

Proposed new objective, policies and methods (excluding rules)

Objective AQL6 – PM₁₀ ambient air quality in the Ashburton Clean Air Zones 1 and 2

- | Objective AQL6 | Objective for PM ₁₀ ambient air quality in the Ashburton Clean Air Zones 1 and 2 |
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| (a) | In the Ashburton Clean Air Zone 1, improve ambient air quality so that, on and after 31 August 2013, the concentration of PM₁₀ is 50 µg/m³ (24-hour average) or less, with no more than one annual exceedence. |
| (b) | By 31 August 2013, achieve an overall 43% reduction in concentrations of PM₁₀ in the Ashburton Clean Air Zone 1 by: |
| | (i) ensuring outdoor burning practices do not contribute any PM₁₀ during the time when Objective AQL6 may not be met; and |
| | (ii) providing for a maximum overall increase in emissions of 20% from 2006, from discharge sources other than specified in Objective AQL6(b)(i) and (iii), unless any emissions of PM₁₀ over and above the 20% will not contribute to breaching Objective AQL6(a); and |
| | (iii) reducing the emissions from small scale solid fuel burning devices by the amount that is sufficient to achieve the overall reduction target; and |
| | (iv) ensuring that the influence of PM₁₀ emissions from the Ashburton Clean Air Zone 2 on PM₁₀ concentrations in the Ashburton Clean Air Zone 1 does not increase, and is reduced over time. |

Explanation and principal reasons

Objective AQL6(a) defines the ambient air quality PM₁₀ concentrations to be achieved in Ashburton by 31 August 2013. Objective AQL6(b) details the level of reduction necessary to achieve the ambient air quality PM₁₀ concentration, and in order to meet this, the changes in PM₁₀ emissions required from different sources.

PM₁₀ ambient air quality in Ashburton is currently poor. Monitoring shows that this poor air quality generally occurs in winter (from May to September) under calm weather conditions when inversion layers form. These excessive concentrations of PM₁₀ are associated with numerous health problems ranging from minor irritation of eyes and nose to exacerbating existing respiratory and cardiac problems among small children and the elderly. The benefits of reduced concentrations of PM₁₀ include reduced numbers of premature deaths, reduced hospitalisation, reduced restricted activity days, reduced lost work days, reduction in medication use and reduced nuisance effects associated with smell, smoke and materials soiling.

Objective AQL6(a) is the same as the PM₁₀ ambient air quality standard specified in the Resource Management (National Environmental Standards Relating To Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004 (NESAQ). In September 2005, because of poor PM₁₀ ambient air quality, the Ashburton airshed was gazetted in accordance with Regulation 3 of the NESAQ. Under the terms of the NESAQ, failure to achieve the national environmental standard for PM₁₀ after 31 August 2013 means that no resource consent for the discharge of PM₁₀ that would adversely affect that airshed can be granted (Regulation 19). A holder of an existing resource consent allowing the

discharge of PM₁₀ that requires replacement after 31 August 2013 would not be able to obtain a replacement consent. Further, it means a person would not be able to establish an activity within the Ashburton airshed, or an activity that contributes PM₁₀ contaminant to the Ashburton airshed, if that activity requires resource consent to be obtained for the discharge of PM₁₀.

Objective AQL6(a) must be met under the 'worst case' meteorological and emission conditions. At the time of public notification, the monitoring from the year 2006 recorded the 'worst' PM₁₀ ambient air quality concentrations on record, both in terms of the extent that 24-hour concentrations exceeded 50 µg/m³ and the total number of days on which the 24-hour average of 50 µg/m³ was exceeded. However, this was the result of a set of unique and unusual circumstances. Accordingly, for the purposes of Objective AQL6, it has been discounted. The next worst year on record was 2000. As such, the 2000 monitoring results are used as the basis for calculating the reductions required. The 'second-highest' 24-hour average concentration measured in 2000 is used as the 'management value' in order to recognise the provision for one permissible annual exceedence. For Ashburton, the second highest 24-hour average concentration from 2000 must be reduced by 43% in order to meet the Objective AQL6(a). To achieve this reduction in PM₁₀ concentrations, the same percentage reduction of PM₁₀ emissions is required (43%).

PM₁₀ emissions forecasts for Ashburton indicate that without significant intervention, PM₁₀ emissions will not be reduced by 43% by 31 August 2013. Together, domestic home heating (87%) and the industrial/commercial sector (9%) account for 96% of total PM₁₀ emissions. Domestic home heating is the dominant source of PM₁₀ emissions.

Achieving the necessary emission reductions relies upon:

1. Domestic home heating (small scale solid fuel burning devices) reducing emissions by approximately two thirds from 2006 emissions.
2. Other discharge sources, including the industrial/commercial sector (large scale fuel burning devices and other forms of PM₁₀ emissions), increasing by up to 20% from 2006 emissions.
3. No contribution to PM₁₀ concentrations from other non-transport anthropogenic sources from within the Ashburton Clean Air Zone 1. The most likely source is from outdoor burning.
4. No increase, and over time a decrease, in emissions from sources located within the Ashburton Clean Air Zone 2 that have the potential to negate any reductions gained from within the Ashburton Clean Air Zone 1 itself.

Objective AQL6(b)(ii) is designed to primarily cover large scale fuel burning devices and other industrial and trade emissions. Objective AQL6(b)(ii) specifically anticipates that it is possible that discharge of PM₁₀ from sources such as large scale fuel burning devices may be able to be managed so that they do not result in the breaching of Objective AQL6(a). The circumstances under which this could occur are set out under Policies AQL44 and AQL45.

The objective does not address emissions from the transport sector - emissions from this sector are a matter that cannot be effectively controlled through this regional plan. The emission contribution from motor vehicles is minimal. Total emissions from this sector are predicted to decrease as fuel quality increases and more efficient vehicles enter the vehicle fleet.

There are a number of uncertainties associated with the achievement of Objective AQL6. These include:

1. The assumed 1:1 relationship between PM₁₀ concentrations and emissions. This relationship may be affected by the time of day, location and characteristics of individual emission sources.
2. The contribution from environmental (non-anthropogenic) sources. These sources include sea-salt and dust. It is assumed that these sources will be limited to 4 µg/m³ of ambient PM₁₀.

3. The contribution to ambient PM₁₀ from anthropogenic sources other than domestic home heating, industrial/commercial and transport sectors. Other potential sources include outdoor burning. It is assumed that there will be no contribution.
4. The emissions from domestic home heating, industrial/commercial and transport sources in the year 2013. These are forecast under a 'business as usual' scenario.
5. The absolute and relative emissions from domestic home heating sources, which are based on estimates of the:
 - a. typical emission performance from different types of small scale solid fuel burning devices;
 - b. fuel use; and
 - c. method of operation.

These are assessed as part of the forecasts made.

6. The future choices made by individuals and organisations when replacing existing solid fuel burners. It is assumed that the future choices will be similar to the current choices being made.
7. The effectiveness of rules in this Plan in achieving the replacement, or upgrading of, small and large scale fuel burning devices. It is assumed that there will be 100% compliance with the relevant rules.

In introducing the measures to achieve Objective AQL6, it is necessary to ensure that these do not:

1. Result in a failure to achieve Objective AQL2 in relation to pollutants other than PM₁₀.
2. Prejudice the ability for the airshed in the long-term to meet the PM₁₀ Regional Ambient Air Quality Target set out in Objective AQL2.

Environment Canterbury will monitor changes in PM₁₀ concentrations in this airshed. If monitoring indicates that Objective AQL6 will not be met by 2013, Environment Canterbury will initiate further measures.

Policy AQL38 Avoid discharges from open fires in the Ashburton Clean Air Zones 1 and 2

Policy AQL38 Avoid discharges from open fires in the Ashburton Clean Air Zones 1 and 2

Except as provided for by Policies AQL41, AQL42 and AQL44, avoid the discharge of PM₁₀ from open fires that do not meet Policy AQL11:

- (a) in the Ashburton Clean Air Zone 1, that exist as of the date of public notification of Variation 13 , from the earliest of the following dates:**
 - (i) 1 May 2011; or**
 - (ii) the date upon which there is a registered transfer of ownership of the site on which the open fire is located; and**
- (b) in the Ashburton Clean Air Zones 1 and 2, that did not exist as of the date of public notification of Variation 13.**

Explanation and principal reasons

Domestic home heating accounts for a significant proportion of PM₁₀ emissions within the Ashburton airshed. Of all the different domestic home heating appliances, small scale solid fuel burning devices and open fires produce a relatively high level of PM₁₀ emissions per appliance. This is because open fires have low combustion efficiency and are an inefficient form of space heating.

As of 2006, within the Ashburton Clean Air Zone 1, there were a significant number of open fires in use. While this number is reducing, without further intervention, a significant proportion of these open fires will remain in use in 2013. In order to achieve Objective AQL6, except as provided for in Policies AQL41, AQL42 and AQL44, emissions from open fires must cease and emissions from new open fires be avoided.

Where open fires exist, sufficient time is provided to enable households to change from this form of home heating, while also ensuring that Objective AQL6 will be met. In order to achieve this, emissions from open fires must cease by 1st May 2011, or at the 'time of property sale', whichever is the earliest.

The 'time of property sale' provision recognises the significance of selling and purchasing property. It ensures the new owner has no expectation that there is the ability to use an existing open fire. For the purposes of these provisions, "transfer of ownership" does not include:

- (a) a transaction in which a person who was a registered proprietor of the land at the date of public notification of Variation 13, remains or becomes a registered proprietor (whether or not the only registered proprietor) of that land after the transfer; or
- (b) a transaction in which the transferee is a trustee of a trust, and one or more of the transferors is a beneficiary of that same trust; or
- (c) a transaction for which a legal contract was entered into before this rule was publicly notified.

In both Ashburton Clean Air Zones 1 and 2, new discharges from open fires are to be avoided. Within Clean Air Zone 1, this is a component of reducing overall emissions from small scale solid fuel burning appliances. Within Clean Air Zone 2, this will ensure that new emissions from open fires in this zone do not increase PM₁₀ concentrations in Clean Air Zone 1.

Policy AQL39 Emissions from enclosed burners in the Ashburton Clean Air Zone 1

Policy AQL39 Emissions from enclosed burners in the Ashburton Clean Air Zone 1

In the Ashburton Clean Air Zone 1, reduce PM₁₀ discharges from enclosed burners by:

- a) except as provided for by Policies AQL41, AQL42 and AQL44, avoid discharges from enclosed burners installed before 1 January 2001, that do not meet Policy AQL11, from the earliest of the following dates:

 - (i) 1 May 2011; or**
 - (ii) the date upon which there is a registered transfer of ownership of the site on which the enclosed burner is located;****
- b) except as provided for by Policies AQL41, AQL42 and AQL44, avoid discharges from enclosed burners, installed after 1 January 2001 but before 1 June 2002, that do not meet Policy AQL11, where the discharge occurs 15 years after the date of installation; and**
- c) encourage people to replace small scale solid fuel burning devices with non-solid fuel burning heating appliances and pellet fires.**

Explanation and principal reasons

Prior to June 2002, a variety of enclosed burners were installed in Ashburton. Each type of enclosed burner results in a different level of PM₁₀ emissions – generally the older the enclosed burner the greater the emissions that result from its use. In order to achieve Objective AQL6, PM₁₀ emissions from these older burners must be avoided.

These older enclosed burners are the most common form of small scale solid fuel burning devices in the Ashburton Clean Air Zone 1. Collectively, they result in the largest proportion of PM₁₀ emissions from domestic home heating. While the number of older enclosed burners is reducing, without further intervention, a significant proportion will remain in use in 2013.

Policy AQL39 specifically recognises the different age and emission performance of the older enclosed burners, whilst at the same time, acknowledging the investments in appliances made by households. Reflecting this:

1. Where enclosed burners were installed before 1 January 2001, emissions must cease by 1st May 2011, or at the ‘time of property sale’, whichever is the earliest.
2. Where enclosed burners that do not meet Policy AQL11 were installed between 1st January 2001 and 1st June 2002, emissions must cease 15 years after the date of installation.

For the purposes of these provisions, ‘15 years after the date of installation’ will be calculated as 15 years from the date of issue of the relevant code compliance certificate under the Building Act, or, if no code compliance certificate has been issued, 15 years from the date of issue of the necessary building consent.

The ‘time of property sale’ provision recognises the significance of selling and purchasing property. It ensures the new owner has no expectation that there is the ability to use an existing enclosed burner

that does not meet Policy AQL11. For the purposes of these provisions, “transfer of ownership” does not include:

- (a) a transaction in which a person who was a registered proprietor of the land at the date of public notification of Variation 13, remains or becomes a registered proprietor (whether or not the only registered proprietor) of that land after the transfer; or
- (b) a transaction in which the transferee is a trustee of a trust, and one or more of the transferors is a beneficiary of that same trust; or
- (c) a transaction for which a legal contract was entered into before this rule was publicly notified.

In addition, if a large number of enclosed burners are installed and used where small scale solid fuel burners do not currently exist, or if a significant proportion of the older enclosed burners are replaced by enclosed burners complying with Policy AQL11, Objective AQL6 will not be met. Therefore, at the time of change, it is necessary to influence the choice of home heating installed, while providing for a range of home heating alternatives. Policy AQL39 addresses this by encouraging people to replace existing enclosed burners with non-solid fuel home heating appliances and pellet fires.

Pellet fires provide a ‘least PM₁₀ emission’ solid fuel option for people. They result in significantly lower ‘real-life’ PM₁₀ emissions per appliance than some other forms of enclosed burners meeting Policy AQL11. This is because the operation of pellet fires is highly automated, allowing little opportunity for operator behaviour to detrimentally affect PM₁₀ emission performance.

Policy AQL40 Replacement of enclosed burners in the Ashburton Clean Air Zone 1

Policy AQL40

Replacement of small scale solid fuel burning devices in the Ashburton Clean Air Zone 1

In the Ashburton Clean Air Zone 1, avoid the discharge of contaminants into air from small scale solid fuel burning devices where the discharge occurs 15 years after the date of installation, except where the emission performance of the device continues to meet the standards in Policy AQL11.

Explanation and principal reasons

Policy AQL40 seeks to ensure that small scale solid fuel burning devices permitted under Policy AQL11 and Rule AQL2 continue to comply with those standards after 15 years of use.

Studies undertaken indicate that the average life of an enclosed burner is between 12 and 20 years. Over the course of its life, the emissions performance of a burner can diminish. This could result in increased ambient PM₁₀ concentrations beyond 2013, which could jeopardise air quality improvements made in previous years and increase the risk of breaching Objective AQL6 (and the NESAQ). Provision is made for continued PM₁₀ emissions from these burners, if after 15 years of installation, it can be demonstrated that the burner continues to operate as well, or better than, it did when first installed. This will need to be assessed on a case-by-case basis.

For the purposes of these provisions, ‘15 years after the date of installation’ will be calculated as 15 years from the date of issue of the relevant code compliance certificate under the Building Act, or, if no code compliance certificate has been issued, 15 years from the date of issue of the necessary building consent.

This policy is also intended to cover open fires or older enclosed burners which have been retro-fitted with pollution control technology, or other small scale solid fuel burning devices which have been approved under Policy AQL11 and Rule AQL2. In the absence of information on the longevity of such

devices, a permitted discharge period of 15 years after installation of the pollution control equipment is consistent with the requirements for enclosed burners and is therefore considered appropriate.

Policy AQL41 Best practicable technology for small scale solid fuel burner devices in the Ashburton Clean Air Zone 1

Policy AQL41 Best practicable technology for small scale solid fuel burning devices in the Ashburton Clean Air Zone 1

In the Ashburton Clean Air Zone 1, allow discharges from small scale solid fuel burning devices if the performance of the new small scale solid fuel burning devices are the same or better than devices achieving the standards set out in Policy AQL11 .

Explanation and principal reasons

At this time small scale solid fuel burning devices meeting Policy AQL11 are considered to be, when viewed from a PM₁₀ emissions perspective, the best practicable option for solid fuel home heating. However, in the future, alternative forms of small scale solid fuel burning devices, or existing small scale fuel burning devices fitted with special emission control technology, may become commercially available. These may perform better from an ‘emissions per appliance’ perspective than small scale solid fuel burning devices meeting Policy AQL11. Policy AQL41 provides specific guidance on how this change in technology is to be provided for.

Provided the ‘tested laboratory’ emission performance of a small scale solid fuel burning device is the same or better than a small scale solid fuel burning device meeting Policy AQL11, the emissions are to be allowed on the same basis as the device meeting Policy AQL11.

Policy AQL42 Small scale solid fuel burning device exemptions in the Ashburton Clean Air Zone 1

Policy AQL42 Small scale solid fuel burning device exemptions in the Ashburton Clean Air Zone 1

In the Ashburton Clean Air Zone 1, allow the discharge of PM₁₀ from any small scale solid fuel burning device that is located in a heritage building meeting all of the following criteria:

- (a) located in a building that is listed as a heritage building in Appendix A.3.1 Category A of the Ashburton District Plan; and**
- (b) the device and chimney are original features of the building.**

Explanation and principal reasons

Policy AQL42 provides exemptions for discharges from small scale solid fuel burning appliances which do not meet Policy AQL11 that are located in buildings of historic value.

It is recognised that the installation and use of heating alternatives may affect the existing heritage value of a building. Where these alternatives can be installed without compromising the heritage value, it is preferable that the older device is replaced with a suitable alternative device. Nevertheless, the overall judgement of Environment Canterbury is that retaining the authentic appearance in

recognised historic buildings in Ashburton should be provided for. This will allow people to observe the buildings in a manner that is befitting of the authenticity of the building. Policy AQL42 sets the criteria by which these discharges to air from open fires, pot bellies, coal ranges or other similar historic fuel burning devices are allowed. The heritage buildings are identified using Appendix A.3.1 Category A of the Ashburton District Plan and are as set out in Schedule AQL4. The Ashburton District Plan encourages the long-term conservation of the Category A heritage resources.

Policy AQL43 Mitigate financial, social and health effects

Policy AQL43	Mitigate adverse financial, social and health effects of the implementation of the clean air policies in the Ashburton Clean Air Zone 1
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	In the Ashburton Clean Air Zone 1, mitigate the adverse financial, social and health effects from the implementation of Policies AQL38 and AQL39 by facilitating mechanisms so that clean heating and improved insulation are available to all households, particularly low income households.
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Explanation and principal reasons

There is an underlying concern that the existing problem of poor and inadequate heating of some households in Ashburton would be aggravated by the imposition of the rules relating to this town.

When open fires and older style enclosed burners are phased out, some households will not find it easy to meet the costs of replacements. It is considered that assistance to those who face difficulties meeting the cost of changing appliances is inextricably linked to the implementation of measures to eliminate emissions from open fires and older style small scale fuel burning devices.

Policy AQL44 Emergencies in the Ashburton Clean Air Zone 1

Policy AQL44	Emergencies in the Ashburton Clean Air Zone 1
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	In the Ashburton Clean Air Zone 1, allow the discharge of PM₁₀ from any small scale solid fuel burning device resulting from the use of that device during the cessation of electricity supply as a result of an electricity network disruption:
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| (a) | when the cessation of supply has been notified in advance and will extend for a period greater than 3 hours; or |
| (b) | when the length of the cessation of supply is unknown at the time that the supply is terminated. |

Explanation and principal reasons

Policy AQL44 provides for the discharge to air from small scale solid fuel burning devices not provided for in this Plan when electricity supply is disrupted and this disruption cannot be planned for. The policy recognises the need to heat homes in the cases of emergency. It is not intended to allow exemptions where intentional electricity disconnection occurred. The policy intends that a small scale solid fuel burning device can be used during the period of the cessation of electricity. It recognises that following the electricity supply resuming, the discharge of PM₁₀ will continue until the fuel load of the device is fully combusted provided the emissions are as a result of fuel loaded into the device during the electricity outage.

Policy AQL45 Emissions from large scale fuel burning devices in the Ashburton Clean Air Zone 1

Policy AQL45 Emissions from large scale fuel burning devices in the Ashburton Clean Air Zone 1

Allow the discharges of PM₁₀ from large scale fuel burning devices in the Ashburton Clean Air Zone 1, provided that:

- (a) the discharge does not result in Objective AQL6(b)(ii) being breached; and**
- (b) the best practicable option to minimise PM₁₀ emissions is adopted:**

except that (a) and (b) do not need to be met if any of the following are met:

- (c) the person discharging has offset those emissions by reducing emissions from other sources, beyond the reductions achieved through the implementation of this Plan; or**
- (d) the emissions will not contribute to the ambient PM₁₀ concentrations in the Ashburton Clean Air Zone 1 during the time when Objective AQL6 may be breached; or**
- (e) the emissions have already been offset by reductions from the domestic sector that are greater than anticipated by Objective AQL6(b).**

Explanation and principal reasons

The contribution of emissions from large scale fuel burning devices to PM₁₀ ambient air quality concentrations in the Ashburton Clean Air Zone 1 is considerably lower than the domestic home heating sector. However, it is important that overall emissions from large scale fuel burning devices do not increase such that they compromise the gains achieved by reducing emissions from the domestic sector.

Policy AQL45 provides for the overall emissions within the Ashburton Clean Air Zone 1 from sources other than domestic solid fuel burning to increase by a maximum of 20% from 2006 levels, unless any further increase in emissions:

1. Is offset by reductions from other emission sources beyond the reductions achieved through the implementation of this Plan.
2. Does not contribute to the ambient PM₁₀ concentrations in the Ashburton Clean Air Zone 1 during the time when Objective AQL6 may be breached.
3. Emission reductions have already occurred so that by 1 September 2013, there will be reductions in emissions from the domestic sector greater than anticipated by Objective AQL6(b).

Any emission offset must be a 'real' offset. It must be clearly distinct and distinguishable from any reductions expected to otherwise be achieved through the implementation of the Regional Plan. If this is not the case, the offset may undermine the achievement of Objective AQL6.

The policy also recognises that emissions from large scale fuel burning devices can be reduced by ensuring that best practicable options are being adopted. Best practicable options may include more stringent operating standards, improved levels of cleaning and maintenance, improvements in efficiency of fuel use, changes in fuel type or quality, and the use of different pollution control

technology. The effect of this is to provide for an increase in the number and/or size of large scale fuel burning devices within the Clean Air Zones, without creating an overall increase in emissions.

Resource consents for discharges of PM₁₀ must be granted in accordance with sections 17, 18 and 19 of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004.

Policy AQL46 Emissions from large scale fuel burning devices in the Ashburton Clean Air Zone 2

Policy AQL46 Emissions from large scale fuel burning devices in the Ashburton Clean Air Zone 2

- (a) Allow the discharges of PM₁₀ from large scale fuel burning devices in the Ashburton Clean Air Zone 2 which existed on the date of public notification of Variation 13.**
- (b) Allow the discharges of PM₁₀ from replacement, upgraded, or new large scale fuel burning devices in the Ashburton Clean Air Zone 2, provided that:**
 - (i) the discharge does not result in the breaching of Objective AQL6(b)(iv); and**
 - (ii) the best practicable option to minimise PM₁₀ emissions is adopted**

except that (i) and (ii) do not have to be met, if any of the following are met:

 - (iii) the person discharging has offset those emissions by reducing emissions from other sources, beyond the reductions achieved through the implementation of this Plan; or**
 - (iv) the emissions will not contribute to the ambient PM₁₀ concentrations in the Ashburton Clean Air Zone 1 during the time when Objective AQL6 may be breached.**
 - (v) the emissions have already been offset by reductions from the domestic sector that are greater than anticipated by Objective AQL6(b).**

Explanation and principal reasons

There is a different approach to managing existing large scale fuel burning devices located in the Ashburton Clean Air Zone 1 and those located in the Ashburton Clean Air Zone 2. This is a reflection of the influence that emissions in these different locations have on PM₁₀ concentrations in the Ashburton Clean Air Zone 1. It is only when a new consent for a large scale fuel burning device is applied for in the Ashburton Clean Air Zone 2 that best practicable option PM₁₀ reduction measures need be considered.

Resource consents for discharges of PM₁₀ must be granted in accordance with sections 17, 18 and 19 of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004.

Policy AQL47 Restrict discharges to air from outdoor burning in the Ashburton Clean Air Zones 1 and 2

Policy AQL47 Restrict discharges to air from outdoor burning in the Ashburton Clean Air Zones 1 and 2

In the Ashburton Clean Air Zones 1 and 2, restrict the discharge to air of contaminants associated with any outdoor burning, where such discharges occur between May and September August inclusive, except where such discharges occur in the following circumstances:

- (a) ~~in accordance with a bylaw, promulgated by the Ashburton District Council under the Local Government Act 2002, which controls outdoor burning at that location, with the purpose of protecting public health from high ambient concentrations of PM₁₀;~~ where the discharge results from the outdoor burning of diseased vegetation from primary production on production land which is necessary to be burned for quarantine or disease control purposes; or
 - (b) where it is impracticable to remove vegetative material because of unsuitable access, and such vegetative material will result in a fire risk if not removed or will damage structures if not removed; or
 - (c) where the financial implications of the alternatives to burning vegetative material are prohibitive; or
 - (d) when rural fire restrictions prevent burning vegetative material during March and April;
- and
- (e) where the outdoor burning can be undertaken so as not to contribute to the ambient PM₁₀ concentrations in the Ashburton Clean Air Zone 1 during the time when Objective AQL6 may not be met.

Explanation and principal reasons

Outdoor burning in the Ashburton Clean Air Zones 1 and 2 has the potential to significantly elevate PM₁₀ concentrations in the Ashburton Clean Air Zone 1. The adverse effects of outdoor burning on PM₁₀ concentrations that would result in Objective AQL6 not being achieved are to be avoided, particularly where other practicable and cost efficient waste disposal methods exist.

A bylaw, promulgated by the Ashburton District Council under the Local Government Act 2002, could provide more flexibility in allowing outdoor burning to take place under conditions when the emissions from this activity would not contribute to breaches of Objective AQL6 or the National Environmental Standard for PM₁₀ within the Ashburton Clean Air Zone 1.

It is recognised that occasionally, during the winter months, horticultural and agricultural activities require some types of diseased vegetative matter arising from primary production activities to be disposed of by burning in order to control disease. In these situations, when the storage of the diseased material (until after winter) poses a threat to production processes and there is no viable alternative disposal technique, it is recognised that some provision should be made for burning to occur. However, this should only be permitted in Clean Air Zone 2 and tightly controlled as set out in the conditions to Rule AQL97A to prevent PM₁₀ emissions from contributing to ambient PM₁₀ concentrations in Clean Air Zone.

Methods

Methods to Implement Policy AQL38 to AQL47

The methods used or to be used to implement Policies AQL38 to AQL47 are set out below.

Method AQL38(a) Investigation

Environment Canterbury will continue to undertake monitoring and investigations into the extent of wintertime air pollution in Ashburton. This process will involve the following steps:

- (i) ongoing ambient air quality and meteorological monitoring;
- (ii) preparation of an emissions inventory, which identifies key sources and how they change over space and time;
- (iii) atmospheric dispersion modelling studies and exposure assessments to determine the spatial extent and frequency of areas where pollution levels exceed target values and their impacts;
- (iv) analysis of current trends and projection for future trends in emissions;
- (v) analysis of the options for improving air quality and their cost effectiveness; and
- (vi) determining community views on the options for improving ambient air quality.

Method AQL38(b) Information and promotion

Environment Canterbury will produce and disseminate information and educational material, and co-ordinate as appropriate with territorial authorities and other agencies, to:

- (i) advise of the requirements of the regional rules within this Plan;
- (ii) advise of the availability of a clean air and energy efficiency financial assistance programme;
- (iii) improve energy efficiency of combustion processes of fuel burning devices;
- (iv) encourage the use of alternative clean technology in home heating;
- (v) promote energy efficiency (including the benefits of insulation);
- (vi) promote and support research into, and the development of, cleaner burning small scale solid fuel burner technology;
- (vii) promote the use of facilities to dispose of wastes that shall no longer be burned;
- (viii) promote waste minimisation, including reduction, recycling and re-use of household waste and composting of garden wastes; and
- (ix) promote the prior notification of neighbours of the occurrence of outdoor burning.

Method AQL38(c) Financial assistance

Environment Canterbury will consider implementing a 'clean air and energy efficiency' financial assistance programme to provide targeted support of lower income households to enable them to replace open fires and enclosed burners by:

- (i) subsidising the costs of replacing open fires and enclosed burners; and
- (ii) subsidising the costs of home energy efficiency improvements.

Method AQL38(d) Development of funding and delivery partnerships

Environment Canterbury will, in conjunction with Ashburton District Council, develop and maintain relationships with central government, businesses and agencies that can assist in the provision, including funding, and delivery, of a financial assistance programme.

Method AQL38(e) Regional rules

Environment Canterbury will apply regional rules in Section 3 of this Plan.

Method AQL38(f) Resource consents

Resource consents may be granted for activities which discharge contaminants into air from fuel-burning devices. These may involve discharges into air. Environment Canterbury will apply Policies AQL38 to AQL47, as relevant, when considering such applications. Resource consents for discharges of PM₁₀ must be granted in accordance with sections 17, 18 and 19 of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins, and Other Toxics) Regulations 2004.

Method AQL38(g) Review of resource consents

Regional Rules AQL103, AQL104 and AQL105 shall affect, under section 130 of the RMA, the exercise of existing resource consents for discharges of contaminants. When these rules become operative, Environment Canterbury may serve notice, under Section 128 of the RMA, on the holders of all such resource consents, of its intention to review the conditions of their resource consent, where in Environment Canterbury's opinion, it is appropriate to do so in order to enable the standards and terms set by the rule to be met.

Method AQL38(h) Compliance and enforcement

Environment Canterbury will monitor the exercise of resource consents within Ashburton and take appropriate action where this is shown to be necessary. Environment Canterbury may apply for enforcement orders, issue abatement notices and use other enforcement mechanisms in Part XII of the RMA.

Method AQL38(i) Variation or plan change

Environment Canterbury will, on an ongoing basis, consider the appropriate enclosed burner standard, together with the appropriate testing methodology, that best implement Policy AQL41. If technological advancements result in a new standard and/or testing methodology better implementing Policy AQL41 than current rules in the regional plan, it will consider changing these rules to reflect this new standard and/or testing methodology.

Method AQL38(j) Ashburton District Council

Environment Canterbury will collaborate with Ashburton District Council to:

- (i) prepare and implement bylaws under the Local Government Act 2002 to control:
 - (1) nuisance from smoke;
 - (2) gross point sources of PM₁₀ pollution; and
 - (3) outdoor burning in the Ashburton Clean Air Zones 1 and 2 between 1 May and 30 September each year;
- (ii) collect and share information gathered as a result of functions and duties in the Building Act 2002, Resource Management Act 1991 and Health Act 1956; and
- (iii) make information available to the public about the availability of financial assistance.

Proposed regional rules

Add to Table 3.1 Summary of rules

Discharges to air from small scale solid fuel fuel burning devices and large scale fuel burning devices in the Ashburton Clean Air Zones 1 and 2				
Area rule applies	Rule N ^o	Description	Activity Status	Page N ^o
Ashburton Clean Air Zones 1 and 2	AQL96	Open fires installed on or after the date of public notification of Variation 13	Non-complying	
	AQL97	Outdoor burning	Non-complying	
Ashburton Clean Air Zone 1	AQL98	Enclosed burners or open fires contained within heritage buildings	Permitted	
	AQL99	Small scale solid fuel burning device installed after 1 June 2002	Restricted discretionary	
	AQL100	Open fires existing on the date of public notification of Variation 13	Non-complying	
	AQL101	Enclosed burner installed before 1 January 2001	Non-complying	
	AQL102	Enclosed burner installed after 1 January 2001 but before 1 June 2002	Non-complying	
<i>Ashburton Clean Air Zones 1 and 2</i>	<u><i>AQL103</i></u>	New large scale fuel burning devices fired by solid fuel or light fuel oil	Discretionary	
	<u><i>AQL103A</i></u>	<u><i>Large scale wood pellet burning devices replacing existing large scale fuel burning devices burning solid fuel with a combined heat output of 500 kW</i></u>	<u><i>Controlled activity</i></u>	
	<u><i>AQL103B</i></u>	<u><i>Large scale wood pellet burning devices replacing existing large scale fuel burning devices burning solid fuel with a combined heat output of greater than 500 kW to less than or equal to 1MW</i></u>	<u><i>Restricted discretionary activity</i></u>	
	<u><i>AQL103C</i></u>	<u><i>New large scale wood pellet burning devices or large scale wood pellet burning devices, with a combined heat output of 500 kW or less, replacing existing large scale fuel burning devices not burning solid fuel</i></u>	<u><i>Restricted discretionary activity</i></u>	
Ashburton Clean Air Zone 1	AQL104	Existing large scale fuel burning devices fired by solid fuel or light fuel oil	Discretionary	
Ashburton Clean Air Zones 1 and 2	AQL105	Large scale fuel burning devices fired by solid fuel or light fuel oil that do not meet the standards set by Rules AQL103 and AQL104	Non-complying	

Rule AQL96 Open fires installed on or after the date of public notification of Variation 13 in the Ashburton Clean Air Zone 1 and 2

Rule AQL96 Open fires installed on or after the date of public notification of Variation 13 in the Ashburton Clean Air Zone 1 and 2 – non-complying activity

Activity	Conditions		Cross Ref.
<p>Notwithstanding Rule AQL4, and except as prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zones 1 and 2 from the burning of any solid fuel in any open fire installed on or after the date of public notification of Variation 13, unless building consent was issued and any amendments incorporated in the building consent for the installation of the open fire before the date of public notification of Variation 13, is a non-complying activity.</p>			<p>Policies: AQL38 AQL41</p>

Rule AQL97 Outdoor burning in the Ashburton Clean Air Zones 1 and 2

Rule AQL97 Outdoor burning in the Ashburton Clean Air Zones 1 and 2 – non-complying activity

Activity			Cross Ref.
<p>Notwithstanding Rules AQL28, AQL29, AQL32, AQL33 and AQL34, and except as prohibited by Rules AQL36 and AQL37, the discharge of contaminants into air in the Ashburton Clean Air Zones 1 and 2 from outdoor burning during the months of May, June, July, <u>and</u> August and September, is a non-complying activity.</p> <p>This rule shall have effect at any time that a bylaw, promulgated by the Ashburton District Council under the Local Government Act 2002, specific to controlling outdoor burning during the months of May to September <u>August</u> for all of the Ashburton Clean Air Zones 1 and 2 with the purpose of protecting public health from high ambient concentrations of PM₁₀, does not exist.</p>			<p>Policies: AQL47</p>

Rule AQL98 Enclosed burners or open fires contained within heritage buildings in the Ashburton Clean Air Zone 1

Rule AQL98 Enclosed burners or open fires contained within heritage buildings in the Ashburton Clean Air Zone 1 – permitted activity

Activity	Conditions		Cross Ref.
<p>Notwithstanding Rules AQL1, AQL100 and AQL101, and except as prohibited by Rules AQL5 or AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of any fuel in any enclosed burner or open fire, that is located in a heritage building listed in Schedule AQL4(d) 'Exemption heritage buildings in Ashburton', is a permitted activity.</p>	<ol style="list-style-type: none"> 1. The discharge shall not be dangerous or noxious beyond the boundaries of the property where the discharge originates. 2. The dispersal or deposition of particles shall not cause corrosion, or have noxious, dangerous, offensive or objectionable effects on the environment beyond the boundary of the property where the discharge originates. 3. The discharge of odour shall not cause an objectionable or offensive effect on the environment beyond the boundary of the property where the discharge originates. 4. The sulphur content of the fuel to be burned shall not exceed 0.5% by weight. 5. The solid fuel burning device and chimney are original features of the building. 		<p>Policies: AQL42</p>

Rule AQL99 Small scale solid fuel burning device installed after 1 June 2002 in the Ashburton Clean Air Zone 1

Rule AQL99 Small scale solid fuel burning device installed after 1 June 2002 in the Ashburton Clean Air Zone 1 – restricted discretionary activity

Activity	Conditions	Restriction of discretion	Cross Ref.
<p>Notwithstanding Rules AQL1 and AQL2, and except as controlled by Rules AQL100, AQL101 and AQL102, or prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of any solid fuel in any small scale solid fuel burning device, is a restricted discretionary activity after the later of the following dates:</p> <p>(1) 1 May 2011, or</p> <p>(2) the day 15 years following the date of issue of the relevant code compliance certificate under the Building Act or if no code compliance certificate has been issued, after the day 15 years following the date of its first installation as recorded by the relevant building permit or building consent.</p> <p>Public notification and service of notice:</p> <p>In accordance with section 94D(2), an application for resource consent required by this rule does not need to be notified, and in accordance with section 94D(3), notice of such an application does not need to be served.</p>	<p>None</p>	<p>1. Existing and predicted future emission performance of the small scale solid fuel burning device under a range of operating conditions when compared with its manufacturer’s design performance at the time of installation.</p> <p>2. Duration of consent</p>	<p>Policies: AQL40 AQL41</p>

Rule AQL100 Open fires existing on the date of public notification of Variation 13 in the Ashburton Clean Air Zone 1

Rule AQL100 Open fires existing on the date of public notification of Variation 13 in the Ashburton Clean Air Zone 1 – non-complying activity

Activity	Conditions		Cross Ref.
<p>Notwithstanding Rule AQL1, and except as permitted by Rules AQL2 and AQL98 or prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of any solid fuel in any open fire, is a non-complying activity after the earliest of the following dates:</p> <p>(a) 1 May 2011; or</p> <p>(b) the date upon which there is a registered transfer of ownership of the site on which the open fire is located.</p> <p>For the purposes of this rule, “transfer of ownership” does not include:</p> <p>(a) a transaction in which a person who was a registered proprietor of the land at the date of public notification of this rule, remains or becomes a registered proprietor (whether or not the only registered proprietor) of that land after the transfer; or</p> <p>(b) a transaction in which the transferee is a trustee of a trust, and one or more of the transferors is a beneficiary of that same trust; or</p> <p>(c) a transaction for which a legal contract was entered into before this rule was publicly notified.</p>			<p>Policies:</p> <p>AQL38</p> <p>AQL41</p>

Rule AQL101 Enclosed burner installed before 1 January 2001 in the Ashburton Clean Air Zone 1

Rule AQL101 Enclosed burner installed before 1 January 2001 in the Ashburton Clean Air Zone 1 – non-complying activity

Activity	Conditions		Cross Ref.
<p>Notwithstanding Rule AQL1, and except as permitted by Rules AQL2 and AQL98 or prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of any solid fuel in any enclosed burner installed before 1 January 2001, is a non-complying activity after the earliest of the following dates:</p> <p>(a) 1 May 2011; or</p> <p>(b) the date upon which there is a registered transfer of ownership of the site on which the enclosed burner is located.</p> <p>For the purposes of this rule, “transfer of ownership” does not include:</p> <p>(a) a transaction in which a person who was a registered proprietor of the land at the date of public notification of this rule, remains or becomes a registered proprietor (whether or not the only registered proprietor) of that land after the transfer; or</p> <p>(b) a transaction in which the transferee is a trustee of a trust, and one or more of the transferors is a beneficiary of that same trust; or</p> <p>(c) a transaction for which a legal contract was entered into before this rule was publicly notified.</p>			<p>Policies:</p> <p>AQL39</p> <p>AQL41</p>

Rule AQL102 Enclosed burner installed after 1 January 2001 but before 1 June 2002 in the Ashburton Clean Air Zone 1

Rule AQL102 Enclosed burner installed after 1 January 2001 but before 1 June 2002 in the Ashburton Clean Air Zone 1 – non-complying activity

Activity	Conditions		Cross Ref.
<p>Notwithstanding Rule AQL1, and except as permitted by Rule AQL2 or prohibited by Rules AQL5 and AQL6, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of any solid fuel in any enclosed burner installed after 1 January 2001 but before 1 June 2002, is a non-complying activity, where the discharge occurs:</p> <p>(a) after the day 15 years following the date of issue of the relevant code compliance certificate under the Building Act; or</p> <p>(b) if no code compliance certificate has been issued, after the day 15 years following the date of its first installation as recorded by the relevant building permit or building consent.</p>			<p>Policies:</p> <p>AQL39</p> <p>AQL41</p>

Rule AQL103 Combustion of solid fuel or light fuel oil in new, replacement or upgraded large scale fuel burning devices in the Ashburton Clean Air Zones 1 and 2

Rule AQL103 Combustion of solid fuel or light fuel oil in new, replacement or upgraded large scale fuel burning devices in the Ashburton Clean Air Zones 1 and 2 – discretionary activity

Activity	Standard	Discretion	Cross Ref.
<p>Notwithstanding Rules AQL24, AQL26 and AQL27, and except as prohibited by Rule AQL12 or controlled by Rule AQL12A, <u>AQL103A, AQL103B and AQL103C</u>, the discharge of contaminants into air in the Ashburton Clean Air Zones 1 and 2 from the burning of solid fuel or light fuel oil in any new, replacement or upgraded large scale fuel burning device installed after the date of public notification of this variation to the NRRP is a discretionary activity.</p>	<p>The concentration of total suspended particulate in combustion gas discharged from all emission stacks, measured according to the requirement described in Schedule AQL6, shall not exceed 250 milligrams per cubic metre of air adjusted to 0° Celsius, dry gas basis, 101.3 kilopascals and 12% carbon dioxide.</p>	<p>Unlimited</p>	<p>Policies: AQL45 AQL46</p>

Rule AQL103A Replacement of existing large scale fuel burning devices burning solid fuel with a combined heat output of 500 kw or less with large scale wood pellet burning devices burning wood pellet fuel with a combined heat output of 500 kw or less in the Ashburton Clean Air Zones 1 and 2 – controlled activity

Activity	Standards / Terms	Restriction of Discretion	Cross Ref.
<p><u>Except where prohibited by Rule AQL12, the discharge of contaminants into air from burning of wood pellet fuel in the Ashburton Clean Air Zones 1 and 2 in any large scale wood pellet burning devices having a net combined heat output capacity within one property of greater than 40 kilowatts and less than or equal to 500 kilowatts is a controlled activity.</u></p>	<ol style="list-style-type: none"> <u>1. Any discharge to air from a large scale wood pellet burning device shall be in replacement of discharges to air from a large scale fuel burning device burning solid fuel of the same or greater heat output capacity which was legally established and operating up to the time of replacement.</u> <u>2. Any discharge of contaminant into air shall not be of a greater rate or quantum than which could have been lawfully discharged on 1 September 2008.</u> <u>3. The concentration of total suspended particulate in combustion gas discharged from all emission stack(s), measured according to the requirements described in Schedule AQL6, shall not exceed 125 milligrams per cubic metre of air adjusted to 0 Celsius, dry gas basis, 101.3 kilopascals, and 8% oxygen or 12% carbon dioxide.</u> <u>4. The discharge into air shall occur via an emission stack at a height of at least 7 metres above ground level and at least 3 metres above the ridge line of the roof of any building, land or other substantial structure within a distance of five times the height of that building, land or structure.</u> <u>5. The discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction.</u> <u>6. The discharge shall only be a result of the combustion of wood pellet fuel meeting the criteria in AS/NZS 4014:6:2007 (except that pellets may be made from wood sawdust or wood shavings containing a minor or incidental amount of antispain chemicals).</u> 	<p><u>Environment Canterbury will reserve control over the following matters in imposing any conditions:</u></p> <ol style="list-style-type: none"> <u>1. Localised adverse effects from the discharge of contaminants to air relating to odour, suspended particulate and deposited particulate</u> <u>2. The extent to which the best practicable option in relation to the concentration of total suspended particulate in combustion gas discharged is or should be adopted to prevent or minimise localised adverse effects and adverse effects on ambient air quality.</u> <u>3. The fuel burning rate.</u> <u>4. Any measures necessary to ensure the ability of the equipment to disperse contaminants, including chimney height, chimney design and emission velocity.</u> <u>5. Any steps to be taken to ensure maintenance of the fuel-burning equipment.</u> <u>6. Carrying out of measurements, samples, analyses, surveys, investigations, or inspection, including:</u> <ol style="list-style-type: none"> <u>(a) monitoring contaminant concentrations;</u> <u>(b) monitoring the opacity of the discharge;</u> <u>(c) recording of the quantity of fuel used;</u> <u>(d) monitoring the emission rate of contaminants; and</u> <u>(e) analysing the cumulative effects of the discharge, in combination with discharges from other sources.</u> <u>7. Provisions of information to the consent authority at specified times.</u> <u>8. Compliance with monitoring, sampling and analysis conditions at the consent holder's expense.</u> 	

<u>Activity</u>	<u>Standards / Terms</u>	<u>Restriction of Discretion</u>	<u>Cross Ref.</u>
	<p>7. <u>The opacity of the discharge at the emission exit shall not be darker than Ringelmann Shade No. 1, as described in New Zealand Standard 5201:1973, except:</u></p> <p>(a) <u>in the case of a cold start for a period not exceeding 30 minutes in operation; and</u></p> <p>(b) <u>for a period not exceeding a total of four minutes in each succeeding hour of operation.</u></p>	<p>9. <u>Duration of consent.</u></p> <p>10. <u>Review of conditions of consent and the timing and purpose of the review.</u></p> <p><u>Notification</u></p> <p><u>In accordance with section 94D(2), an application for resource consent required by this rule does not need to be notified, and in accordance with section 94D(3), notice of such an application does not need to be served.</u></p>	

Rule AQL103B Replacement of existing large scale fuel burning devices burning solid fuel with a combined heat output of greater than 500 kw to less than or equal to 1MW with large scale wood pellet burning devices burning wood pellet fuel with a combined heat output of greater than 500 kw to less than or equal to 1MW in the Ashburton Clean Air Zones 1 and 2 – restricted discretionary activity

Activity	Standards / Terms	Restriction of Discretion	Cross Ref.
<p><u>Except where prohibited by Rule AQL12, the discharge of contaminants into air from burning of wood pellet fuel in the Ashburton Clean Air Zones 1 and 2 in any large scale wood pellet burning devices having a net combined heat output capacity within one property of greater than 500 kilowatt and less than or equal to 1 megawatt is a restricted discretionary activity.</u></p>	<ol style="list-style-type: none"> <u>1. Any discharge to air from a large scale wood pellet burning device shall be in replacement of discharges to air from a large scale fuel burning device burning solid fuel of the same or greater heat output capacity which was legally established and operating up to the time of replacement.</u> <u>2. Any discharge of contaminant into air shall not be of a greater rate or quantum than which could have been lawfully discharged on 1 September 2008.</u> <u>3. The concentration of total suspended particulate in combustion gas discharged from all emission stack(s), measured according to the requirements described in Schedule AQL6, shall not exceed 125 milligrams per cubic metre of air adjusted to 0 Celsius, dry gas basis, 101.3 kilopascals, and 8% oxygen or 12% carbon dioxide.</u> <u>4. The discharge into air shall occur via an emission stack at a height of at least 7 metres above ground level and at least 3 metres above the ridge line of the roof of any building, land or other substantial structure within a distance of five times the height of that building, land or structure.</u> <u>5. The discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction.</u> <u>6. The discharge shall only be a result of the combustion of wood pellet fuel meeting the criteria in AS/NZS 4014:6:2007 (except that pellets may be made from wood sawdust or wood shavings containing a minor or incidental amount of antisapstain chemicals).</u> 	<p><u>Environment Canterbury's discretion is restricted to the following matters:</u></p> <ol style="list-style-type: none"> <u>1. Localised adverse effects from the discharge of contaminants to air relating to odour, suspended particulate and deposited particulate</u> <u>2. The extent to which the best practicable option in relation to the concentration of total suspended particulate in combustion gas discharged is or should be adopted to prevent or minimise localised adverse effects and adverse effects on ambient air quality.</u> <u>3. The fuel burning rate.</u> <u>4. Any measures necessary to ensure the ability of the equipment to disperse contaminants, including chimney height, chimney design and emission velocity.</u> <u>5. Any steps to be taken to ensure maintenance of the fuel-burning equipment.</u> <u>6. Carrying out of measurements, samples, analyses, surveys, investigations, or inspection, including:</u> <ol style="list-style-type: none"> <u>(a) monitoring contaminant concentrations;</u> <u>(b) monitoring the opacity of the discharge;</u> <u>(c) recording of the quantity of fuel used;</u> <u>(d) monitoring the emission rate of contaminants; and</u> <u>(e) analysing the cumulative effects of the discharge, in combination with discharges from other sources.</u> <u>7. Provisions of information to the consent authority at specified times.</u> <u>8. Compliance with monitoring, sampling and analysis conditions at the consent holder's expense.</u> 	

<u>Activity</u>	<u>Standards / Terms</u>	<u>Restriction of Discretion</u>	<u>Cross Ref.</u>
	<p>7. <u>The opacity of the discharge at the emission exit shall not be darker than Ringelmann Shade No. 1, as described in New Zealand Standard 5201:1973, except:</u></p> <p>(a) <u>in the case of a cold start for a period not exceeding 30 minutes in operation; and</u></p> <p>(b) <u>for a period not exceeding a total of four minutes in each succeeding hour of operation.</u></p>	<p>9. <u>Duration of consent.</u></p> <p>10. <u>Review of conditions of consent and the timing and purpose of the review.</u></p> <p><u>Notification</u></p> <p><u>In accordance with section 94D(2), an application for resource consent required by this rule does not need to be notified.</u></p>	

Rule AQL103C New large scale wood pellet burning devices with a combined heat output of 500 kw or less, or large scale wood pellet burning devices with a combined heat output of 500 kw or less replacing existing large scale fuel burning devices not burning solid fuel, in the Ashburton Clean Air Zones 1 and 2 – restricted discretionary activity

<u>Activity</u>	<u>Standards/Terms</u>	<u>Restriction of discretion</u>	<u>Cross Ref.</u>
<p><u>Except where prohibited by Rule AQL12, the discharge of contaminants into air from burning of wood pellet fuel in the Ashburton Clean Air Zones 1 and 2 in any large scale wood pellet burning devices having a net combined heat output capacity within one property of less than or equal to 500 kilowatt is a restricted discretionary activity.</u></p>	<ol style="list-style-type: none"> <u>1. The concentration of total suspended particulate in combustion gas discharged from all emission stack(s), measured according to the requirements described in Schedule AQL6, shall not exceed 72 milligrams per cubic metre of air adjusted to 0 Celsius, dry gas basis, 101.3 kilopascals, and 8% oxygen or 12% carbon dioxide.</u> <u>2. The discharge into air shall occur via an emission stack at a height of at least 7 metres above ground level and at least 3 metres above the ridge line of the roof of any building, land or other substantial structure within a distance of five times the height of that building, land or structure.</u> <u>3. The discharge shall be directed vertically into air and shall not be impeded by any obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction.</u> <u>4. The discharge shall only be a result of the combustion of wood pellet fuel meeting the criteria in AS/NZS 4014:6:2007 (except that pellets may be made from wood sawdust or wood shavings containing a minor or incidental amount of antispain chemicals).</u> <u>5. The opacity of the discharge at the emission exit shall not be darker than Ringelmann Shade No. 1, as described in New Zealand Standard 5201:1973, except:</u> <ol style="list-style-type: none"> <u>(a) in the case of a cold start for a period not exceeding 30 minutes in operation; and</u> <u>(b) for a period not exceeding a total of four minutes in each succeeding hour of operation.</u> 	<p><u>Environment Canterbury's discretion is restricted to the following matters:</u></p> <ol style="list-style-type: none"> <u>1. In the context of Objective AQL6, existing and predicted PM₁₀ ambient air quality, including the achievement of any relevant national environment standard.</u> <u>2. Localised adverse effects from the discharge of contaminants to air relating to odour, suspended particulate and deposited particulate</u> <u>3. The extent to which the best practicable option in relation to the concentration of total suspended particulate in combustion gas discharged is or should be adopted to prevent or minimise localised adverse effects and adverse effects on ambient air quality.</u> <u>4. Any offset of the PM₁₀ emissions related to the large scale wood pellet burning device.</u> <u>5. The number of large scale wood pellet burning devices and the total size in kilowatts, per consent application.</u> <u>6. The fuel burning rate.</u> <u>7. Any measures necessary to ensure the ability of the equipment to disperse contaminants, including chimney height, chimney design and emission velocity.</u> <u>8. Any steps to be taken to ensure maintenance of the fuel-burning equipment.</u> <u>9. Carrying out of measurements, samples, analyses, surveys, investigations, or inspection, including:</u> <ol style="list-style-type: none"> <u>(a) monitoring contaminant concentrations;</u> 	

<u>Activity</u>	<u>Standards/Terms</u>	<u>Restriction of discretion</u>	<u>Cross Ref.</u>
		<p><i>(b) monitoring the opacity of the discharge;</i></p> <p><i>(c) recording of the quantity of fuel used;</i></p> <p><i>(d) monitoring the emission rate of contaminants; and</i></p> <p><i>(e) analysing the cumulative effects of the discharge, in combination with discharges from other sources.</i></p> <p><i>10. Provisions of information to the consent authority at specified times.</i></p> <p><i>11. Compliance with monitoring, sampling and analysis conditions at the consent holder's expense.</i></p> <p><i>12. Duration of consent.</i></p> <p><i>13. Review of conditions of consent and the timing and purpose of the review.</i></p> <p><u>Notification</u></p> <p><i>In accordance with section 94D(2), an application for resource consent required by this rule does not need to be notified, and in accordance with section 94D(3), notice of such an application does not need to be served if the application is for more than one large scale wood pellet burning device located on more than one property at yet to be determined locations.</i></p>	

Rule AQL104 Combustion of solid fuel or light fuel oil in existing large scale fuel burning devices in the Ashburton Clean Air Zone 1

Rule AQL104 Combustion of solid fuel or light fuel oil in existing large scale fuel burning devices in the Ashburton Clean Air Zone 1 – discretionary activity

Activity	Standard	Discretion	Cross Ref.
<p>Notwithstanding Rules AQL24, AQL26 and AQL27, and except as prohibited by Rule AQL12 or controlled by Rule AQL12A, the discharge of contaminants into air in the Ashburton Clean Air Zone 1 from the burning of solid fuel or light fuel oil in any large scale fuel burning device installed and operated before the date of public notification of this variation to the NRRP is a discretionary activity.</p>	<p>The concentration of total suspended particulate in combustion gas discharged from all emission stacks, measured according to the requirement described in Schedule AQL6, shall not exceed 300 milligrams per cubic metre of air adjusted to 0° Celsius, dry gas basis, 101.3 kilopascals and 12% carbon dioxide.</p>	<p>Unlimited</p>	<p>Policies: AQL45</p>

Rule AQL105 Large scale fuel burning devices burning solid fuel or light fuel oil that do not meet the standards set by Rules AQL103 and AQL104 in the Ashburton Clean Air Zones 1 and 2

Rule AQL105 Large scale fuel burning devices burning solid fuel or light fuel oil that do not meet the standards set by Rules AQL103, AQL103A, AQL103B, AQL103C and AQL104 in the Ashburton Clean Air Zones 1 and 2 – non-complying activity

Activity			Cross Ref.
<p>Notwithstanding Rules AQL24, AQL26 and AQL27, and except as prohibited by Rule AQL12 or controlled by Rule AQL12A, the discharge of contaminants into air in the Ashburton Clean Air Zones 1 and 2 from the burning of solid fuel or light fuel oil in a large scale fuel burning device that requires resource consent under Rules AQL103, <u>AQL103A</u>, <u>AQL103B</u>, <u>AQL103C</u> and AQL104 but does not meet the standards of those rules, is a non-complying activity.</p>			<p>Policies: AQL45 AQL46</p>

Note:

Rule AQL105 applies only to:

- (i) existing large scale fuel burning devices burning solid fuel or light fuel oil in the Ashburton Clean Air Zone 1; and
 - (ii) new large scale fuel burning devices burning solid fuel or light fuel oil in the Ashburton Clean Air Zones 1 and 2;
- which do not comply with the conditions set out in Rules AQL103 and AQL104. Existing large scale fuel burning devices in the Ashburton Clean Air Zone 2 are not covered by Rule AQL105. For the purposes of this rule, new devices are those installed after the date of notification of Variation 13.

Proposed addition to 3.4 Information to be provided with resource consent applications

3.4.9 Information to be provided for resource consent applications for discharges to air from small scale solid fuel burning devices installed after 1 June 2002 in the Ashburton Clean Air Zone 1 (Rule AQL99)

Resource consent applications for discharges to air from small scale solid fuel burning devices installed after 1 June 2002 must include the following information:

- (a) description of the type of device, year of manufacture and installation, and particulate emission rates for that device at the time of installation as tested in accordance with the requirements of this Plan at the time of installation;
- (b) description of any modifications made to the device since the time of installation;
- (c) an assessment of the current emissions performance of the device relative to its performance at the time of installation;
- (d) an assessment of the likely emissions performance of the device over the period for which the resource consent is being sought;
- (e) any other information which, in the opinion of a resource consent officer of Environment Canterbury, is necessary or desirable to assess the effect which the proposed activity may have upon the environment.

Proposed addition to explanation and principal reasons 3.5.9 Regional rules

3.5.9.7 Regional rules for discharges in the Ashburton Clean Air Zones 1 and 2

Rule AQL96 Open fires in the Ashburton Clean Air Zones 1 and 2 installed on or after the date of public notification of Variation 13 – non-complying activity

Rule AQL96 controls the discharge of contaminants into air from open fires installed on or after the date of public notification of Variation 13, unless the necessary building consent was issued prior to that date.

Open fires are recognised as being high emitters of PM₁₀. Any new open fires are required to obtain resource consent as a non-complying activity. The purpose of allowing application to be made is to consider consenting discharges to air from new open fires if pollution control devices are fitted implementing Policy AQL41. Fitting such pollution control devices may result in the ongoing emission performance of open fires being as good as or better than enclosed burners permitted under this Plan (Rule AQL2). 'Emission performance' in this regard should take into account both emissions (g/kg) and thermal efficiency.

Rule AQL97 Outdoor burning in the Ashburton Clean Air Zones 1 and 2 – non-complying activity

In the absence of a bylaw regulating outdoor burning, promulgated by the Ashburton District Council under the Local Government Act, 2002, Rule AQL97 controls the discharge of contaminants into air from outdoor burning of materials during the winter months, namely May through to September.

Outdoor burning in the Ashburton Clean Air Zones 1 and 2 during winter months has the potential to significantly elevate PM₁₀ concentrations in the Ashburton Clean Air Zone 1. Outdoor burning should be avoided during this period unless Policy AQL47 is met. The consent application for a non-complying activity will enable the circumstances of outdoor burning to be carefully considered.

Rule AQL98 Enclosed burners or open fires contained within heritage buildings in the Ashburton Clean Air Zone 1 – permitted activity

Rule AQL98 controls the discharge of contaminants into air from enclosed burners or open fires within heritage buildings in the Ashburton Clean Air Zone 1, when these devices are original features of the buildings. This rule provides certainty as to which buildings are exempt from the requirements of Rules AQL100 and AQL101.

Rule AQL99 Small scale solid fuel burning device installed after 1 June 2002 in the Ashburton Clean Air Zone 1 – restricted discretionary activity

Rule AQL99 controls the discharge of contaminants into air from small scale solid fuel burning devices installed after 1 June 2002.

Over the course of its life the emissions performance of a small scale solid fuel burning device can diminish. This could result in increased ambient PM₁₀ concentrations beyond 2013, which could jeopardise air quality improvements made in previous years and increase the risk of breaching Objective AQL6 (and the NESAQ). Provision is made for continued PM₁₀ emissions from these devices, if after 15 years of installation, it can be demonstrated that the device continues to operate as well, or better than it did when first installed.

Council's discretion is limited to the existing and future emission performance of the small scale solid fuel burning device to ensure the ambient air quality as identified in Objective AQL6 is achieved. The duration of consent will be determined on a case-by-case basis.

Rule AQL100 Open fires in the Ashburton Clean Air Zone 1 existing on the date of public notification of Variation 13 – non-complying activity

Rule AQL100 controls the discharge of contaminants into air from the burning of any solid fuel from existing open fires (those that existed as of the date of public notification of Variation 13).

Rule AQL100 requires discharges to cease unless resource consent is obtained. The purpose of allowing application for resource consent to be made is to consider consenting discharges to air from open fires, if pollution control devices are retro-fitted implementing Policy AQL41. Retro-fitting such pollution control devices may result in the ongoing emission performance of open fires being less than enclosed burners permitted under this Plan. 'Emission performance' in this regard should take into account both emissions(g/kg) and thermal efficiency.

Rule AQL101 Enclosed burner installed before 1 January 2001 in the Ashburton Clean Air Zone 1 – non-complying activity

Rule AQL101 controls the discharge of contaminants into air from enclosed burners installed before 1 January 2001 that do not meet Rule AQL2.

Rule AQL101 recognises that at an individual appliance level, enclosed burners installed prior to 1 January 2001 are high emitters of PM₁₀. The rule requires discharges to cease unless resource consent is obtained. The purpose of allowing application for resource consent to be made is to consider consenting discharges to air from these enclosed burners if pollution control devices are retro-fitted implementing Policy AQL41. Retro-fitting such pollution control devices may result in the ongoing emission performance of an older enclosed burner being as good as or better than enclosed burners permitted under this Plan (Rule AQL2). 'Emission performance' in this regard should take into account both emissions(g/kg) and thermal efficiency.

Rule AQL102 Enclosed burner installed after 1 January 2001 but before 1 June 2002 in the Ashburton Clean Air Zone 1 – non-complying activity

Rule AQL102 controls the discharge of contaminants into air from enclosed burners installed after 1 January 2001 but before 1 June 2002 that do not meet Rule AQL2.

This rule recognises that at an individual appliance level, enclosed burners installed prior to 1 June 2002 that do not meet Rule AQL2 are high emitters of PM₁₀. The rule requires discharges to cease unless resource consent is obtained. The purpose of allowing application for resource consent to be made is to consider consenting discharges to air from these enclosed burners if pollution control devices are retro-fitted implementing Policy AQL41. Retro-fitting such pollution control devices may result in the ongoing emission performance of an older enclosed burner being as good as or better than enclosed burners permitted under this Plan (Rule AQL2). 'Emission performance' in this regard should take into account both emissions(g/kg) and thermal efficiency.

Rule AQL103 New, replacement or upgraded large scale fuel burning devices fired by solid fuel or light fuel oil in the Ashburton Clean Air Zones 1 and 2 – discretionary activity

Rule AQL103 controls the discharge of contaminants into air from new, replacement or upgraded large scale fuel burning devices.

Coal and wood burning boilers and heaters are the primary sources of particulate matter discharged from large scale fuel burning devices. The amount of particulate matter discharged varies according to the design and operation of each appliance and the type of fuel used. Analysis indicates that the overall amount of fuel used in large scale fuel burning devices is likely to increase during the life of the Plan. The most simple and cost-effective method of reducing overall particulate emissions from new large scale fuel burning devices is to require compliance with a maximum particulate emission concentration limit of 250 mg/m³. The 250 mg/m³ limit is the 'starting point' for the consideration of the best practicable option to reduce PM₁₀ emissions in any given situation.

Rules AQL 103A, B and C New and replacement large scale wood pellet burning devices replacing existing large scale fuel burning devices

While the contribution from these appliances to ambient PM₁₀ concentrations in winter is estimated to be only approximately 15% at present, this contribution will increase in the future if emission control measures are not implemented. Because the NRRP is expected to achieve a marked reduction in emissions from the domestic sector, the proportional impact of industrial and trade emission sources will increase in the future.

The most simple and cost-effective method of reducing industrial particulate emissions is to generally require compliance with a particulate emission concentration limit of 250 mg/m³. Small (less than or equal to 1MW) large scale wood pellet fuel burning devices are able to achieve significantly less particulate emissions, in part because of the wood pellet fuel burned. Where such large scale wood pellet burning devices are replacing existing large scale fuel burning devices combusting solid fuel, a minimum emission standard of 125 mg/m³ is currently readily achievable. Further, where large scale wood pellet fuel burning devices are purpose built and have a heat output of less than 500 kilowatt a minimum emission standard of 72mg/m³ is current readily achievable. In the future, less particulate emission may be achievable, and become the best practical option technology. As this occurs, it is expected that devices considered in resource consent application processes will be subject to tighter emission standards. Rules AQL103A to AQL103C recognise and provide for this less emitting technology. The change in resource consent application activity status for replacement large scale wood pellet fuel burning devices for those 500 kw or less, and those between 500kw and 1MW, reflects the increased potential for the larger devices to create localised adverse effects on air quality, resulting in different resource consent application outcomes.

By 'existing' what is meant is that as of 16 August 2008 (the date of public notification of Variation 13) the large scale fuel burning devices were legally existing and operating, and continue to be legally operated at the time a resource consent application is made and considered under this rule. At that time these devices form an accepted part of the environment. When replacement resource consent is sought for these devices the consent authority is to consider localised adverse effects on the environment. Further, the consent authority is also to consider the extent to which the proposal adopts the best practical option to prevent or minimise both localised adverse effects on the environment and the contribution of the large scale fuel burning device to ambient air quality within Ashburton, particularly PM¹⁰ ambient air quality.

It is possible that under Rule AQL18D resource consent applications may be made for more than one large scale wood pellet burning device located on more than one property at yet to be determined locations (a global resource consent application). The rule anticipates this may occur. Any such resource consent application will need to demonstrate that localised adverse effects and adverse effects on ambient air quality can be appropriately controlled at any property the resource consent may be exercised upon. In addition, it is important to ensure that a short term 'allocative' approach is taken to the authorisation of emissions from these large scale wood pellet burning devices. This is necessary in order to carefully manage the overall achievement of Objective AQL3 and Regulations 17, 17A, 17C and 18 of the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations 2004. Such a short-term allocative approach is the most effective and efficient way of controlling cumulative effects of individual resource consents and managing uncertainty.

Rule AQL104 Existing large scale fuel burning devices fired by solid fuel or light fuel oil in the Ashburton Clean Air Zone 1 – discretionary activity

Rule AQL104 controls the discharge of contaminants into air from existing large scale fuel burning devices fired by solid fuel.

Coal and wood burning boilers and heaters are the primary sources of particulate matter discharged from large scale fuel burning devices. The amount of particulate matter discharged varies according to the design and operation of each appliance and the type of fuel used. Analysis indicates that the overall amount of fuel used in large scale fuel burning devices is likely to increase during the life of the Plan. The most simple and cost-effective method of reducing overall particulate emissions from existing large scale fuel burning devices is to require compliance with a maximum particulate emission concentration limit of 300 mg/m³. The 300 mg/m³ limit recognises the additional cost of retro-fitting pollution control measures. It is the 'starting point' for the consideration of the best practicable option to reduce PM₁₀ emissions in any given situation.

Rule AQL105 Large scale fuel burning devices burning solid fuel or light fuel oil that do not meet the standards set by Rules AQL103 and AQL104 in the Ashburton Clean Air Zones 1 and 2 – non-complying activity

Rule AQL105 controls the discharge of contaminants into air from large scale fuel burning devices fired by solid fuel or light fuel oil which do not comply with conditions of Rules AQL103 and AQL104.

Only a small number of existing and new large scale fuel burning devices fired by solid fuel or light fuel oil are expected to fail to comply with the conditions of Rules AQL103 and AQL104. Potentially, this small number may discharge PM₁₀ contaminant that results in a significant increase in the PM₁₀ concentrations in the Ashburton Clean Air Zone 1.

Proposed additions to Schedule AQL4 Exempt Heritage Buildings

Schedule 4(d) Exemption heritage buildings in Ashburton

District Plan Site No.	Site Address	Site Name	Legal Description
17	Sealy St, Ashburton	Church of the Holy Name (Catholic)	Lots 1 & 2 DP 43726 Lot 1 DP 19738 TS659-663 669-672
18	126-134 Havelock St, Ashburton	St Andrew's Presbyterian Church (Former)	Sec 20 of Ashburton Town
19	74-78 Park St & Havelock St, Ashburton	St Andrew's Church (Presby.)	Lot 1 DP 22770 TS 202 Pt203/204 Ashburton Town
20	Sealy St, Ashburton	Presbytery (Catholic)	Lot 1 DP 19738
25	Ashburton College, 23 Walnut Ave Ashburton	Menorlue	Pt Lot 125/6 DP 236
26	242-256 Cameron St, Ashburton	Former Historical Soc. & Museum Building and Ashburton Technical School Building	Lot 1 DP 36145 TS 495 Pt TS 478 Ashburton Town
27	230-232 East St & Tancred St, Ashburton	Former ANZ Bank(now AFL Properties Ltd)	Lot 2 DP 11506
28	147-159 West St, Ashburton	Former Tucker's Building	Lot 1 DP 14708
29	163-165 West St & Tancred St, Ashburton	Federated Farmers Building (former Bank)	Pt TS 132 Ashburton Town
30	179-185 West St, Ashburton	W. Patching Building	Lot 1 DP 9913
31	201-213 West St & Burnett St, Ashburton	Westburn Courts	Lot 1 DP 30445
32	229-239 West St, Ashburton	Peter Cates Grain Store	TS 193 Pt TS 194 Ashburton Town
33	407-413 West St, Ashburton	Canty Roller Mill concrete store	Lot 2 DP 49621
34	415 West St, Ashburton	Canterbury Roller Flour Mill (orig bldg)	Lot 2 DP 49621
35	415-429 West St, Ashburton	Canty Roller Flour Mill (Ashfords Mill House)	Lot 1 DP 20442 Pt Lot 1 DP 18825
36	Cnr Cass & Burnett St, Ashburton	Former Westpac Bank	TS 181
37	East St, Ashburton	Former Ashburton Railway Station	Lot 1 DP 62073

38	111 Victoria St, Ashburton	Plunket Rooms	Lot 2 DP 9681
39	239 Havelock St, Ashburton	Old Engineers Office (ACC)	Pt TS 1276
40	50 Bridge St, Ashburton	House	Lot 1 DP 23304
41	105 Walnut Ave, Ashburton	Former H.D Acland House	Lot 4 DP 33197 with interest in ROW
42	21 Philip St, Ashburton	House	Town Sec 1003 Ashburton Town
43	46 Short St, Ashburton	House	Lot 3 DP 2357
44	Ashburton Cemetery	Sexton's Hut	Res 2283.Pt Res 1775