

BEFORE THE CANTERBURY REGIONAL COUNCIL HEARINGS PANEL

In the matter of the Proposed Canterbury Regional Air Plan

Between Environment Canterbury

And Synlait Milk Limited

STATEMENT OF EVIDENCE OF TIM ENSOR

18 September 2015

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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 a Principal Planner with AECOM Consulting Services (NZ) Limited (**AECOM**) and have been employed by the company and its predecessor, URS New Zealand Limited, for approximately nine years. Prior to starting with AECOM 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 and providing expert planning evidence at plan and consent hearings. Many of these projects have included an air discharge component including highways construction for the NZ Transport Agency, quarry operations for Fulton Hogan Limited and the Canterbury Aggregate Producers Group, and meat processing operations for ANZCO Foods Limited.
- 5 I have been asked by Synlait Milk Limited (**Synlait**) to provide evidence in relation to its submission to the proposed Canterbury Air Regional Plan (**Air Plan**). I was not involved in the preparation of the submission.
- 6 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. 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.
- 7 In preparing my evidence I have reviewed:
 - a. the submission prepared by Synlait to the Air Plan;
 - b. the s32 Evaluation;
 - c. the s42A report;
 - d. the evidence of Ms Harwood;
 - e. the evidence of Laura Hull;

- f. the evidence of Neil Betteridge;
- g. the National Environmental Standard for Air Quality (**NES**);
- h. the Canterbury Regional Policy Statement (**RPS**); and
- i. the proposed Canterbury Air Regional Plan (Air Plan).

Scope of evidence

- 8 I have been asked to present planning evidence on behalf of Synlait. My evidence focuses on:
- a. How the Air Plan recognises differing air quality expectations throughout the region;
 - b. The Air Plan's reliance on the Ambient Air Quality Guidelines (AAQG) as a consent trigger;
 - c. The best practicable option;
 - d. Consent renewals; and
 - e. Legacy air quality issues and reverse sensitivity.
- 9 Attached to this evidence is a version of the provisions within the Air Plan subject to Synlait's submission with tracked changes outlining the amendments suggested in this evidence (Annexure A).

Differing air quality expectations

- 10 Objective 5.8 of the Air Plan is to recognise that air quality expectations differ depending on location and the characteristics of the environment. Synlait supported this objective through its submission and I agree that such an objective is important given the wide range of activities and receiving environments across the region.
- 11 I also agree with Synlait's submission where it identifies that the Objective and Policy approach throughout the remainder of the plan does not provide strong direction to achieve this objective. The Central Policies of the Air Plan make very little mention of spatial variation except to state that discharges should occur in appropriate locations based on surrounding land use patterns¹ or should relocate². In addition the s32 evaluation of Objective 5.8 fails in my opinion to consider the assimilative capacity of the environment alongside natural environment and land use

¹ Policy 6.8 and 6.19

² Policy 6.7

drivers when considering expectations around air quality.³ Consequently the overwhelming focus of the policies applying to industrial and large scale discharges to air is on addressing effects regardless of location through ambient air quality limits based largely on the Ambient Air Quality Guidelines 2002 Update (**AAQG**)⁴.

- 12 My opinion is that this lack of recognition fails to implement Objective 5.8 and creates a one size fits all planning framework that, based on the evidence of Ms Harwood, then relies on a method that may result in inconsistent or even perverse outcomes.
- 13 The evidence of Ms Harwood highlights that the air quality within the rural airshed where Synlait is located will vary considerably depending on local influences. This is in contrast to urban airsheds where the concentration of activities is much more likely to give rise to a cumulative effect on air quality making the effects of individual discharges more difficult to establish. The RPS recognises this variance through separate Objectives and Policies for addressing effects on ambient⁵ and localised⁶ air quality.
- 14 Based on the greater expected variances in air quality within rural areas, my view is that the Air Plan should focus on managing localised air quality effects within rural areas (outside of any clean air zone) and cumulative air quality effects with urban areas (inside a clean air zone) to better give effect to the RPS. As identified in the s42A report, this will involve new or amended policies and rules to better recognise the differences.⁷

Reliance on the Ambient Air Quality Guidelines

- 15 The evidence of Ms Harwood explains that contaminant dispersion modelling would be required to establish compliance with the AAQG. Ms Harwood also outlines the inherent uncertainties that exist with this modelling and concludes that it is therefore inappropriate to rely on the AAQG as the sole basis for determining activity status or whether or not a resource consent should be granted.
- 16 As well as the technical uncertainties associated with the method, my opinion is that undertaking potentially complex modelling in order to determine the status of an activity is excessively onerous. The Air Plan needs to contain a relatively straight forward set of criteria that can be applied by a resource consent applicant to determine whether consent is required and the status of the activity they are applying for. Based on this an applicant can gain a realistic expectation as to the size of the consenting hurdle.

³ Proposed Canterbury Air Regional Plan Section 32 Report, pg 4-9.

⁴ For example Policies 6.2, 6.3, 6.4.

⁵ Objective 14.2.1 and policy 14.3.1

⁶ Objective 14.2.2 and policy 14.3.3

⁷ Proposed Canterbury Air Regional Plan Section 42A Report, pg 13-6

17 In her evidence Ms Harwood also states that the contaminant of most concern within the region is PM₁₀. The Air Plan contains emission standards for PM₁₀ with clear guidance as to when consent is required and the status of the activity. The AAQG are therefore not necessary to define the consenting requirements for discharges of PM₁₀.

18 On this basis, and considering my view that relying heavily on the AAQG does not adequately consider receiving environment variations, my opinion is that the rules relating to industrial, trade and large scale discharges should be amended to remove reliance on the AAQG. This is consistent with Section 3.7 of the AAQG which outlines how the guidelines should not be used. Of particular relevance is the following:

a. *"In general, guideline values:*

[...]

Should not be applied without taking into account the sensitivity of the receiving environment.

*Should only be used as part of a full assessment of environmental effects as required under the RMA."*⁸

19 This suggests that applying the guidelines across the whole region without considering spatial variations in receiving environment is inappropriate; and that relying on the guidelines as a tool for determining activity status separate from a full assessment of environmental effects is also inappropriate.

20 My view is that reference to the AAQG could remain in the plan within the central policies through an amended Policy 6.2 and 6.3. These Policies would set a general intention for managing air quality and indicate situations where Canterbury Regional Council (CRC) will either undertake further work, or will apply additional scrutiny to consent applications. To achieve this, Policy 6.2 needs to be broadened to focus on the management of effects, as opposed to minimisation, where contaminant concentrations are between 66% and 100% of the AAQG values.

21 Based on the evidence of Ms Harwood reference to exceedances of 100% of the guideline values should also be removed. Policies with this absolute focus inevitably lead to the policy becoming a rule (as has occurred in the notified Air Plan). Given the issues raised by Ms Harwood with determining compliance from a technical standpoint, and the significant burden that this compliance would pose at a pre-consent lodgement stage, my opinion is that including this threshold is inappropriate.

⁸ Ambient Air Quality Guidelines 2002 Update, Pg 41.

- 22 To help acknowledge the variation in receiving environments within the region, my view is that Policy 6.3 should be amended to apply only to clean air zones. Discharges outside of a clean air zone are addressed through specific activity policies such as Policy 6.19 and through Policies requiring the application of BPO (Policy 2.20 and 6.21 as amended by this evidence) that better recognise the potential variation in air quality due to local influences. Managing discharges in a way that is appropriate given the circumstances is a key part of ensuring that Objectives 5.1 to 5.5 are achieved.
- 23 By implementing Policy 6.2 and 6.3 as notified, Rules 7.17 and 7.18 also inappropriately rely on the AAQG. The Air Plan contains specific emission standards for PM₁₀ which provides a straight forward method for determining activity status for discharges of this type.
- 24 Given that Ms Harwood identifies that PM₁₀ is the main contaminant of concern in the region, my opinion is that a discretionary activity status applied through Rule 7.27 is appropriate for addressing the discharge of all other contaminants. It allows all relevant matters to be considered and does not run the risk of unintentionally missing or including certain activities or environments. If modelling or monitoring information is available, or provided as part of an assessment of effects on the environment, this can be used to inform the decision based on the proposed amended Policy 6.2 and 6.3. In addition, the NES will still apply to these activities (and discharges of PM₁₀) and sets clear intentions for applications that do not comply with the standards. Importantly, any mitigation or offsetting provided for by Regulation 17 of the NES will be open for consideration through the consent process which might not be the case under the proposed rule framework due to the hard consent triggers based on the AAQG.

Best practicable option

- 25 Through its submission Synlait supported use of the best practicable option (**BPO**) when managing air discharges⁹. BPO is a useful management concept to apply to air discharges as it takes into consideration both the nature of the discharge and the sensitivity of the receiving environment to adverse effects.

⁹ Best Practicable Option is defined within the RMA and means:
the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to—

(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and

(b) the financial implications, and the effects on the environment, of that option when compared with other options; and

(c) the current state of technical knowledge and the likelihood that the option can be successfully applied

- 26 The s42A report recognises that the Air Plan as notified is deficient in providing policy guidance as to the expectations surrounding the application of BPO in the context of the receiving environment. The report recommends that new policies are included to correct this and that Rules 7.17 and 7.18 are amended or deleted and replaced with rules that enable industry to develop in a way that is appropriate relative to the sensitivity of the receiving environment.¹⁰ I agree with the conclusion drawn in the s42A report and am of the opinion that taking these steps will go a long way to addressing the issues outlined in Synlait's submission and will especially assist in better implementing Objective 5.8.
- 27 Policy 6.21 as notified essentially becomes a rule through the use of the term 'avoid' alongside an air quality threshold drawn from the AAQG. As discussed above my opinion is that applying the AAQG in this manner is inappropriate. On this basis, my view is Policy 6.20 and 6.21 should be amended so as to require the application of BPO to address adverse effects appropriate to the characteristics of the receiving environment.
- 28 Along with reinforcing the role of the BPO, the suggested amendments to these policies differentiate between discharges inside and out of clean air zones. Policy 6.20 addresses discharges outside of clean air zones and focuses on localised air quality effects. Policy 6.21 addresses discharges within clean air zones to avoid remedy or mitigate the cumulative effects on these zones. This ensures that the air quality management options chosen will be suitable given the receiving environment.

Consent renewals

- 29 Through the application of the AAQG, the Air Plan would most likely classify an application by Synlait to renew its current air discharges as a non-complying activity. Given the investment at the site and the fact that a determination regarding effects could be based on many years of experience at the site, my opinion is that this status does not provide an appropriate level of certainty.
- 30 As stated above my opinion is that a discretionary activity status is appropriate for all contaminants other than PM₁₀ with PM₁₀ being addressed based on emission levels. This opinion is reinforced by the fact that controls are also put in place through the NES to avoid excessive effects.

Legacy air discharge issues and reverse sensitivity

- 31 Policy 6.7 of the Air Plan seeks to constrain existing discharges to air or have them relocate where, as a result of authorised land use change, land use activities are

¹⁰ Proposed Canterbury Air Regional Plan – Section 42A Report pg. 13-6 and 13-8.

significantly adversely affected. My opinion is that this policy places an inappropriate burden on the discharger should land use decisions be made that give rise to reverse sensitivity effects.

- 32 Forcing activities to relocate to somewhere more appropriate based solely on the effects of a discharge fails to take into account the range of other factors that are considered when siting industry. This includes proximity to any sources of raw material, the suitability of the site for undertaking the activity (for example the size and shape) the suitability of the site in relation to implementing mitigation measures other than associated with discharges, the cost of the land and other factors such as whether the location meets criteria for operating efficiently (for example whether the site has access to appropriate transport routes). On this basis, my opinion is that the direction proposed through Policy 6.7 is inappropriate.
- 33 Policy 6.7 refers to 'authorised' land uses which implies that through a consenting process (not as a permitted activity), a sensitive land use could establish in the neighbourhood of an existing lawfully established discharger and that this could lead to the discharger being forced to relocate. This would indicate a failure in the land use planning process, the burden of which may be borne by the discharger. This potentially introduces land use controls through a regional air plan. While the policy refers to a discharge, it is essentially stating that certain lawfully established land uses may not be appropriate which is outside the jurisdiction of CRC.
- 34 My opinion is that CRC has the appropriate tools available to address significant adverse effects arising from existing discharge activities. This includes the ability to review the conditions of existing resource consents, place limited durations on discharge activities within areas of likely land use development and the ability to not renew consents for activities demonstrated to be causing significant adverse effects when they expire. If significant effects are arising due to a lack of consent compliance then enforcement action is available.
- 35 The RPS addresses reverse sensitivity through Policy 14.3.5 and in relation to the proximity of discharges to air and sensitive land uses states:
- "To avoid the encroachment of new development on existing activities discharging to air where the new development is sensitive to those discharges, unless reverse sensitivity effects on the new development can be avoided or mitigated"*¹¹.
- 36 The methods for implementing this policy include reviewing conditions of consent under Section 128 of the RMA to establish that the BPO is being adopted. In addition, the methods include a direction to territorial authorities to protect established activities

¹¹ Canterbury Regional Policy Statement 2013, pg 143

if the BPO is adopted. My opinion is that the RPS sets an entirely reasonable direction in relation to existing discharges and that Policy 6.7 is out of step with this direction.

37 The Air Plan sets out objectives, policies and methods to control the discharge of contaminants to air and CRC has the ability to collect information regarding existing discharges and review the conditions of existing discharge consents if required. On this basis my opinion is that Policy 6.7 is not required to give effect to the RPS, potentially extends beyond the jurisdiction of CRC and therefore should be deleted.

Miscellaneous provisions

Rule 7.68

38 Rule 7.68 contains a number of permitted activity standards including the requirement for an odour management plan and that the discharge does not cause a noxious or dangerous effect. Schedule 2 of the Air Plan contains guidance as to what is to be included in an odour management plan which must include a description the management practices to actively manage the discharge based on controls in any relevant good practice guidelines.

39 Rule 7.68 also contains permitted activity standards relating to the pH and the dissolved oxygen levels of the effluent or liquid and record keeping requirements.

40 Based on the required content of the odour management plan and especially the fact that odour controls must be developed in line with good practice, my view is that the permitted activity standards 4, 5 and 6 of Rule 7.68 are unnecessary.

Policy 6.11

41 The definition of regionally significant infrastructure contained within the RPS does not cover activities such as Synlait's dairy processing facilities. Given the context in which this definition is usually relied on this is likely appropriate. Policy 6.11 uses this term in relation to recognising the role regionally significant infrastructure has to the regional and national economy.

42 There are a number of other activities that do not fit the definition of regionally significant infrastructure that never the less deserve recognition for the role they play in contributing to the regional or national economy. The dairy industry including dairy product processing is an example of an activity that has a significant economic contribution. My view is that it is appropriate to provide some support for the consideration of this contribution within the plan as is done for regionally significant infrastructure to ensure a balanced consideration of the relative costs and benefits of a resource consent application can be made.

43 Synlait's submission sought inclusion of and amendments to the definition of regionally significant infrastructure as it appears in the RPS within the Air Plan. Another potential solution which does not involve modifying an established definition is to include primary sector manufacturing alongside regionally significant infrastructure within Policy 6.11.

Policy 6.8

44 Policy 6.8 recognises that consent durations can be longer where discharge activities are appropriately located. This Policy was supported in Synlait's submission and I agree that the Policy is appropriate. My opinion is that Policy 6.8 should be retained but with an amendment to ensure that considering the appropriate location of an activity does not limit the consideration of other relevant matters that may influence consent duration.

Conclusion

45 As notified the Air Plan creates an overly complicated framework for addressing discharges to air. This is especially evident in rural areas where guidelines that rely on a relatively high level of information are applied to areas of sparse population, areas with a wide variation in receiving environment sensitivity and a general lack of air quality data.

46 The Air Plan does not clearly distinguish between the different issues facing urban and rural airsheds and does not adequately recognise the role that applying the BPO can have as a tool to manage discharges. The Air Plan also seeks to constrain lawfully established activities affected by poor land use planning decisions. This has the potential to limit existing activities, the renewal of existing consents and growth opportunities for industrial activities such as Synlait regardless of the regimes being implemented to manage effects.

47 The approach adopted by the Air Plan is inconsistent with the purpose of the RMA as by addressing effects regardless of location and the sensitivity of the receiving environment it fails to adequately consider the contribution that activities such as Synlait's facilities make to the social and economic wellbeing of the Canterbury Region.

Tim Ensor

18 September 2015

ANNEXURE A TO EVIDENCE OF TIMOTHY ENSOR

Objective 5.8

It is recognised that air quality expectations throughout the Region differ depending on location and the characteristics of the receiving environment.

Objective 5.9

~~New discharging and sensitive A~~activities are spatially located so that ~~they result in~~ appropriate air quality outcomes ~~being are~~ achieved both at present and in the future.

Objective 5.X

Existing discharging activities contribute to achieving appropriate air quality outcomes.

Policy 6.2

~~Manage Minimise~~ adverse effects on ambient air quality within the airshed where concentrations of contaminants are between 66% and 100% of the guideline values set out in the Ambient Air Quality Guidelines 2002 Update, ~~so that concentrations do not exceed 100% of those guideline values.~~

Policy 6.3

Where ambient concentrations of contaminants within a clean air zone exceed 100% of guideline values set out in the Ambient Air Quality Guidelines 2002 Update, action is taken to improve air quality within the airshed.

Policy 6.5

Offensive and objectionable effects are unacceptable and the frequency, intensity, duration, offensiveness and location of discharges into air must be identified and managed.

~~Policy 6.7~~

~~Where, as a result of authorised land use change, land use activities within the neighbourhood of a discharge into air are significantly adversely affected by that discharge, it is anticipated that within a defined time frame the activity giving rise to the discharge will reduce effects or relocate.~~

Policy 6.8

Without limiting the ability of the consent authority to consider other relevant matters, Wwhere activities that discharge into air locate appropriately to avoid the potential for reverse sensitivity effects, then longer consent duration may be available to provide ongoing operational certainty.

Policy 6.10

All activities that discharge into air apply, ~~at least,~~ the best practicable option so that cumulative effects are minimised.

Policy 6.11

Recognise the contribution of nationally and regionally significant infrastructure [and primary sector manufacturing](#) to the regional and national economy and provide for the operation and development of that infrastructure.

Policy 6.12

Recognise that there is likely to be improvement in the management of the discharges of contaminants into air over the life of resource consents and consider this for new and replacement consents [where this is consistent with the best practicable option.](#)

Policy 6.19

Enable discharges of contaminants into air associated with large scale, industrial and trade activities and nationally and regionally significant infrastructure, in locations where the discharge is compatible with the surrounding land use pattern and while ensuring that adverse effects on air quality are minimised.

Policy 6.20

[Outside a clean air zone](#) Apply the best practicable option to all large scale and industrial activities discharging contaminants to air so that the degradation of [ambient-localised](#) air quality is minimised.

Policy 6.21

~~Avoid~~ [Within a clean air zone apply the best practicable option to avoid, remedy or mitigate the cumulative effects from 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 the guideline values set out in the Ambient Air Quality Guidelines 2002 Update [at sensitive receptors or exceedance of the National Environmental Standards for Air Quality.](#)

Policy 6.26

The discharge of contaminants into air associated with rural activities do not cause offensive or objectionable effects beyond the boundary of the property ~~of origin~~ [the discharge occurs on.](#)

Rule 7.3

The discharge of odour, dust or smoke into air that is offensive or objectionable beyond the boundary of the property of ~~origin~~ [the discharge occurs on](#) when assessed in accordance with Schedule 2 is a non-complying activity.

~~Rules 7.17~~

~~The discharge of contaminants into air from a large scale solid fuel burning device or from an industrial or trade premise established prior to 28 February 2015, outside a Clean Air Zone, that will likely result in guideline values, set out in the Ambient Air Quality Guidelines 2002 Update, being exceeded is a non-complying activity.~~

Rule 7.18

~~The discharge of contaminants into air from a large scale fuel burning device or from an industrial or trade premise established either: inside a Clean Air Zone; or outside a Clean Air Zone after 28 February 2015, that will likely result in guideline values, set out in the Ambient Air Quality Guidelines 2002 Update, being exceeded is a prohibited activity.~~

Rule 7.27

Any discharge of contaminants into air from any large scale fuel burning device that does not comply with the appropriate permitted activity rule and conditions, and is not prohibited, and is not otherwise provided for by rules 7.3, 7.4 or rules 7.19-7.26 is a discretionary activity.

Rule 7.28

The discharge of odour, beyond the boundary of the property ~~of origin~~ the discharge occurs on, from an industrial or trade premise is a restricted discretionary activity, except where otherwise permitted or prohibited by rules 7.29 to 7.59 below.

The exercise of discretion is restricted to the following matters:

1. The contents of the odour management plan to be implemented; and
2. The frequency of the discharge; and
3. The intensity of the discharge; and
4. The duration of the discharge; and
5. The offensiveness of the discharge; and
6. The location of the discharge; and
7. The matters set out in Rule 7.2.

Rule 7.29

Except where otherwise permitted or prohibited by rules 7.30 to 7.59 below, the discharge of dust, beyond the boundary of the property ~~of origin~~ the discharge occurs on, including from unsealed or unconsolidated surfaces, from an industrial or trade premise, including a construction, subdivision or development property is a restricted discretionary activity.

The exercise of discretion is restricted to the following matters:

1. The contents of the dust management plan to be implemented; and
2. The frequency of the discharge; and

3. The intensity of the discharge; and
4. The duration of the discharge; and
5. The offensiveness of the discharge; and
6. The location of the of the discharge; and
7. The matters set out in Rule 7.2.

Rule 7.68

The discharge of contaminants into air from the collection, storage, treatment and application of liquid and slurry animal effluent or solid animal effluent onto production land, is a permitted activity provided the following conditions are met:

1. The discharge does not cause a noxious or dangerous effect; and
2. An odour management plan prepared in accordance with Schedule 2 is held by the persons responsible for the discharge, and where a Farm Environment Plan is required pursuant to Rule 5.45 of the Land and Water Regional Plan, the odour management plan will be a component of that Plan; and
3. The odour management plan is supplied to the CRC on request; and
- ~~4. The pH range of the liquid or slurry effluent is between pH6.5 and pH8; and~~
- ~~5. Dissolved oxygen is present in liquid or slurry effluent at concentrations greater than 1ppm; and~~
- ~~6. The persons responsible for the effluent application will keep a record for 3 months, to be provided to the CRC on request, of the effluent discharged including the following information:
 - ~~(a) the type of effluent applied to land; and~~
 - ~~(b) the estimated daily quantity of effluent applied to land in cubic metres; and~~
 - ~~(c) the location of the effluent application; and~~
 - ~~(d) the wind direction at the time of application.~~~~