

**From:** [Justine Ashley](#)  
**To:** [Mailroom Mailbox](#)  
**Subject:** Submission on proposed Canterbury Air Regional Plan  
**Date:** Friday, 1 May 2015 12:20:10 p.m.  
**Attachments:** [pCARP Fonterra Submissions.pdf](#)

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Dear Sir/Madam,

Please find the attached submission on the proposed Canterbury Air Regional Plan on behalf of Fonterra Co-operative Group Limited.

It would be appreciated if you could please acknowledge receipt of this email.

Kind regards,  
Justine.



**Justine Ashley - Director**

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## FONTERRA SUBMISSION ON THE PROPOSED CANTERBURY AIR REGIONAL PLAN

**To:** Environment Canterbury  
**Submitter** **Fonterra Co-operative Group Limited**  
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I wish to be heard in support of this submission.

I confirm that I am authorised on behalf of Fonterra Co-Operative Group Ltd to make this submission.

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### 1. OVERVIEW

- 1.1 Environment Canterbury ("ECan") has prepared the proposed Canterbury Air Regional Plan ("pCARP") to provide a statutory framework for managing human influences on air quality so that air quality in Canterbury is maintained or enhanced to protect the community's health and wellbeing.
- 1.2 Fonterra Co-operative Group Limited ("Fonterra") generally supports the direction of the pCARP subject to the amendments which are outlined in this submission.
- 1.3 In this submission we have provided:
  - A brief overview of Fonterra's operations and activities in the Canterbury Region, including those of our farmer suppliers (Section 2);
  - General submissions on the pCARP (Section 3); and
  - Specific submission points on the pCARP, including relief requested (Section 4).

## 2. BACKGROUND

- 2.1 Fonterra is a global, co-operatively owned company with its roots firmly planted in New Zealand. Our 10,500 New Zealand farmer shareholders produce some 16 billion litres of the 22 billion litres of milk we collect and process annually as the world's largest processor of dairy products.
- 2.2 Fonterra's South Island manufacturing operations process 40 percent of New Zealand's total milk supply.
- 2.3 In the Canterbury Region, Fonterra has five manufacturing sites: Kaikoura, Culverden, Darfield, Clandeboye and Studholme. Collectively, these sites process over 20 million litres of milk per day during the peak of the dairy season, and produce over 2,650,000 tonnes of product each year for export. An overview of their key operations is provided in Table 1 below.

**Table 1: Fonterra's Operations in Canterbury**

Site	Operations	Typical Milk Volume Processed (litres/day)	Staff Employed	Air Discharge Permits
<b>Kaikoura</b>	Cheese	240,000	21	Operations, boiler, wastewater Irrigation & whey application
<b>Culverden</b>	Reverse Osmosis (RO) Milk	~900,000	N/A – employed via Clandeboye	Wastewater irrigation and boiler air discharge
<b>Darfield</b>	Milk Powder	6.5 million	200	Wastewater irrigation plus boiler/processing/waste oil burner handling air discharge
<b>Clandeboye</b>	Milk Powder, butter, AMF, Cheese and Protein.	12.4 million	825	Wastewater irrigation plus boiler/processing/solid waste/waste oil burner handling air discharge
<b>Studholme</b>	Milk Powder	840,000	48	Wastewater treatment, wastewater irrigation and /boilers/processing air discharge

- 2.4 Two of Fonterra's three largest South Island sites are located in Canterbury (Clandeboye and Darfield), and accordingly their activities and operations are considered to be nationally significant, particularly in terms of employment and economic returns. Directly, Clandeboye and Darfield employ 1,025 staff. Approximately 70 people are employed at the Kaikoura and Studholme sites.
- 2.5 In late 2014, Fonterra announced plans to expand its Studholme Site to include two new milk powder dryers and drystore. This development, which is a significant investment, will occur over the next 10 years and will create an estimated additional 250 jobs in the South Canterbury community.
- 2.6 As a consequence of the substantial investment Fonterra has made in the Canterbury Region, the potential implications of the notified pCARP is of significant interest to Fonterra, particularly as all manufacturing sites hold discharge to air permits. Notwithstanding the need for Fonterra to

re-consent existing air discharge consents and/or apply for new consents to expand existing operations, it appears that the ability to establish a new manufacturing site (i.e. equivalent to Darfield) could be thwarted by the pCARP as it currently stands.

- 2.7 In this regard, the requirement in the pCARP to (for example) maintain certain air quality at the relevant site boundary (despite the absence of any sensitive receptor or gazetted air shed) will generally not be able to be met in practice. In particular, while the Darfield manufacturing site has been able to secure a reasonable buffer of land around it (with a total land holding of 680ha), sensitive activities are increasingly encroaching upon and limiting the potential for further development. Depending on how the pCARP provisions are administered, the expansion of an existing, or establishment of a new greenfield, manufacturing site on a diminished land area outside any Clean Air Zone may attract a prohibited activity status (under Rule 7.18). Denying any opportunity to apply for a consent, regardless of environmental effects or consideration of the economic or social benefits such a facility would provide to the region is inappropriate and unnecessarily onerous.
- 2.8 The implications of a prohibited activity (or even a non-complying) status have not been sufficiently justified within the Section 32 evaluation, and Fonterra's concerns have been raised consistently with ECan since mid-2014. This has included meetings with ECan staff on 30 September 2014, 10 December 2014, 27 January 2015 and 12 February 2015, along with comments on the Draft and Schedule 1 versions of the Draft pCARP. While several significant issues were resolved during this consultation phase, there are a number of matters that have not been addressed in the notified pCARP. Fonterra respectfully notes its view that this is as a result of a misunderstanding of the actual application of the proposed plan provisions rather than a conscious decision by the Council Officers to severely (and unnecessarily) fetter aspects of industrial development throughout Canterbury.

### **Fonterra Suppliers in the Canterbury Region**

- 2.9 There are approximately 1,000 Fonterra shareholder farmers in the Canterbury region producing high quality milk for the manufacture of dairy products for New Zealanders and for international markets.
- 2.10 Currently this region produces 19.3 percent of Fonterra's total volume of milk produced within New Zealand. This region is second only to the Waikato region which produces 22.8 percent of Fonterra's New Zealand milk.

## **3. GENERAL SUBMISSIONS**

- 3.1 Fonterra generally supports the pCARP, subject to the amendments which are outlined in this submission. At the outset, Fonterra does however question the need for ECan to replace Chapter 3 of the Natural Resources Regional Plan (NRRP), given that the 'Air Plan Review – discussion document for consultation' (dated June 2014) states that the current Air Plan manages industrial and large scale emissions "quite well"<sup>1</sup>.
- 3.2 This section contains general comments on the pCARP, covering:
- The structure and tone of the Regional Plan;

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<sup>1</sup> 'Air Plan Review – discussion document for consultation' (June 2014), page 5-1

- The need to give effect to the Canterbury Regional Policy Statement (“RPS”);
- The lack of recognition of significant industrial and trade premises;
- The use of the Ministry for the Environment’s Ambient Air Quality Guidelines; and
- Insufficient justification within the Section 32 Evaluation.

### **General Submission Point 1: Structure and tone of the pCARP**

- 3.3 Fonterra is concerned that some of the policies and associated rules in the pCARP will create internal inconsistencies with respect to outcomes that the proposed Plan seeks to achieve and will fail to achieve sustainable management of the air resource. In particular, the directive language used within policy framework means that there is little, if any, scope to consider the merits of a proposal that may not have the ability to ‘avoid’ all adverse effects, but is otherwise capable of mitigating or remedying such effects. It is further noted that while all objectives and policies are intended to apply as a comprehensive suite, there is a lack of integration within the provisions that compromises the ability to achieve each of the policy outcomes sought, unless some sort of hierarchy is intended. It is also difficult to envisage how such an approach enables the overall balancing of Part 2 matters, which is necessary to achieve the purpose of the RMA.
- 3.4 As a consequence of the use of absolute terms within the overarching policies, the associated rule package places a heavy reliance on non-complying and prohibited activity rule statuses to satisfy specific policy directions. While it is clear that no application can be made for a prohibited activity, the pCARP states that consents for non-complying activities will generally only be granted in “exceptional circumstances”<sup>2</sup>. Fonterra is therefore concerned that any proposal for a new air discharge or the re-consenting of an existing air discharge that attracts either of these activity statuses may compromise its ability to establish and/or operate manufacturing sites within the Canterbury region.
- 3.5 It is further noted that any non-complying activity is entitled to be considered on its merits to establish, firstly, whether it satisfies the s104D threshold test, and secondly, whether it is appropriate to grant consent following a consideration of all relevant matters under s104. It is therefore inappropriate for the pCARP to include an additional qualifier of ‘exceptional circumstances’, particularly in light of Fonterra’s concerns raised above regarding overly stringent policies and the inability to balance any remedial or positive effects. It is also difficult to rationalise this approach given that the pCARP states that it seeks to provide for industrial and trade premises, and monitoring data indicates that industrial contributions to elevated PM<sub>10</sub> concentrations within polluted airsheds are unlikely to be significant relative to emissions from other sectors (refer to specific Submission Point 1 in Section 4). Justification is further diluted with respect to industrial emissions in rural areas outside Clean Air Zones, as referred to later in this submission.

#### *Relief Requested*

- 3.6 That the specific amendments itemised as Submission No’s 1, 7, 17, 19, 20, 23 & 28 within the table contained in Section 4 be accepted.

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<sup>2</sup> Proposed Canterbury Air Regional Plan, 3 How the Plan Works, page 3-2

## **General Submission Point 2: The need to give effect to the Canterbury Regional Policy Statement**

- 3.7 The CARP is required to “give effect” to the operative Regional Policy Statement (RPS), which includes Chapter 14 – Air Quality, in accordance with s.67(3)(c) RMA. Fonterra is therefore concerned that the pCARP only briefly mentions the overarching provisions of Chapter 14 of the RPS, and does not clearly describe how the pCARP gives effect to these objectives and policies.
- 3.8 The absence of this strategic policy direction has, in Fonterra’s view, led to a blending of issues in the pCARP and a series of confusing and inappropriate outcomes that could have a significant impact on all Fonterra manufacturing sites.

### *Ambient versus localised air quality*

- 3.9 In particular, it is recognised that the RPS makes a clear distinction between ambient (Objective 14.2.1, Policy 14.3.1) and localised air quality effects (Objective 14.2.2, Policy 14.3.3), which is not reflected within the pCARP. There are no references to the differences between ambient and localised air quality effects and the pCARP provisions likewise draw no distinction and are applied uniformly regardless of effect. For ease of reference, the relevant RPS provisions are noted below:

#### Objective 14.2.1 — Maintain or improve ambient air quality

*Maintain or improve ambient air quality so that it is not a danger to people’s health and safety, and reduce the nuisance effects of low ambient air quality.*

#### Objective 14.2.2 — localised adverse effects of discharges on air quality

*Enable the discharges of contaminants into air provided there are no significant localised adverse effects on social, cultural and amenity values, flora and fauna, and other natural and physical resources.*

#### Policy 14.3.1 – Maintain and improve ambient air quality

*In relation to ambient air quality:*

- (1) To set standards to maintain ambient air quality in Canterbury based on concentrations of contaminants that cause adverse health effects and nuisance effects.*
- (2) Where existing ambient air quality is higher than required by the standards set, to only allow the discharge of contaminants into air where the adverse effects of the discharge on ambient air quality are minor.*
- (3) To give priority to ensuring that PM10 ambient air quality improvements are achieved in Rangiora, Kaiapoi, Christchurch, Ashburton, Timaru, Geraldine and Waimate.*

#### Policy 14.3.3 — Avoid, remedy or mitigate localised adverse effects on air quality

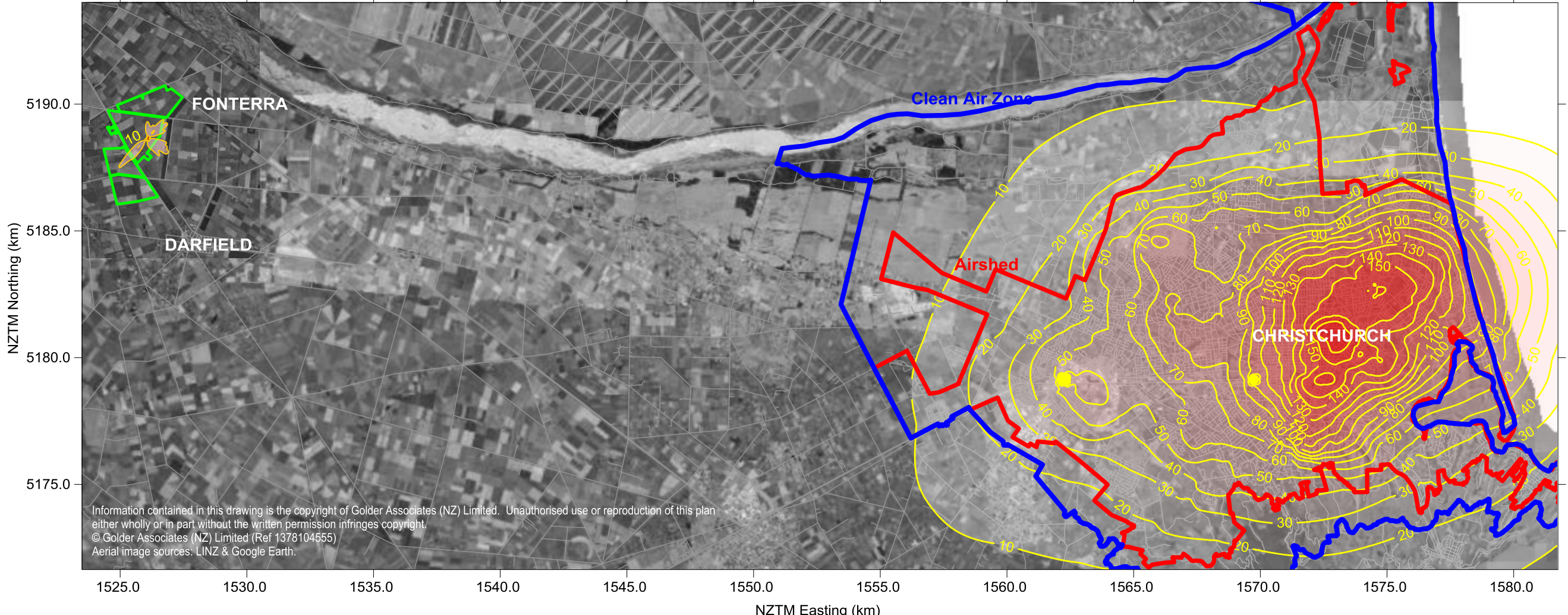
*To set standards, conditions and terms for discharges of contaminants into the air to avoid, remedy or mitigate localised adverse effects on air quality.*

- 3.10 All five of Fonterra’s manufacturing sites are located in relatively isolated rural areas featuring very low population densities and few, if any, adjacent sensitive activities. These characteristics subsequently inform the appropriateness of the air discharge, employment of the best practicable option, resultant air quality modelling, and overall assessment of the appropriateness of site location. The uniform approach of the pCARP fails to recognise this variation in the nature of the receiving environment and the key issue that while Fonterra’s discharges may have localised effects on air quality within their rural locality they do not influence ambient air quality within the wider airshed (comprising all of the rural areas of the region outside of the gazetted urban

airsheds). In particular, Fonterra's discharges have nil or negligible impact on polluted urban airsheds and Clean Air Zones, which appear to be the basis for the relevant pCARP provisions.

- 3.11 The proposed uniform approach may therefore have a potentially significant impact on Fonterra's operations while having minimal corresponding benefits to ambient air quality. As currently drafted, it is unclear how this uniform approach is to be implemented, particularly in terms of requiring individual discharges to be assessed in the context of the wider airshed (polluted or otherwise) . Fonterra therefore requests that the distinction between localised and airshed air quality (as illustrated in the diagram overleaf) is brought through to the pCARP.



Localised impacts of individual discharges	Ambient air quality
<p><b>Features:</b></p> <ul style="list-style-type: none"> <li>• Air quality impacts result from an individual or low number of emission sources.</li> <li>• Impacts occur within relatively small geographical area surrounding the discharge(s), with rapidly diminishing impacts with distance from the discharge(s).</li> <li>• Due to the low area of exposure (and potentially low population densities as in Fonterra's case) localised impacts generally result in relatively low population exposure.</li> <li>• The localised air quality impacts of individual sources generally feature larger discrepancies between short-term peak concentrations and long term average concentrations.</li> </ul>	<p><b>Features:</b></p> <ul style="list-style-type: none"> <li>• Air quality impacts result from cumulative impacts of numerous and widespread emission sources.</li> <li>• Wide geographical area of impact and large (community to regional-scale) population exposure.</li> <li>• Often associated with urban areas featuring high densities of both population and emission sources.</li> <li>• May be impacted by individual discharges if the impacts of the discharge are widespread and result in large population exposure.</li> <li>• Due to the impacts of a variety of emission sources, ambient air quality generally features smaller discrepancies between short-term peak concentrations and long term average concentrations.</li> </ul>
<p align="center"><b>Example: Localised impact of Fonterra Darfield PM<sub>10</sub> emissions compared with ambient air quality impacts of PM<sub>10</sub> emissions in the Christchurch Airshed</b></p>  <p>Information contained in this drawing is the copyright of Golder Associates (NZ) Limited. Unauthorised use or reproduction of this plan either wholly or in part without the written permission infringes copyright.  © Golder Associates (NZ) Limited (Ref 1378104555)  Aerial image sources: LINZ &amp; Google Earth.</p>	
<p><b>Localised impacts: Predicted maximum 24-hour average PM<sub>10</sub> ground level concentrations - Fonterra Darfield emissions, excluding background</b></p> <ul style="list-style-type: none"> <li>• Impacts limited to within a localised area surrounding Fonterra site.</li> <li>• Impacts rapidly diminish with distance from emission sources.</li> <li>• Low population exposure to low contaminant concentrations (~16 people exposed to increases in 24-hour average concentrations of greater than 3 µg/m<sup>3</sup>)*.</li> <li>• Nil impact on PM<sub>10</sub> concentrations within a polluted airshed.</li> </ul> <p><b>Note:</b> Darfield contours represent 3 µg/m<sup>3</sup> concentration increments (ranging from 3 µg/m<sup>3</sup> – 18 µg/m<sup>3</sup>). Green lines indicate Fonterra site boundary.</p> <p><b>Source:</b> Adapted from Figure 5 from 'Golder 2014. Assessment of Effects on the Environment - Fonterra Darfield Stage 2 - Revised Discharge of Contaminants into Air. Report prepared for Fonterra Co-operative Group Limited by Golder Associates Limited.' Golder reference 1378104555.</p> <p>* Population exposure estimate based on 6 households within 3 µg/m<sup>3</sup> contour and the 2013 census average for local census area units of 2.62 persons per household.</p>	<p><b>Ambient air quality impact: Predicted distribution of maximum 24-hour average PM<sub>10</sub> concentrations in the Christchurch airshed (all airshed emission sources included) - 2001 meteorology, emissions based on 2006 Christchurch emission inventory</b></p> <ul style="list-style-type: none"> <li>• Widespread impact of numerous emission sources (principally domestic solid fuel combustion discharges).</li> <li>• Large scale population exposure to elevated contaminant concentrations (~350,000 people exposed to 24-hour average PM<sub>10</sub> concentrations of greater than 30 µg/m<sup>3</sup>).</li> <li>• Impacts have resulted in "polluted" airshed status.</li> </ul> <p><b>Note:</b> Christchurch contours represent 10 µg/m<sup>3</sup> concentration increments (ranging from 10 µg/m<sup>3</sup> – 170 µg/m<sup>3</sup>).</p> <p><b>Source:</b> Adapted from Figure 12 of 'Statement of Evidence of Roger Cudmore 26 September 2008. Prepared on behalf of the Canterbury Regional Council with respect to the Environment Court appeals relating to the proposed rules of the proposed Natural Resources Regional Plan for controlling domestic fire emissions. Golder reference 08713117.</p>



### *Reverse Sensitivity*

- 3.12 The RPS also provides a clear framework for addressing reverse sensitivity effects and this has not been reflected within the pCARP. To this extent, it is considered that while Policies 6.6, 6.7, 6.8 and 6.19 appear to recognise that reverse sensitivity effects can arise as a result of incompatible land use patterns, the provisions fail to protect the existing activity discharging to air (as sought by Policy 14.3.5 of the RPS). For instance, Policy 6.7 potentially seeks relocation of existing discharges subjected to reverse sensitivity effects without having regard to existing investment at the current location or to the potential adverse effects of relocation. For ease of reference, Policy 14.3.5 of the RPS states:

*Policy 14.3.5 – Relationship between discharges to air and sensitive land-uses*

*In relation to the proximity of discharges to air and sensitive land-uses:*

- (1) To avoid encroachment of new development on existing activities discharging to air where the new development is sensitive to those discharges, unless any reverse sensitivity effects of the new development can be avoided or mitigated.*
- (2) Existing activities that require resource consents to discharge contaminants into air, particularly where reverse sensitivity is an issue, are to adopt the best practicable option to prevent or minimise any actual or likely adverse effect on the environment.*
- (3) New activities which require resource consents to discharge contaminants into air are to locate away from sensitive land uses and receiving environments unless adverse effects of the discharge can be avoided or mitigated.*

- 3.13 Fonterra considers that any potential for relocation is unacceptable as the economic costs associated with the loss of existing investment and the practicality of physically moving a large manufacturing site to another location would be prohibitive. This position also fails to take into account the multitude of other factors that Fonterra needs to consider for determining a suitable location for a new manufacturing site or other related facilities. In particular, the efficient operation of dairy manufacturing facilities is often dependent upon the site being in reasonable proximity to its product source (i.e. milk supply); having good access to strategic freight networks, including rail; having access to a secure and reliable water supply; having sufficient (and suitable) land available for the discharge of condensate water; and being in close proximity to an adequate labour resource. Other flow-on effects arising from a possible relocation include the social impact on employees and increased transport costs where any alternative site is located further from the raw milk resource.
- 3.14 It also needs to be recognised that the consent holder of a discharge to air permit has little control over the activities that locate beyond its property boundary. Such discharging activities can only locate in a zone that provides for its type of activity and therefore, it must rely on the territorial authority to protect that zone in the future from reverse sensitivity effects through appropriate land use planning decisions. The RPS also defers to district plans to protect established activities discharging contaminants to air from reverse sensitivity effects resulting from encroachment by sensitive land-uses.
- 3.15 Overall, it is considered that the pCARP fails to accurately apply recognised reverse sensitivity principles and instead appears to focus on outstanding legacy issues within the Christchurch Airshed as a basis for addressing reverse sensitivity across the region. There is also a lack of explanatory text within the pCARP to assist in the understanding of how each of Policies 6.6, 6.7, 6.8 and 6.19 are intended to be implemented, either individually or collectively. Notwithstanding that Fonterra considers that reverse sensitivity matters are more appropriately dealt with through district plan provisions (as directed by the RPS), it is requested that the relevant reverse sensitivity

provisions within the notified pCARP are amended to more accurately reflect the way in which the RPS addresses reverse sensitivity effects.

*Relief Requested*

- 3.16 That the specific amendments itemised as Submission No's 2, 3, 4, 8, 10, 11, 12, 15, 16 & 21 within the table contained in Section 4 be accepted.

**General Submission Point 3: The lack of recognition of significant industrial premises**

- 3.17 The pCARP recognises the contribution that nationally and regionally significant infrastructure make to the economic, cultural and social wellbeing of communities. However, the applicability of these provisions is constrained by the definition of 'regionally significant infrastructure' in the RPS, which does not extend to include significant industrial premises, such as Fonterra's manufacturing plants.
- 3.18 On the basis that any change to this definition is beyond the scope of the pCARP, it is appropriate that the level of investment and community benefits derived from regionally significant industrial premises, as well as their protection from reverse sensitivity effects, are recognised in the same way as those transport and service industries listed within the RPS definition. Such amendments will assist in balancing positive and adverse environmental effects when assessing a proposed air discharge from such industry, which is currently absent within the proposed policy framework. The economic contribution that Fonterra's manufacturing sites make to the Canterbury region also needs to be recognised in this context.

*Relief Requested*

- 3.19 That the specific amendments itemised as Submission No 18 within the table contained in Section 4 be accepted.

**General Submission Point 4: The use of the Ministry for the Environment's Ambient Air Quality Guidelines (2002)**

- 3.20 The pCARP refers to the 2002 Ambient Air Quality Guidelines (AAQG) published by the Ministry for the Environment ("MfE") on which the more recently promulgated National Environmental Standards for Air Quality ("NESAQ") were based. Fonterra supports the reference to the AAQG in preference to adoption of different regional air quality assessment criteria but has significant concerns about the proposed application of the AAQG.
- 3.21 Policy 6.21 and Rule 7.18 seek to avoid/prohibit (respectively) industrial and large scale combustion discharges to air that will likely result in exceedances of the AAQG. It is also noted that the use of the term 'avoid' within the policy framework may have the effect of prohibiting the specified activity due to the strength of language used and the absence of balancing policies.
- 3.22 The AAQG states that these guideline levels were not developed with the intention of being used for assessing discharges from individual sources, rather they are intended to be used as an assessment tool as part of wider airshed management, as evident by the following text<sup>3</sup>:

*As was stated in the 1994 Guidelines, the ambient guideline values are not designed to be used to assess the environmental and health impacts of individual discharges to air as required by the RMA, or a regional or*

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<sup>3</sup> Ministry for the Environment's Ambient Air Quality Guidelines (2002), Section 3.7, pages 40

*district plan. Individual discharges include point, area or line sources from activities such as industries, roads and sewage-treatment plants.*

...

*...it is useful to briefly look at how the ambient guideline values should **not** be used to assess individual discharges, and to highlight key issues that must be taken into account in assessing the environmental impacts of individual discharges through the resource consent and plan processes.*

- 3.23 Examples of how the guidelines **should not** be applied include not taking into account the sensitivity of the receiving environment or considering background concentrations and potential cumulative effects; and that the AAQG should only be used as part of a full assessment of environmental effects<sup>4</sup>. As such, Fonterra is concerned that the use of AAQG as 'bottom lines' within the pCARP is inappropriate and not supported by the AAQG itself.
- 3.24 Additionally, Policy 6.21 and Rule 7.18 would effectively prohibit all industrial and large scale combustion discharges (including existing discharges) in areas/airsheds where contaminant concentrations already exceed AAQG levels (e.g. all of the polluted airsheds in Canterbury), regardless of the effects of the individual discharge.
- 3.25 Policy 6.2 requires that adverse effects on air quality are minimised where ambient air quality monitoring data is between 66% and 100% of AAQG levels. The air quality alert category of 66% described in the AAQG document is intended to be used to assess ambient air quality measurements and to identify from those measurements where policy direction may be required to curb upward trends in ambient air quality monitoring data. It is not intended to be used to assess individual discharges yet this is not made clear in Policy 6.2 (or associated Policy 6.3).
- 3.26 Fonterra is concerned that 66% of AAQG levels may be used as "pass/fail" criteria for the assessment of individual discharges. This is not the intention of the AAQG and would not be a representative indicator of adverse effects. Both Policies 6.2 and 6.3 should clearly refer only to measured ambient air quality monitoring data.

#### *Relief Requested*

- 3.27 That the specific amendments itemised as Submission No's 9, 11, 12, 13, 23, 24, 26, 28 & 33 within the table contained in Section 4 be accepted.

### **General Submission Point 5: Section 32 Report**

- 3.28 Overall, Fonterra is concerned that there is a lack of recognition of the potential impacts that the pCARP provisions may have on Fonterra's existing (and potential future) manufacturing sites within the Section 32 evaluation. While dairy processing plants in rural areas are identified within the Section 32 report as being 'appropriate', there is a lack of justification for the 'management' that is deemed necessary outside of polluted airsheds "to ensure that new polluted airsheds are not created". It is also noted that while the Section 32 report includes numerous references to the requirement for the pCARP to give effect to the RPS, the only apparent discussion of issues raised in the RPS is in respect to reverse sensitivity, not in terms of the distinction made between ambient and localised air quality. Furthermore, it is not considered that the pCARP provisions give effect to the RPS reverse sensitivity provisions.

#### *Relief Requested*

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<sup>4</sup> Ministry for the Environment's Ambient Air Quality Guidelines (2002), Section 3.7, pages 41

- 3.29 That the specific amendments itemised as Submission No's 9 & 28 within the table contained in Section 4 be accepted.

#### **4. SPECIFIC SUBMISSION POINTS**

- 4.1 Specific submission points are addressed in the table below.

#### **5. OVERALL CONCLUSION**

- 5.1 In relation to the provisions that Fonterra has raised concerns about, those provisions require amendment because, without amendment, those provisions:
- will not promote sustainable management of resources, will not achieve the purpose of the RMA;
  - are contrary to Part 2 and other provisions of the RMA;
  - will not enable the social and economic well-being of the community;
  - will not meet the reasonably foreseeable needs of future generations;
  - will not achieve integrated management of the effects of the use, development or protection of land and associated resources of the Canterbury region;
  - will not enable the efficient use and development of Fonterra's assets and operation, and of those resources; and
  - do not represent the most appropriate means of exercising the Council's functions, having regard to the efficiency and effectiveness of the provisions relative to other means.
- 5.2 Fonterra does wish to be heard in support of this submission.
- 5.3 If others make a similar submission, Fonterra will consider presenting a joint case with them at the hearing.

Dated: 1 May 2015



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**Brigid Buckley**

National Policy and Planning Manager  
Fonterra Co-operative Group Limited

## SPECIFIC SUBMISSIONS

1. Suggested relief to address concerns in this submission is set out below. However, there may be other methods or relief that are able to address Fonterra's concerns and the suggested revisions do not limit the generality of the reasons for Fonterra's submission or the relief sought.
2. Fonterra also seeks any consequential relief or alternative relief to Fonterra's satisfaction to address its concerns.

#	Page No.	Provision	Support / Oppose	Comments	Relief Sought
1	1-3	1 – Introduction, Industrial and large scale discharges of contaminants	Oppose	<p>The pCARP states on page 1-3 in relation to “<i>measured PM<sub>10</sub> in polluted airsheds</i>” that “<i>monitoring data indicate that industrial sources contribute 7% - 17%</i>”. The pCARP also states on page 1-3 that “<i>Industry, contributes a significant proportion of the contaminants into our air</i>”. Fonterra has concerns in relation to the accuracy of each of these statements.</p> <p>The source apportionment studies referred to on page 1-3 do not specifically identify industrial contributions to measured PM<sub>10</sub> concentrations. The stated percentage contributions from industrial sources instead appear to be generally consistent with estimates of particulate emissions derived from airshed emission inventory studies. Emissions do not equate with measured particulate concentrations, for reasons acknowledged in by ECan in pCARP supporting documents<sup>5</sup> and for other reasons such as relatively enhanced dispersion of industrial emissions compared to other source types. Fonterra therefore considers that the contribution of industrial emissions to elevated PM<sub>10</sub> concentrations measured in polluted airsheds is overstated at page 1-3 and that the contribution of those emissions to contaminant levels in general does not equate to “<i>a significant proportion</i>”.</p>	<p>Amend “Sources of contaminants” by deleting the second paragraph:  <del><b>Sources of PM<sub>10</sub> in Canterbury cities and towns are identified and monitored through the use of emission inventories that are maintained by the CRC, and filter-based source apportionment methods(3). It is estimated that 65% to 90% of measured PM<sub>10</sub> in polluted airsheds comes from burning wood and coal on domestic fuel burning equipment, including open fires and enclosed burners. Monitoring data indicate that industrial sources contribute 7% - 17% and motor vehicles contribute 3% - 16% of total PM<sub>10</sub> concentrations in the polluted airsheds.</b></del></p> <p>Amend “Industrial and large scale discharges of contaminants” by deleting the first sentence:  <del><b>Industry, including the service industry, contributes a significant proportion of the contaminants into our air, including odour and dust, particularly in urban areas.</b></del></p>

<sup>5</sup> ECan. 2014. “Air quality status report Christchurch airshed”. Section 5.4.4.

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2	1-3	1 – Introduction, Industrial and large scale discharges of contaminants	Oppose	It is considered appropriate that the pCARP recognises that while industry may impact on localised air quality, the air discharge may not necessarily impact on ambient air quality, particularly in the case of Fonterra's manufacturing sites which are located in rural areas.	Amend the sentence so as to read:  The RMA prohibits discharges into air from industrial and trade premises unless the NESAQ, a rule in a regional plan or a resource consent expressly allows the discharge. To ensure these activities can take place, the Air Plan must provide rules that enable them. <b><u>It is also recognised that while industry may impact on localised air quality, the discharge may not necessarily impact on ambient air quality, particularly where located outside polluted airsheds.</u></b>
3	1-6 – 1-7	1 – Introduction, The statutory planning framework	Oppose	<p>The discussion of the relevant RPS provisions fails to identify that the RPS distinguishes between localised and ambient air quality effects and provides a clear framework for managing reverse sensitivity effects. Those RPS provisions of particular relevance in this regard include:</p> <p><u>Objective 14.2.1 — Maintain or improve ambient air quality</u></p> <p><i>Maintain or improve ambient air quality so that it is not a danger to people's health and safety, and reduce the nuisance effects of low ambient air quality.</i></p> <p><u>Objective 14.2.2 — localised adverse effects of discharges on air quality</u></p> <p><i>Enable the discharges of contaminants into air provided there are no significant localised adverse effects on social, cultural and amenity values, flora and fauna, and other natural and physical resources.</i></p> <p><u>Policy 14.3.1 – Maintain and improve ambient air quality</u></p> <p><i>In relation to ambient air quality:</i></p> <p><i>(1) To set standards to maintain ambient air quality in Canterbury based on concentrations of contaminants</i></p>	<p>Amend the last bullet point so as to read:</p> <ul style="list-style-type: none"> <li>Setting a framework for the management of PM<sub>10</sub> and other contaminants discharged into air <b><u>that recognises both localised and ambient air quality impacts in ensuring that</u></b> <del>ensures</del> air quality is maintained or improved across the Region, and sensitive and discharging activities are protected from each other, <b><u>including the avoidance of reverse sensitivity effects on existing activities discharging to air.</u></b></li> </ul>



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				<p><i>that cause adverse health effects and nuisance effects.</i></p> <p><i>(2) Where existing ambient air quality is higher than required by the standards set, to only allow the discharge of contaminants into air where the adverse effects of the discharge on ambient air quality are minor.</i></p> <p><i>(3) To give priority to ensuring that PM10 ambient air quality improvements are achieved in Rangiora, Kaiapoi, Christchurch, Ashburton, Timaru, Geraldine and Waimate.</i></p> <p><u>Policy 14.3.3 — Avoid, remedy or mitigate localised adverse effects on air quality</u></p> <p><i>To set standards, conditions and terms for discharges of contaminants into the air to avoid, remedy or mitigate localised adverse effects on air quality.</i></p>	
4	2-1	2 – Definitions and Interpretation, new definition of “Ambient air quality” definition	Oppose	<p>Fonterra is concerned that the pCARP makes no reference to ambient air quality and does not give effect to the RPS (refer Submission Point 3 above). Fonterra considers that a definition of ambient air quality is required to clarify those pCARP provisions that Fonterra proposes to amend in order to address ambient air quality issues.</p>	<p>Insert the following definition:</p> <p><b><u>Ambient air quality -</u></b></p> <p><b><u>Means the quality of air outside of buildings or structures where people are likely to be exposed to the contaminants. It does not include indoor air, air in the workplace, contaminated air being discharged from a source, or air that is enclosed or sheltered in a way which makes it untypical of the air in the surrounding area. Ambient conditions are those not modified by specific/individual sources.</u></b></p>
5	2-1	2 – Definitions and Interpretation, “Best practicable option”	Support	<p>Fonterra supports the use of “best practicable option” in preference to “best practice” as this better aligns with the approach codified in the RMA.</p>	<p>Retain definition of “best practicable option”.</p>
6	2-3	2 – Definitions and Interpretation, “Industrial or trade premises”	Oppose	<p>The exclusion “<i>but does not include any production land</i>” applies to all clauses (a) – (c) in the RMA definition. This should be made equally clear in the</p>	<p>Amend the definition of “Industrial or trade premises” to accurately reflect the RMA definition:</p> <p><b><u>Industrial or trade premises means—</u></b></p>

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				<p>pCARP definition (which attaches the exclusion to clause (c) only.</p> <p>This appears to be a typographical error.</p>	<p><u>(a) Any premises used for any industrial or trade purposes; or</u></p> <p><u>(b) Any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials; or</u></p> <p><u>(c) Any other premises from which a contaminant is discharged in connection with any industrial or trade process—</u></p> <p><u>but does not include any production land.</u></p>
7	3-2	3 – How the Plan Works, Rules	Oppose	<p>In addressing matters of plan integrity, a non-complying activity must first be considered under the s104D threshold test (adverse effects are no more than minor or proposal is consistent with objectives and policies), and if it passes this test then the decision-maker is required to consider all relevant matters under s104. It is therefore inappropriate for the pCARP to include an additional qualifier of 'exceptional circumstances' in order to address plan integrity matters, which will otherwise be assessed under s104.</p>	<p>Amend the description of non-complying activities by deleting the following text:</p> <p><del>“...Consents for non-complying activities will generally only be granted in exceptional circumstances.”</del></p>
8	5-1	5 – Objectives 5.1 – 5.5	Oppose in part	<p>The RPS recognises the differences between ambient air quality and localised effects of individual discharges to air (Objectives 14.2.1 and 14.2.2 and associated policies).</p> <p>The RPS also recognises the importance of industries to the social and economic wellbeing of the community and that the associated discharges to air should be enabled provided localised adverse effects are avoided, remedied or mitigated (refer Objective 14.2.2).</p> <p>Contrary to the direction provided by the RPS, the pCARP objectives provide no equivalent recognition and do not seek to enable discharges to air.</p>	<p>Insert a new Objectives 5.10 as follows:</p> <p><b><u>Manage localised air quality effects of individual discharges while recognising that individual discharges may have effects on ambient air quality.</u></b></p>

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				A new objective is therefore sought to give effect to the RPS.	
9	5-1	5 – Objectives, Objective 5.8	Support	<p>Fonterra supports the recognition of differing air quality expectations for different locations.</p> <p>The S32 Report confuses “air quality” for “air quality amenity” when describing the expectations for air quality in residential areas as excellent (in reality amenity is high but particulate air quality is degraded in those areas). The application of AAQG as region-wide “bottom lines” as indicated in s32 conflicts with this objective.</p> <p>Nevertheless, it is considered that this objective serves to recognise that an assessment of air discharges from large-scale industrial activities requires consideration of the sensitivity of the local environment, including separation to any sensitive receptors. Fonterra supports this approach.</p>	Retain Objective 5.8.
10	5-1	5 – Objectives, Objective 5.9	Oppose in part	<p>While it is considered that reverse sensitivity is more appropriately managed through district plans, as identified in the Methods to Policy 14.3.5 of the RPS, Fonterra recognises that the intent of this objective is to manage conflict between discharges to air and sensitive land uses.</p> <p>The objective should however apply to discharges to air from the establishment of <u>new</u> activities only, as otherwise it could be applied retrospectively in situations where reverse sensitivity effects have arisen (which is compounded by proposed Policy 6.7).</p> <p>Fonterra has also requested the deletion of proposed Policies 6.6 and 6.7 and the insertion of replacement policies to reflect the outcomes sought by RPS Policy 14.3.5. It is anticipated that these policies will be primarily implemented by territorial authorities and through an assessment of the sensitivity of the receiving</p>	<p>Amend Objective 5.9 so as to read:</p> <p><b><u>Discharges to air from new Activities</u></b> are spatially located so that they result in appropriate air quality outcomes being achieved both at present and in the future.</p>

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				environment as part of achieving the best practicable option.	
11	6-1	6 – Policies, Policy 6.2	Oppose	<p>Fonterra is concerned that the lack of distinction between localised and ambient air quality could have a significant impact on the operation of its manufacturing sites if the broad-brush approach of the pCARP is applied without proper consideration of environmental effects.</p> <p>It is also considered necessary for the pCARP to distinguish between localised and ambient air quality effects in order to give effect to the RPS, as set out in General Submission Point 2.</p>	<p>Amend Policy 6.2 so as to read:</p> <p>Manage adverse effects on <b>ambient</b> air quality where <b>ambient monitoring results indicate</b> concentrations of contaminants are between 66% and 100% of the guideline values set out in the Ambient Air Quality Guidelines 2002 Update, so that <b>ambient</b> air quality does not exceed 100% of those guideline values.</p>
12	6-1	6 – Policies, Policy 6.3	Oppose	Refer to Submission Point 11 above.	<p>Amend Policy 6.3 so as to read:</p> <p>Where <b>ambient monitoring results indicate</b> concentrations of contaminants exceed 100% of guideline values set out in the Ambient Air Quality Guidelines 2002 Update, action is taken to improve air quality.</p>
13	6-1	6 – Policies, Policy 6.4	Support in part	<p>The potential for adverse health effects of the PM<sub>2.5</sub> fraction of ambient particulate is recognised in health research, however the extent of knowledge of both ambient PM<sub>2.5</sub> air quality and emissions of PM<sub>2.5</sub> in Canterbury is limited relative to that relating to PM<sub>10</sub>. In light of this and the absence of full AAQG or NESAQ standards for ambient PM<sub>2.5</sub> concentrations, Fonterra generally supports the approach to adopt the 2030 target to reduce urban ambient PM<sub>2.5</sub> concentrations to below the AAQG reporting guideline for 24-hour average PM<sub>10</sub> concentrations in urban areas, although it is unclear whether the target is achievable.</p> <p>Fonterra does however support the reference to “while providing for industrial growth” in this policy, as well as the policy’s applicability to Clean Air Zones only.</p>	Retain Policy 6.4.

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14	6-1	6 – Policies, Policy 6.5	Oppose in part	While the avoidance of offensive/objectionable effects is considered appropriate, Policy 6.5 displays a misunderstanding of the application of FIDOL, which should be to the observance of odour rather than the odour discharge itself. Reference to Schedule 2 in amended Policy 2 is in accordance with the amendments sought in Submission Point 31.	Amend Policy 6.5 so as to read:  <b><u>Avoid discharges into air that are assessed as causing offensive or objectionable effects in accordance with Schedule 2.</u></b>  <del>Offensive and objectionable effects are unacceptable and the frequency, intensity, duration, offensiveness and location of discharges into air must be identified and managed.</del>
15	6-1	6 – Policies, Policies 6.6 and 6.7	Oppose	Fonterra recognises that the intent of these policies is to manage conflict between land use activities, but it is considered that reverse sensitivity is more appropriately managed through district plans, as identified in the Methods to Policy 14.3.5 of the RPS. Fonterra does however request that new Policies 6.6 and 6.7 are inserted to reflect the outcomes sought by RPS Policy 14.3.5, while acknowledging that these policies will be primarily implemented by territorial authorities and through an assessment of the sensitivity of the receiving environment as part of achieving the best practicable option.  It is also noted that Policy 6.6 is ambiguous and can be interpreted in a number of different ways, rendering the intent of the policy meaningless.	Delete Policies 6.6 and 6.7 and insert new policies so as to read:  <b><u>6.6 Existing activities that discharge to air, including the re-consenting or expansion thereof, are to adopt the best practicable option to prevent or minimise any actual or likely adverse effect on the environment, so as to reduce the potential for reverse sensitivity effects.</u></b>  <b><u>6.7 New activities that discharge to air are to locate away from sensitive land uses and receiving environments unless adverse effects of the discharge can be avoided or mitigated.</u></b>
16	6-1	6 – Policies, Policy 6.8	Oppose	Policy 6.8 is considered both unnecessary and unhelpful in clarifying the pCARP's approach to addressing reverse sensitivity. In particular, it is noted that all existing dischargers are likely to have 'located appropriately' prior to any reverse sensitivity effect occurring – this is the exact nature of a reverse sensitivity effect. It is further considered that any reference to longer consent duration should be linked to the potential effects of the discharge, rather than reverse sensitivity (being an effect on the discharger that occurs after it is established). Any 'on-going	Delete Policy 6.8 and insert a new Policy 6.8 so as to read:  <b><u>Provide longer consent durations for the discharge of contaminants into air where the sensitivity of the receiving environment, the level of investment made in the activity and the ability to minimise adverse effects on air quality achieves sustainable management.</u></b>

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				operational certainty' could also be undone by proposed Policy 6.7.  Overall, it is considered that the wording of Policy 6.8 should be amended to better reflect those matters that are required to be considered when determining consent duration in the context of achieving sustainable management, as set out in Section 1.3.5 of Chapter 1 of the NRRP.	
17	6-1	6 – Policies, Policy 6.10	Oppose in part	Fonterra supports the general intent of the policy to apply the 'best practicable option', however it is considered that the insertion of the text "at least" within this policy creates uncertainty as to additional measures that may or may not be required.	Amend Policy 6.10 so as to read:  All activities that discharge into air apply, <del>at least</del> , the best practicable option so that cumulative effects are minimised.
18	6-1	6 – Policies, Policy 6.11	Oppose in part	Fonterra seeks to amend Policy 6.11 so as to also recognise and protect existing large-scale industrial and trade activities in the same way that applies to nationally and regionally significant infrastructure. Such amendments are considered necessary to ensure an appropriate balance when considering all environmental effects of a proposed air discharge from an existing large-scale manufacturing site.	Amend Policy 6.11 so as to read:  Recognise the contribution of nationally and regionally significant infrastructure <u>and large-scale industrial and trade activities</u> to the regional and national economy and provide for the operation and development of that infrastructure.
19	6-1	6 – Policies, Policy 6.12	Support in part	Fonterra supports Policy 6.12 on the basis that it enables flexible timeframes for the development and investment in new technology where it is necessary to improve the quality of the discharge. In particular, it is noted that this approach would be beneficial where new technology is either not available or cost-prohibitive but where advances in technology may enable it implementation over the life of the consent.	Amend Policy 6.12 so as to read:  Recognise that there is likely to be improvement in the management of the discharges of contaminants into air <u>to manage adverse effects</u> over the life of resource consents and consider this for new and replacement consents.
20	6-2	6 – Policies, Policy 6.14	Oppose	Policy 6.14 is considered unnecessary in light of other methods proposed by the pCARP. A precautionary approach should not be used to over-ride assessments that are otherwise required, given that there will always be some level of uncertainty in assessing air quality.	Delete Policy 6.14.



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				Furthermore if Policy 6.14 is adopted, a precautionary approach should only be required where there is both a potential significant adverse effect on the environment and an uncertainty in relation to that effect to avoid its application to trivial or minor matters.	
21	6-2	6 – Policies, Policy 6.19	Support	Fonterra supports the general intent of Policy 6.19, which enables an assessment of the sensitivity of the receiving environment in determining the context of adverse air quality effects.	Retain Policy 6.19.
22	6-2	6 – Policies, Policy 6.20	Support	Fonterra supports the use of “best practicable option” in preference to “best practice” as this better aligns with the approach codified in the RMA.	Retain Policy 6.20.
23	6-2	6 – Policies, Policy 6.21	Oppose in part	It is considered that the use of the term ‘avoid’ within Policy 6.21 infers prohibition, which is an inappropriate application of the AAQG, particularly as it relates to localised air discharges. The AAQG specifically states that any exceedance of the 100% guideline values is intended to trigger a more detailed assessment of potential adverse effects, including an assessment of the sensitivity of the receiving environment and the degree of population exposure to the discharge.	Amend Policy 6.21 so as to read: <b><u>Manage any localised adverse effects from Avoid</u></b> the discharge of contaminants into air from any large scale burning device or industry or trade premise, where the discharge will result in the exceedance, or exacerbation of an existing exceedance, of <b><u>100% of</u></b> the guideline values set out in the Ambient Air Quality Guidelines 2002 Update.
24	6-2	6 – Policies, Policy 6.22	Oppose in part	Policy 6.22 seeks to apply mandatory PM10 emission offsetting requirements of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (NESAQ) but with significant and problematic modifications.  Regulation 17 applies those mandatory requirements within airsheds gazetted under the NESAQ in which measured ambient PM10 concentration meet the definition of “polluted”.  Policy 6.22 (along with Rule 7.14) seeks to apply the mandatory requirements specified in the NESAQ but to Clean Air Zones (CAZs) specified in the pCARP. CAZs are larger than the NESAQ airsheds. Additionally, no	Delete Policy 6.22 and amend NESAQ gazetted airsheds to match increased urban areas, as required.

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				<p>reference is made in Policy 6.22 to whether the Clean Air Zones are “polluted”.</p> <p>As a result, Policy 6.22 introduces inconsistencies with the NESAQ to which it refers and Fonterra is concerned that this will lead to inconsistencies and uncertainty in the application of both the NESAQ and pCARP provisions.</p> <p>Fonterra recognises that there may be instances where urban area growth may mean currently gazetted airsheds do not encompass all urban areas. However it is noted that ECan has the ability to amend the NESAQ airsheds with the approval of the Minister for the Environment (as it has sought to do with the new Washdyke Airshed). Fonterra considers that this would more efficiently and effectively address this issue than adoption of Policy 6.22.</p> <p>Fonterra notes that the enlarged pCARP CAZs (such as the Waimate CAZ) include areas that are currently rural in nature and unlikely to feature urban growth over the life of the plan. Fonterra is concerned that the combined enlargement of CAZs and adoption of Policy 6.22 and Rule 7.17 will apply restrictions on discharges where they will not effectively manage an environmental effect.</p>	
25	7-1	7 – Rules, Rule 7.3	Support in part	Fonterra supports the use of FIDOL framework for assessing offensive or objectionable odour. However, as described in Submission Point 31, important modifications to Schedule 2 are required in order for the pCARP description of the FIDOL factors to be consistent with established definitions.	Retain Rule 7.3 and amend Schedule 2 pages 8-6 to 8-18 as requested in Submission Point 31.
26	7-4	7 – Rules, Rule 7.14		<p>As stated in relation to Policy 6.22, Rule 7.14 introduces inconsistencies with the NESAQ to which the rule refers.</p> <p>Fonterra considers that the apparent intent of Rule 7.14 would be more effectively and efficiently achieved by</p>	<p>Delete Rule 7.14 and amend NESAQ gazetted airsheds to match increased urban areas, as required.</p> <p>As alternative relief amend Rule 7.14 so as to read:</p>

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				<p>amendments to the airsheds gazetted under the NESAQ as spatial growth of urban areas requires and should be deleted.</p> <p>As an alternative in the event that Rule 7.14 is not deleted, it should be amended to be consistent with the NESAQ to which it refers.</p>	<p>Within a <del>Clean Air Zone</del> <b><u>polluted airshed as defined under Regulation 17 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004</u></b>, the discharge of PM<sub>10</sub> into air from a large scale burning device, where concentrations of PM<sub>10</sub> will likely equal or exceed 2.5µg/m<sup>3</sup> at ground level at or beyond the boundary of the property of origin, is a restricted discretionary activity provided the following condition is met:</p> <p>1. 100% of the discharge will be off-set within the <del>gazetted</del> <b><u>polluted</u></b> airshed in accordance with Regulation 17 of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004.</p> <p>The exercise of discretion is restricted to the following matters:</p> <p>1. The proposal to off-set 100% of the emissions within the <del>gazetted</del> <b><u>polluted</u></b> airshed to ensure that there is no net increase of PM<sub>10</sub> emissions; and</p> <p>2. The matters set out in rule 7.2.</p>
27	7-4	7 – Rules, Rules 7.15 and 7.16	Support in part	<p>Fonterra supports the application of differing restrictions to Clean Air Zones and the areas falling outside of those zones (subject to the Clean Air Zones being redefined as sought in Submission Numbers 26 and 33).</p> <p>However, Rule 7.15 and 7.16 refer to emissions concentrations as emission rates and Fonterra considers the rules require correction in this respect.</p>	<p>Amend Rules 7.15 and 7.16 so as to read:</p> <p>7.15 Within a Clean Air Zone the discharge into air of PM<sub>10</sub> <del>of a concentration at a rate</del> exceeding 250mg/m<sup>3</sup> air, when tested in accordance with schedule 6 and adjusted to 0° Celsius, dry gas basis, 101.3 kilopascals, and 8% oxygen or 12% carbon dioxide is a non-complying activity.</p> <p>7.16 Outside a Clean Air Zone, the discharge into air of PM<sub>10</sub> <del>of a concentration at a rate</del> exceeding 250mg/m<sup>3</sup> air, when tested in accordance with schedule 6 and adjusted to 0° Celsius, dry gas basis, 101.3 kilopascals, and 8% oxygen or 12% carbon dioxide is a discretionary activity.</p>

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28	7-4	7 – Rules, Rule 7.17, 7.18	Oppose	<p>Fonterra does not support the use of the MfE AAQGs in the pCARP given that Rules 7.17 and 7.18 seek to prohibit activities on the basis of predicted exceedance of the AAQG, which is contrary to the intent and purpose of the AAQG. As outlined in General Submission Point 4, the AAQG document is clear that AAQG are not intended to be applied to the consideration of individual discharges to air in the first instance and are not intended as pass/fail criteria for those discharges.</p> <p>Rule 7.18 explicitly prohibits certain discharges, and the combination of the non-complying activity status of discharges under Rule 7.17 and Policy 6.21 may effectively prohibit those discharges under s104D, particularly in light of the ‘exceptional circumstances’ phrase used in the context of the approval of a non-complying activity.</p> <p>Fonterra considers the explicit or implied prohibition of discharges under Rule 7.17 and 7.18 is inconsistent with the underlying document on which they rely. Amendments are therefore sought to enable a full assessment of potential effects of the discharges to be undertaken, taking account of background air quality, the sensitivity of the receiving environment and population exposure.</p> <p>Rules 7.17 and 7.18 differentiate between discharges outside CAZs established before and after notification of the pCARP. Fonterra considers that this distinction is irrelevant to environmental effects and that all discharges outside of CAZs should be considered under Rule 7.17.</p> <p>Furthermore Rules 7.17 and 7.18 do not specify the locations where the guidelines are to be applied. In order to apply the guidelines as intended by MfE Fonterra considers this would be achieved through</p>	<p>Amend Rule 7.17 so as to read:</p> <p>The discharge of contaminants into air from a large scale solid fuel burning device or from an industrial or trade premise <del>established prior to 28 February 2015</del>, outside a Clean Air Zone, that will likely result in <u>ambient air quality exceeding</u> guideline values, set out in the Ambient Air Quality Guidelines 2002 Update, <del>being exceeded</del> is a <del>non-complying</del> <u>discretionary</u> activity.</p> <p>Amend Rule 7.18 so as to read:</p> <p>The discharge of contaminants into air from a large scale fuel burning device or from an industrial or trade premise <del>established either:</del> inside a Clean Air Zone; <del>or outside a Clean Air Zone after 28 February 2015</del>, that will likely result in <u>ambient air quality exceeding</u> guideline values, set out in the Ambient Air Quality Guidelines 2002 Update, <del>being exceeded</del> is a <del>prohibited</del> <u>non-complying</u> activity.</p>

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				specific reference to ambient air quality in the rules and adoption of the definition of ambient air quality requested above (submission point 4).	
29	7-5 to 7-8	<p>7 – Rules, 7.20 – 7.27</p> <p>Conditions relating to height of buildings within 25m</p> <p>7.19(3)</p> <p>7.20(4)</p> <p>7.21(5)</p> <p>7.22(6)</p> <p>Conditions relating to ground elevation variation</p> <p>7.20(5)</p> <p>7.21(5)</p> <p>7.22(6)</p> <p>Minimum stack height conditions</p> <p>7.19(5)</p> <p>7.20(7)</p> <p>7.21(8)</p> <p>7.22(9)</p>	Oppose in part	<p>In relation to conditions relating to height of buildings within 25m (7.19(3), 7.20(4), 7.21(5), 7.22(6)), the presence of buildings of a certain height may be irrelevant to environmental effects depending on the height of the discharge. Fonterra considers that requirements relating to the degree of clearance of discharges above adjacent buildings (such as those specified in of condition 7.19(5)) would more effectively manage the building downwash/eddy effects on discharges. Additional the use of “anticipated” in the conditions is uncertain.</p> <p>The conditions relating to ground elevation variation (7.20(5), 7.21(5), 7.22(6)) do not manage environmental effects as there is unlikely to be any adverse effect resulting from variation in elevation of 0.5 m within 25 m of the discharge. This is especially so if the ground level in the area is lower than the ground level elevation of the stack. Fonterra considers it would be more appropriate to make the minimum stack height conditions 7.19(5), 7.20(7), 7.21(8), 7.22(9) relate to ground level within 25m.</p>	<p>Delete conditions 7.19(3), 7.20(4), 7.21(5), 7.22(6) and amend conditions 7.19(5), 7.20(7), 7.21(8), 7.22(9) to specify the following for each minimum emission stack height:</p> <p><b><u>“X m above ground level within 25 m and 3 m above any building, land or structure within 25 m of the emission stack”</u></b></p>
30	7-10	7.28	Oppose in part	Odour may be generated from combustion governed under 7.19 – 7.26. Fonterra considers the exclusion of activities permitted or prohibited under Rules 7.29-7.59 should also extend to Rules 7.19-7.27.	<p>Amend Rule 7.28 so as to read:</p> <p>“... except where otherwise permitted or prohibited by rules <b><u>7.19 to 7.27</u></b> and 7.29 to 7.59<del>below</del>.”</p>

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31	8-6	Schedule 2 - Criteria for assessing offensive or objectionable odour	Oppose in Part	<p>Fonterra supports the use of FIDOL factors as a framework for determining whether observed odour is offensive or objectionable.</p> <p>Fonterra considers the provision of a definition of this FIDOL framework would be appropriate if it matches other established definitions, such as that published by MfE in relation to odour management<sup>6</sup>. The definition provided in schedule 2 includes significant deviations from that, specifically:</p> <ul style="list-style-type: none"> <li>• The character of the odour only relates to the offensiveness factor and not to the intensity, which relates only to strength.</li> <li>• In relation to the location factor, for a determination of offensive and objectionable odour for the purposes of compliance or enforcement investigations, the location of odour observance and the sensitivity of the environment can only be determined as it exists, rather than for what is provided for under district plans.</li> </ul> <p>Fonterra considers these deviations from established FIDOL definitions will cause confusion in application and should be made consistent with the established definitions.</p> <p>Schedule 2 subsequently provides a description of odour assessment tools that it purports are used to determine whether a discharge of odour is causing objectionable or offensive effects.</p> <p>This description appears to be based section 4 of the MfE Odour GPG, which describes odour assessment tools for a range of purposes including the assessment of resource consent applications as well as for complaint and enforcement investigation.</p>	<p>Amend Schedule 2 p8-6 to 8-18 so as to read:</p> <p>The Canterbury Regional Council, for the purposes of assessing compliance with permitted activity conditions, resource consent conditions, or sections 17(3)(a), 314(1)(a)(ii) or 322(1)(a)(ii) of the RMA, will have regard to the following matters when determining whether or not a discharge of odour from an activity is likely to, or has caused “offensive or objectionable” effects beyond the property boundary:</p> <ol style="list-style-type: none"> <li>1. the frequency of odour events; and</li> <li>2. the intensity of events, as indicated by the degree of strength, <del>but taking account of character or quality;</del></li> <li>3. the duration of each odour event; and</li> <li>4. the offensiveness of the discharge, having regard to the character of the odour; including reference to the “hedonic tone”; and</li> <li>5. the location of the odour, having regard to the sensitivity of the receiving environment, <del>including taking into account the relevant zone(s) and provisions in the relevant District Plan.</del></li> </ol> <p><del>Assessment will be based on the combined impact of items 1 to 5 above, determined from some or all of the following applicable information which outlines a range of assessment tools, situations where they are best applied and specific details regarding their implementation.</del></p> <p>In the event that an assessment determines that a discharge has caused an "offensive or objectionable" effect beyond the property boundary, a copy of the written assessment containing that determination will be</p>

<sup>6</sup> MfE. 2003. “Good Practice Guide for Assessing and Managing Odour in New Zealand”. Table 2.1



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				<p>Schedule 2 confuses tools used for the assessment of resource consent applications for tools used for the enforcement purposes of Schedule 2.</p> <p>Assessments for enforcement purposes are required to be of an evidential standard, which many of the tools do not meet.</p> <p>For instance community odour annoyance surveys are useful for consent application assessments to assess the general level of community annoyance but do not provide specific verifiable information in relation to a specific odour incident that may be used in enforcement action related to that incident.</p> <p>Furthermore, an assessment of whether the best practicable option is being employed (as referred to in the schedule) may be relevant to a consent authority decision on whether to pursue enforcement action over an odour incident but has no relevance to determining whether an offensive or objectionable effect has occurred.</p> <p>MfE has signalled that its Odour GPG is to be updated in 2015.</p> <p>In light of the inconsistencies in the description of odour assessments tool available and the forthcoming updates to relevant MfE good practice guides, Fonterra considers it more appropriate that Schedule 2 does not provide specific details in relation to odour assessment tools for assessing offensive or objectionable odour <i>for the purposes of assessing compliance with permitted activity conditions, resource consent conditions, or sections 17(3)(a), 314(1)(a)(ii) or 322(1)(a)(ii) of the RMA.</i></p>	<p>provided to the emitter if this would result in the discharge no longer being permitted by the Plan.</p> <p>The New Zealand Ministry for the Environment report Good Practice Guide for Assessing &amp; Managing Odour in New Zealand, (June 2003, ISBN:0-478-24090-2) suggests a national approach to assessing and managing offensive odours and contains recommendations, based on expert advice, of good practice for the assessment and management of odour. Table 4.1 of the Good Practice Guide provides specific procedural advice to council officers undertaking odour complaint investigations.</p> <p><b>List of tools...[DELETE REMAINING TEXT to p8-18]</b></p>
32	8-29	Schedule 6: Testing for particulate matter in exhaust gases - Combustion sources	Oppose in part	For <i>Combustion sources having a net energy output of more than 2MW within a Clean Air Zone or 5MW outside a Clean Air Zone</i> , Schedule 6 requires the testing of condensable particulate matter emissions	Amend Schedule 6 so as to read:

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		having a net energy output of more than 2MW within a Clean Air Zone or 5MW outside a Clean Air Zone		<p>(using USEPA Method 202 or an equivalent method) as well as the testing of filterable particulate matter emissions that has traditionally been used in New Zealand. However, the USEPA has acknowledged that there are deficiencies in Method 202 that may result in positive bias and overstate condensable particulate emissions<sup>7</sup>.</p> <p>Given that the specified method has unresolved deficiencies and has been applied relatively infrequently to date in New Zealand, Fonterra considers the specification of condensable particulate emission measurements to be inappropriate and that the methods specified for <i>Combustion sources having a net energy output of less than or equal to 2MW within a Clean Air Zone or 5MW outside a Clean Air Zone</i> should be specified for all combustion sources.</p>	<p>Combustion sources <del>having a net energy output of less than or equal to 2MW within a Clean Air Zone or 5MW outside a Clean Air Zone</del></p> <p>As a minimum requirement the particulate sampling must comply with either ISO9096:2003(E), ASTM D3685M-98, AS 4323.2-1995, USEPA Method 5, USEPA Method 17 or a current equivalent method that complies with the fundamental sampling requirements of ISO9096:2003(E). Where this methodology is used alone, it will be assumed for compliance purposes that all particulate matter is PM<sub>10</sub>. In circumstances where additional size specific sampling is necessary to demonstrate compliance with PM<sub>10</sub> emission limits in the Plan, the particulate sampling must comply with USEPA.</p> <p>Method 201 or USEPA Method 201A or a current equivalent method that complies with the fundamental sampling requirements of that method.</p> <p><u><b>Combustion sources having a net energy output of more than 2MW within a Clean Air Zone or 5MW outside a Clean Air Zone</b></u></p> <p><u><b>For these larger combustion sources both filterable and condensable particulate matter are to be measured. As a minimum requirement the filterable particulate sampling must comply with either ISO9096:2003(E), ASTM D3685M-98, AS 4323.2-1995, USEPA Method 5, USEPA Method 17 or a current equivalent method that complies with the fundamental sampling requirements of ISO9096:2003(E). Where this methodology is used alone it will be assumed for compliance purposes that all filterable particulate matter discharged is PM<sub>10</sub>. In circumstances where additional sizes</b></u></p>

<sup>7</sup> US EPA Office of Air Quality Planning and Standards "Interim Guidance for the Treatment of Condensable Particulate Matter Test Results in the Prevention of Significant Deterioration and Nonattainment New Source Review Permitting Programmes". Memorandum to US EPA Regional Air Division Directors, 8 April 2014 (<http://www.epa.gov/ttnemc01/methods/psdnsrinterimcpmemo4814.pdf>).

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					<u>specific sampling is necessary to demonstrate compliance with PM10 emission limits in the Plan, the filterable particulate sampling must comply with USEPA Method 201 or USEPA Method 201A or a current equivalent method that complies with the fundamental sampling requirements of that method. The condensable particulate sampling must comply with USEPA Method 202 or a current equivalent method that complies with the fundamental sampling requirements of that method. The test results should specify total particulate matter as the sum of filterable and condensable components. ...</u>
33	All maps	12 General Map Series	Oppose	<p>The CAZs identified in Map Series 12 largely coincide with the Type 2 Clean Air Zones of the NRRP with the inclusion of CAZs for Timaru and Waimate.</p> <p>The pCARP applies significant new restrictions to discharges in CAZs to those currently applied to Type 2 Clean Air Zones under the NRRP. Specifically, the pCARP applies restrictions that are intended to manage air quality in polluted urban environments, such as Policy 6.22 and Rule 7.14.</p> <p>Each of the pCARP CAZs includes large tracts of rural land that features both low population densities and low densities of discharges to air. Air quality in these rural CAZ areas is unlikely to be degraded except in close proximity to localised discharges.</p> <p>The application of the pCARP CAZ provisions to areas which are rural in nature will not effectively manage urban air pollution issues for which they are intended to address and may unnecessarily restrict discharges within those rural CAZ environments.</p> <p>To address this issue Fonterra seeks the modification of the CAZs to correctly reflect urban areas where provisions such as Policy 6.22 and Rule 7.14 are more likely to be relevant. .</p>	Amend Map series 12 to restrict the clean air zones to areas encompassing existing urban areas and additional areas currently zoned for urban land use under operative district plans.

Submission ends.