Proposed Marlborough Environment Plan

Section 42A Hearings Report for Hearing Commencing 12 November 2018

Report dated 4 October 2018

Report on submissions and further submissions Topic 13:

Resource Quality - Air

Report prepared by David Jackson

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Contents

Introduction	9
Scope of Hearings Report	10
Overview of Provisions	12
Statutory Documents	16
Resource Management Act 1991	16
National Policy Statements	16
National Environmental Standards	16
Other Documents	18
Ambient Air Quality Guidelines, 2002	18
Good Practice Guide for Assessing and Managing Odour, 2016	18
Good Practice Guide for Assessing Discharges to Air from Industry, 2016	19
Air Emissions Inventory - Blenheim, 2017	19
Background on Particulate Matter, its Effects and Management	21
Analysis of submissions	28
PART A: PM10 - BLENHEIM	29
Matter 1 – Particulate Matter – Blenheim Airshed	29
Issue 15D - Submissions and Assessment	30
Objective 15.2 - Submissions and Assessment	34
Policy 15.2.1 - Submissions and Assessment	36
Policy 15.2.2 - Submissions and Assessment	37
Policy 15.2.3 - Submissions and Assessment	38
Policy 15.2.4 - Submissions and Assessment	39
Method 15.M.28 - Submissions and Assessment	40
Method 15.M.30 - Submissions and Assessment	40
Permitted Rule 5.1.25 & 6.1.17 - Submissions and Assessment	42
Permitted Standards 5.3.19 (Burners within Blenheim Airshed, 15 years or older) - Submissions and Assessment	43
Prohibited Activities 5.5.3 (Outdoor burning within Blenheim Airshed after 9 June 2016) - Submissions Assessment	
Prohibited Activities 5.5.4 (Indoor open fire within Blenheim Airshed) - Submissions and Assessment.	46
Prohibited Activities 5.5.5 (Burners 15 years+ within Blenheim Airshed) - Submissions and Assessme	nt 47
Prohibited Activities 5.5.6 (Burners not meeting permitted standards, within Blenheim Airshed) - Submissions and Assessment	48
Prohibited Activities 10.5.1 (outdoor burning, Business 2 Zone, Blenheim Airshed) - Submissions and Assessment	
Prohibited Activities 12.5.3 - Submissions and Assessment	49
Prohibited Activities - All Zones (Prohibited fuels and substances) - Submissions and Assessment	49

Prohibited Activities 18.5.2 (Campfires— outdoor burning) - Submissions and Assessment	55
Matter 2 – Rules relating to Fire Training, Fireworks and Film Special Effects	57
Overview of Provisions	57
Submissions and Assessment – Across the Entire Plan	57
PART B: OTHER DISCHARGES, OUTSIDE BLENHEIM	72
Matter 3 – Air Discharges (Across the District) – Amenity and Human Health	72
Issue 15E - Submissions and Assessment	73
Objective 15.3 - Submissions and Assessment	75
Policy 15.3.1 - Submissions and Assessment	76
Policy 15.3.2 - Submissions and Assessment	77
Policy 15.3.3 - Submissions and Assessment	79
Policy 15.3.4 - Submissions and Assessment	80
Policy 15.3.5 - Submissions and Assessment	82
Policy 15.3.7 - Submissions and Assessment	85
Method 15.M.34 - Submissions and Assessment	85
Method 15.M.35 - Submissions and Assessment	86
Method 15.M.37 - Submissions and Assessment	86
Anticipated Environmental Result 15.AER.5 - Submissions and Assessment	86
Anticipated Environmental Result 15.AER.7 - Submissions and Assessment	87
Matter 4 – Small scale solid fuel burners – outside of Blenheim Airshed	89
Overview	89
Permitted standards (pellet burners) - Submissions and Assessment	89
Permitted Standards – Various Zones (small scale solid fuel appliances) - Submissions and Assessment	ent90
Matter 5 – Air Discharge Rules – Rural Environment Zone	93
Permitted Rules 3.1.36 and 3.1.37 (outdoor burning/vegetation clearance) - Submissions and Assess	
Permitted Rule 3.1.39 (frost heaters) - Submissions and Assessment	
Permitted Standard 3.2.8.1 (smoke) - Submissions and Assessment	
Permitted Standard 3.3.36 (open burning) - Submissions and Assessment	
Permitted Standard 3.3.37 (and 19.3.10) (vegetation clearance) - Submissions and Assessment	
Matter 6 – Air Discharge Rules – Coastal Environment Zone	
Permitted Rule 4.1.35 (outdoor burning) - Submissions and Assessment	
Permitted Standard 4.2.5 (smoke) - Submissions and Assessment	97
Permitted Standards 4.3.35 & 4.3.36 (outdoor burning / vegetation clearance) - Submissions and Assessment	97
Matter 7 – Air Discharge Rules – Coastal Living Zone	
Overview	
Permitted Rules 7.1.17, 7.1.18 & 7.1.19 (burners, pellet burners & open fires) - Submissions and	
Assessment	98
Permitted Standard 7.3.14 (outdoor burning) - Submissions and Assessment	99
Matter 8 – Air Discharge Rules – Rural Living Zone	99
Overview	99
Permitted Rule and Standards 8.1.17, 8.2.6 & 8.3.16 (open burning) - Submissions and Assessment	99

Matter 9 – Air Discharge Rules - Industrial 1 & 2 Zone	101
Overview of Provisions	101
Permitted Rules 12.1.11 & 12.1.12 (heat and vapour) - Submissions and Assessment	101
Permitted Standards 12.3.8 (coating materials) - Submissions and Assessment	101
Matter 10 – Air Discharge Rules - Marina Zone	102
Overview	102
Controlled Activity Rule 15.4.1 (spray application) - Submissions and Assessment	102
Controlled Activity Rule 15.4.2 (spray application) - Submissions and Assessment	103
Controlled Activity Rule 15.4.3 (water or dry abrasive blasting) - Submissions and Assessment	104
Matter 11 – Air Discharge Rules - Open Space 3 Zone	105
Permitted Activity Rule 19.1.13 (outdoor burning) - Submissions and Assessment	105
Matter 12 – Air Discharge Rules – Floodway Zone	106
Discretionary Activity Rule 21.4.4 - Submissions and Assessment	106
Matter 13 – Discharge Rules – Lake Grassmere Salt Works Zone	107
Permitted Activities 22.1.18 (water and abrasive blasting) - Submissions and Assessment	107
Matter 14 – Discharge Rules – Airport Zone	107
Overview	107
Permitted Standard 23.3.10 (water and dry abrasive blasting) - Submissions and Assessment	107
Permitted Standards 23.3.11 (spray and powder coating – within booth) - Submissions and Asses	
Permitted Standards 23.3.12 (spray and powder coating - outdoors) - Submissions and Assessment	ent 109
Permitted Standards 23.3.13 (composite or plastic production) - Submissions and Assessment	109
Matter 15 - Internal Combustion – Industrial, Port, Lake Grassmere and Airport Zones	110
Overview of Provisions	110
Permitted Activities 13.1.37 (internal combustion engines) - Submissions and Assessment	110
Permitted Standards 12.3.2, 13.3.25, 22.3.13 & 23.3.9 (stationary internal combustion engines) - Submissions and Assessment	111
Matter 16 – External Combustion – Industrial, Port, Lake Grassmere and Airport Zones	114
Overview of Provisions	114
Permitted Standards 12.3.9, 13.3.24, 22.3.12 & 23.3.8 (external combustion) - Submissions and Assessment	114
PART C: DEFINITIONS, APPENDICES & ADDITIONAL MATTERS SOUGHT	119
Matter 17 – Definitions	
Abrasive Blasting – Submissions and Assessment	119
Fuel burning equipment – Submissions and Assessment	119
Matter 18 – Appendix 8	
Schedule 1 – Submissions and Assessment	
Matter 19 – Additional provisions sought to be included	121
General Rules (Volume Two, Chapter 2)	
New Rule (Mobile Sources) – Submissions and Assessment	
New Rule (Emergency electricity generation) – Submissions and Assessment	
New Rule (Water & abrasive blasting) – Submissions and Assessment	
New Rule (Discharge of heat) – Submissions and Assessment	

New Rule (Open burning) – Submissions and Assessment	127
New Rule (Aircraft & vehicle servicing) – Submissions and Assessment	128
New Rule (Discharge from petroleum products) – Submissions and Assessment	128
Matter 20 – General submissions	130
General Comments - Submissions and Assessment	130
Appendix 1: Recommended decisions on Decisions Requested	131

List of Abbreviations

EECA Energy Efficiency and Conservation Authority

MSRMP Marlborough Sounds Resource Management Plan

MDC Marlborough District Council

MEP Proposed Marlborough Environment Plan

MfE Ministry for the Environment

NESAQ National Environmental Standards for Air Quality [formally: Resource

Management (National Environmental Standards for Air Quality) Regulations

2004

RMA Resource Management Act 1991

WARMP Wairau Awatere Resource Management Plan

WHO World Health Organisation

Glossary

Airshed An entire region, or a part of a region specified as a separate airshed by the

Minister for the Environment by notice in the Gazette.

External Combustion As opposed to 'Internal Combustion'. Refers to an engine, boiler or the like in

which fuel ignition takes place outside the cylinder, turbine or boiler in which heat

energy is transferred into work or mechanical force.

Internal Combustion

Engine

An engine that obtains its power from heat and pressure produced by the combustion of a fuel-and-air mixture inside one or more closed chambers or cylinders. 'Stationary internal combustion engine' is one that is not generally moveable, like a generator. (Also defined in the MEP, Volume Two, Ch 25)

Pellet burner In relation to a small scale solid fuel burning appliance, is burner designed to run

on pelletised wood – small pellets made from wood shavings and sawdust, and

where the pellets are automatically fed into the fire.

PM₁₀ Particulate matter smaller than 10 micrometres in diameter.

PM_{2.5} Particulate matter smaller than 2.5 micrometres in diameter.

Multi-fuel burner In relation to a small scale solid fuel burning appliance, is a pot belly stove or

enclosed appliance such as a Mackay or Gillies that is designed to burn wood

and coal.

Stack In relation to combustion devices, means a flue or chimney through which

combustion gases and products are conveyed into the atmosphere.

μg Microgram (or micron) – one millionth of a metre.

Submitter Abbreviations

Submitter Number	Submitter Abbreviation	Full Submitter Name
280	NMDHB	Nelson Marlborough District Health Board
401	Aquaculture NZ	Aquaculture New Zealand
425	Federated Farmers	Federated Farmers of New Zealand
426	MFA	Marine Farming Association Incorporated
433	Port Marlborough	Port Marlborough New Zealand Limited
460	Timberlink	Timberlink New Zealand Limited
479	DOC	Department of Conservation
501	Ngati Kuia	Te Runanga o Ngati Kuia
573	BRRA	Blenheim Residents and Ratepayers Association
715	Forest and Bird	Royal Forest and Bird Protection Society
873	KiwiRail	KiwiRail Holdings Limited
961	Chamber of Commerce	Marlborough Chamber of Commerce
962	MFIA	Marlborough Forest Industry Association
974	MOE	Ministry of Education
990	Nelson Forests	Nelson Forests Limited
992	NZDF	New Zealand Defence Force
993	FENZ	Fire and Emergency New Zealand (incorporating the former New Zealand Fire Service Commission)
1002	Transport Agency (NZTA)	New Zealand Transport Agency
1186	Te Ātiawa	Te Ātiawa o Te Waka-a-Maui
1201	Trustpower	Trustpower Limited
1251	Fonterra	Fonterra Co-operative Group Limited
1284	Port Marlborough	Port Marlborough New Zealand Limited

Introduction

- 1. My name is David Jackson. I am a Principal Planner from WSP- Opus Consultants, based in Nelson. My qualifications and experience are as follows.
- 2. I have a BSc Honours in Botany and a PhD in Plant Physiology, both from the University of Canterbury. I am a full member of the New Zealand Planning Institute (NZPI).
- 3. I have worked in the resource management field for over 33 years, including for the Commission for the Environment, the Ministry for the Environment, the Nelson City Council, and since 2014 for Opus. During my 19 years at Nelson City Council I held various senior policy planning roles, with my final position being Principal Adviser, City Development. At the Commission for the Environment I specialised in energy and environmental economics.
- 4. I was one of the principal authors, and in the latter stages Project Leader, for the development of the proposed Nelson Resource Management Plan (NRMP), which received the NZPI Nancy Northcroft Award for planning excellence. The NRMP is a combined district, regional and regional coastal plan.
- 5. I also led the preparation of the Nelson Air Quality Plan, and the associated non-regulatory programmes for improving air quality in Nelson. Nelson's particulate or PM₁₀ levels in 2001 were amongst the worst in New Zealand, breaching the (now) national standard 81 time over the winter. The Air Quality Plan regulations, combined with financial incentives to replace polluting domestic fires and burners and to insulate houses, as well an education campaigns on burner operation and use of dry wood. Nelson City Council developed a 'Good Wood' scheme with wood merchants that is now used by many councils around New Zealand, and following Environment Canterbury, developed a targeted rate (effectively an interest-free loan) scheme to help homeowners with mandatory home heating changes, and with insulation.
- 6. The air plan and clean air strategy were very effective, and reduced the number of breaches of the national air standard from 81 in 2001 to 2 breaches by 2012.
- 7. For this the Nelson City Council was awarded two Green Ribbon Awards by the Minister for the Environment. For my personal contribution, I was awarded the Clean Air Society of Australia and NZ Achievement Award for my work in Nelson and nationally on air quality, as well as the Nelson City Council's Chief Executive's Award "for outstanding performance in establishing and implementing the Clean Heat-Warm Homes scheme and successfully mediating Air Plan appeals".
- 8. I was part of the Ministry for the Environment (MfE) working group that contributed to the development and later amendment of the National Environmental Standard for Air Quality (NESAQ). I have also advised the Energy Efficiency and Conservation Authority (EECA) and local government grouping on options to use targets rates and loans to fund home heating and insulation upgrades to houses, and was a member of the MfE Warm Homes Experts Group and the MfE Local Government Advisory Group two groups convened by the Ministry for the Environment to look at issues of poorly heated homes, air quality and options for improving insulation and heating.
- 9. In partnership between MfE, Environment Canterbury and Nelson City Council I was part of an initiative investigating woodburners on sale to establish if they were built to the certificated specifications. For a selection of burners, we organised new laboratory emissions testing of burners purchased off the shop floor, to compare emissions results with the original certifying laboratory test(to ensure the manufactured burners were built as approved.
- 10. In separate studies, we also compared 'real life' emissions from burners relative to their official laboratory emission results (that is, to see how much they emitted when operated in the more normal, non-laboratory setting).
- 11. I have provided advice to various regional and district councils on initiatives to manage domestic fire emissions, and have been engaged by Environment Canterbury to peer review a number of their air quality science reports. I have also advised the Bay of Plenty Regional Council with respect to methyl bromide fumigation at the Port of Tauranga.

- 12. I have processed consent applications relating to odour and particle emissions, and prepared consent applications for large scale wood-fired boilers.
- 13. I prepared Section 42A reports for both the above-mentioned plans, and as well have been involved in the preparation and processing of more than a dozen variations and plan changes. With these proposed plans and plan changes I have been involved through the hearings and appeals processes.
- 14. I have appeared before the Environment Court on two air quality related matters: one concerning methyl bromide use at Port Nelson; the other PM₁₀ in relation to the proposed Southern Link Road in Nelson.
- 15. I was not involved with the preparation of the proposed Marlborough Environment Plan (MEP). I was contracted by the Marlborough District Council (Council) in July 2017 (after the MEP submission period had closed) to evaluate the relief requested in submissions and to provide recommendations in the form of a Section42A report.
- 16. I have read Council's Section 32 reports.

Code of Conduct

- 17. I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note and that I agree to comply with it.
- 18. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.
- 19. I am authorised to give this evidence on the Council's behalf.

Conflict of Interest

- 20. WSP- Opus Consultants Ltd prepared original submissions to the MEP on behalf of the Ministry of Education (974). I supervised staff in the Opus Nelson office who inputted into the preparation of that submission. Subsequently, I was engaged by Marlborough District Council as an officer preparing section 42A reports, analysing and recommending to the Hearing Panel on submissions. At that point, all further work for the Ministry of Education (MOE) in relation to the MEP was transferred out of the Nelson Office, to Opus Invercargill. That included any work on the preparation of the MOE further submission, and any evidence they might prepare.
- 21. A 'Chinese Wall' has been erected between the two Opus offices with respect to involvement on the MEP. In addition, to avoid any perception of conflict I have not made any recommendation on a submission or further submission made by the Ministry of Education (other than where they support a provision and seek its retention without amendment). In this report, there is only one submission point by MOE, on Policy 15.3.4 where the submission is in support, and seeks the retention of the policy as notified.

Scope of Hearings Report

- 22. This report is prepared in accordance with section 42A of the Resource Management Act 1991 (RMA).
- 23. In this report, I assess and provide recommendations to the Hearing Panel on submissions made on the air quality provisions of the MEP. This includes the issues, objective, policies, methods and anticipated environmental results in Volume One, Chapter 15, and rules in Volume 2 Chapters 2 to 23, and related appendices and definitions.
- 24. In some cases, I have considered in one place submissions made on a provision across several zones; in other places, the submissions and provisions are dealt with under the zone in which the provision appears. The way they are dealt with depends on matters like repetition and commonality, or alternatively, the need to consider zone-specific considerations.

- 25. As submitters who indicate that they wish to be heard are entitled to speak to their submissions and present evidence at the hearing, the recommendations contained within this report are preliminary, relating only to the written submissions.
- 26. For the avoidance of doubt, it should be emphasised that any conclusions reached or recommendations made in this report are not binding on the Hearing Panel. It should not be assumed that the Hearing Panel will reach the same conclusions or decisions having considered all the evidence to be brought before them by the submitters.

Overview of Provisions

27. The provisions in this hearing report address the following:

Table 1: Discharge to air provisions addressed in this report

Volume Chapter	Activity	Description	Provisions
Volume 1	- Issues, Objectives, F	Policies and Methods	
Vol 1 Ch 15	Resource Quality - Air	Issue 15D and single objective with policies relating to particulate matter in Blenheim. Issue 15E and single objective with policies relating to amenity and nuisance effects from air discharges.	 Issues Objectives Policies Methods of implementation, and Anticipated environmental results Applying to the entire region.
Volume 2	? - Rules		
Ch 2	General Rules	Regionwide permitted activity rule for application of agrichemicals, and discretionary rule.	Rules
Ch 3	Rural Environment Zone	Permitted rules relating to fire training, special effects and fireworks, burning in the open and vegetation clearance, seed cleaning, frost protection. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 4	Coastal Environment Zone	Permitted rules relating to fire training, special effects and fireworks, burning in the open and vegetation clearance, burners, seed cleaning, frost protection. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 5	Urban Residential 1 and 2 Zones	Permitted rules relating to fire training, special effects and fireworks, use of burners. Also odour, dust and smoke. Discretionary rules. Prohibited rules relating to open fires,	
		outdoor burning and use of burners more than 15 years old.	
	Urban Residential 2 Greenfields	As above.	

Ch 6 Urban Residential 3 As above (excluding fire training, special effects and fireworks). Ch 7 Coastal Living Zone Permitted rules relating outdoor burning
Ch 7 Coastal Living Zone Permitted rules relating outdoor burning
(excluding fire training, special effects and fireworks) and use of burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 8 Rural Living Zone Permitted rules relating to fire training, special effects and fireworks, burning in the open, and burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 9 Business 1 Zone Permitted rules relating to use of burners and dry cleaning. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 10 Business 2 Zone Permitted rules relating to use of burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 11 Business 3 Zone Permitted rules relating to use of burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 12 Industrial 1 and 2 Zones Permitted rules relating to discharge of heat, fire training, fireworks and special effects, stationary internal combustion engines, external combustion (boilers etc), spray painting, surface coating, water and abrasive blasting, fibreglassing and similar, and burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 13 Port Zone Permitted rules relating to discharge of heat, fire training and special effects, stationary internal combustion engines, external combustion (boilers etc), printing and publishing, dry cleaning, seed cleaning, spray painting, surface coating, water and abrasive blasting, fibreglassing and similar, and burners. Also odour, dust and smoke.
Discretionary and Prohibited rules.
Ch 14 Port Landing Area Zone No permitted air discharge rules, but odour, dust and smoke standards.
Discretionary and Prohibited rules.
Ch 15 Marina Zone Permitted rules relating to fire training, fireworks and special effects, and outdoor burning. Also odour, dust and smoke.

		Controlled activity rules relating to spray painting, surface coating, and water and abrasive blasting.	
		Discretionary and Prohibited rules.	
Ch 16	Coastal Marine Zone	Permitted rules relating to fire training, fireworks and special effects, and burners. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 17	Open Space 1 Zone	Permitted rules relating to burning in the open. Also odour, dust and smoke.	
		Discretionary and Prohibited rules	
Ch 18	Open Space 2 Zone	Permitted rules relating to burning in the open. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 19	Open Space 3 Zone	Permitted rules relating to fire training, special effects and fireworks, burning in the open and vegetation clearance. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 20	Open Space 4 Zone	Permitted rules relating to burning in the open, and use of burners. Also odour, dust and smoke.	
		Discretionary and Prohibited rules.	
Ch 21	Floodway Zone	No permitted air discharge rules, but odour, dust and smoke standards.	
		Discretionary and Prohibited rules.	
Ch 22	Lake Grassmere Salt Works	Permitted rules relating to discharge of heat, fire training, fireworks and special effects, stationary internal combustion engines, external combustion (boilers etc), spray painting, surface coating, water and abrasive blasting, and outdoor burning. Also odour, dust and smoke.	
		Controlled rules relating to external combustion (larger thermal output).	
		Discretionary and Prohibited rules.	
Ch 23	Airport Zone	Permitted rules relating to discharge of heat, fire training and special effects, stationary internal combustion engines, external combustion (boilers etc), printing and publishing, dry cleaning, seed cleaning, spray painting, surface coating, water and abrasive blasting, fibreglassing and similar, and burners. Also odour, dust and smoke. Discretionary and Prohibited rules	

Ch 25	Definitions			
Volume 3 - Appendices				
App 8	Schedules 1, 2, 3 & 4	Schedule 1 – Emission requirements for small-scale solid fuel burning appliances.	Rules	
		Schedule 2 – Stack requirements for small-scale solid fuel burning appliances.		
		Schedule 3 – Stack requirements: Small-scale solid fuel burning appliances (Gas, oil and other liquid fuels).		
		Schedule 4 - Stack requirements: Stationary Internal Combustion Appliances.		
		Schedule 5 – Chimney Height Schedules for External Combustion.		
App 9	Blenheim Airshed	Map defining Blenheim Airshed	Map/Rule	

- 28. Note that Chapter 24 contains rules relating to Subdivision.
- 29. The analysis of submissions generally follows the order in Table 1, except that the objectives, policies, methods and rules (across all zones) that related to Issue 15D, particulate pollution in Blenheim, are dealt with together, and first, as Matter 1.
- 30. Following that, other air quality considerations (Issue 15E) and the related objectives, policies, methods and rules are addressed.
- 31. Submissions that seek the addition of new provisions or are general in nature, are dealt with at the end of the report.

Statutory Documents

32. The following statutory documents are relevant to the provisions and/or submissions within the scope of this report. Although a summary of the way in which these provisions are relevant is provided below, the way in which they influence the assessment of the relief requested by submissions will be set out in the actual assessment.

Resource Management Act 1991

National Policy Statements

33. There are no national policy statements that address air quality.

National Environmental Standards

National Environmental Standards for Air Quality 2004¹

34. The National Environmental Standards for Air Quality (NESAQ) are regulations made under the Resource Management Act 1991 which aim to set a guaranteed minimum level of health protection for all New Zealanders. The NESAQ came into effect on 8 October 2004, and were amended in 2005 and 2011. They are made up of 14 separate but interlinked standards.

35. These include:

- seven standards banning activities that discharge significant quantities of dioxins and other toxics into the air
- five standards for ambient (outdoor) air quality
- a design standard for new wood burners installed in urban areas
- a requirement for landfills with a capacity of more than 1 million tonnes of refuse to collect greenhouse gas emissions.
- 36. Regional councils and unitary authorities are responsible for managing air quality under the Resource Management Act. Under the NESAQ they are required to identify areas where air quality is likely, or known, to exceed the standards, and to monitor and report on any breaches of the NESAQ.
- 37. In terms of ambient air quality (that is, air quality in the wider atmosphere that people are exposed to, as opposed to localised or point source air pollution) there are five standards with threshold levels, and a number of permitted exceedances of the threshold, as follows:

Contaminant	Threshold concentration	Number of exceedances allowed
Carbon monoxide	10 milligrams per cubic metre (µg/m³) expressed as a running 8-hour mean	1 in a 12-month period
Nitrogen dioxide	200 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
Ozone	150 micrograms per cubic metre expressed as a 1-hour mean	None
PM ₁₀	50 micrograms per cubic metre expressed as a 24-hour mean	1 in a 12-month period
Sulphur dioxide	350 micrograms per cubic metre expressed as a 1-hour mean	9 in a 12-month period
	570 micrograms per cubic metre expressed as a 1-hour mean	None

¹ Resource Management (National Environmental Standards for Air Quality) Regulations 2004

38. These standards relate to concentrations of contaminants in the ambient air, and are not discharge levels that individual discharges must achieve e.g. an emission out of an industrial stack.

Particulate Matter (PM₁₀)

- 39. PM₁₀ is particulate matter with less than 10 micrometres in diameter. It comes from incomplete combustion of fuels, finer grained dust, brake and tyre wear, and some natural sources (entrained sea salt, and some smaller pollen). 'Particles' is used in the NESAQ as a generic term and includes particulate matter 10 micrometres in diameter or larger.
- 40. The only contaminant that currently is known to breach an NESAQ threshold in the district is PM₁₀, where up to 11 exceedances per year have been recorded in Blenheim².
- 41. The NESAQ specified lead-in times by when air quality in non-complying airsheds must comply with the PM₁₀ standard. The compliance date depends on the historical level of PM₁₀ pollution in the airshed. Under clause 16B(3) of the NESAQ, the Blenheim airshed must comply with the NESAQ by 1 September 2016 (that is, have no more than 1 exceedance over 12 months). In 2017 there were 11 recorded exceedances.

Airsheds

- 42. The NESAQ defines the entire region as an 'airshed'. Part of the region can also be specified as a separate airshed by the Minister (generally on the advice of the regional council) by notice in the *Gazette*.
- 43. Blenheim has been gazetted as an airshed, and this is mapped in Volume 3, Appendix 9 of the MEP. The airshed was gazetted some years ago and does not include the proposed Urban Residential 3 Greenfield areas of new housing development on the north-west edge of the town, the proposed Urban Residential 3 areas on the western edge of Blenheim, or the Omaka Landing Urban Residential 1 area.

Woodburner Standards

- 44. Regulations 22-24 require that any woodburner installed on a property less than 2 hectares in area must emit no more than 1.5 grams of particles per kg of wood burnt, and have a thermal efficiency of at least 65% (a measure of how well the wood is burnt). Woodburners are tested to an Australia/NZ standard and required to show their emission and efficiency levels. Discharge from a burner, installed after September 2005, which does not comply with these standards is prohibited by regulation 22.
- 45. This means that the installation of 'non-NES compliant' woodburners in most urban sites, and many rural residential ones, is prohibited by the NESAQ by the sites being less than 2 hectares.

Large PM₁₀ Emissions

46. The NESAQ (regulation 17) restricts the granting of discharge consents of PM₁₀ into polluted airsheds, if the new discharge would increase concentrations of PM₁₀ by more than 2.5 micrograms/m³, unless the discharger can 'offset' the discharge – that is, implement measures to counterbalance the new discharge by achieving offsets somewhere else in the airshed. This most likely will only apply to industrial or large emitters. An example of how the provision might work could be an industry assisting a hospital or school to convert a coal-fired boiler to gas or wood pellet fuel, to 'free up' capacity in the airshed for the new emitter.

Domestic Open Fires

47. The NESAQ (regulation 24A) also provides the power to regional councils, if the PM₁₀ concentration in an airshed breaches the NESAQ, to prohibit the use of open fireplaces from a date specified in a public notice. The prohibition cannot take effect until 12 months after the breach, and the public must have at least 6 months notice before the ban starts.

² Wilton, E (2017), *Air Emission Inventory – Blenheim 2017.* Page 1. https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Air%20Quality/General%20Air%20Quality%20Reports%20List/Blenheim_Air_Emission_Inventory_2017.PDF

Prohibited Discharges

- 48. The NESAQ prohibits a number of activities, as follows:
 - a) Burning waste at landfills
 - b) Burning of tyres (except in industrial and trade premises under resource consent)
 - c) Burning of bitumen
 - d) Burning of coated wire (except in industrial and trade premises under resource consent)
 - e) Burning of oil in the open air (except for film special effects, fire training, or where related to consented petroleum industry purposes)
 - f) Incinerators at schools or healthcare institutions (except where consented)
 - g) High-temperature hazardous waste incinerators (except crematoriums or certain existing facilities).

Statutory Effect on Council

- 49. The NESAQ has the force of a regulation under sections 43 to 44A under RMA.
- 50. Under section 44A(7) 'Every local authority and consent authority must observe national environmental standards'.
- 51. Under section 44A(8) 'Every local authority and consent authority must enforce the observance of national environmental standards to the extent to which their powers enable them to do so.'
- 52. When preparing a regional plan, a council must do so 'in accordance with ..any regulations' (section 66(1)(f).

Other Documents

53. The following non-statutory documents are considered relevant to the provisions and/or submissions in this report.

Ambient Air Quality Guidelines, 2002

- 54. The Ambient Air Quality Guidelines were prepared by MfE and the Ministry of Health. They sit alongside the NESAQ and set guideline values for a wider range of air contaminants than the NESAQ, as well as the NESAQ contaminants. They provide guidance on how air quality should be managed to achieve the guidelines, including both human health outcomes and ecosystem health.
- 55. The guidelines also set out a 'traffic light' system for air quality management. This system recognises that the guideline values are not 'pollute up to' standards. For example, 'acceptable' air quality is between 33% and 66% of the guideline value, and if above this it falls in the 'Alert' category, which is a warning level where exceedance of the guideline value can occur if upward trends are not curbed. The 24-hour guideline value in the guidelines for PM₁₀ is the same as in the NESAQ (50μg/m³).
- 56. Applying this approach, the target is not necessary compliance with the guideline value, or the standard in the case of the NESAQ, but rather providing a level of buffer below the value or standard.

Good Practice Guide for Assessing and Managing Odour, 2016

- 57. This MfE guide outlines good practice in assessing and managing odours that cause offensive and objectionable effects in New Zealand.
- 58. The guide provides information on: what odour is, and how it can affect people; who is responsible for responding to and resolving odour complaints; how to undertake odour investigations and to assess the effects of odour, including how to determine when odour has caused 'an offensive or objectionable effect'; how to monitor and manage the effects of odour through community surveys, odour diaries,

and odour management plans; when to use dispersion modelling, and how to interpret the results; and how to measure and manage odour emissions.

59. It also contains recommended wording for plan or consent conditions in relation to odour.

Good Practice Guide for Assessing Discharges to Air from Industry, 2016

60. This MfE good practice guide outlines good practice recommendations for assessing air quality in New Zealand, mainly for the purpose of resource consent applications.

61. The guide:

- outlines the regulatory framework for the assessment process, in particular the NESAQ and regional plans
- provides technical guidance for addressing the information requirements under section 88 and Schedule 4 of the Resource Management Act 1991 (RMA)
- provides guidance on preparing an assessment of the effect of an activity's discharges of contaminants to air, that is appropriate to the scale and significance of the effects on the environment
- provides guidance on methods for assessing the impacts of air quality on both human health and the wider environment
- identifies the air quality criteria by which impacts should be assessed (the NES, as well as the Ambient Air Quality Guidelines, regional objectives and policies, WHO guidelines and other overseas exposure or screening levels)
- provides guidance on key assessment considerations under the NES for air quality.

Air Emissions Inventory - Blenheim, 2017³

- 62. This MDC report was published after the MEP was notified, and is the third in a series of MDC reports looking at the sources of the wintertime PM₁₀ emissions in Blenheim (with the other reports being in 2005 and 2012). Domestic heating and outdoor emissions were estimated from a random survey of households, industrial and commercial emissions from resource consent data, and vehicle emissions were modelled using data of vehicle kilometres travelled.
- 63. The report concludes that around 658 kilograms of PM₁₀ is discharged to air in Blenheim on an average winter's day. This compares with an estimated 679 kilograms per day for 2012, indicating a reduction in emissions of less than 5% since 2012.
- 64. Figure 1 below shows that domestic home heating is the main source of PM₁₀ emissions contributing 90% of the daily wintertime emissions. Outdoor burning contributes 8%, and industry and transport each 1% of the total wintertime PM₁₀ emissions. The report indicates a more or less similar spread of contributions for PM_{2.5}. [PM_{2.5} is discussed further in the next section of this report].

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³ Wilton, E. Air Emissions Inventory - Blenheim 2017

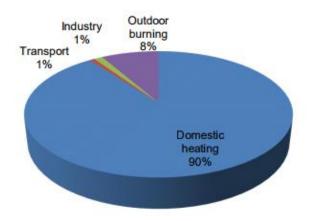


Figure 1: Relative contributions of sources of daily winter PM_{10} emissions in Blenheim (Figure 8.1, 'Air Emissions Inventory – Blenheim 2017', Wilton E)

Background on Particulate Matter, its Effects and Management

What is PM₁₀ and PM_{2.5}?

- 65. PM₁₀ is particulate matter smaller than 10 micrometres (μm or microns) in diameter. It comes from incomplete combustion of fuels, finer grained dust, brake and tyre wear, and some natural sources (entrained sea salt, volcanic ash and some smaller pollen).
- 66. PM_{2.5} means particulate matter less than 2.5 micrometres in diameter that is, less than a quarter the size of a PM₁₀ particle. In addition to the sources discussed above, PM_{2.5} is also formed through chemical reactions in the atmosphere. The size of PM₁₀ and PM_{2.5} particles relative to a human hair and a grain of sand are shown in Figure 2 below:

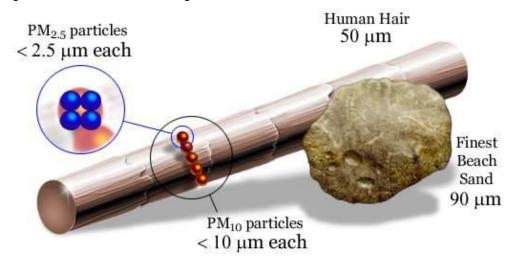


Figure 2: Size of PM2.5 and PM10 particles relative to a human hair and grain of sand.

- 67. It is important to remember that PM₁₀ or PM_{2.5} are just a cut-off sizes, rather like the mesh size on a sieve. Many of the particles within the PM₁₀ fraction of particulates, are much small than 10 micrometres across, and within a typical urban area in New Zealand 80 to 90 percent of the particles called 'PM₁₀' will be smaller than 2.5 micrometres in diameter.
- 68. PM₁₀ is used in the NESAQ and worldwide in many air standards, mainly because historically it is the size fraction that has been monitored and reliable long-term record exists for PM₁₀ measurements. PM₁₀ monitoring results therefore have been used in the past for health and epidemiological studies correlating the health effects of particles (smaller than 10 micrometres).
- 69. Over the last decade or more, there has been an increasing focus on the PM_{2.5} fraction, in recognition first that the majority of PM₁₀ is in fact PM_{2.5}, and second that these smaller particles represent more of a risk to human health, as they can penetrate further into the lungs. Many jurisdictions are now including PM_{2.5} standards or moving from PM₁₀ to PM_{2.5} standards, and requiring monitoring of PM_{2.5}. There is also debate about short-term and long-term exposure, and this is discussed further under 'Peak or Annual Exposure'.
- 70. The Government is currently reviewing the NESAQ, and it is likely that the new standards might focus on $PM_{2.5}$ rather than PM_{10} . This is discussed further below.

Why are Particles of Concern?

71. The Health and Air Pollution in NZ Study⁴ ('HAPINZ', by MfE, Ministry of Transport, NZTA & the Health Research Council) describes the effects of particle air pollution (page 6) as:

There is a substantial body of evidence that inhaling particulate matter (PM) is harmful to human health, particularly smaller fractions such as PM₁₀, PM_{2.5} and finer.... PM₁₀ includes PM_{2.5} plus the

⁴, Health Research Council, Ministry for the Environment, Ministry of Transport and NZ Transport Agency, *Updated Health and Air Pollution in New Zealand Study, Volume 1: Summary Report*, March 2012

coarser $PM_{2.5}$ to PM_{10} fraction. Generally larger particulate matter (between 2.5 and 10 μ m) deposits in the upper airways whereas smaller particulate matter (less than 2.5 μ m) lodges in the very small airways deep in the lung. Inhaled ultrafine particulate matter may even enter the bloodstream.

Air pollution exposure can have two classes of epidemiological effects: short-term and long-term effects. Short-term exposure to urban air pollution can cause respiratory irritation even in healthy people. In clinical exposure studies, a range of acute (short-term) cardiovascular and respiratory effects have been shown in volunteers with or without pre-existing diseases. Some short-term effects (such as heart rhythm disturbances) are completely reversible, but others can cause chronic inflammation of the lungs and blood vessels, and eventually, following repeated exposure, lead to chronic diseases such as lung cancer and atherosclerosis (hardening of the arteries). Short-term effects can include premature death in susceptible individuals, but the major impact of air pollution exposure on life expectancy is through the gradual, cumulative effects on chronic disease [long term effects].

- 72. The HAPINZ study developed a national exposure model to determine PM₁₀ concentration for every Census Area Unit in New Zealand. From this exposure health effects were estimated based on metrics from New Zealand and international studies. The HAPINZ study estimated the total health impacts associated each year with human induced particle pollution in New Zealand to be:
 - 1,175 premature deaths in adults and babies
 - 607 extra hospital admissions for respiratory and cardiac illnesses
 - 1.49 million restricted activity days (days on which people cannot do the things they might otherwise have done if air pollution was not present).
- 73. It is possible to argue about the precision of such estimates, but even if they were out by a factor of two, it is still around 588 premature deaths per year. By comparison, 380 people were killed on New Zealand roads in 2017.
- 74. While standards or guideline values for PM₁₀ and PM_{2.5} are set by governments and the WHO, that does not mean there are no health effects below these levels. There is no safe level below which no adverse health effects occur.^{5 & 6}
- 75. As well as health effects, air pollution can have adverse ecological impacts, as particles settle onto roads, land and water bodies, and from there they can wash into and concentrate in waterways, or be taken up by plants and animals. Animals can inhale particles and be affected in similar ways to humans.
- 76. Particles are not just harmless specks of soot. The particles, particularly from partial combustion, can be complexes of a number of chemicals bound together, some of which may be carcinogenic (cancer inducing).
- 77. A common misconception is that being inside your house at night, when outdoor pollution levels are high, will protect you from the adverse effects of particle pollution. However, studies of pollution levels indoors have shown that indoor levels of particles can be as high if not higher than outside.
- 78. Some homeowners also blame cold homes for the observed health effects and argue that particles do not have the adverse effects cited by organisations such as WHO, and NZ's Ministry of Health and Ministry for the Environment. It is true that cold damp houses do cause poor health, and that providing warmer housing can improve health outcomes.⁷ That however is different to saying that the effects

⁵ World Health Organization, 2013. Review of evidence on health aspects of air pollution – REVIHAAP project technical report.

⁶ Kiddle, Dr E, *Discussion paper on adverse health effects related to poor air quality and cold houses*, NMDHB, Medical Officer of Health, May 2014. http://nelson.govt.nz/assets/Environment/Downloads/air-quality/woodburner-plan-change-2016/references/Air-Quality-Plan-Discussion-Paper-on-Adverse-Health-Effects-Related-to-Poor-Air-Quality-and-Cold-Homes-Dr-Ed-Kiddle-May2014.pdf

⁷ Howden-Chapman, P., Matheson, A., Crane, J., Viggers, H., Cunningham, M., Blakely, T. *et al.* 2007. *Effect of insulating existing houses on health inequality: cluster randomised study in the community*. British Medical Journal, 334(7591):460.

from particles are in fact effects from cold houses (and that tackling polluting fires will give worse health outcomes as the decrease in particles will have no effect on health, and it will lead to colder homes with poorer health).

- 79. The view that the problem is just cold homes ignores:
 - a) That the epidemiological studies across many cities worldwide, show a relationship between particles levels and health, and that these studies adjust for factors such as temperature, 'fuel poverty', as well as factors like income, education and so forth (as they do with smoking studies)
 - b) That many warmer cities have particle pollution problems with adverse health outcomes e.g. Hong Kong⁸, Kuala Lumpur⁹, Bangkok¹⁰.
- 80. Also, good air quality and warm homes are not mutually exclusive. It is possible to have both to improve air quality without affecting comfort levels, or even to improve comfort, through insulation and better heating methods.

Peak or Annual Exposure?

- 81. The NESAQ focuses on exposure to peaks in PM₁₀ levels that is short-term exposure. The standard for PM₁₀ is measured as the concentration averaged over a 24-hour period.
- 82. Dr Jan Wright, the Parliamentary Commissioner for the Environment, noted that the WHO has two guidelines for exposure to PM₁₀ a short-term exposure 24-hour level, and a long-term exposure annual average level (the 24-hour levels added together and divided by 365). As she observed, the New Zealand NESAQ focuses only on the short-term exposure level¹¹.
- 83. This was not a new observation, and health and air quality experts have been aware for many years that both types of exposure are important. Long-term exposure can lead to chronic diseases that can cause ill health and often shorten life. Short-term peak exposures can cause hospitalisations in people with respiratory diseases, and can exacerbate conditions like asthma and emphysema, and can restrict people's level of activity, and in some instances lead to death.
- 84. The review of the NESAQ that is currently underway is expected to consider matters such as standards to address short-term and long-term exposure, as well as whether PM_{2.5} is a better metric to use than PM₁₀.
- 85. In the meantime, however, it is the current NESAQ that has legal force, and the current standard for 24-hour PM₁₀ that must be complied with.
- 86. Nevertheless, it is worth noting that if the NESAQ were to adopt a PM_{2.5} standard similar to the WHO PM_{2.5} guideline, the standard could become significantly tougher. The WHO guideline is a 24-hour average of 25 micrograms/m³ on no more than 3 days a year, and the annual average should not exceed 10 micrograms/m³. Since up to 90% of PM₁₀ is PM_{2.5}, both standards would be much harder to achieve that is, would require greater reductions in emissions in Blenheim than proposed in the MEP to achieve the current PM₁₀ NES¹². For example, during 2017 in Blenheim 72 exceedances of

⁸ Chit-Ming Wong, Stefan Ma, Anthony Johnson Hedley and Tai-Hing Lam, *Environmental Health Perspectives*, Vol. 109, No. 4 (Apr., 2001), pp. 335-340.

⁹ Jamal H.H., Pillay M.S., Zailina H., Shamsul B.S., Sinha K., Zaman Huri Z., Khew S.L., Mazrura S., Ambu S., Rahimah A. and Ruzita M.S., *A Study of Health Impact and Risk Assessment of Urban Air Pollution in the Klang Valley, Malaysia,* Ministry of Health, Jalan Pahang, 50588 Kuala Lumpur, Malaysia, 2004

¹⁰ Vichit-Vadakan N, Vlanapoom, *Estimating the effects of air pollution on mortality in Bangkok, Thailand.* Res Rep Health Effects Institute, 2010 Nov, (154): 231-68.

¹¹ Parliamentary Commissioner for the Environment, *State of air quality in New Zealand*. 2015. http://www.pce.parliament.nz/media/1256/the-state-of-air-quality-in-new-zealand-web5.pdf

¹² Wilton, E (2017), *Annual Air Quality Monitoring Report – Blenheim 2017.* page 19 (Figure 3.7 and 3.11) https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Air%20Quality/Annual%20Air%20Quality%20Monitoring%20Reports%20List/P%20BlenheimAirEmissionInventory2017

the WHO 24-hour PM_{2.5} guideline were measured, and the annual average PM_{2.5} level was 14 micrograms, 40% above the WHO guideline level.

PM levels in Blenheim

87. PM₁₀ levels are monitored at two sites in Blenheim. A Council site in Middle Renwick Road (near Colemans Road) has been in operation since 2000, and a site in Redwoodtown (Bowling Club, Weld St) since 2002 (and every day since 2005). Figure 3 shows the Blenheim Airshed as gazetted under the NESAQ and as used in Appendix 9 of the MEP. It also shows, with a white dot, the Redwoodtown monitoring site.

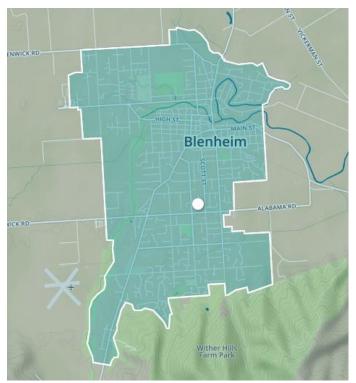


Figure 3 – Blenheim Airshed (dark green) and location of Redwoodtown monitoring station (white dot).

- 88. The Redwoodtown site records higher levels of PM₁₀ and is the key site, since the NES requires measurement at locations with the highest concentrations or most frequent breaches of the standard. The Redwoodtown site therefore is where compliance with the NESAQ for PM₁₀ is determined. Under the NESAQ one breach per year of the standard of 50 micrograms/m³ is permitted.
- 89. In 2017 there were 11 breaches of the NESAQ standard, with a highest concentration of 74 micrograms/m³ recorded. This was the greatest number of breaches since the NES came into effect in 2005. Prior to this the maximum number of exceedance was seven in 2012¹³.
- 90. The 2017 air quality monitoring report included a section adjusting for different yearly meteorological conditions (mild v more severe winters) and concluded that 'the data is not indicative of an overall improvement or degradation in PM₁₀ concentrations in Blenheim. No trend is evident' 14.
- 91. In other words, there is no evidence that air quality is improving in Blenheim and with 11 exceedances in 2017 and 7 in 2018, PM₁₀ levels are far from complying with the NES, despite the five year phase-in period provided by the NES as amended in 2011.

¹³ Wilton, E (2017), Annual Air Quality Monitoring Report – Blenheim 2017.

¹⁴ Wilton, E (2017), Annual Air Quality Monitoring Report – Blenheim 2017, page 22

What are the sources of PM in Blenheim?

- 92. As shown in Figure 1 above, on a winter's day 90% of PM₁₀ is estimated to come from domestic heating fires (woodburners, multi-fuel burners, open fires and pellet burners). The next largest contributor is outdoor burning (rubbish fires/incinerators) at 8%. Industrial and commercial emissions are 1%, with the Wairau Hospital boiler being the main source. The remaining 1% comes from vehicle emissions¹⁵.
- 93. The share of domestic heating emissions are shown in Figure 2 below:

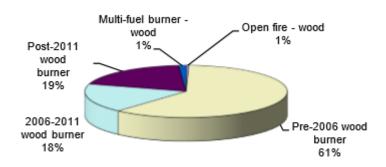


Figure 4 – Relative contribution of different heating methods to average daily PM₁₀ from domestic heating (from Wilton, Air Emission Inventory – Blenheim 2017)

- 94. The vast majority of domestic heating emissions come from woodburners (98%). Sixty one percent of emissions are from woodburners installed before 2006, even though they make up 42% of woodburners by number¹⁶. That reflects the fact that older burners have higher emissions. Under the NESAQ burners installed in Blenheim from 2006 onwards have had to comply with the emissions and thermal output standards specified in the NESAQ. Burners installed since 2006 put out 37% of emissions but comprise 58% of woodburners.
- 95. One percent of domestic emissions is from open fireplaces, and the remaining 1% from multi-fuel appliances (pot belly stoves, Gillies, Mackay etc burners).

PM levels in Other Towns

- 96. Air quality monitoring was carried out in Picton during 2008 and 2009 and previously in 2000 and 2003. The maximum measured PM₁₀ concentration, was 53 micrograms/m³. Although the NESAQ threshold of 50 μg/m³ was exceeded, no NES breach occurred as only one value measured above 50 μg/m³. As monitoring was only carried out every third day, a breach of the NES may have occurred during 2008 (on the days when monitoring was not occurring). Also, it is unlikely that the monitoring site captured the worst of the PM₁₀ concentrations in Picton.¹⁷
- 97. Monitoring was undertaken in Renwick in 2002. This was 1 day in 3 during winter and the highest concentration recorded was 29.4 micrograms/m³, well below the 50 microgram NESAQ standard.

Pellet Burners

98. Pellet burners require some explanation. These are a type of wood burning appliance, but they burn small wood pellets (slightly smaller than a cigarette butt). The pellets are made of wood shavings and sawdust. Because the pellets are of a defined moisture content, and the pellets are fed mechanically into the fire, emissions from a pellet burner tend to be lower than from most woodburners. More

¹⁵ Wilton, E (2017), Air Emission Inventory – Blenheim 2017.

https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Air%2 0Quality/General%20Air%20Quality%20Reports%20List/Blenheim Air Emission Inventory 2017.PDF

¹⁶ Wilton, E (2017), Air Emission Inventory – Blenheim 2017. Table 3.4.

¹⁷ Wilton, E (2014). Evaluation of air quality monitoring sites for Blenheim and Picton.

importantly, the emissions in 'real life' use, as opposed the laboratory test used for NES approval purpose, tend to be much lower than with woodburners, as there is much less opportunity for 'operator error', which can increase emissions significantly in woodburners.

MEP Provisions to address PM within Blenheim Airshed

99. Below is a summary of the provisions that apply to PM₁₀ emissions within the Blenheim Airshed. Indoor domestic fires have reasonably strict controls, and outdoor burning is prohibited with exceptions for non-commercial cooking. This is a broad summary: in the MEP as notified there is some difference between zones as to which rules apply.

100. Domestic heating - Blenheim Airshed

Open fires	Discharge prohibited – from MEP notification in Urban Residential 1 & 2 Zone
Small scale fuel burning appliances (not pellet fires) • installed prior to MEP	Discharge permitted until 9 June 2017 (one year from MEP notification) and must use approved fuel. After 9 June 2017 discharge is prohibited (except for pellet fires) in Urban Residential 1 & 2 Zone.
notification, and more than 15 years old.	Discretionary in Urban Residential 3 and Business Zone.
Small scale fuel burning appliances	Discharge permitted subject to compliance with stack requirements in Appendix 8 and use of approved fuel.
 less than 15 years old, or pellet burner of any age installed before MEP notification. 	When burner is over 15 years old (except for pellet burners), discharge becomes prohibited.
Small scale fuel burning appliances	Appliance must comply with the emissions standards and operational requirements in Appendix 8.
installed after MEP notification.	Discharge permitted subject to compliance with stack requirements in Appendix 8 and use of approved fuel.
Pellet burner of any age installed before MEP notification.	When burner is over 15 years old (except for pellet burners), discharge becomes prohibited (rule 15 year above).

101. In summary, within the Blenheim Airshed:

- a) use of open fires is prohibited in the proposed MEP, including new installations,
- b) new burners (installed since the MEP was notified) must meet emission and thermal efficiency standards. That effectively means just NESAQ-compliance woodburners, and rules out installation of multi-fuel burners and pot belly stoves as on current designs they are unable to meet the AS/NZS standards.
- c) the installation of open fires is prevented in new homes,
- d) all wood and multi-fuel burners must be replaced after 15 years of use.

102. Outdoor Burning – Blenheim Airshed

103. Discharge from burning in the open is not permitted within the Blenheim airshed.

104. Fire training, special effects and fireworks displays or event involving fireworks

105. Permitted subject to notice to Council, and it must not be within the months of May – August inclusive within the Blenheim airshed.

106. Industrial and Commercial Emissions

- 107. Standards for smaller discharges from coal and other fuels, and discretionary consent for larger facilities.
- 108. Standard to control dust emissions.

109. Legal Effects of Air Rules

110. The above rules all had legal effect from the date the MEP was notified.

MEP Provisions to Address PM - Rest of District

- 111. Outside the Blenheim Airshed open fires and domestic burners are permitted, as is outdoor burning subject to standards.
- 112. The MEP as notified requires burners to comply with emission and efficiency standards, and stack (chimney) standards. However, there are MDC submissions saying this was a drafting error and seeking to remove the need to comply with those standards.

Analysis of submissions

113. There were 345 submission points received on provisions relevant to the Urban Environments topic. None of these were in a common format.

Key Matters

- 114. I have set out my analysis of the submission points by issue (as defined in the MEP) and then by respective components of the topic, under the headings below.
 - a) Matter 1: Particulate Matter Blenheim Airshed

Key matters in submissions relate to:

- Issue, Objective, Policies, Methods and Anticipated Environmental Results
- Prohibition on open fire use
- Prohibition on the use of burners older than 15 years
- Prohibition on outdoor burning (including effects on campfires)
- Prohibition on burning of certain materials.
- b) Matter 2: Rules relating to Fire Training, Fireworks and Film Special Effects
- c) Matter 3: Air Discharges (Across the district) Amenity and Human Health
 - Issue, Objective, Policies, Methods and Anticipated Environmental Results
- d) Matter 4: Small scale solid fuel burning appliances outside Blenheim Airshed
- e) Matter 5 to 14 Zone Discharge to Air Rules
- f) Matter 15 Internal Combustion (across zones)
- g) Matter 16 External Combustion (across zones)
- h) Matter 17: Definitions
- i) Matter 18: Appendices
- j) Matter 19: Addition Provisions Sought
- k) Matter 20: General Submissions

Pre-hearing Meetings

115. There have been no pre-hearing meetings for this topic.

PART A: PM10 - BLENHEIM

Matter 1 - Particulate Matter - Blenheim Airshed

Overview of Provisions

- 116. This assessment relates to Issue 15D, Objective 15.2 and Policies 15.2.1 to 15.2.4, Methods 15.M.28 to 15.M.30, and the rules relevant to the Blenheim Airshed in the Chapters 3, 5, 6, 8, 9, 10, 11, 12, 17, 18, 19 and 21, and Appendices 8 and 9.
- 117. The package of provisions relates to the issue of particle air pollution within the Blenheim Airshed, and measures to address it. The background to this is discussed above under 'Background on Particulate Matter'.
- 118. The single issue (15D) relates to the potential for the discharge of particulate matter into air in urban areas, particularly Blenheim, to cause significant health effects.
- 119. There is a single objective (15.2) responding to the issue which is *Improve the ambient air quality of Blenheim by reducing PM*₁₀ concentrations.
- 120. The objective is supported by four policies that establish the approach within the Blenheim Airshed to prohibiting open fires and outdoor burning, phasing out of domestic burners more than 15 years old, requiring multi-fuel burners to comply with the NES standard for woodburners, and a policy on the circumstances when discharge permit applications for PM₁₀ within the Airshed will be declined.
- 121. Within the zones affected by the Blenheim Airshed, there are rules relating to outdoor burning, open fires, burners, discharges from external and internal combustion, dust, fire training, fireworks, and special effects for films all of which contribute PM₁₀ to the atmosphere. These rules are then addressed.
- 122. Where the rule or the issue raised in submissions goes across a number of zones then that issue is dealt with in one place, if it is appropriate to do so.
- 123. There are submissions on the following matters and the assessment below has been undertaken as follows:
 - Issue 15DA
 - Objective 15.2
 - Policy 15.2.1
 - Policy 15.2.2
 - Policy 15.2.3
 - Policy 15.2.4
 - Method 15.M.28
 - Method 15.M.30
 - Rules
 - Appendix 8

Issue 15D - Submissions and Assessment

124. Issue 15D is:

The discharge of particulate matter into air has the potential to cause significant health effects in urban areas, particularly Blenheim.

- 125. Three submitters oppose the issue.
- 126. **Jessica Bagge** (227.2), in opposing the issue, notes (from the explanation) that achieving compliance with the NESAQ will require a 38% reduction in PM₁₀ emissions. She says that even relying on homeowners to replace their polluting heating with modern burners, there will be only a 10% reduction. She asks what the strategy is to reduce the other 28%? Where can this come from if commercial, industrial and public health emissions together represent less than 10% of Blenheim's ambient air? She also has concerns about insurance [the issue is not clear from the submission] and about impacts on real estate values for a house with a non-compliant fire. She also says that in the Top of the South hospitals there has been an increase in patients being seen with respiratory illness, which she submits is due to cold, damp homes and gas heaters. She says Nelson, where fires are also banned, has seen an increase in hospitalisations, and the same will be seen in Blenheim.
- 127. Ms Bagge is also concerned that there is not enough regulation of wood merchants, or to monitor wood. She says it is the type of wood, be it wet or green, that is a problem. She is concerned that braziers may be banned, but says it is not clear and Council needs to do more to inform people. Finally, she is concerned that council staff need to be nimbler on monitoring, catching people in the act, not just arrive during working hours. She wants the Council to stand up to Government, who are driving the change through the NES, and tell let them that when we are organised and have a plan, we'll do something.
- 128. The explanation to the Issue, in paragraph 3, does say that a 38% reduction in emissions is required to comply with the NESAQ. It also says that homeowners replacing their more polluting heating methods with cleaner burners will only reduce emissions 10%. That does not mean that the remaining 28 percentage points are not being addressed. The last sentence of the paragraph goes on to say, 'In other words, some form of intervention is required to achieve compliance with the NESAQ.'. In other words, relying solely on households voluntarily replacing their old more polluting burners as they wear out with modern burners will only achieve a 10% reduction in PM₁₀ emissions. Therefore, active intervention is needed to get the reductions sought. In the MEP, within Blenheim, the 'active intervention' requires burners to be replaced after 15 years, bans the use of open fires, bans outdoor burning, and effectively bans the installation of multi-fuel burners (since it is difficult for these to comply with the NESAQ burner standard).
- 129. The submitter implies that air plan rules cause to cold homes and increased hospitalisations. In its submission to Plan Change A3 to the Nelson Air Quality Plan, NMDHB made the following submission:

The NMDHB-PHS [Public Health Service] acknowledges that cold homes also have health effects and believes that it is important that this issue is addressed alongside improving air quality. However, good air quality should not be compromised at the expense of heating cold houses and therefore other initiatives, such as improving thermal insulation of homes, are important.

The NMDHB-PHS is pleased to note that the study by Environet Ltd found substantial gains have been made in improving insulation levels of Nelson home and that it is unlikely that there has been an increase in cold homes since high emission wood burners were phased out.¹⁸

130. NMDHB, in submitting on the MEP, also 'stongly supported' the burner phase out policy, seeking a strengthening of the provisions relating to replacement burners, as well as more public information about correct operation of burners (280.30, 31 & 32).

¹⁸ NMDHB submission to Plan Change A3, Nelson Air Quality Plan [para 23-24]
https://www.nmdhb.govt.nz/assets/Uploads/Submission-on-NCC-Nelson-Air-Quality-Plan-Proposed-Plan-Change-A3-Wood-Burners.pdf

131. The Environet report mentioned surveyed Nelson households and accessed Statistics NZ data, and concluded:

Overall the data suggest that it is unlikely that there has been an increase in cold homes in Nelson since 2006 as a result of the phasing out of high emission wood burners. The proportion of households that do not heat their homes has not increased over this period and there are fewer households relying on high cost heating methods such as electricity (non-heat pump) and unflued gas.

In addition, there has been an increase in the proportion of dwellings with ceiling and underfloor insulation, meaning houses should require less energy to achieve the same temperature (or the same energy may be used but the household may be warmer). Based on dwelling and heating method information, household warmth should have been more achievable in 2014 than in 2006. 19

- 132. Nelson City Council had a very strong financial support package in place to support households faced with mandatory phase-out of older burners. Financial assistance was provided for a replacement NES-compliance burner, a heat pump, pellet fire or flued-gas heater. The package included and was contingent on the insulation being upgrade in the house.
- 133. MDC does not have such an active programme. However, it does have a scheme where the cost of home insulation can be spread over 9 years through a targeted rate on the property, which involves no up-front cost to the property owner. I also note the Government in the 2017 budget announced more money for retrofitting insulation into existing homes. Studies by the University of Otago have shown significant health gains from better insulation of homes ²⁰. With the availability of such schemes, and the low financial barriers to their uptake, I would except to see an increase in the number houses in Blenheim being insulated.
- 134. I would also note that air pollution in Nelson was much worse than in Blenheim, and the interventions with existing fires and burners had to be stronger. Based on the MDC 2017 Emissions Inventory, only just over a hundred open fires are likely to have been affected by the ban in the proposed MEP. A survey for MDC indicates that over 80% of the households that use open fires had an alternative heating method, with 50% having wood burners that they used in the main living area²¹. The impact on cold homes, if it were to occur at all, would be very small.
- 135. Regarding Ms Bagge's claim that in Nelson fires were banned, which resulted in an increase of hospitalisations. The Medical Officer of Health, Dr Ed Kiddle, in 2014, looked at seasonal admissions to hospital for respiratory disease in the Nelson Marlborough area²². He found that over the period 1999-2013 in Tasman, Nelson and Marlborough, there had been a small increase in respiratory admission rates. He said that interpretation of these trends was difficult because they likely reflect an aging population, socio-economic factors (access to health care, smoking, housing quality and use of heating) as well as year to year changes in influenza, the coldness of the winter and air quality. The effect was more evident in Nelson and Marlborough, than Tasman. But the study pre-dated the MEP controls on burners. Dr Kiddle thought the difference might be due to socio-economic and demographic differences between the three regions.

¹⁹ Wilton, E, *Potential impacts of management measures – heating, household and fuel poverty data for Nelson 2014* (Envirolink report for Nelson City Council). http://nelson.govt.nz/assets/Environment/Downloads/air-quality/woodburner-plan-change-2016/references/Potential-Impacts-of-Management-Measures-Heating-Household-and-Fuel-Poverty-Data-Nelson.-Attachment-6-to-Council-Paper-5193.-8Dec2015.pdf

²⁰ For example: Howden-Chapman, P., Matheson, A., Crane, J., Viggers, H., Cunningham, M., Blakely, T. et al. 2007. *Effect of insulating existing houses on health inequality: cluster randomised study in the community*. British Medical Journal, 334(7591):460.

²¹ Wilton, E, *Management Options for PM10 in Blenheim – Update February 2009.*https://www.marlborough.govt.nz/repository/libraries/id:1w1mps0ir17q9sgxanf9/hierarchy/Documents/Environment/Air%20Quality/General%20Air%20Quality%20Reports%20List/ManagementOptionsUpdate2009.pdf

²² Kiddle, Dr Ed A, Discussion paper on adverse health effects related to poor air quality and cold houses, NMDHB, Medical Officer of Health, May 2014. http://nelson.govt.nz/assets/Environment/Downloads/air-quality/woodburner-plan-change-2016/references/Air-Quality-Plan-Discussion-Paper-on-Adverse-Health-Effects-Related-to-Poor-Air-Quality-and-Cold-Homes-Dr-Ed-Kiddle-May2014.pdf

- 136. Ms Bagge also wants more regulation of wood merchants, and says 'It's the type of wood, be it wet or green that is a problem'. Using dry wood is important to getting lower emissions from wood burners. In my experience and supported by studies, a new NES-compliant burner if fuelled with wet wood will produce high emissions. Regulating wood merchants can be difficult for the following reasons:
 - a) Wood is often sold in early summer (which is good practice and to be encouraged) allowing it to dry out before winter. Wood sold then will often be above the 25% moisture content stipulated in the MEP (Appendix 8). This rule can only be enforced at or close to the time the wood is used or sold.
 - b) A high proportion of wood used is often not purchased from merchants. It is collected by households themselves, and regulating the merchants would not affect this.
- 137. Having said that, wood merchants are subject to the Consumer Guarantee Act 1993, under which goods must be fit for purpose. Wet wood, sold just before or during winter, will not be fit for purpose and a householder could have redress under that legislation.
- 138. Resolving the wet wood issue is not the solution however. Studies undertaken for development of the Nelson Air Quality Plan showed that even if older burners were operated close to ideal (laboratory) conditions (dry wood, correct air supply, not overloaded etc) it would still only achieve a 10% or so improvement in emissions. Wood and correct operation are important, but fundamentally the older burners cannot burn clean enough. It is like a careful driver trying to get the same fuel economy out of a Morris Minor as they can out of a modern Honda Jazz. In the end, the technology is a limiting factor.
- 139. In my view, the better approach with wet wood is to:
 - a) Inform householders and to encourage them to get their wood early so it is dry before winter (Nelson City Council runs reminder advertisements, and a competition for the best woodsheds, most funky etc).
 - b) Have a 'GOOD WOOD' scheme with wood merchants. They agree to a code of conduct, and get promoted by Councils as 'GOOD WOOD' providers. Merchants can use the logo. They get de-listed if they do not comply.
 - c) Inform people on how to operate fires to reduce emissions.
 - d) Use enforcement action for very smoky fires, using the permitted activity standard that beyond the boundary of the property there shall be no smoke that is 'objectionable or offensive'. Use a response of first inform/education, second time a warning and for further offenses on a property, enforcement action.
- 140. I recommend below that partial relief to Mr Bagge's submission is provided by adding to Method 15.M.30, and by providing for braziers under Topic 5.5.3 (but not during May to August).
- 141. Finally, in terms of the decision sought, Ms Bagge wants the Council to 'stand up to the Government' and to tell them 'when we are organised and have a plan, we'll do something'. The implication is that the Council should ignore the NESAQ. However, the NES is a regulation made by Order in Council under the RMA. It has force of law, and under RMA s44A(7) and (8) every local authority and consent authority must observe national environmental standards, and must enforce the observance of national standards to the extent to which their powers enable them to do so. Moreover, under RMA s66(1) a [regional] council must prepare and change any regional plan in accordance with '..(f) any regulations'.
- 142. **Woodburners Unite** (1239.6) agree that air quality is important. They believe there needs to be another look at the methods and interpretation of the data used in the goal to protect health. They refer to the comments and conclusions made by Dr Jan Wright, the Parliamentary Commissioner for the Environment, on the validity of the use of PM₁₀ measure as a basis to implement policy, designed to protect health. They consider that PM₁₀ is the wrong thing to monitor. They want to see less emphasis placed on the PM₁₀ spikes and a more global approach taken to improve air quality. They seek that the Council reviews its policy on using PM₁₀ concentrations as a measure for ambient air quality and consider using PM_{2.5} instead. The NMDHB support the submission in part, and consider that both PM₁₀ and PM_{2.5} should be monitored.

- 143. Most air quality experts agree that PM_{2.5} is a better fraction to both measure and use as a standard to protect human health. However, because PM₁₀ has been measured historically, there is a relatively long record to determining health effects and therefore setting standards and regulations. It should also be remembered that the PM₁₀ fraction included PM_{2.5} particles, so it is not as if PM_{2.5} effects are being excluded currently.
- 144. However, the key factor is that the NESAQ, as discussed above, is a regulation under the RMA, and that the NESAQ stipulates that PM₁₀ is the parameter that must be measured and complied with. PM_{2.5} in the future may become the fraction, or a further fraction, of particle pollution that is regulated in the NESAQ; but at the moment the law specifies that it is PM₁₀. In the meantime, the Council has begun monitoring PM_{2.5} levels at its Redwoodtown site. This will provide a comparison with the historical PM₁₀ record and lay the foundation to a complete transition to PM_{2.5} monitoring should this be mandated in the future.
- 145. **Te Ātiawa** (1186.92) is concerned about the last paragraph in the explanation of the issue, which states that Picton air quality has been monitored. They say that no data or reports have been presented to Te Ātiawa or the Picton community about this monitoring, and it falsely implies that there is no issue with Picton air quality. Te Ātiawa consider that an issue exists. They seek that the offending paragraph is deleted from the MEP. The Elkington whanau / Ngati Kōata landowners further summitted in support.
- 146. The sentence in question in the last paragraph of the explanation is 'Though Picton and Renwick have also been monitored (and currently found to comply with the NESAQ), Blenheim is the only airshed within Marlborough'. Monitoring has been undertaken in Picton and Renwick. Picton was monitored in 2000, 2003, 2008 and 2009. The monitoring was done one day in three. Only one measurement (53 micrograms/m³) exceeded the NESAQ threshold of 50 micrograms/m³. The NESAQ allows one breach per year.
- 147. While the Picton monitoring does not show a non-compliance with the NESAQ, nor does it show compliance, for two reasons. The first is that there may have been higher concentrations on the two days out of three on which no monitoring was occurring. Second, the monitoring site is not 'worse case' as required to by the NESAQ. It is possible that other parts of Picton, if monitored, may return higher concentrations of PM₁₀, indicating non-compliance with the NESAQ. This, and possible better monitoring sites were discussed in the report to Council, 'Evaluation of air quality monitoring sites for Blenheim and Picton' ²³.
- 148. I recommend that the sentence is not deleted, but is amended to more accurately reflect what is known about air quality in Picton. In my view, further monitoring is needed in Picton to better determine if air quality is NESAQ compliant (and I discuss that under Topic 15.AER.7). Also, technically Blenheim is not the only airshed within Marlborough. Under the NESAQ all of the region is an airshed, and there is a separate airshed defined for Blenheim.

Recommendation

149. I recommend that the first sentence of the last paragraph of the explanatory text under Issue 15D is amended as follows:

Though Picton and Renwick have also been monitored. This indicated Renwick would (and currently found to comply with the NESAQ), however, Picton's status was less certain. One breach of the PM₁₀ standard was measured, which would comply with the NESAQ, but because monitoring was only done on every third day, and the monitoring site was not necessarily 'worst case', it is possible that Picton may breach the NESAQ on other days or at other locations. Blenheim is the only separately-defined airshed within Marlborough.²⁴

150. I recommend that Method 15.M.30 is amended by adding the following:

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²³ Wilton, E. Evaluation of air quality monitoring sites for Blenheim and Picton. 2014.

²⁴ 1186.92 Te Ātiawa

The Council will work collaboratively with commercial firewood merchants to develop a scheme to promote and certify dry wood (less than 25% moisture content) to provide confidence to people buying firewood that it is dry at the time of purchase or is capable of being dry by wintertime use.²⁵

Objective 15.2 - Submissions and Assessment

151. Objective 15.2 reads:

Improve the ambient air quality of Blenheim by reducing PM₁₀ concentrations.

- 152. One submitter supports the objective, and two support it in part.
- 153. EnviroNZ Ltd (1262.1) supports the objective, and seeks its retention.
- 154. Blenheim Residents and Ratepayers Assoc (BRRA) (573.1) support in part. Its submission does not identify an issue, objective, policy or provision to which it relates. I have inferred that Objective 15.2 and associated policies are relevant to the submission. The BRRA supports more education on safe and sustainable wood burner practices, especially the use of dry wood. They have no position on the proposed 'crack down' on older style burners and open fires, but they do want the Council to consider the impact of such a policy on low/middle income families who rely on their fireplace for warmth.
- 155. BRRA want the Council to consider how it could support this transition. The Association is concerned that the cost of dumping green waste at Council's landfill may encourage burning. They want the Council to consider improving the affordable access to green waste disposal facilities. BRRA is also concerned at burning on properties around the boundary of Blenheim, and would like restrictions on it. Finally, the BRRA accepts that industrial air pollution is a matter generally considered through the resource consent process, but asks Council to consider further restrictions on industrial pollution. They submit that the proposed MEP calls for restrictions on particular fireplaces for residential users, and they expect similar expectations should be placed on industry. The BRRA does not seek amendment to the objective but rather wants the Council to:
 - Increase the provision of education in relation to environmentally sound burning practices in Marlborough.
 - Consider the impact of restricting the use of certain fireplaces on low/middle income families, and how Council might support a transition to cleaner energy solutions.
 - Consider options that improve the affordable access to green waste disposal facilities in Marlborough.
 - Consider restrictions on green waste burning on the outskirts of Blenheim.
- 156. **Gary Jones** (467.1) supports the objective in part but wants to Council to:
 - provide for flue cowling devices which he submits can reduce smoke emissions (such as the FlueCube);
 - offer financial incentives to residents to help poorer people change solid fuel burning appliances; and
 - to extend the expiry date for the use of burners older than 15 years in Blenheim to 12 or 18 months after the plan is operative (the current expiry is 9 June 2017).
- 157. There are no submissions that seek a change to the objective, directly or indirectly, therefore the wording must remain unchanged. The submissions do seek different or new methods of implementation of the objective.

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²⁵ 227.2 – Jessica Bagge

158. Method 15.M.30 in the MEP is as follows:

Ensure that the community is well informed about:

- alternative means of managing waste and the facilities that can be used/accessed to dispose of waste that can no longer be burned;
- the choices of heating and heat conservation methods;
- the incentives available to the public to change to cleaner, more efficient methods of home heating and fuel use; and
- the need to use dry firewood to reduce PM₁₀ emissions.
- 159. Method 15.M.28 is that the Council will consider assisting landowners to replace open fires and older burners and to make energy efficiency improvements, while Method 15.M.29 concerns having facilities available for the disposal of waste that can no longer be burnt.
- 160. **BRRA** and **Gary Jones** both are concerned about the impact of the fire and burner bans in Blenheim on low or middle-income households, and financial support for that transition.
- 161. The Council has a financial assistance scheme in place for approved 'clean' home installation (NESAQ compliant woodburners, pellet burners, heat pumps or flued gas heaters). This allows the homeowner to install a new heating appliance at no upfront cost by a targeted rate scheme. That scheme allows the homeowner to effectively 'borrow' from the Council for the works, which they pay back over a nine-year period, with interest, as a targeted rate on the affected property. Such a scheme can greatly assist lower-income homeowners, as the yearly replacements could be less than \$10 per week. The Council has a similar scheme to assist with home insulation.
- 162. In my view, these schemes meet the requirement to provide assistance to homeowners having to change their heating (including by installing or upgrading insulation). However, since the schemes exist, the wording in 15.M.28 could be changed from 'Consideration will be given to assisting landowners...' to reflect the actual situation, such as 'The Council will provide assistance to landowners...'.
- 163. I think the Council could do more to in terms of informing the public about air quality issues that is, to give effect to Method 15.M.30. For example, the clean heating scheme and the insulation scheme are on the Council website under 'Energy Efficiency'. There is no reference or link to the schemes under the Air Quality pages of the site, nor under the webpage 'Rule Changes' which documents the rules in the MEP relating to home heating, fire and burner phase out. In passing I note that the information on the Rule Change page is somewhat vague²⁶. The burner replacement information for example refers to "15 to 20 years". The rule in the MEP specifies 15 years. In my view, a lot more use could be made of the website to inform people more accurately of what the MEP rules say, with links or references to the specific rules, and with information about financial assistance available to help home owners with the conversion to cleaner heating methods.
- 164. The website could also include information about heating alternatives available for homeowners (heat pumps, flued gas, woodburners and pellets etc). The website includes information about 'good burning practices' but this relates just to outdoor burning. There is nothing about indoor fires or burners that the use of wet wood is prohibited, or to inform people about good burning practices.
- 165. The Council offers a reduced fee, less than half the normal rate, for separated green waste at the Blenheim transfer station. At \$15 per cubic metre I consider this provides a reasonably affordable means of green waste disposal.
- 166. **BRRA** also sought restriction on green waste burning on the rural land around Blenheim. Emissions inventories in Blenheim have indicated that between 5 and 8% of wintertime emissions come from domestic outdoor burning²⁷. These estimates were based on household surveys of the number of properties burning outdoors, and the quantity being burnt. This indicates that there has been a significant contribution of particle pollution from outdoor fires within Blenheim. It is appropriate to

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²⁶ https://www.marlborough.govt.nz/environment/air-quality/rule-changes

²⁷ MDC Emissions Inventories 2012 and 2017

focus on this known effect first (i.e. through the prohibition on outdoor fires within the Blenheim Airshed). It is worth noting that the ban on outdoor burning includes fires on Rural Environment Zone and Rural Living Zone land that falls within the Blenheim Airshed. The extent to which fires in the surrounding rural area outside the Airshed may contribute to poor air quality within Blenheim is not known at present, so there is no scientific basis to support additional restrictions on such fires, at this stage. I would suggest that if air quality does not improve significantly in Blenheim with the current suite of controls, then additional sources of pollution should be investigated, including the contribution from outdoor burning in the surrounding land.

- 167. **Gary Jones** suggested that the MEP should provide for 'chimney cubes' such as the FlueCube Chimney Cowl developed by Neville D'Herville in Nelson. The FlueCube is a device, looking somewhat similar on the outside to an old-fashioned 4-gallon tin, which is fitted to the top of a chimney flue (in place of the usual rain cap). They are suggested as an alternative to phasing out use of open fires or older more polluting burners. The manufacturers claim the cubes reduce smoke, and cite a draft Colorado State University report indicating that the cube decreased average PM emissions. But that study showed the difference was within the margin of error. Despite encouragement to do so, the FlueCube has not been tested by an accredited laboratory in New Zealand. The cubes may decrease visible smoke, through better air flow, but in my opinion, it has not been reliably proven that they have a significant impact on the overall quantity of particle emissions going into the atmosphere. I do not support provision for them in the MEP.
- 168. **Mr Jones** also suggested that the phase out date in the MEP for use of burners older than 15 years at the date of MEP notification be extended until 12-18 months after the plan becomes operative. I do not support that for two reasons. The first is that the mandatory phase out date has already passed (9 June 2017), and presumably most burners have already been replaced. Secondly, in 2017 the Blenheim Airshed breached the NESAQ for PM₁₀ on eleven days, with seven breaches at the time of writing in 2018. Under the NES the airshed was required to achieve compliance (a maximum of 1 breach) by September 2016. Deferring the burner rules would further delay compliance, with the possibility that the rules might come into effect in 2022 if not later if the submission were adopted.

Recommendation

- 169. I recommend that Objective 15.2 is retained without change.
- 170. I recommend that Methods 15.M.28 be amended as follows:

Consideration will be given to assisting Council will provide assistance to landowners to replace open fires and older style enclosed burning appliances and to make energy efficient improvements. This may require approaches to central government and the Energy Efficiency and Conservation Authority for greater financial assistance with offering incentives.²⁸

Policy 15.2.1 - Submissions and Assessment

171. Policy 15.2.1 reads:

Prohibit the use of open fires and the outdoor burning of organic and inorganic waste within the Blenheim airshed.

- 172. Two submissions support the policy and two oppose it.
- 173. The **Chamber of Commerce** (961.76) supports the policy, while urging the Council to provide incentives to make it affordable for homeowners make the transition to cleaner heating through rates relief and provision of heating appliances at low cost. **EnviroNZ Ltd** (1262.2) also supports the policy, and seeks its retention. As noted earlier, the Council has schemes available to provide assistance to homeowners to upgrade heating and insulation in houses.
- 174. **Raupo Café** (109.1) opposes the policy. They have an open fire which they say is an important part of the ambience of the café, as well as being important for heating. They believe there may be five

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²⁸ 467.1 - Gary Jones; 573.1 - BRRA

- cafes in a similar situation, and they seek that existing open fires in hospitality establishments be allowed continued usage.
- 175. I do not support the proposed exemption. Open fires have the quite high emission factors (PM emissions per kg of fuel) and low heating efficiency meaning more fuel needs to be burnt to provide warmth. Combined, those two factors mean open fires have high PM emissions. As noted earlier, the Blenheim Airshed is significantly in breach of the PM₁₀ NES (7 to 11 breaches per year over the last two winters, and this needs to get down to one or zero to comply with the NES. This requires significant changes to the emissions profile of Blenheim to achieve, including for open fires.
- 176. Providing exemptions for specific uses, such as hospitality, can also undermine the wider public commitment to the clean air strategy. If homeowners give up their open fires, but then go out and see open fires in use in other places, they can wonder why they bother or why their sacrifice was necessary. While the ambience factors for cafes is understood, the health impacts of not having clean air and of having to comply with the legal requirement in the NES, must outweigh such amenity factors. There are alternatives to open fires that can provide a degree of ambience, such as gas-log inserts, gas fires or woodburners.
- 177. **Anthony Armstrong** (52.1) opposes the policy. He opposes the ban on outdoor burning. He says has burnt his dry outdoor waste for 40 years without a complaint. If it is done in spring or summer, he submits, the convection takes the smoke high above the city. He sees few outdoor fires and thinks they are infrequent, and asks where the evidence is. He wants either the ban removed or the restriction applied to a specific timeframe such as April to October.
- 178. The randomised surveys carried out on Council's behalf for its emissions inventory reports indicate that 5-8% of household on average have outdoor fires during winter, contributing up to 8% of PM₁₀ emissions on a typical winters day²⁹. This is a significant contribution to wintertime pollution levels, and its removal from the emissions profile is a vital step towards achieving compliance with the NES³⁰. As regards amending the approach to restrict outdoor burning to autumn and winter, and to allow in for the rest of the year, outdoor fires within urban area can have significant amenity impacts. While Mr Armstrong may have not had a complaint, for the period 2011- 2016 Council received 170 complaints within Blenheim in relation to outdoor fires. That indicates a number of people find them offensive or objectionable.
- 179. I consider the policy should remain unchanged.

180. I recommend that Policy 15.2.1 is retained as notified.

Policy 15.2.2 - Submissions and Assessment

181. Policy 15.2.2 reads:

Phase out small scale solid fuel burning appliances older than 15 years of age within the Blenheim airshed.

- 182. One submitter supports the policy, two support it in part, and one opposes it.
- 183. The **Chamber of Commerce** (961.77) supports the policy, while urging the Council to provide incentives to make it affordable for homeowners make the transition to cleaner heating through rates relief and provision of heating appliances at low cost as for Policy 15.2.1.
- 184. **NMDHB** (280.30) supports the policy in part (and the associated rules 5.5.5 and 12.5.3). It notes that the explanation to the policy notes that the NESAQ will be able to be met in 2016 if older enclosed burners are replaced (in conjunction with the prohibition on open fires and outdoor burning). NMDHB submit that the date needs to be revised, given that rule 12.5.3 does not prohibit the use of older

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²⁹ MDC Emissions Inventories, 2012 and 2017

³⁰ Wilton E. Management Options for reducing PM10 concentrations in Blenheim – Update 2009

woodburners until mid-2017. [Note submission point 280.30 in the submissions summary is wrong and duplicates the submission on Policy 15.2.3. The above summary is taken from the original NMDHB submission]

- 185. I support the requested change to the explanation, as 'by 2017' would be more accurate. The open fire phase out and outdoor burning ban had effect from the start of winter 2016 (9 June) but, as the submitter notes, the ban on older burners would not occur until the beginning of the following winter, so the full impact on emissions would not occur until 2017.
- 186. **Lisa Collinson** (444.1) also supports the policy in part. She is concerned about the impact on superannuates. She wants the policy amended as follows "*Phase out small scale solid fuel burning appliances elder than 15 years of age as they need replacing within the Blenheim Airshed."* And it is inferred she seeks subsiding of the cost of changing heating, or providing interest-free loans that can be repaid when the property is sold.
- 187. I do not support the suggested wording change to the policy. That would have burners replaced just by natural attrition that is, when they wore out or the homeowner decided to replace them for whatever reason. Modelling has demonstrated that without a mandatory phase out date of 15 years after installation, PM₁₀ concentrations would not fall enough to meet the NES. The Council targeted rates schemes to assist with burner replacement and insulation have been discussed earlier. While the schemes are not interest-free, they do allow the improvements to occur without any upfront cost to the homeowner, with modest repayments over nine years or sooner in some cases if the house is sold. I consider that reasonably addresses the issue the submitter has raised.
- 188. Allister Leach (135.2) opposes the policy. He believes this provision would create too great a financial burden on most residents with wood burners older than 15 years old. He would like to see this provision revised to allow such log burners to be used until they need replacing due to being faulty and then required to be replaced with a compliant low emission log burner. He would like to see Council educating the public on the correct use of log burners, including the use of dry wood. Also there should be some compliance undertaken to ensure anyone selling firewood is selling only dry firewood. He also is concerned about the impact on older or low-income people who might end up not using any form of heating, to the detriment of their health. He seeks the deletion of the policy and of rule 5.3.19.1.
- 189. As discussed above, I consider the issue of financial assistance has been addressed in the plan and by the Council. I have also explained why relying on natural attrition of burners will not achieve the outcome mandated by the NES. Informing the public about good burning practice and dry wood is important, but education alone will only achieve a modest improvement (if any) in PM₁₀ concentrations. Even with the best operation, older burners do not have the necessary design features to achieve emissions low enough to delivery ambient air quality in compliance with the NES.

Recommendation

- 190. I recommend that Policy 15.2.2 is retained as notified.
- 191. I recommend that the second sentence of the explanation to the policy be amended as follows:

 *Modelling has shown that the NESAQ will be achieved by 2016 2017.31

Policy 15.2.3 - Submissions and Assessment

192. Policy 15.2.3 reads:

Require all new multi-fuel burning appliances to comply with the National Environmental Standards for Air Quality design standard for wood burning appliances.

193. **NMDHB** (280.31) supports the policy in part, but is concerned that it does not apply to woodburners and to later replacement burners (woodburner or multi-fuel burners). They seek the policy to

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³¹ 280.30 - NMDHB

- commence 'Require all new <u>and replacement</u> multi-fuel <u>and wood</u> burners...'. Te Ātiawa is a supporting further submitter.
- 194. I do not think any change is needed to the policy. The NESAQ regulates standards for woodburners on properties less than 2ha in area. However, this policy is aimed at multi-fuel appliances which are not subject to the NESAQ, requiring them to meet similar standards. 'New' includes multi-fuel burners that replace other fires and burners, and no change to the policy is needed in my opinion. The explanation also makes it clear that the policy does not apply just to the early phase-outs under the plan.

195. I recommend that Policy 15.2.3 is retained as notified.

Policy 15.2.4 - Submissions and Assessment

196. Policy 15.2.4 reads:

Refuse discharge permit applications to discharge PM_{10} into air within the Blenheim airshed if the discharge is likely to increase the concentration of PM_{10} by more than 2.5 micrograms per cubic metre (24-hour average) in any part of the airshed, unless:

- (a) the Blenheim airshed average exceedance is less than 1 per year; or
- (b) the applicant offsets the proposed PM_{10} discharge by reducing PM_{10} discharges from another source(s) in the airshed by the same or greater amount.
- 197. **Fulton Hogan** (717.57) opposes the policy. They are concerned that it does not provide support for existing dischargers that wish to renew their resource consent. They say this does not recognise the significant investment that may have occurred or the potentially significant benefits associated with an activity with a discharge.
- 198. Fulton Hogan seek that an additional clause be added to the policy (c) *or, the application is subject to Section 124 of the RMA.* Te Ātiawa has lodged a further submission in opposition, with generic reasons.
- 199. Section 124 of the RMA relates to the exercise of existing consents while applying for a new consent. It provides that if the new consent application is lodged in the period 3-6 months period to the expiry of the existing consent, the consent holder at the Council's discretion may continue to operate until the new consent is granted or declined. Regulation 17 of the NES restricts the ability to approve resource consent applications for discharges of PM₁₀ in polluted airsheds if the discharge would increase the concentration of PM₁₀ by more than 2.5 micrograms per cubic metre (24-hour average) in any part of the airshed. Regulation 17(2) provides exemptions for applications for existing activities, but discharge under the proposed consent needs to be the same as or less than under the existing consent. That restriction would not be reflected in the new clause proposed by Fulton Hogan, and a larger discharge then the current one would therefore be enabled by the policy, but restricted by the NESAQ. There is already a mismatch between the policy and Regulation 17 (which cannot be resolved as there are no submissions which would allow it). However, I can see no merit in adding to that confusion.
- 200. I note that section 104(2A) of the RMA already requires a consent authority, when considering a section 124 application, to have regard to the value of the investment of the existing consent holder, That, in my view, adequately covers the issue raised by the submitter.

Recommendation

201. I recommend that Policy 15.2.4 is retained as notified.

Method 15.M.28 - Submissions and Assessment

202. Method 15.M.28 reads:

Consideration will be given to assisting landowners to replace open fires and older style enclosed burning appliances and to make energy efficient improvements. This may require approaches to central government and the Energy Efficiency and Conservation Authority for greater financial assistance with offering incentives.

- 203. **Jessica Bagge** (227.3) supports the provision in part. She says there is talk of incentives but nothing concrete. She is concerned seniors will end up sitting in the cold rather than using electricity and that lower income families, who rely on wood donations for warmth, will not be able to afford electric heating, if their fires are non-compliant. She also wants education over the alternatives offered.
- 204. **Woodburners Unite** (1239.5) oppose the method. The group thinks Council could work to incentivise people to replace older burners using a number of strategies. Some people, if given the means and opportunity, will opt to take up such offers. Others may be planning renovations and see it as a timely opportunity given some extra help. Woodburners Unite say some might not like the work involved with having a woodburner and prefer to change to a heat pump. They seek the following be added to the method: Other incentives could include allowing costs to be applied to rates or providing subsidies and/or waiver of permits or free expert advice on best options to suit their dwelling.
- 205. In response to submissions on Objective 15.2, addressed above, I recommended that Method 15.M.28 be amended as follows:

Consideration will be given to assisting Council will provide assistance to landowners to replace open fires and older style enclosed burning appliances and to make energy efficient improvements. This may require approaches to central government and the Energy Efficiency and Conservation Authority for greater financial assistance with offering incentives.

206. This in my view would resolve the uncertainty about financial assistance that concerned Ms Bagge. Also, as discussed earlier, the schemes adopted by the Council allow the costs of heating replacement (and insulation) to be repaid via a targeted rate, and the Woodburner Unite proposal is therefore occurring. It is captured within the more general wording, and in my view the additional wording is not needed, and could be confusing as it would suggest schemes other than the rate-based ones were available. For that reason, while I support the sentiment of the Woodburners Unite submission, I do not think a change in the wording of the method is necessary or appropriate.

Recommendation

207. I recommend that Method 15.M.28 is amended as follows (as also recommended under Objective 15.2):

Consideration will be given to assisting Council will provide assistance to landowners to replace open fires and older style enclosed burning appliances and to make energy efficient improvements³². This may require approaches to central government and the Energy Efficiency and Conservation Authority for greater financial assistance with offering incentives.³³

Method 15.M.30 - Submissions and Assessment

208. Method 15.M.30 reads:

Ensure that the community is well informed about:

- alternative means of managing waste and the facilities that can be used/accessed to dispose of waste that can no longer be burned;
- the choices of heating and heat conservation methods;

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^{32 227.3 –} Jessica Bagge

³³ 227.3 – Jessica Bagge; 1239.5 – Woodburners Unite

- the incentives available to the public to change to cleaner, more efficient methods of home heating and fuel use; and
- the need to use dry firewood to reduce PM₁₀ emissions.
- 209. The **Chamber of Commerce** (961.78) support the provision and seeks its retention. They think the transition will be easier if the Council could get community buy-in.
- 210. NMDHB (280.33) support it in part. They would like the method amended so that the community is well informed about how to operate wood burners correctly to ensure more efficient heating and less pollution. This includes burning the right wood (dry, seasoned hardwood; no chemical treatment or rubbish) the right way (hot and not smouldering fire, not overloading the appliance).
- 211. **Woodburners Unite** (1239.7) oppose the method. They submit that priorities should be those contributors that have a long-term impact on health. They seek the following amendments:

Through community engagement and public education material, €ensure that the community is well informed about:

- alternative means of managing waste and the facilities that can be used/accessed to dispose
 of waste that can no longer be burned;
- the choices of heating and heat conservation methods;
- <u>alternative and/or emerging technologies that reduce emissions, e.g. chimney top filters,</u> smartburn and retrofitted catalyst converters;
- efficient use of fireplaces is essential for all owners of new and older style woodburners;
- the incentives available to the public to change to cleaner, more efficient methods of home heating and fuel use; and
- the need to use dry firewood to reduce PM₁₀ emissions.
- 212. I support the first change proposed by the **Woodburner Unite** group as it recognises that community involvement is necessary and is consistent with idea of community buy-in expressed by the **Chamber of Commerce**. I do not favour the second proposal. As discussed earlier, chimney-top filters or flue cubes are unproven technology, and so too are devices like SmartBurn. A SmartBurn device (a metal tube that is placed in the base of a fire) also modifies the burner from that which was tested to determine compliance with the emission standard in the NESAQ (and so too do flue cubes). The Council would want to avoid any suggestion that it endorsed the use of such devices, when their efficacy has not been independently established or they might make the burner non-compliant with the MEP and NESAQ standard. Moreover, often people see them as an alternative to replacing their older burners, thereby potentially undermining the MEP rules and strategy to achieve compliance with the NESAQ.
- 213. I support the NMDHB proposal to broaden the information provided about good burner operation, to more than just use of dry wood.

Recommendation

214. I recommend that Method 15.M.30 is amended as follows:

<u>Through community engagement and public education material.</u> Eensure that the community is well informed about³⁴:

- alternative means of managing waste and the facilities that can be used/accessed to dispose of waste that can no longer be burned;
- the choices of heating and heat conservation methods;
- the incentives available to the public to change to cleaner, more efficient methods of home heating and fuel use; and

^{341239.7 –} Woodburners Unite

- <u>better burner operation, including</u> the need to use dry firewood, <u>fuels whose use is prohibited, flue cleaning, and ways to operate the fire</u> to reduce PM₁₀ emissions <u>and improve</u> heating efficiency³⁵.
- 215. Note also the recommendation under Issue 15D above (Jessica Bagge) for the addition of the new method under 15.M.30 relating to developing a 'Good Wood' certification scheme with firewood merchants.

Permitted Rule 5.1.25 & 6.1.17 - Submissions and Assessment

216. Rule 5.1.25 is in the Urban Residential 1 & 2 Zone, and is a permitted activity (unless limited elsewhere in the MEP) if it complies with the applicable standards in 5.2 and 5.3. Rule 6.1.7 is a similar rule in the Urban Residential 3 Zone. Rule 5.1.25 is:

Discharge of contaminants to air within the Blenheim Airshed from the burning of solid fuel in a small scale solid fuel burning appliance that is 15 years of age or older (except an enclosed pellet burner):

- 217. **Grant Crosswell** (217.1) opposes 5.1.25. He is concerned about how the value of 15 years was arrived at. He says more than three wood burners would be required for the 50-year life of a house, and at approximately \$4,000 per burner, that would contribute to devaluing homes and increase the cost of home ownership. He submits that specifying the age of a stove will not have the desired effect. This will create cheaper, thinner and more dangerous fire places that do only last for 15 years. He wants the rule re-worded so that it relates to a particulate or efficiency level rather than the burner age.
- 218. **Rob Pears** (1.1) opposes rule 6.1.17 and wants it deleted. He says it is not the age of the burner that causes most of the smoke but rather the moisture content of the wood. He also says on key pollution nights people are safely inside their houses with the windows shut so there is very little effect from smoke.
- 219. Fifteen years is quoted by the NZ Home Heating Association, which comprises burner manufacturers and retailers, as the average useful life of a wood burner³⁶. It has been adopted often for modelling purposes for burner turnover and replacement, and in air quality plans as the period for mandatory replacement e.g. the Canterbury Regional Air Plan. Some burners will last longer than this, however.
- 220. Mr Crosswell suggests that particulate or efficiency of a burner would be a better measure to use, rather than its age. For burners installed before the NESAQ came into effect (before 2006) the age of the burner is a good proxy for its performance and particle emissions. Prior to the NESAQ, burners were tested and labelled in accordance with AS/NZ standards 4012 and 4013. The standards were progressively tightened over the years, with significant changes in burner performance being required in 1996, 2000 and 2003. Thus, any burner older than 15 years at the time of notification of the MEP will pre-date the current NESAQ burner standards. Their replacement with a heat pump, flued gas heater or with a cleaner burning woodburner with deliver an air quality gain.
- 221. A second reason for specifying 15 years in the rule is that it drives the replacement of burners, and hence emissions. If 20 years were specified, or the method proposed by the submitter, the replacement of burners would be much slower. The air quality results from 2017 and 2018 show that Blenheim's air quality is stubbornly above the concentration required by the NESAQ. Having mandatory replacement slower than in rules 5.1.25 and 6.1.17 would further delay achieving compliance with the NES.
- 222. The last reason why an age replacement date is specified in the rule is that, as burners age, their performance declines due to wear and tear. Parts that are essential to their 'double burning' function burn out or develop holes, which affects their emissions efficiency. This is not unlike an ageing motor vehicle fleet. Even an NESAQ burner over time will begin to produce higher emissions, and across

³⁵ 280.33- NMDHB

³⁶ Wilton E. Management Options for reducing PM10 concentrations in Blenheim – Update 2009, page 11.

- the urban area, ageing burners collectively will gradually erode air quality improvements already won. Hence the requirement to refresh the burner population over time.
- 223. I agree that use of dry wood is important, but as I discuss under Issue 15D and 5.3.19 below, even with dry wood, an older burner will produce higher emissions than a modern one meeting the NESAQ standards. A change in burner technology is needed to improve Blenheim's air quality and cannot be achieved by using better wood alone. As discussed at paragraph 77, particle pollution gets into houses and people get exposed to high PM₁₀ levels even in their houses.
- 224. For these reasons I support retaining the rules as notified.

225. I recommend that Rules 5.1.25 and 6.1.7 are retained as notified.

Permitted Standards 5.3.19 (Burners within Blenheim Airshed, 15 years or older) - Submissions and Assessment

- 226. Permitted Standard 5.3.19 contains the provisions that apply to small scale solid fuel appliances (excluding pellet burners) and specifies that if the burner is 15 years of age or older at the time the MEP was notified, it can only be used until 9 June 2017 (one year after the date of notification).
- 227. Standard 5.3.19 is:

Discharge of contaminants to air within the Blenheim Airshed from the burning of solid fuel in a small scale solid fuel burning appliance that is 15 years of age or older (except an enclosed pellet burner).

- 5.3.19.1 The continued use of the specified appliance is only permitted until 9 June 2017.
- 5.3.19.2 The appliance must burn only fuels approved for use in the appliance.
- 228. There are three submissions in opposition to Standard 5.3.19.1.
- 229. **Allister Leach** (135.1) is concerned about the financial burden on residents of stopping the use of burners over 15 years old. He wants burners to be able to be used until they need replacing. He would like to see education about use of dry wood, and compliance checking of people selling wood. He seeks deletion of Policy 15.2.2 and Standard 15.3.19.1.
- 230. **Bruce Walton** (558.3) also opposes replacing burners over 15 years of age 'if they comply to the standards'. He says chip heaters are used by many residents not only for cooking but also for hot water supply. The inferred solution he seeks is removal of 5.3.19.1.
- 231. Mr Leach's submission (135.2) on Policy 15.2.2 was considered above under that topic.
- 232. In response to both Mr Leach's and Mr Walton's submissions on this permitted rule, I reiterate what I said under Policy 15.2.2.
- 233. I consider the issue of financial hardship, and therefore assistance, has been addressed in the plan and by the Council. I have also explained why relying on the natural attrition of burners will not achieve the outcome mandated by the NESAQ. Informing the public about good burning practice and dry wood is important, but education alone will only achieve a modest improvement in PM₁₀ concentrations, and that even with the best operation older burners do not have the necessary design features to achieve emissions low enough to delivery ambient air quality in compliance with the NES.
- 234. Older burners were manufactured to meet earlier emission requirements under the New Zealand standards for woodburners or in some cases, there were no standards applying. Even with careful operation they are not able to achieve the same emissions outputs as modern burners meeting the NES requirements. That is why these burners need to be replaced with cleaner burning appliances, or devices that do not use solid fuel such as heat pumps, so that air quality will improve sufficiently to comply with the NESAQ.

- 235. Mr Walton suggests that older burners could remain 'if they comply to the standards'. It is not clear what standards he is referring to, but if he means emissions standards then there are two issues that are relevant. Older burners do not comply with the emissions standards in the NESAQ and MEP. Secondly, as noted above, even if they complied with the standard that applied at the time they were manufactured, the burners, if they remained in use, would deteriorate over time and produce more emissions. In addition, not replacing them with modern burners means ambient air quality would not continue to improve in Blenheim and met the NESAQ requirements.
- 236. **Tim Newsham** (1173.2) opposes permitted standard 5.3.19.1, and seeks that the cessation date for use of burners 15 years or older be changed from 9 June 2017 to 9 June 2022.
- 237. As discussed under 'National Environmental Standards' (paragraphs 34 to 52), the Blenheim Airshed must comply with the NES by 1 September 2016 (that is, have no more than 1 exceedance over 12 months). In 2017 there were 11 recorded exceedances, and 7 in 2018 up to September, so the airshed is far from complying with the regulation. With that degree of non-compliance, it would be inappropriate in my view to push back the phase out date as the submitter requests to 2022. I also consider that the Council would not be acting in accordance with its requirements under the RMA. Section 44A(8) states Every local authority and consent authority must enforce the observance of national environmental standards to the extent to which their powers enable them to do so, while section 66(1)(f) states that when preparing a regional plan, a council must do so 'in accordance with ..any regulations'.
- 238. I therefore do not support removing the phase-out date for burners over 15 years of age in 5.3.19.1.
- 239. I note however that both submitters would receive partial relief to their submissions if my recommendations above under Issue 15D, Objective 15.2, and Methods 15.M.28 and 15.M.30 are accepted.

240. I recommend that permitted standard 5.3.19.1 is retained as notified.

Prohibited Activities 5.5.3 (Outdoor burning within Blenheim Airshed after 9 June 2016) - Submissions and Assessment

- 241. Rule 5.5 lists Prohibited Activities for which no resource consent application can be made, and where the discharge to air is prohibited. Rule 5.5.3 prohibits³⁷ outdoor burning from the date of notification of the MEP.
- 242. Rule 5.5.3 is:

Discharge of contaminants to air from outdoor burning within the Blenheim Airshed, after 9 June 2016, unless the fire is used exclusively for the cooking or smoking of food for non-commercial purposes.

- 243. **Tim Newsham** (1173.1) supports the rule in part. He says he supports most of the rules regarding burning in the Blenheim Airshed, including the prohibition of backyard burning of waste, braziers, and fuels not designed for the appliance. He seeks that the burning of coal be added to this, 'even if the appliance is designed to take coal'. He submits that coal is an unrenewable resource which emits toxic fumes and whose ash is also toxic to soil.
- 244. **Woodburners Unite** (1239.1) opposes the rule. It submits that braziers are an important source of warmth, heat and ambient comfort during social occasions, and are an affordable source of outdoor heating unlike gas heaters which not everyone can afford to own. It's their belief that most people do not use braziers in the very coldest months but rather during autumn and spring and of course in summer they are often precluded because of seasonal fire bans. They want the ban (prohibition) on

³⁷ subject to s87(b)(1) of the RMA until the rule is made operative.

- outdoor burning, as it relates to braziers, to apply only during the winter months May to August inclusive.
- 245. Woodburners Unite also want outdoor rubbish fires to be banned, except with a permit. They say permits could be issued based on weather conditions, and provide the opportunity to scrutinise what is to be burnt and how dry it is.
- 246. **MDC** (91.210) submits that there is 'an unintended drafting error' in the Chapter 5 rules. Prohibited Activity Rule 5.5.3 provides an exemption for the discharge of contaminants to air from outdoor burning within the Blenheim Airshed, after 9 June 2016, for fires used exclusively for the cooking or smoking of food for non-commercial purposes. However, the MDC submission says, there is no Permitted Activity rule in section 5.1 to provide for the exemption. The submission seeks:

Add a new Permitted Activity rule under section 5.1 and a new heading under section 5.3:

Discharge of contaminants to air within the Blenheim Airshed from outdoor burning exclusively for the cooking or smoking of food for non-commercial purposes.

And add two new standards under the new heading in section 5.3 as follows:

Standard 1 - The appliance must only burn fuels approved for use in the appliance, and

Standard 2 – The appliance must be operated so that all reasonable steps are taken to minimise the amount of smoke discharged.

- 247. I do not support Woodburners Unite's idea of a permit to allow outdoor burning during the winter months. The weather can change from the time the permit is issued, and it is difficult to enforce. Also, rubbish fires within large urban areas can create nuisance and amenity effects. In the six years before the plan was notified, the Council received on average 30 complaints per year about rubbish fires within Blenheim. I recommend the rule as it relates to such fires remain unaltered.
- 248. I believe there is scope to provide some relief for the use of braziers outside the winter restriction within the Blenheim Airshed. This would require a change to the prohibited rule to ease the prohibition, as well as the permitted standards to enable it. The new standards could also provide relief to the MDC submission. I do not consider a new permitted activity rule is needed to resolve the problem MDC identified as there is already a permitted activity rule for burning in the open (rule 5.1.20). However, I agree that there needs to be a specific permitted activity standard to give effect to the exemption in the prohibited activity rule, otherwise discretionary consent is needed. A permitted rule could provide for home BBQs, hangi and similar non-commercial cooking in the Residential Zone. This would provide partial relief to Jessica Bagge's submission 227.2 under Issue 15D above (see paragraph 127).
- 249. Regarding the proposal to ban the use of coal, the 2017 Blenheim Emissions Inventory showed that none of the households surveyed used coal. Coal may be being used, but not captured by the survey sample, but its use will be very small likely a fraction of a percent. On the other hand, 44% of households use wood for heating. Banning the use of coal would have no measurable impact on ambient PM₁₀ levels. The few multi-fuel burners that use coal/wood will gradually phase out over time due to wear and tear, or changes in needs. The rule prevents their replacement, as currently no multifuel burners met the emissions standards specified for use in Blenheim.
- 250. **MDC** (91.207) made a similar submission with respect to prohibited activity Rule 6.5.3 in the Urban Residential 3 Zone. The same issues in that zone apply, and I recommend that the identical amendments be made in that zone (Chapter 6).

Recommendation

251. I recommend that Rule 5.5.3 is amended as follows:

Discharge of contaminants to air from outdoor burning within the Blenheim Airshed, after 9 June 2016, unless the fire is used exclusively for the cooking or smoking of food for non-commercial

purposes or is a brazier and the discharge does not occur during the months of May, June, July or August and does not involve any fuel prohibited under Rule 5.5.7³⁸.

- 252. And that a new Permitted Standard is added to section 5.3 as follows:
 - 5.3.15A Discharge of contaminants to air within the Blenheim Airshed from outdoor burning in a brazier³⁹, or a fire used exclusively for the cooking or smoking of food for non-commercial purposes⁴⁰
 - 5.3.15A.1 Any discharge from a brazier does not occur during the months of May, June, July or August.
 - 5.3.15A.2 Only wood with a moisture content of 25% dry weight or less is burnt, and no rubbish or materials in Rule 5.5.7 is burnt.
 - 5.3.15A.3 All reasonable steps are taken to minimise the amount of smoke discharged 41
- 253. I recommend that identical changes be made in Chapter 6 (Urban Residential 3 Zone) to Rule 6.5.3, and to insert a new permitted standard as above (but referencing Rule 6.5.4 instead of Rule 5.5.7.42

Prohibited Activities 5.5.4 (Indoor open fire within Blenheim Airshed) - Submissions and Assessment

254. Rule 5.5.4 prohibits from the date of notification of the Plan the use of any indoor open fire within the Blenheim Airshed:

Discharge of contaminants to air within the Blenheim Airshed from an indoor open fire, unless the fire is used exclusively for the cooking or smoking of food for wholesale or retail sale.

- 255. **Tim Newsham** (1173.4) opposes the provision and wants it amended to have effect from 9 June 2022, and for the exemption to include *'for the ambience in commercial places'*.
- 256. **Woodburners Unite** (1239.2) also opposes the rule, and want an exemption for open fires where they are used infrequently for entertainment or other purposes. They want the words *'or is not the main source of heating'*. They also want consideration given to commercial dining premises to use open fires, for example if they have chimney filters to reduce emissions.
- 257. **Jessica Bagge** (227.1) opposes the rule. Her submission is wide ranging with no specific decision sought, but it is clear she opposes the 'outright banning of fires and burners (older than 15 years)'.
- 258. I have discussed previously the high level of non-compliance of Blenheim's ambient PM₁₀ levels against the NESAQ, and why removing or delaying the fire and burner ban would delay or prevent compliance with the mandatory NESAQ.
- 259. I do not support exemptions, either for commercial ambience, or occasional use of open fires in homes where they are not the main heating source. It would be impossible to evaluate or enforce a rule about use in homes for entertainment or aesthetic purposes. Similarly, exemptions for commercial premises can create uncertainty in the public mind as to the application of the open fire ban, as well as inequities if a homeowner must upgrade their heating, but the adjoining café does not, when the environmental effects are similar. As discussed earlier in my report, there is no good evidence that retrofitted 'chimney filters' are effective in reducing particle emissions. I do not recommend changing the rule.

³⁸ 1239.1 – Woodburners Unite; 227.2 -Jessica Bagge

³⁹ 1239.1 – Woodburners Unite

⁴⁰ 91.210 - MDC

⁴¹ 1239.1 – Woodburners Unite; 91.210 - MDC

⁴² 91.207 - MDC

260. I recommend that Prohibited Rule 5.5.4 is retained as notified.

Prohibited Activities 5.5.5 (Burners 15 years+ within Blenheim Airshed) - Submissions and Assessment

261. Rule 5.5.5 is:

From 9 June 2017 the discharge of contaminants to air within the Blenheim Airshed from the burning of solid fuel in a small scale solid fuel burning appliance (except a pellet burner) that has been installed for more than 15 years.

- 262. Tim Newsham (1173.3) wants the ban date changed from 2017 to 2020.
- 263. **Woodburners Unite** (1239.3) opposes the rule and want it deleted. They consider woodburners should be permitted until they need replacing, and that wetback fireplaces should be exempt from any restrictions as they heat water as well as the house, reducing power consumption.
- 264. **Peter Gilbert** (1017.10) submits in opposition, saying that replacing burners while spare parts are available is wasteful. He proposes that after 15 years the 'efficacy and safety' of the installed burner could be certified by an accredited installer, on a yearly basis.
- 265. **Jessica Bagge** (227.4) opposes the rule for reasons as outlined under 5.5.4 above. She opposes the outright banning of burners older than 15 years.
- 266. **Wayne Gander** (191.1) opposes the rule. He believes one year (from notification) is an unrealistic timeframe to budget for and fund the replacement of burners. He also considers 15 years an unrealistically short lifespan for burners. He wants a longer phase-in (5-7 years) for replacement of burners installed prior to 2000, and the lifespan of post-2000 burners extended to 20-25 years.
- 267. For the reasons discussed before, given the levels of non-compliance in Blenheim's air quality, I do not recommend changing the rule.
- 268. As regards **Mr Gilbert's** suggestion to have annual inspections of older burners, this would be very costly, and the annual cost could be better put towards replacing the burner (inspection costs could amount to \$2000 or more over 10 years). The key point however is that even if the burner were operating 'as new', simply because of the older design of the burner, it would not have emissions sufficiently clean to assist with progressive clean-up of Blenheim's air quality. While a significant number of older burners remain in use in the town, the air quality will never reach the concentrations required by the NESAQ.
- 269. As discussed earlier, there is a targeted rate scheme available, like a council loan, that assists with burner replacement meaning there is no need for a long period to save up before the burner is replaced.
- 270. I see no case for exempting burners or fires with wetbacks. There are new woodburners with wetbacks that are tested and comply with the NES emission and efficiency standard, where homeowners want to continue to have the water heating benefits of a wetback.

Recommendation

271. I recommend that Prohibited Rule 5.5.5 is retained as notified.

Prohibited Activities 5.5.6 (Burners not meeting permitted standards, within Blenheim Airshed) - Submissions and Assessment

272. Rule 5.5.6 prohibits the use of other small scale solid fuel burning devices that do not meet the permitted standards (including new burners that do not comply with the emissions and efficiency standards). It makes exemption for existing devices and new ones used for cooking e.g. coal ranges and more modern solid fuel burning stoves/ovens, pizza ovens, fish smokers.

Discharge of contaminants to air within the Blenheim Airshed, from the burning of solid fuel in a small scale solid fuel burning appliance that does not meet the applicable permitted standards, unless the fire is used exclusively for the cooking or smoking of food.

- 273. **Woodburners Unite** (1239.4) opposes the rule and wants it deleted. Their submission is the same as Rule 5.5.5 and does not focus on the specifics of this rule.
- 274. I support removing the rule. There may be new small scale solid fuel burning devices that do not meet the emission and efficiency standards in the plan, for example, that people seek to install in Blenheim. I support these being able to be considered on their merits as a discretionary activity. These might be burners or stoves from overseas, which have tested against other burners standards, that might be appropriate for installation. Or it might be a wood-fired central heating system. If these devices were not classified as 'woodburners' they would not have to comply with the standards in the NESAQ for a site smaller than 2 hectares, and could at least be considered for installation within the Airshed. The prohibited rule removes that possibility.

Recommendation

275. I recommend that Prohibited Rule 5.5.6 is deleted in its entirety. 43

Prohibited Activities 10.5.1 (outdoor burning, Business 2 Zone, Blenheim Airshed) - Submissions and Assessment

276. Rule 10.5.1 applies in the Business 2 Zone but only within the Blenheim Airshed and states the following is prohibited:

Discharge of contaminants into air from outdoor burning within the Blenheim Airshed, after 9 June 2016, unless the fire is used exclusively for the cooking or smoking of food for non-commercial purposes.

- 277. **Kay Hannam & Brian Williams** (1304.1) oppose the rule. They are concerned with restrictions on their property in Wairau Valley when all three neighbouring properties also operating a commercial activity are not subject to the same restrictions under Rule 10.5.1. They want an exemption for the Wairau Valley Township.
- 278. The Blenheim Airshed does not include the Wairau Valley township, therefore the submitters are not affected by the restriction. No change is needed to the rule.

Recommendation

279. I recommend that rule 10.5.1 remains as notified.

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^{43 1239.4 -} Woodburners Unite

Prohibited Activities 12.5.3 - Submissions and Assessment

280. Permitted Standard 12.5.3. is:

From 9 June 2017 the discharge of contaminants into air within the Blenheim Airshed from the burning of solid fuel in an enclosed wood, coal or other burner (except a pellet burner) that has been installed for more than 15 years.

- 281. **Timberlink** (460.13), opposes the rule as it is concerned it would require the replacement of industrial plant after it was 15 years old, even if it were still complaint in terms of emissions. It submits that if the rule is intended to apply to domestic heating, it should say so.
- 282. The wording of the rule is confusing. The words 'small scale' are missing and it should use the same terminology as Rule 12.3.14, which is the related permitted activity standard that limits use of such fires beyond 9 June 2017. The prohibited rule should refer to a 'small scale solid fuel burning appliances', as that is a clear defined term in the Plan, and the term is used elsewhere in similar or related rules. Without that clear terminology, I agree with the Timberlink submission, that it is unclear whether the rule applies to domestic-scale appliances, or to industrial size ones. If the wording is amended as I recommend below, the ambiguity is removed, and the rule is consistent with similar rules in other zones.

Recommendation

283. I recommend that Prohibited Rule 12.5.3 is amended as follows:

From 9 June 2017 the discharge of contaminants into air within the Blenheim Airshed from the burning of solid fuel in an enclosed wood, coal or other burner a small scale solid fuel burning appliance (except a pellet burner) that has been installed for more than 15 years.⁴⁴

Prohibited Activities - All Zones (Prohibited fuels and substances) - Submissions and Assessment

284. The following rule is replicated in identical form in all zones. It contains a list of substances, the combustion of which is prohibited.

Discharge of contaminants to air arising from the burning of any of the following materials:

- (a) wood having a moisture content of more than 25% dry weight;
- (b) wood which is painted, stained, oiled or coated;
- (c) wood treated with preservatives or impregnated with chemicals, including but not limited to, wood treated with Copper-Chrome-Arsenic;
- (d) pellets containing greater than 10 mg/kg (dry) of copper and 0.02 w-% (dry) of chlorine;
- (e) composite wood boards containing formaldehyde or similar adhesives, including but not limited to chip board, fibreboard, particle board and laminated boards;
- (f) metals and materials containing metals including but not limited to cables;
- (g) materials containing asbestos;
- (h) material containing tar or bitumen;
- (i) all rubber, including but not limited to, rubber tyres;
- (j) synthetic material, including, but not limited to motor vehicle parts, foams, fibreglass, batteries, chemicals, paint and other surface-coating materials, or any type of plastics;
- (k) waste oil;
- (I) peat;
- (m) sludge from industrial processes;

^{44 460.13 -} Timberlink

- (n) animal waste (except animal waste generated on production land), medical waste, pacemakers, biomechanical devices or chemical waste.
- 285. **Azwood Energy** (1268.1 to 20) submitted in opposition to the rule in all zones (except the Rural Environment Zone). Azwood Energy supply wood fuels in a number of forms (wood pellets, chips and 'hog' for industrial and boiler uses, and pellets for domestic scale pellet burners). They submit that modern boilers and furnace technologies allow the burning of wood with up to 60% moisture content will very low emissions 'well below the PM₁₀ requirements'. They are concerned that clause (a) would prohibit any combustion of wood where the moisture content was more that 25%. They note a number of benefits of using wood fuel: i) it is carbon neutral; ii) has substantially lower emissions than coal; iii) it reduces wood waste; iv) reduced slash on hillsides with benefits in terms erosion, fouling of waterways and flooding, and fire risk, and v) it creates new industry and jobs in the regions. They note that wood is the only cost-effective alternative to burning coal in boilers and industry. It is inferred they want clause (a) in the rule deleted or modified.
- 286. **Nelson Forests** (990.121 & 156) submitting in opposition to the rule in the Rural Environment and Coastal Environment Zones, say the burning of wood with moisture consent above 25% should not be a prohibited activity. They want clause (a) deleted, and for the discharge of contaminants to air arising from the burning of wood having a moisture content of more than 25% dry weight to be a Restricted Discretionary Activity, with 'climatic conditions' as a matter for discretion (or with words of similar effect).
- 287. **Fonterra** (1251.136), submitting on the rule in the Rural Environment, opposes the prohibition on burning of waste oil in clause (k). They say it is routinely used as a heating source in industry. They submit that it can be burned such that the effects are acceptable, as is demonstrated at the Fonterra Darfield and Clandeboye dairy manufacturing sites, and that burning of waste oil should be a discretionary activity. They want clause (k) deleted.
- 288. **Rainbow Sports Club** (228.10) similarly opposes the waste oil clause (Rule 20.6.1(k)) in the Open Space 4 Zone (which applies to the Rainbow and Mt Lyford Ski fields). It is concerned about the ability to use waste oils for heating in enclosed burners or furnaces, and wants clause (k) amended to provide for this.
- 289. **EnviroNZ Ltd** (1262.5) also submits on burning of waste oil, in this case in the Industrial 1 and 2 Zones. They support the inclusion of waste oil in 12.5.7(k) but seek amendment to its definition to exclude Reprocessed Oil and provide a separate definition for Reprocessed Oil (as defined by the MfE in HSNO COP63).
- 290. **Federated Farmers** (425.621, 704 & 757) oppose the entire rule (3.7.14 in the Rural Environment Zone, 4.7.9 in the Coastal Environment Zone, and 19.5.1 Open Space 3). They say that prohibited status is extreme, will have unintended consequences and will not allow for people and communities to provide for their wellbeing. Also, the rule does not allow for accidents or special cases e.g. painted wood in a house fire, or an accidental forest fire with wood over 25% moist content.
- 291. Federated Farmers are unsure what animal waste is referred to in (n). They submit that animal waste from farms should not be prohibited from being burnt as this will be an option that farmers may need to dispose carcasses, particularly in the event of a biosecurity outbreak and because offal pits rules limit that as a disposal option. They note the standard also effectively prohibits cremations, particularly if the deceased had a pacemaker.
- 292. **Mt Zion Charitable Trust** (515.18) opposes Rule 3.7.14 in the Rural Environment Zone seeking its deletion, without giving any reasons. **Douglas and Colleen Robbins** (640.46), **Glenda Robb** (738.46) and **Melva Robb** (935.46) similarly oppose the rule. They want a change from prohibited to discretionary activity status.
- 293. **Clifford Smith** (592.1) opposes 3.7.14 clause (c) relating to burning wood treated with preservatives or impregnated with chemicals in the Rural Environment Zone. His concern is wood containing copper-chrome-arsenic (CCA). He says under this clause, CCA-treated timber cannot be burnt; nor can it be buried without creating a contaminated site unless special conditions apply to its storage. He notes many CCA-treated posts are broken each year by machine harvesting, and these need to be removed. In the decision sought he suggests a range of actions including research into disposal

- options, a ban on CCA posts, and in the interim, safe storage options. In terms of the prohibited activity rule, it is inferred the submitter wants the prohibited status eased so that options like pyrolysis (controlled combustion) of CCA posts can be a discretionary activity option.
- 294. **Queen Charlotte Sound Residents Assoc** (504.85) oppose 7.5.6 (clause (a)) in the Coastal Living Zone relating to wood over 25% moisture content. They mention prunings e.g. from Marlborough Lines trimming), having to dry out during holiday periods when young children are about. The submission does not specify a decision sought.
- 295. **Shaun and Jane Peoples** (450.16) support the prohibited rule (8.5.6) in the Rural Living Zone and want it retained.
- 296. **Timberlink** (460.14) opposes Rule 12.5.7 in the Industrial 1 and 2 Zones. They say the rule does not recognise effects from discharges nor the practical requirements of many activities within the industrial zones and the possibility of managing and treating discharges to comply with prescribed air quality standards. It also does not recognise there are standards applicable to these activities that provide for management and avoidance of adverse effects through consent procedures. They submit that prescribing a prohibition when there are alternative effective means of addressing a matter is not a reasonable approach and does not accord with the principles established regarding prohibited activities. They note the rule would prevent current activities that involve burning wood residues containing anti-sapstain chemicals⁴⁵. Timberlink seek removal of the prohibitions on discharges relating to production activities such their sawmill, and classification either a Discretionary Activity or Non-Complying Activity.
- 297. **Port Marlborough** (433.140) and **GBC Winstone** (749.6) both support in part the prohibited rule (13.6.3) in the Port Zone, but note there is a word missing from the first sentence. Port Marlborough suggests 'combustion' be added and GBC Winstone that 'burning' be added. The missing word, as used in other zones is 'burning'.
- 298. **Aquaculture NZ** (401.236) and the **Marine Farming Association** (426.232) both support the rule in the Coastal Marine Zone, and seek its retention.
- 299. **Fish and Game** (509.452) support the prohibited rule in the Open Space 3 Zone and seek its retention as notified.
- 300. **Dominion Salt Ltd** (355.15) opposes the rule in the Lake Grassmere Saltworks Zone. They submit that the activities covered by the rule are largely existing activities which have no effects beyond the site. They seek deletion of rule 22.4.1.
- 301. **NZDF** (992.90) opposes the rule in the Airport Zone. It submits that the rule should be limited to situations where there is potential for significant adverse effects, such as outdoor burning, or burning in a small-scale heating appliance. It should not include burning in an enclosed device where combustion is well-controlled and the discharges to air can be effectively treated, if required, to avoid significant adverse effects. In relation to outdoor burning, NZDF submit that the relationship between this rule and permitted activity Rule 23.3.7 is not sufficiently clear. It seeks that Rule 23.5.1 is amended to replace 'burning' with 'outdoor burning or burning in a small scale heating appliance' and that the phrase 'unless permitted by Rule 23.3.7' be added.

Analysis

- 302. Prohibited activity status sets a high threshold. It is not just that an activity specified in the rule cannot be granted resource consent, the RMA specifies that a consent application for a prohibited activity cannot even be lodged (section 87A(6)(a)). The rule as notified contains a long list of materials, the burning of which is prohibited. In my view, the rule is excessively restrictive.
- 303. I agree with the submission of **Azwood Energy** and **Nelson Forests** that the blanket restriction on burning wood with moisture content over 25% is unreasonable. The 25% moisture level is relevant to combustion in indoor domestic fires and burners, and presumably largely arises from the figure in the

⁴⁵ Chemicals applied to timber after is milled so prevent growth of fungi or mildew, which stain the timber. These are not as persistent at Copper-Chrome-Arsenic.

woodburner testing standards AS/NZS 4012:1999 and 4013:1999. I agree that wood with a moisture content higher than 25% can be burnt in industrial appliances, with appropriate design and conditions, with acceptable levels of particulate and other discharges. As the prohibited rule is currently worded this activity would not be able to occur.

- 304. I agree that such a prohibition could have, probably unintended, adverse environmental effects by preventing substitution of wood for current coal burning activities, or by preventing new wood burning industrial applications, which would mostly then be fuelled by coal or possibly gas both of which are fossil fuels and produce greenhouse gases. Wood, in appropriate appliances can have particle emissions much lower than coal⁴⁶, with the added advantage of not contributing to greenhouse gas emissions. In my view, the plan should not prevent the use of wood as an industrial fuel, and in fact should facilitate it in place of non-renewable energy sources. This would be consistent Policy 18.1.1 (promote use of renewable energy), Policy 18.1.4 (use of local renewable energy) and Policy 19.1.1 (reduce or offset carbon emissions), as well as the Air Quality policies in Chapter 15.
- 305. As **NZDF** notes in its submission, the outright prohibition should focus more on outdoor burning and small scale fuel burning appliances. In my view, there should be the ability in many instances to at least apply for a resource consent for combustion of the materials listed in the prohibited rule. In some (or many) cases, it may not be appropriate to grant discretionary consent because the adverse effects cannot be avoided or sufficiently mitigated, but it is not unreasonable for an applicant to be able to make a case at least in those zones most accommodating of such activities.
- 306. The NESAQ contains a list of prohibited activities where no burning may occur, but in a number of instances the prohibition is not absolute. The NESAQ prohibits:
 - the burning of waste at landfills (except for landfill gas)
 - the burning of bitumen (with no exceptions)
 - the burning of tyres (except in industrial and trade premises with a resource consent and emission control equipment)
 - the burning of coated wire (with a similar exception to tyres, as well as when the wire is in a building burnt for fire training purposes).
 - the burning oil in the open air (except for film special effects, fire training, flares, health and safety training in petroleum industry, or as allowed expressly by a resource consent).
 - school or healthcare incinerators (except where they had prior consent, and high-temperature hazardous waste incinerators are prohibited except for three named existing facilities and for crematoria).
- 307. I consider that that the NESAQ prohibitions provide an appropriate backstop (separate to what a regional air plan might restrict) to protect people and the environment from significant adverse effects from the most noxious and toxic contaminants. I have considered that in my recommendations below.
- 308. I note also that other air quality plans, for example Nelson and Canterbury, take a different approach to outdoor burning and small scale heating appliances compared to industrial/large scale burning devices, and make some exceptions to the wider burning prohibitions for non-domestic activities.
- 309. I support Clifford Smith's submission that the burning of CCA-treated timber in an appropriate industrial-scale facility ought not to be a prohibited activity. The safe disposal of such timber is an important issue. Burning it, with appropriate emissions controls in place, may be the best environmental option, having regard to alternatives such as disposal to land with the risk of contamination of soil or water. RMA section 105(1)(c) requires regard to be had to possible alternative methods of discharge in certain situations, including discharge into any other receiving environment. A prohibition of discharge to air would limit such considerations in the example above. I should make it clear that I am not advocating burning of CCA timber as the best solution but rather that the option should be open to scrutiny.

⁴⁶ E.g. Wilton, E. Air Emissions Inventory - Blenheim 2017, page 17

- 310. **Federated Farmers** raise the issue of accidents e.g. prohibited material in a house fire or forest fire. The discharge will occur in an accident, notwithstanding any prohibition on the plan, and if it is a genuine accident a Council is unlikely to prosecute or a Court is unlikely to uphold a prosecution. It does raise the issue of fire training activity involving the burning of houses involving materials in the prohibited rule. I am advised that FENZ removes hazardous materials, including asbestos, prior to a fire training activity, but there will nevertheless be small amounts of materials remaining, as well as painted timber. In my view, it is appropriate that an exception be made for authorised fire training activities.
- 311. Pacemakers are on the prohibited list and **Federated Farmers** suggests this would prevent cremations occurring. Because they can explode, damaging the cremator or attendants, pacemakers or implanted battery powered devices are removed before cremations. A doctor must authorise that such a device is not present in a deceased person. The inclusion of pacemakers in the prohibited list therefore is not any issue.
- 312. **Federated Farmers** is also concerned about the inclusion of 'animal waste' in clause (n), saying it would affect disposal, particularly in a biosecurity incident. I do not see that as an issue as the clause includes an exception for 'animal waste generated on production land'.
- 313. In response to all the above considerations, I recommend that the prohibited burning rule be refocussed towards combustion in domestic-scale fires and burners, and on outdoor burning. There may be instances where in appropriate high temperature combustion devices, with appropriate emission control technology, some of the listed materials can be safely burnt. For example, waste tyres can be used as a fuel in certain external combustion devices, with appropriate controls, as an alternative to land disposal of tyres. If the activity is prohibited, the option cannot even be considered. As a consequential change, but within the scope of the submissions, some of the material listed within the prohibited rule need to be referenced in the permitted standard for external combustion. Otherwise the burning of tyres, sludge and asbestos would be a permitted activity (rather than discretionary).
- 314. **Rainbow Sports Club** wants the rule amended to allow them to use waste oil in their heaters and furnaces. I support this for use of re-refined oil, but not all waste oil as the heavy metals and other contaminants in unprocessed waste oil would be an inappropriate discharge to occur in the alpine environments covered by the Open Space 4 Zone.
- 315. As well as providing relief to the submissions by Azwood Energy, Nelson Forests, Federated Farmers, Timberlink, Clifford Smith and the Queen Charlotte Sound Residents Association, this change would also result in partial relief for Dominion Salt Ltd, Fonterra, Douglas & Colleen Robbins, Glenda Robb, and Melva Robb as the effect of the rule would be restricted in its application and/or activities would become discretionary.
- 316. I note the missing word identified in Rule 13.6.2 by **Port Marlborough** and **GBC Winstone** and recommend the word 'burning' be added, this being the term used in the prohibited rule in all other zones.

317. I recommend that the rule in all zones listing materials whose burning is prohibited⁴⁷ is amended as follows:

X.X.X Discharge of contaminants to air arising from: 48

X.X.X.1 the burning <u>in any small scale solid fuel burning appliance</u> of any of the following materials in the following list (a) to (n); and

⁴⁷ 3.7.14; 4.7.9; 5.5.7; 6.5.4; 7.5.6; 8.5.6; 9.5.4; 10.5.3; 11.5.2; 12.5.7; 13.6.3; 14.5.3; 15.7.3; 16.7.1; 17.5.1; 18.5.1; 19.5.1; 20.6.1; 21.5.1; 22.6.1; and 23.5.1.

⁴⁸ 1268.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 & 20 - Azwood Energy; 990.121 & 156 - Nelson Forests; 425.621, 704 & 757 - Federated Farmers; 592.1 - Clifford Smith; 504.85 - Queen Charlotte Sound Residents Assoc; 992.90 – NZDF; 460.14 – Timberlink; & 355.15 - Dominion Salt Ltd.

- X.X.X.2 the deliberate burning in the open of any of the materials in the following list (b) to (n), except where material is present in minor quantities and cannot be separated from the principal material being burnt, or where the discharge arises from the burning of material for training people to put out fires as provided for as a Permitted Activity or authorised by a resource consent;
 - (a) wood having a moisture content of more than 25% dry weight;
 - (b) wood which is painted, stained, oiled or coated;
 - (c) wood treated with preservatives or impregnated with chemicals, including but not limited to, wood treated with Copper-Chrome-Arsenic, except that wood fuel burnt in a fuel burning device (external combustion) may contain incidental amounts of anti-sapstain chemicals;
 - (d) pellets containing greater than 10 mg/kg (dry) of copper and 0.02 w-% (dry) of chlorine;
 - (e) composite wood boards containing formaldehyde or similar adhesives, including but not limited to chip board, fibreboard, particle board and laminated boards:
 - (f) metals and materials containing metals including but not limited to cables;
 - (g) materials containing asbestos;
 - (h) material containing tar or bitumen;
 - (i) all rubber, including but not limited to, rubber tyres;
 - (j) synthetic material, including, but not limited to motor vehicle parts, foams, fibreglass, batteries, chemicals, paint and other surface-coating materials, or any type of plastics;
 - (k) waste oil (excluding re-refined oil⁴⁹);
 - (I) peat;
 - (m) sludge from industrial processes;
 - (n) animal waste (except animal waste generated on production land), medical waste, pacemakers, biomechanical devices or chemical waste.
- 318. I recommend that a new definition of re-refined oil be added to Chapter 25, as follows:

Re-refined oil means waste (used) oil that has been processed to remove impurities such as particulate, metals, solvents, volatiles, sulphur and chlorine⁵⁰.

- 319. As a consequential amendment, I recommend that (as part of triggering discretionary activity status as opposed to prohibited activity and to prevent waste oil being burnt as a permitted activity), that the following amendment is made to Rule 3.3.39 in the Rural Environment Zone (and that the same amendment is made to Rule 4.3.28 (Coastal Environment Zone):
 - 3.3.39 Discharge of contaminants to air from the burning of oil in a frost protection heater.
 - 3.3.39.1 The discharge must only take place for the purpose of preventing frost damage to crops.
 - 3.3.39.2 The burning of oil must only take place in fuel burning equipment that operates with a stack or chimney, is purpose built, maintained and has double burning.
 - 3.3.39.3 No waste oil is burnt, excluding re-refined oil.
- 320. As a consequential amendment, I recommend that (as part of triggering discretionary activity status as opposed to prohibited activity, and to prevent formerly prohibited materials being burnt as a permitted activity) that the following amendment is made to the below standards for specific permitted activities

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⁴⁹ 1262.5 - EnviroNZ Ltd; 1251.136 - Fonterra; 228.10 - Rainbow Sports Club.

⁵⁰ 1262.5 - EnviroNZ Ltd.

for the external combustion rules - 12.3.9 - Industrial 1 and 2 Zone; 13.3.24 - Port Zone; and 23.3.8 - Airport Zone; ⁵¹

X.X.X.9 No material listed in Prohibited Activity standard XXX.2 (c) to (n) must be burnt.

321. I recommend that the first line of Rule 13.6.3 in the Port Zone be amended as follows:

Discharge of contaminants to air arising from the <u>burning⁵²</u> of any of the following materials:

Prohibited Activities 18.5.2 (Campfires – outdoor burning) - Submissions and Assessment

322. Rule 18.5.2 prohibits the following:

Discharge of contaminants to air from outdoor burning within the Blenheim Airshed, after 9 June 2016, unless the fire is used exclusively for the cooking or smoking of food for non-commercial purposes.

- 323. **Girl Guiding NZ** (208.1 and 75.1), **Churchward Park Scout Group** (614.1) and **Helen Ashworth** (74.1) oppose the rule. Churchward Park Scout Group seek its deletion. Girl Guiding NZ and Helen Ashworth (a Girl Guide Leader in Picton) seek that provision be made in the plan for organised Guiding and Scouting camp fires, and recognise that this might be in the form of an exemption or the need to obtain a permit. They are concerned that the existing prohibition would prevent campfires at the Churchward Park site (Open Space 2) and also the Eltham Road den (Open Space 1). While fires for cooking are exempted from the prohibition, sometime the scouts and guides also have campfires for team and confidence building, singing around, training and safety skills and leadership development. They say it is an important part of scouting and guiding tradition, and often a highlight for youth at camps.
- 324. The rule as currently worded would prohibit a campfire within the Blenheim Airshed, the location of both the sites referred to in the submissions. A fire that was used for cooking would be exempt from this prohibition, but it would require discretionary resource consent as it is not provided for by the permitted activity standard 18.3.7. In my view, the total prohibition in the plan currently is excessive and I support an easing of the rules.
- 325. I see there are two possible options:
 - a) to provide an exemption within the prohibited rule for campfires, which I'd recommend be restricted to campfires under the control of Girl Guiding NZ or Scouting NZ to avoid its potential abuse for other purposes (e.g. burning of rubbish). This would mean a discretionary activity resource consent would be required for such campfires; or
 - b) provide the above exemption, but provide for such fires as a permitted activity.
- 326. The current permitted activity standard (in the Open Space 2 Zone) is:

Discharge of contaminants to air arising from burning in the open.

- 18.3.7.1 Only material generated on the same property or a property under the same ownership can be burned.
- 18.3.7.2 The property where the burning is to occur must be located outside of the Blenheim Airshed.
- 18.3.7.3 The total volume of material being burned must not exceed 2*m*³.
- 327. If the activity were to be provided for as a permitted activity, then I suggest a new standard be added to say that Standards 18.3.7.1 and 18.3.7.2 do not apply to campfires for camps or training under the

⁵¹ 460.14 – Timberlink; 592.1 - Clifford Smith; 640.46 - Douglas and Colleen Robbins; 738.46 - Glenda Robb; 935.46 - Melva Robb; 992.90 – NZDF;

⁵² 433.140 – Port Marlborough; 749.6 – GBC Winstone.

- control of Girl Guiding New Zealand or Scouting New Zealand. That would allow the fires to occur within the Blenheim Airshed and for wood from off the site to be used in the fire.
- 328. In my view, the effects on the environment of permitting such an activity would relatively minor, given that most of the activity occurs on the large Churchward Park site, which is on the edge of the Blenheim Airshed, and has the Taylor River as a boundary on its western side. The activity also has social and educational benefits.
- 329. **Helen Ashworth's** submission also relates to all zones where the prohibition would have effect. **Girl Guiding NZ's** submission 75.1 applies to all zones and seeks that provision is made for organised Guiding campfires throughout the plan.
- 330. Campfires are only restricted within the Blenheim Airshed, so I do not see a need to provide for them explicitly throughout the Plan. I think that making a similar change to the rules in the Open Space 1 Zone would be appropriate, as that would provide for use of the Eltham Road site within the Blenheim Airshed.

331. I recommend that rule 18.5.2 is amended as follows:

Discharge of contaminants to air from outdoor burning within the Blenheim Airshed, after 9 June 2016, unless the fire is used exclusively for the cooking or smoking of food for non-commercial purposes, or is a campfire used for scout or guide training under the control of Girl Guiding New Zealand or Scouting New Zealand.⁵³

- 332. I recommend that a new standard is added to standard 18.3.7 as follows:
 - 18.3.7.4 Standards 18.3.7.1 and 18.3.7.2 do not apply to campfires for camps or training of guides or scouts under the control of Girl Guiding New Zealand or Scouting New Zealand.⁵⁴
- 333. I recommend that the same changes are made to Rules 17.5.2 and 17.3.6 in the Open Space 1 Zone.⁵⁵

⁵³ 74.1 – Helen Ashworth; 208.1 - Girl Guiding NZ; 614.1 - Churchward Park Scout Group.

⁵⁴ 74.1 – Helen Ashworth; 208.1 & 75.1 - Girl Guiding NZ; 614.1 - Churchward Park Scout Group

⁵⁵ 74.1 – Helen Ashworth; 75.1 - Girl Guiding NZ

Matter 2 – Rules relating to Fire Training, Fireworks and Film Special Effects

Overview of Provisions

334. There are permitted activity rules and standards that provide for fire training activities, firework displays and smoke and fire associated with film making. As shown in Table 2 below, the rules appear in some zones and not others, and not all the above activities are always provided for. Submissions relating to these rules, or requesting amendments or rules added to other zones, are dealt with together under this matter. Matter 2.

Submissions and Assessment – Across the Entire Plan

- 335. There is permitted activity rule that allows discharges to air from fire training, special effects for films, and fireworks displays, subject to standards, in the following zones: Chapter 3 Rural Environment; Chapter 4 Coastal Environment; Chapter 5 Urban Residential 1 & 2; Chapter 8 Rural Living; Chapter 13 Port; Chapter 15 Marina; Chapter 16 Coastal Marine; Chapter 19 Open Space 3; and Chapter 23 Airport.
- 336. The permitted rule (X.1.XX) reads:

Discharge of contaminants to air arising from the burning of materials for any of the following purposes:

- (a) training people to put out fires;
- (b) creating special smoke and fire effects for the purposes of producing films;
- (c) fireworks display or other temporary event involving the use of fireworks.
- 337. The permitted activity standard relating to the rule in most zones is:
 - X.3.XX Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks.
 - X.3.X.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
 - X.3.X.2 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.
- 338. The rule in Chapter 12, Industrial 1 and 2 Zone, applies only to fire training and to film special effects, and not to fireworks displays, so clause (c) is absent in the rule and the standard in that zone.
- 339. In the Rural Environment, Urban Residential 1 and 2, Rural Living, Industrial 1 and 2, and Open Space 3 zones, discharges may not occur in the period May- August within the Blenheim Airshed. In those zones, there is an additional clause in the permitted standard X.3.X as follows:
 - X.3.X.X If the property is located within the Blenheim Airshed, the discharge must not occur during the months of May, June, July or August.
- 340. The Airport Zone (Woodbourne, Omaka and Koromiko) lies outside the Blenheim Airshed, but also has the May-August restriction on discharges from fire training, film special effects and firework

- displays, but without reference to the Blenheim Airshed, as follows: *The discharge must not occur during the months of May, June, July or August.*
- 341. The remaining zones in the MEP do not have a permitted activity rule, or standards, for fire training, film special effects and firework displays. These are Chapter 6 Urban Residential 3; Chapter 7 Coastal Living; Chapter 9 Business 1; Chapter 10 Business 2; Chapter 11 Business 3; Chapter 14 Port Landing Area; Chapter 17 Open Space 1; Chapter 18 Open Space 2; Chapter 20 Open Space 4; Chapter 21 Floodway; and Chapter 22 Lake Grassmere Saltworks. Some of these zones, in places, are within the Blenheim Airshed.
- 342. There are submissions from NZDF (992), FENZ (993), Go Marlborough (669), Kelvin Holdaway (852), Michelle Harris (925) and Philip Rayner (349) that support the rules, seek amendments to the standards, or seek that provision be made for some or all of the activities in zones that currently lack the rule.
- 343. All the above is summarised in Table 2 on the following page, including the zone, a summarised rule, the submitter and relief sought.
- 344. Below I consider the submissions in the following order: i) amendments to the existing rules; ii) submissions relating to wintertime restrictions in the Blenheim Airshed; iii) adding the rule to zones lacking it, and iv) including fireworks in the Industrial Zone and v) the Airport Zone.

Existing Rules

- 345. I first consider the amendments sought to the existing rules.
- 346. The **NZDF** (992.58, 992.59, 992.62, 992.63, 992.64, 992.70, 992.71) supports in part the permitted standards relating to fire training activity. They submit that NZDF may wish to undertake firefighting training at various locations in the district, and it would be appropriate that this activity is provided for as a permitted activity, with appropriate standards. As well as the named zones, they seek (in 992.58 and 59) that the wording of the standard, wherever it appears in the plan, be amended to: *Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.*
- 347. In addition, for Rule 23.1.20 and Standard 23.3.7 in the Airport Zone, the **NZDF** (992.70 & 71) wants the ability to undertake controlled outdoor burning or deflagration of unwanted public and military ammunitions, munitions and pyrotechnics at Base Woodbourne. They submit that the controlled burning or deflagration is the safest practical option for disposing of this unwanted material and should be provided for as a permitted activity. They seek insert (presumably in 23.1.20 and 23.3.7) of a new clause as follows: (d) controlled outdoor burning or deflagration of unwanted public and military ammunitions, munitions and pyrotechnics undertaken by the NZ Defence Force.
- 348. As regards the proposed inclusion of the words 'New Zealand Defence Force' in the fire training standard throughout the Plan, I support the change sought. They arguably would be covered by the existing words 'or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities' but adding the words requested by NZDF would remove any ambiguity and make the Plan clearer.
- 349. In terms of the requested new clause to allow combustion of unwanted ammunition, munitions and pyrotechnics, I assume the public and worker safety aspects of that would be addressed by NZDF's health and safety plans and related legislation, as well as the Hazardous Substances and New Organisms Act and related regulations. I cannot at this stage make a recommendation regarding the air quality implications of the proposed activity, as I do not have sufficient information. It would be helpful if the NZDF could provide more information on the likely substances involved and any discharges at the hearing.

Table 2: Rules by zone applying to fire training, film special effects and fireworks displays, and submissions

Vol 2 Chapter	Zone	Permitted activity	Permitted activity standards	FENZ relief sought #993	NZDF relief sought #992	Go Marlborough relief sought #669	Kelvin Holdaway relief sought #852	Michelle Harris relief sought #925	Philip Rayner relief sought #349
3	Rural Environment	3.1.35 I. Fire training II. Film III. Fireworks	3.3.35 Usual standards ⁵⁶ plus: No discharge May-August within Blenheim Airshed.	Retain 3.1.35 as notified. 3.3.35 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'.	"Any discharge for purpose of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other" (amend other this rule in other zones similarly)	Remove May- August restriction on fireworks	Remove May-August restriction on fireworks & film special effects	Remove May- August restriction on fireworks & film special effects	Fireworks by qualified pyrotechnician are permitted all year round
4	Coastal Environment	4.1.34 I. Fire training II. Film III. Fireworks	4.3.34 Usual standards	Retain 4.1.34 and 4.3.34 as notified	As above	-	-	-	-
5	Urban Residential 1 & 2	5.1.21 I.Fire training II.Film III.Fireworks	5.3.16 Usual standards plus: No discharge May-August within Blenheim Airshed.	Retain 5.1.21 as notified. 5.3.16 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'	As above	Remove May- August restriction on fireworks	Remove May-August restriction on fireworks & film special effects	Remove May- August restriction on fireworks & film special effects	Fireworks by qualified pyrotechnician are permitted all year round
6	Urban Residential 3	-	-	Add fire training rule and standards	-	-	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-

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⁵⁶ a) The Council must be notified at least 5 working days prior to the burning activity commencing; b) Any discharge for purpose of training people to put out fires must take place under the control of the NZ Fire Service or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

7	Coastal Living	-	-	Add fire training rule and standards	-	-	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
8	Rural Living	8.1.16 I.Fire training II.Film III.Fireworks	8.3.15 Usual standards plus: No discharge May-August within Blenheim Airshed.	Retain 8.1.16 as notified 8.3.15 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'	As above	Remove May- August restriction on fireworks	Remove May-August restriction on fireworks & film special effects	Remove May- August restriction on fireworks & film special effects	Fireworks by qualified pyrotechnician are permitted all year round
9	Business 1	-	-	Add fire training rule and standards	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
10	Business 2	-	-	Add fire training rule and standards	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
11	Business 3	-	-	-	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
12	Industrial 1 & 2	12.1.13 I.Fire training II.Film (not fireworks)	12.3.3 Usual standards plus: No discharge May-August within Blenheim Airshed.	Retain 12.1.13 as notified 12.3.3 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'	As above	-	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	Fireworks by qualified pyrotechnician are permitted all year round
13	Port	13.1.34 I.Fire training II.Film III.Fireworks	13.3.23 Usual standards	Retain 13.1.34 and 13.3.23 as notified.	As above	-	-	-	-

14	Port Landing Area	-	-	-	-	-	-	Fireworks & film special effects by professional companies should be permitted activity	-
15	Marina	15.1.32 I.Fire training II.Film III.Fireworks	15.3.22 Usual standards	Retain 15.1.32 and 15.3.22 as notified.	As above	-	-	-	-
16	Coastal Marine	16.1.20 I.Fire training II.Film III.Fireworks	16.3.17 Usual standards	Retain 16.1.20 and 16.3.17 as notified.	As above	-	-	-	-
17	Open Space 1	-	-	-	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
18	Open Space 2	-	-	-	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies should be permitted activity	-
19	Open Space 3	19.1.11 I.Fire training II.Film III.Fireworks	19.3.9 Usual standards plus: No discharge May-August within Blenheim Airshed.	Retain 19.1.11 as notified. 19.3.9 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'	As above	Remove May- August restriction on fireworks	Remove May-August restriction on fireworks & film special effects	Remove May- August restriction on fireworks & film special effects	Fireworks by qualified pyrotechnician are permitted all year round
20	Open Space 4	-	-	-	-	-	-	Fireworks & film special effects by professional companies should be permitted activity	-
21	Floodway	-	-	-	-	Fireworks should be permitted activity	Fireworks should be permitted activity	Fireworks & film special effects by professional companies	-

								should be permitted activity	
22	Lake Grassmere Saltworks	-	-	-	-	-	-	-	-
23	Airport	23.1.20 I.Fire training II.Film III.Fireworks	23.3.7 Usual standards plus: No discharge May-August (but no mention of Blenheim Airshed).	Retain 23.1.20 as notified. 23.3.7 amend May-Aug restriction to apply 'during the hours of 3pm and 10am the following day'.	As above	Remove May- August restriction on fireworks	Remove May-August restriction on fireworks & film special effects	Remove May- August restriction on fireworks & film special effects	Fireworks by qualified pyrotechnician are permitted all year round

- 350. **FENZ** (993.24, 30, 36, 49, 60, 66, 72, 76, 83, 87) supports the permitted activity rule (in the zones shown in Table 2) that provides for discharges to air associated with training people to put out fires. They seek retention of these permitted activity rules. There are no submissions seeking a change to the permitted activity rules (except for the additional clause sought to be added to Rule 23.1.20 by
- 351. NZDF, discussed above), and there are no further submissions. All FENZ's submission points, (except for 993.87 relating to 23.1.20) must therefore be accepted.
- 352. If the Hearing Panel decides to accept NZDF's submission to add an extra clause to 23.1.20, then FENZ's submission 993.70 would be recommended to 'accept in part'. If no change is made to the permitted rule, then 993.70 would be 'accept'.
- 353. **FENZ** (993.33, 68, 74 & 78) supports the permitted activity standards in Rules 4.3.34, 13.3.23, 15.3.22 and 16.3.17 respectively. FENZ considers that the standards appropriately manage any potential adverse effects of such discharges while also recognising the critical role that firefighter training has in terms of providing for the safety and well-being of the community. There are no submissions seeking changes to these standards (they do not include restrictions on discharge in the May-August period), and there are no further submissions. Therefore, these particular standards must remain unchanged.
- 354. **FENZ** (993.60) also supports the permitted activity rule in the Industrial 1 and 2 Zone (12.1.13). As I discuss below, other submitters have requested that fireworks and film special effects be added to this rule, which I support. If my recommendation is accepted by the Hearing Panel, then FENZ's submission would be accepted in part.
- 355. In addition, **FENZ** (993.87) supports the permitted activity rule in the Airport Zone (23.1.20). **NZDF** (992.70) has requested a change to this rule to allow burning of unwanted munitions and pyrotechnic material. I have not made a recommendation on the NZDF submission point, but if the Panel opted to make a change to the rule the FENZ submission point would be accepted in part. If it remains unchanged, then the submission would be accepted.
- 356. **FENZ** (993.29, 40, 51, 64, 85 & 88) supports in part the permitted activity standards 3.3.35, 5.3.16.2, 8.3.15, 12.3.3, 19.3.9 and 23.3.7 respectively. While FENZ supports the standards relating to firefighter training, it is concerned that the constraint on discharges in winter months is onerous and preventative of effective firefighter training. FENZ seeks the ability to discharge contaminants to air during limited hours when average PM₁₀ levels are below 50 μg/m³. They request that the standard is amended as follows: "....the discharge must not occur during the months of May, June, July or August during the hours of 3pm and 10am the following day."
- 357. There are no further submissions to FENZ's original submission, other than from FENZ itself clarifying its name change from NZ Fire Service Commission.
- 358. I do not support the wintertime changes requested by **FENZ**. As already discussed Blenheim has a wintertime smoke or particle pollution problem, and is significantly in breach of the air quality NES. PM₁₀ concentrations, as mandated by the NES, are averaged over a 24-hour period. Avoiding lighting fires for training in the period proposed by FENZ might help restrict peak concentration in the 3pm to 10am period, but they would still contribute to the overall amount of PM₁₀ emitted over a 24-hour period, and therefore increase the 24-hour average concentration. It can be argued that the time when fire training could occur (10am to 3pm) is more likely to have meteorological conditions favourable to dispersal of the smoke from the training fires. However, the discharge is still likely to contribute to the overall 24-hour concentration, and make compliance with the NES more difficult.
- 359. Fire training needs to occur, but I am strongly of the view that it should not happen in winter in Blenheim because of the ongoing breaches of the NES for PM₁₀ in the town. Training can occur in Blenheim outside of the winter restriction, or in other locations permitted by the Plan at any time of the year.
- 360. I do support amending the wintertime restriction in Rule 23.3.7 in the Airport Zone. I discuss that further below, when I consider the submissions by **Go Marlborough**, **Kelvin Holdaway**, **Michelle Harris** and **Philip Rayner**.

361. Finally, **FENZ** (993.42, 46, 53 & 57) opposes the permitted activity rules under 6.1, 7.1, 9.1 and 10.1. They note that the Urban Residential 3, Coastal Living, and Business 1 and 2 Zones do not provide for discharges associated with burning for firefighting training purposes as they do in a number of other zones. FENZ seeks a consistent approach to training activities through the inclusion of a rule and standards that reflects the approach taken in other zones. It seeks the addition of the following in each of the above zones:

Under the Permitted Activities rules, add:

X.1.x. Discharge of contaminants to air arising from the burning of materials for training people to put out fires.

For the Urban Residential 3 and Business 1 and 2 Zones, add under 'Standards that apply to specific permitted activities':

"X.3.x. Discharge of contaminants to air arising from the burning of materials training people to put out fires.

X.3.x.(a) The Council must be notified at least 5 working days prior to the burning activity commencing.

X.3.x.(b) If the property is located within the Blenheim Airshed, the discharge must not occur during the months of May, June, July or August during the hours of 3pm and 10am the following day.

X.3.x.(c) Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities."

- 362. For the Coastal Living Zone, **FENZ** seek the same relief, but since it is outside the Blenheim Airshed, without the standard relating to the Airshed and the May to August restriction (i.e. without X.3.x.(b) above).
- 363. As discussed below, other submitters want provision for fireworks and film special effects in certain zones where such rules are lacking. I discuss the FENZ request, and the others, together, having regard to the submissions they make and the relief they seek.
- 364. **Go Marlborough** (669.1 to 5) and **Philip Rayner** (349.1) oppose the controls that do not permit fireworks displays May to August in standards 3.3.35, 5.3.16, 8.3.15, 19.3.9 and 23.3.7. Go Marlborough is concerned about impacts on events such as Walk in the Park, held annually in June. Philip Rayner mentions effects on small displays for weddings and religious events, as there may now be additional cost for these in obtaining consent. The submitters want fireworks display to be permitted in that period/all year round. It is inferred that they want the clause with the May to August restriction deleted in each zone where it appears.
- 365. **Kelvin Holdaway** (852.1, 2, 3, 4 and 14) and **Michelle Harris** (925.1 5) similarly oppose the winter restrictions on firework displays. They are professional pyrotechnicians. They note winter is the safest time for fireworks displays in terms of fire risk, and it is better for families with young children because it is darker earlier. They say they average approximately 6 shows a year, including Walk in the Park, on Wither Hills, a Go Marlborough fundraiser for Rarangi Surf Lifesaving Club. They submit it would either not happen under the MEP rules as it is within the Blenheim Airshed, or would involve the cost of obtaining a resource consent, affecting the funds going to the Club. They say that their displays are of minimal duration and use the latest pyrotechnics, both of which minimise effects on air quality. They also note that landowner approval is always needed for such displays, and displays are always subject to either FENZ or Rural Fire Service approval, and are "bound by a host of other regulations too numerous to list".
- 366. **Mr Holdaway and Ms Harris** are also concerned about the restriction in the same rules on creating smoke and fire effects for film making. They consider Marlborough should be promoting filming here and that the need to get a resource consent, to make even a small amount of smoke in Blenheim and the Airport Zones during winter, creates a risk that the region might be overlooked. They also wonder if use of small amounts of black powder for effects on indoor theatre productions would be affected by the rule.

- 367. For the zones containing the wintertime rule Mr Holdaway and Ms Harris want film making and fireworks exempted from the May to August restriction.
- 368. **Go Marlborough** (669.1-5), **Kelvin Holdaway** (852.5-13) and **Michelle Harris** (925.6 16) oppose the absence of permitted activity rules for fireworks (all the submitters) and film special effects (Holdaway and Harris) in other zones of the MEP. The zones affected by the three submissions are the Urban Residential 3, Coastal Living, Business 1, 2 and 3, Industrial 1 and 2. Port Landing Area, Open Space 1, 2 and 4, and Floodway. They say that a number of fireworks displays have used these zones. The Christmas Cracker Festivals 2008 & 9, the 2015 New Year's Eve Blenheim display, and a private wedding, have all been launched from the Floodway Zone. The 2013 and 2014 New Year's Eve displays were launched from a rooftop in the Business 1 Zone. Others might be on sports field (Open Space 2). All would require resource consent as they are not permitted activities at any time of the year.
- 369. Table 2 above shows which zones currently have the fire training/film/fireworks permitted activity rule, and which do not. Each zone has a default rule, making a Discretionary Activity 'Any discharge of contaminants ..to air, not provided for as a Permitted Activity or limited as a Prohibited Activity'. Therefore, in those zones without the permitted rule, fire training, film special effects and fireworks displays would require resource consent.
- 370. In my view, there are a number of issues arising from the above submission, including the FENZ submissions seeking a fire training rule to be added to certain zones, which I propose to address in the following order given the interdependence of the issues:
 - a) Should film special effects and fireworks displays / events be able to take place, as a permitted activity, in the Blenheim Airshed, in the winter months May to August? (The issue of fire training activity I have already discussed).
 - b) Should permitted activity rules for fire training, film making and/or fireworks be added to those zones requested by the submitters?
 - c) Should fireworks be added to the permitted activity rule in the Industrial 1 and 2 Zone?
 - d) Should the wintertime restriction apply in the Airport Zone, or all airfields within the Airport Zone?

Should film special effects and fireworks be able to take place May to August?

- 371. My recommendation is to exempt fireworks from the wintertime restriction that applies in certain zones within the Blenheim Airshed. In my view it is overly onerous, and it is not clear that the environmental effects warrant such a restriction. I have reviewed the air monitoring data for 21/6/14 and 20/06/15, days on which Walk in the Park took place, and note that no breaches occurred at the Redwoodtown monitoring site on these occasions. The weather data for these nights indicated wind speeds and temperatures reasonably conducive to the accumulation of particle pollution.
- 372. There is some risk on very severe pollution nights that a fireworks display could worsen readings. But it is possible that much of the discharge occurs at height, above the inversion layer of warmer air that traps emissions in Blenheim on high pollution nights. My recommendation therefore is to exempt fireworks from the restriction.
- 373. Discharges from film special effects are another matter. They are more likely to take place at ground level and therefore be trapped under the inversion layer on high pollution days. While they may only be small discharges as submitted, they could also be very large depending on the film and the effect. Since films are relatively rare, in my view, such matters are best dealt with by the resource consent process should the activity be required within Blenheim, during winter. I don't believe that the cost and time of getting a resource consent would be a major obstacle to any significant film production, noting that the requirement would only apply for a small part of the district, and only for part of the year. I recommend that the wintertime restriction applying to film making discharges to air is retained as notified.

Should permitted activity rules for fire training, film making and/or fireworks be added to those zones requested by the submitters?

- 374. I support **FENZ**'s request to have the fire training rule (and standards) added to the Urban Residential 3, the Coastal Living, and the Business 1, 2 and 3 zones. I can see no resource management reason why these activities are allowed on other zones as of right, but not in these ones. For the reasons discussed earlier, I do not support FENZ's suggested amendment to the May-August restriction to allow discharges to occur between 10am and 3pm.
- 375. Similarly, I can see no resource management reason for the permitted activity rule (and standards) relating to fireworks and film special effects being added to the zones requested by **Go Marlborough**, **Kelvin Holdaway** and **Michelle Harris**. It seems to me that the air quality effects would be no different to those that might occur on an adjacent zone, where the proposed Plan permits the activity. For example, Sports Fields in the Open Space 2 Zone are probably much better suited to fireworks displays because they can hold large numbers of people and have plenty of space, but do not currently have the permitted rule, whereas the more constrained Urban Residential zones do have the permitted rule.
- 376. I also note that the sites for displays or filming always would require the need for permission from the landowner or the Council as landowner, which gives an additional level of control over these activities.
- 377. The relief sought in the submissions, requesting a permitted activity rule (and standards), covers all or some of fire training, film or fireworks in all zones currently lacking such rules, except the Lake Grassmere Saltworks. There were no submissions seeking a rule in the Salt Works Zone, presumably as the activities involved were not seen as appropriate there.
- 378. **Michelle Harris** (925.15) (supported by **Kelvin Holdaway** in a further submission) also sought inclusion of the filming and fireworks provisions in the Open Space 4 Zone. This zone applies to the Rainbow and Mt Lyford Ski fields. I do not think making provision for these as permitted activities is appropriate in these relatively quiet and remote alpine environments.
- 379. The scope of the submissions also limits the activities to be allowed by the rules in the particular zones. FENZ, for example, has sought a fire training rule in some zones but not others. Based on the relief sought, my recommendations are set out in Table 3 below:

Table 3: Summary of provisions recommended to be added in zones for fire training, fireworks or film special effects.

Zone	Add rule and standard relating to:	Submitters
Urban Residential 3	Fire trainingFilmFireworks	FENZ Go Marlborough Kelvin Holdaway Michelle Harris
Coastal Living	Fire trainingFilmFireworks	FENZ Go Marlborough Kelvin Holdaway Michelle Harris
Business 1	Fire trainingFilmFireworks	FENZ Go Marlborough Kelvin Holdaway Michelle Harris
Business 2	Fire trainingFilmFireworks	FENZ Go Marlborough Kelvin Holdaway Michelle Harris
Business 3	Film Fireworks	Go Marlborough

		Kelvin Holdaway Michelle Harris
Port Landing Area	FilmFireworks	Michelle Harris
Open Space 1	Film Fireworks	Go Marlborough Kelvin Holdaway Michelle Harris
Open Space 2	Film Fireworks	Go Marlborough Kelvin Holdaway Michelle Harris
Floodway	Film Fireworks	Go Marlborough Kelvin Holdaway Michelle Harris

Should fireworks be added to the permitted activity rule in the Industrial 1 and 2 Zone?

- 380. The permitted activity rule in the Industrial 1 and 2 Zone relates only to fire training and film special effects. **Kelvin Holdaway** (852.10) and **Michell Harris** (925.11) submitted to have fireworks included. They note that FENZ approval is needed for pyrotechnic displays.
- 381. I support the submitters. I do not think there are any reasonable grounds to exclude fireworks from the rule, particularly when fire training actives and film special events are permitted. If the safety of materials in industrial areas was the issue, then fireworks would seem no more dangerous than these other activities or indeed other permitted activities occurring within the Industrial Zone. Also, fireworks launched as of right from a neighbouring zone, could already have such effects above industrial land. And as the submitters state, pyrotechnics are subject to various other regulations to mitigate fire or explosive risk.

Should the wintertime restriction apply in the Airport Zone, or all airfields within the Airport Zone?

- 382. The Airport Zone applies to Blenheim (including the Royal NZ Air Force base Woodbourne) and Picton Airports, and the Omaka Airfield. The permitted standard for fire training, films and fireworks includes the exclusion on discharges from such activity in winter, as follows:
 - 23.3.7.2 The discharge must not occur during the months of May, June, July or August.
- 383. There is no reference to the Blenheim Airshed in the standard as none of the airfields is within the airshed.
- 384. Given that all parts of the zone lie outside the Blenheim Airshed, I cannot see why the winter exclusion is needed. The Blenheim and Picton Airports are well away from the airshed, and there seems no need to restrict the subject discharges in wintertime there. The Omaka Airfield lies just outside Blenheim, and activities within it might arguably impact on air quality within the Blenheim Airshed. However, I note the Blenheim Air Emissions Inventory 2017 does not estimate contribution from aircraft, or from the Omaka Airfield.
- 385. In my view, there currently is no justification to limit wintertime discharges from fire training, film making or fireworks within the Airport Zone, including Omaka Airfield.

Recommendation

Adding NZDF

386. I recommend that where the following permitted activity standard appears in the Rural Environment, Coastal Environment, Urban Residential 1 and 2, Rural Living, Industrial 1 and 2, Port, Marina, Coastal Marine, Open Space 3 and Airport Zones, the following wording should be added (', the New Zealand Defence Force'), and that the same additional wording should appear if this permitted activity standard is added to any other zones as part of decisions on submissions:

Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force⁵⁷ or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

Retaining Permitted Activity Rules (and Permitted Standard 13.3.23) as notified

- 387. I recommend that Permitted Rules 3.1.35, 4.1.34, 5.1.21, 8.1.16, 13.1.34, 15.1.32, 16.1.20 and 19.1.11 are retained as notified⁵⁸.
- 388. I recommend that Permitted Activity Standards 4.3.34, 13.3.23, 15.3.22 and 16.3.17 are retained as notified⁵⁹.

Winter restriction- existing rules

389. I recommend that in the permitted activity standard in the Rural Environment, Urban Residential 1 and 2, Rural Living, and Open Space 3 Zones, the standard relating the winter restriction on discharges should be amended as follows:

X.3.X Discharge of contaminants to air arising from the burning of materials for any of the following purposes:

- (a) training people to put out fires;
- (b) creating special smoke and fire effects for the purposes of producing films;
- (c) fireworks display or other temporary event involving the use of fireworks.
- X.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
- X.3.x.2 If the property is located within the Blenheim Airshed, the discharge, except any discharge under (c), must not occur during the months of May, June, July or August. 60
- X.3.x.3 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force⁶¹ or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

Adding Permitted Rules - Other Zones

Where submissions allow for fire training, film and fireworks:

390. I recommend that in the Urban Residential 3, and the Business 1 and Business 2 Zones, the following permitted activity rule and permitted activity standards be added⁶²:

[Permitted activity rule]

X.1.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:

- (a) training people to put out fires;
- (b) creating special smoke and fire effects for the purposes of producing films;
- (c) fireworks display or other temporary event involving the use of fireworks.

⁵⁷ 992.58, 59, 62, 992.63, 992.64, 992.70 & 992.71 - NZDF

⁵⁸ 993.24, 993.30, 993.36, 993.49, 993.66, 993.72, 993.76 & 993.83 - FENZ

⁵⁹ 993.33, 993.68, 993.74 & 993.78 - FENZ

^{60 669.1-5 -} Go Marlborough; 349.1 - Philip Rayner; 852.1-4 - Kelvin Holdaway; 925.1-5 - Michelle Harris

^{61 992.58, 62, 992.63, 992.64, 992.70 &}amp; 992.71 - NZDF

⁶² 993.42, 993.53 & 993.57 – FENZ; 669.1-5 - Go Marlborough; 852.5, 852.7 & 852.8 - Kelvin Holdaway; 925.6, 925.8 & 925.9 - Michelle Harris.

- X.3.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks.
 - X.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
 - X.3.x.2 If the property is located within the Blenheim Airshed, the discharge, except any discharge under (c), must not occur during the months of May, June, July or August.
 - X.3.x.3 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.
- 391. I recommend that in the Coastal Living Zone (which is not subject to the Blenheim Airshed), the following permitted activity rule and permitted activity standards be added 63:

[Permitted activity rule]

- 7.1.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) <u>fireworks display or other temporary event involving the use of fireworks.</u>

[Permitted activity standard]

- <u>7.3.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:</u>
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks.
 - 7.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
 - 7.3.x.2 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

Where submissions allow for film and fireworks (but not fire training):

392. I recommend that in the Business 3, Open Space 1, Open Space 3 and Floodway Zones the following permitted activity rule and permitted activity standards be added⁶⁴:

[Permitted activity rule]

- X.1.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) creating special smoke and fire effects for the purposes of producing films;
 - (b) fireworks display or other temporary event involving the use of fireworks.

^{63 993.46 -} FENZ; 852.6 - Kelvin Holdaway; 925.7 - Michelle Harris; 669.1-5 - Go Marlborough

⁶⁴ 669.1 to 5 - Go Marlborough; 852.9, 852.11, 852.12 & 13 – Kelvin Holdaway; 925.10, 925.13, 925.14 & 925.16 - Michelle Harris.

[Permitted activity standard]

- X.3.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) <u>creating special smoke and fire effects for the purposes of producing films;</u>
 - (b) <u>fireworks display or other temporary event involving the use of fireworks.</u>
 - X.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
 - X.3.x.2 If the property is located within the Blenheim Airshed, the discharge, except any discharge under (c), must not occur during the months of May, June, July or August.
 - X.3.x.3 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.
- 393. I recommend that in the Port Land Area Zone (which is not subject to the Blenheim Airshed, and where only fireworks and film effects have been requested), the following permitted activity rule and permitted activity standards be added⁶⁵:
 - 14.1.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) <u>creating special smoke and fire effects for the purposes of producing films;</u>
 - (b) fireworks display or other temporary event involving the use of fireworks.

[Permitted activity standard]

- X.3.x. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) creating special smoke and fire effects for the purposes of producing films;
 - (b) <u>fireworks display or other temporary event involving the use of fireworks.</u>
 - X.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.

Fireworks - Industrial Zone

- 394. I recommend that in the Industrial 1 & 2 Zone Area, permitted activity rule 12.1.13 and permitted activity standard 12.3.3 are amended as follows:
 - 12.1.13. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks.⁶⁶
 - 12.3.3. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks⁶⁷.

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^{65 925.12 -} Michelle Harris

⁶⁶ 852.10 – Kelvin Holdaway; 925.11 – Michelle Harris.

^{67 852.10 -} Kelvin Holdaway; 925.11 - Michelle Harris

- X.3.x.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
- X.3.x.2 If the property is located within the Blenheim Airshed, the discharge, except any discharge under (c) ⁶⁸, must not occur during the months of May, June, July or August.
- X.3.x.3 Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force⁶⁹ or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

Wintertime Restriction - Airport Zone

- 395. I recommend that in the Airport Zone permitted activity standard 23.1.20 is retained as notified 70.
- 396. I recommend that in the Airport Zone permitted activity standard 23.3.7 is amended as follows:
 - 23.3.7. Discharge of contaminants to air arising from the burning of materials for any of the following purposes:
 - (a) training people to put out fires;
 - (b) creating special smoke and fire effects for the purposes of producing films;
 - (c) fireworks display or other temporary event involving the use of fireworks.
 - 23.3.7.1 The Council must be notified at least 5 working days prior to the burning activity commencing.
 - 23.3.7.2 The discharge must not occur during the months of May, June, July or August.71
 - 23.3.7.3 <u>2</u> Any discharges for purposes of training people to put out fires must take place under the control of the NZ Fire Service, the New Zealand Defence Force or any other nationally recognised agency authorised to undertake firefighting research or firefighting activities.

Burning of Munitions etc - Airport Zone

397. I am unable to make a recommendation at this stage regarding the NZDF submissions 992.70 & 71 to allow combustion of unwanted ammunition, munitions and pyrotechnics at Base Woodbourne under 23.1.10 and 23.3.7. It would be helpful if the NZDF could provide more information at the hearing on the likely substances involved and any discharges, and specifically how their suggested new wording would be inserted into the rule and standard.

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 $^{^{68}}$ 669.1-5 - Go Marlborough; 349.1 - Philip Rayner; 852.1, 2 & 10 - Kelvin Holdaway; 925.1-5 - Michelle Harris 992.62 & 63- NZDF

^{69 992.58 -} NZDF

⁷⁰ 993.87 – FENZ

⁷¹ 349.1 - Philip Rayner: 669.5 - Go Marlborough: 852.14 - Kelvin Holdaway: 925.5 - Michelle Harris: 993.88 - FENZ.

PART B: OTHER DISCHARGES, OUTSIDE BLENHEIM

Overview of Provisions

- 398. As discussed earlier, two issues are identified in the Plan, each with a single objective supported by a number of policies, and methods and rules to implement them. The first relates to PM₁₀ pollution in the Blenheim Airshed and has been addressed above (Part A): the second issue relates to all other air quality effects (Part B).
- 399. The main rules relating to PM₁₀ emissions in Blenheim have been dealt with above under Matter 1 (and Matter 2). However, the split of rules by issue (and objective) in this report is not always as simple as that. For example, the rule that prohibited the burning of certain materials applies in all zones (not just Blenheim) and relates not only to PM₁₀ discharges, but also the discharge of other air contaminants. The prohibited activity rules in all zones, however, were dealt with earlier under Matter 1 (PM₁₀ and Blenheim Airshed) for convenience and completeness, and to reduce repetition.
- 400. The rest of this report addresses submissions on other rules, not specifically related to PM₁₀ and Blenheim. They are generally addressed on a zone by zone basis. Some of the rules do have particle emissions, and sometimes occur within the Blenheim Airshed e.g. boilers (external combustion and stationary internal combustion in the Industrial 1 and 2 Zone). But there are usually other discharges with such activities (sulphur dioxide, nitrogen oxides etc) so these rules have been considered in this part of the report.
- 401. The submissions in the section part of this report are organised as follows:
 - Matter 3 Issue 15E and the related Objective, Policies, Methods and Anticipated Environmental Results
 - b) Matter 4 Small scale solid fuel burners Rules applying outside Blenheim
 - c) Matters 5 to 14 Air Discharge Rule Zones
 - d) Matter 15 Internal Combustion rules (across zones)
 - e) Matter 16 External Combustion rules (across zones).

Matter 3 – Air Discharges (Across the District) – Amenity and Human Health

Overview of Provisions

- 402. This assessment relates to Issue 15E, Objective 15.3 and Policies 15.3.1 to 15.3.7, Methods 15.M.34, 15.M.35 and 15.M.37, and Anticipated Environmental Results 15.AER.5 and 15.AER.7, the rules relevant to the air discharges in the Chapters 3, 5, 6, 8, 9, 10, 11, 12, 17, 18, 19 and 21, and Appendix 8.
- 403. The single issue (15E) is 'The discharge of contaminants into air that reduce the amenity of the surrounding area or create an undue risk to human health'. The key contaminants of concern are considered to be smoke and spray drift which can potentially have adverse effects on people living near the discharge. Other discharges to air with potential amenity effects include activities such as spray painting, abrasive blasting, food and beverage manufacturing and timber milling and processing. 'Reverse sensitivity' can also be an issue, where the operations of lawfully established and complying activities can be impacted by new and often incompatible land uses locating nearby.
- 404. There is a single objective (15.3) responding to the issue which is *Reduce the potential for nuisance* and health effects from the discharge of contaminants into air.
- 405. The objective is supported by seven policies addressing various activities or effects.

- 406. There are submissions on the following matters and the assessment below has been undertaken as follows:
 - Issue 15E
 - Objective 15.3
 - Policy 15.3.1
 - Policy 15.3.2
 - Policy 15.3.3
 - Policy 15.3.4
 - Policy 15.3.5
 - Policy 15.3.6
 - Policy 15.3.7
 - Method 15.M.34
 - Method 15.M.35
 - Method 15.M.35
 - 15.AER.5
 - 15.AER.7

Issue 15E - Submissions and Assessment

407. Issue 15E is:

The discharge of contaminants into air that reduce the amenity of the surrounding area or create an undue risk to human health.

- 408. Three submitters oppose the issue and two support it in part.
- 409. **Tony Mortiboy** (43.2) opposes the issue and is concerned about the lack of smoke (PM₁₀) monitoring in the Picton waterfront where 'for the last 30 years ferries have belched black grey smoke at least four times a day as they start their pollutant diesel engines. His inferred relief sought is to commence air quality monitoring in Picton. The Resource Management (Marine Pollution) Regulations 1998 permit in the coastal marine area discharges from ship propulsion systems. The Council is unable to regulate the activity that Mr Mortiboy is concerned about. However, under Topic 15.AER.7 below, I do support PM₁₀ monitoring occurring at Picton.
- 410. **Federated Farmers** (425.310) and **Michael and Kristen Gerard** (424.129) support the issue in part. They support addressing undue risks to human health. However, they are concerned that no reference is made to expectations about amenity being dependant on the character or zone. For example, the operational requirement of primary production activities like silage feeding and effluent spreading have effects which should be both anticipated and expected in a rural area. These activities stand to enhance the values within a rural area. They submit that rural production activities have the potential, at times, to generate adverse effects beyond the site, which must be acknowledged as being part of the rural environment. As a result, potential adverse effects on 'amenity value' should not always be at any cost. A measure of reasonableness must be applied, and in these circumstances adverse effects should be avoided, remedied or mitigated. They want the chapter to be based on sound evidence and RMA obligations, not merely the concerns of disgruntled residents. They seek that the issue is amended as follows:

Issue 15E The discharge of contaminants into air that reduce the amenity of the surrounding area or create an undue risk to human health.

411. They also seek that a new paragraph is added to the explanatory text as follows:

At times primary production activities will generate effects such as noise, odour and dust - residents living in the rural environment should therefore reasonably expect times when amenity values may be modified by such effects.

412. **NZ Pork Industry Board** (998.37 & 38) opposes the issue. It does not give details of why, but seeks the addition of a new objective and policies to the requirements of the rural sector, as follows:

Objective 15.X The operational requirements of rural activities are recognised and provided for.

Policy 15.3.X Recognise that rural air quality is generally a result of dust and odours, and other emissions generated by rural production activities.

Policy 15.3.X Require adequate separation distance between rural land use which discharges dust and odour to air and activities that are sensitive to adverse effects of dust and odour discharges.

- 413. Horticulture NZ and Federated Farmers support the NZ Pork Industry submissions.
- 414. Considering the submissions of **Federated Farmers** and the **Gerards** first. I don't support removing reference to amenity from the issue, as it would then only relate to risk to human health. That creates a very high threshold air discharges can have annoying or nuisance effects, but below the threshold of when they are dangerous or noxious and a risk to human health. The issue needs to recognise this, especially as it applies to a range of zones, including residential, and not just rural areas. Also, it is well established that amenity is dependent on context. That is, that rural amenity is different to residential amenity, for example and the expectations are different.
- 415. Having said that, I would support some addition to the explanation. I note that 'reverse sensitivity' issues are already discussed in the last paragraph of the explanation to the issue. This does incorporate the concept that the submitters are raising. However, an additional statement giving a rural example could be added. It needs to be as an example, for as stated, the issue applies across the entire district and not just to rural land. Also, I don't support that statement sought by the submitter, that residents living in rural areas should *reasonably expect times when amenity values may be modified by such effects*. In my view, rural amenity includes the effects of farming and other rural activity, and that amenity will be different to residential zone amenity. It is not a case of rural activities 'modifying' rural amenity, but rather a recognition that rural amenity will include dust and odour to a reasonable extent.
- 416. I support the NZ Pork Industry submissions to the extent of the relief recommended above for Federated Farmer and the Gerards. However, I do not support adding a further objective or policies. As I have stated, these provisions of Chapter 15 apply to the entire district and to a wide range of activities, not just rural activities. First, I consider that the new provisions being sought would cause a distortion in the chapter, giving an excessive focus to rural discharges, which if they were included, could imply other activities and discharges would be of less importance. With the recommended change to the issue explanation (and other changes recommended below) they will adequately recognise rural concerns. My second reason for not supporting the new provisions is that separation distances and/or reverse sensitivity issues are addressed adequately elsewhere in the plan, and those provisions, in my view, are at an appropriately generic level for all activities, not just rural ones and specifically odour and dust. In Chapter 14 (Use of the Rural Environment) for example, it includes, Issue 14B, Objective 14.4 and to various degrees Objective 14.3, Policy 14.4.3, Issue 14C and Policy 14.5.4. Similarly, there is a range of provisions in Chapter 12 (Urban Environments) dealing with reverse sensitivity issues, particularly in relation to rural activities, but also industrial and business activities. In my view, it is inappropriate and unnecessary to elevate air discharge reverse sensitivity and discharge issues above the wider treatment of adverse impacts and reverse sensitivity for all activities and effects.

Recommendation

417. I recommend that after the last paragraph of the explanatory text under Issue 15E, a new paragraph is added as follows:

Also, the expectation of amenity values will differ in different areas. For example, primary production activities can generate effects such as noise, odour and dust, so that even with appropriate management of effects, the amenity values be expected by residents living in the rural environment will be different to that within a residential zone.⁷²

⁷² 424.129 – Michael and Kristen Gerard; 425.310 – Federated Farmers; 998.37 & 38 – NZ Pork Industry Board.

Objective 15.3 - Submissions and Assessment

418. Objective 15.3 is:

Reduce the potential for nuisance and health effects from the discharge of contaminants into air.

- 419. Three submitters oppose the objective and five support it in part.
- 420. Wine Marlborough (431.77) and Longfield Farms (909.69) both oppose the objective, while Pernod Ricard Winemakers (1039.100) and Villa Maria (1218.71) support it in part. There are further submissions in support for Lion NZ Ltd, the Awatere Water Users Group and Pernod Ricard Winemakers.
- 421. All submit that the potential for nuisance and health effects is already very low because discharges of contaminants are currently well managed. All seek the words 'Where necessary,..' added at the beginning of the objective.
- 422. **Horticulture NZ** (769.69) oppose the objective. They want the reference to nuisance removed, arguing it is not defined in the Plan and is not an RMA term. The RMA seeks to avoid adverse effects and the objective should be worded accordingly, as follows: *Reduce the potential for nuisance and adverse effects, including health effects, from the discharge of contaminants to air.*
- 423. **Fonterra** (1251.110) also opposes the objective and the words 'nuisance effects'. They submit it is appropriate that discharges to air are managed, however it should be "offensive and objectionable effects", rather than "nuisance effects" that are managed. They note that offensive and objectionable are effects that can be measured through consideration of the FIDOL⁷³ factors. They seek the objective be amended as follows: Reduce Manage the potential for offensive or objectionable effects nuisance and significant adverse health effects from the discharge of contaminants into air.
- 424. **NZ Pork Industry** (998.36) oppose the objective, without stating specific reasons. It seeks the objective be replaced with: <u>Incompatible uses and development are separated to manage adverse effects on air quality from discharges of contaminants into air and avoid or mitigate reverse <u>sensitivity effects</u>.</u>
- 425. Tom Newsham (1173.6) supports in part the objective. His submission does not identify an issue, objective, policy or provision to which it relates. It is inferred that a new policy is requested under Objective 15.3 to reduce the threat of climate change and the use of more renewable energy. He seeks consistency with other policies in the MEP which state the need to reduce the threats of climate change and the use of more renewable and sustainable resources. He considers promoting bioenergy fits well within this policy. Wood fire heating is again recognised as one of the most sustainable forms of heat in temperate climates. He submits that with our pine forest waste and our abundance of exotic pest wood species like wattle and willow, we are blessed with resources.
- 426. Considering Mr Newsham's submission first, I do not believe a new policy is necessary in this chapter of the Plan to promote use of renewable and sustainable resources. Policy 18.1.1 in the Energy Chapter promotes and encourages the use and development of renewable energy resources, and the Plan proposes a number of methods relating to investigation and stocktake of renewable energy resources, and advocacy of renewable energy technologies. Similarly, the Climate Change chapter has Policy 19.1.1 to promote actions to reduce or offset carbon emissions. The objective and policies in the air quality section of Chapter 15 are about managing the adverse effects of discharges to air, not about promoting the use of particular fuels. I consider that the current structure of the plan is appropriate that Energy and Climate Change Chapters have objectives and policies that promote use of renewable fuels, but that Chapter 15 retains a focus on managing the adverse effects from combustion from all fuels, including renewable fuels.
- 427. I now consider the submissions seeking amendments to the wording of Objective 15.3.
- 428. **Fonterra** seeks a change from 'nuisance' to 'offensive or objectionable' effects, noting that these can be measured through the FIDOL factors. FIDOL factors (Frequency, Intensity, Duration,

⁷³ Frequency, Intensity, Duration, Offensiveness and Location

Offensiveness and Location) are part of an assessment methodology promoted in the MfE 'Good Practice Guide for assessing and managing odour'. However, that guide refers to odour discharges with a noxious, dangerous, offensive or objectionable effect – not just offensive or objectionable. I note the same suite of terms is also used in the MfE Good Practice Guide for Assessing Discharges to Air from Industry. I note also these four terms are also used in RMA section 17 (Duty to avoid, remedy or mitigate adverse effects), and that MEP Policy 15.3.3 refers to all four terms. I consider it would be inappropriate to include some of these terms in Objective 15.3, but to leave out the more significant effects – noxious or dangerous. The alternatives, in my view, are to leave the wording as it is (nuisance), to include all four terms in the objective, or to use a more all-embracing term like 'adverse effects' as suggested by **Horticulture NZ**. I prefer the latter as it is simpler, and includes all adverse effects. I support the Horticulture NZ submission that 'nuisance' is an undefined term and better alternatives are available. While 'nuisance' is used in a general sense in both the MfE guides discussed above, 'nuisance' in my view is not a broad enough term to include more significant effects such as those that are dangerous or noxious. That would give partial relief to Fonterra's submission.

- 429. I don't accept the **Fonterra** submission that the first word in the objective should be changed from 'Reduce' to 'Manage' because they assert discharges to air are already well managed and the potential for adverse effects is very low. In some industries, adverse effects may be well managed, but in other activities this may not be the case. Managing them at current levels may not be appropriate, nor consistent with the RMA where the requirement is to avoid, remedy or mitigate adverse effects. Similarly, it is not 'significant adverse health effects' that ought to be of concern, but rather 'adverse health effects'. Otherwise it implies that health effects below the significant level are acceptable, but that is not reasonable in my view.
- 430. The wine companies sought that the objective at the beginning be qualified with 'Where necessary,'. I consider these words are unnecessary and would be redundant. There is an implicit 'where necessary' in the objective currently. There is only a need to act when there is the potential for an adverse effect. If there is no adverse effect and no potential for one, then it would not be necessary to act.
- 431. Finally, **NZ Pork Industry** sought that the objective be rewritten to focus on separation of incompatible uses and reverse sensitivity effects. Not all adverse effects from air discharges can be managed by separation of activities. Even other activities within an industrial zone may need protection from the adverse effects from a neighbouring discharge (e.g. a food manufacturer next to an abrasive blasting company). Separation and the consideration of reverse sensitivity may be relevant in some situations, but not in one such as this. Therefore, the objective needs to be more overarching, to capture all effects and situations, and not just those raised by the submitter, which presumably relate to pig farms and the sensitivity of nearby activities. As I discussed earlier, other provisions in the MEP deal with separation and reverse sensitivity. For these reasons, I do not support the Pork Industry submission point.

Recommendation

432. I recommend that Objective 15.3 is amended as follows:

Reduce the potential for nuisance and <u>adverse effects, including</u> health effects, from the discharge of contaminants into air.⁷⁴

Policy 15.3.1 - Submissions and Assessment

433. Policy 15.3.1 is:

Prohibit the discharge of contaminants into air resulting from the combustion of materials that will give rise to concentration of contaminants likely to be dangerous or toxic.

434. **Fonterra** (1251.110) opposes the policy. It says it is more appropriate to reference Regulations 4 – 10 of the NESAQ directly, rather than trying to reword them. They request, supported by Horticulture NZ's further submission, that the policy be amended as follows: *Prohibit the discharge of contaminants into air in accordance with Regulations 4 – 10 of the National Environmental Standard*

⁷⁴ 769.69 – Horticulture NZ.

for Air Quality resulting from the combustion of materials that will give rise to concentration of contaminants likely to be dangerous or toxic.

435. The explanation to the policy notes that materials inappropriate for burning are listed in the MEP rules. It also notes that the policy implements Regulations 4 to 10 in the NESAQ. The prohibited rules in the MEP as notified are more restrictive than the prohibitions in the NESAQ (as they entitled to be by Regulation 28 of the NES) and cover additional substances. Therefore, I cannot support the change to the policy sought by Fonterra. However, I think the statement in the explanation to the policy - "The policy implements Regulations 4 to 10 in the NESAQ" – is confusing as the MEP goes further than the NESAQ in some areas. Rather than go into complicated specifics, I think it is better to simply refer to the NESAQ in the explanation.

Recommendation

436. I recommend that the last sentence in the explanation to Policy 15.3.1 is amended as follows:

The policy, as a minimum, implements Regulations 4 to 10 in the NESAQ also apply.75

Policy 15.3.2 - Submissions and Assessment

437. Policy 15.3.2 is:

Require all discharges to comply with the ambient air quality standards established by the National Environmental Standard for Air Quality.

- 438. **Fonterra** (1251.111) opposes the policy. It says it is inconsistent with the NESAQ, which only requires compliance where exposure is likely (over a 24-hour average). In doing so it would require compliance with the standards over rural land where exposure for a 24-hour period is unlikely to occur for example. Fonterra submits the policy also fails to recognise other important air quality criteria, such as the National Ambient Air Quality Guidelines. As an alternative, it is considered that the policy should seek to manage the adverse effects on human health of the discharge, including cumulative effects. They propose the existing policy be replaced with: *Manage the discharge of contaminants to air so that adverse effects on human health, including cumulative adverse effects, are avoided, and all other adverse effects are remedied or mitigated.*
- 439. **NZDF** (992.21) also oppose the policy. It submits that the policy confuses the ambient air quality standards in the NESAQ with assessment criteria for individual discharges. The ambient air quality standards are not intended to be used as assessment criteria that apply at the boundary of industrial sites. NZDF requests that Policy 15.3.2 be deleted, or amended to make it clear that the ambient air quality standards in the NESAQ are not to be used as assessment criteria for individual discharges.
- 440. I generally agree with both submitters. The standards in the NESAQ address ambient air quality (that is overall air quality in the airshed for specific standards). They are not compliance standards for individual discharges. Individual discharge applications would need to be assessed to determine if the discharge, after mixing, would cause ambient levels of contaminants to breach any of the specified standards in the NES, but that is different to 'complying' with the NES. The purpose of the NESAQ (and ambient air quality guidelines) is not to protect people close to the discharge, as stated in the explanation to the policy, it is to protect ambient air quality in general. This need not be close to the discharge, but rather across the wider airshed. There are also certain regulations in the NESAQ that prevent a council from approving applications for discharges of PM₁₀, carbon monoxide, oxides of nitrogen and volatile organic compounds if the discharge would cause concentrations in the airshed in breach of the relevant NES standard (under circumstances defined in the NESAQ).
- 441. The MfE Good Practice Guide for Assessing Discharges to Air from Industry advises using a range of criteria when assessing the effects of proposed industrial discharges (and in my view, the advice can be applied in a general sense to discharges from certain other activities). The key one is the NESAQ, but others include the National Ambient Air Quality Guidelines (which cover a wider range of contaminants than the NES, and include other advice), regional plan objectives and policies, WHO guidelines and other overseas guidance or exposure levels where New Zealand guidance is lacking.

⁷⁵ 1251.21 – Fonterra.

Therefore, I agree with Fonterra that other matters are relevant, and with both submitters that amendments should be made to the policy. I also note that 'all discharges' do not come under the NESAQ – there are other contaminants not covered by the NESAQ (and therefore the policy) including dust and odour, as well as substances such as lead, arsenic, and various organic compounds such as benzine.

- 442. I support the approach in the **Fonterra** submission in part. I agree the focus in the policy should be on managing discharges to air to achieve certain outcomes, as opposed to focusing on discharges complying with the NESAQ. I think this can be resolved by changing the policy to use the word 'manage' as proposed by Fonterra. I don't support their proposed wording to avoid adverse health effects, but to mitigate or remedy other effects. That makes the policy very similar to Policy 15.3.5. I think reference to the NESAQ remains appropriate (noting its objective is the protection of human health) but support inclusion of reference to the MfE/MOH Ambient Air Quality Guidelines (which cover both human and ecosystem health), as proposed by **NZDF**.
- 443. **Tim Newsham** (1173.5) supports the policy in part. The exact provisions of the MEP that are the subject of his submission are not clear, but he seeks:
 - Rules which reflect scientific bases toward dealing with the health aspect of air quality controls.
 - Regional responsibility for creating rules which reflect our quality of life expectations rather than trying to adhere to national standards that may be inappropriate to our local circumstances.
- 444. The Council is obliged to comply with the NESAQ and give effect to it. The NESAQ has the force of a regulation under section 43 to 44A under RMA. Section 44A(7) states that Every local authority and consent authority must observe national environmental standards. Section 44A(8) states that Every local authority and consent authority must enforce the observance of national environmental standards to the extent to which their powers enable them to do so. Also, when preparing a regional plan, a council is obliged to do so 'in accordance with ..any regulations' (section 66(1)(f)).
- 445. The NESAQ is a binding and the Council must adhere to it. It may be more stringent in its controls if it wishes, but it cannot be more lenient as Mr Newsham appears to be seeking.
- 446. As regards Mr Newsham's request for rules that reflect a scientific basis regarding health and air quality, as I have outlined under 'National Environmental Standards' (p15) and Background on Particulate Matter (p20), the health effects of particulates and other contaminants are well documented. The scientific basis of levels set is well established by reference to NZ and overseas studies, as well as WHO guidelines and guidelines and standards in other countries. I don't support Mr Newsham's relief sought.

Recommendation

447. I recommend that Policy 15.3.2 is amended as follows:

Require all Manage discharges to air to comply with the so that ambient air quality is consistent with standards established by the National Environmental Standard for Air Quality and the Ambient Air Quality Guidelines.⁷⁶

448. As a consequential amendment, I recommend that the explanation to Policy 15.3.2 is amended as follows:

The NESAQ sets ambient air quality standards that apply to both airsheds and open air. The standards include threshold concentrations for carbon monoxide, nitrogen dioxide, ozone, PM₁₀ and sulphur dioxide, and specify the number of exceedances allowed (if any) within a certain timeframe. The Ambient Air Quality Guidelines (Ministry for the Environment) cover these and additional contaminants, and, unlike the NESAQ, address ecosystem health as well as human health. The Standards and Guidelines are not intended as assessment criteria for individual discharges, but larger discharges applying for consent will need to show their activity does not cause a breach of the NESAQ (or the ambient air quality guidelines where relevant). All discharges are required to comply with the ambient air quality standards in order to protect the health and wellbeing of people in close proximity to any proposed discharge. This policy will be

⁷⁶ 992.21 – NZDF; 1251.111 – Fonterra

implemented through the assessment of discharge permit applications, the imposition of resource consent conditions and the establishment of permitted activity rule standards.

Policy 15.3.3 - Submissions and Assessment

449. Policy 15.3.3 is:

Control emissions from large scale fuel burning devices outside the Blenheim airshed and approve discharge permit applications where the discharge will not be dangerous or noxious, or cause an offensive or objectionable effect beyond the boundary of the site(s) from where the discharge originates.

- 450. Two submitters support the policy, one supports it in part, and one opposes it.
- 451. NZDF (992.22) and Fonterra (1251.112) both support the policy and seek its retention as notified.
- 452. The **Marlborough Forest Industry Association** (962.96) supports in part the policy. They ask if it is correct or fair for air quality to be assessed at the boundary of the site, as proposed in the policy. They suggest this should be at the notional boundary of the nearest dwelling.
- 453. **Nelson Forests Ltd** (990.243) opposes the policy. They say it unfairly ignores the presence of existing large scale burning devices and requirements for them not to cause adverse effects when measured at the notional boundary of the nearest dwelling. It is not appropriate to measure at the boundary of the site. It also does not give any recognition of the size of airshed that the effects must be assimilated within before moving off-site. Earnslaw One Ltd further submitted in support. Nelson Forests seek that the policy be amended as follows (or to similar effect):

"Control emissions from newly consented (post 9 June 2016) large scale fuel burning devices outside the Blenheim airshed and approve discharge permit applications, where the discharge will not be dangerous or noxious, or cause an offensive or objectionable effect beyond the boundary of the site(s) from where the discharge originates. Control emissions from existing (prior to 9 June 2016) large scale fuel burning devices outside the Blenheim Airshed and approve discharge permit applications, where the discharge will not be dangerous or noxious, or cause an offensive or objectionable effect at the notional boundary of the nearest dwelling.

- Association. Assessing air discharges at the nearest dwelling is not consistent with best practice advice. The MfE Good Practice Guide for Assessing Discharges to Air from Industry, and the Good Practice Guide for assessing and managing odour seek to assess and manage effects 'beyond the boundary of the site' of the discharge. That does not mean that there must be no effect beyond the boundary of the site all effects do not need to be 'internalised' within the site boundary, but the effects beyond the boundary must be reasonable and acceptable. This is consistent with principles developed by case law⁷⁷. In this policy, there is a threshold established before an effect beyond the boundary becomes a concern. It must be dangerous or noxious, or be offensive or objectionable. The location of any dwellings or other sensitive activities will be relevant in determining the nature of the received effects. In other words, the concern raised by the submitters is built into the assessment of the level of effect. For example, if there are no people to be affected, the effect may not be objectionable or dangerous beyond the boundary.
- 455. **Nelson Forests** seems to be suggesting that existing discharge consents for some activities could have conditions managing effects in relation to the notional boundary of the nearest residential dwelling, and presumably that is why they seek a different treatment for large scale fuel burning devices that existed before June 2016 when the MEP was notified. However, those activities can continue under their current consents until they expire. They will then have to apply for a new consent. The same policy should then apply (noting that under the RMA it is a re-consenting not a 'renewal' of consent. Having said that, under the RMA section 104(2A) a consent authority must have

⁷⁷ Waikato Env Protection Soc. v WRC (W 060/2007) in turn references two other key odour cases (Winstone Aggregates and Others v Matamata Piako District Council (W 055/2004) and Wilson and Rickerby v Selwyn District Council (C 23/204). As quoted in the MfE Good Practice Guide for Assessing and Managing Odour.

regard to the value of the investment of the existing consent holder when making decisions on such a reconsenting application.

456. I therefore recommend the policy remain as notified.

Recommendation

457. I recommend that Policy 15.3.3 is retained as notified.

Policy 15.3.4 - Submissions and Assessment

458. Policy 15.3.4 is:

Manage the use of agrichemicals to avoid spray drift. The boundary of the property on which the application of agrichemical occurs is the point at which management applies, as follows:

- (a) Any agrichemical should not move, either directly or indirectly, beyond the property boundary of the site(s) where it is or has been applied; and
- (b) Agrichemical users will be required to utilised best practice and exercise reasonable care to achieve (a).
- 459. Five submitters support the policy, seven support it in part, and two oppose it.
- 460. **Kevin Loe** (454.44), **DOC** (479.147), **Flaxbourne Settlers Association** (712.87), **MOE** (974.8) and **NZTA** (1002.78) support the policy and seek its retention.
- 461. **Federated Farmers** (425.311) supports the policy in part. While it acknowledges the Council's role is to ensure there are no off-site side effects, it submits there may be instances where it is unavoidable that an agrichemical does move, either directly or indirectly, beyond the property boundary of the site where it has been applied. They say that periodically conditions may arise that cause agrichemicals to unintentionally drift beyond the specified area. They submit that the very nature of the material means that while all effort can be made to suitably avoid, remedy or mitigate the effects of drift, operators need to be able to work within the scope of the policy using good practice management. Federated Farmers submits that this policy should focus on the adverse effects rather than referring to the drift itself. They give an example of lime spreading, where they say the drift can form large clouds of lime dust, but very little will actually land on neighbouring properties.
- 462. **Federated Farmers** proposed the policy be deleted and replaced with:

Require that appropriate measures and good management practice are taken to ensure that, to the extent reasonably possible, spray drift from the application of agrichemicals does not result in adverse effects that are offensive or objectionable beyond the property boundary.

- 463. I note that fertilisers are excluded from the definition of agrichemicals in the Plan, so the example raised does not apply. However, I accept the point that Federated Farmers is making, and an example relating to the use of herbicides could apply in its place. I consider below the substance of the change requested, after discussing the other submissions on the policy.
- 464. Wine Marlborough (431.78), Trelawne Farm (445.1), Accolade Wines (457.47), Longfield Farm (909.70), Pernod Ricard Winemakers (1039.101), and Villa Maria (1218.72) all support in part the policy. They submit that the wording of this policy (and its explanation) is conducive to responsible agrichemical use. They note the use of the word 'should' in clause (a), and reference in clause (b) to best practice being utilised to achieve (a). They say that acknowledges that complete control may not always be possible. Therefore, the submitters consider that the introductory statement in the policy should reflect this and they request that first sentence be amended as follows: Manage the use of agrichemicals to avoid spraydrift as far as practicable.
- 465. **Horticulture NZ** (769.70) oppose the policy, submitting that it is almost impossible to have no spraydrift and that the policy should focus on no adverse effects from drift and implementing best practice. They want the policy amended to avoid adverse effects by adopting best practice methods of application. They also want included in the explanation: *Best practice for agrichemical use is set*

out in NZS8409:2004 Management of Agrichemicals. Appropriate training is required to ensure that users are competent in undertaking applications of agrichemicals to minimise potential for off target spray drift.

- 466. I agree with the wine industry submitters that the policy content does not imply absolute avoidance of spraydrift. That is very difficult to achieve in practice. That is also recognised by NZS 8409:2004, which provides guidance to ensure that agrichemicals are used in a safe, responsible and effective manner, and which is widely accepted guidance by industry and within regional plans. Reference to NZS 8409:2004 is included in the spray rules in the MEP (e.g. 3.3.22). NZS 8409:2004 seeks to minimise spray drift that is, spray landing on off-target properties, and moreover to avoid or minimise any adverse effects of spray drift. The case law discussed under Policy 15.3.3 above also recognises that complete internalisation of effects within a property is not always possible.
- 467. I therefore support inclusion of the words 'as far as practicable' as requested by the wine industry submitters. I believe the policy remains strong, and with a strong imperative for spray not to move beyond the boundary of the target property, and for best practice to be used. In this case, best practice is represented by the approach set out in NZS 8409:2004.
- 468. I generally support the approach being advocated by **Federated Farmers** and **Horticulture NZ** that is, that it is the adverse effects of spraydrift that is the key, rather than its presence per se. I see merit in introducing that concept into the policy, so that there is some expression of what the adverse effect of concern is, and if drift does occur, that adverse effects should be managed and minimised to acceptable levels. That can be done while recognising that avoidance is the preferred approach. The Federated Farmers submission only refers to adverse effects that that 'offensive or objectionable', but the Horticulture NZ submission is more general about avoidance of adverse effects.
- 469. **ME Taylor Ltd** (472.18) opposes the policy. The submitter is also concerned about drift, saying it is difficult to predict. The relief sought is unclear other than that 'I seek to use these product in the winter period when there are no leaves on grapes'. I believe the change I am recommending in response to the other wine industry submissions would provide relief to this submitter.
- 470. **Marlborough Forest Industry Assoc** (962.97) supports the policy in part. There is no submission point, but the relief sought is 'provide a clear statement as to 'dust' being in or out'. It is difficult to understand the concern within the submission. Possibly it relates to dust from fertiliser application. As noted above (under the Federated Farmers submission), fertiliser application is explicitly excluded from the definition of agrichemical in Chapter 25. I recommend no change to the policy or explanation in this instance.

Recommendation

471. I recommend that Policy 15.3.4 is amended as follows:

Manage the use of agrichemicals to avoid spraydrift <u>as far as practicable⁷⁸</u>. The boundary of the property on which the application of agrichemical occurs is the point at which management applies, as follows:

- (a) Any agrichemical should not move, either directly or indirectly, beyond the property boundary of the site(s) where it is or has been applied, <u>and if that cannot be avoided there must be no adverse effects that are offensive, objectionable, dangerous or noxious as detected at or beyond the property boundary⁷⁹; and</u>
- (b) Agrichemical users will be required to utilised best practice and exercise reasonable care to achieve (a).

⁷⁸ 431.78 - Wine Marlborough; 445.1 - Trelawne Farm; 457.47 - Accolade Wines; 472.18 – ME Taylor; 909.70 - Longford Farm; 1039.101 - Pernod Ricard Winemakers, and 1218.72 - Villa Maria.

⁷⁹ 425.311 – Federated Farmers; 769.70 – Horticulture NZ.

Policy 15.3.5 - Submissions and Assessment

472. Policy 15.3.5 is:

Manage discharges of contaminants to air not specifically provided for in Policies 15.2.1 to 15.2.3 or 15.3.1 to 15.3.4 by:

- (a) allowing, as permitted activities, discharges of contaminants into air from industrial or trade premises or industrial or trade processes that have no more than minor adverse effects on the environment;
- (b) avoiding or mitigating adverse effects of localised ground level concentrations of contaminants, including cumulative effects on:
 - (i) human health; and
 - (ii) amenity values; and
- (c) avoiding or mitigating adverse effects on any other values.
- 473. One submission supports the policy, five support it in part, and one opposes it.
- 474. **NZDF** (992.23) supports the policy and seeks its retention.
- 475. **Marlborough Forest Industry Assoc** (962.98) supports the policy in part. They submit 'Clarification required for dust. Silent in the use of shelterbelts or physical barriers.' The relief they seek is the same. There are permitted rules and standards relating to dust in the various zones in the Plan. In the event of a resource consent being needed, this policy would be relevant as well as Policy 15.3.6 (promote measures to avoid or mitigate the effects at source). I do not see any need to specify in the policy that it applies to dust, any more than it needs to specify other discharges such as odour, paint or solvent fumes, abrasive blasting, powder coating or so forth. If some contaminants are listed, but not others it can affect the interpretation and application of the policy. I do not support a change as sought.
- 476. **Fulton Hogan** (717.58) opposes the policy. It is concerned that the policy focuses on discharges from industrial or trade processes which may or may not address discharges from construction or bulk handling activities. As a consequence, it says, the plan potentially provides no guidance for these types of activities. They seek that clause (a) be amended as follows: (a) allowing, as permitted activities, discharges of contaminants into air from industrial or trade processes activities that have no more than minor adverse effects on the environment. NZTA's further submission supports the submission, and Te Atiawa's opposes it.
- 477. I support **Fulton Hogan's** request. I cannot see any reason for clause (a) in the policy to be restricted to industrial or trade processes or premises. There are many rules in the zone chapters of the plan that permit discharges to air where the effects of the discharge are considered to be no more than minor, but which are not from industrial or trade premises or processes. The policy ought to align with these permitted rules, and support them.
- 478. The Marine Farming Association (426.183) and Aquaculture NZ (401.175) both support in part the policy. They seek (without supporting reasons) that primary production premises be added to clause (a). Presumably this is to include aquaculture, and production land, the latter which is excluded from the definition of 'industrial or trade premises'. The change I support for Fulton Hogan above would address the apparent concern of these two submitters.
- 479. Federated Farmers (425.312) supports the policy in part. They support the provision for industrial or trade premises or processes. However, they are concerned that other activities, including rural activities, would be required to address amenity values, including cumulative effects. As discussed under Objective 15.3, Federated Farmers is concerned that a focus on amenity values may limit farmer's ability to manage their land, and constrain normal farming activities involving dust, odour, smoke, fire and fertiliser application. Further, Federated Farmers is concerned that avoidance or mitigation of adverse effects on 'any other values' is not clear and does not provide any clarity or certainty to consent applicants. They say it is not clear what values are trying to be protected. They seek the following amendments to the policy:

- (b) avoiding or mitigating adverse effects of localised ground level concentrations of contaminants, including cumulative effects on:
 - (i) human health; and
 - (ii) amenity values; and
- (c) avoiding or mitigating more than minor adverse effects on any other values.
- 480. I do not support removing the term 'avoiding' from clause (b). That would mean that dischargers would not need to avoid adverse effects on people's health, just to mitigate them. Reducing adverse effects may not be enough to prevent health effects from occurring. Moreover, this policy applies across all zones and to a range of activities, not just rural activities, where many people might be exposed to a discharge. Allowing this change with a consideration only of rural impact, could have significant impacts on other locations.
- 481. Nor do I support removing the reference to amenity values in clause (b)(ii). This is for the reasons discussed in the previous paragraph, and discussed under Issue 15E above. 'Amenity values' depend in part on context and reasonable expectations. In assessing amenity values under this policy regard would need to be had to the zoning of the site and the reasonable expectations as to amenity. Rural Environment Zone would have different amenity expectations to Rural Living Zone, and different again from an Urban Residential Zone. In my view, the submitter's concern can be accommodated within the normal application of the policy. Also, removal of the words 'amenity values' would be detrimental to consideration of effects on areas with higher amenity, such as residential and business zones, for example. For these reasons I recommend the words be retained.
- 482. Finally, **Federated Farmers** seek the addition of the words 'more than minor' to clause (c) in the policy so that is reads *avoiding or mitigating more than minor adverse effects on any other values*.
- 483. RMA section 5(2)(c) is 'avoiding, remedying or mitigating adverse effects of activities on the environment'. It does not apply just to adverse effects that are minor or less. I believe that the policy, when it is being applied to consent applications or other permissions is better left more open than Federated Farmers propose. In some cases it is possible to avoid an adverse effect, without significant cost or impact on a proposal, and this possibility should not be discouraged even if the adverse effect is minor or less. The same applies to mitigation options. The minimum threshold should not always be more 'no more than minor' as the cumulative consequences of a number of such effects can be more significant. The existing wording of the clause, as with amenity, provides the flexibility to consider the nature of the receiving environment, the level of effect, who is affected and any cumulative effects and may overall judgements as to those effects and their consequences. I consider is should remain as it is.
- 484. **NMDHB** (280.32) supports the policy in part. Their focus also is clause (c). They consider it should provide for cross media effects between air and other receiving environments for example, deposition of dust, contaminants entering waterways. They want the clause amended as follows: (c) avoiding or mitigating adverse effects on any other values <u>including</u> as a result of cross media effects between air and other receiving environments.
- 485. The current reference in the policy to 'other values' partly addresses the issue raised by **NMDHB**. This is also covered in part in the last sentence of the explanation to the policy *The Council can also have regard to any other impact of the discharge on the wider environment, including on water quality'*. However, the issue raised by the submitters is more specific, and the submission also suggests that the intent of the policy, and its explanation, may not be clear to all readers. I support making the wording clearer and less ambiguous and recommend an amendment, although not quite as sought. 'Cross media effects' could be a confusing term and I think *'..and other receiving environments'* is sufficient. This recognises that discharges to air can affect other resources. For example, particles including tyre and brake wear (with heavy metals) can settle on roads and land, and be washed into waterways. Or discharges of hazardous substances into air can contaminant land.
- 486. **Te Rūnanga O Ngāti Kuia** (501.79), supported by a further submission from Te Ātiawa, oppose clause (a) of the policy. They submit that no industrial waste should be permitted on the grounds of an arbitrary notion of 'minor' adverse effects. They seek deletion of clause (a). It is well established case law that the RMA is not a 'no effects' statute. Most activities will have some effect on the environment, and at issue is what effects are acceptable in what locations. Without permitted

activities in plans either little activity would be allowed to occur at all, or there would be a high requirement for consent applications and consents if current levels of activity were to continue. That does not mean those activities would necessarily be declined consent and not occur, but rather they would go through a process involving considerable time and cost for largely the same environmental outcome as if the activities were permitted with appropriate conditions. In my view, it is appropriate to provide in the MEP for discharges to air where the effects are at low and acceptable levels. As discussed above, I recommend that approach apply to all discharges, not just industrial or trade ones, as that allows for home heating fires, school boilers and other discharges at reasonable levels and which are necessary for people's health and safety and other needs. I therefore recommend that clause (a) remains.

Recommendation

487. I recommend that Policy 15.3.5 is amended as follows:

Manage discharges of contaminants to air not specifically provided for in Policies 15.2.1 to 15.2.3 or 15.3.1 to 15.3.4 by:

- (a) allowing, as permitted activities, discharges of contaminants into air from industrial or trade processes activities that have no more than minor adverse effects on the environment; 80
- (b) avoiding or mitigating adverse effects of localised ground level concentrations of contaminants, including cumulative effects on:
 - (i) human health; and
 - (ii) amenity values; and
- (c) avoiding or mitigating adverse effects on any other values, and other receiving environments⁸¹.

Policy 15.3.6 - Submissions and Assessment

488. Policy 15.3.6 is:

Promote measures to avoid or mitigate the effects of the discharge of contaminants to air at their source.

- 489. Federated Farmers (425.313) supports the policy and seeks its retention as notified.
- 490. **Marlborough Forest Industry Assoc** (962.99) support it in part. They seek a clear statement on 'dust' being 'in or out'. In my view, it is clear that the policy applies to dust, as it does to all other discharges to air. As discussed earlier I seen no reason to mention dust specifically, and that doing so would diminish the policy's application to other contaminants.
- 491. **Fonterra** (1251.113) supports the policy in part. They would like the best practicable option to be promoted but do not say why in their submission. They want the policy amended to be *Promote best practicable option measures* to avoid or mitigate the effects of the discharge of contaminants to air at their source.
- 492. The explanation to the policy discusses avoiding discharges (for example by recycling or reducing waste rather than burning it) as well as options to minimise the concentration of contaminant in a discharge where the discharge to air cannot be avoided. In my view, the policy is supporting a range of measures to avoid or mitigate the effects of discharges they need not always be the best practicable option (BPO). BPO has a specific meaning and application on the RMA, and may not always be necessary or appropriate in all instances. There may be measures that can be implemented to reduce discharges effects at source which are not the best option but which nevertheless have environmental benefits. An example might be ensuring wood is dry before used in a home fire, but the best option might be converting to a flued gas heater. In an industrial setting,

^{80 717.58 -} Fulton Hogan; 401.175 - Aquaculture NZ; 426.183 - Marine Farming Assoc.

^{81 280.32-} NMDHB

given the size of a discharge and its effects, a BPO outcome involving fuel switching might be appropriate. In my view, it is better to keep the scope of the policy broader to encompass for these reasons.

Recommendation

493. I recommend that Policy 15.3.6 is retained as notified.

Policy 15.3.7 - Submissions and Assessment

494. Policy 15.3.7 is:

Having adequate information about the state of Marlborough's air quality to enable the Council to assess the cumulative effects of discharges to air on amenity values and human health

- 495. **Federated Farmers** (425.314) supports in part the policy. It supports the need to expand knowledge and understanding of the state of air quality in Marlborough. However, they consider the reference to amenity is unnecessary, for the reasons stated under Policy 15.3.5. They seek removal of the words *'amenity values and'*. Pernod Ricard Winemakers in their further submission support this, and Te Ātiawa oppose it.
- 496. As discussed previously, the discharge of contaminants to air can have adverse effects which are not health effects (except in extreme situations) but which affect amenity values. At certain levels these can be objectionable or offensive. Included in this are dust, odour, smoke to name some, but it could also include discharges that affect views or other non-health matters. For these reasons I do not recommend deleting the words sought.

Recommendation

497. I recommend that Policy 15.3.7 is retained as notified.

Method 15.M.34 - Submissions and Assessment

498. Method 15.M.34 relates to 'Information' as follows:

Ensure that the community is aware of prohibited materials that cannot be burned and why these prohibitions exist. Also ensure that alternative options to the burning of waste are well publicised.

Consider including information on LIMs advising prospective purchasers of rural land of the possible presence of activities that may affect amenity values (reverse sensitivity) through effects such as smoke and spraydrift.

- 499. Federated Farmers (425.315) supports the provision and seeks its retention as notified.
- 500. **Tim Newsham** (1173.7) supports it in part. He wants the local authorities to have a greater role in both regulating and educating the proper use of wood to achieve efficient combustion and heat generation. From Mr Newsham's overall submission it is clear he is concerned about the use of firewood in home heating.
- 501. I note that Method 15.M.30 already covers informing the community about the need to use dry firewood to reduce PM₁₀ contamination, so addressing this in 15.M.34 is not necessary. My recommendation under Method 15.M.30 includes amendments for council to also provide information about prohibited fuels in domestic fires, good fire operation and how to get improved heating efficiency.
- 502. As regards regulating wood use, the rules in the Urban Residential Zones prohibit burning wood with a moisture content greater than 25% dry weight (the accepted definition of 'dry wood'). As discussed under Issue 15D above, there are difficulties with regulating firewood sales. One issue is that much of the wood burnt in home fires is self-gathered and not purchased through commercial merchants. Another problem is that the RMA can regulate the discharge from burning wood, but it cannot regulate

the sale of the fuel or the person selling it. If such an approach were wanted, the Council might need to consider if a bylaw under the Local Government Act or other legislation were feasible. However, from my experience, a non-regulatory approach can work well, and I discussed the Nelson 'Good Wood' scheme under Issue 15D and recommend under that Topic that the Marlborough District Council develop a similar voluntary scheme with Marlborough wood merchants.

503. I consider that partial relief to Mr Newsham's submission would be provided if the Hearing Panel accepts my recommendation regarding a 'Good Wood' scheme under Issue 15D (Jessica Bagge, 227.2).

Recommendation

504. I recommend that Method 15.M.34 is retained as notified.

Method 15.M.35 - Submissions and Assessment

- 505. Method 15.M.35 relates to 'Codes of practice and industry guidelines'.
- 506. There is only one submission on this provision and no further submissions.
- 507. **NZTA** (1002.79) supports the provision and seeks its retention as notified. The provision must remain unchanged.

Recommendation

508. That Method 15.M.35 is retained as notified.

Method 15.M.37 - Submissions and Assessment

509. Method 15.M.37 relates to 'Liaison' as follows:

Work with Sustainable Winegrowers and other industry groups that collect information on agrichemical use to monitor the nature (including methods of application) and extent of agrichemical use in Marlborough.

Work with industry groups and individuals undertaking discharges to air to develop and implement measures to reduce contaminant concentrations in discharges to air.

- 510. There is only one submission on this provision and no further submissions.
- 511. The **Chamber of Commerce** (961.79) supports the provision and seeks its retention as notified. The provision must remain unchanged.

Recommendation

512. That Method 15.M.37 is retained as notified.

Anticipated Environmental Result 15.AER.5 - Submissions and Assessment

513. 15.AER.5 had the following indicators for monitoring the effectiveness of the air quality provisions in Chapter 15:

The average winter concentration of PM_{10} at Redwoodtown is 37 mg/m³ or less.

The average winter concentration of PM₁₀ at Middle Renwick Road is 27 mg/m³ or less.

Numbers of open fires and wood burning appliances being replaced with cleaner heating methods.

The number of illegal fires.

- 514. The **MDC** (91.68) opposes the second measure (Middle Renwick Road monitoring) and wants it deleted. The submission says that the indicator will not achieve any meaning full outcome, and that other indicators in the Plan are more appropriate relative to the Anticipated Environmental Result.
- 515. I agree that measurement at the Redwoodtown site (the first indicator in the list) is the better measure for ambient air quality change in Blenheim as that site is consistent with monitoring as required under the NESAQ. Regulation 15(b)(i)(B) of the NESAQ requires monitoring where the NES standard is breached to be 'in that part of the airshed where...the standard is breached by the greatest margin or the standard is breached the most frequently, whichever is the most likely'. That site is the Redwoodtown one and not the Middle Renwick Road monitoring site. Therefore, I support the amendment as sought.
- 516. **MDC** (91.69) opposes the first measure (Redwoodtown monitoring) and seeks its deletion, saying, as above, the indicator will not achieve any meaningful outcome, and that other indicators in the Plan are more appropriate.
- 517. I do not support this submission point and the removal of the performance measure at Redwoodtown. If that indicator were removed from the AER, the only measures of success would be the numbers of fires and burners being replaced, and the number of illegal fires [remaining in use]. The number of fires being replaced could increase and the number of illegal fires in use could decrease, but ambient air quality could still remain poor or not decrease sufficiently. In my view, the ultimate measure of success with respect to PM₁₀ is whether its concentration decreases, and that should be determined by monitoring results at the Redwoodtown site.

Recommendation

518. I recommend that in 15.AER.5 the 'Monitoring effectiveness' indicators be amended as follows:

The average winter concentration of PM_{10} at Redwoodtown is 37 mg/m³ or less.

The average winter concentration of PM₁₀ at Middle Renwick Road is 27 mg/m³ or less.82

Numbers of open fires and wood burning appliances being replaced with cleaner heating methods.

The number of illegal fires.

Anticipated Environmental Result 15.AER.7 - Submissions and Assessment

519. 15.AER.7 has the following indicators for monitoring the effectiveness of the air quality provisions in Chapter 15:

Ambient monitoring of air pollutants throughout Marlborough, including:

- background concentrations of PM₁₀ in Picton are established;
- records of agrichemical use allow the cumulative effects of agrichemical use to be established through modelling; and
- a monitoring programme to determine the extent of agrichemical spraydrift is established.
- 520. **MDC** (91.67) is recorded as supporting the provision, but it is likely 'support in part' as the relief sought is to delete the first bullet point. The submission says 'there is currently no monitoring of PM_{10} in Picton and no intention of monitoring in the immediate future. Historical monitoring has indicated that there is not an issue with PM_{10} in Picton.
- 521. It is not correct to say that historical monitoring shows there is not an issue with PM₁₀ in Picton.
- 522. I discussed this under Issue 15D in relation to submission point 1186.92 by **Te Ātiawa** (paragraph 146 to 148), where I said:

^{82 99.68 -} MDC

Monitoring has been undertaken in Picton and Renwick. Picton was monitored in 2000, 2003, 2008 and 2009. The monitoring was done one day in three. Only one measurement (53 micrograms/m³) exceeded the NESAQ threshold of 50 micrograms/m³. The NESAQ allows one breach per year.

While the Picton monitoring does not show a non-compliance with the NESAQ, nor does it show compliance, for two reasons. The first is that there may have been higher concentrations on the two days out of three on which no monitoring was occurring. Second, the monitoring site is not 'worse case' as required to by the NESAQ. It is possible that other parts of Picton, if monitored, may return higher concentrations of PM₁₀, indicating non-compliance with the NESAQ. This, and possible better monitoring sites were discussed in the report to Council, 'Evaluation of air quality monitoring sites for Blenheim and Picton' ⁸³.

I recommend that the sentence is not deleted, but is amended to more accurately reflect what is known about air quality in Picton. In my view, further monitoring is needed in Picton to better determine if air quality is NESAQ compliant (and I discuss that under Topic 15.AER.7).

- 523. As I note, it is possible that parts of Picton might return higher PM₁₀ concentrations than identified by historical monitoring, if the 'worst case' locations were monitored and on a daily basis. I considered that further monitoring is needed in Picton to determine if air quality there is complaint with the NES.
- 524. I therefore do not support removing the bullet point relating to establishing PM₁₀ monitoring in Picton, and recommend that 15.AER.7 remain unchanged.

Recommendation

525. I recommend that 15.AER.7 is retained as notified.

⁸³ Wilton, E. Evaluation of air quality monitoring sites for Blenheim and Picton. 2014.

Matter 4 – Small scale solid fuel burners – outside of Blenheim Airshed

Overview

- 526. Currently Blenheim is the only location where PM₁₀ levels have been measured to be non-compliant with the NESAQ. The MEP rules therefore take a stricter approach within the Blenheim Airshed than outside of it.
- 527. The MDC submission states that standards for emission and stack requirements were wrongly included in rules and zones applying outside the Blenheim Airshed for woodburners/multi-fuel burners, and stack requirements for pellet burners.

Permitted Standards (pellet burners) - Submissions and Assessment

528. The following specific permitted standards applying outside the Blenheim Airshed, appear in the Rural Zone (3.3.40), Coastal Environment Zone (4.3.39), Urban 1, 2 & 4 Zones (5.3.18, 6.3.11), Coastal Living (7.3.16), Rural Living (8.3.18), Business Zones (9.3.9, 10.3.9 & 11.3.7), Industrial Zone (12.3.13), Port Zone (13.3.28), Coastal Marine Area (16.3.18), Open Space 4 Zone (20.3.9) and Airport Zone (23.3.15):

Discharge of contaminants to air from the burning of solid fuel in an enclosed pellet burner.

- X.3.X.1 The burner must comply with the stack requirements of Appendix 8 Schedule 2.
- X.3.X.2 The burner must only burn fuels approved for use in the burner.
- 529. **MDC** (91.1, 7, 11, 14, 17, 20, 23, 26, 29, 32, 33, 36, 42 & 82) opposes standard # 1 in all cases and seeks its deletion. It submits the standard was included in error and was only supposed to apply within the Blenheim Airshed.
- 530. I support removal of these standard in each rule. A pellet fire produces low emissions relative to a woodburner in normal household operation. The stack (flue or chimney) on a pellet fire is less critical therefore for dispersion of smoke. Also, the stack heights and other requirements in Appendix 8 are appropriate for woodburners and similar appliances, but not for pellet fires. Pellet fires contain a fan that assists with discharge via the stack, so they need much small stacks and don't have the downdraft issues that can occur with woodburners.
- 531. I don't believe a specification for pellet fire stacks is necessary in urban areas outside the Blenheim Airshed as the manufacturers specifications for the stack are considered at the time that building consent under the Building Act is issued.
- 532. I note that under standard 5.3.20.1 (and 6.3.13.1), <u>within</u> the Blenheim Airshed, pellet burners that were installed prior to the notification of the MEP must comply with the stack requirements in Appendix 8. As noted above, I consider this standard is not appropriate for pellet burners, but there is no submission seeking amendment so there is no ability to change it.
- 533. In the absence of a specific standard for installation of pellet fires after notification of the MEP, standard 5.3.21 (and 6.3.14.1) must apply to pellet burners (being part of 'small scale solid fuel appliances'). Similarly, the stack requirements, in 5.3.21.2, apply to pellet fires inappropriately in my view.

Recommendation

534. I recommend that in the Rural Zone (3.3.40), Coastal Environment Zone (4.3.39), Urban 1, 2 & 4 Zones (5.3.18, 6.3.11), Coastal Living (7.3.16), Rural Living (8.3.18), Business Zones (9.3.8, 10.3.9 & 11.3.7), Industrial Zone (12.3.13), Port Zone (13.3.28), Coastal Marine Area (16.3.18), Open Space 4 Zone (20.3.9) and Airport Zone (23.3.15), under the specific permitted standard *Discharge of contaminants to air from the burning of fuel in an enclosed pellet burner,* is amended as follows (and the remaining standard is renumbered):

Discharge of contaminants to air from the burning of solid fuel in an enclosed pellet burner.

X.3.X.1 The burner must comply with the stack requirements of Appendix 8 Schedule 2.84

*X.3.X.*21 The burner must only burn fuels approved for use in the burner.

Permitted Standards – Various Zones (small scale solid fuel appliances) - Submissions and Assessment

- 535. The following specific permitted standards applying outside the Blenheim Airshed, appear in the Rural Zone (3.3.41), Coastal Environment Zone (4.3.40), Urban 1, 2 & 3 Zones (5.3.17, 6.3.10), Coastal Living (7.3.15), Rural Living (8.3.17), Business Zones (9.3.8, 10.3.8 & 11.3.6), Industrial Zone (12.3.12), Port Zone (13.3.29), Coastal Marine Area (16.3.19), Open Space 4 Zone (20.3.8) and Airport Zone (23.3.14):
- 536. Permitted standard 3.3.41 is:

Discharge of contaminants to air outside the Blenheim Airshed from the burning of solid fuel in any small scale fuel burning appliance.

- X.3.X.1 The appliance must comply with the emission, operational and other requirements of Appendix 8 Schedule 1.
- X.3.X.2 The burner must comply with the stack requirements of Appendix 8 Schedule 2.
- *X.3.X.3* The appliance must only burn fuels approved for use in the appliance.
- X.3.X.4 The appliance must be operated so that all reasonable steps are taken to minimise the amount of smoke discharged.
- 537. **MDC** (91.2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 19, 19, 21, 22, 24, 25, 27, 28, 30, 31, 34, 35, 37, 38, 39, 40, 80 & 81) oppose standards X.3.X.1 and X.3.X.2 and seeks their deletion. It submits the standards were included in error and were only supposed to apply within the Blenheim Airshed.
- 538. Mark Jeffries (302.1 & 2), submitting on the rule in the Rural Zone also wants both standards deleted. He submits that the reference to Appendix 8, Schedules 1 and 2, puts rural log burners under the same rules as urban log burners within the Blenheim Airshed and that this is unnecessarily restrictive for rural areas where compliance with the NESAQ is not an issue. He also says that the WARMP did not have similar rules, so even modern burners installed just before the MEP was notified might fall outside the rules of Appendix 8. He notes that the permitted activity for open indoor fires does not refer to Appendix 8, and that these are presumably much less efficient than any enclosed log burner. He says that may lead to an unnecessary compliance requirement for a resource consent application for a rural log burner or worse, the absurd situation where a log burner is OK if the doors are removed.
- 539. In my view, there is no resource management reason to require burners in the Rural Environment Zone, Coastal Environment Zone, or Rural Living Zone to comply with these two standards. The density of housing is so low (the smallest site area being 7500m² in the Rural Living Zone), and the separation between houses large enough, that emissions standards and stack requirements are unnecessary. On any smaller sites, (less than 2 ha in area) the NESAQ would have effect. Under regulation 22, any woodburner installed must comply with the emissions and thermal efficiency standards in the NESAQ.
- 540. Similarly, in the Business, Industrial, Port and Open Space 4 Zones, and the Coastal Marine Area, the number of burners is likely to be low, and the sites involved large, so the standards are not necessary in my view.
- 541. Another reason not to include the first standard (the emissions and efficiency standards) is that in the MEP it applies to all small scale solid fuel appliances. As well as woodburners, it applies to open fires, multi-fuel burners, pot belly stoves or wood fired cooking stoves. Inclusion of the standard in its current form would effectively prevent these appliances being installed outside the Blenheim Airshed,

^{84 91.1, 7, 11, 14, 17, 20, 23, 26, 29, 32, 33, 36, 42 &}amp; 82 - MDC

since other than woodburners, none or few other appliances are likely to meet the emission standard. Also, as Mark Jeffries has noted, the way the standard is worded it applies retrospectively, so that existing appliances that do not comply with Schedule 1 would require resource consent. Relying instead on regulation 22 in the NESAQ provides more flexibility for sites under 2 hectares. That regulation is not retrospective and applies only to woodburners, and not to other types of domestic burners.

- 542. I therefore support removing both standard X.3.X..1 and X.3.X..2 in the above zones.
- 543. The Urban Residential 1, 2 & 3 Zones and the Coastal Living Zone are slightly different. In the Urban Environment 1 & 2 Zones, the density of dwellings is much higher, as is the potential for neighbour to neighbour effects. Dwelling density is lower in the Urban Environment 3 Zone (2000-4000m²) with lesser tendency for these effects. However, the potential is still there, which can be worsened if sites are subdivided.
- 544. The size of most Urban Environment allotments means that most households installing new woodburners would be subject to the NESAQ emission and efficiency standards applying on lots smaller than 2ha. There are many affordable 'NES compliant' woodburners available, so the regulation is not restrictive in its effect.
- 545. I do not support removing the second standard Urban Residential and the Coastal Living zones. That standard applies to stacks / chimneys. I think that standard has a role in settlements outside the Blenheim Airshed in ensuring good dispersal of smoke and minimising nuisance effects on neighbouring houses. Localised downdrafts and smoke going into neighbouring houses can occur with enclosed appliances where the air supply can be shut down. This is less of an issue with open fires where there is always a good supply of air, but getting good dispersal from an open fire is important in built up urban areas.
- 546. In my view, the stack requirements would be overly onerous for people installing enclosed appliances or new open fires. The stack rules in Appendix 8, Schedule 2, only apply to installations after 9 June 2016, so there is no issue with non-compliance with fires or burners that existed before the MEP was notified.
- 547. For the Urban Residential 1, 2 & 3 Zones and the Coastal Living Zone, I support removing standard X.3.X.1 but retaining standard X.3.X.2.
- 548. **Mr Jefferies** in his submission has highlighted an issue with the Plan. There is a permitted rule that provides for discharge from an indoor open fire, but there is no specific set of permitted standards relating to the permitted rule.
- 549. I do not consider that open fire usage is not unregulated. The above standards under X.3.X apply to open fires and not just enclosed burners, because open fires are included within the definition of a 'small scale fuel burning appliance' in Chapter 25 (page 25-24):

Small scale solid fuel burning appliance means an appliance designed to burn solid fuel or a mixture of those fuels for the purpose of domestic space heating with a net heat output of up to 40kW and includes:

- An open fire,
- A pot belly stove,
- A domestic range or stove,
- A woodburner,
- A pellet burner,
- A multi-fuel burner.
- 550. An open fire is incapable of complying with the emission and efficiency standards in X.3.X.1, but my recommendation for removal of this standard, if accepted, would resolve that issue. Few open fires are likely to be built these days, but in the Urban Residential and Coastal Living zones, it would be reasonable for them to comply with the chimney requirements in Schedule 2. In other zones I consider the provisions of the Building Act and the Building Code would be adequate, with the main issues being safety rather resource management ones.

551. I think a reader could easily miss that the above standards apply to open fires. It would be helpful to add a reference 'including any indoor open fire' to the heading of the standard to assist readers. This would not alter its legal effect, but would assist with Plan interpretation.

Recommendation

552. I recommend that in the Rural Zone (3.3.41), Coastal Environment Zone (4.3.40), Rural Living (8.3.17), Business Zones (9.3.8, 10.3.8 & 11.3.6), Industrial Zone (12.3.12), Port Zone (13.3.29), Coastal Marine Area (16.3.19), Open Space 4 Zone (20.3.8) and Airport Zone (23.3.14) standards X.3.X.1 and X.3.X.2 are deleted entirely, and the remaining standards renumbered accordingly.⁸⁵

Discharge of contaminants to air outside the Blenheim Airshed from the burning of solid fuel in any small scale fuel burning appliance.

X.3.X.1	The appliance must comply with the emission, operational and other requirements of Appendix 8 – Schedule 1.
X.3.X.2	The burner must comply with the stack requirements of Appendix 8 – Schedule 2.
X.3.X. 3 1	The appliance must only burn fuels approved for use in the appliance.
X.3.X.4 <u>2</u>	The appliance must be operated so that all reasonable steps are taken to minimise the amount of smoke discharged.

553. I recommend that in the Urban 1, 2 & 3 Zones (5.3.17, 6.3.10) and the Rural Living Zone (8.3.17) standard X.3.X.1 is deleted entirely, and the remaining standards renumbered accordingly: 86

Discharge of contaminants to air outside the Blenheim Airshed from the burning of solid fuel in any small scale fuel burning appliance.

X.3.X.1	The appliance must comply with the emission, operational and other requirements of
Λ.υ.Λ. Ι	The appliance must comply with the chilosion, operational and other requirements of
	Appendix 8 – Schedule 1.

*X.3.X.*21The burner must comply with the stack requirements of Appendix 8 – Schedule 2.

X.3.X.32 The appliance must only burn fuels approved for use in the appliance.

X.3.X.43 The appliance must be operated so that all reasonable steps are taken to minimise the amount of smoke discharged.

554. I recommend that for improved clarity the first sentence of the standard is amended as follows:

Discharge of contaminants to air outside the Blenheim Airshed from the burning of solid fuel in any small scale fuel burning appliance, including any indoor open fire.

⁸⁶ 91.2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 19, 19, 21, 22, 24, 25, 27, 28, 30, 31, 34, 35, 37, 38, 39, 40, 80 & 81 – MDC; 302.1 & 2 – Mark Jeffries

^{85 91.2, 5, 6, 8, 9, 10, 12, 13, 15, 16, 19, 19, 21, 22, 24, 25, 27, 28, 30, 31, 34, 35, 37, 38, 39, 40, 80 &}amp; 81 – MDC; 302.1 & 2 – Mark Jeffries

Matter 5 – Air Discharge Rules – Rural Environment Zone

Overview of Provisions

555. The key concerns in the Rural Zone relate to smoke from open burning and from vegetation clearance. Submissions on small scale solid fuel burners have been addressed under Matter 4 above.

Permitted Rules 3.1.36 and 3.1.37 (outdoor burning/vegetation clearance) - Submissions and Assessment

556. Permitted rule 3.1.36 is:

Discharge of contaminants to air arising from the burning in the open.

- 557. One submission supports the rule and four oppose it.
- 558. **Trustpower** (1201.148) supports the rule, as it recognises that open burning in a rural environment can be a convenient and effective means of disposing of vegetative or garden waste and other non-hazardous material. It wants the rule retained as notified.
- 559. **Brian & Elsie Hall** (1298.1) **and Dawn Rentoul** (1297.1) oppose the standard. They say they burn garden and vegetative material. They say they don't burn contaminants and think the rule will prevent their current burning practice.
- 560. **Trudie Lasham** (357.4 & 5) opposes the rules on outdoor burning (3.1.36) and vegetation clearance burning (3.1.37) and wants them deleted. She is concerned at any rule that allows burn-offs or bonfires on open land in Rarangi. She is concerned about direct health concerns from smoke, and impurities in ash contaminating the shallow unconfined aquifer which is the only source of drinking water to the majority of residents.
- 561. **Federated Farmers** (425.608) opposes the rule. It submits there is a plethora of other burning rules (which it also submits on) and that this rule seems to either contradict them or be irrelevant. It is not clear what can be burnt under this permitted activity. It would appear any material can be burned. However, Federated Famers submits, a few pages further into the Chapter there is a list of materials that are prohibited from being burnt, and therefore this rule appears to be deceptive. The relief sought is unclear. Federated Farmers also submit on rule 3.1.37 (vegetation clearance burning), but the detail of the submission relates to the specific permitted standards in 3.3.37, so that submission point (425.609) is dealt with under that topic.
- 562. I do not think the plan rules are deceptive. Throughout the plan the same structure applies. Permitted activities are listed (3.1, 4.1, etc). Following that, there are permitted standards that apply to all permitted activities, and specific standards that apply to some in this instance, standards 3.3.36.1 and 3.3.36.2 relate to permitted rule 3.1.36. The permitted rule under 3.1 make it clear that the listed activities are permitted if they comply with the standards in 3.2 and 3.3. Materials that may not be burnt are listed under the prohibited rules, in this case 3.7.14.
- 563. A casual reader could miss the prohibited rule, but it is not fair in my view to say the plan is deceptive. It is normal practice to specify prohibited activities separately. The Council could consider cross referencing the prohibited rules but the danger in doing that would be if any cross references were missed, it could create legal or liability issues. A simpler solution would be if the Council prepared information sheets (physical or on its website) on outdoor burning. That could highlight all the relevant provisions, including the materials that cannot be burnt, and also link to the need for fire permits when those apply or any other requirements.
- 564. I think the **Halls** and **Dawn Rentoul** might also have misunderstood the rule, thinking it would prevent their current burning of trimmings and garden waste. Again, reference to 3.3.36 and the prohibited list in 3.7.14 indicates the sort of burning they describe is permitted by the Plan in the Rural Environment Zone.

- 565. **Trudie Lasham**'s concerns about harmful contaminants from open burning entering the unconfined drinking aquifer in my view are unfounded. The list of materials in 3.7.14 prohibit noxious or toxic materials from being burnt. Burning wood and vegetation would not present a significant risk to groundwater. As regards other adverse effects, permitted standard 3.2.8.1 requires that 'smoke must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.
- 566. I therefore do recommend any change to the rules.

Recommendation

567. I recommend that Rules 3.1.36 and 3.1.37 remain as notified.

Permitted Rule 3.1.39 (frost heaters) - Submissions and Assessment

568. Permitted rule 3.1.39 is:

Discharge of contaminants to air from the burning of oil in a frost protection device.

- 569. There are eight submissions in support of the rule, and seeking its retention: Wine Marlborough (431.65), Accolade Wines (457.65), Blind River Irrigation (462.26), Delegat Ltd (473.50), Clintondale Trust/Whyte Trustee Coy (484.65), Indevin Estates (776.39), Longfield Farms (909.56) and Villa Maria (1218.56).
- 570. There are no opposing submissions, and two further submitters in support. The rule must remain as it was notified.

Recommendation

571. That rules 3.1.39 remains as notified.

Permitted Standard 3.2.8.1 (smoke) - Submissions and Assessment

572. Permitted standard 3.2.8.1 is:

Smoke must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.

- 573. **Rarangi District Residents Association** (1089.35) supports the standard on condition it is complied with. They say that has not been the Association's experience. It wants the standard retained.
- 574. **John & Pam Harvey** (430.8) oppose the standard, saying 'smoke knows no boundaries' and they reserve their right to have their house fires burning. It is inferred they want the rule removed.
- 575. **Murray Chapman** (348.37) opposes it, and submits the definitions in the standard are vague. He seeks its deletion.
- 576. The standard does not require all smoke to be contained within the boundary of the property producing it, but rather that smoke that goes beyond the boundary does not have effects that are 'objectionable' or 'offensive'. These are terms on which there is lot of good practice guidance and case law as to their interpretation. I do not consider them vague as suggested by Mr Chapman. Therefore, I do not think the standard imposes an unreasonable restriction on the Harveys having a fire. Equally, it is a reasonable requirement that the fire does not cause adverse effects for their neighbours.
- 577. The Residents' Association support the standard but are concerned about enforcement. I am confident that the standard is enforceable since compliance staff are experienced in making judgements around effects that are offensive or objectionable. If the Association believes dischargers

are not complying with rules, it should complain to the Council and seek attendance by a compliance officer.

578. I do not consider the standard should be deleted or amended.

Recommendation

579. I recommend that Standard 3.2.8.1 remains as notified.

Permitted Standard 3.3.36 (open burning) - Submissions and Assessment

580. Permitted Standard 3.3.36 is:

Discharge of contaminants to air arising from burning in the open

- 3.3.36.1 Only material generated on the same property or a property under the same ownership must be burned.
- 3.3.36.2 The property where the burning is to occur must be located outside of the Blenheim Airshed.
- 581. **Trustpower** (1201.151) supports the standard, as it recognises that open burning in a rural environment can be a convenient and effective means of disposing of vegetative or garden waste and other non-hazardous material. It wants the rule retained as notified.
- 582. **Brian & Elsie Hall** (1298.2) **and Dawn Rentoul** (1297.2) oppose the standard for the reasons outlined under 3.1.36 above (that it will prevent them burning their garden waste). They want it deleted.
- 583. **Horticulture NZ** (769.108) supports it in part. They are concerned that 'under the same ownership' provision in 3.3.36.1 would not allow for burning material generated on a property that was leased but under common management. They see such a situation being akin to management and want 'management or' added to the clause. They also want a new a permitted activity rule to provide for burning of material infected by unwanted organisms.
- 584. As with 3.1.36, I don't support the request by the **Halls** and **Dawn Rentoul** as the standard provides for their burning activity.
- 585. I support making provision for leased land in 3.3.3.6.1 as proposed by **Horticulture NZ**, when the land is under the same management.
- 586. I do not see the need to provide a new permitted rule for burning of infected plant material. In my view, rules 3.1.36 and 3.3.36 on outdoor burning, and 3.1.37 and 3.3.37 (vegetation clearance) already provide for this activity, and prohibited rule 3.7.14 does not prevent it.

Recommendation

587. I recommend that standard 3.3.36.1 is amended as follows:

Discharge of contaminants to air arising from burning in the open

- 3.3.36.1 Only material generated on the same property or a property under the same management or ownership must be burned.⁸⁷
- 3.3.36.2 The property where the burning is to occur must be located outside of the Blenheim Airshed.

^{87 769.108 -} Horticulture NZ

Permitted Standard 3.3.37 (and 19.3.10) (vegetation clearance) - Submissions and Assessment

588. Permitted standard 3.3.37 is:

Discharge of contaminants to air from burning for the purposes of vegetation clearance.

- 3.3.37.1 Burning must not be carried out on Class 7e or Class 8 land when the Fire Weather Index Parameters (as notified by the Rural Fire Authority for the burn area, pursuant to the Forest and Rural Fires Act 1977) for the burn are:
 - (a) drought code 200 or higher,
 - (b) build up index 40 or higher.
- 589. **Federated Farmers** (425.608 & 609) oppose the rule. It submits the standard is not clear for a Plan user, as to what is class 7e or Class 8 land, who determines it and where can this be found in the Plan? The rule references the Rural Fire Authority. There is a plethora of other burning rules (which we also submit on) that this rule seems to either contradict them or be irrelevant. They want the rule to be deleted.
- 590. **Federated Farmers** made a similar submission (425.742) on the identical rule 19.1.12 (presumably it is intended to relate to standard 9.3.10) in the Open Space 3 Zone.
- 591. The same rule has been used for many years in the operative Marlborough Sounds Resource Management (36.1.5.4.1). I am not aware of the rule being problematic. Having said that, I agree that the rule could be better expressed. The 'class' of land in the rule relate to the Land Use Capability (LUC) system. This is a well-established land assessment methodology used throughout New Zealand to determine suitability and vulnerability of land and soils, as well as its long-term capability to sustain one or more productive uses. Land is classified into eight classes accordingly.
- 592. I suggest adding to the rule to provide more clarity.

Recommendation

593. I recommend that standard 3.3.37 is amended as follows:88

Discharge of contaminants to air from burning for the purposes of vegetation clearance.

- 3.3.37.1 Burning must not be carried out on <u>Land Use Capability</u> Class 7e or Class 8 land, <u>as shown as the 'LUC' category on the New Zealand Land Resource Inventory database</u>, when the Fire Weather Index Parameters (as notified by the Rural Fire Authority for the burn area, pursuant to the Forest and Rural Fires Act 1977) for the burn are:
 - (a) drought code 200 or higher,
 - (b) build up index 40 or higher.
- 594. I recommend that the same amendment be made to standard 19.3.10.89

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^{88 425.608 &}amp; 609 - Federated Farmers

^{89 425.742 -} Federated Farmers

Matter 6 – Air Discharge Rules – Coastal Environment Zone

Permitted Rule 4.1.35 (outdoor burning) - Submissions and Assessment

595. Permitted rule 4.1.35 is:

Discharge of contaminants to air arising from the burning in the open.

- 596. **Federated Farmers** (425.692) oppose the rule. Its concerns are as in 3.1.36 above that there are many other burning rules that are either contradictory or irrelevant, and deceptive.
- 597. I do not agree with the submission for the reasons discussed under Topic 3.1.36 /3.1.37 above and I recommend the rule remain unchanged.

Recommendation

598. I recommend that Rule 4.1.35 remains as notified.

Permitted Standard 4.2.5 (smoke) - Submissions and Assessment

599. Permitted Standard 4.2.5 is:

Smoke

- 4.2.5.1 The smoke must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.
- 600. **Michael & Kristen Gerard** (424.144) support in part the standard. They submit that it is very hard to always completely avoid the effects from smoke onto neighbouring properties, and these rules need to be re-worded to reflect that. It is inferred from that their decision sough is to add the heading of the rule The best practicable method must be adopted to avoid smoke.
- 601. Standard 4.2.5.1 recognises the issue raised by the submitter that it is difficult to avoid effects from smoke on other properties. The standard focuses on avoiding effects on neighbouring properties that are 'objectionable' or 'offensive'. I believe that is a sound and tried and tested approach, and the 'best practicable approach' on top of this is not necessary, as the existing standard focuses on avoiding unacceptable effects and not smoke reduction per se, when there may be no adverse effect.
- 602. I support leaving the standard as it is.

603. Recommendation

604. I recommend that standard 4.2.5 remains as notified.

Permitted Standards 4.3.35 & 4.3.36 (outdoor burning / vegetation clearance) - Submissions and Assessment

605. Permitted Standard 4.3.35 is:

Discharge of contaminants to air arising from burning in the open

- 4.3.35.1 Only material generated on the same property or a property under the same ownership must be burned.
- 606. Permitted Standard 4.3.36 is:

Discharge of contaminants to air from burning for the purposes of vegetation clearance.

4.3.36.1 Burning must not be carried out on Class 7e or Class 8 land when the Fire Weather Index Parameters (as notified by the Rural Fire Authority for the burn area, pursuant to the Forest and Rural Fires Act 1977) for the burn are:

- (a) drought code 200 or higher,
- (b) build up index 40 or higher.
- 607. **Michael & Kristen Gerard** (424.169 & 170) support in part both of the above standards. They don't give any supporting reasons, but they want a new standard added to each *All open fires in the Marlborough Sounds must have a fire permit.*
- 608. Fire permits are issued by Fire and Emergency NZ under the Fire and Emergency New Zealand Act 2017. They regulate fire risk not amenity or neighbouring effects. Depending on moisture levels and risk, permits are not required by FENZ for fires in the open at certain times of the year, and they are at others. It is not appropriate in my view for the MEP to include a requirement to have a fire permit for all fires when there is not always such a requirement by FENZ. It would serve no useful resource management purpose, and would be under the control of a third party outside the control of the Council.

Recommendation

609. I recommend that standards 4.3.35 and 4.3.36 remain as notified, except that 4.3.36.1 is amended for clarity as in Topic 3.3.37.

Matter 7 – Air Discharge Rules – Coastal Living Zone

Overview

610. The submissions in this section relate to use of domestic heating fires and outdoor burning. The minimum allotments sizes for the Coastal Living Zone specified in Chapter 24 are between 2000 and 4000m², and 7500m² at Rarangi.

Permitted Rules 7.1.17, 7.1.18 & 7.1.19 (burners, pellet burners & open fires) - Submissions and Assessment

611. Permitted rule 7.1.17 is:

Discharge of contaminants to air from the burning of solid fuel in any small scale fuel burning appliance, except an enclosed pellet burner.

612. Permitted rule 7.1.18 is:

Discharge of contaminants to air from the burning of solid fuel in an enclosed pellet burner.

613. Permitted rule 7.1.19 is:

Discharge of contaminants to air from the burning of solid fuel in any indoor open fire.

- 614. **Kevin & Mary Daly** (432.5, 6 & 7) oppose these three rules. They say they appreciate some areas of the Marlborough Region may have compromised air quality during winter, and that restrictions on home heating may be appropriate. However, given the sparely populated nature of the Sounds and the high cost and often unavailability of electricity, they see no reason for any further restrictions on solid fuel fires in the Marlborough Sounds. The decision they seek is unclear, but it is inferred they want the rules deleted.
- 615. I think the purpose of the rules might have been unclear to the submitters. The three rules enable the discharge to air from enclosed burners, pellet burners and indoor open fires. They permit the activity and the rules do not contain any restrictions or limitations on the activity. If these provisions were removed from the plan, burners and open fires could not be used, which is the opposite of what the submitters are seeking. I recommend against their removal.

Recommendation

616. I recommend that rules 7.1.17, 7.1.18 and 7.1.19 remain as notified.

Permitted Standard 7.3.14 (outdoor burning) - Submissions and Assessment

617. Permitted standard 7.3.14 is:

Discharge of contaminants to air arising from burning in the open.

- 7.3.14.1 Only material generated on the same property or a property under the same ownership can be burned.
- 7.3.14.2 The total volume of material being burned must not exceed 2*m*³.
- 618. Michael & Kristen Gerard (424.180) support the standard and want it retained.
- 619. **Queen Charlotte Sounds Residents Assoc** (504.83) opposes standard 7.3.14.2. They submit that 3m³ is allowed currently, and that that volume is needed to dispose of prunings by Marlborough Lines which they need to burn.
- 620. I am not sure where the 3m³ volume they refer to comes from, as I could not find such a figure in the existing Marlborough Sounds Resource Management Plan. I think the purpose of the rules might have been unclear to the submitters. There nothing in the MEP to prevent people having two bonfires of 2m³, burnt at separate times. Having a volume restriction on each fire assists with better drying and combustion, through having a larger surface area to volume ratio.
- 621. For the above reasons I consider a change to the standard is unnecessary.

Recommendation

622. I recommend that standard 7.3.14 remains as notified.

Matter 8 - Air Discharge Rules - Rural Living Zone

Overview

623. The submissions in this section relate to outdoor burning. The minimum allotments sizes for the Rural Living Zone are 7500m².

Permitted Rule and Standards 8.1.17, 8.2.6 & 8.3.16 (open burning) - Submissions and Assessment

624. Permitted rule 8.1.17 is:

Discharge of contaminants to air arising from burning in the open.

- 625. Permitted standard 8.2.6 is:
 - 8.2.6.1 The smoke must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.
- 626. Permitted standard 8.3.16 is:

Discharge of contaminants to air arising from burning in the open.

- 8.3.16.1 The property where the burning is to occur must be located outside of the Blenheim Airshed.
- 8.3.16.2 Only material generated on the same property or a property under the same ownership can be burned.
- 8.3.16.3 The total volume of material being burned must not exceed 2*m*³.

- 627. **Shaun & Jane Peoples** (450.12) oppose the rule 8.1.17 and want it deleted. They also support in part standard 8.2.6.1 (450.2). They are concerned about what measures are in place to ensure vineyards and farmers are complying. They say they have been engulfed with fumes and smoke for days on end by (submitter stated a specific company) burning off a huge area of dead willow trees. They would like to see some sort of enforcement in place bonds and notification to residents when any burn-off will be happening or spraying so that they are aware of what is happening and kept informed.
- 628. They oppose (450.13) the permitted standard 8.3.16.2, saying that commercial properties or landowners should not be allowed to bring materials from another of their sites for burning. They want the words 'or a property under the same ownership' removed. The **Peoples** (450.14) also oppose standard 8.3.16.3 and say they want strict rules to protect residents from the effects of big burn-offs. The specific relief sought is not stated.
- 629. **Perry Mason Gilbert** (192.8) opposes standard 8.3.16.3. He says there are often significant amounts of cuttings and pruning requiring burning which need storing (and added to) until dry and burning in the winter months. He wants the size of a burn pile increased from 2m³ to 8m³. He would also like to see Blenheim protected from such burns, but including a prohibition on burning during May to August.
- 630. **Rarangi District Residents Assoc** (1089.38) support 8.2.6.1, on condition it is complied with. They want the standard retained.
- 631. It is clear from the submissions of **Shaun and Jane Peoples** that large scale burn-offs are particularly upsetting for them. A burn-off of the scale discussed would require a resource consent under the rules for the Rural Living Zone as Standard 8.3.16.3 limits burns to a maximum volume of 2m³. If a consent was required, consideration could be given to the requirement to notify residents or other conditions. Possibly the fire was occurring on nearby Rural Environment land? Whatever the case, under the MEP rules in both zones the smoke produced must not be objectionable or offensive beyond the boundary of the site of the burn. If those provisions were being breached it is an enforcement matter, and the Council is required to enforce its own plan. I accept that the Peoples experienced effects that they found adverse, but I consider the resolution of that lies in enforcement, and not in the rule and standard in this particular zone.
- 632. In this zone, I don't support removing the permitted rule as **Mr and Mrs Peoples** suggest. Burning of vegetative material is sometimes necessary on a rural residential property. The minimum site area in this zone is 7500m² which provides reasonably separation between neighbours to limit effects. The maximum volume that can be burnt is quite small and this is supported by the 'not objectionable or offensive' requirement. I consider the standards applying are appropriate for the activity and the zoning. As noted, compliance and enforcement, however, seems to be the key. I do not see the need to remove the ability to move material from one site to another one in common ownership. The 2m³ limitation on burning means that large scale aggregation of material for burning is unlikely to occur.
- 633. I do not support **Mr Gilbert's** proposal to increase the volume able to be burnt to 8m³. Multiple piles of 2m³ would still meet his needs, but give cleaner and quicker burning for each event, with a better outcome. As discussed earlier, at paragraph 166, at this stage the contribution to Blenheim's winter PM₁₀ problem from burning in the surrounding area has not been determined. At this stage, there is not sufficient evidence to indicate controls on open burning in the nearby rural and rural residential areas is necessary and warranted.
- 634. I therefore support retaining the rule and the standards without change.

Recommendation

635. I recommend that rule 8.1.17, 8.2.6.1 and 8.3.16 remain as notified.

Matter 9 - Air Discharge Rules - Industrial 1 & 2 Zone

Overview of Provisions

636. This matter concerns submissions on rules applying within the Industrial 1 and 2 Zone, except that submissions on the internal combustion rule (12.3.2) and the external combustion rule (12.3.9) are dealt with under their own topics (Matter 15 and Matter 16 respectively) along with submissions on the same rules in the Port, Lake Grassmere and Airport Zones.

Permitted Rules 12.1.11 & 12.1.12 (heat and vapour) - Submissions and Assessment

- 637. Permitted rule 12.1.11 is for discharge of heat, energy and vapour to air. Rule 12.1.12 permits discharge from stationary internal combustion engines.
- 638. **Z Energy** (1004.60 & 61) supports both rules and seeks their retention as notified. Te Ātiawa further submitted in opposition.
- 639. There being no scope in the original submission to change the rule, they must remain unchanged.

Recommendation

640. That rule 12.1.11 and rule 12.1.12 remain as notified.

Permitted Standards 12.3.8 (coating materials) - Submissions and Assessment

641. Standard 12.3.8 is:

Discharge of contaminants to air from the application of coating materials (including paints and powders) through spray application undertaken within an enclosed booth located in the Industrial 2 Zone.

- 12.3.8.1 The coating material must not contain any di-isocyanates. 12.3.8.2 The total amount of coating material sprayed on the property must not exceed 10 litres per hour. 12.3.8.3 The spray booth must be fitted with an air extraction system which vertically discharges all contaminants and exhaust air through an emission stack. 12.3.8.4 The emission stack must be a height of at least 2m above the ridgeline of the roof of a building, land or other substantial structure within a radius, from the stack, of 35m. 12.3.8.5 The discharge must be directed vertically into the air and must not be impeded by an obstruction above the stack which decreases the vertical efflux velocity, below that which would occur in the absence of such obstruction. The discharge must be through a filtration system that removes at least 95% of 12.3.8.6 particulate matter from the discharge.
- 642. **Timberlink** (460.12) support the provision in part. It submits the standard is not effects-based and does not recognise that there are methods for avoiding, remedying or mitigating effects, enabling larger volumes of product to be used. It says the limitation of 10 litres per day is not practicable or reasonable, and nor is the requirement to remove 95% of particulate. Timberlink request 'amend the requirement to provide an alternative of compliance with the national air quality standards' but beyond that give not specifics.
- 643. Standard 12.3.8.2 provides for 10 litres per <u>hour</u> of coating material to be applied, not 10 litres per <u>day</u> as in Timberlink's submission. That is 240 litres per day, which is my view is very enabling the

Canterbury Regional Air Plan, for example, only allows 10 litre per day for solvent based material or 50 litres per day for water-based material. I am satisfied that the standard relating to particulate removal is also reasonable and note the Canterbury plan uses the same 95% standard.

Recommendation

644. I recommend that standard 12.3.8 remains as notified.

Matter 10 - Air Discharge Rules - Marina Zone

Overview

- 645. Rules 15.4.1 and 15.4.2 in the Marina Zone are controlled activity rules (with standards) for spray application of paint or adhesive material outside of, and within, a spray booth respectively.
- 646. Rule 15.4.3 is a controlled activity rule for water blasting or dry abrasive blasting, but not from a mobile source.

Controlled Activity Rule 15.4.1 (spray application) - Submissions and Assessment

647. Controlled rule 15.4.1 is:

Discharge of contaminants to air from the spray application of paint or adhesive coating materials of surfaces not within a spray booth, other than a road.

Standards and terms:

- 15.4.1.1 There must not be more than 5 litres of coating material applied per hour and not more than 20 litres of coating material applied per month.
- 15.4.1.2 Where there is a sensitive receptor on another property within 100m of where the spray coating is to occur, there must not be more than 0.5 litre of coating material applied per hour and not more than 5 litres of coating material applied per month.
- 15.4.1.3 Spray coating must not occur on surfaces of fixed structures that can practicably be dismantled and transported to a spray booth.
- 15.4.1.4 The coating material must not contain di-isocyanates or organic plasticisers.
- 15.4.1.5 The discharge must occur at least 10m from any sensitive receptor beyond the boundary of the property where spray coating is undertaken.
- 15.4.1.6 There must be no dispersal or deposition of particles beyond the boundary of the property where the discharge originates.

Matters over which the Council has reserved control:

- 15.4.1.7 The standard of emission.
- 15.4.1.8 Recovery of toxic materials from the blasting enclosure.
- 15.4.1.9 Methods for disposal of toxic materials.
- 15.4.1.10 Requirement for monitoring.
- 648. **Soundsmarine Ltd** (1155.1 & 4) oppose the rule, seeking its deletion, or if it is not deleted, changes to the volumes that may be applied in 15.4.1.1. The submitter has not proposed alternative quantities. Their concern is that their current consents would become a Discretionary Activity (presumably because the amounts sprayed would exceed the thresholds in the controlled activity rule) and they are concerned about the uncertainty inherent in the discretionary consent process. Port Marlborough in its further submission supports Soundsmarine.

649. In my view, the maximum amount that may be applied in an hour (5 litres) is reasonable, but the monthly limit of 20 litres is relatively low. A ratio of hourly to monthly that typically is used in the Plan is 1:10 – that is, the monthly threshold is 10 times the hourly amount. Hence, I consider that a monthly rate of 50 litres would be more appropriate. I do not support deleting the rule as that could expose other sites or other users of the Marina to unregulated and unacceptable levels of solvents or coatings.

Recommendation

650. I recommend that standard 15.4.1.1 is amended as follows:

There must not be more than 5 litres of coating material applied per hour and not more than 20 50 litres of coating material applied per month.⁹⁰

Controlled Activity Rule 15.4.2 (spray application) - Submissions and Assessment

651. Controlled rule 15.4.2 is:

Discharge of contaminants to air from the application of coating materials (including paints and powders) through spray application undertaken within an enclosed booth.

Standards and terms:

- 15.4.2.1 Coatings that contain di-isocyanates must not be used.
- 15.4.2.2 The total amount of coating material sprayed at one place must not exceed 10 litres per hour.
- 15.4.2.3 The spray booth must be fitted with an air extraction system vertically discharging all contaminants and exhaust air to an emission stack.
- 15.4.2.4 The emission stack must be a height of at least 2m above the ridgeline of the roof of any building, land or other substantial structure within a radius, from the stack, of 35m.
- 15.4.2.5 The discharge must be directed vertically into the air and must 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.
- 15.4.2.6 The discharge must be through a filtration system that removes at least 95% of particulate matter from the discharge.

Matters over which the Council has reserved control:

- 15.4.2.7 The standard of emission.
- 15.4.2.8 Recovery of toxic materials from the blasting enclosure.
- 15.4.2.9 Methods for disposal of toxic materials.
- 15.4.2.10 Requirement for monitoring.
- 652. **Soundsmarine Ltd** (1155.2, 5 & 6) oppose the rule, seeking its deletion, or alternatively, that standard 15.4.2.1, which prevent use coatings containing di-isocyanates is deleted. They also seek that the litres per hour be increased in standard 15.4.2.2. Port Marlborough further submitted in support.
- 653. Deleting the rule would result in spray activities requiring a discretionary resource consent, which would be contrary to the outcome the submitter appears to be seeking. I support retaining the rule as it provides important standards within which the controlled activity can occur. However, I do support removing standard 15.4.2.1 as di-isocyanate use can be regulated appropriately within a spray booth. A proviso however would be that if di-isocyanates were used the booth would need to be fitted with a suitable filter system to minimise air discharges of d-isocyanates. I believe such a change would be within the scope of the submission i.e. between the status quo and complete removal of the di-isocyanate clause.

^{90 1155.1 &}amp; 4 - Soundsmarine Ltd

654. I consider the amount of coating allowed per hour in 15.4.2.2 is appropriate. The submitter has provided no information to support why it is not, or what other level might be substituted.

Recommendation

- 655. I recommend that standard 15.4.2.1 is deleted entirely, and the remaining standards are renumbered accordingly.
- 656. I recommend that the existing standard 15.4.2.3 is amended as follows:
 - 15.4.2.3 The spray booth must be fitted with an air extraction system vertically discharging all contaminants and exhaust air to an emission stack, and if coatings containing discovanates are used the extraction system must include a suitable filter system to minimise discharges to air of di-isocyanates.⁹¹

Controlled Activity Rule 15.4.3 (water or dry abrasive blasting) - Submissions and Assessment

657. Controlled rule 15.4.3 is:

Discharge of contaminants to air from water blasting or from dry abrasive blasting, other than from the use of a moveable source from any industrial or trade premise.

Standards and terms:

- 15.4.3.1 There must be no discharge of water spray, dust or other contaminant beyond the boundary of the property.
- 15.4.3.2 Where the discharge occurs from public land there must be no discharge of water spray, dust or other contaminant beyond 50m from the discharge point or beyond the boundary of the public land, whichever is the lesser.
- 15.4.3.3 There must be no discharge of water spray, dust or other contaminant into the coastal marine area.
- 15.4.3.4 The surface to be blasted must not contain any hazardous substances, including lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- 15.4.3.5 For dry abrasive blasting all items must be blasted within an abrasive blasting enclosure and the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.
- 15.4.3.6 For dry abrasive blasting the free silica content of a representative sample of the blast material must be less than 5% by weight.

Matters over which the Council has reserved control:

- 15.4.3.7 The standard of emission.
- 15.4.3.8 Recovery of toxic materials from the blasting enclosure.
- 15.4.3.9 Methods for disposal of toxic materials.
- 15.4.3.10 Requirement for monitoring.
- 658. **Soundsmarine Ltd** (1155.3) oppose the rule, seeking its deletion. No specific reasons are given, apart to those under 15.4.1.
- 659. As discussed, deleting the rule would result in the activities requiring a discretionary resource consent, which would be more onerous for the submitter. I support retaining the rule as it provides important

^{91 1155.2 &}amp; 5 - Soundsmarine Ltd

standards which then allow controlled activity applications to be made: noting that controlled activity consents must be granted (if the application meets the stated standards).

Recommendation

660. I recommend that rule 15.4.3 is retained as notified.

Matter 11 – Air Discharge Rules - Open Space 3 Zone

Permitted Activity Rule 19.1.13 (outdoor burning) - Submissions and Assessment

661. Rule 19.1.13 permits the following:

Discharge of contaminants to air arising from burning in the open.

- 662. **Federated Farmers** (425.743) oppose the rule. As under 3.1.36 above (Rural Zone), it submits there is a plethora of other burning rules (which it also submits on) and that this rule seems to either contradict them or be irrelevant. It is not clear to them what can be burnt under this permitted activity. It would appear any material can be burned. However, a few pages further into the Chapter there are a list of materials that are prohibited from being burnt, and therefore this rule appears to be deceptive. The relief sought is unclear.
- 663. As discussed under 3.1.36, I do not consider the plan rules to be deceptive. Throughout the plan there is a base permitted rule (as in this case). There are then permitted standards that apply to all permitted activities, and specific standards that apply to some in this instance, standards under 19.3.11. The permitted rule under 19.1 makes it clear that the listed activities are permitted if they comply with the standards in 19.2 and 19.3. There are the materials that may not be burnt under the prohibited rules, in this case 3.7.14.
- 664. A casual reader could miss that rule, but it is not fair in my view to say the plan is deceptive. It is normal practice to specify prohibited activities separately. The Council could consider cross referencing the prohibited rules but the danger in doing that would be if any cross references were missed, it could create legal or liability issues. A simpler solution would be if the Council prepared information sheets (physical or on its website) in outdoor burning. That could highlight all the relevant provisions, including the materials that cannot be burnt, and also link to the need for fire permits when those apply.
- 665. Note the Federated Farmers submission 425.742 on rule 19.1.12, relating to vegetation burning and class 7e and 8 land, is dealt with under Topic 3.3.37 above.

Recommendation

666. I recommend that rule 19.1.13 is retained as notified.

Matter 12 - Air Discharge Rules - Floodway Zone

Discretionary Activity Rule 21.4.4 - Submissions and Assessment

667. Rule 21.4.4 provides as a discretionary activity:

Any discharge of contaminants into or onto land, or to air, not provided for as a Permitted Activity or limited as a Prohibited Activity.

- 668. Constellation Brands NZ (631.41) supports rule 21.4.4 and seeks its retention as notified.
- 669. **MDC** (91.119) supports the rule in part. It submits that there is no Discretionary Activity rule that enables a third party to apply for resource consent for the discharge of contaminants into or onto land, or to air in the Floodway Zone. Rule 21.4.4 enables only the Council to seek a resource consent, as the paragraph immediately following the Chapter 21 heading states "unless explicitly specified, these rules apply to river control and drainage works only when carried out by Marlborough District Council exercising its functions under..[rivers control legislation]."
- 670. The submission seeks that the rule be amended as follows: *Any discharge of contaminants into or onto land, or to air, by any person, not provided for as a Permitted Activity or limited as a Prohibited Activity.*
- 671. Certain rules in the Floodway Zone provide for persons other than MDC to undertake permitted activities e.g. 21.1.16, 21.1.17 and 21.3.16, through the addition of the words 'by any person'. I agree there is a problem with the discretionary rule in question, not allowing persons other than MDC to apply for a discharge permit under 21.4.4.
- 672. The issue was considered by the Hearing Panel under Topic 9: Natural Hazards in relation to similar concerns by MDC in relation to Rule 21.4.2 and 21.4.3. In the section 42A report on that hearing Paul Whyte considered this at paragraphs 420 to 424, and recommended at paragraph 441 that a new rule be added under 21.4 Discretionary Activity:

21.4.5 Any activity provided for as a Permitted Activity undertaken by any person other than Marlborough District Council.

- 673. I support that amendment as it would also resolve the issue raised here by MDC (91.119) in relation to 21.4.4.
- 674. I note that Prohibited Rule 21.5.1 prohibits the burning of certain materials, and means an application for resource consent cannot be made for such activities. As currently worded, this rule only applies to MDC. It would not prohibit a party other than MDC from burning these materials, or seeking resource consent to burn them. I think this is likely a drafting oversight. As a consequential amendment to the relief sought in 91.119, I recommend, if the Hearing Panel is so minded, that the words 'by any person' be added to the introductory sentence to the rule to bring it into line with the proposed revision to 21.4.

Recommendation

- 675. I recommend that rule 21.4. is amended by adding a new rule (as recommended in Hearing Report 9: Natural Hazards) as follows:
 - 21.4.5 Any activity provided for as a Permitted Activity undertaken by any person other than Marlborough District Council.92
- 676. I recommend that the Hearing Panel consider the following consequential amendment to Prohibited Rule 21.5.1

⁹² 91.119 - MDC

21.5.1 Discharge of contaminants to air <u>by any person</u> arising from the burning of any of the following materials:

Matter 13 – Discharge Rules – Lake Grassmere Salt Works Zone

Permitted Activities 22.1.18 (water and abrasive blasting) - Submissions and Assessment

677. Rule 22.1.18 permits:

Any discharge of contaminants to air from water blasting and from dry abrasive blasting, other than from the use of a moveable source.

- 678. **Dominion Salt Ltd** (355.10) support the rule in part. They want the words 'other than' removed from the 'use of a moveable source', saying it is unclear why that restriction is desirable or necessary.
- 679. Water blasting the exterior of plant or equipment generally requires the use of mobile equipment, and permitted standards in 22.3.16 appear to reflect that. Dry abrasive blasting has more potential for adverse environmental effects, but standard 22.3.16 requires this to occur in a blasting enclosure with a filtered extraction system. Generally, these are fixed plant, but if there were a mobile booth that met the permitted standard, then I see no reason to restrict that.
- 680. I am inclined to support the submission, given the rule applies to a zone with a dedicated purpose. However, I see problems in removing just the words 'other than' as the rule would then read 'Any discharge of contaminants to air from water blasting and from dry abrasive blasting, other than from the use of a moveable source'. That change would then restrict non-mobile water blasting or abrasive blasting, which I do not think was the intent of the submission. I recommend removing the entire clause starting with 'other than'.

Recommendation

681. I recommend that rule 22.1.18 is amended as follows:

Any discharge of contaminants to air from water blasting and from dry abrasive blasting, other than from the use of a moveable source.93

Matter 14 - Discharge Rules - Airport Zone

Overview

682. The Airport Zone applies to the Blenheim Airport, Omaka Airfield, and Picton Airport in the Koromiko Valley.

Permitted Standard 23.3.10 (water and dry abrasive blasting) - Submissions and Assessment

683. Standard 23.3.10 is:

Discharge of contaminants to air from water blasting or from dry abrasive blasting, other than from the use of a moveable source from any industrial or trade premise.

^{93 355.10 -} Dominion Salt Ltd

- 23.3.10.1 There must be no discharge of water spray, dust or other contaminant beyond the boundary of the property.
- 23.3.10.2 Where the discharge occurs from public land there must be no discharge of water spray, dust or other contaminant beyond 50m from the discharge point or beyond the boundary of the public land, whichever is the lesser.
- 23.3.10.3 There must be no discharge of water spray, dust or other contaminant into the coastal marine area.
- 23.3.10.4 The surface to be blasted must not contain any hazardous substances, including lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- 23.3.10.5 For dry abrasive blasting all items must be blasted within an abrasive blasting enclosure and the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.
- 23.3.10.6 For dry abrasive blasting the free silica content of a representative sample of the blast material must be less than 5% by weight.
- 684. **NZDF** (992.86) oppose standard 23.3.10.4. It submits that the requirement for the surface to be blasted not to contain "any hazardous substances" is overly onerous and impractical. Hazardous substances are defined as having the same meaning as in Section 2 of the Hazardous Substances and New Organisms Act 1996 (HSNO). NZDF says many of the HSNO classifications are not relevant to the environmental effects of discharges to air (for example, many surface coating materials are classed as Class 3, flammable materials that is, hazardous substances). The rule, NZDF says, should relate to the presence of appreciable quantities of hazardous substances in the discharge to air. It seeks amendment of 23.3.10.4 to refer to there being no noxious or dangerous effects of the discharge to air, or other relief that achieves the same outcome.
- 685. I agree that the reference to hazardous substances is too broad. I would support removing the words 'any hazardous substances including' so that is focuses on heavy metals which are the main contaminants of concern.

Recommendation

- 686. I recommend that rule 23.3.10.4 is amended as follows:
 - 23.3.10.4 The surface to be blasted must not contain any hazardous substances, including lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.⁹⁴
- 687. As a consequential amendment, to improve the operation of the plan, I recommend that same amendment is made to the water/abrasive blasting rule wherever it appears in other zones (that is, Volume Two, Chapters 12, 13, 15 and 22) as well as to the recommended new rules for Chapter Two and Chapter 3 (Matter 19 below).

Permitted Standards 23.3.11 (spray and powder coating – within booth) - Submissions and Assessment

688. Standard 23.3.11 is:

Discharge of contaminants to air from the application of coating materials (including paints and powders) through spray application undertaken within an enclosed booth.

23.3.11.1 Coatings that contain di-isocyanates must not be used.

^{94 992.86 -} NZDF

- 23.3.11.2 The total amount of coating material sprayed at one place must not exceed 10 litres per
- 23.3.11.3 The spray booth must be fitted with an air extraction system vertically discharging all contaminants and exhaust air to an emission stack.
- 23.3.11.4 The emission stack must be a height of at least 2m above the ridgeline of the roof of any building, land or other substantial structure within a radius, from the stack, of 35m.
- 23.3.11.5 The discharge must be directed vertically into the air and must 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.
- 23.3.11.6 The discharge must be through a filtration system that removes at least 95% of particulate matter from the discharge.
- 689. **NZDF** (992.87) oppose standard 23.3.11.2. It submits there is no basis for the proposed limit of 10 litres per hour, and that it is inconsistent with Policy 15.3.5 (a) which seeks to allow discharges from industrial or trade premises/processes that have no more than minor effects on the environment. NZDF seek deletion of standard 23.3.11.2.
- 690. As discussed under Topic 15.4.2, I consider the amount of coating allowed per hour is appropriate. The submitter has provided no information to support why it is not appropriate or what an alternative level might be along with evidence to support that a higher level would have no more than minor effects.

691. I recommend that standard 23.3.11 is retained as notified.

Permitted Standards 23.3.12 (spray and powder coating - outdoors) - Submissions and Assessment

- 692. Standard 23.3.12 relates to the spray application of paint or adhesive coating materials to surfaces not within a spray enclosure (other than on a road). Standard 23.3.12.6 is *There must be no dispersal or deposition of particles beyond the boundary of the property where the discharge originates.*
- 693. **NZDF** (992.88) oppose the standard and seek it be deleted. It says the requirement to be no dispersal or deposition of particles beyond the site boundary is overly onerous and impractical.
- 694. While I generally agree that it is adverse effects that are objectionable or offensive, or dangerous or noxious beyond the boundary that are of concern, in my view the threshold for paint and coating materials has to be different. A small amount of paint on a neighbour's car or house would be too much. In this case I support the standard as it is, all the more so in that airfields are large sites within which it ought to be possible to find a spray location sufficiently distant from the boundary to prevent effects spilling over the boundary.

Recommendation

695. I recommend that standard 23.3.12.6 is retained as notified.

Permitted Standards 23.3.13 (composite or plastic production) - Submissions and Assessment

696. Standard 23.3.13 is:

Discharge of contaminants to air from the production of fibreglass and other composite materials or from the production of plastic products and plastic moulding operations.

23.3.13.1 The fibre glassing must be undertaken inside a booth equipped with filtration, extraction and dispersion mechanisms to ensure 95% particulate removal.

23.3.13.2	The total amount of plastics moulded on the site must be less than 500kg per hour.
23.3.13.3	The total amount of fibreglass and resin used on the site must not exceed 50kg per hour.
23.3.13.4	The total mass of organic material discharges from the site must be less than 5kg per day.
23.3.13.5	A point of discharge to air must be 2m above the highest point of the building containing the operation or any building located within a radius of 2.5 times the height of the discharge.
	23.3.13.2 23.3.13.3 23.3.13.4 23.3.13.5

697. **NZDF** (992.89) oppose standard 23.3.13.4 and seek it be deleted. It says the limit on the "total mass of organic material discharges from the site" is inappropriate. It does not relate to discharges to air, so could be interpreted as referring to any type of organic materials (such as kitchen scraps), and they submit it is not clear how compliance with this limit could be demonstrated and therefore it is impractical and unenforceable.

The air discharge must be vertical.

698. I agree that the standard is unclear and confusing. I cannot see what the standard is seeking to achieve. In my view, the other standards in the rule adequately restrict the volume of material produced on the site, as a proxy to management of the environmental effects. I support the removal of the standard sought.

Recommendation

23.3.13.6

699. I recommend that standard 23.3.13.4 (*The total mass of organic material discharges from the site must be less than 5kg per* day) is deleted, and that the remaining standards are renumbered accordingly.⁹⁵

Matter 15 - Internal Combustion – Industrial, Port, Lake Grassmere and Airport Zones

Overview of Provisions

- 700. The permitted standards applying to discharge to air from internal combustion engines (stationary ones) appear in identical form in the Industrial 1 & 2, Port, Lake Grassmere Salt works and the Airport zones as 12.3.2, 13.3.25, 22.3.13 and 23.3.9 respectively.
- 701. Submissions concerning these rules are dealt with together below, along with one submission on the permitted activity rule in the Port Zone.

Permitted Activities 13.1.37 (internal combustion engines) - Submissions and Assessment

702. Permitted rule 13.1.37 is allows:

Discharge of contaminants to air from combustion within a stationary internal combustion engine (i.e. internal combustion).

703. **KiwiRail** (873.157) supports the rule in part. It wants it to cover vehicles with internal combustion engines that are moving, such as trains, ferries and support and other vehicles. KiwiRail notes Resource Management (Marine Pollution) Regulations 1998, and in particular regulations 15 and 16 and Schedule 4, whereby discharges from ships under propulsion are permitted. Therefore, it assumes the rule does not include ferries and only restrict trains and vehicles in motion. Te Ātiawa further submitted in opposition, and Port Marlborough in support.

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^{95 992.89 -} NZDF

- 704. This is a significant issue, noting NZTA raises it also (under Matter 19). The MEP as drafted makes any discharge to air, whether mobile or not, that is not a permitted, controlled or prohibited activity, to be a discretionary activity requiring resource consent.
- 705. I support the submission, but believe the best way to address it is in the general rule. I recommend a new rule under Matter 19, to provide for discharges from moving vehicles, across all zones and roads.

706. Under Matter 19 below (New rule (mobile sources)), I recommend that a new rule be added in Volume 2, Chapter 2 to permit discharges to air from mobile internal combustion engines.⁹⁶

Permitted Standards 12.3.2, 13.3.25, 22.3.13 & 23.3.9 (stationary internal combustion engines) - Submissions and Assessment

707. The specific permitted activity standards relate to discharges from internal combustion engines which are stationary. These are usually to run stand-by generators on worksites in the event of a power outage. They usually run for short periods of time until power is restored, or for periodic testing. The standard is reproduced below:

Discharge of contaminants to air from combustion within a stationary internal combustion engine (i.e., internal combustion).

- X.3.X.1 The fuel used in the engine must be gas, LPG, petrol, diesel, vegetable oils or alcohol.
- X.3.X.2 Fuel containing sulphur at levels greater than 0.05% by weight must not be burned.
- X.3.X.3 The power output of the engine must not exceed 400kW, this limit applies to the total heat output from a site.
- X.3.X.4 If the power output of the engine is between 30kW and 400kW:
 - (a) the engine must not be operated for a total of greater than 5 hours in any 24-hour period; and
 - (b) if the engine is in a fixed location, the stack must comply with the requirements of Appendix 8 Schedule 5.
- X.3.X.5 Where more than one fuel type is used on the property, the combined heat output must not exceed the lowest MW or kW threshold of any of the fuel types used.
- 708. **Z Energy, Mobil & BP** (1004.69) support the provision in part. They say the standards do not recognise the need for emergency generators to be used during disruption to the power network. They submit that service station fuel tanks provide a necessary fuel reserve that is easily utilised in emergency situations, with generators. Fuel stored at service stations can be used to fuel a generator to provide emergency power generation in emergencies and unforeseen circumstances when electricity connection is not available. They submit that it is essential to be able to use the fuel source in an emergency for more than five hours a day. It is not realistic to seek resource consent in emergency situations and as such it is appropriate for the zone standards to not apply. The oil companies propose the following words are added at the end of the rule: Exception: The above standards 12.3.2.2 12.3.2.5 do not apply to combustion to provide emergency power generation provided for within the general rules.
- 709. **GBC Winstone** (749.5) opposes standard 13.3.25.4 and is similarly concerned that 5 hours a day may not be enough if a generator has to be run during a power outage. It seeks deletion of clause (a) or the inclusion of a new permitted activity rule 'Discharges of contaminants to air from the combustion of fuel for the purpose of electricity generation during mains power unavailability'.
- 710. **Fonterra** (1251.145) opposes standard 12.3.2.2, saying the sulphur levels of 0.5% are too high and should reflect the current NZ diesel standard of 0.001% (10ppm). Fonterra also submit that the

^{96 873.157 -} KiwiRail

- references to 'power output' in ought to be 'net energy output' as that is a more correct way of expressing the output.
- 711. **EnviroNZ** (1262.3 & 4) support the standard in part. It wants reprocessed oil (as defined by MfE in HSNO COP63) included in the list of permitted fuels in X.1 (i.e. X.3.X.1), and relaxation of the sulphur concentration limits to cater for reprocessed oil. EnviroNZ does not state a sulphur level that it wants to apply.
- 712. **NZDF** (992.84 & 85) opposes rule 23.3.9. It is concerned with the suite of standards, including but not limited to:
 - The upper limit of 400kW for internal combustion devices as a permitted activity is very low given the level of effects associated with internal combustion compared to those for external combustion. The operative plan provides for discharges from fuel burning equipment up to 10MW or 50MW (depending on fuel type) as permitted or controlled activities subject to varying stack height requirements. The operative plan approach is efficient and effective as it provides certainty for activities that can manage their effects appropriate stack height.
 - The proposed rule framework is likely to require resource consents for many existing permitted activities and/or require discretionary activity consents for many controlled activities. There is no evaluation of the costs and benefits of these significant changes in the S32 report. The rule framework is inconsistent with proposed Policy 15.3.5 (a) which seeks to allow discharges of contaminants into air from industrial or trade premises or industrial or trade processes that have no more than minor adverse effects on the environment as permitted activities.
 - These rules could be interpreted as capturing emissions to air from aircraft engines, particularly where these are stationary because they have been removed from an aircraft and are undergoing maintenance or testing.
 - These rules will also cover emergency electricity generators. It is not possible to anticipate
 whether a limit of 5 hours in any 24 hour period can be met for emergency electricity generation as
 it is dependent on the duration of the power outage.
- 713. **NZDF** seek re-drafting of the rule framework, so that it is technically correct and not more onerous than the provisions of the operative plan, to provide an exemption for electricity generation, and to provide an exemption for discharges to air from aircraft engine maintenance and testing.
- 714. **NZDF** submit that standard X.5 is redundant as there are not separate thresholds in the rule for different fuel types, and they want the standard deleted.
- 715. **NZDF** is concerned that the rule could capture emissions from aircraft engines, particularly when they are removed for maintenance and testing. I think that interpretation is unlikely, but an addition could be made to the definition of 'internal combustion' on page 25-11 (MEP Definitions) to avoid the potential for ambiguity, as follows: 'A stationary internal combustion engine is one that is fixed in place or to the device to which it provides power, but it does not provide propulsion to the device. An engine in a usually mobile vehicle which is being tested during repair and maintenance whether in the vehicle or temporarily removed is not a stationary internal combustion engine for the purposes of this Plan'.

Analysis

- 716. I support the need to provide more scope for use of generators in an emergency. A significant power outage or civil defence emergency could require running of generators for more than the 5 hours allowed. This time limit is important to retain, however, as the rule can apply to a range of potential activities, not just emergency electricity generation. For example, when spot prices of electricity are high, businesses can find it cheaper to run their own generator, and without a time restriction on the activity, that can lead to adverse effects on air quality and noise amenity. An exception for emergency general is warranted and, as discussed under 13.1.37, under Matter 19 I recommend a rule is inserted into the General Rules in Chapter 2 to provide for this. I support the addition proposed by the oil company submitters cross referencing and exemption to a new General Rule.
- 717. I support the change in the sulphur level requested by **Fonterra** as that is the level set in the NZ Engine Fuel Specifications for diesel and biodiesel. A lower sulphur level produces less sulphur dioxide and less PM₁₀ being discharged during combustion. I do not support increasing the level as

sought be **EnviroNZ** as that would be inconsistent with the fuel regulations for diesel. Nor do I support including reprocessed (re-refined) oil as a fuel as a permitted activity. As the **EnviroNZ** submission suggests, such fuel cannot meet even the 0.5% sulphur level, let alone the 0.001% in the Engine Fuel Specifications (for diesel). If reprocessed oil is to be used in stationary internal combustion engines, in my view that should be considered as a discretionary resource consent so that issues relating to sulphur or other contaminant levels in the oil can be considered, along with their potential adverse effects in the environment and any beneficial effects for using a potential waste product.

- 718. I agree that 'net energy output' is a more correct expression than 'power output'.
- 719. I agree that standard X.5 is redundant and should be deleted. The total output of the site is addressed in standard X.3 *The power output of the device must not exceed 400kW, this limit applies to the total heat output from the site.*
- 720. Finally, **NZDF** consider the 400kW limit provided in standard 23.3.9.3 is too low, and cites the much higher limits provided for external combustion for similar fuels in rule 23.3.8. However, the rules provide for different types of activities. The internal combustion rule allows only 5 hours of operation over a 24-hour period. It is doubtful anyone would install a 10MW (i.e. very large and expensive engine) for such limited operation. Also, a very large engine would have other adverse effects, not the least of which would be noise. The 400kW is appropriate in my view for the most activities under this rule. If more capacity was required, because it had to serve a very large site, then a resource consent could be sought, which would allow consideration of potential environmental impacts such as noise or dispersion of the discharge plume.

Recommendation

721. I recommend that standards 12.3.2, 13.3.25, 22.3.13 & 23.3.9 are amended, including with consequential amendments, as follows:

Discharge of contaminants to air from combustion within a stationary internal combustion engine (i.e. internal combustion).

- X.3.X.1 The fuel used in the engine must be gas, LPG, petrol, diesel, vegetable oils or alcohol.
- X.3.X.2. Fuel containing sulphur at levels greater than <u>10ppm (or 0.001%)</u> 0.05% by weight must not be burned. ⁹⁷
- X.3.X.3. The <u>net energy power</u> output of the engine must not exceed 400kW, this limit applies to the total heat net energy output from a site.
- X.3.X.4. If the net energy power output of the engine is between 30kW and 400kW: 98
 - (a) the engine must not be operated for a total of greater than 5 hours in any 24-hour period; and
 - (b) if the engine is in a fixed location, the stack must comply with the requirements of Appendix 8 Schedule 5.
- X.3.X.5. Where more than one fuel type is used on the property, the combined heat output must not exceed the lowest MW or kW threshold of any of the fuel types used.⁹⁹

<u>Exception: The above standards X.3.X.3 and X.3.X.4 do not apply to combustion to provide</u> emergency power generation provided for within the general rules in Volume 2, Chapter 2.¹⁰⁰

⁹⁷ 1251.145 – Fonterra

⁹⁸ 1251.145 – Fonterra

⁹⁹ 992.85 - NZDF

¹⁰⁰ 1004.69 – Z Energy, Mobil & BP

722. I recommend that the definition of 'Internal combustion' in Volume 2, Chapter 25, page 25-11 is amended as follows:

Internal combustion

means a method of energy generation in which combustion takes place in a controlled chamber or chambers inside an engine to generate mechanical energy. A stationary internal combustion engine is one that is fixed in place or to the device to which it provides power, but which does not provide propulsion to the device. An engine in a usually mobile vehicle which is being tested during repair or maintenance whether in the vehicle or temporarily removed from it is not a stationary internal combustion engine for the purposes of this Plan.¹⁰¹

723. Note that under Matter 19 below (New rule (Mobile sources)) I recommend that a new rule is added to Volume 2, Chapter 2, to provide as a permitted activity for discharges from generators for emergency electricity generation. ¹⁰²

Matter 16 – External Combustion – Industrial, Port, Lake Grassmere and Airport Zones

Overview of Provisions

- 724. The permitted standards applying to discharge to air from external combustion devices appear in identical form in the Industrial 1 & 2, Port, Lake Grassmere Salt works and the Airport zones as 12.3.9, 13.3.24, 22.3.12 and 23.3.8 respectively.
- 725. There are submissions related to the standard in each zone, except the Port Zone. The submissions are considered together below.

Permitted Standards 12.3.9, 13.3.24, 22.3.12 & 23.3.8 (external combustion) - Submissions and Assessment

726. The specific permitted activity standards relate to discharges from external combustion of fuel (e.g. boilers and similar devices). The standard is reproduced below:

Discharge of contaminants to air from the combustion of fuel (i.e. external combustion).

- X.3.X.1 The discharge must not contain more than the following maximum heat output limits:
 - (a) 10MW for natural or liquefied petroleum gas;
 - (b) 40kW for untreated wood;
 - (c) 100kW for coal;
 - (d) 40kW for light fuel oil;
 - (e) 1.0MW for pellet fuel when burnt in a custom designed pellet boiler;
 - (f) 400kW for pellet fuel when burnt in a standard boiler converted for pellet fuel use:
 - (g) 10MW for diesel;
 - (h) 2MW for kerosene.
- X.3.X.2 The limits in Standard X.3.X.1 apply to the total heat output from the site. Where more than one fuel type is used on the site, the combined heat output must not exceed the lowest MW or kW threshold of any of the fuel types used.
- X.3.X.3 The fuel must be burned using fuel burning equipment, and the discharge must be from a chimney or exhaust structure designed so that the emission is effectively dispersed upwards.

¹⁰¹ 992.84 - NZDF

^{102 749.5 -} GBC Winstone

- X.3.X.4 The opacity of the discharge when measured at the point of entry to the atmosphere must not exceed 20%, except that a discharge in excess of this is allowed for a period of not more than 2 minutes continuously, or for an aggregate of 4 minutes, in any 60 minute period.
- X.3.X.5 The fuel burning equipment must be maintained in accordance with the manufacturer's specifications at least once every year by a person competent in the maintenance of that equipment. A log recording all maintenance must be made available to the Council on request.
- X.3.X.6 The stack must comply with requirements in Appendix 8 Schedule 5.
- X.3.X.7 Coal must not be burned as a fuel if there are buildings higher than 6m within a 25m radius of the discharge. Fuels other than coal must not be burned if there are buildings higher than 5m within a 25m radius of the discharge.
- X.3.X.8 The sulphur content of any coal burnt must be less than 2%.
- 727. **Fonterra** (1251.146) oppose the standard, saying that it is more correct to refer to 'net energy output' rather than 'heat output'.
- 728. **EnviroNZ** (1262.6 & 7) supports the standard in part. It wants reprocessed oil (meeting the specifications of the EPA Code of Practice 63) added to standard X.1(g) and to X.8 (i.e. X.3.X.1 and X.3.X.8).
- 729. **Dominion Salt Ltd** (355.13 & 14) opposes both standards X.7 and X.8 and wants both deleted. It submits that their activities are existing and do not affect other neighbours or landowners. The submitter provides no detail as to the activity or activities that it thinks are impacted by the standards. I infer they have a coal boiler or boilers, but it is not clear what the heat capacity of the plant is, the stack height or location of any buildings close to the stack that may affect the dispersion of the stack discharge. It is therefore difficult to determine whether or how the standards might impact the salt works.
- 730. **NZDF** (992.79, 80, 81, 82 & 83) opposes the standard in general and 23.3.8.1, 23.3.8.2, 23.3.8.3 and 23.3.8.7 specifically. NZDF is concerned with the suite of standards, including, but not limited to:
 - The operative plan expresses the size limits as heat input rather than heat output. The reason for this change in the proposed plan is unclear and makes it difficult to compare the effect of the operative and proposed rules.
 - The rationale for the different size (heat output) limits in Rule 23.3.8.1 is unclear, for example why is the limit for light fuel oil so low compared to other fuels with comparable effects?
 - The operative plan provides for discharges from fuel burning equipment up to 10MW or 50MW (depending on fuel type) as permitted or controlled activities subject to varying stack height requirements. This approach is efficient and effective as it provides certainty for activities that can manage their effects through appropriate stack height. The proposed rule framework will require resource consents for many existing permitted activities and/or require discretionary activity consents for many controlled activities.
 - There is no evaluation of the costs and benefits of these significant changes in the section 32 report. The rule framework is inconsistent with proposed Policy 15.3.5(a) which seeks to allow discharges of contaminants into air from industrial or trade premises or industrial or trade processes that have no more than minor adverse effects on the environment as permitted activities.
- 731. **NZDF** wants the rule redrafted so that it is 'technically correct' and not more onerous than the provisions of the operative plan.
- 732. Regarding standard X.1, NZDF says the rule preamble is confusing and inaccurate in referring to a limit on the maximum heat output that a discharge can contain. For example, if there is heat recovery, does that mean the limits do not apply? NZDF want the preamble clarified and amended to assist with readability.

- 733. **NZDF** submits that X.2 (total heat output of the site) is overly onerous. It says that if a site has a 20kW LFO burner and a 500kW diesel boiler, for example, a discretionary consent would be required as the total heat output exceeds 40kW (the size threshold for LFO combustion). It wants 23.3.8.2 amended 'to simplify provisions'.
- 734. **NZDF** submits that X.3 is poorly worded and unclear for example, what is meant by "fuel must be burned using fuel burning equipment"? It wants the standard clarified.
- 735. Finally, **NZDF** considers X.7 (buildings nearby) to be overly onerous and not effects-based. It presumes that this rule is intended to address the potential for increased effect of a discharge due to building downwash. In this case, it submits, it would be more effective and efficient to control the stack height in relation to nearby buildings (for example refer to the form of Rule 23.3.11.4).

Analysis

- 736. The issue of 'heat output' was discussed above under Matter 15 (internal combustion), and I recommended that 'heat output' be replaced with 'net energy output' as a more accurate description.
- 737. NZDF raise the issue of the heat output in the discharge, and asks what happens if there is heat recovery. It is a good point. It is not the heat or energy in the <u>discharge</u> (what goes up the stack) that is critical in sizing the fuel burning device, as function of external combustion devices usually is to transfer latent energy for the fuel burnt into useful energy e.g. process heat, hot water for central heating etc. A device that put most of its heat up the stack would be of little use. Therefore, the 'preamble' in standard 23.3.8.1 needs to reflect energy output of the device, and not of the discharge. Moreover, it needs to refer to the capacity of the device, as the design capacity of the device is the most tangible information available when plant is proposed to be installed. A plant in real life might operate at a lower output, but it is the capacity of the device that provides an objective measure for the plant's standards. I therefore support redrafting the start of X.1 as follows: The discharge must not contain more than the following maximum heat outputs The net energy output capacity of the fuel burning device must not exceed limits:
- 738. NZDF wants the MEP provisions to be no more onerous than the operative plan, the WARMP. But in that plan permitted activity discharges for coal, wood or oil are limited to 40kW (about double the output of a domestic woodburner) and 5MW for gas. Any devices with a capacity larger than this are controlled activities (up to 10MW and 50MW respectively). In many senses, the MEP less onerous as it provides for much larger fuel burning devices as a permitted activity (provided the other standards can be complied with). However, if the standards are not met is discretionary, which is more onerous in most instances than the WARMP. It is therefore very difficult to say the WARMP is less onerous than the MEP, and it would be a broad stretch of the submission to try to make the MEP 'no more onerous' than the WARMP as that would involve considerable change to the existing rules and creation of new controlled activity rules. In my view, that would be beyond the scope of the submission, and not what a 'reasonable further submitter' might have anticipated when they read the NZDF original submission.
- 739. NZDF asks why the limit for light fuel oil, for example, is so low compared to other fuels with comparable effects. I agree that the threshold for light fuel oil is very low (40kW compared to 200kW for coal). Light fuel oil is a much 'cleaner' fuel than coal and I would expect a higher energy threshold would be permitted than coal. The same applies for untreated wood. I support increasing the thresholds for wood and light fuel oil to 200kW. This is the same as for coal. I would favour lowering the limit for coal as I consider 200kW is rather high for such a fuel as a permitted activity, but there is no submission to allow this.
- 740. Regarding standard X.2, I agree with NZDF that this standard is unduly restrictive as when there are several devices using different fuels on a site, the combined output capacity of the devices must not be more than the lowest MW / kW threshold of any of the fuel types being used. Thus, a 10MW gas device might be permitted, but if a 20kW wood boiler is being used on the site as well, there is only 2kW capacity for a gas device. That does not make sense. The more usual way such rules work is that, on a site, the devices using the same fuel must not have a combined output that exceeds the threshold e.g. two 5MW gas devices. On top of that you could have 2 100kW coal devices. I support an amendment to make this clear.

- 741. I do support including reprocessed oil (called re-refined oil to fit the new definition recommended under Topic Prohibited Activities – All Zones, pages 49-55), but I do not support its inclusion in X.1(q)(diesel). Re-refined oil is more akin in consistency to 'light fuel oil' than diesel and I would support it being included under light fuel oil in clause (d).
- 742. Nor do I support 're-refined oil' being added to X.3.X.8 as sought by EnviroNZ. That standard relates only to sulphur levels. Including re-refined oil in it would remove the focus from EPA Code of Practice 63, which specifies maximum levels for heavy metal contaminants, halogens and the flash point of the fuel, and also provide an inappropriately high level of allowable sulphur in the fuel.
- 743. NZDF queried the need for the reference to 'fuel must be burnt using fuel burning equipment' in 23.3.8.3. I support its retention as it does assist with distinguishing this type of activity from outdoor burning, where not device is used.
- 744. NZDF and Dominion Salt both opposed X.7, which regulates fuel burning when there are buildings of a certain height within a 25m radius of the discharge. NZDF want a more effects based approach to addressing potential for 'building downwash' effects on the stack, suggesting an approach like 23.3.11.4, which is The emission stack must be a height of at least 2m above the ridgeline of the roof of any building, land or other substantial structure within a radius, from the stack top, of 35m.
- 745. I support amending X.7. But any revision needs to take into account standard X.6, which requires the stack height to comply with Appendix 8- Schedule 5. Schedule 5 sets stack heights for different fuels and fuel burning device output. However, when there are obstacles near the stack that could affect dispersion of contaminants, addition stack height or clearance might be needed. Therefore, I propose that standard X.6 be re-drafted as recommended below to reflect that, and that standard X.7 be deleted.
- 746. While there may be no close neighbours who might be affected by the discharge from the salt works, using low sulphur coal gives lower emissions of particles and sulphur dioxide. Also, a properly configured stack, not subject to downdrafts or interference from buildings nearby, will give higher and better dispersion of the combustion products from the stack. Both a stack standard and a sulphur standard would have environmental benefits. This would be not only in terms of air quality, but also in terms of settling of particles and other contaminants which could affect natural areas and waterways, as well as settling on the salt ponds, which could affect the product from the salt works. I support amending the stack rule, but the submitter has not made a convincing case to support deleting the standard limiting coal to 2% sulphur. I note that in the Salt Works Zone, there are controlled activity rules for plants that exceed the output limits in standard X.1. In the other zones, the default category is discretionary.
- 747. In my view, the changes to the external combustion rule proposed below would benefit the clarity and operation of the rule, and if the Hearing Panel is so minded, I recommend that identical changes be made to the external combustion rule in each of the four zones in which it appears.

748. I recommend that standards 12.3.9, 13.3.24, 22.3.12 & 23.3.8 are amended, including with consequential amendments, as follows: 103:

Discharge of contaminants to air from the combustion of fuel (i.e., external combustion).

- X.3.X.1 The discharge must not contain more than the following maximum heat outputs The net energy output capacity of the fuel burning device must not exceed limits:
 - (a) 10MW for natural or liquefied petroleum gas;
 - (b) 40kW for untreated wood;
 - (c) 100kW for coal;
 - (d) 40 200kW for light fuel oil or re-refined oil;104

¹⁰³ 992.79, 80, 81 & 83 - NZDF

¹⁰⁴ 1262.6 & 7 - EnviroNZ

- (e) 1.0MW for pellet fuel when burnt in a custom designed pellet boiler;
- (f) 400kW for pellet fuel when burnt in a standard boiler converted for pellet fuel use;
- (g) 10MW for diesel;
- (h)2MW for kerosene.
- X.3.X.2 The limits in Standard 12.3.8.1 <u>for any fuel type</u> apply to the <u>total heat</u> combined <u>net</u> <u>energy output capacity¹⁰⁵ output from <u>all devices burning that fuel on</u> the site. Where more than one fuel type is used on the site, the combined heat output must not exceed the lowest MW or kW threshold of any of the fuel types used.</u>
- X.3.X.3 The fuel must be burned using fuel burning equipment, and the discharge must be from a chimney or exhaust structure designed so that the emission is effectively dispersed upwards.
- X.3.X.4 The opacity of the discharge when measured at the point of entry to the atmosphere must not exceed 20%, except that a discharge in excess of this is allowed for a period of not more than 2 minutes continuously, or for an aggregate of 4 minutes, in any 60 minute period.
- X.3.X.5 The fuel burning equipment must be maintained in accordance with the manufacturer's specifications at least once every year by a person competent in the maintenance of that equipment. A log recording all maintenance must be made available to the Council on request.
- X.3.X.6 The stack <u>height</u> must comply with <u>the higher of:</u>

 a) the requirements in Appendix 8 Schedule 5, <u>or</u>
 - b) 2.5 metres higher than the apex of any building, tree, slope or structure within a horizontal radius of 2.5 times the stack height 106
- X.3.X.7 Coal must not be burned as a fuel if there are buildings higher than 6m within a 25m radius of the discharge. Fuels other than coal must not be burned if there are buildings higher than 5m within a 25m radius of the discharge. 107
- X.3.X.87 The sulphur content of any coal burnt must be less than 2%.

¹⁰⁵ 1251.146 - Fonterra; 992.80 - NZDF

¹⁰⁶ 355.13 – Dominion Salt; 992.83 - NZDF

¹⁰⁷ 355.13 - Dominion Salt; 992.83 - NZDF

PART C: DEFINITIONS, APPENDICES & ADDITIONAL MATTERS SOUGHT

- 749. Part C concerns submissions on:
 - The definitions in Chapter 25,
 - Appendix 8 (Schedules relating to emissions and efficiency of domestic burners, and stack requirements, as well as stack requirements for internal and external combustion devices),
 - · Additional provisions sought by submitters, and
 - General submissions on the plan as a whole.

Matter 17 – Definitions

Abrasive Blasting – Submissions and Assessment

750. **Transpower** (1198.152) supports the definition of 'abrasive blasting' in Chapter 25 and seeks it retention as notified. There are no other submissions.

Recommendation

751. That the definition of 'abrasive blasting' is retained as notified.

Fuel burning equipment - Submissions and Assessment

752. 'Fuel burning equipment' is defined in Chapter 25 as:

Means any fireplace, grate, stove, incinerator, boiler, furnace, gas turbine, or internal or external combustion engine.

753. **Fonterra** (1251.148) opposes the definition. It submits it is loose and the definition needs to make a clear distinction between small scale appliances, and to make clear what is excluded. Furthermore, the proposed definition would include mobile sources, which is not necessary or appropriate. It proposes the definition be amended as follows:

Fuel burning equipment means any fireplace, grate, stove, incinerator, boiler, furnace, gas turbine, or internal or external combustion engine, and that:

- Has a net heat or energy output of more than 40 kW; or
- 2. Is on or associated with an industrial or trade premises or process.

This excludes:

- 1. Small scale solid fuel burning appliances
- 2. Waste incineration devices and crematoria
- Motor vehicles
- 4. Boats
- 5. Aircraft.
- 754. The term 'fuel burning equipment' is only used in the specific permitted activity standards relating to the 'Discharge of contaminants to air from the combustion of fuel (i.e., external combustion)'. The existing definition therefore is wrong to include 'internal combustion engine' as internal combustion engines are not relevant to the rule. I suggest the reference internal combustion should be removed to avoid confusion in the Plan. Otherwise I support the changes proposed by the submitter as they help distinguish 'fuel burning equipment' from 'small scale solid fuel burning appliances' (which are defined in the Plan essentially domestic scale devices up to 40kW in output). Under Matter 19 below I recommend that a new definition of 'mobile sources' is added to the plan. If the Hearing Panel is inclined to accept that definition, then the last three items in Fonterra's exclusion list could be merged into one line 'including movable sources'.

755. I recommend that the definition of 'fuel burning equipment' in Volume Two, Chapter 25 be amended as follows:

Fuel burning equipment means any fireplace, grate, stove, incinerator, boiler, furnace, gas turbine, or external combustion engine, and that:

- 1. Has a net heat or energy output of more than 40 kW; or
- 2. Is on or associated with an industrial or trade premises or process.

This excludes:

- 1. Small scale solid fuel burning appliances
- 2. Waste incineration devices and crematoria
- 3. Motor vehicles, boats, train, aircraft or other mobile sources. 108

Matter 18 - Appendix 8

Schedule 1 - Submissions and Assessment

- 756. Schedule 1 in Appendix 8 sets out emissions and thermal efficiency standards for small scale solid fuel burners. The different zones then specify whether those emissions and efficiency requirements apply to burners installed in a particular zone. The general scheme of the MEP is that Schedule 1 applies only within the Blenheim Airshed.
- 757. As discussed under Matter 4 above (pages 89-92), MDC has submitted on the plan that in some instances an error was made in the MEP as notified, so that there were standards requiring compliance with Schedule 1 in areas outside of the Blenheim Airshed. MDC submitted to have these standards removed, and I have recommended those submissions be accepted.
- 758. **East Bay Conservation Society** (100.32) supports Schedule 1 in part. EBCS submits that the Schedule 1 emission requirements should apply to appliances in the Residential zones, but not to the Rural or Coastal Environment zones, as these zones generally have very little or no air pollution from existing household burning appliances.
- 759. As noted above, the differentiation by zone of when the emissions requirements do and do not apply is done in the zone rules, not in this Schedule. As also discussed, I have recommended amendments to the zone rules so that the Schedule 1 requirements do not apply to any zones outside of the Blenheim Airshed.
- 760. Queen Charlotte Sound Residents Association (QCSRA) (504.92) supports in part Schedule 1. They want 'softwood' described in laypersons terms. They say that discharges to air that have some potential for cumulative effects in and around areas of intensive and permanent occupation are matters that need addressing, but ask when, if ever, has monitoring occurred in remote areas that necessitates one rule for the whole region.
- 761. The emission and thermal efficiency requirements in Schedule 1 reference two Australia/New Zealand standards for the testing of solid fuel burners. 'Softwood' as used in those tests is defined in those standards and does not need defining further in the Plan. Also, only a few laboratories are certified to undertake the testing of woodburners, which are then labelled as compliant when released for retail sale. The laboratories are familiar with the AS/NZS standards and the meaning of 'softwood', and it is not something the general public need to understand comply with the rules in the Plan.
- 762. As regards the comment of 'one rule for the whole region', as discussed above, one rule does not apply across the entire region. Different zones have different rules, and recommendations in this report are to further refine this so that the emission and thermal efficiency standards only apply within the Blenheim Airshed (noting that on sites smaller than 2ha the NESAQ requires woodburners to be

^{108 1251.148 -} Fonterra

compliant with the AS/NZS standards. But those regulations are separate and independent of the rules in the MEP, are not under the Council's control.). If the recommendations are accepted under other topics to remove the standards relating to emission requirements in some zones, then the QCSRA submission would be accepted in part.

Recommendation

763. I recommend that Schedule 1 of Appendix 8 remain as notified.

Matter 19 - Additional provisions sought to be included

764. Matter 19 deals with submissions seeking new provisions to be added to the Plan.

General Rules (Volume Two, Chapter 2)

New Rule (Mobile Sources) - Submissions and Assessment

- 765. Four submitters seek a new rule to deal with discharges to air from mobile source such as motor vehicles and trains.
- 766. **KiwiRail** (873.98) support the plan in part but notes that in the General Rules Discharge to Air, which apply to roads and the rail corridor, the only permitted discharge is the application of agrichemical.
- 767. **KiwRail** submits that the discretionary activity rules at 2.23.2 identify that any discharge to air not provided for as a Permitted Activity requires consent. It says this will mean that trains, cars, trucks, on the road and rail network require a discharge to air consent for each operation, noting that Council already seek to control discharges to air from internal combustion engines in the Port Zone. That is not submitted as being practical or efficient, and potentially not what Council intended. The operation of trains is consistent, already occurs, and maintenance is undertaken to ensure that the train operates as efficiently as possible. Seeking a discharge to air consent for each train or rail vehicle, when there are limited options to reduce the discharge, or mitigate the effects of it given it is a moving vehicle, is not submitted as achieving any RMA purpose. KiwiRail therefore seek that an additional permitted standard is included that permits the discharge to air from the trains, as follows: 2.21.2. Discharge of contaminants to air from combustion within an internal combustion engine (i.e. internal combustion)'.
- 768. **KiwiRail** (873.157) submitting on rule 13.1.37 in the Port Zone (stationary internal combustion engines) supports that rule in part. It wants the permitted activity to cover vehicles with internal combustion engines that are moving, such as trains, ferries and support and other vehicles. KiwiRail notes Resource Management (Marine Pollution) Regulations 1998, and in particular regulations 15 and 16 and Schedule 4, whereby discharges from ships under propulsion are permitted. Therefore, it assumes the rule does not include ferries and only restrict trains and vehicles in motion, but wanted clarification on application of the permitted activity rule to moving vehicles. Te Ātiawa further submitted in opposition, and Port Marlborough in support.
- 769. **John & Pam Harvey** (430.9) submitting on rule 10.3.10 above were concerned about restrictions on their ability to run a stream train through Blenheim at special events or parades. The rule they submitted on related to domestic heating fires which does not apply to steam trains or similar (e.g. traction engines). However, the issue is similar to that raised by KiwiRail.
- 770. **NZTA** (1002.149) opposes the General Rules in Volume Two, Chapter 2, and like KiwiRail is concerned about the lack of provision for discharges from mobiles sources such as vehicles using the road. They seek a permitted rule, not subject to standards *Discharge of contaminants from a mobile source*.
- 771. Relating this, **NZTA** (1002.242) seek the addition to the Plan of a definition of 'mobile source' as follows:

A mobile source that discharges contaminants into air including, but not limited to, motor vehicles (cars), trucks, light utility vehicles, buses, aircraft, trains, vessels (boats), and mobile plant, including plant used for construction or maintenance purposes.

- 772. The issue of mobile sources raised by the submitters is a significant one. The MEP as drafted makes any discharge to air, whether mobile or not, that is not a permitted, controlled or prohibited activity, to be a discretionary activity requiring resource consent. Under the proposed MEP therefore any train, aircraft, boat (other than in the coastal marine area), motor vehicle, lawnmower or motorised equipment would need a resource consent to operate. This is a problem not only for the roads and the rail corridor identified on the planning maps, but also trains, vehicles and vessels operating outside of the identified road and rail corridors e.g. trucks and cars within zoned land, earthmoving equipment on a farm or subdivision, or aircraft on an airfield (to give some examples).
- 773. It is not just mobile sources with internal combustion engines that are at issue. Steam trains and traction engines (external combustion driven) also need to be accommodated. The recreational railway beside the Taylor River is not within the defined rail corridor, which further reinforces the importance of a rule that applies to zones and to the rail corridor and roads.
- 774. The wording for the rule proposed to **NZTA** (*Discharge of contaminants from a mobile source*) could be open to misinterpretation, if read by plan users without reference to the proposed definition of mobile sources. Without changing the intent of the rule, I think it would be helpful to include mention of vehicles etc in the new rule to assist the reader understand the rule.
- 775. Rather than introduce a rule to permit such activities in each zone, as well as on roads and the rail corridor, I recommend that a General Rule be introduced that applies in all locations i.e. to the rail corridor and roads, and to all zones.
- 776. I support a new definition of mobile source as that would support the proposed new rule. I propose some minor changes to the definition to better work with the proposed new rule.
- 777. I understand that under in Hearing Report 14 in relation to Waste and Discharges to land, it was recommended to the Hearing Panel that rule 2.21.1 and the standards under 2.22, relating to the discharge of agrichemicals to air, should be amended to 'Discharges to land within the road and rail corridor'. If that earlier recommendation is accepted, a new 'Discharge to Air' section in Chapter Two would need to be created for the general discharge to air rules I recommend below.

Recommendation

- 778. I recommend that a new rule be added to page 2-28 (General Rules) of Volume Two as follows:
 - 2.21.X Discharge of contaminants to air from the burning of fuel in a motor vehicle, train, aircraft or other mobile source. 109
- 779. I recommend that it be stated that:

<u>This rule applies to roads and rail corridors identified on the zoning maps, and within all zones.</u>

780. I recommend that a new definition is added to Chapter 25, Volume Two, as follows:

means a moveable vehicle or piece of equipment, burning gaseous, liquid or solid fuel, whether self-propelled or not, including, but not limited to, motor vehicles (such as, trucks, light utility vehicles, buses, tractors and farm equipment), aircraft, trains, vessels (boats), mobile plant, including plant used for construction or maintenance purposes, and lawnmowers and similar garden or construction equipment.¹¹¹

¹⁰⁹ 430.9 - John & Pam Harvey; 873.98 & 157 - KiwiRail; 1002.149 - NZTA

¹¹⁰ 873.97 - KiwiRail; 992.38 - NZDF; 1002.149 - NZTA

¹¹¹ 1002.242 - NZTA

New Rule (Emergency electricity generation) – Submissions and Assessment

- 781. **Z Energy, Mobil & BP** (1004.38) support the General Rules for discharges to air in part. However, they submit the general rules do not recognise the need for emergency generators to be used during disruption to the power network. As discussed earlier, they argue that service stations provide a strategic function in the region's emergency plan. Fuel stored at service stations can be used to fuel a generator to provide emergency power generation in emergencies and unforeseen circumstances when electricity connection is not available. It is essential to be able to use the fuel source in an emergency for extended periods of time (beyond the 5h restriction in zone rules) wherever service stations are located throughout the city. They submit that it is not realistic to seek resource consent in emergency situations and zone standards should not apply. A new permitted activity rule is required to facilitate this together with exclusions within the zone rules where necessary. They want a new permitted activity rule to 'facilitate discharge of contaminants to air from Internal Combustion Engines during disruption to the power network together with exclusions within the zone rules where necessary'.
- 782. **Trustpower** (1201.143 & 144) submitting on the Rural Zone supports in part the permitted activity rules. They similarly seek a new rule to allow for the use of small scale, diesel-fuelled generators in the event that an electricity connection is disrupted by maintenance activities, emergencies, weather, accident or unforeseen circumstances. Trustpower says it operates such devices at its hydroelectric plants to enable the operation of spillway gates and other essential components of the infrastructure during emergencies to prevent flooding and/or infrastructure damage. It is considered appropriate to provide apply permitted activity status to discharges of this nature due to the infrequent occurrence, short duration and minor effects of these activities. Trustpower notes that plans in other regions make such provision.
- 783. Trustpower seeks insertion of a new rule in Chapter 3.1 to allow for as a permitted activity: *Discharge* of contaminants to air from the combustion of diesel to provide back-up power generation when an electricity connection is disrupted or unavailable, and new permitted activity standards:

Discharge of contaminants to air from the combustion of diesel to provide back-up power generation when an electricity connection is disrupted or unavailable.

- i) The maximum generating capacity of the combustion equipment is less than 1 MW; and
- ii) The discharge shall not cause noxious, dangerous, offensive or objectionable odour, particulate or smoke beyond the boundary of the property.

And 'any similar or consequential amendments to the MEP that stem from the submission and relief sought'.

- 784. As discussed under Topic 23.3.9 earlier, **NZDF** (992.84) also sought an exemption for discharges to air for emergency electricity generation. In response, I proposed the issue be addressed in the General Rules.
- 785. The zone rules on discharges from stationary internal combustion engines, which among other things can include back-up power plants at key sites such as hospitals or airports have a standard restricting usage to a maximum of 5 hours in any 24-hour period, and the kW capacity of the engine. Such restrictions are necessary to regulate noise and emission effects for neighbours. Sometimes business and organisations can find it cheaper to run these generators when peak power prices apply, rather than pay peak rates from the grid. In an emergency involving an extended electricity outage the zone rules can be too restrictive. I do not think RMA section 330 and 330B (emergency works) could be used in all such instances, and therefore I consider it appropriate to provide for people's health and safety through a general rule which would allow emergency electricity generation in the event of a power outage.
- 786. Under Matter 15 (Topic: Permitted Activities Stationary Internal Combustion Engines, pages 113 & 114) a cross reference to this new rule is proposed, along with clarification that the zone rules to do apply to emergency electricity generation.

- 787. I recommend that a new permitted activity rule be added to page 2-28 of Volume Two as follows¹¹²:
 - 2.21.Y Discharge of contaminants to air from combustion of fuel within an internal combustion engine used to provide back-up power generation when an electricity connection is disrupted or unavailable.
 - 2.22.Y Discharge of contaminants to air from the combustion of diesel to provide back-up power generation when an electricity connection is disrupted or unavailable.
 - 2.22.Y.1 The maximum generating capacity of the combustion equipment is less than 1 MW; and
 - 2.22.Y.2 The discharge shall not cause noxious, dangerous, offensive or objectionable odour, particulate or smoke as detected at or beyond the legal boundary of the area of land on which the discharge is occurring.
- 788. I recommend that it be stated that:

This rule applies to roads and rail corridors identified on the zoning maps, and within all zones.

New Rule (Water & abrasive blasting) – Submissions and Assessment

789. **NZTA** (1002.145) support the General Rules for discharges to air in part. It submits that it uses wet and dry abrasive blasting and water blasting for cleaning and maintenance of road network structures, including bridges over rivers and retaining walls, and for removing painted road markings. This can potentially result in contaminant discharges to air, land, and water. It seeks addition of a new general rule, and permitted standard as follows:

Permitted activity rule:

Rule 2.X.X The discharge of contaminants into air from abrasive blasting and water blasting, including and any associated discharge onto land or into water.

Permitted activity standards specific to this activity:

- 2. X.X.1 Any sand or other material used for abrasive blasting must contain less than 5% free silica on a dry weight basis.
- 2. X.X.2 Any discharge of particulate matter or water borne contaminant must not be offensive or objectionable beyond the legal property boundary.
- 2. X.X.3 Any abrasive media not in use must be kept covered and protected from erosion.
- 2. X.X.4. All material that is discharged to land from the blasting must be collected and removed from the site to the extent practicable after blasting has been completed. The material must be disposed of to a facility that has authorisation to accept the contaminants in the material.
- 2. X.X.5. The surface to be blasted must not contain any hazardous substances, including lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- 2. X.X.6. For dry abrasive blasting all items must be blasted within an abrasive blasting enclosure and the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.
- 790. NZDF further submitted in support.

791. **Trustpower** (1201.145 & 146) submitting on the Rural Zone supports in part the permitted activity rules. It submits a new rule for abrasive blasting in the Rural Zone and in this are supported by the further submission of Transpower. Trustpower say the activity is allowed in the industrial and port

¹¹² 992.84 – NZDF; 1004.34 – Z Energy, Mobil & BP; 1201.143 & 144 – Trustpower; 749.5 – GBC Winstone

¹¹³ 992.84 – NZDF; 1004.34 – Z Energy, Mobil & BP; 1201.143 & 144 - Trustpower

zones, however, it is also an activity that is likely to occur in the rural zone. Trustpower considers that requiring resource consent for abrasive blasting in rural areas would not achieve any better environmental outcomes than could be achieved by standards on a permitted activity rule. It says abrasive blasting is a common maintenance activity for infrastructure (such as penstocks at hydro dams), and can be managed in such a way that any potential effects on the environment can be suitably avoided or mitigated. They submit that other regional plans provide for abrasive blasting as a permitted activity region-wide, including the Regional Air Plan for Taranaki, the Canterbury Natural Resources Regional Plan and the Proposed Natural Resources Plan for the Wellington Region.

792. **Trustpower** seeks insertion of a new rule in Chapter 3.1 to allow for as a permitted activity: *Discharge* of contaminants to air from water blasting and from dry abrasive blasting, and new permitted activity standards:

Discharge of contaminants to air from water blasting and from dry abrasive blasting.

- i. There must be no discharge of water spray, dust or other contaminant beyond the boundary of the property.
- ii. Where the discharge occurs from public land there must be no discharge of water spray, dust or other contaminant beyond 50m from the discharge point or beyond the boundary of the public land, whichever is the lesser.
- iii. There must be no discharge of water spray, dust or other contaminant into the coastal marine area.
- iv. The surface to be blasted must not contain any hazardous substances including lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- v. Where abrasive blasting is undertaken inside an enclosed booth, the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.
- vi. Dry abrasive blasting outside an enclosed booth shall only be undertaken when it is impractical to remove or dismantle or transport a fixed object or structure to be cleaned in a booth.
- vii. For dry abrasive blasting the free silica content of a representative sample of the blast material must be less than 5% by weight.
- viii. The discharge of particulate matter is contained within the immediate area of the abrasive blasting so that particulate matter does not escape into the environment.

And 'any similar or consequential amendments to the MEP that stem from the submission and relief sought'.

- 793. It is true that the Canterbury Regional Air Plan provides for outdoor abrasive blasting subject to conditions, but the Taranaki plan is not quite as enabling as suggested. Wet abrasive blasting is permitted in the Taranaki plan subject to conditions, including that no deposition of contaminants can occur within 10m of any waterbody. Dry abrasive blasting outdoors is a controlled activity.
- 794. I am generally supportive of a blasting rule similar to other zones being provided in the road and rail corridor (i.e. General Rules), and in the Rural Zone as sought. However, with the number of structures in the rural area over rivers and streams, I think an additional standard to prevent contaminant entering water is necessary.

Recommendation

795. I recommend that a new permitted activity rule be added to page 2-28 of Volume Two General Rules as follows¹¹⁴:

Rule 2.1.Z. The discharge of contaminants into air from abrasive blasting and water blasting, including and any associated discharge onto land.

Permitted a	ctivity standar	ds specific t	to this	activity

¹¹⁴ 1002.145 - NZTA

Rule 2.3.Z The discharge of contaminants into air from abrasive blasting and water blasting, including and any associated discharge onto land.

- 2.3.Z.1. Any sand or other material used for abrasive blasting must contain less than 5% free silica on a dry weight basis.
- 2.3.Z.2. Any discharge of particulate matter must not be offensive or objectionable as detected at or beyond the legal boundary of the area of land on which the activity is occurring.
- 2.3.Z.3. Any abrasive media not in use must be kept covered and protected from erosion.
- 2.3.Z.4. All material that is discharged to land from the blasting must be collected and removed from the site to the extent practicable after blasting has been completed. The material must be disposed of to a facility that has authorisation to accept the contaminants in the material.
- 2.3.Z.5. There must not be any deposition of contaminants from the activity into or within 10 metres of a waterbody or the coastal marine area.
- 2.3.Z.6. The surface to be blasted must not contain lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- 2.3.Z.6. For dry abrasive blasting all items must be blasted within an abrasive blasting enclosure and the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.

796. I recommend that it be stated that:

These activities apply only to roads and railway corridors identified on the zoning maps. Zone provisions for discharges to air do not apply to roads and railway corridors.

797. I recommend that a new permitted activity rule be added to Chapter 3, Rural Zone, as follows¹¹⁵:

Rule 3.1.X The discharge of contaminants into air from water blasting and dry abrasive blasting.

Permitted activity standards specific to this activity:

Rule 3.3.X The discharge of contaminants into air from water blasting and dry abrasive blasting.

- 3.3.X.1 There must be no discharge of water spray, dust or other contaminant beyond the boundary of the property.
- 3.3.X.2 Where the discharge occurs from public land there must be no discharge of water spray, dust or other contaminant beyond 50m from the discharge point or beyond the boundary of the public land, whichever is the lesser.
- 3.3.X.3 There must not be any deposition of contaminants from the activity into or within 10 metres of a waterbody or the coastal marine area.
- 3.3.X.4 The surface to be blasted must not contain lead, zinc, arsenic, chromium, copper, mercury, asbestos, tributyl tin, thorium-based compounds, and other heavy metals including anti foul paint containing these substances.
- 3.3.X.5 Where abrasive blasting is undertaken inside an enclosed booth, the discharge must be via a filtered extraction system that removes at least 95% of particulate matter from the discharge.
- 3.3.X.6 Dry abrasive blasting outside an enclosed booth shall only be undertaken when it is impractical to remove or dismantle or transport a fixed object or structure to be cleaned in a booth.
- 3.3.X.7 For dry abrasive blasting the free silica content of a representative sample of the blast material must be less than 5% by weight.

¹¹⁵ 1201.145 & 146 - Trustpower

New Rule (Discharge of heat) - Submissions and Assessment

- 798. **NZDF** (992.72) opposes the Airport Zone rules. It says the operative plan (WARMP) included a permitted activity rule (44.1.4.1.7) for the discharge of heated air (energy) that specifically referred to the discharge not prejudicing flight safety on any aircraft flight path. Thermal buoyancy of air emissions in flight paths, it says, is a key safety issue. NZDF seeks insertion of a rule in the MEP to 'manage discharges of heated air so that they do not prejudice flight safety on any aircraft flight path'.
- 799. There are two rules in the WARMP (none of them 44.1.4.7) with permitted standards that relate to 'flight safety on an aircraft flight path' [44.1.5.1.5 (a) and 44.1.5.1.6]. In my view, the standard in each of those WARMP rules is likely *ultra vires*, as it is not clear or certain. It would most likely require a council officer to exercise a judgement as to what is prejudicial to flight safety. That discretion is not appropriate for a permitted activity. The meaning of the rule ought to be clear to any person from a reading of the words.
- 800. I doubt it would be possible to draft a permitted rule for the MEP that would avoid that problem, and I therefore recommend no change be made to the MEP. Since the main actors on the Blenheim Airport site are the airport operator and the NZDF (or any subleases under their control), I would hope that both parties would be able to manage activities and discharges of heated air so they did not affect the safety on aircraft flying into and out of the airfield, without the need for the MEP to regulate it.

Recommendation

801. I recommend that the MEP remain unchanged.

New Rule (Open burning) – Submissions and Assessment

802. **NZDF** (992.91) opposes the Airport Zone rules. It says open burning is provided for as a permitted activity in other zones, including the Rural Zone, Urban Residential 1 and 2 Zones and the Open Space Zone (and others) where arguably the amenity is higher and the discharge would likely have a greater effect. NZDF says it may wish to undertake burning of green waste within the Airport zoned area of Base Woodbourne and it is appropriate that this is provided for as a permitted activity, with appropriate standards. Obviously this activity would be undertaken with regard to the operation of the airport activities. NZDF seeks a new rule in Chapter 23 to provide for burning green waste, with suggested wording as follows:

Permitted activity: Discharge of contaminants to air arising from burning in the open.

Standards:

- Only material generated on the same property or a property under the same ownership can be burned.
- 803. The three airports covered by the Airport Zone (Blenheim, Picton and Omaka) are all outside the Blenheim Airshed, so impacts on PM₁₀ levels within Blenheim are not a critical concern although Omaka is just outside the urban area. I therefore think it is appropriate for the Zone to have an outdoor burning rule, with the expectation that the operators of the site would manage effects on the safe operation of the airport. As the airports are surrounded by Rural Zoned land, I consider a rule similar to that zone would be appropriate for the Airport Zone. The key standard in the Rural Zone is as proposed by the NZDF *Only material generated on the same property or a property under the same ownership can be burned.*

Recommendation

804. I recommend that a new permitted activity rule be added to the Airport Zone, as follows¹¹⁶:

23.1.X Discharge of contaminants to air arising from burning in the open.

¹¹⁶ 992.91 - NZDF

805. I recommend that a new specific permitted activity standard be added, as follows 117:

23.3.X Discharge of contaminants to air arising from burning in the open.

23.3.X.1 Only material generated on the same property or a property under the same ownership can be burned.

New Rule (Aircraft & vehicle servicing) - Submissions and Assessment

- 806. **NZDF** (992.73) opposes the Airport Zone rules. It says the operative WARMP included a permitted activity rule (44.1.5.1.8) in the Airport Zone for: "The discharge of contaminants into air from: b) premises used for the servicing of aircraft, motor vehicles, including fuselage, body and engine repairs, panel beating, fibreglassing and painting carried out in a booth enclosure that has been designed to contain any omission of paint overspray; ..." and subject to appropriate controls.
- 807. NZDF submits that this rule was efficient and effective as it provided for discharges to air from key activities likely to be undertaken in the airport zone, subject to appropriate controls to avoid adverse effects. Activities such as maintenance or servicing of aircraft, engine testing, etc are provided for as permitted activities in the Airport Zone in the MEP, and therefore NZDF say discharges of air from these activities should also be provided for as permitted activities, subject to appropriate controls.
- 808. In terms of relief NZDF seek addition of a rule to the same effect as Rule 44.1.5.1.8 from the operative Plan i.e. the above wording in italics.
- 809. If the MEP provides for all the activities in question as NZDF says albeit in a number of separate rules I am not sure what the issue to resolve is. The MEP follows a similar structure in most of the 'industrial-type' zones where such activities are likely to occur the Industrial, Port, Marina, and Lake Grassmere zones. I am not convinced why a different approach is necessary for the Airport Zone. If the scale of airport activity means the quantities in specific standards in the MEP are too low, then consideration could be given to amending those, if NZDF provided detail and evidence at the hearing, and the Hearing Panel was confident any changes were within the scope of NZDF's submission and the environmental effects were acceptable.

Recommendation

810. I recommend that the MEP remain unchanged.

New Rule (Discharge from petroleum products) – Submissions and Assessment

811. **Z Energy, Mobil & BP** (1004.31 & 56) support the Plan in part. They want a new rule inserted to provide for discharges to air associated with the storage and use of petroleum products, including vapour ventilation and displacement and emergency power generation as permitted activities. They seek the following rule be added (with a default to discretionary activity status where the permitted activity standards are not met). Te Ātiawa further submitted in opposition.

Discharge to Air - All Zones

These activities apply within all zones

2.## The following activities shall be permitted without resource consent where they comply with the applicable standards in 2.##

AND

2.## Permitted Activities

2.##.1 The discharge of contaminants including odour into air from the storage or transfer of petroleum products, including vapour ventilation and displacement.

¹¹⁷ 992.91 - NZDF

2.##.2 Discharge of contaminants to air from combustion within a stationary internal combustion engine to provide emergency power generation.

2.## Standards that apply to specific permitted activities

- 2.##.1 Discharge of contaminants including odour into air from the storage or transfer of petroleum products, including vapour ventilation and displacement.
- 2.##.1.1The discharge does not cause a noxious or dangerous effect beyond the legal boundary of the area of land on which the permitted activity is occurring.
- 2.##.2 Discharge of contaminants to air from combustion within a stationary internal combustion engine to provide emergency power generation when:
- a) the electricity network is disrupted through weather, accidents, or any unforeseen circumstances, or
- b) the person operating the equipment is undertaking necessary maintenance or testing of the device. or
- c) the electricity connection is not available.

AND

2.## Discretionary Activities

Application must be made for a Discretionary Activity for the following:

- 2.##.1 Any activity provided for as a Permitted Activity that does not meet the applicable standards.
- 2.##.2. Any discharge to air not provided for as a Permitted Activity.
- 812. I have recommended a new rule above to provide for the discharge to air associated with emergency electricity generation. One of the submitters seeking that change was **Z Energy, Mobil & BP** (1004.34). I do not think further action is needed with respect to addressing that issue.
- 813. There is a permitted activity rule providing, among other things for, 'Discharge for the purposes of ventilation or vapour displacement' in the Industrial, Port, Lake Grassmere Salt Works, and the Airport zones. However, the other zones lack such a rule.
- 814. I agree there is a potential problem, for at least some other zones, if there is no rule to allow for vapour displacement. Most farms and rural activities will have fuel storage on-site, as will the Marina and the Open Space 4 Zone (ski fields). Residential sites will sometimes have oil-fired central heating, and hospitals and other institutions will have fuel tanks, at least for running emergency generators.
- 815. In my view, it would be appropriate to include a permitted rule similar to that sought into each zone, as in the absence of such a provision, the activity technically requires resource consent.
- 816. I do not think a specific permitted standard is needed to accompany any new permitted activity rule (the rules in the Industrial, Port, Lake Grassmere Salt Works, and Airport zones do not). Each zone has an odour standard that applies to all permitted activities *The odour must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.* I consider that sufficient.

Recommendation

817. I recommend that a new permitted activity rule, as follows, is inserted under 'X.1 Permitted Activities' in the Rural Environment Zone, Coastal Environment Zone, Urban 1,2 & 3 Zones, Coastal Living Zone, Rural Living Zone, Business 1,2 & 3 Zones, Port Landing Area Zone, Marina Zone, Open Space 1, 2, 3 & 4 Zones, Floodway Zone.¹¹⁸

The discharge of contaminants into air from the storage or transfer of petroleum products, including vapour ventilation and displacement.

¹¹⁸ 1004.31 & 56 – Z Energy, Mobil & BP

818. I recommend that in General Rules, Chapter 2, on page 2-28 a new permitted activity rule be inserted:

<u>The discharge of contaminants into air from the storage or transfer of petroleum products, including vapour ventilation and displacement.</u>

And a new 'Standard applying to all permitted activities' be inserted, as follows:

Odour must not be objectionable or offensive, as detected at or beyond the legal boundary of the area of land on which the permitted activity is occurring.

819. I recommend that for the new General Rule it be stated:

This rule applies to only roads and rail corridors identified on the zoning maps.

Matter 20 - General submissions

General Comments - Submissions and Assessment

820. The **Chamber of Commerce** (961.75) supports the MEP, and comments that one of the roles of the MEP is to identify which air discharges are appropriate, the circumstances in which they are appropriate and which air discharges are not appropriate. No decision is requested and none has been able to be inferred from the submission.

Recommendation

821. I recommend that the MEP remain unchanged (subject to amendments recommended under other Topics above).

Appendix 1: Recommended decisions on Decisions Requested

Sub Number	Sub Point	Submitter	Volume	Chapter	Provision	Recommendation
1	1	Rob Pears	Volume 2	6 Urban Residential 3 Zone	6.1.17.	Reject
43	2	Tony Mortiboy	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15E	Accept in part
52	1	Anthony Armstrong	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.1	Reject
74	1	Helen Ashworth	Volume 2	18 Open Space 2 Zone	18.5.2.	Accept
75	1	Girl Guiding New Zealand	Volume 2	All		Accept in part
91	68	Marlborough District Council	Volume 1	15 Resource Quality (Water, Air, Soil)	15.AER.5	Accept
91	69	Marlborough District Council	Volume 1	15 Resource Quality (Water, Air, Soil)	15.AER.5	Reject
91	67	Marlborough District Council	Volume 1	15 Resource Quality (Water, Air, Soil)	15.AER.7	Reject
91	1	Marlborough District Council	Volume 2	3 Rural Environment Zone	3.3.40.1.	Accept
91	2	Marlborough District Council	Volume 2	3 Rural Environment Zone	3.3.41.1.	Accept
91	5	Marlborough District Council	Volume 2	3 Rural Environment Zone	3.3.41.2.	Accept
91	7	Marlborough District Council	Volume 2	4 Coastal Environment Zone	4.3.39.1.	Accept
91	6	Marlborough District Council	Volume 2	4 Coastal Environment Zone	4.3.40.1.	Accept
91	8	Marlborough District Council	Volume 2	4 Coastal Environment Zone	4.3.40.2.	Accept
91	9	Marlborough District Council	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.17.1.	Accept
91	10	Marlborough District Council	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.17.2.	Accept
91	11	Marlborough District Council	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.18.1.	Accept
91	12	Marlborough District Council	Volume 2	6 Urban Residential 3 Zone	6.3.10.1.	Accept
91	13	Marlborough District Council	Volume 2	6 Urban Residential 3 Zone	6.3.10.2.	Reject

91	1.4	Maylbaraugh District Council	Volume 2	6 Urban Residential 3 Zone	6.3.11.1.	Accept
	14	Marlborough District Council				· ·
91	15	Marlborough District Council	Volume 2	7 Coastal Living Zone	7.3.15.1.	Accept
91	16	Marlborough District Council	Volume 2	7 Coastal Living Zone	7.3.15.2.	Accept
91	17	Marlborough District Council	Volume 2	7 Coastal Living Zone	7.3.16.1.	Accept
91	18	Marlborough District Council	Volume 2	8 Rural Living Zone	8.3.17.1.	Accept
91	19	Marlborough District Council	Volume 2	8 Rural Living Zone	8.3.17.2.	Accept
91	20	Marlborough District Council	Volume 2	8 Rural Living Zone	8.3.18.1.	Accept
91	24	Marlborough District Council	Volume 2	10 Business 2 Zone	10.3.8.1.	Accept
91	25	Marlborough District Council	Volume 2	10 Business 2 Zone	10.3.8.2.	Accept
91	26	Marlborough District Council	Volume 2	10 Business 2 Zone	10.3.9.1.	Accept
91	27	Marlborough District Council	Volume 2	11 Business 3 Zone	11.3.6.1.	Accept
91	28	Marlborough District Council	Volume 2	11 Business 3 Zone	11.3.6.2.	Accept
91	29	Marlborough District Council	Volume 2	11 Business 3 Zone	11.3.7.1.	Accept
91	30	Marlborough District Council	Volume 2	12 Industrial 1 and 2 Zones	12.3.12.1.	Accept
91	31	Marlborough District Council	Volume 2	12 Industrial 1 and 2 Zones	12.3.12.2.	Accept
91	32	Marlborough District Council	Volume 2	12 Industrial 1 and 2 Zones	12.3.13.1.	Accept
91	33	Marlborough District Council	Volume 2	13 Port Zone	13.3.28.1.	Accept
91	34	Marlborough District Council	Volume 2	13 Port Zone	13.3.29.1.	Accept
91	35	Marlborough District Council	Volume 2	13 Port Zone	13.3.29.2.	Accept
91	36	Marlborough District Council	Volume 2	16 Coastal Marine Zone	16.3.18.1.	Accept
91	37	Marlborough District Council	Volume 2	16 Coastal Marine Zone	16.3.19.1.	Accept
91	38	Marlborough District Council	Volume 2	16 Coastal Marine Zone	16.3.19.2.	Accept
91	39	Marlborough District Council	Volume 2	20 Open Space 4 Zone	20.3.8.1.	Accept

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91	40	Marlborough District Council	Volume 2	20 Open Space 4 Zone	20.3.8.2.	Accept
91	42	Marlborough District Council	Volume 2	20 Open Space 4 Zone	20.3.9.1.	Accept
91	119	Marlborough District Council	Volume 2	21 Floodway Zone	21.4.4.	Accept
91	80	Marlborough District Council	Volume 2	23 Airport Zone	23.3.14.1.	Accept
91	81	Marlborough District Council	Volume 2	23 Airport Zone	23.3.14.2.	Accept
91	82	Marlborough District Council	Volume 2	23 Airport Zone	3.1.35	Accept
91	207	Marlborough District Council	Volume 2	6 Urban Residential 3 Zone	6.1.	Accept in part
91	21	Marlborough District Council	Volume 2	9 Business 1 Zone	9.3.8.1.	Accept
91	22	Marlborough District Council	Volume 2	9 Business 1 Zone	9.3.8.2.	Accept
91	23	Marlborough District Council	Volume 2	9 Business 1 Zone	9.3.9.1.	Accept
91	210	Marlborough District Council	Volume 2	5 Urban Residential 1 and 2 Zone	5.1.	Accept
100	32	East Bay Conservation Society	Volume 3	Appendix 8 Discharge to Air		Accept
109	1	Raupo Cafe	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.1	Reject
135	2	Allister Leach	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.2	Reject
135	1	Allister Leach	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.19.1.	Accept in part
191	1	Wayne Gander	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.5.	Reject
192	8	Perry Mason Gilbert	Volume 2	8 Rural Living Zone	8.3.16.3.	Reject
208	1	Girl Guiding NZ	Volume 2	18 Open Space 2 Zone	18.5.2.	Accept
217	1	Grant Crosswell	Volume 2	5 Urban Residential 1 and 2 Zone	5.1.25.	Reject
227	2	Jessica Bagge	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15D	Accept in part
227	3	Jessica Bagge	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.28	Accept
227	1	Jessica Bagge	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.4.	Reject
227	4	Jessica Bagge	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.5.	Reject

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228	10	Rainbow Sports Club Incorporated	Volume 2	20 Open Space 4 Zone	20.6.1.	Accept in part
280	30	Nelson Marlborough District Health Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.2	Accept
280	31	Nelson Marlborough District Health Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.3	Reject
280	33	Nelson Marlborough District Health Board	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.30	Accept
280	32	Nelson Marlborough District Health Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Accept
302	1	Mark Jeffries	Volume 2	3 Rural Environment Zone	3.3.41.1.	Accept
302	2	Mark Jeffries	Volume 2	3 Rural Environment Zone	3.3.41.2.	Accept
348	37	Murray Chapman	Volume 2	3 Rural Environment Zone	3.2.8.1.	Reject
349	1	Philip Rayner	Volume 2	5 Urban Residential 1 and 2 Zone	5.1.21.	Accept in part
355	10	Dominion Salt Limited	Volume 2	22 Lake Grassmere Saltworks Zone	22.1.18.	Accept
355	13	Dominion Salt Limited	Volume 2	22 Lake Grassmere Saltworks Zone	22.3.12.7.	Accept in part
355	14	Dominion Salt Limited	Volume 2	22 Lake Grassmere Saltworks Zone	22.3.12.8.	Reject
355	15	Dominion Salt Limited	Volume 2	22 Lake Grassmere Saltworks Zone	22.4.1.	Accept in part
357	5	Trudie Lasham	Volume 2	3 Rural Environment Zone	3.1.36.	Reject
357	4	Trudie Lasham	Volume 2	3 Rural Environment Zone	3.1.37.	Reject
401	175	Aquaculture New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Accept in part
401	236	Aquaculture New Zealand	Volume 2	16 Coastal Marine Zone	16.7.1.	Accept in part
424	129	Michael and Kristen Gerard	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15E	Accept in part
424	169	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.3.35.	Reject
424	170	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.3.36.	Reject
424	144	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.2.5.	Reject
424	180	Michael and Kristen Gerard	Volume 2	7 Coastal Living Zone	7.3.14.	Accept
425	310	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15E	Accept in part

425	311	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
425	312	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Reject
425	313	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.6	Accept
425	314	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.7	Reject
425	315	Federated Farmers of New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.34	Accept
425	608	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.36.	Reject
425	609	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.37.	Accept in part
425	621	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
425	692	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.35.	Reject
425	704	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.7.9.	Accept in part
425	742	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.12.	Accept in part
425	743	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.13.	Reject
425	757	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.5.1.	Accept in part
426	183	Marine Farming Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Accept in part
426	232	Marine Farming Association Incorporated	Volume 2	16 Coastal Marine Zone	16.7.1.	Accept in part
430	9	John and Pam Harvey	Volume 2	10 Business 2 Zone	10.3.10.	Accept in part
430	8	John and Pam Harvey	Volume 2	3 Rural Environment Zone	3.2.8.	Reject
431	77	Wine Marlborough	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
431	78	Wine Marlborough	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
431	65	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
432	5	Kevin and Mary Daly	Volume 2	7 Coastal Living Zone	7.1.17.	Reject
432	6	Kevin and Mary Daly	Volume 2	7 Coastal Living Zone	7.1.18.	Reject
432	7	Kevin and Mary Daly	Volume 2	7 Coastal Living Zone	7.1.19.	Reject

433	140	Port Marlborough New Zealand Limited	Volume 2	13 Port Zone	13.6.3.	Accept in part
444	1	Lisa Collinson	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.2	Reject
445	1	Trelawne Farm Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
450	12	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.1.17.	Reject
450	13	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.3.16.2.	Reject
450	14	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.3.16.3.	Reject
450	16	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.5.6.	Accept in part
450	2	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.2.6.1.	Reject
454	44	Kevin Francis Loe	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
457	47	Accolade Wines New Zealand Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
457	65	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
460	12	Timberlink New Zealand Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.8.	Reject
460	13	Timberlink New Zealand Limited	Volume 2	12 Industrial 1 and 2 Zones	12.5.3.	Accept
460	14	Timberlink New Zealand Limited	Volume 2	12 Industrial 1 and 2 Zones	12.5.7.	Accept in part
462	26	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
467	1	Gary Bruce Jones	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.2	Accept in part
472	18	ME Taylor Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
473	50	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
479	147	Department of Conservation	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
484	65	Clintondale Trust, Whyte Trustee Company Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
501	79	Te Runanga O Ngati Kuia	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Reject
504	83	Queen Charlotte Sound Residents Association	Volume 2	7 Coastal Living Zone	7.3.14.2.	Reject

504	85	Queen Charlotte Sound Residents Association	Volume 2	7 Coastal Living Zone	7.5.6.	Accept in part
504	92	Queen Charlotte Sound Residents Association	Volume 3	Appendix 8 Discharge to Air		Accept in part
509	452	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.5.1.	Accept in part
515	18	Mt Zion Charitable Trust	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
558	3	Bruce John Walton	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.19.1.	Accept in part
573	1	Blenheim Residents and Ratepayers Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.2	Accept in part
592	1	Clifford John Smith	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
614	1	Churchward Park Scout Group	Volume 2	18 Open Space 2 Zone	18.5.2.	Accept in part
631	41	Constellation Brands New Zealand Limited	Volume 2	21 Floodway Zone	21.4.4.	Accept in part
640	46	Douglas and Colleen Robbins	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
669	2	Go Marlborough Limited	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.16.2.	Accept
669	3	Go Marlborough Limited	Volume 2	8 Rural Living Zone	8.3.15.2.	Accept
669	5	Go Marlborough Limited	Volume 2	23 Airport Zone	23.3.7.2.	Accept
669	4	Go Marlborough Limited	Volume 2	19 Open Space 3 Zone	19.3.9.2.	Accept
669	1	Go Marlborough Limited	Volume 2	3 Rural Environment Zone	3.3.35.2.	Accept
712	87	Flaxbourne Settlers Association	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
717	57	Fulton Hogan Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.4	Reject
717	58	Fulton Hogan Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Accept
738	46	Glenda Vera Robb	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
749	5	GBC Winstone	Volume 2	13 Port Zone	13.3.25.4.	Accept in part
749	6	GBC Winstone	Volume 2	13 Port Zone	13.6.3.	Accept

769	69	Horticulture New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Accept
769	70	Horticulture New Zealand	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
769	108	Horticulture New Zealand	Volume 2	3 Rural Environment Zone	3.3.36.1.	Accept in part
776	39	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
852	2	Kelvin Holdaway	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.16.2.	Accept in part
852	3	Kelvin Holdaway	Volume 2	8 Rural Living Zone	8.3.15.2.	Accept
852	12	Kelvin Holdaway	Volume 2	18 Open Space 2 Zone	18.1.	Accept in part
852	11	Kelvin Holdaway	Volume 2	17 Open Space 1 Zone	17.1.	Accept in part
852	13	Kelvin Holdaway	Volume 2	21 Floodway Zone	21.1.	Accept in part
852	5	Kelvin Holdaway	Volume 2	6 Urban Residential 3 Zone	6.1.	Accept in part
852	7	Kelvin Holdaway	Volume 2	9 Business 1 Zone	9.1.	Accept in part
852	8	Kelvin Holdaway	Volume 2	10 Business 2 Zone	10.1.	Accept in part
852	10	Kelvin Holdaway	Volume 2	12 Industrial 1 and 2 Zones	12.1.	Accept
852	1	Kelvin Holdaway	Volume 2	3 Rural Environment Zone	3.3.35.2.	Accept in part
852	6	Kelvin Holdaway	Volume 2	7 Coastal Living Zone	7.1.	Accept in part
852	9	Kelvin Holdaway	Volume 2	11 Business 3 Zone	11.1.	Accept in part
852	4	Kelvin Holdaway	Volume 2	19 Open Space 3 Zone	19.3.9.2.	Accept
852	14	Kelvin Holdaway	Volume 2	23 Airport Zone	23.3.7.2.	Accept in part
873	157	KiwiRail Holdings Limited	Volume 2	13 Port Zone	13.1.37.	Accept
873	98	KiwiRail Holdings Limited	Volume 2	2 General Rules	2.21.	Accept in part
909	69	Longfield Farm Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
909	70	Longfield Farm Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
909	56	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.39.	Accept

925	2	Michelle Gail Harris	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.16.2.	Accept in part
925	3	Michelle Gail Harris	Volume 2	8 Rural Living Zone	8.3.15.2.	Accept in part
925	5	Michelle Gail Harris	Volume 2	23 Airport Zone	23.3.7.2.	Accept in part
925	15	Michelle Gail Harris	Volume 2	20 Open Space 4 Zone	20.1.	Reject
925	13	Michelle Gail Harris	Volume 2	17 Open Space 1 Zone	17.1.	Accept in part
925	14	Michelle Gail Harris	Volume 2	18 Open Space 2 Zone	18.1.	Accept in part
925	4	Michelle Gail Harris	Volume 2	19 Open Space 3 Zone	19.3.9.2.	Accept
925	16	Michelle Gail Harris	Volume 2	21 Floodway Zone	21.1.	Accept in part
925	6	Michelle Gail Harris	Volume 2	6 Urban Residential 3 Zone	6.1.	Accept in part
925	1	Michelle Gail Harris	Volume 2	3 Rural Environment Zone	3.3.35.2.	Accept in part
925	9	Michelle Gail Harris	Volume 2	10 Business 2 Zone	10.1.	Accept in part
925	10	Michelle Gail Harris	Volume 2	11 Business 3 Zone	11.1.	Accept in part
925	8	Michelle Gail Harris	Volume 2	9 Business 1 Zone	9.1.	Accept in part
925	7	Michelle Gail Harris	Volume 2	7 Coastal Living Zone	7.1.	Accept in part
935	46	Melva Joy Robb	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
961	75	Marlborough Chamber of Commerce	Volume 1	15 Resource Quality (Water, Air, Soil)	15.	Accept
961	76	Marlborough Chamber of Commerce	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.1	Accept
961	77	Marlborough Chamber of Commerce	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.2	Accept
961	78	Marlborough Chamber of Commerce	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.30	Accept in part
961	79	Marlborough Chamber of Commerce	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.37	Accept
962	96	Marlborough Forest Industry Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.3	Reject
962	97	Marlborough Forest Industry Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Reject

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962	98	Marlborough Forest Industry Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Reject
962	99	Marlborough Forest Industry Association Incorporated	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.6	Reject
974	8	Ministry of Education	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
990	243	Nelson Forests Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.3	Reject
990	121	Nelson Forests Limited	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
990	156	Nelson Forests Limited	Volume 2	4 Coastal Environment Zone	4.7.9.	Accept in part
992	21	New Zealand Defence Force	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.2	Accept in part
992	22	New Zealand Defence Force	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.3	Accept
992	23	New Zealand Defence Force	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.5	Accept
992	58	New Zealand Defence Force	Volume 2	3 Rural Environment Zone	3.1.35.	Accept
992	62	New Zealand Defence Force	Volume 2	12 Industrial 1 and 2 Zones	12.1.11.	Accept
992	63	New Zealand Defence Force	Volume 2	12 Industrial 1 and 2 Zones	12.3.3.	Accept
992	64	New Zealand Defence Force	Volume 2	15 Marina Zone	15.1.32.	Accept
992	70	New Zealand Defence Force	Volume 2	23 Airport Zone	23.1.20.	No recommendation (munition burning)
992	71	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.7.	Accept in part
992	79	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.8.	Accept in part
992	80	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.8.1.	Accept
992	81	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.8.2.	Accept
992	82	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.8.3.	Reject
992	83	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.8.7.	Accept

992	84	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.9.	Accept in part
992	85	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.9.5.	Accept
992	86	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.10.4.	Accept in part
992	87	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.11.2.	Reject
992	88	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.12.6.	Reject
992	89	New Zealand Defence Force	Volume 2	23 Airport Zone	23.3.13.4.	Accept
992	90	New Zealand Defence Force	Volume 2	23 Airport Zone	23.5.1.	Accept in part
992	72	New Zealand Defence Force	Volume 2	23 Airport Zone	23.	Reject
992	73	New Zealand Defence Force	Volume 2	23 Airport Zone	23.	Reject
992	91	New Zealand Defence Force	Volume 2	23 Airport Zone	23.	Accept
992	59	New Zealand Defence Force	Volume 2	3 Rural Environment Zone	3.3.35.	Accept
993	24	New Zealand Fire Service Commission	Volume 2	3 Rural Environment Zone	3.1.35.	Accept
993	30	New Zealand Fire Service Commission	Volume 2	4 Coastal Environment Zone	4.1.34.	Accept
993	33	New Zealand Fire Service Commission	Volume 2	4 Coastal Environment Zone	4.3.34.	Accept
993	36	New Zealand Fire Service Commission	Volume 2	5 Urban Residential 1 and 2 Zone	5.1.21.	Accept
993	40	New Zealand Fire Service Commission	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.16.2.	Reject
993	49	New Zealand Fire Service Commission	Volume 2	8 Rural Living Zone	8.1.16.	Accept
993	51	New Zealand Fire Service Commission	Volume 2	8 Rural Living Zone	8.3.15.	Reject
993	60	New Zealand Fire Service Commission	Volume 2	12 Industrial 1 and 2 Zones	12.1.13.	Accept
993	64	New Zealand Fire Service Commission	Volume 2	12 Industrial 1 and 2 Zones	12.3.3.	Reject
993	66	New Zealand Fire Service Commission	Volume 2	13 Port Zone	13.1.34.	Accept
993	68	New Zealand Fire Service Commission	Volume 2	13 Port Zone	13.3.23.	Accept
993	72	New Zealand Fire Service Commission	Volume 2	15 Marina Zone	15.1.32.	Accept

993	74	New Zealand Fire Service Commission	Volume 2	15 Marina Zone	15.3.22.	Accept
993	76	New Zealand Fire Service Commission	Volume 2	16 Coastal Marine Zone	16.1.20.	Accept
993	78	New Zealand Fire Service Commission	Volume 2	16 Coastal Marine Zone	16.3.17.	Accept
993	83	New Zealand Fire Service Commission	Volume 2	19 Open Space 3 Zone	19.1.11.	Accept
993	87	New Zealand Fire Service Commission	Volume 2	23 Airport Zone	23.1.21.	Accept
993	88	New Zealand Fire Service Commission	Volume 2	23 Airport Zone	23.3.7.	Accept in part
993	85	New Zealand Fire Service Commission	Volume 2	19 Open Space 3 Zone	19.3.9.	Reject
993	42	New Zealand Fire Service Commission	Volume 2	6 Urban Residential 3 Zone	6.1.	Accept in part
993	29	New Zealand Fire Service Commission	Volume 2	3 Rural Environment Zone	3.3.35.	Reject
993	57	New Zealand Fire Service Commission	Volume 2	10 Business 2 Zone	10.1.	Accept in part
993	53	New Zealand Fire Service Commission	Volume 2	9 Business 1 Zone	9.1.	Accept in part
993	46	New Zealand Fire Service Commission	Volume 2	7 Coastal Living Zone	7.1.	Accept in part
998	37	New Zealand Pork Industry Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15E	Accept in part
998	38	New Zealand Pork Industry Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15E	Accept in part
998	36	New Zealand Pork Industry Board	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
1002	78	New Zealand Transport Agency	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
1002	79	New Zealand Transport Agency	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.35	Accept
1002	145	New Zealand Transport Agency	Volume 2	2 General Rules	2.	Accept in part
1002	149	New Zealand Transport Agency	Volume 2	2 General Rules	2.	Accept
1002	242	New Zealand Transport Agency	Volume 2	25 Definitions	25.	Accept
1004	38	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	2 General Rules	2.	Accept
1004	60	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	12 Industrial 1 and 2 Zones	12.1.11.	Accept

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1004	61	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	12 Industrial 1 and 2 Zones	12.1.12.	Accept
1004	69	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.2.	Accept in part
1004	56	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	3 Rural Environment Zone	3.	Accept in part
1004	31	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 2	3 Rural Environment Zone	3.1.	Accept in part
1017	10	Peter Gilford Gilbert	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.5.	Reject
1039	100	Pernod Ricard Winemakers New Zealand Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
1039	101	Pernod Ricard Winemakers New Zealand Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
1089	35	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.2.8.	Accept
1089	38	Rarangi District Residents Association	Volume 2	8 Rural Living Zone	8.2.6.	Accept
1155	1	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.1.	Accept in part
1155	4	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.1.1.	Accept in part
1155	2	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.2.	Accept in part
1155	5	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.2.1.	Accept in part
1155	6	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.2.2.	Reject
1155	3	Soundsmarine Limited	Volume 2	15 Marina Zone	15.4.3.	Reject
1173	6	Tim Newsham	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
1173	5	Tim Newsham	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.2	Reject
1173	7	Tim Newsham	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.34	Accept in part
1173	2	Tim Newsham	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.19.1.	Reject

1173	1	Tim Newsham	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.3.	Accept in part
1173	4	Tim Newsham	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.4.	Reject
1173	3	Tim Newsham	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.5.	Reject
1186	92	Te Atiawa o Te Waka-a-Maui	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15D	Accept in part
1198	152	Transpower New Zealand Limited	Volume 2	25 Definitions	25.	Accept
1201	148	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.1.36.	Accept
1201	151	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.36.	Accept in part
1201	143	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.1.	Accept
1201	145	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.1.	Accept
1201	144	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.	Accept
1201	146	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.	Accept
1218	71	Villa Maria	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
1218	72	Villa Maria	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.4	Accept in part
1218	56	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.39.	Accept
1239	6	Woodburners Unite (concerned Residents Group)	Volume 1	15 Resource Quality (Water, Air, Soil)	Issue 15D	Accept in part
1239	5	Woodburners Unite (concerned Residents Group)	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.28	Reject
1239	7	Woodburners Unite (concerned Residents Group)	Volume 1	15 Resource Quality (Water, Air, Soil)	15.M.30	Accept in part
1239	1	Woodburners Unite (concerned Residents Group)	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.3.	Accept in part
1239	2	Woodburners Unite (concerned Residents Group)	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.4.	Reject

1239	3	Woodburners Unite (concerned Residents Group)	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.5.	Reject
1239	4	Woodburners Unite (concerned Residents Group)	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.6.	Accept
1251	109	Fonterra Co-operative Group Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.3	Reject
1251	110	Fonterra Co-operative Group Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.1	Accept in part
1251	111	Fonterra Co-operative Group Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.2	Accept in part
1251	112	Fonterra Co-operative Group Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.3	Accept
1251	113	Fonterra Co-operative Group Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.3.6	Reject
1251	136	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.7.14.	Accept in part
1251	145	Fonterra Co-operative Group Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.2.	Accept
1251	146	Fonterra Co-operative Group Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.9.1.	Accept
1251	148	Fonterra Co-operative Group Limited	Volume 2	25 Definitions	25.	Accept
1262	1	EnviroNZ Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Objective 15.2	Accept
1262	2	EnviroNZ Limited	Volume 1	15 Resource Quality (Water, Air, Soil)	Policy 15.2.1	Accept
1262	3	EnviroNZ Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.2.1.	Reject
1262	4	EnviroNZ Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.2.2.	Reject
1262	6	EnviroNZ Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.9.1.	Accept in part
1262	7	EnviroNZ Limited	Volume 2	12 Industrial 1 and 2 Zones	12.3.9.8.	Accept in part
1262	5	EnviroNZ Limited	Volume 2	12 Industrial 1 and 2 Zones	12.5.7.	Accept in part
1268	1	Azwood Energy	Volume 2	4 Coastal Environment Zone	4.7.9.	Accept in part
1268	2	Azwood Energy	Volume 2	5 Urban Residential 1 and 2 Zone	5.5.7.	Accept in part
1268	3	Azwood Energy	Volume 2	6 Urban Residential 3 Zone	6.5.4.	Accept in part
1268	4	Azwood Energy	Volume 2	7 Coastal Living Zone	7.5.6.	Accept in part

1268	5	Azwood Energy	Volume 2	8 Rural Living Zone	8.5.6.	Accept in part
1268	6	Azwood Energy	Volume 2	9 Business 1 Zone	9.5.4.	Accept in part
1268	7	Azwood Energy	Volume 2	10 Business 2 Zone	10.5.3.	Accept in part
1268	8	Azwood Energy	Volume 2	11 Business 3 Zone	11.5.2.	Accept in part
1268	9	Azwood Energy	Volume 2	12 Industrial 1 and 2 Zones	12.5.7.	Accept in part
1268	10	Azwood Energy	Volume 2	13 Port Zone	13.6.3.	Accept in part
1268	11	Azwood Energy	Volume 2	14 Port Landing Area Zone	14.5.3.	Accept in part
1268	12	Azwood Energy	Volume 2	15 Marina Zone	15.7.3.	Accept in part
1268	13	Azwood Energy	Volume 2	16 Coastal Marine Zone	16.7.1.	Accept in part
1268	14	Azwood Energy	Volume 2	17 Open Space 1 Zone	17.5.1.	Accept in part
1268	15	Azwood Energy	Volume 2	18 Open Space 2 Zone	18.5.1.	Accept in part
1268	16	Azwood Energy	Volume 2	19 Open Space 3 Zone	19.5.1.	Accept in part
1268	17	Azwood Energy	Volume 2	20 Open Space 4 Zone	20.6.1.	Accept in part
1268	18	Azwood Energy	Volume 2	21 Floodway Zone	21.5.1.	Accept in part
1268	19	Azwood Energy	Volume 2	22 Lake Grassmere Saltworks Zone	22.6.1.	Accept in part
1268	20	Azwood Energy	Volume 2	23 Airport Zone	23.5.1.	Accept in part
1297	1	Dawn Janice Rentoul	Volume 2	3 Rural Environment Zone	3.1.36.	Accept
1297	2	Dawn Janice Rentoul	Volume 2	3 Rural Environment Zone	3.3.36.	Reject
1298	1	Brian and Elsie Hall	Volume 2	3 Rural Environment Zone	3.1.36.	Accept
1298	2	Brian and Elsie Hall	Volume 2	3 Rural Environment Zone	3.3.36.	Reject
1304	1	Hannam, Kay Lucille Williams, Brian Lloyd and	Volume 2	10 Business 2 Zone	10.5.1.	Reject