

NELSON CITY COUNCIL

Nelson Air Quality Plan

Proposed Plan Change A1

Proposed Plan Amendments

Notification Date
25 September 2010

Submissions Close
5pm Friday 3 December 2010



1.0 Introduction (not part of the Plan Change)

1.1 Description of the proposed Plan Change

This plan change consists of 6 parts as described below.

The background, context and resource management issues and options are contained in the Section 32 Documentation report (document 941089) available from the Council, the public libraries, or on the website www.nelsoncitycouncil.co.nz. The current Operative Nelson Air Quality Plan can be viewed at these locations.

Plan Change A1.1 – Industrial combustion of wood pellet fuel

This change proposes inserting a new rule into the Air Quality Plan to deal with the use of wood pellet fuel in industrial-scale fuel burning appliances, and the insertion of a definition of wood pellet fuel. Wood pellets are about the size of a cigarette butt and are made from wood shavings and sawdust, compressed and held together by the wood's own resins. Wood pellets, when burnt in appropriately designed boilers, produce significantly less particle matter (PM₁₀) than coal or other wood, justifying a specific rule to deal with them.

Plan Change A1.2 – 'Urban Area' expansion – transition provisions

This change provides transitional provisions for domestic open fires and enclosed burners in rural properties which, through change in land use, have or will become subject to the Air Quality Plan's 'Urban Area' controls. An open fire in a farmhouse in a rural area can be used as a permitted activity. If that property becomes part of the 'Urban Area' through rezoning or subdivision, use of the fire would be illegal (rule AQr.24 prohibits use beyond 1 January 2008). Nor could the open fire be replaced with a woodburner, leaving the person with limited heating options. Similar transitional issues apply to some woodburners depending on the 'airshed' the property is in. This plan change inserts a new rule to deal with these situations and to allow such fires to continue to be used (and replaced in the future with clean air approved burners if the owners wish). There are few such fires and this change is expected to have negligible effect on urban air quality.

Plan Change A1.3 – Update of Figure A2.1 'Extent of Nelson Urban Area'

'Urban Area' in the Air Quality Plan is the area where outdoor burning is not permitted and where use of open fires and burners is restricted. 'Urban Area' is defined both by a map (Figure A2.1) and by words (definition A2-86) to deal with new areas that become residential by changes to the Nelson Resource Management Plan and by resource consent (e.g. subdivision for residential use). This approach avoids the need to constantly change Figure A2.1 as the urban area expands. However, when other changes are being made to the Air Quality Plan, it is

timely to update Figure A2.1. Plan Change A1.3 performs this purely mechanistic update.

Plan Change A1.4 – Replacement of ‘Jetmaster’-type domestic fireplaces

This plan change amends an error that prevents existing ‘Jetmaster’-type fires within the Urban Area from being replaced with a complying woodburner. ‘Jetmaster’-type fires are special inserts that fit into open fireplaces. They improve the efficiency of open fires, but in terms of the Air Quality Plan they are still modified open fires. In response to submissions on the proposed plan the Council in 2005 agreed to give ‘Jetmaster’-type fires a longer phase-out period than other open fires. This was because many were relatively new and because they had cleaner emissions than open fires. While the use of open fires has been banned since 1 January 2008, ‘Jetmaster’-type fires are allowed to be used until 1 January 2013. When the rule was amended to permit longer use, the rule to allow their future replacement with a complying woodburner was not properly amended. As the Plan currently reads, the right to replace a ‘Jetmaster’-type fire disappeared on 1 January 2008, the same as it did for all other open fires.

Plan Change A1.5 – Outdoor burning of polyethylene agricultural wrap & plastic containers (rule AQr.55A)

This change proposes deleting rule AQr.55A which allows the burning of certain agricultural plastics. When the Air Quality Plan was drafted, AQr.55A.5 signalled that such burning was a temporary approach until recovery or recycling options became available for polyethylene agricultural wrap and polyethylene agrichemical containers. Two product stewardship programmes now operate in the area enabling the recycling of both bale wrap and agrichemical containers.

Plan Change A1.6 – Domestic Diesel burners – provision for different stack configurations

This change allows provision for other stack (flue) arrangements for domestic burners running on diesel. Under Appendix AQ4 of the Air Quality Plan domestic diesel burners are required to have an emission stack that discharges above roof level. Some newer models are designed with flues that end below the soffit of the building. Currently under the Plan their installation would require resource consent. This can discourage the uptake of these cleaner heating options.

1.2 Format of the Plan Change provisions

For the ease of the reader the full text of provisions to be changed have been used in this document.

The reader should be aware that operative provisions that are not proposed to be changed are unable to be submitted upon.

Within this Plan Change:

- 'Normal' text applies to operative provisions which are to remain unchanged.
- 'Underline' text applies to proposed new provisions.
- '~~Strikethrough~~' text applies to operative provisions proposed to be deleted or amended as described.
- '*Italic*' text applies to instructions (therefore are non statutory).

2.0 Proposed Plan Change A1: Proposed Amendments to the Nelson Air Quality Plan (Statutory Provisions)

Plan Change A1.1 – Industrial combustion of wood pellet fuel

A1.1 a) *Add new definition A2-91 to Chapter A2 Meaning of Words, as follows:*

<u>Wood pellet fuel</u>	<u>means pellets made from wood shavings or sawdust bonded together by the wood's natural resins through the process of pelletisation.</u>
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A1.1 b) Add a new rule AQR.30A to Chapter A6, as follows:

<u>Item</u>	<u>Permitted</u>	<u>Controlled</u>	<u>Discretionary/Non-complying/ Prohibited</u>
<p>AQR.30A Large-scale fuel burning appliance</p> <p>Wood pellets</p>	<p>AQR.30A.1</p> <p>The discharge of any contaminant into air from the combustion of wood pellets in a large-scale fuel burning appliance is permitted if:</p> <p>a) <u>the large scale fuel burning appliance is purpose designed and manufactured¹ to burn wood pellets, and</u></p> <p>b) <u>the combined heat output from all such purpose designed and manufactured appliances on the site burning wood pellets does not exceed 220kW, and</u></p> <p>c) <u>the discharge is not replacing an existing discharge on the site from a large-scale fuel burning appliance burning wood or coal, and</u></p> <p>d) <u>the wood pellet fuel burnt in the appliance meets the quality assurance specifications defined in either AS/NZS 4014.6:2007, or Category A in the Bioenergy Association Wood Fuel Classification Guidelines Version 5, 28 July 2010, and</u></p> <p>e) <u>no fuels in Rule AQR.20 (Prohibited Fuels) are burnt, and</u></p> <p>f) <u>the stack complies with the requirements in Appendix AQ5, and</u></p> <p>g) <u>except for a period not exceeding two minutes in each hour of operation, the opacity of the discharge at the chimney exit is not darker than Ringelmann Shade No. 1, as described in New Zealand Standard 5201:1973.</u></p> <p>(Note: Compliance with Rule AQR.22 (General Conditions) is also required)</p>	<p>AQR.30A.2</p> <p>The discharge of any contaminant into air from the combustion of wood pellets in a large-scale fuel burning appliance is a controlled activity if:</p> <p>a) <u>the discharge is from a wood pellet-burning appliance that replaces a large-scale fuel burning appliance on the site of at least equivalent heat output that at the time of replacement was burning wood or coal, and where the discharge to air was lawfully approved, and</u></p> <p>b) <u>the large-scale fuel burning appliance being replaced under a) ceases to burn wood or coal, and</u></p> <p>c) <u>the replacement large-scale fuel burning appliance is designed and manufactured to burn wood pellet fuel, or is an existing or replacement appliance converted to burn wood pellet fuel, and</u></p> <p>d) <u>the wood pellet fuel burnt in the appliance meets the quality assurance specifications defined in either AS/NZS 4014.6:2007, or Category A in the Bioenergy Association Wood Fuel Classification Guidelines Version 5, 28 July 2010, and</u></p> <p>e) <u>no fuels in Rule AQR.20 (Prohibited Fuels) are burnt.</u></p> <p>Control reserved over:</p> <p>i) <u>stack height and design, and</u></p> <p>ii) <u>direction of exhaust gases, and</u></p> <p>iii) <u>maintenance, and</u></p> <p>iv) <u>stack testing and reporting, and</u></p> <p>v) <u>distance from sensitive receptors, and</u></p> <p>vi) <u>the daily maximum mass emissions during winter (May to August inclusive).</u></p>	<p>AQR.30A.3</p> <p>Any discharge that contravenes permitted clause a), b), d), or f) or</p> <p>a controlled clause is a discretionary activity, except in the case of clause AQR.30A.1 (e) or AQR.30A.2 (e) where the activity is prohibited (see Rule AQR.20).</p> <p>Non-compliance with permitted clause g) is an enforcement matter.</p> <p>(Non-compliance with permitted clause c) is a controlled or a discretionary activity, depending on whether other controlled standards are complied with)</p>

¹ Designed and manufactured means an appliance designed and factory-built to burn wood pellet fuel, rather than a burner that has been modified from burning another fuel to burning wood pellets.

A1.1 c) Add new Assessment Criteria AQR.30A.4 and Explanation AQR.30A.5 to Chapter A6, as follows:

Assessment Criteria	Explanation
<p>AQR.30A.4</p> <p>a) <u>the ambient levels of PM₁₀ and the predicted effect that the activity will have on these levels.</u></p> <p>b) <u>the predicted results of the likely ground level concentration of contaminants from atmospheric dispersion modelling.</u></p> <p>c) <u>the extent to which adverse effects on sensitive receptors are avoided, remedied or mitigated.</u></p> <p>d) <u>the proximity and nature of nearby activities, and the likely future uses given the zoning of the land.</u></p> <p>e) <u>the proximity and nature of any sensitive receptors.</u></p> <p>f) <u>the likely degree of contaminants discharged to the air if alternative fuel was used and the potential effects on the environment.</u></p> <p>g) <u>new options, processes or techniques available to minimise any discharges or their effects.</u></p> <p>h) <u>the total amount of the discharge and the time period over which the discharge occurs.</u></p> <p>i) <u>the topography, including whether the discharge will be located at the head or bottom of valleys and airsheds and the meteorology of the area including wind speed and wind direction.</u></p> <p>j) <u>the potential effect of the discharge on aircraft flight paths where the combined discharge from all fuel burning on the site is greater than 5MW.</u></p> <p>k) <u>how significant the discharge is in terms of the total industrial contribution to the airshed.</u></p> <p>l) <u>in the case of renewal of consent, the age of the existing plant (old plant will likely be beyond its design life).</u></p> <p>m) <u>in the case of renewal of consent, how practicable reductions in emissions are, and the economic costs of making them (and not making them).</u></p> <p>n) <u>if the burning of wood pellets is replacing an existing fuel, the expected change in peak and mass emissions, and the environmental effects of this.</u></p>	<p>AQR.30A.5</p> <p>PM₁₀ emissions from purpose-built pellet-fired boilers can be approximately one third the emissions of wood or coal boilers of equivalent size, and boilers converted from wood or coal to burn pellets can have emissions about one half the levels typical for wood and coal. (NIWA report CHC2010-061 'Proposed classification of Wood Pellet Fuelled Boilers').</p> <p>Modelling by NIWA indicates that new purpose-built pellet boilers could be allowed as permitted activities, if they are small – less than 220kW (the equivalent of 20 domestic pellet burners. Ultra low emission domestic pellet burners are permitted in new houses or ones without a current fire).</p> <p>Since new or retrofitted pellet boilers will substantially improve the emissions from any industrial combustion involving wood or coal, the replacement or conversion of an existing large-scale wood-burning or coal burning appliance to instead run on wood pellets has been made a controlled activity (such consent applications cannot be declined, but conditions can be imposed). This is to help facilitate a transition to lower emitting appliances and improve ambient air quality.</p> <p>Where the discharge is new and from a purpose designed and manufactured pellet boiler of more than 220kW in capacity then a discretionary resource consent is needed. A discretionary resource consent is needed where a retrofit boiler is not replacing an existing wood or coal-fired discharge, and also where grades of wood pellet fuel, other than those specified in the rule, are proposed to be used. This is partly to address any potential local adverse effects, but also to assess the capacity of the airshed to accommodate the discharge of particulate matter in terms of the objectives and policies set out in this Plan.</p> <p><u>Note: Compliance with Rule AQR.22 General Conditions is also required which relates to smoke, dust, odour and other effects. In terms of compliance and enforcement of this rule, Council staff will be guided as appropriate by Appendices AQ9, 10 and 11.</u></p>

Plan Change A1.2 – ‘Urban Area’ expansion – transitional provisions

A1.2 a) Add new rule AQR.25A to Chapter A6, as follows:

<u>Item</u>	<u>Permitted</u>	<u>Controlled</u>	<u>Discretionary/Non-complying/ Prohibited</u>
<p>AQR.25A Open fires and Small-scale solid fuel burning appliances</p> <p>Special transitional provisions applying to areas added to the Urban Area after 23 August 2003 (the notification date of this Plan)</p> <p>(For sites outside the Urban Area, Rule AQR.27 applies)</p>	<p>AQR.25A.1</p> <p>The discharge of any contaminant into air from the combustion of solid fuel in any open fire or small-scale solid fuel burning appliance located on a site:</p> <p>A) lying outside the Urban Area as shown in Appendix AQ12 (this being the extent of the Urban Area at the time this Plan was notified on 23 August 2003), and</p> <p>B) within the present extent of the Urban Area as defined in AQ2-86</p> <p>is permitted if:</p> <p>a) the open fire or small-scale solid fuel burning appliance on the site was lawfully approved before the notification of Plan Change A1 [25 September 2010] or a building consent to install such a fire or appliance on the site was lodged with the Council before that notification date, and</p> <p>b) no fuels in Rule AQR.20 (Prohibited Fuels) are burnt, and</p> <p>c) any small-scale solid fuel burning appliance or operable open fire that complies with clause a) or was authorised under Rule AQR.25A.3B is replaced with a small-scale solid fuel burning appliance that complies with AQR.25.1d). The provisions of AQR.25 will apply in all respects (including AQR.25.3 A & B), and this will include subsequent replacements, but the notification date and cessation dates specified in AQR.25.1 a) and b) will not apply.</p> <p>(Note: Compliance with Rule AQR.22 (General Conditions) is also required)</p>	<p>AQR.25A.2</p> <p>Not applicable</p>	<p>AQR.25A.3</p> <p>Within the area lying outside the Urban Area as shown in Appendix AQ12 (this being the extent of the Urban Area at the time this Plan was notified on 23 August 2003), and within the present extent of the Urban Area as defined in AQ2-86:</p> <p>A) Any discharge that contravenes permitted clause b) is a prohibited activity.</p> <p>B) Any discharge that contravenes permitted clause a) is a restricted discretionary activity, if:</p> <p>a) evidence is provided that the burner was installed prior to the notification date specified in AQR.25A.1 a).</p> <p>Discretion is restricted to approval of whether the fire or burner existed in the building and was in use prior to the notification date specified in AQR.25A.1 a). Resource consent applications for restricted activities under this rule will be considered without notification and without service of notice.</p>

A1.2 b) Add new Assessment Criteria AQR.25A.4 and Explanation AQR.25A.5 to Chapter A6, as follows:

<u>Assessment Criteria</u>	<u>Explanation</u>
<p>AQR.25A.4</p> <p>a) <u>the assessment criteria in rule AQR.25.4.</u></p>	<p><u>AQR.25A.5</u></p> <p><u>This rule provides transitional provisions for domestic fires or burners in areas that have changed from rural to being part of the 'Urban Area'. That is, areas that are defined as 'Urban Area' but which were not 'Urban Area' when the Air Quality Plan was notified on 23 August 2003.</u></p> <p><u>As the zoning of land under the Nelson Resource Management Plan changes over time, or rural land is subdivided for residential use, more land comes under the Air Quality Plan definition of 'Urban Area' as set out in A2-86. 'Urban Area' in A2-86 is both a physical map (Figure A2.1) and defined in words to deal with land use or zoning changes that occur in the period after the most recent updating of Figure A2.1.</u></p> <p><u>The expansion of the Urban Area can create potential inequities. For example, use of an open fire in a rural farmhouse is a permitted activity under rule AQR.27 of this Plan. Within the 'Urban Area', however, use of open fires has been prohibited since 1 January 2008 due to rule AQR.24.1c).</u></p> <p><u>If after 1 January 2008 that rural property became part of the 'Urban Area' by virtue of re-zoning or subdivision under A2-86 b) or c), then use of the fire would become illegal, were it not for this rule AQR.25A.</u></p> <p><u>The open fire could not be replaced with a woodburner, since AQR.25, the rule that allows an open fire to be replaced with a complying woodburner, does not allow this to occur after the 1 January 2008 ban date specified. Thus, without the transitional provisions of this rule, the homeowner would have an open fire that suddenly became illegal, and would not be able to replace it with a woodburner.</u></p> <p><u>Similar transitional issues apply to some woodburners, depending on their age and the airshed they are in.</u></p> <p><u>To address these problems, this rule allows such fires or burners to continue to be used for as long as the owner wishes or the burner continues functioning, and then it can be replaced with a clean air approved burner if the owner desires.</u></p> <p><u>Note:</u></p> <p><u>For sites outside the Urban Area, Rule AQR.27 applies.</u></p> <p><u>For sites added to the Urban Area since 23 August 2003, but where no open fire or small scale fuel burning appliance has been shown to be lawfully approved, then the provisions of AQR.24, AQR.25, AQR.26 and AQR.27A apply as is normally the case within the 'Urban Area'. Thus, for all new houses in this area, or for properties that did not have a fire before the area became part of the 'Urban Area' only a pellet fire in accordance with rule AQR.26 may be installed.</u></p> <p><u>Note: Compliance with Rule AQR.22 General Conditions is also required which relates to smoke, dust, odour and other effects. In terms of compliance and enforcement of this rule, Council staff will be guided as appropriate by Appendices AQ9, 10 and 11.</u></p>

A1.2 c) *Make consequential amendments to:*

a) Rule AQR.24 (Small-scale solid fuel burning appliances & open fires – Use of appliances and fires installed or approved prior to Plan notification), and

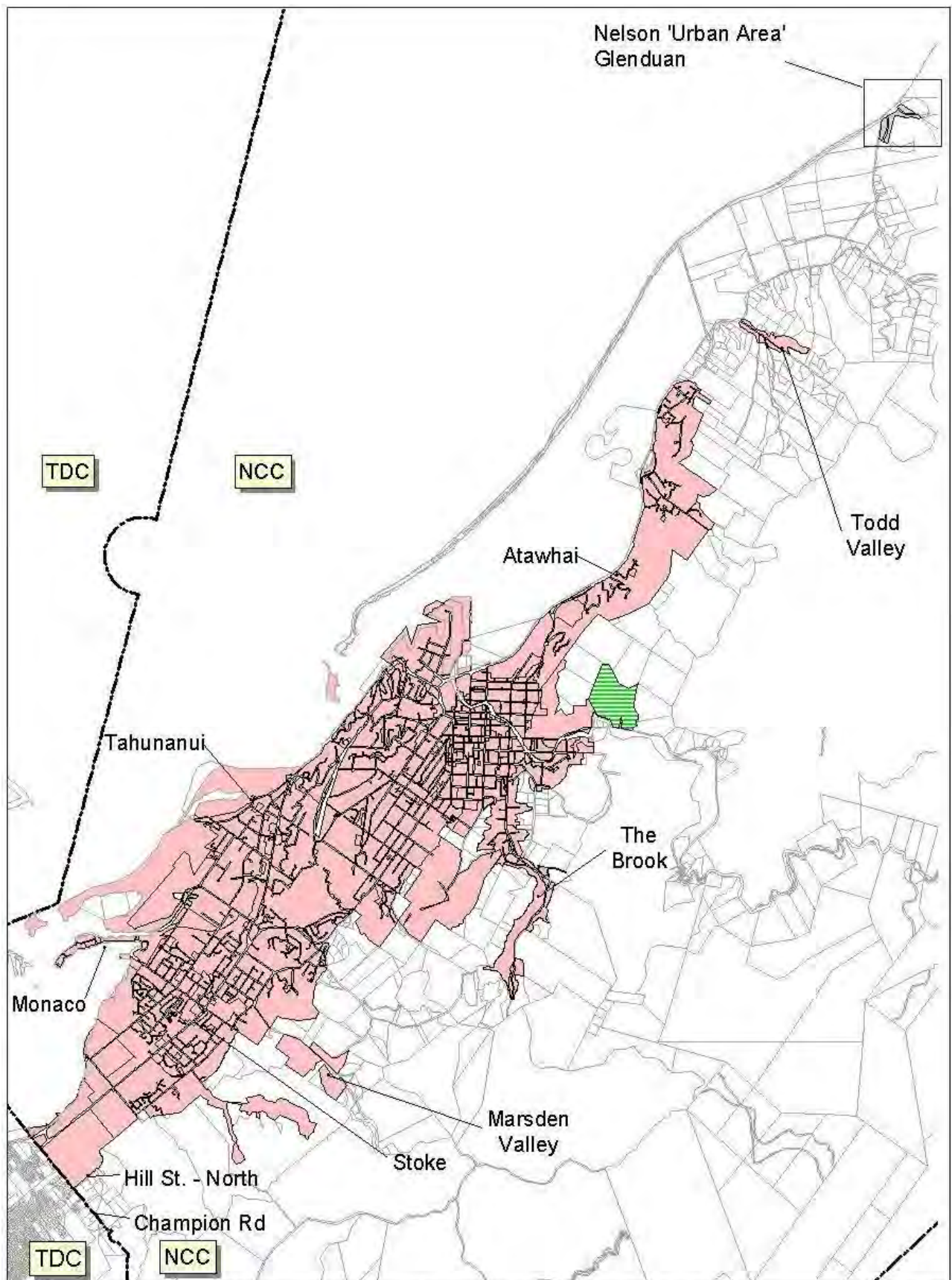
b) Rule AQR.25 (Small-scale solid fuel burning appliances & open fires, Urban Area, Installation after plan notification),

by adding to the Item Column and the Explanation Column of both, the following text:

“For sites that have become part of the Urban Area since 23 August 2003, see rule AQR.25A.”

A1.2 d) *Insert a new Appendix AQ12, containing the following map (being Figure A2.1 which shows the extent of the Urban Area in the Proposed Air Quality Plan when the Plan was originally notified (23 August 2003)):*

Next page: map “Extent to Nelson ‘Urban Area’ as at, 23 August 2003 (when the proposed Nelson Air Quality Plan was notified)”



Nelson Air Quality Plan
Extent of Nelson 'Urban Area'
 as at 23 August 2003 (when proposed Nelson Air Quality Plan was notified)

KEY	Nelson Urban Area.	District Boundary
	Rural: Higher Density Small Holdings Area	



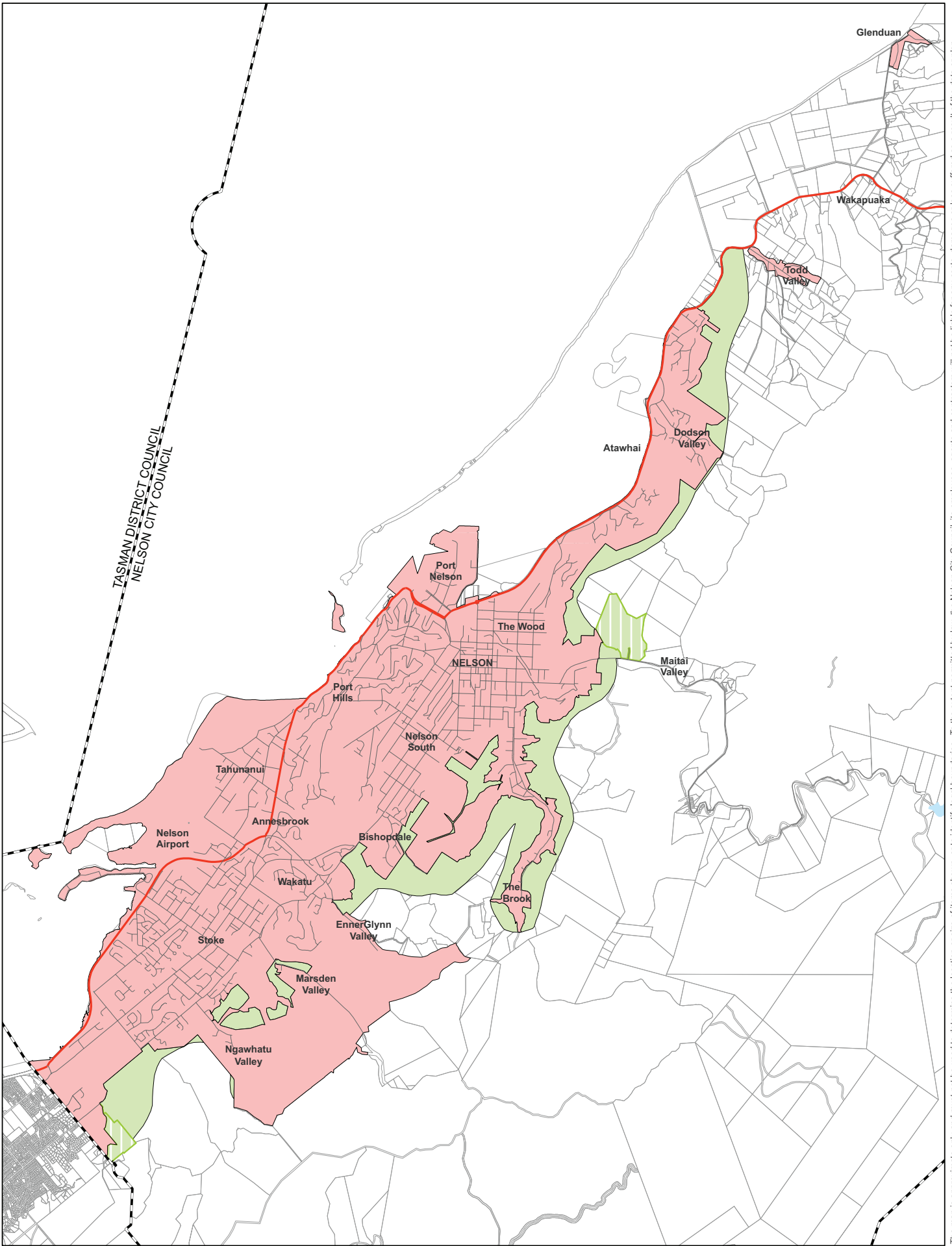
Figure
AQ12

Scale: 1:80,000

Plan Change A1.3 – Update of Figure A2.1 'Extent of Nelson Urban Area'

A1.3 Delete Figure A2.1 in Chapter A2 Meaning of Words, and replace it with the following:

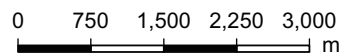
Next page: *Figure A2.1 Extent of Nelson Urban Area*
[25 September 2010]



The map is approximate only and must not be used to determine the location or size of items shown, or to identify legal boundaries. To the extent permitted by law, the Nelson City Council, its employees, agents and contractors will not be liable for any costs, damages or loss suffered as a result of the data or plan, and no warranty of any kind is given as to the accuracy or completeness of the information represented by the GIS data. This publication is copyright reserved by Nelson City Council. Cadastral information derived from the CRS. CROWN COPYRIGHT RESERVED. IJT. Original map size A3.

NELSON AIR QUALITY PLAN

Figure A2.1 - EXTENT OF NELSON URBAN AREA



Scale 1:55,000

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25 September 2010



Legend

- Higher Density Small Holdings Area (>5,000m²)
- Nelson Urban Area
- Semi-Rural Boundary

Plan Change A1.4 – Replacement of 'Jetmaster'-type domestic fireplaces

A1.4 In rule AQR.25.1 (permitted) amend clause a) as follows:

"the solid fuel burner replaces a solid fuel burning appliance or 'Jetmaster'-type insert fireplace in the building...."

Plan Change A1.5 – Outdoor burning of polyethylene agricultural wrap & plastic containers (rule AQR.55A)

A1.5 a) Amend AQR.20b) ix) as follows:

synthetic material, including, but not limited to, motor vehicle parts, foams, fibreglass, batteries, chemicals, paint and other surface-coating materials, or any type of plastic ~~(except if allowed under Rule AQR.55A (Outdoor burning – Agricultural Plastics))~~(except if allowed by a resource consent under Rule AQR.55 (Outdoor burning – Rural)).

A1.5 b) In AQR.20.5, Explanation column, third paragraph, amend the words in brackets as follows:

(refer to Rules AQR.55 and ~~AQR.55A~~ regarding outdoor burning in rural areas).

A1.5 c) In AQR.55 delete the words in brackets from Item column, as follows:

AQR.55 Outdoor burning – Rural ~~(excluding agricultural plastics)~~.

A1.5 d) Amend AQR.55.3 b) as follows:

contravenes permitted activity clause (g) is a prohibited activity, except the burning of wood which is painted, stained or oiled, which is a discretionary activity, or the discharge after 1 December 2010 of any contaminant to air from the outdoor burning of high density polyethylene (HDPE) agricultural wrap or HDPE agricultural containers within the Rural Zone (excluding the High Density Small Holdings Area), which is a discretionary activity, or

A1.5 e) *In AQR.55.4, the Assessment Criteria column, add the following new assessment criteria:*

k) for agricultural plastics, the potential for discharge of toxic contaminants and why the waste is not being recycled, or disposed of in some other, environmentally sound, way.

l) for agricultural plastics, where alternative methods of disposal or recycling are not available, the best practice for burning such waste, including the AGCARM incinerator specifications and good practice guidelines.

A1.5 f) *In AQR.55.5 (the Explanation column) after the fourth paragraph add the following new paragraph:*

Burning of prohibited materials as specified in Rule AQR.20 is not allowed. Provision is made for a consent application to be made for the burning of HDPE agricultural plastic wrap and containers. Such applications will be considered on their merits, including the likely adverse effects of the proposed burning and why the waste is not being recycled.

A1.5 g) *Delete AQR.55A in entirety.*

A1.5 h) *Delete from Appendix AQ8 sections AQ8.3A and AQ8.3B in their entirety.*

Plan Change A1.6 – Domestic Diesel Burners – provision of different stack configurations

A1.6 *In Appendix AQ4 add a new clause, as follows:*

AQ4.3 For diesel appliances, compliance with the manufacturer's installation instructions and stipulated clearances will be deemed to be compliance with the stack requirements of AQR.23.1.