

**BEFORE THE CANTERBURY REGIONAL COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991

**A N D**

**IN THE MATTER** of the Proposed Canterbury Regional Air Plan

**A N D**

**IN THE MATTER** of submissions and further submissions by St George's Hospital Incorporated (Submitter No. 63131).

**STATEMENT OF EVIDENCE OF CARMEN WENDY TAYLOR**

**1. INTRODUCTION**

**Qualifications and Experience**

- 1.1 My full name is Carmen Wendy Taylor. I have over 20 years of professional planning and resource management experience in New Zealand. I am employed by Golder Associates (NZ) Limited (Golder), an environmental consulting firm.
- 1.2 I hold the qualifications of Bachelor of Science (Geography) and Masters of Regional and Resource Planning from the University of Otago. I am a full member of the New Zealand Planning Institute.
- 1.3 Throughout my professional experience, I have been involved in complex projects which have required detailed assessments of the implications and interrelationships associated with utilising a range of resources, such as land, water (surface water and groundwater), air and the coastal marine area. These projects have generally involved technical and scientific input, which I have understood and then utilised when assessing the planning implications (both planning policy implications and resource consent requirements), of projects under the Resource Management Act 1991 (RMA).

## **My Role – St George’s Hospital Incorporated’s Submissions**

- 1.4 Following the notification of the Proposed Canterbury Air Regional Plan (Proposed CARP) in March 2015, St George’s Hospital Incorporated (St George’s) sought advice from Golder’s air quality and planning experts as to whether we considered there were any implications for St George’s arising from the Proposed CARP. St George’s interest in the Proposed CARP is associated with any implications arising from the boilers and generators it operates, or may operate in the future<sup>1</sup>, to provide heating and emergency electricity, as well as load shedding, at its hospital facilities located in Merivale, Christchurch.
- 1.5 Golder’s advice to St George’s was that many of the Proposed CARP provisions reflected an appropriate balance whereby the discharge of contaminants to air would be able to continue within an appropriate management framework (including the need to ensure that adverse effects would need to be avoided, remedied or mitigated). However, Golder also considered that the Proposed CARP did contain provisions that had the potential to constrain or even unduly restrict the discharges to air from St George’s. Given this advice, St George’s engaged Golder to prepare submissions, and later, further submissions on the Proposed CARP. I lead the preparation of the submissions, and further submissions, on behalf of St George’s, with the assistance of my planning and air quality colleagues.
- 1.6 I have been retained by St George’s to prepare planning evidence in relation to their submissions and further submissions on the Proposed CARP.

## **Code of Conduct**

- 1.7 Whilst this is a Council Hearing, I acknowledge that I have read and am familiar with the Environment Court’s Code of Conduct for Expert Witnesses, contained in the Environment Court updated Practice Note 2014, and agree to comply with it. My qualifications as an expert are set out above. Other than where I state that I am relying on the advice of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

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<sup>1</sup> Since 1989, St George’s have been modernising and expanding its services and facilities. This work is ongoing. These works have implications for the heating and electricity demand at St George’s such that the configuration of site boilers and generators are regularly reassessed. To this end, I understand that St George’s are currently planning to relocate and upgrade its plant room, including associated boilers and generators.

## 2. EXECUTIVE SUMMARY

- 2.1 In preparing this evidence I have focussed on ensuring that the Proposed CARP provides for the sustainable management of the region's air resource. That is, to paraphrase section 5 of the RMA, that people and communities, including St George's, are able to utilise the region's air resource, provided a management framework is established that ensures that adverse effects of utilising this resource are avoided, remedied or mitigated and that the life-supporting capacity of air is both safeguarded and sustained for future generations.
- 2.2 While this balance is provided in many of the Proposed CARP's provisions, in my opinion, there are provisions that do not achieve this balance and which unduly constrain the use of the region's air resource. Where this is the case, for the reasons outlined in more detail within my evidence, I have recommended the deletion or amendment of Proposed CARP provisions in order to provide a more balanced resource management approach. The key issues relate to the:
- (a) lack of appropriate recognition of critical infrastructure, which includes hospitals (Objective 5.7 and Policy 6.19);
  - (b) inappropriate use of the Ambient Air Quality Guidelines 2002 Update<sup>2</sup> (AAQG) to manage individual discharges (Policies 6.2, 6.3, 6.21 and Rule 7.18);
  - (c) reversal of the usual approach to the management of reverse sensitivity issues (Policies 6.7, 6.8 and 6.19);
  - (d) unnecessary, and at times incomplete, replication of the provisions of the Resource Management (National Environmental Standards for Air Quality) Regulations 2004<sup>3</sup> (the NES) (Policy 6.22 and Rule 7.14); and
  - (e) inclusion of Condition 3 of Rule 7.19, when it provides no environmental benefit.
- 2.3 Based on the issues outlined above, the provisions which I consider still need to be deleted from the Proposed CARP are – Policies 6.7, 6.21 and 6.22, Rules 7.14 and 7.18 as well as Condition 5 of Rule 7.19.
- 2.4 The objectives and policies to be amended are as follows (in tracked changes mode):
- (a) Objective 5.7 – *“Nationally, ~~and~~ regionally significant and critical infrastructure, is ~~enabled~~ recognised and provided for such that they can be ~~and is~~ resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, on-going maintenance, repair, development and upgrading.”*

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<sup>2</sup> Ministry for the Environment and Ministry of Health 2002. Ambient Air Quality Guidelines – 2002 Update. Air Quality Report No. 32, prepared by the Ministry for the Environment and Ministry of Health, May 2002.

<sup>3</sup> As amended from 1 June 2011.

- (b) Policies 6.2 and 6.3 – ~~“Minimise Avoid, remedy or mitigate adverse effects on ambient air quality where measured concentrations in the airshed exceeds are between 66% and 100% of the guideline values, for the contaminants listed in Part 3 of Schedule 4, and set out in the Ambient Air Quality Guidelines 2002 Update, so that concentrations ambient air quality is improved do not exceed 100% of these guideline values. Where concentrations of contaminants exceed 100% of guideline values set out in the Ambient Air Quality Guidelines, action is taken to improve air quality.”~~
- (c) Policy 6.8 – ~~“Where activities that discharge into air locate appropriately and where the effects of the discharge are avoided, remedied or mitigated to avoid the potential for reverse sensitivity effects, then a longer consent duration may be available is appropriate to provide for ongoing operational certainty.”~~
- (d) Policy 6.19 – ~~“Enable discharges of contaminants associated with large scale fuel burning devices, industrial and trade activities and nationally and regionally significant and critical infrastructure, in locations which are spatially appropriate for the activity where the discharge is compatible with the surrounding land use pattern and while ensuring that adverse effects on air quality are avoided, remedied or mitigated minimised.”~~

2.5 In addition, my evidence also discusses Policies 6.12, 6.14 and 6.20. St George's opposed these policies and requested their deletion. The Section 42A Report has not accepted the submissions and recommended the retention of the policies (largely unchanged). While the concerns raised in relation to these policies are still valid, and therefore deletion of these policies is still appropriate, the retention of these policies are not necessarily a key issue for St George's.

### 3. SCOPE OF EVIDENCE

- 3.1 As outlined in the executive summary, my evidence focuses on ensuring that people and communities, including St George's, are able to utilise the region's air resource, within a management framework that ensures that adverse effects are avoided, remedied or mitigated and that the life-supporting capacity of air is both safeguarded and sustained for future generations.
- 3.2 My evidence focusses on the provisions within the Proposed CARP that I consider unduly constrain the use of the region's air resource, and therefore do not provide the balance required by section 5 of the RMA.
- 3.3 St George's is located within Christchurch city, and thus within a clean air zone. St George's submissions, and my evidence, do not address any Proposed CARP provisions which relate to activities outside of clean air zones.

3.4 On the above basis, my evidence covers the following matters:

- (a) Section 4 of my evidence discusses the key submission points for St George's. They are:
  - (i) St George's, as critical infrastructure, needs to be recognised and provided for in a manner similar to nationally and regionally significant infrastructure.
  - (ii) The use of the AAQG as proposed in Policies 6.2, 6.3, 6.21 and Rule 7.18.
  - (iii) The reverse sensitivity policies, specifically Policies 6.7, 6.8 and 6.19.
  - (iv) The proposed application in Policy 6.22 and Rule 7.14 of Regulation 17 of the NES.
  - (v) The appropriateness of Condition 3 of Rule 7.19.
- (b) Section 5 discusses other matters, namely Policies 6.12, 6.14 and 6.20 and the issues that I consider are associated with these policies.

3.5 Except for the matters specifically addressed in Sections 4 and 5 of my evidence, I have not made any comment on submission points where:

- (a) A provision of the Proposed CARP was supported by St George's and no significant change has been recommended in the Section 42A Report (Objective 5.6, Policies 6.1 and 6.5, Rules 7.3, 7.24, 7.25 and 7.27, Schedules 2 and 4).
- (b) St George's requested change has been supported in the Section 42A Report (Objectives 5.3, 5.4, 5.8).
- (c) St George's is willing to work within the bounds of the provisions as now proposed within the Section 42A Report (Objectives 5.1 and 5.2, Policies 6.4 and 6.10).

3.6 In preparing parts of my evidence, I have relied on the technical air quality evidence presented by my colleague Mr Jeff Bluett. Mr Bluett's evidence specifically addresses two matters, namely the technical considerations associated with the proposed use of the AAQGs in the Proposed CARP and Condition 3 of Rule 7.19.

3.7 Also, Mr Greg Brooks, the Chief Executive Officer for St George's will be in attendance at the hearing. In his evidence he provides information on the the nature of St George's operations and the services it provides for the community. He also outlines the upgrades currently proposed, and the implications in terms of associated upgrades to the site's boilers and generators which provide heating and electricity to St George's.

- 3.8 In addition, I note that my evidence is similar in nature with the planning evidence of Mr Kevin Bligh being presented on behalf of other submitters. Mr Bligh and myself worked together in preparing the submissions and further submissions for St George's and other parties. We were generally in agreement (as we still are) as to the issues, as we saw it, associated with the Proposed CARP and the nature of amendments required to address those issues.

#### 4. KEY SUBMISSION POINTS

##### Recognition of Critical Infrastructure – Objective 5.7 and Policies 6.11A and 6.19

- 4.1 Critical infrastructure is a term that is widely used to describe assets or facilities that are essential for society to function. Hospitals (which include St George's), and other associated public health facilities, are considered to be critical infrastructure. Critical infrastructure, in the CRPS, is defined as:

*“Critical infrastructure - Infrastructure necessary to provide services which, if interrupted, would have a serious effect on the communities within the Region or a wider population, and which would require immediate reinstatement. This includes any structures that support, protect or form part of critical infrastructure. Critical infrastructure includes:*

...

10) *public healthcare institutions including hospitals and medical centres*

...”

- 4.2 Given that St George's is part of New Zealand's and Christchurch's critical infrastructure, St George's submitted in support, in part, of Objective 5.7 and Policy 6.19, requesting amendments that recognised the significance of critical infrastructure alongside the already recognised nationally and regional significant infrastructure. The amendments required for Objective 5.7 were as follows (in tracked changes mode):

*“Nationally, ~~and~~ regionally significant and critical infrastructure, is ~~enabled-recognised~~ and provided for such that they can be ~~and is~~ resilient and positively contributes to economic, cultural and social wellbeing through its efficient and effective operation, on-going maintenance, repair, development and upgrading.”*

- 4.3 Similar amendments were requested in relation to Policy 6.19 as identified later in my evidence (refer to paragraph 4.29(c)).

4.4 The Section 42A Report does not recommend amending Objective 5.7 or Policy 6.19 in order to also provide for critical infrastructure (alongside nationally and regionally significant infrastructure)<sup>4</sup>. However, the Section 42A Report recommends that the relief sought by St George's and a number of other submitters to include local infrastructure, critical infrastructure, industry and strategic infrastructure are better accommodated by a new policy (Policy 6.11A) and a proposed new definition for 'regionally significant infrastructure'. These proposed amendments are as follows:

*"6.11A Locational constraints of discharging activities, including heavy industry and infrastructure, are recognised so that operational discharges into air are enabled where the best practicable option is applied."*

*"Regionally significant infrastructure has the same meaning as set out in the Canterbury Regional Policy Statement 2013"*<sup>5</sup>

4.5 The definition of regionally significant infrastructure in the CRPS does not refer to critical infrastructure generally, nor public health facilities such as hospitals or medical centres.

4.6 While I support the inclusion of Policy 6.11A and the proposed definition of regionally significant infrastructure, in my opinion, St George's submission has not been appropriately considered and addressed. That is, the Proposed CARP does not recognise that critical infrastructure (including hospitals), alongside nationally and regionally significant infrastructure, needs to be recognised and provided for under the Proposed CARP given that it contributes to the region's economic, cultural and social well-being.

4.7 Therefore, in my opinion, Objective 5.7 and Policy 6.19 need to be amended along the lines proposed in St George's submissions (refer to paragraphs 4.2 and 4.29(c)).

## **Ambient Air Quality Guidelines 2002 Update – Policies 6.2, 6.3, 6.21 and Rule 7.18**

### ***Introduction***

4.8 The Proposed CARP, as notified, outlines a framework, through its policies (Policies 6.2, 6.3 and 6.21) and rules (Rules 7.17 and 7.18), whereby the AAQG is to be used to both guide decision making and to restrict or prohibit discharges where the AAQGs may or will be exceeded. These provisions, along with other provisions of the Proposed CARP, aim to implement Objectives 5.1 and 5.2<sup>6</sup> which seek to ensure that where air quality provides for people's health and safety it is maintained, and where it does not, then air quality is improved.

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<sup>4</sup> Recommendations R-5 and R-5.7 – pp. 9.5 and 16-15 to 16-16 and Recommendation R-6-19 – pp. 13-6 to 13-7 and 16-18 of the Section 42A Report.

<sup>5</sup> Recommendation R-T2.1 – p. 16-11 of the Section 42A report.

<sup>6</sup> As noted in paragraph 3.5(c), St George's are willing to work within the framework provided for by Objectives 5.1 and 5.2. Therefore, I will not discuss these objectives further.

- 4.9 St George's, in its submissions, opposed the manner in which the Proposed CARP intends to utilise the AAQG on the basis that it was an inappropriate application of the AAQG and that it had the potential to significantly constrain activities which discharge contaminants to air, including discharges from St George's.

**Policies 6.2 and 6.3**

- 4.10 In relation to Policies 6.2 and 6.3, the high level intent of the policies was supported by St George's (i.e., the requirement to implement a management response if ambient air quality exceeds the AAQGs). However, there were a number of issues that St George's submitted needed to either be recognised or reflected within the policies. These issues were:

- (a) That the AAQG relate to ambient air quality and the policies therefore also need to refer to ambient air quality. It is not appropriate for the AAQG to be used as an assessment tool for point source discharges which could be inferred from the notified version of the policies.
- (b) There is a lack of clarity around which contaminants the application of the AAQG relate to under these policies. Schedule 4 of the Proposed CARP clearly identifies which standards or guidelines apply to which contaminants, with Part 3 listing 14 contaminants that will be managed in accordance with the AAQG. As an aside, I note that Part 1 of Schedule 4 correctly identifies that carbon monoxide, nitrogen dioxide, ozone, PM<sub>10</sub> and sulphur dioxide are required to meet the NES.
- (c) To be able effectively implement these policies, there is a need for ambient air quality monitoring of the contaminants (i.e., those listed in Part 3 of Schedule 4) to be carried out. People assessing activities, both applicants and decision makers, against these policies and other provisions of the Proposed CARP will need to rely such data and therefore it will also need to be made publically available.

- 4.11 Given the above issues, St George's submission requested that Policies 6.2 and 6.3 be amalgamated and that the following amendments made (as shown in tracked changes mode):

*~~“Minimise~~ Avoid, remedy or mitigate adverse effects on ambient air quality where measured concentrations in the airshed exceeds ~~are between~~ 66% and 100% of the guideline values, for the contaminants listed in Part 3 of Schedule 4, and set out in the Ambient Air Quality Guidelines 2002 Update, so that ~~concentrations~~ ambient air quality is improved do not exceed 100% of those guideline values. ~~Where concentrations of contaminants exceed 100% of guideline values set out in the Ambient Air Quality Guidelines, action is taken to improve air quality.”~~*



- 4.12 The Section 42A Report rejected St George's submission<sup>7</sup> and recommends the retention of Policies 6.2 and 6.3 as notified. The reason for this recommendation is that the policies are vital to achieving the objectives of the Proposed CARP.
- 4.13 While I agree that the proposed policy intent needs to be retained within the Proposed CARP (i.e., if ambient air quality is degraded in terms of contaminants not managed by the NES then measures should be adopted that ensure that ambient air quality is improved), I consider that the Section 42A Report has not considered the points raised in St George's submission (refer to paragraph 4.10). I am still of the opinion that the matters raised in the submission are valid and that Policies 6.2 and 6.3 should be amended along the lines of St George's submission.

***Policy 6.21 and Rule 7.18***

- 4.14 Policy 6.20 aims to avoid the discharge of contaminants from large scale fuel burning devices, or industrial and trade premises, if the discharge will result in an exceedance or exacerbations of the AAQG. Rule 7.18 prohibits the discharge of contaminants to air from large scale fuel burning devices (as well as industrial and trade premises), inside a clean air zone and outside a clean air zone after the notification of the Proposed CARP, if the discharge will result in the AAQG being exceeded.
- 4.15 While I support the retention of Policies 6.2 and 6.3, albeit with amendments, I do not support the retention of Policy 6.21 or Rule 7.18 and consider that they should be deleted for the reasons outlined in St George's submissions.
- 4.16 The principle reasons for St George's request to delete these provisions of the Proposed CARP included: Policies 6.2 and 6.3 (as discussed above), subject to amendment, outline an appropriate resource management approach utilising the AAQG; and, large scale burning devices should not be subject to a more onerous approach whereby it is likely, particularly within clean air zones, that the driver would be to restrict or prohibit such a discharge.
- 4.17 Mr Bluett, in his evidence, discusses the purpose of the AAQG and the manner in which they are to supposed to be utilised when establishing a framework for the management of air quality. In his opinion, the AAQG have been inappropriately applied, through Policy 6.21 and Rule 7.18, as a management tool on individual discharges. The AAQG specifically state that they are not to be used in this manner.
- 4.18 In my opinion, Policy 6.21 and related Rule 7.18, risk prohibiting discharges from activities, and thus the activities themselves (possibly including St George's), without enabling decisions makers to consider the significance of the activity in terms of enabling people and communities to provide for their social, economic and cultural well-being, and health and safety. It may also not enable decision makers to consider other policy drivers contained in regional policy statements or the

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<sup>7</sup> Recommendations R-6.2 and R-6.3 – pp. 10-3 to 10-4 and 16-16 of the Section 42A Report.

Proposed CARP itself which would support an activity being able to continue to discharge. This, in my opinion, is a lack of balance, which does not reflect a sound resource management approach.

- 4.19 As the Section 42A Report does not specifically address individual submissions, it is difficult to ascertain the actual outcome in relation to St George's submissions on Policy 6.21 and Rule 7.18. However, in relation to these provisions, the Section 42A Report recommends the following:

*"Policy 6.21 is amended to provide clear guidance as to what is to be achieved in applying BPO in different receiving environments and to refer to the NESAQ as well as Ambient Air Quality Guidelines.*

*Rule 7.18 is deleted and replaced with a new rule or rules that enable application of BPO as appropriate to the receiving environment, and in line with the Objectives of the Plan."*

- 4.20 At the time of preparing this evidence, the proposed amended wording for Policy 6.21 and Rule 7.18 had not been made available to submitters and therefore it is not possible for me to comment on these proposed alternative wordings.
- 4.21 However, for the reasons outlined above, I am still of the opinion that Policy 6.21 and Rule 7.18, as notified, are not appropriate and should be deleted. In relation to the recommendation of the Section 42A Report, I also note, as discussed later in my evidence, that it is not necessary to repeat the NES within Proposed CARP policies (paragraphs 4.34 to 4.42 below), and that the consideration of best practicable options in terms of any resource consent application is appropriately provided for by Policy 10 of the Proposed CARP (paragraphs 5.11 to 5.15 below).

### **Summary**

- 4.22 In summary, in my opinion, and based on the technical advice of Mr Bluett, the Proposed CARP needs to ensure that the utilisation of the AAQG within the resource management framework to be established by the Proposed CARP is consistent with the manner with which the AAQG are supposed to be used. That is, the AAQG, are a tool that can be used to make decisions about the management of the ambient air resource (i.e., it is degraded and should be improved) but they should not be used as a means of restricting or prohibiting individual discharges.
- 4.23 On this basis, I consider that Policy 6.21 and Rule 7.18 should be deleted, and that it is not necessary to develop alternative provisions as proposed in the Section 42A Report. Also, Policies 6.2 and 6.3 should be retained, but should be amended as proposed in St George's submission (refer to paragraph 4.11 above).

### Reverse Sensitivity Considerations – Policies 6.7, 6.8 and 6.19

4.24 The Proposed CARP contains four policies that relate to reverse sensitivity issues. The policies are Policies 6.6 to 6.8 and 6.19. St George's only prepared submissions in relation to Policies 6.7, 6.8 and 6.19 (not Policy 6.6) and therefore it is only these policies that I discuss below.

4.25 Reverse sensitivity effects, as discussed in the Section 32 Report (and repeated within the Section 42A Report) for the Proposed CARP in relation to odour and dust, are:

*“... when sensitive activities move into an area where existing activities can cause adverse effects to the sensitive activity. When reverse sensitivity occurs with discharging activities, the effects of these discharging activities can become offensive and objectionable in the new receiving environment, even if the effects were minor when the activity established.”<sup>89</sup>*

4.26 From my experience, the approach that has been adopted throughout New Zealand in terms of managing reverse sensitivity issues is to avoid sensitive activities locating in areas where there is the potential for existing, and lawfully established activities, to be adversely affected and potentially constrained.

4.27 This approach is appropriately reflected in policies contained in the CRPS which the Proposed CARP, pursuant to section 67(3) of the RMA, is required to give effect to. Policy 14.3.5 of the CRPS specifically addresses reverse sensitivity considerations in relation to air quality. This policy 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 new development can be avoided or mitigated.*
- (2) Existing activities that required 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 use and receiving environments unless adverse effects of the discharge can be avoided or mitigated.”*

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<sup>8</sup> p. 3-10 of the Section 32 Report.

<sup>9</sup> p. 3-29 of the Section 42A Report.

4.28 Unfortunately, the Proposed CARP policies aimed at managing reverse sensitivity issues confuse and reverse this management approach. This is reflected in the Section 32 Report (when discussing odour and dust), particularly in terms of what is referred to as 'legacy reverse sensitivity issues'. The Section 32 Report identifies that such issues will be addressed through policies, namely Policy 6.7, which "*indicates that where land use changes have occurred and the receiving environment is no longer appropriate for a discharging activity, discharging activities will need to reduce contaminant discharges to levels commensurate with the environment, or move*"<sup>10</sup>. I consider that this approach does not reflect sound a resource management approach and is inconsistent with Policy 14.3.5 of the CRPS. I discuss this opinion in the following paragraphs of my evidence, in the context of St George's submissions.

4.29 St George's submissions on Policies 6.7, 6.8 and 6.19, which I prepared, were as follows:

- (a) ***Policy 6.7 was opposed and its deletion requested.*** The policy requires activities to either reduce the effects of discharges or relocate altogether if authorised land use change or land use activities within a neighbourhood are significantly adversely affected. The submission outlined that this policy reverses the general approach to reverse sensitivity issues whereby the existing or appropriately located activity is penalised, rather the incompatible activity that has been able establish in an area (and which probably should not have been able to do so). The submission also noted other provisions of the Proposed CARP, namely Objective 5.9 and Policies 6.6 and 6.8, which provide an appropriate framework for the management of reverse sensitivity issues.
- (b) ***Policy 6.8 was supported in part and amendments requested.*** This policy identifies that longer term resource consents may be granted for activities which are located appropriately and which avoid reverse sensitivity effects. While the intent of the policy was supported (namely appropriately located activities are granted longer term resource consents), the second part of the policy once again reverses the obligations of parties in terms of managing reverse sensitivity issues. While those that discharge contaminants to air do have an obligation to ensure that the adverse effects of such discharges to air are avoided, remedied or mitigated, the obligation to ensure that reverse sensitivity effects do not occur to the detriment of existing activities, or appropriately located activities, lies with those preparing statutory plans under the RMA and making decisions on resource consent applications. Given these concerns, St George's requested the following amendments to the Policy 6.8 (in tracked changes mode):

*"Where activities that discharge into air locate appropriately and where the effects of the discharge are avoided, remedied or mitigated to avoid the potential for reverse sensitivity effects, then a longer consent duration may be available is appropriate to provide for ongoing operational certainty."*

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<sup>10</sup> p. 3-10 of the Section 32 Report.

- (c) **Policy 6.19 was supported in part and amendments requested.** This policy provides for the discharges from large scale fuel burning devices, industrial and trade activities and significant infrastructure (but not critical infrastructure as discussed earlier in my evidence), provided it is appropriately located and the effects of the discharge are minimised. The intent of the policy was supported as it aims to provide for the discharges to air from large scale fuel burning devices (amongst other activities) such as those that are used at St George's. However, amendments were requested to address the key issues which were: reversal of reverse sensitivity obligations (i.e., the policy refers to the discharge being compatible with surrounding land use patterns); other considerations including identifying that adverse effects were to be avoided, remedied or mitigated rather than minimised; and, to include reference to critical infrastructure given the changes requested to Objective 5.9. The amendments requested were (in tracked changes mode):

*“Enable discharges of contaminants associated with large scale fuel burning devices<sup>11</sup>, industrial and trade activities and nationally and regionally significant and critical infrastructure<sup>12</sup>, in locations which are spatially appropriate for the activity where the discharge is compatible with the surrounding land use pattern ~~and~~ while ensuring that adverse effects on air quality are avoided, remedied or mitigated ~~minimised~~.”*

4.30 The Section 42A Report in effect rejects St George's submissions and recommends the retention of the policies as notified (except for a minor amendment to Policy 6.19)<sup>13</sup>. The reasons cited for these recommendations include:

- (a) **Policy 6.7.** The reverse sensitivity issues are managed by the CRPS whereas the Proposed CARP manages discharges and so it *“cannot ensure protection to discharging activities from sensitive activities”*; and, the policy is necessary to provide the Canterbury Regional Council with decision making tools to manage legacy issues where they exist.
- (b) **Policy 6.8.** Expanding the policy will effectively reduce the discretion that the policy provides.

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<sup>11</sup> I acknowledge that the Section 42A Report recommends the insertion of “fuel burning devices” in this policy (Recommendation R-6-19 – pp. 13-6 to 13-7 and 16-18). However, as this is in effect just rectifying a drafting error, I do not propose to discuss this aspect of the submission further.

<sup>12</sup> The proposed inclusion of ‘critical infrastructure’ within Policy 6.19 also aims to address the submission point discussed in paragraphs 4.1 to 4.7.

<sup>13</sup> Recommendations R-6.7, R-6.8 – pp. 10-7 to 10-8 and 16-6 and Recommendation R-6-19 – pp. 13-6 to 13-7 and 16-18 of the Section 42A Report.

- (c) **Policy 6.19.** The request relating to including critical infrastructure has been addressed by new Policy 6.11A and the proposed definition of regionally significant infrastructure; and, the amendments relating to reverse sensitivity do not serve to clarify the policy but rather make it open to interpretation.
- 4.31 I consider that the Section 32 Report, and the Section 42A Report, have not appropriately considered the implications of the approach put forward. In my opinion, it is contrary to the normal resource management approach to managing reverse sensitivity effects. It also does not give effect to the CRPS (including Policy 14.3.5) and it has the potential to have significant social and economic implications if any business activity, including St George's, is required to relocate. This may have potentially serious implications for the Canterbury region.
- 4.32 For the reasons outlined above, I consider Policy 6.7 needs to be deleted, and Policies 6.8 and 6.19 amended along the lines requested in St George's submissions (refer to paragraphs 4.29(b) and (c)). The amendments need to ensure that reverse sensitivity effects are appropriately managed with obligations placed on the correct activity, as I have discussed earlier in my evidence, and that they give effect to the provisions of the CRPS.
- 4.33 I also note that Policies AQL5 (Odour Nuisance), AQL6 (Avoid Dust Nuisance) and AQL7 (Avoid agricultural spray drift) of Chapter 3 of the Canterbury Natural Resources Regional Plan (NRRP) provide a more appropriate policy framework for management of reverse sensitivity effects. This is achieved through the use of terminology around avoiding the encroachment of sensitive activities on existing activities discharging into air, unless adverse effects of the discharge can be avoided or mitigated by the encroaching activity. Such wording would provide an appropriate alternative should the Panel be of a mind to provide alternative amendments from those put forward by St George's.

**Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (the NES) – Policy 6.22 and Rule 7.14**

- 4.34 Policy 6.22 and Rule 7.14 of the Proposed CARP sought to ensure that significant PM<sub>10</sub> discharges, within clean air zones (which are also polluted airsheds), are offset in accordance (or in the case of Rule 7.14, partial accordance) with the NES.
- 4.35 St George's, in its submission, opposed these provisions of the Proposed CARP and requested the deletion of both Policy 6.22 and Rule 7.14 on the basis that they are unnecessary. In this regard, the submission outlined that under the RMA it is mandatory to consider the requirements of the NES for all relevant applications that discharge contaminants to air. This includes Regulation 17 of the NES which outlines the requirements for offsets. On this basis, Policy 6.22 and Rule 7.14 are just 'repeating' provisions of a mandatory statutory planning document.

- 4.36 The Section 42A Report rejected St George's submission<sup>14</sup> and recommends the retention of Policy 6.22 and Rule 7.14, although amendments are proposed to the rule to address inconsistencies, identified by other submitters, with Regulation 17 of the NES. The Section 42A Report, in making its recommendation, acknowledges that while Regulation 17 does not need to be repeated (i.e., Policy 6.22), the policy is required in order to provide a resource consent pathway.
- 4.37 In my opinion, the recommendations provided in the Section 42A Report do not justify the proposed retention of Policy 6.22 and Rule 7.14. I discuss this further in the following paragraphs.
- 4.38 The issues, and thus reasons for deletion of these provisions, that are outlined in St George's submission still apply. This fact has been recognised, in part, within the Section 42A Report.
- 4.39 The sole justification for retaining these provisions are apparently the need to have a rule that triggers the need to seek a resource consent for PM<sub>10</sub> discharges, under the circumstances outlined in Rule 7.14, thus triggering the ability to assess the discharge and apply the proposed offsets. In my opinion, a specific PM<sub>10</sub> discharge rule is not required. The Proposed CARP contains a range of rules that trigger the need for activities, including activities that discharge PM<sub>10</sub>, to seek resource consents. If a resource consent is required, then the provisions of the NES, must be considered in circumstances where the NES is relevant to the application (for example, if PM<sub>10</sub> is a component of the contaminants being discharged). This includes the need to consider offsets if the requirements of Regulation 17 apply. The only exception is permitted activities – these activities have effects that are minor (or less than minor) and therefore they will not be increasing PM<sub>10</sub> discharges by the amount outlined in Regulation 17 of the NES. On this basis, in my opinion, there is no need for Rule 7.14.
- 4.40 Rule 7.14 also does not reflect the actual wording or requirements of Regulation 17 and as a result is more onerous than Regulation 17 itself. This observation relates to both the notified version of the rule and the amended version of Rule 7.14 contained in the Section 42A Report. This is because Rule 7.14 does not recognise the exception provided in Regulation 17(2) whereby Regulation 17 does not apply if an applicant is seeking a new resource consent for an already consented activity (held at the time when the application is lodged) where the same activity is occurring at the same site and the rate of PM<sub>10</sub> to be discharged is the same or less as that authorised by the existing resource consent. As I read Rule 7.14, activities seeking a new resource consent to replace an existing resource consent (if in a polluted airshed, as is the case for St George's), where the activity has not changed, would be required to apply an offset under Rule 7.14 when they would not be required to do so under Regulation 17 of the NES.

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<sup>14</sup> Recommendations R-6.22 and R-7.14 – pp. 13-9 to 13-11 and 16-18 of the Section 42A Report.

- 4.41 Another issue is that the provisions of the NES may not remain unchanged during the time that the Proposed CARP, once operative, will apply. The NES has been amended a number of times and is once again subject to review as advised by the Hon Dr Nick Smith MP at the Environmental Defence Society's National Conference in August 2015<sup>15</sup>. Proposed amendments to the NES are reportedly going to be available for the purposes of consultation in 2016.
- 4.42 In summary, based on St George's original submission, and the issues outlined above, I consider that Policy 6.22 and Rule 7.14 of the Proposed CARP are unnecessary and inconsistent with the intent of the NES, and should be deleted.

**Permitted Activity Conditions for Large Scale Fuel Burning Devices – External Combustion of Gas – Rule 7.19**

- 4.43 Rule 7.19 permits the discharge of contaminants to air from gas fired large scale fuel burning devices, up to an output of 5 MW, provided that Conditions 1 to 5 are complied with. If the conditions are not complied with, then the discharge becomes a discretionary activity pursuant to Rule 7.27.
- 4.44 St George's submission supported this rule, as the discharges from such devices will be minor (and thus permitted activity status is appropriate). In addition, it was recognised that the discharges from St George's LPG boilers are likely to meet the requirements of this rule and therefore a resource consent will not need to be sought in the future.
- 4.45 However, while supporting the rule, St George's requested the deletion of Condition 3 on the basis that: a similar condition is not attached to the current operative rule in the NRRP (Rule AQL13); the condition does not provide any environmental benefit, particularly given that Condition 5 provides appropriate guidance on stack heights; and, if it is not deleted then there is the risk that discharges that were permitted under the NRRP will no longer be permitted.
- 4.46 I also note Condition 3 is relatively complicated and potentially makes it difficult for parties to determine whether or not they comply with Condition 7.19.
- 4.47 To provide context for the above issues, the Rule 7.19 conditions referred to state:

“3. *There are no buildings higher than five metres above natural ground level within a 25 m radius of the emission stack, unless the building, land or other structure is on a different property to the stack and was not established or anticipated at the time the stack was established; and*

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<sup>15</sup> Refer to –

<http://www.eds.org.nz/assets/Past%20events/2015%20Conference%20Presentations/Thursday%2013%20August/HON%20DR%20NICK%20SMITH-Smith%2C%20Nick.pdf>



5. *The following emission stack height must be met for the device net energy output specified below:*

<i>Net energy output (kilowatts)</i>	<i>Emission stack height</i>
<i>41-500</i>	<i>1 m above any building, land or structure within 15 m of the emission stack</i>
<i>501-5000</i>	<i>7 m above natural ground level and 3 m above any building, land or structure within 35 m of the emission stack</i>

- 4.48 The Section 42A Report accepted the submission in part, but did not support the proposed deletion of Condition 3<sup>16</sup>. The Section 42A Report states that the conditions were drafted with advice from air quality experts to ensure that the effects of the discharges are less than minor.
- 4.49 Mr Bluett, in his evidence, has assessed the implications of Condition 3, in conjunction with Condition 5. He concluded that taller buildings do not have a significant impact on ground level concentrations of contaminants when stack heights, as provided for by Condition 5, are applied.
- 4.50 Based on the conclusions of Mr Bluett's evidence in relation to Condition 3, and for the reasons outlined in St George's submission, in my opinion Condition 3 of Rule 7.19 is not needed and should be deleted.

## 5. OTHER MATTERS

### Policy 6.12

- 5.1 Policy 6.12 states:

*"Recognise that there is likely to be improvement in the management of discharges of contaminants into air over the life of resource consents and consider this for new and replacement resource consents."*

- 5.2 St George's opposed this policy and requested its deletion on the basis that it unnecessarily replicates provisions of the RMA, particularly section 104.

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<sup>16</sup> Recommendation R-7.17-7.27 – pp. 13-13 and 16-27 of the Section 42A Report.

- 5.3 The Section 42A Report rejected this submission<sup>17</sup> and recommended retention of the policy as notified. The Section 42A Report stated that without this policy it will be difficult for decision makers to achieve emission reduction in order to achieve the objectives of the Proposed CARP. I disagree with this reasoning as there are a number of other policies in the Proposed CARP that provide similar guidance, for example, a number of policies refer to minimising or reducing the effects of discharges (Policies 6.2, 6.4, 6.10 and 6.19).
- 5.4 In my opinion, Policy 6.12 remains unnecessary and should be deleted. It adds nothing to the Proposed CARP in terms of development of an appropriate resource management framework for the region's air resources. However, this policy does not unduly constrain St George's ability to operate or seek new resource consents in the future, and for this reason Policy 6.12 is not a key submission issue for St George's.

#### **Policy 6.14**

- 5.5 Policy 6.14 states:

*“Adopt the precautionary approach when assessing the effects of discharges where the effects are not predictable because of uncertainty or absence of information.”*

- 5.6 St George's opposed this policy and requested its deletion. The reasons for this request were outlined in the submission as follows:

*“ ... The effects of significant discharges to air are more often than not assessed through modelling. It is not uncommon, for a degree of uncertainty to be ascribed to modelling approaches, no matter how widely used and accepted they are. In addition, the potential absence of information is most likely to be attributable to a lack of ambient air quality monitoring. Where either of these scenarios apply, it is considered unreasonable to place a significant additional burden on those seeking resource consents, especially when the RMA (particularly section 104) and the broader policy framework of the CARP provides a means to appropriately assess a discharge, its effects and the appropriateness of avoidance, remediation and mitigation measures. ...”*

- 5.7 The Section 42A Report rejected this submission<sup>18</sup> and recommended retention of the policy as notified. The Section 42A Report states that the deletion of this policy is not appropriate as the intent of the policy is to ensure that decision makers may adopt a precautionary approach where the potential significance of effects are unknown.

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<sup>17</sup> Recommendation R-6.12 – pp. 10-8 to 10-9 and 16-16 to 16-17 of the Section 42A Report.

<sup>18</sup> Recommendation R-6.14 – pp. 10-11 and 16-17 of the Section 42A Report.

- 5.8 My main reservation with this policy arises from a recent experience with seeking a marine consent pursuant to the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act). I acknowledge that the legislative approach of the EEZ Act differs to that of the RMA, However, one of the key reasons that the marine consent was declined was on the basis that modelling was used to identify the broader nature of the environment and thus effects on the environment, and that modelling is inherently uncertain. Air discharge assessments often rely on modelling. If modelling generally is considered to be uncertain (and this becomes a mindset in New Zealand), then this policy has the potential to require the precautionary approach to be applied to a significant number of air discharge permits considered in accordance with the provisions of the Proposed CARP.
- 5.9 An example of the utilisation of the precautionary approach within an RMA statutory plan is Policy 3 of the New Zealand Coastal Policy Statement 2010. Part 1 of Policy 3 states – *“adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse”*. This policy specifically relates to instances where there is the potential for significant effects. This is consistent with international literature on the precautionary approach, which identifies that the precautionary principle or approach is to be considered in instances where there is the potential for significant harm or effects. Policy 6.14 does not provide this clarity (i.e., the precautionary approach should only be adopted if potential effects associated with the uncertainty and lack of information are significant).
- 5.10 Finally, I do not believe that a policy is required to enable decision makers to consider whether or not the adoption of the precautionary approach is required when assessing discretionary and non-complying activities. Section 104(1)(c) of the RMA enables decision makers to have regard to any other matter that the decision makers consider relevant or necessary to determine the application. This could include consideration of the need or otherwise to apply the precautionary principle or approach.

#### **Policy 6.20**

- 5.11 Policy 6.20, as notified, stated:

*“Apply the best practicable option to all large scale and industrial activities discharging contaminants into air so that degradation of ambient air quality is minimised”*.

- 5.12 St George’s opposed this policy and requested its deletion, as it was unnecessary given that Policy 6.10 already provided for the application of the best practicable option. Policy 6.10, as amended within the Section 42A report, states:

*“All activities that discharge into air apply the best practicable option so that cumulative effects are minimised”*.

- 5.13 In my opinion, these policies are aiming to achieve the same outcome, even though Policy 6.20 refers to the degradation of ambient air quality, and Policy 6.10 refers to cumulative effects. When considering the discharge of contaminants to air, any adverse cumulative effects will become evident if ambient air quality degrades.
- 5.14 The Section 42A Report rejected St George's submission<sup>19</sup>. However, as a result of other submissions, the report advises that Policy 6.20 will be amended "... *to provide clear guidance as to what is to be achieved in applying BPO in different receiving environments*". At the time of preparing my evidence, the proposed amendments to this policy had not been provided to submitters and therefore I cannot comment further.
- 5.15 Irrespective any proposed amendment, in my opinion Policy 6.20 is not required. It is unnecessarily repeating other policies that aim to achieve the same outcome. However, this policy (as notified) does not unduly constrain St George's ability to operate or seek new resource consents in the future, and for this reason Policy 6.20 is not a key submission issue for St George's.

## 6. CONCLUSION


- 6.1 In my opinion, the Proposed CARP needs to establish a framework for the management of the region's air resource that appropriately safeguards and sustains the life-supporting capacity of air for future generations, while enabling activities to discharge contaminants into air provided any adverse effects associated with such activities are avoided, remedied or mitigated. With this principle in mind, it is important that activities utilising the region's air resource are not unduly constrained. On the whole, the Proposed CARP does achieve this balance and where it does so, I have supported the proposed management framework.
- 6.2 However, as discussed in Section 3 of my evidence, there are some provisions of the Proposed CARP that, in my opinion, either need to be deleted or amended in order to provide a more balanced resource management approach. These relate to the:
- (a) lack of appropriate recognition of critical infrastructure, which include hospitals;
  - (b) inappropriate use of the AAQG to manage individual discharges;
  - (c) reversal of the usual approach to the management of reverse sensitivity issues;

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<sup>19</sup> Recommendation R-6.20 – pp. 13-7 and 16-18 of the Section 42A Report.

- (d) unnecessary, and at times incomplete, replication of the provisions of the NES, and the implications of this; and,
- (e) inclusion of Condition 3 of Rule 7.19 when it provides no environmental benefit.

6.3 Finally, Section 4 of my evidence discusses three specific policy provisions of the Proposed CARP that St George's opposed and requested to be deleted. While I consider that the issues associated with these policies are valid, and therefore deletion of these policies is still appropriate, the retention of these policies are not necessarily a key issue for St George's.



**CARMEN TAYLOR**

**18 September 2015**