

Review of the Canterbury Regional Policy Statement: Air quality

Purpose

The purpose of this paper is to discuss options on the approach to be used to review the air provisions (Chapter 13) of the Canterbury Regional Policy Statement (CRPS). The paper brings together the current thinking on the review of these CRPS provisions. It outlines the options and preliminary approaches to be used in the review. Views are being sought on possible approaches prior to undertaking detailed analysis or drafting specific wording.

Background

Environment Canterbury has begun its review of the CRPS. The review must consider all the provisions in the CRPS, decide whether to retain, amend, or delete existing provisions, or add new provisions. The statutory context for the review of the air provisions found in Chapter 13(Air) is summarised in Appendix 1.

Air is an important natural resource in Canterbury. Safeguarding the life-supporting capacity of air, and enabling people and communities to provide for their health, safety and wellbeing¹, are all matters of importance in promoting sustainable management of natural and physical resources.

Ambient air quality issues in Canterbury are generally confined to suspended particulate (PM₁₀), with some evidence of carbon monoxide (CO) and benzene exceedences in Christchurch. The PM₁₀ ambient air quality issues are significant, and occur in a number of Canterbury's urban areas. It is more difficult to quantify the extent of local air quality issues. Experience and an examination of the environmental incidents registered with the Environment Canterbury pollution hotline, indicate that local air quality issues are relatively common and spread across the Canterbury region. In relation to global air quality issues, greenhouse gas emissions continue to increase in the Canterbury region, principally as a result of increases in the transport sector.

Since the CRPS became operative, the context within which Chapter 13 was prepared has changed considerably. At the national level:

1. There is now considerable focus on climate change and the appropriate response. As part of this, the Resource Management (Energy and Climate Change) Amendment Act 2004 was enacted. The effect of this amendment to the Resource Management Act 1991 is to focus local authorities on the consequences of climate change, not its direct causes.
2. The first national environment standard was prepared (the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxins) Regulation 2004 (NESAQ)). At a national level this prohibits certain discharges, and specifies ambient air quality standards and consequences of not achieving these.

In addition, Environment Canterbury:

1. Publicly notified a regional plan specifically relating to air quality – Chapter 3 of the PNRRP. This includes measures to address local and ambient air quality issues in Canterbury. The primary focus of the ambient air quality management is Christchurch.
2. Is implementing the Clean Heat Project, providing assistance and incentives for Christchurch home owners to change their method of home heating in order to improve ambient air quality.

¹ Health, and the related impacts of poor air quality, are the subject of considerable research in New Zealand and internationally. Within Canterbury, the health impacts of PM₁₀ (suspended particulate matter less than 10 microns in diameter) contamination of air is directly relevant. These health, and associated impacts include; premature death, increased bronchial, respiratory and heart conditions, and increased restricted activity days. One recent and comprehensive local study is: *Fisher et al (2005) Health and Air Pollution in New Zealand: Christchurch Pilot Study* Health Research Council, Ministry for the Environment, Ministry of Transport.

3. Is working on specific management responses in a number of other airsheds in Canterbury where there is a PM₁₀ ambient air quality issue.

CRPS provisions and the effectiveness of these

The air provisions in the CRPS are principally found in Chapter 13 (Air). In addition, related provisions are found in Chapter 12 (settlement and built environment)², Chapter 14 (Energy)³ and Chapter 15 (Transport)⁴.

Within Chapter 13 there are three key threads, being:

1. Maintain or improve ambient air quality so that it is not a danger to peoples health and safety, and reduce the nuisance effects of low ambient air quality, with specific priority accorded to Christchurch and Timaru.
2. Avoid, remedy or mitigate the adverse effects of localised air discharges.
3. Reduce Canterbury's contribution to global issues relating to greenhouse gases and stratospheric ozone depleting substances.

The effectiveness and efficiency of the current CRPS policies and methods was evaluated in *Our changing environment: An Evaluation of the 1998 Canterbury Regional Policy Statement*⁵. Information contained in this report indicates that:

1. Ambient air quality, particularly in relation to PM₁₀, is generally improving. This is primarily a result of Chapter 3 of the Proposed Canterbury Natural Resources Regional Plan (PNRRP), resource consent processes and Environment Canterbury's Clean Heat Project (for Christchurch).
2. No trends can be determined in relation to local air quality.
3. In relation to greenhouse gas emissions (i.e. climate change), Canterbury's CO₂ emissions are increasing. While trends in methane emissions are not known for Canterbury, dairy livestock numbers have increased significantly.

The findings of *Our changing environment* were that both ambient and local air quality continue to be significant resource management issues for the Canterbury Region. However, it is no longer appropriate (because of changes to the RMA and direction from the Environment Court) for the CRPS to be directly dealing with air discharge in the context of global issues.

Turning to the effectiveness and efficiency of the nine individual policies in Chapter 13:

1. *Policy 1 (ambient air quality)* is effective. Chapter 3 of the PNRRP gives effect to this Policy and the regulatory provisions have been backed up with initiatives such as the Clean Heat Project.

² See Policy 1

³ See Policies 1 and 2

⁴ See Policies 2 and 3

⁵ Environment Canterbury (2007)

2. *Policy 2 (carbon based fuels)* and *Policy 9 (carbon dioxide)* represents specific areas of weakness and are ineffective. The indication is that these policies, and the transport related implementation measures (Method 2(c)), are not achieving the desired result. To a degree this is to be expected. While there are local measures that can influence transport demand (e.g. traffic management, alternative modes and urban form), primarily gains will be made through national programmes driven by central government (e.g. fuel quality, emission standards, road charging) or in response to fuel pricing signals.
3. The effectiveness of *Policy 3 (discharge of contaminants to air)* and *Policy 4 (chemical sprays)* is difficult to gauge. Environmental monitoring data is incomplete, reflecting the difficulty in establishing and implementing a monitoring programme for such a wide and diffuse objective. Local air quality continues to generate a significant number of complaints to Environment Canterbury. Policies 3 and 4 are both given effect to through Chapter 3 of the PNRRP and resource consent conditions. To this extent they can be considered to be effective.
4. *Policy 5 (reverse sensitivity)*, while also reflected in Chapter 3 of the PNRRP, appropriately sits in the CRPS to provide guidance to district plans. This is because it has both land use and discharge components. This policy is considered effective.
5. *Policy 6 (landfills)* is superseded by the NESAQ controlling greenhouse gas emissions at landfills (Regulations 25 to 27).
6. The effectiveness of *Policy 7 (vegetation cover)* is not known. There is insufficient evidence to draw definite conclusions about whether carbon dioxide emissions in the region are being offset by vegetation cover, but this appears highly unlikely.
7. *Policy 8 (ozone-depleting substances)* is ineffective and inefficient. Environment Canterbury has undertaken limited action with respect to ozone-depleting substances. The primary management measure is the Ozone Layer Protection Act 1990, under which regional councils have no direct role. Management that has occurred in the Canterbury region is a result of hazardous substance management, primarily by the territorial authorities (though facilitated by Environment Canterbury).

Options and discussion

Subject to the statutory requirements of the RMA, the appropriate approach to be used in the review of the CRPS air provisions is dependent on the specific resource management issues being addressed. Within the CRPS there are four resource management issues identified in relation to air. Earlier consultation and issue mapping for this review did not identify further issues for inclusion within the CRPS.

As a result of the above analysis, with respect to the existing four resource management issues in the CRPS, it is recommended that:

1. The ambient air quality issue (Chapter 13 Issue 1) is retained, but expanded to recognise other known polluted airsheds.
2. The localised air discharge issue (Chapter 13, Issue 2) is retained, but the inclusive list reviewed for currency.
3. The greenhouse gas emissions issue (Chapter 13, Issue 3a) is deleted.
4. The stratospheric ozone issue (Chapter 13, Issue 3b) is deleted.

An analysis of the relevance and significance of these four issues is set out in Appendix 2.

Objective 1 (ambient air quality) and *Objective 2 (Local air quality)*, and the related provisions, form the strategic framework within which PNRRP Chapter 3 fits. PNRRP Chapter 3 and district plans give effect to this framework. Until such time as PNRRP Chapter 3 is operative, these provisions are the

only operative statutory provisions prepared under the Resource Management Act 1991. Once PNRRP Chapter 3 becomes operative, the day to day management of ambient air quality will be achieved through, or by reference to, Chapter 3. Further, achieving the outcomes sought in

Objectives 1 and 2 requires territorial authorities to manage the effects of the use of land (e.g. see Policies 2 and 5). The CRPS provides a framework for this management. Consequently, it is recommended that:

1. Objectives 1 and 2 are retained.
2. Policies 1, 3, 4 and 5 should remain in the revised CRPS as they provide the primary policy framework for improving ambient and local air quality within the region, but be reviewed for currency.
3. Policy 2 and the associated implementation methods need to be reconsidered.
4. Policy 6 is no longer necessary and can be deleted.

It is also noted that the delivery of the outcomes sought in Chapter 13 is closely related to Environment Canterbury's Long Term Council Community Plan (LTCCP) process, for example the Clean Heat Project. When reviewing those methods that result in a need for Environment Canterbury to provide resources, it will be important to determine the ability of those resources to be provided through the LTCCP process.

With regard to *Objective 3 (global emissions)*, it is recommended that Issue 3 is deleted from the CRPS. Consequently, Objective 3, the resulting Policies 7, 8 and 9, and associated implementation methods, are also recommended for deletion.

Therefore, broadly speaking, resulting from the above analysis the approaches available for the review of the air provisions of the CRPS are:

1. Focus Chapter 13 on ambient and local air quality issues removing those provisions from Chapter 13 relating to global issues not able to be directly influenced at the regional level – delete provisions relating to greenhouse gases and stratospheric ozone depleting substances, but retain the focus on ambient and air quality issues.

And either

2. Maintain the current level of detail in the CRPS on ambient and local air quality - review the provisions within Chapter 13 as outlined in this report, but maintain the current level of detail.

Or

3. Introduce greater level of specificity in the CRPS in relation to ambient air quality- as part of the review of Chapter 13 more closely reflect the national environmental standards for ambient air quality specified in NESAQ.

These approaches are not mutually exclusive. A brief analysis of the strengths and weaknesses of these three approaches is set out in Appendix 3.

Concluding comments

Given the findings in relation to the effectiveness and efficiency⁶, the feedback on Environment Canterbury's scoping report⁷, and the consultation responses to date, it is recommended that the review proceeds as follows:

1. The existing level of detail in relation to ambient and local air quality issues and responses is retained, with the provisions being reviewed for currency.
2. Provisions relating to greenhouse gases and stratospheric ozone depleting substances are deleted from Chapter 13.

⁶ Environment Canterbury (2007) *Our changing environment: An Evaluation of the 1998 Canterbury Regional Policy Statement*. Still in draft form

⁷ Environment Canterbury (2006) *Canterbury Regional Policy Statement Scoping Report: Report on the issues and approach for review of the Canterbury Regional Policy Statement*

Appendix 1: Summary of statutory context for the review

The role of the CRPS (to achieve the purpose of the RMA) is to provide an overview of the resource management issues of the Region and the policies and methods to achieve the integrated management of the natural and physical resources of the whole Region (section 59).

The RMA prescribes Environment Canterbury a number of functions relating to the management of air. These include:

1. *the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region* (section 30(1)(a))
2. *the preparation of objectives and policies in relation to the actual or potential effects of the use, development, or protection of land which are of regional significance* (section 30(1)(b))
3. *in respect of any coastal marine area in the region, the control (in conjunction with the Minister of Conservation) of discharges of contaminants into or onto land, air, or water and discharges of water into water* (section 30(1)(d)(iv))
4. *the control of discharges of contaminants into or onto land, air, or water and discharges of water into water* (section 30(1)(f))
5. *the strategic integration of infrastructure with land use through objectives, policies, and methods* (section 30(1) (gb))⁸.

⁸ This function did not exist at the time the current CRPS became operative.

Appendix 2: Review of resource management issues

Issue	Relevance	Significance	Recommendation
<p><u>Chpt 13, Issue 1:</u> Existing and potential health and nuisance effects of low ambient air quality in the urban and settled areas of Canterbury, particularly in Christchurch and Timaru.</p>	<p>Remains relevant. This is reinforced by the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxins) 2004. Chapter 3 of the PNRRP directly addresses this issue. The issues relevance is wider than Christchurch and Timaru</p>	<p>Remains significant. In particular, the PM₁₀ ambient air quality issue is a significant resource management issue for the Canterbury region. Other ambient air quality issues may be emerging. This is consistent with the direction and guidance from national government.</p>	<p>Retain this issue, but broaden it to recognise other polluted airsheds.</p>
<p><u>Chpt 13, Issue 2</u> Nuisance and health effects and adverse effects on natural and physical resources and social and cultural values from localised discharges of contaminants into air including:</p> <ul style="list-style-type: none"> (a) smoke from domestic fires and emissions from motor vehicles. (b) smoke and gases from industrial processes, for example from chemical manufacturing plants, spray painting and waste incineration. (c) odours generated, for example, from composting, fish processing factories, piggeries, oxidation ponds, land effluent disposal, fertiliser and freezing works. (d) chemical spray drift. (e) dust, for example, from land where vegetation has been removed, quarries, gravel roads, cultivation, and from stockpiles of materials such as coal. (f) smoke generated in both urban and rural areas by burning of vegetation and waste. 	<p>Remains relevant. Chapter 3 of the PNRRP directly addresses this issue</p>	<p>Remains significant.</p>	<p>Retain this issue but review list based on Environment Canterbury experience.</p>

<p><u>Chpt 13, Issue 3(a)</u> The potential for climate change from greenhouse gas emissions, including: emissions from burning of carbon-based fuels, methane and other emissions from landfills, motor vehicle emissions, and pastoral and dairy farming.</p>	<p>No longer relevant. The Resource Management (Energy and Climate Change) Amendment Act 2004 makes it clear that local authorities are not to consider the effects of discharges to air on climate change (Section 3(b)(ii)). Rather, with respect to greenhouse gases, the focus of the RMA is now on having particular regard to; the efficiency of the end use of energy, the effects of climate change, and the benefits to be derived from the use and development of renewable energy (Section 3(a)). Accordingly, local authorities are now to plan for the <i>effects of climate change</i> (Section 3(b) (i)).</p>	<p>Continues to be significant at the national and international levels.</p>	<p>Delete this issue.</p>
<p><u>Chpt 13, Issue 3(b)</u> Stratospheric ozone layer depletion from the release of CFCs and other ozone depleting substances.</p>	<p>No longer relevant. The primary management measure is the Ozone Layer Protection Act 1990, under which regional councils have no direct role. Management that has occurred in the Canterbury region is a result of hazardous substance management, primarily by the territorial authorities (though facilitated by Environment Canterbury).</p>	<p>Continues to be of some significance.</p>	<p>Delete this issue.</p>

Appendix 3: Analysis of policy approaches: air

Option 1: Focus Chapter 13 on ambient and local air quality issues removing those provisions from Chapter 13 relating to global issues not able to be directly influenced at the regional level

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Reflects the Resource Management (Energy and Climate Change) Amendment Act 2004 	<ul style="list-style-type: none"> Does not recognise the importance of resolution of the global issues to the well-being of the Canterbury community.
Issue resolution	<ul style="list-style-type: none"> Recognises the inability to resolve the global issues at a regional level 	<ul style="list-style-type: none"> Fails to recognise important national and international issues
Integrated management	<ul style="list-style-type: none"> Ensures Canterbury is not disadvantaged by local actions 	<ul style="list-style-type: none"> Does not recognise linkages between local resource management actions and global issues
Carrying out functions	<ul style="list-style-type: none"> Achieves Environment Canterbury's functions 	
Consultation views		
OVERVIEW	This approach is effective and efficient.	

Option 2: Maintain the current level of detail in the CRPS on ambient and local air quality

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Provides the necessary overview to achieve the purpose of the Act. 	<ul style="list-style-type: none"> Remains uncertainty as to the actual air quality standards required.
Issue resolution	<ul style="list-style-type: none"> Provides a framework for regional plans and district plans to resolve ambient and local air quality issues 	<ul style="list-style-type: none"> Does not define in a precise and measurable way the desired air quality.
Integrated management	<ul style="list-style-type: none"> Provides a framework for regional plans and district plans to achieve integrated management 	
Carrying out functions	<ul style="list-style-type: none"> Achieves Environment Canterbury's functions 	
Consultation views		
OVERVIEW	This approach is effective and efficient.	

Option 3: Introduce greater level of specificity in the CRPS in relation to ambient air quality

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Provides certainty as to the air quality required to be achieved 	<ul style="list-style-type: none"> Reduces flexibility to respond to changes in understanding of appropriate ambient air quality outcomes
Issue resolution	<ul style="list-style-type: none"> Defines in a precise and measurable way the desired air quality. 	<ul style="list-style-type: none"> Does not advance the resolution of ambient air quality issues in Canterbury (due to the NESAQ and Chapter 3 of the PNRRP)
Integrated management	<ul style="list-style-type: none"> Ensures common solutions across the Canterbury Region 	<ul style="list-style-type: none"> Unnecessary because of the status of the NES
Carrying out functions	<ul style="list-style-type: none"> Can achieve Environment Canterbury's functions 	<ul style="list-style-type: none"> Can be seen to going beyond an 'overview'
Consultation views	<ul style="list-style-type: none"> Provides a greater level of certainty 	<ul style="list-style-type: none"> Potential compliance costs for territorial authorities (giving effect to the direction in district plan) Seen as one size fits all solution
OVERVIEW	This approach is less effective and efficient. Than the previous two options.	