a separate certificate of title could be issued without further resource consent. This definition severely limits where the discharge can occur and not only limits the opportunity to discharge effluent to neighbouring properties, but restricts the discharge of effluent on land owned by the person generating the effluent but held in a separate title, but for all intents and purposes is being operated as one unit.
64. If Condition 2(b) is not complied with the resulting non-complying activity status puts in place a consenting hurdle inconsistent with the potential environmental risk associated with the activity.
65. A discussion of the definition of 'site' occurs at page 220 of the Section 42A report. The officer recommends inserting a new definition of 'property' to describe any contiguous area of land utilised as a single operating unit. Inserting the word 'property' into Rule 5.35 would aid in relieving the issues identified but would not solve the problem.
66. On this basis Condition 2(b) should be deleted or redrafted in a way that only prevents discharges to land where there is no agreement to do so with the land owner. For example: *"(b) does not occur beyond the boundary of the site or property where land owner approval has not been obtained;"*

Water Supply

67. ANZCO's livestock processing facilities rely on a secure, clean water supply. Due to the quality of Canterbury's groundwater resource, groundwater is the most efficient and cost effective water source for meeting the livestock processing industry's needs as treatment is not required prior to its use for food processing purposes.
68. Water abstraction for livestock processing is controlled by the same objectives, policies and rules as any other abstraction that is not for community or group drinking water supply purposes. This has significant implications for the expansion of livestock processing to meet demand from an expanding livestock production sector.

Objectives and Policies Relating to Water Take and Use Affecting ANZCO Operations

69. Achieving clarity and certainty through the pLWRP provisions was a key aim as stated in the Section 42A report³. This aim is commendable and the overall approach taken by the pLWRP is a vast improvement on that taken by the NRRP.
70. However, I am of the view that a number of objectives and associated policies affecting ANZCO's activities could better articulate what is to be achieved, be more assessable and provide more certainty for resource consent applicants through relatively simple rewording.
71. In my view the language used to articulate many of the objectives in the pLWRP does not follow good practice. Rather than providing a specific statement addressing an issue in a straight forward manner, many objectives provide a statement of facts or an aspiration for the attitude of the community in relation to an issue. As such they provide limited contribution to decision making or guidance to plan users.
72. When writing objectives, it is my view that it is good practice to: address an issue specifically; state what is to be achieved, where and when; link the objective to the relevant issue; and write the objective in a way that it is clear to the reader when an objective has been achieved.

Objective 3.11- "Maximum" Social and Economic Benefit

73. Objective 3.11 states: *"...maximum social and economic benefits are obtained from the efficient storage, distribution and use of the water which is available for abstraction."* Requiring maximum benefits to be achieved alongside the aim to support a variety of uses suggests that what is considered the maximum benefit can be achieved by all uses.
74. In reality a use of water may still be consistent with the purpose of the RMA and not deliver the maximum economic or social benefit. As worded, the objective may unintentionally limit water use to only some uses. The most benefit from water used for farming can only be gained through ensuring

³ *Section 42A Report Volume 1 – Proposed Canterbury Land and Water Regional Plan, Canterbury Regional Council, pg 79, 2013.*

other activities such as livestock or milk processing are also provided for to ensure value is added to the raw product.

75. The word maximum may also create difficulties assessing whether the objective has been met as it assumes that the maximum benefit of water use is known and is attainable.
76. The Section 42A report recommends amended wording for this objective. However, this does not address the issue raised and my view is that it is more appropriate for the word 'maximum' to be removed from the objective.

Improvements to Objectives 3.21, 3.22 and 3.23

77. Objectives 3.21, 3.22 and 3.23. contain vague or uncertain language which limits their effectiveness at guiding consent applicants. Simple rewording of these objectives could improve their certainty and clarity. For example:

Objective 3.21 *“Manage changes in land use in a manner consistent with the CWMS targets”*

Objective 3.22 *“Water quality and quantity outcomes set by the community are met through managing activities within environmental flow and allocation regimes.”*

Objective 3.23 *“Protect the region’s fresh water resources from quality and quantity degradation by encouraging all activities to operate at “good practice” or better.”*

78. These changes ensure that the objectives clearly address an issue and state what is to be achieved and how. The scrutiny that any proposal by ANZCO to use land and water resources will have in relation to achieving these objectives will be considerable given the pressure on water quality and quantity in the areas where ANZCO operates. On this basis clarity and certainty at the objective level is extremely important.
79. The officer’s report recommends a number of changes to the objectives as notified to meet the drafting goals of having *“short, clear and concise statements as objectives”*⁴. However, no substantive changes have been

⁴ Section 42A Report Volume 1 – Proposed Canterbury Land and Water Regional Plan, Canterbury Regional Council, pg 97, 2013.

made to the objectives highlighted above and so the issues described remain.

Policy 4.58 - Interference Effects from Groundwater Takes

80. Policy 4.58 addresses the interference effects from new groundwater takes and sets the same thresholds as are outlined in the NRRP. The policy restricts any interference effects to no more than 20% of the water in a bore that is available to be used (drawn down).
81. While restricting interference effects to a percentage of available draw down provides a simple approach, it does not allow detailed information, such as aquifer and bore performance information derived from site specific testing, to be utilised to more accurately assess the effects of well interference. Mr Douglass explains this more fully in his evidence.
82. Expanding Policy 4.58 and Schedule 12, which sets out the method for assessing well interference effects, to allow the best quality information to be utilised provides a more effective way of achieving Objective 3.11 which states:
83. *“Water is available for sustainable abstraction or use to support a variety of economic and social activities and maximum social and economic benefits are obtained from the efficient storage, distribution and use of the water which is available for abstraction.”*
84. This increase in effectiveness is achieved by potentially making water available that might otherwise be ‘tied up’ through a restriction of 20% of the available draw down. The potential benefits gained from this water availability could be significant.
85. This alternative may have slightly increased costs as it is likely to require significant analysis of detailed aquifer and well information. However, providing an option to utilise the best information available, means that whether these costs are incurred is at the discretion of the resource consent applicant. If an applicant does not want to bear these costs then the more simple assessment option is still available.
86. At page 235 of the Section 42A report, the officer implies that if more detailed information is available, and it is determined that a drawdown

greater than 20% is appropriate, then an associated application for resource consent will not offend the policy.

87. The policy uses the words: "...*limiting the drawdown of any existing bore within a 2 km radius to no more than 20% of the available drawdown.*"
88. This sets an explicit limit with any interference effect beyond this being inconsistent with the policy. Therefore expanding Policy 4.58 is in my view appropriate to allow a more detailed assessment to be applied. The following wording is proposed:

"The direct cumulative interference effect from new groundwater takes on existing groundwater takes is minimised by:

- a) *where there is no site specific bore and aquifer information available, limiting the drawdown of any existing bore within a 2 km radius to no more than 20% of the available drawdown;*
or
- b) *where site specific bore and aquifer information is available, this is utilised to determine the percentage of available drawdown.*"

Water Allocation to Livestock Processing

89. The relationship between farmers and livestock processors means that they rely on each other to realise the economic benefit of the individual activities. Because of this relationship, the expansion of meat processing facilities sits behind the development curve for the wider agricultural sector. Where there is pressure on natural resources such as fresh water, livestock processing activities are often left to attempt to gain authorisation to use an over allocated resource.

Implications of 'First in First Served' Approach and Prohibited Activity Status

90. The 'first in first served' approach taken by the pLWRP through Policy 4.47 and Rule 5.104 does not recognise the relationship between farmers and livestock processors and, as discussed in Mr Copeland's evidence, may restrict the community from providing for their economic and social well-being.

91. Due to the over allocated status of the groundwater allocation zones where ANZCO's operations are located, new water abstractions attain a prohibited activity status under Rule 5.104.
92. I understand the Court of Appeal in *Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development*⁵ sets the test for imposing a prohibited activity status. This test is whether or not the allocation of that status in the most appropriate of the options available. This, in my view reinforces the requirements of Section 32(3)(b) of the RMA which specifies that an evaluation must examine whether the rules are the most appropriate for achieving the objectives.
93. In my view the assessment required for this rule under Section 32(3)(b) of the RMA for the pLWRP is inadequate. The Section 32 report states:
- “Prohibited activity status for additional groundwater takes beyond the limits set in the pLWRP... is a significant difference from the NRRP...”*⁶
94. However, the report then relies on the Section 32 analysis undertaken for the NRRP.
- “The pLWRP provisions, while not identical to NRRP provisions, are sufficiently similar in effect that the NRRP section 32 evaluations are applicable here.”*⁷
95. There is a significant difference between non-complying and prohibited activity status. Applying the NRRP analysis to the pLWRP is in my view, an inadequate examination of whether rules are the most appropriate to achieve the objectives.
96. In addition, the benefit cost analysis only refers to social costs associated with restricting water for irrigation. Ignoring the social and economic costs associated with prohibiting water allocation to other activities such as industries critical for primary food processing leaves the assessment incomplete.

⁵ *Coromandel Watchdog of Hauraki Inc v Ministry of Economic Development [2008] 1 NZLR 562*

⁶ Proposed Canterbury Land and Water Regional plan Section 32 Report, Canterbury Regional Council, p102, August 2012.

⁷ Proposed Canterbury Land and Water Regional plan Section 32 Report, Canterbury Regional Council, p103, August 2012.

97. Without a full and complete assessment of all costs and benefits the conclusion, that imposing a prohibited activity status on allocation over set allocation limits is the most appropriate way of achieving the pLWRP objectives, in my view is not justified.
98. The Section 32 report also justifies the prohibited activity status for water allocation in areas deemed over allocated in the pLWRP as a response to the RPS and the Freshwater NPS.
99. Objective B2 and Policy B5 of the Freshwater NPS require that over allocation is avoided and that no decisions will likely result in future over allocation. These provisions find their way into the RPS through Policy 7.3.4(2) that requires that any additional allocation that would result in further over allocation is avoided.
100. The Freshwater NPS provisions do not explicitly prohibit further allocation as per the pLWRP. The definition of over allocation in the Freshwater NPS is:

“... the situation where the resource:

- a) has been allocated to users beyond a limit or*
- b) is being used to a point where a freshwater objective is no longer being met.*

This applies to both water quantity and quality.”

101. As will be discussed further below there is potential for further allocation to occur in some situations while continuing to meet the freshwater objectives of the pLWRP and the National Policy Statement for Freshwater Management 2011 (Freshwater NPS).
102. As Mr Douglass has outlined, the groundwater allocation limits set in the pLWRP have been transferred directly from the NRRP. There has been much debate surrounding the appropriateness of these limits. As a result of this debate and resulting uncertainty, and given the non-complying activity status in the NRRP, resource consent could be granted in situations where additional water could be identified beyond these limits.

103. Mr Douglass has outlined a scenario where ANZCO was successful in identifying further water within an area deemed over allocated in the NRRP (resource consent application CRC062093 for CMP Rakaia). Due to site specific environmental factors and robust mitigation measures, further water was able to be allocated with acceptable environmental effects.
104. It is perhaps worth noting that in the decision for application CRC062093, Commissioners Milne and Heller noted that: “[*The PNRRP*] does not (*but arguably should*) provide for some priority for industrial takes at least in relation to primary processing industries.”⁸ This concept will be explored further below.
105. If the CMP Rakaia scenario were to occur under the pLWRP, even though additional water has been reliably identified within the allocation zone and the level of adverse environmental effects considered acceptable, no resource consent application could be made.
106. In my view, such a situation is not consistent with the overall intent of the Freshwater NPS or the freshwater objectives of the RPS and pLWRP as it does not allow the opportunity for applications for abstractions that have an acceptable level of effects to be made and therefore assessed on their own merits.
107. If there is the opportunity for additional water to be ‘found’ within a catchment, or allocated to an activity while remaining consistent with freshwater objectives, further allocation should not be prohibited. Based on ANZCO’s experience with the CMP Rakaia scenario and the lack of certainty surrounding the allocation limits set in the pLWRP, it is my view that the prohibited activity status of Rule 5.104 is not the most appropriate option available.

Securing Water in Advance of Demand

108. A prohibited activity status would force livestock processors to secure groundwater supply far in advance of any associated demand to ensure water is not captured by other users (largely irrigators), or secure water by transfer from another site.

⁸ Final Decision of Independent Commissioners Milne and Heller, Applications for resource consent by Canterbury Meatpackers (Rakaia) Limited to take and use groundwater (CRC062093), discharge wastewater to land (CRC082192) and discharge stormwater into land (CRC084651).

109. Securing groundwater far in advance of any associated demand is an inefficient approach and requires potentially significant investment that may not be utilised for some time. It is also inconsistent with objectives and policies within the Freshwater NPS, the RPS and the pLWRP seeking the efficient allocation and use of water. Consequently in the past, a more reactive approach has been taken making applications to use a resource once demand justifies.
110. A reactive approach ensures that reasonable need for a resource can be demonstrated as required by the Freshwater NPS, the RPS and Policy 4.66 of the pLWRP, at the time an application is lodged and that water is not 'tied up' waiting for demand. Under the pLWRP, this more reactive option is not open to ANZCO due to the over allocated status of the groundwater zones where their operations are located.
111. The other potential option for securing water is transferring it from another site as discussed next.

Transfers - Policy 4.73 and Rules 5.107 and 5.108

112. Policy 4.73 and Rules 5.107 and 5.108 provide controls on the transfer of water permits which includes the surrender of a portion of allocation when transferring water in over allocated catchments.
113. The officer's report provides justification for phasing out over allocation⁹ with reference to Policy B6 of the Freshwater NPS. The intent of Policy B6 is not disputed, however the efficiency of using transfers as the sole mechanism to phase out over allocation is questioned.
114. The expense to acquire and transfer a volume of water so as to achieve water use efficiency is likely to be significant if a portion of that water then has to be surrendered as required by Rule 5.107. Requiring that water be surrendered in the volumes required by Rule 5.107, will be a significant deterrent to transfers taking place and therefore realising efficiency gains as required by Policy B4 of the Freshwater NPS.

⁹ *Section 42A Report Volume 1 – Proposed Canterbury Land and Water Regional Plan, Canterbury Regional Council, pg 247, 2013*

115. In addition, the amount of water required to be surrendered appears to be arbitrary. Neither the Section 32 report nor the Section 42A report provides justification for the figures in Rule 5.107.
116. Phasing out over allocation as required by the Freshwater NPS could be achieved through a combined approach. This approach could include a review of the volumes of water required for an activity under section 128 of the RMA or when consents come up for renewal, along with encouraging a shift from over allocated water sources to water supplied by regional water storage and supply networks when these come on line.
117. Mr Douglass has also highlighted an issue in relation to resource consents granted in over allocated areas with adaptive management conditions. By clawing back allocation the reliability of supply of these consents will increase over time. This creates an unequitable situation where those forced to surrender portions of water transferred will improve the reliability of supply to those who have been granted what are essentially 'B' permit resource consents.
118. It is my view that requiring smaller volumes to be surrendered, justifying these volumes and amending Rule 5.107 accordingly, would have less immediate economic impact and lessen this inequity yet still achieve the same outcome. In addition to clawing back allocation through volume reviews and a shift to alternative water sources, surrendering small volumes of water on transfer would be a more effective method of achieving Objective B3 of the Freshwater NPS.
119. By spreading the 'pain' of reducing over allocation across a number of mechanisms, the likelihood of achieving Objectives B2 and B3 of the Freshwater NPS is increased while providing a mechanism for livestock processing expansion and other water reliant activities to occur through water transfers.
120. Due to the reliance that farmers have on livestock processors for realising the economic benefits of farming, in my view it may be appropriate to allow transfers of water to livestock processing activities without surrendering a volume percentage.
121. As will be discussed further below, the volume of water required for livestock processing is relatively small. Therefore excluding this activity

from surrendering a percentage of the volume of water transferred will have limited impact on the Regional Council's ability to achieve Objective B2 of the Freshwater NPS.

122. Allowing a full transfer of water to livestock processing activities will help achieve Objective B3 of the Freshwater NPS by re-allocating water within current allocation limits. This will contribute to achieving the freshwater objectives of the RPS and the pLWRP.
123. Providing the option for full transfers, may aid livestock processors in contributing to the economic and social well being of the community by providing an essential service to the farming sector in areas where access to new water is extremely difficult.
124. However, allowing for full transfers to livestock processing activities does not guarantee that water will be available to be transferred in the volumes required. On this basis alternatives to the first in first served approach of the pLWRP are investigated below.

Alternatives to the First in First Served Approach

125. There are two viable alternatives to the first in first served approach within the pLWRP that currently applies to livestock processing activities. These are: a) reserving groundwater allocation for specific activities; and b) providing for groundwater allocation to livestock processing activities regardless of the allocation status of the resource.

Allocation to Activities (Option A)

126. This option involves reserving water or dividing an allocation limit based on the likely uses of water, appears in the Waitaki Catchment Water Allocation Regional Plan (Waitaki Plan)¹⁰. Table 5 of Rule 6 of the Waitaki Plan allocates water on an annual basis to: town and community water supplies; industrial and commercial activities; tourism and recreational facilities; agricultural and horticultural activities; any other activities; and hydro electricity generation.

¹⁰ Waitaki Catchment Water Allocation Regional Plan, Waitaki Catchment Water Allocation Board, 2005.

127. Allocating water to specific activities is a significant departure from what is currently proposed in the pLWRP. While I am of the view the approach has merits, a significant amount of work would be required to determine an appropriate volume to be allocated to each activity in each catchment. It is unfortunate that a full analysis of the available options has not been undertaken as part of the section 32 analysis as one might expect. It is unlikely that this could be achieved at this stage in the plan development process and on this basis Option a) will not be discussed further here.
128. I am of the view that it should be considered when revisiting allocation limits on a catchment by catchment basis through the development of the sub-regional chapters.
129. For the present purposes, the work undertaken for the development of the Waitaki Plan and the allocation to activities approach is still useful when investigating the merits of applying exemptions from allocation limit compliance (i.e. Option b).

Exemptions from Allocation Limit Compliance (Option B)

130. Water allocated to livestock processing activities currently makes up a small proportion of the total allocation from groundwater. Investigations of the Canterbury Regional Council's consents database show that industrial water usage (this includes all primary produce processing uses including associated irrigation) accounts for approximately 0.2% of water allocated in the Rakaia Selwyn Groundwater Zone and approximately 8.2% in the Ashburton Lyndhurst Groundwater Zone where ANZCO's operations are located.
131. As explained in Mr Douglass' evidence, water is required not only for the processing of livestock within the facility (for example through wash down etc.), but also to irrigate the wastewater disposal area. Mr Douglass explains the essential use of water in the nutrient management system which is required to optimise pasture growth and nutrient uptake to avoid nutrient leaching. As discussed, livestock processing activities cannot avoid the production of waste and due to the rural location of livestock processing activities they need to dispose of this waste to land. On this basis, irrigation of the waste disposal area (where it is necessary to

effectively dispose of that waste) is integral to the overall activity of livestock processing.

132. For example, resource consent CRC030692.3 authorises groundwater to be used at CMP Seafield for both irrigation and use within the processing plant. It recognises that the water for irrigation associated with waste disposal is an essential part of the overall process. The amount of water that is authorised to be used for processing is approximately 45% of the total with the remaining 55% being used to irrigate the wastewater disposal area.
133. On the basis of the relatively small volume of water required for livestock processing, Option b), providing an exemption for water allocated to livestock processing similar to exemptions provided to drinking and stock water, has been investigated as an alternative to the first in first served approach proposed by the pLWRP. Due to similarities between this approach and the allocation to activities approach adopted for the Waitaki Plan, the Waitaki Plan, the decision and Section 32 report for the Waitaki Plan have been referred to where appropriate.
134. As with water takes for community or group water supplies, an exemption for livestock processing does not make the activity permitted. The exemption is purely to avoid the prohibited activity status currently associated with new groundwater abstractions in over allocated zones and allow an application for resource consent to be considered by the consenting authority. An appropriate rule will be discussed later in this evidence.

Why provide an Exemption for Specific Activities over Others?

135. Providing an exemption for one type of activity raises issues of equity in relation to other water uses and a line needs to be drawn under which activities may qualify for exemptions and which do not.
136. As discussed, water allocation issues arise due to the almost symbiotic relationship livestock processors have with farmers, and the associated lag between the increase in livestock production and demand for processing capacity.

137. This issue is common to primary produce processors but does not occur in other sectors such as manufacturing or general agricultural activities. In the agricultural sector, expansion and the associated demand for water is driven by the demand for goods. The demand for water by livestock processing is driven by expansion in the farming sector. Importantly the farming sector requires this processing expansion to fully realise the benefits of its own expansion.
138. On this basis, exemptions are proposed for livestock processing activities only. However, with further information from other primary processing activities, it may be appropriate to extent this approach to include other primary produce processors.

Analysis of Allocation Limit Exemptions

139. Through allocating water to activities as per the Waitaki Plan, water is not 'captured' by a single activity. This is also achieved by providing for specific activities to be exempt from complying with allocation limits. Both approaches also provide certainty that water will be available for livestock processing should demand increase and appropriate environmental outcomes are able to be achieved.
140. Paragraph 195 of Annex 1 of the Waitaki Plan¹¹ gives reasons for the adoption of plan provisions allocating water to specific activities and states:
- “The Plan provisions on allocation to activities were adopted because allocating an amount of water for each of a diverse range of activities provides for social and economic wellbeing across the catchment community, the local community and the nation. If any one activity was to use all water, it could prevent the local community providing for their reasonably foreseeable needs.”*
141. Paragraph 197, bullet point three of Annex 1 describes what is provided for through the policy of allocation to activities which is: *“growth in industrial and commercial activities consistent with increased agricultural and horticultural activities”*.

¹¹ Decision and principal reasons for adopting the Plan provisions, Waitaki Catchment Water Allocation Board, 2005.

142. These comments are largely relevant to the wider Canterbury context and the issues faced by ANZCO when seeking to expand their operations. They are also the main drivers behind seeking a practical alternative to the first in first served approach in the pLWRP.
143. Allocation limit exemptions support a variety of economic and social activities both through providing for specific activities such as drinking water, stock water and livestock processing outside the allocation limit and all other activities within the allocation limit. As a consequence the approach provides a moderate to highly effective method of achieving Objective 3.11.
144. An assessment of the effectiveness of providing an exemption from allocation limits is contained in **Attachment A**.
145. Providing a consenting option for water to be allocated to an activity outside of an allocation limit ensures that primary uses of water in the region (irrigation for agriculture) can realise the full benefits of their activity. Without accessible processing facilities with adequate capacity, the maximum economic and social benefits of using water to irrigate crops and pasture to produce livestock produce may not be realised.
146. Policies and methods setting allocation limits and regulating proposed abstractions in accordance with these limits are central to achieving Objective 3.22 which states:
- “Community outcomes for water quality and quantity are met through managing limits.”*
147. I accept providing a consenting option for water to be allocated to livestock processing activities regardless of the status of a groundwater allocation zone is not the most effective way to achieve this objective. I also accept allowing water to be allocated outside of an allocation limit introduces uncertainty as to the environmental cost that this might have on the natural environment and on the reliability of supply of existing abstractors.
148. However, the risk of acting in light of this uncertainty is likely to be low. The percentage of water currently allocated to industrial activities (this includes livestock and other primary produce processing activities) is small when compared to the overall water allocated. Given the current land use

patterns in Canterbury any expansion of livestock processing facilities is also likely to be modest and therefore will contribute little to the cumulative effect of groundwater abstraction.

149. ANZCO estimates that over the next 20 years the number of sheep processed will be largely stable with potential for a 30% increase in beef processing. This would equate to a requirement for approximately 355,000m³ annually of additional water at ANZCO's Seafield processing facility.
150. Policy 7.3.4(2) of the RPS requires that any further over allocation is avoided where the quantum of water allocated for abstraction from a water body is at or exceeds the maximum amount provided for in an environmental flow and water allocation regime.¹²
151. The explanation for this policy states that as pressure on water resources increases, the existing and likely future domestic and stockwater requirements will need to be accounted for when setting allocation limits.
152. If option b) is implemented, it would be appropriate to account for primary produce processing activities alongside likely future domestic and stockwater requirements when catchment specific allocation limits are set in the sub-regional chapters of the pLWRP. This would ensure consistency with Policy 7.3.4(2) of the RPS and further reduce the environmental risk of allocating water outside allocation limits in the interim.
153. The objectives and strategic policy of the pLWRP relevant to managing resources within allocation limits¹³ do not use language that would suggest further allocation should be prohibited. Instead the objectives use terms such as 'sustainable abstraction', 'continues to provide a sustainable source of high quality groundwater' and refer to maintaining, restoring or preserving values associated with water.
154. Policy 4.6 states *"Where a water quality or quantity limit is set in Sections 6-15, resource consents will generally not be granted if the granting would cause the limit to be breached or further over-allocation to occur."*

¹² Canterbury Regional Policy Statement, Canterbury Regional Council, pg 60, 2013.

¹³ Objectives 3.5, 3.6, 3.7, 3.8, 3.10, 3.11, 3.12, 3.22 and Policy 4.6.

155. This policy is consistent with the objectives by leaving the door open for activities that would cause an allocation limit to be breached but may have an acceptable level of environmental effects when assessed on a case by case basis. This policy provides support for providing a consenting option for water abstractions associated with livestock processing.

Policy Framework and Rule for Livestock Processing

156. The intention is not that the proposed exemption will allow water to be allocated to livestock processing as a permitted activity, but rather to provide a consenting option. As with community drinking water supplies, a restricted discretionary activity rule is proposed.
157. The Section 42A report appears to misinterpret ANZCO's submission in relation to this point. The report suggests ANZCO has requested a new rule providing for the take and use of water for livestock (drinking water) as opposed to livestock processing. This is not the case and consequently the officer's recommendation does not relate to ANZCO's submission.
158. ANZCO's proposed rule is:

"The taking and using of water for the processing of livestock from groundwater is a restricted discretionary activity provided the following condition is complied with:

1. *There is an operative Water Supply Strategy.*

The CRC will restrict discretion to the following matters:

1. *The reasonable demand for water, taking into account the size of the livestock processing operation and the potential growth in demand for water;*
2. *The effectiveness and efficiency of the distribution network;*
3. *The adequacy of the Water Supply Strategy;*
4. *The direct effect on other water takes, including reliability of supply;*
5. *Any beneficial effects from the use of the water; and*

6. *Compliance with any relevant Water Conservation Order.”*

159. The matters for discretion ensure that water is used efficiently and that any water allocated is reasonable. The requirement for a water supply strategy to be in place also will ensure that water use is limited as far as is practicable during times of water shortage.
160. It is my view that this rule should be supported by modifications to Policy 4.47 to indicate that further water can be allocated to livestock processing activities in areas where water allocation regimes are exceeded. Suggested wording is:

“Where the rate of take or volume of water consented for abstraction from a catchment exceeds the environmental flow and water allocation regime for surface water or stream depleting groundwater, or the groundwater allocation limit for that catchment, any further allocation of water is limited to:

- (a) *any abstraction necessary to meet community drinking, and stockwater and livestock processing requirements; and*
- (b) *the replacement of existing resource consents at the same or a lesser rate of take and the same or a lesser annual or seasonal volume, provided there are significant and enduring improvements in the efficiency of water use and reductions in any adverse effects”.*

161. As the contribution to cumulative effects associated with providing an exemption for livestock processing from complying with allocation limits are likely to be small, it provides a moderately effective method for achieving Objectives 3.5, 3.6, 3.7, 3.8, 3.10, 3.11, 3.12 and 3.22 of the pLWRP. This is achieved by making water available to support a wider variety of uses while having minimal impact on environmental values including, biodiversity values, and the health of ecosystems, natural character values, contact recreation and drinking water values.

Giving effect to the Freshwater NPS and RPS

162. A regional plan must give effect to any National Policy Statement and any Regional Policy Statement. Allocating water in small quantities to livestock

processing activities outside of set allocation limits may have a small contribution to cumulative abstraction effects. The matters for discretion proposed in the rule controlling these abstractions will ensure that these effects are minimised where practicable.

163. In addition, a vast majority of water abstraction will be controlled within allocation limits which will ensure the pLWRP continues to give effect to the Freshwater NPS and the RPS by safeguarding the life supporting capacity of freshwater and avoiding over allocation¹⁴ and sustainably managing freshwater resources to enable people and communities to provide for their economic and social wellbeing while protecting the intrinsic value of water bodies and their riparian zones¹⁵.

Conclusion on Alternatives to First in First Served Approach

164. After considering the approach put forward in the pLWRP and the alternative option of an exemption from allocation limit compliance for livestock processing activities, having considered the effectiveness and efficiency of the alternative and the risk of acting due to the uncertainty surrounding potential adverse effects, I consider that applying an exemption for livestock (and potentially other primary produce) processing from allocation limits is the most appropriate to achieve the objectives of the pLWRP and for the following reasons, in summary:

- a) Water for food processing is essential for realising the economic and social benefits associated with farming activities;
- b) There is a lag between expansion in the agricultural sector and demand for expansion of the processing sector which has led to water being captured largely by use for irrigation leaving processors to obtain water in an over allocated environment;
- c) The water required for livestock processing is small relative to the overall volume of water allocated to all users;

¹⁴ **Over-allocation** is the situation where the resource:

- a) has been allocated to users beyond a limit or
 - b) is being used to a point where a freshwater objective is no longer being met.
- This applies to both water quantity and quality.

National Policy Statement for Freshwater Management, 2011, Objectives B1 and B2.

¹⁵ Canterbury Regional Policy Statement, 2013, Objective 7.2.1 and 7.2.3

- d) Livestock processing is a significant contributor to the local, regional and national economy; and
- e) As demonstrated in the CMP Rakaia scenario, there is potential for further water to be allocated while avoiding, remedying or mitigating adverse effects.

Water Restrictions at Times of Water Scarcity

165. Livestock farmers rely on livestock processing capacity not only to convert their product into a saleable item but to provide an option during times of drought to avoid animal welfare issues.
166. Policy 4.46 is addressed at page 224 of the Section 42A report. The officer states:
- “...the Policy should only provide exemption for first priority uses as set out in other relevant statutory documents, and that other uses that depend on a reliable water supply should investigate alternative water supplies during times of restriction.”*
167. Providing an alternative water supply of the quality and at the quantities required for livestock processing during a period of high water demand is likely to be problematic. Trucking water to the site would be prohibitively expensive and access to surface water or scheme options would require the installation of significant water treatment infrastructure. This is also an inefficient approach given that groundwater provides a secure water source for a majority of the time.
168. Through Policy 4.46¹⁶, the pLWRP enables group or community drinking water supplies to continue to abstract water regardless of any minimum flow or water restriction provided the supply is managed to restrict the use of water during periods of water scarcity.
169. Extending this policy to include livestock processing facilities as exempt from water restrictions, will ensure that farmers can continue to de-stock during drought periods. Extended dry periods are often the busiest for

¹⁶ Policy 4.46 - Enable the taking of water for group or community drinking water supplies by not requiring compliance with any minimum or residual flow or partial restriction conditions and the environmental flow and allocation regime or groundwater allocation block, provided the water supply is managed to restrict the use of water from those supplies during periods of low flow or water levels.

livestock processors so maintaining a secure water supply is essential for avoiding animal welfare issues and loss of product that may be being processed at the time restrictions are put in place. This ensures that economic benefits attributed to farming continue to be realised even during adverse conditions.

170. Extending this policy is consistent with advice provided by Canterbury Regional Council officers to the Commissioners Panel for the NRRP hearings. This advice was that 'essential processing uses', be given priority access to water during times of restriction alongside essential domestic, essential animal drinking, essential institutional and fire fighting uses¹⁷.
171. Continuing to abstract water during times of restriction does have the potential to cause adverse environmental effects. As discussed previously, the amount of water abstracted for livestock processing is relatively small. Therefore the risk to the environment from allowing livestock processing activities to continue during periods of water restriction is relatively low.

Conclusion

172. While the pLWRP has made some significant improvements to the NRRP and provides support for some of ANZCO's activities, there are still a number of areas of concern.
173. The most significant issues are:
- a) the prohibited activity status for new water abstractions in over allocated zones;
 - b) restrictions to water abstractions during times of low water; and
 - c) the control of livestock processing discharges under rules that in my view are not the most appropriate for the type and purpose of the discharge.
174. The suggested amendments to the pLWRP to address these issues in my view will ensure that livestock processing activities will be able to help communities continue to realise the social and economic benefits from farming activities. They will also allow livestock processors to directly

¹⁷ Miller, M. and Veltman, A. Memorandum OR9 Water Supply During Restrictions.

contribute to the local, regional and national economy through the sustainable use of water resources.

T Ensor

4 February 2013

Attachment A

Section 32 Analysis for Exemption from Allocation Limits

Effectiveness

Objective	Assessment	Effectiveness
3.5	<p>Allowing exemptions to allocation limit compliance for livestock processing has the potential to impact outstanding water bodies, hapua and their margins by contributing to cumulative effects and lowering overall groundwater levels.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small.</p> <p>The majority of current livestock processing facilities in Canterbury are not located in the vicinity of outstanding water bodies which lessens the risk of adverse effects occurring.</p>	Moderate
3.6	<p>Allowing exemptions to allocation limit compliance for livestock processing has the potential to impact on the health of ecosystems in rivers by contributing to cumulative effects.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small.</p>	Moderate
3.7	<p>Allowing exemptions to allocation limit compliance for livestock processing has the potential to impact on the mauri of rivers and hapua by contributing to cumulative effects.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small.</p>	Moderate
3.8	<p>Allowing exemptions to allocation limit compliance for livestock processing has the potential to impact on the health of ecosystems in rivers by</p>	Moderate

	<p>contributing to cumulative effects.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small.</p>	
3.10	<p>Allowing exemptions to allocation limit compliance for livestock processing has the potential to impact on indigenous biodiversity values, mahinga kai values and natural processes of rivers by contributing to cumulative effects.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small.</p>	Moderate
3.11	<p>Allowing exemptions to allocation limit compliance for livestock processing ensures that water is not tied up by a few uses and is available to support a wider variety of economic and social activities.</p> <p>Water for livestock processing is also required to realise the full economic and social benefits to be gained from the use of water for agriculture.</p> <p>A majority of activities, and the main users of water, are controlled by allocation limits and the demand for water by livestock processing activities over and above the current allocation limit is likely to be small.</p> <p>Any contribution to cumulative effects is also likely to be small ensuring that water allocation remains sustainable.</p>	Moderate/High
3.12	<p>Allowing exemptions to allocation limit compliance for relatively small volumes of water will ensure that water is available for abstraction without compromising groundwater as a sustainable source of high quality water for flows and ecosystem health in surface waterbodies.</p>	Moderate
3.22	<p>The approach promotes water allocated to livestock processing activities outside of these limits when there is demand.</p> <p>However, a majority of water abstraction will be managed through limits and therefore community outcomes will be met.</p>	Low/Moderate
Overall effectiveness		Moderate

Benefits and costs

Benefits	Costs
<p>Environmental</p>	<p>Environmental</p> <p>As water will be allocated above what has been determined as a sustainable limit, there is potential for adverse environmental effects to occur.</p> <p>The extent of the effect on the environment is unknown as it is dependent on the volume of water used. Based on current usage this is likely to be low.</p>
<p>Economic</p> <p>Certainty is provided that the water will be available for use by livestock processing activities when demand arises regardless of allocation status. This will assist in making investment decisions.</p> <p>The approach avoids water being tied up by a single activity.</p> <p>Direct economic benefit can be derived from the processing of livestock.</p> <p>Increased economic benefit from the production of livestock can be realised through the availability of accessible processing facilities.</p>	<p>Economic</p> <p>Compliance costs will occur in the administration of allocating water above allocation limits.</p> <p>Costs to those activities that require water in over allocated areas but are not exempt from complying with allocation limits.</p> <p>Costs associated with the potential impact on water related values from a contribution to cumulative effects.</p>
<p>Social</p> <p>Social wellbeing will be derived from economic benefits achieved from the use of water for livestock processing.</p>	<p>Social</p> <p>Social wellbeing may be reduced due to associated adverse environmental effects.</p>

Efficiency

Considering the costs and benefits, I consider that the proposed exemption from allocation limits approach will be of moderate/high efficiency.

Uncertain Information

There is some risk of acting due to the uncertainty surrounding the level of environmental effect that may occur by allocating water to livestock processing above current allocation limits.

However, as the proposed approach does not provide for this allocation as a permitted activity the potential environmental effects will be considered on a case by case basis. Also, due to the predicted level of livestock processing expansion that may occur, the volume of water to be allocated over and above current allocation limits is likely to be small.

On this basis the risk of acting in light of this uncertainty is low.

Appropriateness

Having regard to the efficiency and effectiveness of the proposed provisions and taking into account the risk of acting in light of the uncertainty surrounding environmental costs, I consider that providing livestock processing activities with an alternative process for water required for processing activities is the most efficient method of achieving the objectives of the proposed Canterbury Land and Water Regional Plan.