

## Make Submission

<b>Consultee</b>	mr john jagusch (58810)
<b>Email Address</b>	jag@xnet.co.nz
<b>Address</b>	5 /b waterholes road springston Christchurch 7674
<b>Event Name</b>	Proposed Canterbury Air Regional Plan
<b>Submission by</b>	mr john jagusch
<b>Submission ID</b>	pCARP-114
<b>Response Date</b>	26/03/15 3:19 PM
<b>Consultation Point</b>	13 MANDATORY INFORMATION ( <a href="#">View</a> )
<b>Status</b>	Submitted
<b>Submission Type</b>	Web
<b>Version</b>	0.1

### Trade Competition

Pursuant to Schedule 1 of the Resource Management Act 1991, a person who could gain an advantage in trade competition through the submission may make a submission only if directly affected by an effect of the proposed policy statement or plan that:

- a) adversely affects the environment; and
- b) does not relate to trade competition or the effects of trade competition.

**Please tick the sentence that applies to you:** I could not gain an advantage in trade competition through this submission; or

### To Be Heard

**Please select the appropriate option from the following:** I DO NOT wish to be heard in support of my submission; or

If so

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<b>Consultation Point</b>	1 Introduction ( <a href="#">View</a> )
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### Support Oppose

Supports in Part or Opposes in Part

*State concisely whether you support or oppose the provision being submitted on, or wish to have amendments made.*

**My submission is that:** . Support

*Please state your reasons for supporting/opposing/amendments sought*

### My reason(s) for supporting, opposing or requesting amendments to this specific provision are:

As a resource, air can be taken for granted. It is abundant, pervasive and available to us all. The quality of air can vary immensely depending on both environmental and human influences. When air quality is good, our ability to enjoy our environment is increased. As air quality is degraded, people and the environment can be adversely affected. There are competing uses that need to be managed so that people can transport and heat themselves and be employed while also being able to enjoy their living environment.

The purpose of the Canterbury Air Regional Plan (the Air Plan) is to identify the objectives, policies and rules needed to manage the human influences on air quality in Canterbury so that our health and wellbeing is optimised. The Air Plan seeks to support the Canterbury Regional Council's (CRC's) non-regulatory clean air work programme with regulation that:

- 1 Provides for the maintenance of our good quality air and improves air quality where it is degraded; and

- 2 Enables and encourages the development and use of new technology and innovation that will improve air quality outcomes; and
- 3 Provides for industrial and economic growth in appropriate areas, including through the adoption of the best practicable option and best practice; and
- 4 Provides for community wellbeing.

#### **Air quality issues in Canterbury**

Most of Canterbury enjoys air quality that ranges from good to pristine. The clear air and lack of light pollution in the Mackenzie Basin provides for excellent visibility of the night sky that has received international recognition, and our rural areas have good air quality most of the time. Our towns and cities experience poorer air quality, particularly in winter, and rural areas can experience poor air quality from time to time as burn-offs and other rural practices take place. Wintertime air quality in Timaru is amongst the worst in New Zealand.

The major contaminant that decreases air quality in Canterbury is particulate matter that is less than 10 microns in size (PM 10). PM 10 is a mixture of small particles of pollen, smoke, soot, dust or any other tiny particle that may become suspended in the air. These are so small that they can get deep within our lungs and cause wide ranging health and respiratory problems.

Other contaminants are present in Canterbury's air that also affect health and wellbeing. In addition to PM 10 the CRC monitors nitrogen dioxide, carbon monoxide, sulphur dioxide, benzo(a)pyrene, PM 2.5, benzene and 1-3 butadiene. These contaminants are released into the air as a product of combustion processes and come from home heating, industrial and transport sources.

**// what are the products(in the air) of large scale plastic(silage wrap) burnoff on farms.? I have photos of it sitting on top of a pile of "dry" debris waiting to be burned. Later a black patch on the ground indicated the " plastic burnoff" had been a success. Besides the contaminated air effect on people like me in the neighbourhood, also no doubt the cows eat grass contaminated by that, as it is in the middle of a large very green dairy farm.**

The significant health effects of poor air quality are well established at both an international level through the World Health Organisation and national level by both the Ministry of Health and the Ministry for the Environment. These include effects on public health from increased rates of respiratory and cardiovascular disease, to nuisance effects from unpleasant odours or diminished visibility.

The HAPINZ Study (updated 2012) ( 1 ) estimated that in Canterbury each year there are the following health impacts from PM 10:

- 1 435 a dults (30+) die prematurely;
- 2 72 Cardiac hospital admissions;
- 3 108 Respiratory hospital admissions.

It is clear that improving air quality could reduce the number of premature deaths caused by exposure to poor air quality. It could also mean fewer people taking days off work, going to hospital, and visiting their doctors.

Contaminants that may not have a physical health effect, but which do affect wellbeing include odours and dust. Odours and dust can come from a wide range of activities and how they affect people depends on the frequency, intensity, duration, offensiveness and location of the discharge of dust or odour. Ensuring people can go about their lives without undue exposure to odour and dust is challenging and requires careful management of both the discharges of contaminants and the land uses that support and surround those discharges.

#### **Polluted airsheds**

Canterbury has seven towns that regularly exceed the Resource Management (National Environmental Standards for Air Quality) Regulations 2004 (the NESAQ) standards for PM 10 and have therefore been identified as polluted airsheds. Those towns are Rangiora, Kaiapoi, Christchurch, Ashburton, Geraldine, Timaru and Waimate. Within polluted airsheds, PM 10 concentrations are monitored daily and the NESAQ has set targets for reducing these concentrations.//

// The fact that there are 7 airsheds reported as being of note may minimise (for investigators) the effect that less contaminated areas may experience. We have a bit of an "airshed" here also. I often smell it in the house when burnoff is happening

#### **Contaminants**

Contaminants occur naturally in the air. Where we introduce more contaminants into the air, some can reach concentrations that can affect the health of people and the environment. The Ministry for

the Environment sets guideline values for contaminants, which are levels of concentrations that are likely to have health effects. Where these guideline values are exceeded, it is important that the concentrations of the contaminants are reduced to safer levels.

### **///Yes. Especially if it can easily be achieved.**

**PM 10** can get deep within our lungs and cause wide ranging health and respiratory problems. The main source of PM 10 in urban areas is home heating, but industry and transportation also emit PM 10. There is no safe level of PM 10 exposure. Acceptable levels of PM 10 have been set nationally by the NESAQ, based on the World Health Organisation Guideline for PM 10. This is a limit of fifty micrograms of PM 10 per cubic metre ( $50\mu\text{g}/\text{m}^3$ ) averaged over a 24 hour period. One exceedence of this standard is allowed each year and targets for compliance with this health-based standard are set for each polluted airshed.

**PM 2.5** is a component of PM 10 that is made up of even smaller particles. Due to their smaller size they can get deeper within our lungs. PM 2.5 emission sources include home heating, transport and industry. There are no national guidance values for PM 2.5, but the World Health Organisation recommends ( 2 ) a limit of 25 micrograms of PM 2.5 per cubic metre ( $25\mu\text{g}/\text{m}^3$ ) averaged over a 24 hour period. It is likely the World Health Organisation guidance values for PM 2.5 are regularly exceeded in all of Canterbury's polluted airsheds. Monitoring shows these values are regularly exceeded in Christchurch and Timaru.

**Nitrogen dioxide** is a gas that can aggravate asthma symptoms and reduce lung development in children. The main source of nitrogen dioxide is motor vehicles. Monitoring of nitrogen dioxide in Canterbury has been undertaken in areas with a high volume of traffic. Even in these congested areas, monitoring shows nitrogen dioxide remains below the Ministry for the Environment's guideline values.

**Carbon monoxide** is a gas that can aggravate heart conditions, and reduce the amount of oxygen received by body tissues. The main sources of carbon monoxide in Canterbury are home heating and vehicle emissions. In most of Canterbury, carbon monoxide levels remain below the Ministry for the Environment's guideline values. However, there are infrequent breaches of guideline values in Christchurch.

**Sulphur dioxide** is associated with, and can aggravate, respiratory conditions. In Canterbury, the main source of sulphur dioxide is industrial emissions. As with carbon monoxide, in most of Canterbury sulphur dioxide levels remain below the Ministry for the Environment's guideline values. However, there are infrequent breaches of guideline values in Christchurch.

**Benzo(a)pyrene** is associated with health problems ranging from respiratory irritation to cancer. Home heating is the main source of benzo(a)pyrene in Canterbury. Concentrations of Benzo(a)pyrene exceed the Ministry for the Environment's guideline values in Christchurch and Timaru.

### **Sources of contaminants**

This section focuses discusses the sources of contaminants in Canterbury. There is a particular focus on PM 10 as this is the primary pollutant affecting urban areas in Canterbury.

Sources of PM 10 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 10 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 10 concentrations in the polluted airsheds.

### **Outdoor burning and rural discharges of contaminants**

Outdoor burning of household, garden and farm rubbish can cause nuisance problems and can generate potentially hazardous compounds, depending on the material burnt. Burning of organic and non-organic waste has been phased out in urban areas under the Canterbury Natural Resources Regional Plan, and is generally no longer an issue. Burning of inorganic waste has also been phased out in rural areas. Burning of organic matter in rural areas is still practised, and in some instances is a crucial land management tool, but often results in nuisance effects.

Discharges of odour in rural areas have, in the past, been associated mainly with intensive pork and poultry farming. Discharges of odour from dairy practices is an emerging issue as land use intensifies in Canterbury's rural areas.

**///The burning of stubble, when its dry, that is really dry, which it clearly isn't as smoke hovers about here and can be smelled in the house for lengthy periods, is common. Traditionally stubble was considered dry so could be burnt, and / or no one complained about smoke in their house down wind from the paddock burnoff.**

**But the environment has changed with dairying, and with all the irrigation humidity must also have changed the air, and ripping up gorsehedge rows in conjunction with plots of trees which have often been blown over. The latest in Sept 13. A large digger was in a paddock close by in January doing the above and leaving it in piles to be burnt. Trees had been taken away and milled. For a dairy farm such vegetation is not growing grass, which needs rectifying.**

**The piles of to be burnt gorse will no doubt be burnt as soon as its autumn and the risk of fire spreading is reduced. But there is likely to be less wind and greater humidity so the contaminants are less likely to be blown "away". I would say poor combustion is likely of that to be burnt material amid the smell of cow shyte. So, a changed environment which impacts on us. I smell cow poo in the air now. That was never the case.**

### **Industrial and large scale discharges of contaminants**

Industry, including the service industry, contributes a significant proportion of the contaminants in our air, including odour and dust, particularly in urban areas. The effects of industrial discharges into air are linked strongly to land use patterns around the activities that discharge contaminants into air. This requires integrated management across local government to ensure the effects are managed appropriately.

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.

### **Home heating**

Home heating is the main source of most of the contaminants that exceed guideline values in Canterbury. By reducing emissions from home heating, improvements can be made in concentrations of PM 10, PM 2.5, carbon monoxide and benzo(a)pyrene in our most polluted areas. In polluted airsheds, PM 10 reductions from home heating are essential for achieving the NESAQ targets.

Conventional wood burners are a preferred home heating option for many households. The amount of contaminants a wood burner discharges is determined by the type and age of wood burner, the operation of the burner, and the type and quality of the fuel burnt. The sum of these factors, combined with geographical and meteorological conditions, determines the total number of wood burning devices that can be accommodated in each airshed before national standards are exceeded.

**///Yes we still have some coal burning fires around here. When there is a northerly wind I notice the neighbours are burning it, as our house is downwind then. Otherwise I would not know. It remains a tradition for some people, so this change being implemented is good. I have phoned ECAN about the coal burning next door and ECAN have paid them a visit so they say but what I found was they just got more cunning about when they burnt it. I hope your improvements are going to produce better results than that.**

**We have a log burner also but when we got it it was an eco one as we have a conscience about this stuff. And we burn "dry" wood. No doubt it has been superceded now by a more efficient one. I hope the price of that is not going to be ridiculous.**

### **Motor vehicles**

Motor vehicles are sources of pollutants such as carbon monoxide, nitrogen dioxide and benzene, as well as PM 10. National programmes targeted at upgrading vehicle emission standards, and fuel specifications have resulted in a downward trend in vehicle emissions in Canterbury. Well-designed transport modes and sustainable transport solutions are important to support growth and to reduce the impacts of more motor vehicles being used.

While motor vehicles are a contributor to poor air quality in polluted airsheds, the Air Plan cannot effectively address them. Integrated management of land use that ensures traffic congestion is minimised, and or low or non-polluting modes of transport are adopted, are key methods for improving air quality. This integrated management is achieved through the provisions of the Canterbury Regional Policy Statement. The Canterbury Regional Policy Statement provides policies and methods which must be given effect to by regional and district plans. It is the Canterbury Regional Policy Statement that will drive land use patterns that avoid traffic congestion. Nationally led drivers for improved fuel

and vehicle technology are also effective means of reducing the contribution of motor vehicles to degraded air quality. These means are best addressed in policy and regulation outside of this document.

### **Key management responses for air quality**

The management of air quality is complex. Ensuring everyone has access to good quality air while balancing the social and economic costs of achieving this requires a multi-pronged approach. The approach the CRC has adopted has the following components:

- 1 Non-regulatory education, advocacy and support programmes, particularly for PM 10 and PM 2.5 reduction;
- 2 A statutory planning framework that supports the non-regulatory programmes;
- 3 Working with key partners.

The NESAQ sets targets for air quality improvement in polluted airsheds. It is the responsibility of the CRC to observe and enforce observance of these targets. This will occur through a combination of both the non-regulatory work programme and statutory planning.

### **Non-regulatory programmes**

The non-regulatory programmes are essential to achieving good air quality across the Region. These programmes will help to ensure that reducing emissions of particulate, particularly from home heating, does not result in perverse outcomes such as replacing poor air quality related health impacts with cold home related health impacts. These programmes are tailored on an annual basis to suit the needs of each community in Canterbury.

*Please give precise details for each provision. The more specific you can be the easier it will be for the Council to understand the outcome you are seeking.*

### **I seek the following decisions from Environment Canterbury:**

Burn nothing at home or on farms (that includes plastic) that can be got rid of another way.

Stop domestic coal burning.

Have very efficient log burners.

How are you going to police it as there are pyromaniacs out there?

### **Air Shed**

**Which Air Shed does this submission relate to or none**

**Choose one of the following three**

**Tick relevant topics**

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### **Outdoor burning and rural discharges of contaminants**

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### **Air Shed**

**Which Air Shed does this submission relate to or none**

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**Tick relevant topics**