Proposed Marlborough Environment Plan

Section 42A Hearings Report for Hearing Commencing 10 September 2018

Report dated 9 August 2018

Report on submissions and further submissions Topic 14: Waste and Discharges to Land

Report prepared by

Matthew McCallum-Clark and Adele Dawson

Consultant Planners

Contents

List of Tables

List of Abbreviations

HSNO	Hazardous Substances and New Organisms Act 1996
MDC	Marlborough District Council
MEP	Proposed Marlborough Environment Plan
MSRMP	Marlborough Sounds Resource Management Plan
RMA	Resource Management Act 1991
WARMP	Wairau/Awatere Resource Management Plan
OSPRI	Operational Solutions for Primary Industries

Submitter Abbreviations

Submitter Number	Submitter Abbreviation	Full Submitter Name
91	MDC	Marlborough District Council
100	EBCS	East Bay Conservation Society
274	IPENZ	Institution of Professional Engineers New Zealand
401	Aquaculture NZ	Aquaculture New Zealand
425	Federated Farmers	Federated Farmers of New Zealand
426	MFA	Marine Farming Association Incorporated
457	Accolade	Accolade Wines New Zealand Limited
459	Beef and Lamb	Beef and Lamb New Zealand
462	Blind River	Blind River Irrigation Limited
482	DOC	Department of Conservation
507	QCSRA	Queen Charlotte Sound Residents Association
509	Fish and Game	Nelson Marlborough Fish and Game
631	Constellation Brands	Constellation Brands New Zealand Limited
715	Forest and Bird	Royal Forest and Bird Protection Society
869	KCSRA	Kenepuru and Central Sounds Residents Association Incorporated
962	MFIA	Marlborough Forest Industry Association
990	NFL	Nelson Forests Limited
992	NZDF	New Zealand Defence Force
995	NZ Forest Products	New Zealand Forest Products Holdings Limited
998	NZ Pork	New Zealand Pork Industry Board
1002	NZTA	New Zealand Transport Agency
1006	Opus	Opus International Consultants Limited
1039	Pernod	Pernod Ricard Winemakers New Zealand Limited
1089	RDRA	Rarangi District Residents Association
1090	Ravensdown	Ravensdown Limited
1186	Te Atiawa	Te Atiawa o Te Waka-a-Maui
1192	FANZ	The Fertiliser Association of New Zealand
1193	MEC	The Marlborough Environment Centre Incorporated
1201	Trustpower	Trustpower Limited
1235	WCRRA	Wairau Valley Ratepayers and Residents Association
1251	Fonterra	Fonterra Co-operative Group Limited

Introduction

1. My name is Matthew McCallum-Clark. I am a Resource Management Consultant and a director of the firm Incite, which has offices in Auckland, Wellington, Nelson, Dunedin and Christchurch. My qualifications and experience are as follows:

2. I hold a Bachelor of Laws from Canterbury University, a Bachelor of Commerce (Economics) from Otago University and have undertaken a postgraduate diploma in Environmental Auditing through Brunel University in the UK. I am also a qualified and experienced independent hearing commissioner with chair endorsement under the Ministry for the Environment's Making Good Decisions Programme.

3. Apart from a short period at a city council, I have been a resource management consultant for about 24 years. Over the last ten years I have specialised in providing policy advice to a range of clients, particularly local authorities. This has included significant involvement in regional plan development for the Waikato, Canterbury and Southland Regional Councils, as well as a lead planner role with respect to the Hurunui District Plan. I have also reviewed and prepared submissions on a number of proposed district plans, including for Queenstown-Lakes District, Southland District, and the Christchurch District Replacement Plan.

4. I was not involved with the preparation of the MEP. I was contracted by the Marlborough District Council (Council) in August 2017 (after the MEP submission period had closed) to evaluate the relief requested in submissions and to provide recommendations in the form of a Section 42A report.

5. I have read Council's Section 32 reports and other relevant Section 42A Reports.

Code of Conduct

6. 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.

7. 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.

8. I am authorised to give this evidence on the Council's behalf.

Scope of Hearings Report

9. This report is prepared in accordance with Section 42A of the Resource Management Act 1991 (RMA).

10. In this report I assess and provide recommendations to the Hearing Panel on submissions made on the issues, objectives, policies and methods pertaining to waste and discharges onto or into land. In particular, this report contains my assessment of submissions on Volume 1: Chapter 16 Waste, Volume 2: zone-based discharge to land rules and Chapter 2 General Rules related to discharges to air, Volume 4 Sensitive Soil Areas Overlay and relevant definitions.

11. The assessment and recommendations in relation the Sensitive Soil Areas Overlay is informed by a report prepared by Matthew Oliver, MDC Environmental Scientist – Land Management which is attached as Appendix 1.

12. This report does not assess submissions received in relation to the permitted activity standards which relate to Groundwater Protection Areas[1]: Submissions on these permitted activity standards are to be assessed in Topic 13 Resource Quality (Water).

13. I have also not assessed submissions on the discharge of aquatic herbicide and glyphosphate into or onto land for the purpose of removing pest plants in a Significant Wetland as these have been assessed in Topic 6 Indigenous Biodiversity-Significant Wetlands.

14. A full list of provisions covered within this report is included below in the Overview of Provisions section.

15. 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.

16. 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.

[1] Permitted activity standards: 3.3.30.6, 3.3.31.3, 5.3.12.7, 6.3.7.7, 10.3.7.7, 17.3.9.8, 18.3.10.8, 19.3.13.8, 19.3.20.3 and 21.3.6.6

Overview of Provisions

17. The provisions that are considered in this report are the issues, objectives, policies, methods and anticipated environmental results and monitoring effectiveness related to waste in Volume 1, Chapter 16; the general rules and all zone based rules relating to discharges onto or into land and agricultural land uses that may affect water quality in various chapters of Volume 2; and the Soil Sensitive Areas Overlay in Volume 4. The Volume 2 and Volume 4 provisions implement the Objectives, Policies and Methods outlined in Chapter 16, Volume 1 of the MEP.

18. The Volume 1 objectives, policies and methods vary between RPS level, Regional level and District level.

19. The provisions assessed are listed in the table below:

Table 1: Provisions assessed in Topic 14 Section 42A report

Volume 1	Volume 2	Volume 4
Issues:16A, 16B	General Rules: 2.21, 2.22, 2.23	Soil Sensitive Areas Overlay
Objectives: 16.1, 16.2, 16.3	Rural Environment Zone: 3.1.22-3.1.34, 3.3.22-3.3.34, 3.6.12, 3.7.6, 3.7.7	
Policies: 16.1.1, 16.1.2, 16.2.1, 16.2.2, 16.2.3, 16.2.4, 16.2.5, 16.2.6, 16.2.7, 16.2.8, 16.3.1, 16.3.2, 16.3.3, 16.3.4, 16.3.5, 16.3.6, 16.3.7, 16.3.8, 16.3.9	Coastal Environment Zone: 4.1.21-4.1.33, 4.3.21-4.3.33, 4.6.11, 4.6.13, 4.7.6, 4.7.7	
Methods: 16.M.1, 16.M.2, 16.M.3, 16.M.4, 16.M.5, 16.M.6, 16.M.7, 16.M.8, 16.M.9, 16.M.10, 16.M,11, 16.M.12, 16.M.13, 16.M.14, 16.M.15, 16.M.17, 16.M.18, 16.M.19, 16.M.20, 16.M.21	Urban Residential 1 and 2 Zone: 5.1.17-5.1.19, 5.3.12-5.3.12-5.3.14, 5.4.5, 5.5.2	
Anticipated environmental results and monitoring effectiveness: 16.AER.1, 16.AER.2, 16.AER.4	Urban Residential 3 Zone: 6.1.9-6.1.11, 6.3.6-6.3.8, 6.4.5, 6.5.2	
	Coastal Living Zone: 7.1.13-7.1.15, 7.3.11-7.3.13, 7.4.4, 7.4.7, 7.5.4, 7.5.5	
	Rural Living Zone: 8.1.13-8.1.15, 8.3.12-8.3.14, 8.4.7, 8.5.4, 8.5.5	
	Business 1 Zone: 9.1.11, 9.3.6, 9.4.3, 9.5.3	
	Business 2 Zone: 10.1.9, 10.1.10, 10.3.6, 10.3.7, 10.4.3, 10.5.2	
	Business 3 Zone: 11.1.5, 11.3.5, 11.4.3, 11.5.1	
	Industrial 1 and 2 Zone: 12.1.32, 12.3.21, 12.4.4, 12.5.1, 12.5.2	
	Port Zone: 13.5.6, 13.6.1	
	Port Landing Zone: 14.5.1	
	Marine Zone: 15.6.5, 15.7.1	

	Open Space 1 Zone: 17.1.9-17.1.11, 17.3.7-17.3.9, 17.4.4, 17.5.3, 17.5.4	
	Open Space 2 Zone: 18.1.12-18.1.14, 18.3.8-18.3.10, 18.4.3, 18.5.3-18.5.5	
	Open Space 3 Zone:19.1.14-19.1.25, 19.3.12-19.3.23, 19.4.3, 19.5.2, 19.5.4	
	Open Space 4 Zone: 20.1.8, 20.3.6, 20.5.4, 20.6.2, 20.6.3	
	Floodway Zone: 21.1.15, 21.3.15, 21.4.4	
	Lake Grassmere Salt Works Zone: 22.1.11, 22.3.10, 22.5.8, 22.6.2, 22.6.3	
	Airport Zone: 23.1.17-23.1.19, 23.3.4-23.3.6, 23.4.3, 23.5.2	

20. The introduction to Chapter 16 Waste gives the context for waste generation and disposal activities in the Marlborough District. The introduction states:

    The amount of waste disposed of in Marlborough has steadily increased, mostly due to an increasing population, economic growth and increasing consumer demand. Disposing of waste uses land and resources that would otherwise be available for other purposes. Waste disposal also incurs a cost to communities and the environment.

    …

    When an item enters the waste stream, the environmental effects vary depending on the nature of the waste, the method of disposal and the nature of the receiving environment.

    …

    Avoiding waste altogether would be the best way to avoid the costs to people and the environment. However, not all waste can be avoided and management of waste is necessary to ensure that the costs and effects on the environment are minimised….The focus of this chapter of the Marlborough Environment Plan (MEP) is to set a framework for addressing Marlborough's significant waste management issues under the Resource Management Act 1991 (RMA)….

21. There are two issues identified in Chapter 16, being Issue 16A and Issue 16B.

22. Issue 16A states:

    Large quantities of solid waste are generated in Marlborough.

23. The explanation to Issue 16A recognises that a large quantity of solid waste is produced in the Marlborough Region which requires management and disposal. It also acknowledges that if this waste is not managed, there may be adverse effects on land, water and soil resources. MDC have invested significantly in alternatives to disposal in the regional landfill which have extended the life of the landfill. The issue also specifically acknowledges that waste disposal in remote locations, including the Marlborough Sounds is challenging and that some people have addressed these challenges by disposing of solid waste on-site. Illegal dumping is a particular concern as it poses significant environmental and human health risks as well as being unsightly.

24. The MEP includes two objectives to address Issue 16A:

    - *"Objective 16.1 - Reduce the amount of solid waste generated in Marlborough."*

- *"Objective 16.2 – Avoid, remedy or mitigate actual or potential adverse effects arising from solid waste management activities."*

25. These objectives are implemented through a number of policies and methods which seek to:

    - Encourage waste minimisation practices or waste re-use (Policies 16.1.1 and 16.1.2, Methods 16.M.1 to 16.M.8);
    - Provide centralised solid waste disposal facilities (Policy 16.2.1, Methods 16.M.9 to 16.M.11)
    - Manage and provide for the storage and disposal of waste (Policies 16.2.2 to 16.2.6, Methods 16.M.9, 16.M.12);
    - Avoid the disposal of hazardous waste (Policy 16.2.7 and Methods 16.M.11 and 16.M.12); and
    - Encourage the responsible disposal of solid waste in remote locations (Policy 16.2.8 and Methods 16.M.13, 16.M.14).

26. Issue 16B states:

    The discharge of liquid wastes onto or into land has the potential to adversely affect the surrounding environment.

27. The explanation to Issue 16B acknowledges that a variety of liquid wastes are generated from many sources in Marlborough which can contain a range of different contaminants including solids, nutrients and bacteria. Discharges of liquid waste to land are viable due to the soil properties and climate within the region, therefore such discharges are encouraged over discharges to water in order to maintain and enhance water quality. Discharges to land still have the potential to result in adverse effects, with ponding a particular concern as this can result in runoff or human health impacts. Different soils also have distinct characteristics which affect infiltration and contaminant removal capability, therefore contaminant levels and discharge rates need to be considered before discharges occur.

28. The MEP includes one objective to address Issue 16B:

    - *Objective 16.3 – The discharge of liquid wastes onto or into land is managed in a way that avoids adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural and amenity values.*

29. This objective is supported by Policies 16.3.1 to 16.3.9 and Methods 16.M.14 to 16.M.21. These provisions seek to:

    - Ensure wastewater management systems are suitably designed, located, installed and maintained (Policy 16.3.1, Methods 16.M.18 to 16.M.21);
    - Require discharge permits where there are environmental constraints to effective wastewater management, ensure those systems consider the specific site constraints and site conditions and are granted where specified requirements are met. (Policies 16.3.2 to 16.3.4, Method 16.M.15 to 16.M.17, 16.M.19);
    - Ensure discharge permit applications have regard to cultural values (Policy 16.3.5);
    - Promote good practice in wastewater management systems and monitor existing systems (Policies 16.3.7 and 16.3.8, Method 16.M.18 to 16.M.20); and
    - Encourage artificial wetlands as a means of managing discharges (Policy 16.3.9).

30. Volume 2 of the MEP includes all rules that seek to implement the policies of the MEP and achieve the objectives. This report addresses the Chapter 2 general rules in relation to the discharge to air of agrichemicals and the waste and discharge to land rules are spread amongst the different zone chapters. All rules covered are regional rules. The permitted activity rules include a number of permitted activity standards which must be met for an activity to be classified as permitted. In most cases, where a permitted activity standard is not met, or there is no permitted activity rule, the discharges are a discretionary activity. The permitted activity rules cover the following subject matters:

    - Application of an agrichemical into or onto land;
    - Application of fertiliser or lime into or onto land;

- Application of a vertebrate toxic agent by hand into or onto all land, or application of a vertebrate toxic agent by air onto private land;
- Application of compost or solid agricultural waste into or onto land;
- Discharge of agricultural liquid waste (except dairy farm effluent) into or onto land;
- Discharge of aquatic herbicide and glyphosphate into or onto land for the purpose of removing pest plants in a Significant Wetland;
- Discharge of dairy farm effluent into or onto land;
- Discharge of swimming or spa pool water into land;
- Discharge of human effluent into or onto land;
- Discharge of human effluent into land through a long drop toilet;
- Disposal of farm rubbish into a pit;
- Disposal of offal or a carcass into an offal pit;
- Making compost or silage in a pit or stack, or stockpiling agricultural solid waste; and
- Storage of compost not in a pit or stack.

31. Not all zones include permitted activity rules for all activities listed above.

32. There is one specific discretionary activity rule that covers the discharge of human effluent into or onto land through an onsite wastewater system

33. There are also relevant prohibited activity rules in specific zones that prohibit the:

- Disposal of hazardous waste into or onto land (other than into a lawfully established hazardous waste landfill);
- Storage or reprocessing of hazardous waste, or the disposal of hazardous waste into or onto land (other than into a lawfully established hazardous waste landfill);
- Discharge or dumping of a hazardous waste into or onto land from onshore into the coastal marine area;
- Disposal of hazardous waste into or onto land other than discharges from salt production processes;
- Disposal of any solid waste material to land;
- Discharge of human effluent through a soak pit established after 9 June 2016; and
- Discharge of industrial process waste to stormwater.

34. Volume 4 of the MEP includes all zoning maps and overlays. Relevant to this topic is the Soil Sensitive Areas Overlay. This overlay identifies soils within the region identified as 'Impeded Soils', 'Loess Soils' and 'Free Draining Soils.' Impeded soils have fine soil particles which result in slower drainage. These soils have reduced infiltration rates making ponding more likely and can also result in preferential flow as soils dry out and crack meaning groundwater and surface water are vulnerable to contamination. Loess soils are predominately located in the hill country south of Blenheim and along the southern boundary of the Wairau Plain and are prone to severe tunnel gully erosion. Free-draining soils are located in a single area overlying the Rarangi Shallow Aquifer. This area is at risk from the overlying land use and has a high vulnerability to contamination due to the underlying soil characteristics and the high use of the aquifer by individual groundwater users.

35. There are also a range of definitions which relate to the provisions above which are also addressed in this report. These definitions are:

- Agrichemical
- Agricultural Liquid Waste
- Agricultural Solid Waste
- Agricultural Waste
- Cleanfill
- Compost
- Cut-off
- Dairy Farm Effluent
- Fertiliser
- Impermeable material
- Liquid Waste
- Offal Pit
- Pit
- Ponding
- Recognised Professional
- Run-off
- Solid Waste
- Stormwater

- Grade A Treated Sewerage
- Grade B Treated Sewerage
- Hazardous Waste
- High Rate Discharge System
- Waste
- Wastewater
- When not in use

Statutory Documents

36. 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 actual assessment.

Resource Management Act 1991

37. Section 5 sets out the purpose of the RMA, including the definition of sustainable management. The purpose of a Regional and District Plan is to assist the authority to carry out their functions to achieve the purpose of the RMA. Of particular relevance, Section 5(2)(b) requires safeguarding of the life-supporting capacity of air, water, soil and ecosystems and Section 5(2)(c) requires the avoiding, remedying or mitigation of any adverse effects of activities on the environment.

38. Section 6(e) requires those exercising functions and powers under the RMA, as a matter of national importance, to recognise and provide for '*the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga'*.

39. Section 7 requires those exercising functions and powers under the RMA to have particular regard to:

- *(b) the efficient use and development of natural and physical resources;*
- *(c) the maintenance and enhancement of amenity values; and*
- *(f) maintenance and enhancement of the quality of the environment.*

Hazardous Substances and New Organisms Act 1996 (HSNO Act)

40. The purpose of the HSNO Act is to *protect the environment, and the health and safety of people and communities, by preventing or managing the adverse effects of hazardous substances and new organisms.* The key principles relevant to the purpose of the HSNO Act are:

- Safeguarding of the life supporting capacity of air, water, soil and ecosystems; and
- The maintenance and enhancement of the capacity of people and communities to provide for their own economic, social and cultural well-being and for the reasonably foreseeable needs of future generations.

41. The HSNO Act establishes a consistent process for assessing the risks posed by hazardous substances and new organisms and for setting national controls to manage their environmental effects and risks. All users of hazardous substances and new organisms must comply with the controls that are imposed by the Environmental Risk Management Authority on approvals for hazardous substances and new organisms.

42. The HSNO Act is relevant to this topic as a number of permitted activity standards refer to the HSNO Act, including rules for the application of an agrichemical into or onto land and application of a vertebrate toxic agent.

National Policy Statements

National Policy Statement for Freshwater Management (NPSFM)

43. The NPSFM sets out objectives and policies for freshwater management, providing direction on how local authorities should carry out their responsibilities under the RMA for managing fresh water. Specifically, the objectives of the NPSFM require the overall quality of fresh water within a freshwater management unit to be maintained or improved and that the quality of fresh water within a freshwater management unit is improved until it is suitable for primary contact more often.

44. In accordance with the NPSFM, Regional Councils are required to make or change Regional Plans to:

- Establish freshwater objectives in accordance with Policies CA1-CA4 and set freshwater quality limits for all freshwater management units in their regions; and
- Establish methods (including rules) to avoid over-allocation.

45. MDC have prepared a staged programme for giving effect to Policy A1 of the NPSFM which requires Regional Councils to set freshwater objectives and freshwater quality limits for all freshwater management units. This programme sets out the following timeline:

- Stage 1: Interim water quality protection (2012 and on-going)
    - Notify plan change to require resource consent for the conversion of land to dairy farming
    - On-going and progressive implementation of Council's Stormwater Strategy
    - Implement Farm Planning Service to assist existing dairy farmers to improve their environmental performance.
    - On-going state of the environment monitoring to establish baseline environmental conditions and detect trends in water quality.
- Stage 2 (1 July 2013 to 30 June 2023)
    - Technical investigations to collect, analyse and report data that will support the establishment of cumulative water quality limits on a catchment by catchment basis.
- Stage 3 (By 30 June 2024)
    - Preparation and notification of plan changes to introduce cumulative limits and if necessary methods and timeframes for managing water quality improvements.

46. Chapter 16 does not specifically reference the NPSFM however the policies and rules seek to manage activities that have the potential to affect freshwater quality, therefore the NPSFM is relevant to this topic.

National Environmental Standards

National Environmental Standards for Sources of Human Drinking Water (NESHDW)

47. The NESHDW came into effect on 20 June 2008 and sets requirements for protecting sources of human drinking water from becoming contaminated. The NESHDW requires regional councils to ensure that effects of activities on drinking water sources are considered in decisions on resource consents and regional plans. Specifically, regional councils are required to:

- Decline discharge or water permits that are likely to result in community drinking water becoming unsafe for human consumption following existing treatment;

- Be satisfied that permitted activities in regional plans will not result in community drinking water supplies being unsafe for human consumption following existing treatment; and
- Place conditions on relevant resource consents that require notification of drinking water suppliers if significant unintended events occur (eg, spills) that may adversely affect sources of human drinking water.

48. The NESHDW is directly relevant to Topic 16 as permitted activity rules are included in the MEP for activities that have the potential to affect community drinking water supplies.

49. From my review of the waste and discharge to land rules in the MEP, I am of the opinion that amendments are necessary to several rules to ensure the MEP gives effect to the NESHDW, specifically that the permitted activity rules will not result in community drinking water supplies being unsafe for human consumption.

50. Volume 4 of the MEP includes the Groundwater Protection Areas overlay. This overlay identifies protection zones around community supply bores where specific activities are restricted via the permitted activity rules. This includes several discharge activities but, in my view, there are other discharges to land that are currently not restricted via the permitted activity standards which need to be in order to meet the requirements of the NESHDW.

51. The following permitted activity standard is currently included in some MEP rules:

    The xxxxx (activity) must not occur within a Groundwater Protection Area.

52. I recommend this permitted activity standard should be the following rules include the following permitted activity standard restricting the activity from within a Groundwater Protection Area:

    - Application of compost or solid agricultural waste;[2]
    - Making compost or silage or storing agricultural solid waste;[3]
    - Storage of compost;[4]
    - Discharge of agricultural liquid waste;[5]
    - Discharge of dairy farm effluent;[6] and
    - Disposal of offal or a carcass.[7]

53. All of the activities listed above may result in contaminant discharges to ground where the discharge may include microbial contaminants. Community drinking water sources are particularly vulnerable to microbial contamination and therefore the inclusion of the permitted activity above will ensure those drinking water supplies are protected from high risk activities.

54. No submissions have been received requesting this relief, but it is my view that the MEP must be amended to ensure that MDC complies with the NESHDW requirements. If the Hearing Panel is concerned regarding the scope to amend the MEP, the Hearing Panel must be convinced that the permitted activity standards of the proposed rules are sufficient to protect drinking water supplies.

[2] Rules: 3.3.25, 4.3.24, 19.3.18
[3] Rules: 3.3.33, 4.3.32, 19.3.22
[4] Rules: 3.3.34, 4.3.33, 19.3.23
[5] Rules: 3.3.26, 4.3.25, 19.3.19
[6] Rules: 3.3.28, 4.3.27
[7] Rules: 3.3.32, 4.3.31, 19.3.21

Resource Management Regulations

Resource Management (Exemption) Regulations 2017

55. The Resource Management (Exemption) Regulations 2017 provide that three vertebrate toxic agents (sodium fluoroacetate (1080), brodifacoum and rotenone) plus an associated re-feed or repellent are exempt from Section 15 of the RMA. Sodium fluoroacetate is applied to land, brodifacoum is also applied to land but is only exempt where applied on land protected by a predator proof fence or an offshore island (not the North and South Island) and rotenone is discharged into water to kill fish. Therefore, for the purpose of this report, the regulations related to the application of sodium fluoroacetate and brodifacoum are relevant.

56. For the discharge of these vertebrate toxic agents to be exempt, it must comply with certain limits, and the operator responsible for the discharge must provide certain information to regional councils. Where a discharge does not comply with the regulations, it is still subject to Section 15 of the RMA and therefore to be applied either needs to meet any relevant permitted activity rules or is subject to a resource consent.

57. The regulations are not directly referenced in the MEP but are relevant to the provisions providing for the application of vertebrate toxic agents.

Other documents

Waste Management and Minimisation Plan 2015-2021

58. The Waste Management and Minimisation Plan (WMMP) 2015-2021 provides the strategy for the collection, reuse, recycling, recovery, treatment of disposal of diverted materials and waste in the Marlborough Region. The WMMP sets a vision which is *"reducing the amount of waste that is sent to landfill through a combination of waste reduction and reuse in conjunction with increasing the rates of material diversion."*

59. The WMMP sets out goals, objectives and targets for waste management and minimisation and the proposed methods, funding and monitoring of progress towards achieving the set goals. The specific goals for MDC for the period of 2015 to 2021 are:

    - Establish a Commercial Industrial Sorting Facility (CIF) by 1 July 2016;
    - Investigate options for food waste reduction;
    - Investigate options for co-mingled recycling (wheelie bins);
    - Investigate options for expanding direct access to recycling services including Public Place Recycling Schemes (PPRS); and
    - Investigate options for expanding the processing of greenwaste into compost.

60. The targets related to the above goals are:

    - Have the CIF operational and achieving a 60% diversion rate by 2017.
    - Increase the amount of recycling collected from Renwick, Grovetown, Spring Creek, Tua Marina, Rapaura, and Rarangi by up to 400 tonnes per year.
    - Reduce the amount of food waste sent to landfill each year via kerbside collections by 20% (200 tonnes) by 2017.
    - Increase the amount of greenwaste processed through the Wither Road site each year by 10% (800 tonnes) by 2018.

Analysis of submissions

61. There were approximately 1,034 submissions received on provisions relevant to the Waste and Discharges to Land topic.

Key matters

62. I have set out my analysis of the submissions points by issue and then by respective components of the topic, under the following headings:

- Matter 1: Volume 1-Solid Waste;
- Matter 2: Volume 1- Liquid Waste;
- Matter 3: General submissions across various rules;
- Matter 4: Application of agrichemicals;
- Matter 5: Application of fertiliser or lime;
- Matter 6: Application of a vertebrate toxic agent;
- Matter 7: Application of compost or solid agricultural waste;
- Matter 8: Discharge of agricultural liquid waste;
- Matter 9: Discharge of dairy effluent;
- Matter 10: Discharge of human effluent;
- Matter 11: Discharge of farm rubbish;
- Matter 12: Disposal of offal or carcasses;
- Matter 13: Making compost or silage or stockpiling agricultural solid waste;
- Matter 14: Storage of compost;
- Matter 15: Hazardous waste;
- Matter 16: Soil Sensitive Areas Overlay;
- Matter 17: Additional Definitions; and
- Matter 18: General Submissions

Assessment approach

63. The assessment approach taken for all rules assessed below has been to consider the requested relief from submitters across all relevant zone rules, even where a submission has been received on the rule within a single zone. This has been to ensure there is consistency where necessary across the permitted activity standards within the plan for ease of implementation by plan users.

64. No submissions were received on the following provisions and therefore I have also not assessed these provisions, and recommend that they are retained as notified:

- Discharge of swimming or spa pool water [8];
- Disposal of solid waste material [9]; and
- Discharge of industrial process water to stormwater.[10]

65. Submission points received on definitions related to this topic are also discussed in relation to the discharge rules where possible. All other submission points on relevant definitions are discussed in Matter 17: Additional definitions.

Pre-hearing meetings

66. There has been no pre-hearing meeting for this topic.

[8] Rules: 3.1.29, 3.3.29, 4.1.28, 4.3.28, 5.1.19, 5.3.14, 6.1.9, 6.3.6, 7.1.14, 7.3.12, 8.1.14, 8.3.13,
[9] Rule: 20.6.2
[10] Rule: 12.5.1

Matter 1: Volume 1 - Solid Waste

67. This section assesses all submissions on provisions in Volume 1, Chapter 16 of the MEP in relation to solid waste. These provisions are listed below.

Table 2: Provisions assessed in Matter 1				
Issue	**Objective**	**Policy**	**Method**	**Anticipated Environment Result**
16A	16.1	16.1.1	16.M.1	16.AER.1
		16.1.2	16.M.2	16.AER.2
		16.2.1	16.M.3	
	16.2	16.2.2	16.M.4	
		16.2.3	16.M.5	
		16.2.4	16.M.6	
		16.2.5	16.M.7	
		16.2.6	16.M.8	
		16.2.7	16.M.9	
		16.2.8	16.M.10	
			16.M.11	
			16.M.12	
			16.M.13	
			16.M.14	

68. Submissions were not received on all provisions. Where a provision has been submitted on, the submission(s) and analysis of those submission(s) is included below.

69. A key theme of submissions received on Issue 16A and the provisions that support it, is waste disposal in remote locations, particularly the availability of centralised waste disposal options. Submitters have sought the amendment of current provisions or the introduction of new policies to increase the waste disposal and recycling opportunities for remote areas.

70. It is my view that it is not necessary to amend the current proposed MEP objectives and policies or introduce new provisions to support increased access to waste disposal and recycling options in more isolated areas. The current policies and methods already address the centralisation of waste transfer sites and the provision for facilities in strategic locations in the Marlborough Sounds. Policy 16.2.1 seeks to centralise solid waste disposal at the regional landfill and associated transfer stations and Method 16.M.10 seeks to continue to provide transfer stations and waste collection facilities at strategic locations in the Marlborough Sounds. In my opinion the submissions requesting increased access to these facilities may be more appropriately addressed via the MDC Annual Plan and Long-Term Plan processes to obtain funding for those services. Further discussion regarding this issue on each submission point is provided below.

Issues and Objectives

Issue 16A

71. Issue 16A reads:

Large quantities of solid waste are generated in Marlborough.

72. Two submissions on Issue 16A have been received. MFIA (962.108) support Issue 16A but raise a concern about illegal dumping on private land and seek policies or methods to address the issue. NFL

(990.252) oppose Issue 16A and seek policies and methods to address the issue of illegal dumping of solid waste on both public or private land.

73. I consider that both submitters' requests are not appropriate to address via amendments to Issue 16A as both seek policies or methods to address the issue. Further consideration of whether amendments to the current provisions or if new policies or methods are required is provided below. As such I do not recommend any changes to Issue 16A.

Objective 16.1

74. Objective 16.1 reads:

Reduce the amount of solid waste generated in Marlborough.

75. Two submissions on Objective 16.1 have been received. KCSRA (869.41) support Objective 16.1 but seek a policy to review and improve waste disposal and recycling opportunities for residents and visitors in the Marlborough Sounds and other remote areas. M and K Gerard (424.130) support Objective 16.1 and seek that it is retained as notified.

76. The request from KCSRA is for policy support to increase waste disposal and recycling opportunities and does not raise any concern with the direction of Objective 16.1. As such I do not recommend any changes to the objective and as assessed above, I do not consider any further provisions are necessary to address this issue.

Objective 16.2

77. Objective 16.2 reads:

Avoid, remedy or mitigate actual or potential adverse effects arising from solid waste management activities.

78. Three submission points were received on Objective 16.2. M Chapman (348.42) supports in part Objective 16.2 as only biodegradable rubbish can be disposed of in a farm rubbish dump. M Chapman seeks that additional provisions are included to require a centralised transfer station for rural rubbish in each major rural valley.

79. Federated Farmers (425.324) seek an amendment to Objective 16.2 to require the management of actual or potential adverse effects arising from solid waste management activities rather than to avoid, remedy or mitigate effects. Federated Farmers consider it is not possible to remedy or mitigate "potential adverse effects".

80. Federated Farmers (425.326) also seek that a new policy is added under this Objective, which states:

Increase access for remote communities to solid waste disposal through the operation of landfill and associated transfer stations, and permissive on-farm waste disposal rules.

81. In response to M Chapman's submission and Federated Farmers request for a new policy, I consider that it is not appropriate to address these concerns by amending Objective 16.2 as the request is more relevant to policies or methods of Chapter 16. As assessed above, I consider the proposed policies and methods of the MEP adequately address this issue and further access to these facilities may be better addressed through submissions on MDC's Annual Plan and Long-Term Plan.

82. Regarding the amendments sought by Federated Farmers, I consider that it is not necessary to rephrase this objective as it is reflective of the definition of effect and the wording of Section 5(2)(c) in the RMA.

Recommendation

83. I recommend no changes to Issue 16A, Objective 16.1 or Objective 16.2.

Policies

Policy 16.1.1

84. Policy 16.1.1 reads:

> *Encourage waste minimisation practices by establishing a waste management hierarchy that ensures waste is managed in the following order of priority:*
> *(a) promoting lower levels of solid waste generation; then*
> *(b) promoting higher levels of reuse, recycling and recovery of solid waste; then*
> *(c) disposal of residual solid waste.*

85. Federated Farmers (425.322) partially support Policy 16.1.1. They note that on-farm options for reducing solid waste generation and recovery of waste can be limited. Federated Famers seek that the policy does not prioritise promotion above other disposal options as it could result in more funding on educative tools than on waste disposal.

86. While I recognise that waste disposal and recycling options in remote areas are limited, I do not agree that it is appropriate to amend the hierarchy set in Policy 16.1.1. I consider that it is important for waste minimisation practices to firstly avoid the production of waste, then reuse, recover or recycle waste and then finally dispose of residual waste as a means to reduce environmental impacts. While one outcome of the policy could be more funding is spent on education rather than disposal, this approach may better achieve Objective 16.1 than amending Policy 16.1.1 to remove the hierarchy established. In addition, other provisions of the MEP seek to ensure waste is disposed of in a manner that reduces environmental harm, therefore I do not consider Policy 16.1.1 will reduce the opportunity for solid waste disposal where it is necessary.[11]

Policy 16.1.2

87. Policy 16.1.2 reads:

> *Encourage the diversion of inert waste and putrescible waste from the waste stream disposed of at the regional landfill.*

88. Two submissions were received on Policy 16.1.2.W Lissaman (255.9) supports Policy 16.1.2 but notes that composting needs to be managed to avoid point source discharges, requiring retailers to accept packaging back would promote bio-degradable packaging and it must be acknowledged the costs to the ratepayer need to be affordable. Fulton Hogan (717.59) also seek to retain Policy 16.1.2 as diverting inert wastes in cleanfills reduces demand on municipal landfills.

89. The WMMP includes goals of expanding the processing of greenwaste into compost and establishing a commercial industrial sorting facility. Both goals support the diversion of waste from the waste stream to be disposed of at the regional landfill. Based on the comments from W Lissaman and Fulton Hogan I do not consider any changes to Policy 16.1.2 are required. The impacts of waste storage and disposal, including discharges from composting are addressed by other provisions in Chapter 16 and methods are included to support the reduction of waste generated which will reduce costs to ratepayers.

Policy 16.2.1

90. Policy 16.2.1 reads:

[11] Objective 16.2, Policy 16.2.1, Policy 16.2.2, Policy 16.2.4.

Continue to centralise solid waste disposal activities through the operation of a regional landfill and associated transfer stations.

91. One submission has been received on Policy 16.2.1. Federated Farmers (425.325) support in part Policy 16.2.1 and state MDC has a responsibility to provide residents in remote areas access to waste disposal services and permissive on-farm waste disposal rules. It is inferred Federated Farmers seek to retain this policy. Federated Farmers (425.326) have also sought a new policy to increase access to solid waste disposal facilities for remote communities, which in my view is related to the direction in Policy 16.2.1.

92. Related to this, M Chapman (348.42) has not submitted on Policy 16.2.1 but has sought that additional provisions are included in the MEP to require a centralised transfer station for rural rubbish in each major rural valley.

93. In response to Federated Farmers and M Chapman's requests for additional provisions, I do not consider any changes to Policy 16.2.1 are required to address these concerns. It is also my view that additional provisions are not required to specify this direction as Policy 16.2.1, supported by Method 16.M.10 already address the centralisation of waste transfer sites and the provision of waste collection facilities in remote locations. As noted above the submitters' concern regarding the provision of waste collection facilities may be more appropriately addressed via the MDC Annual Plan and Long-Term Plan processes as it may be an issue with the funding for these services as opposed to enabling these facilities via the MEP.

Policy 16.2.3

94. Policy 16.2.3 reads:

Require resource consent for the establishment of cleanfills to ensure the appropriate disposal of waste.

95. One submission has been received on Policy 16.2.3 Federated Farmers (425.327) oppose Policy 16.2.3 and seek the following amendment:

Require resource consent for the establishment of cleanfills, excluding on-farm cleanfills that meet permitted activity standards, to ensure the appropriate disposal of waste.

96. Federated Farmers state that due to the remoteness of many farms and the resource intensive nature of carting cleanfill significant distances, some farms establish small cleanfills on their land for material generated from within their farm. Federated Farmers consider the material is stable and non-toxic and presents an efficient and effective solution.

97. The MEP includes permitted activity rules for the filling of land with cleanfill.[12] Federated Farmers have also submitted on the associated definition of cleanfill to request that on-farm cleanfills are excluded from the rules. These submissions were assessed in Topic 19- Soil Quality and Land Disturbance. The recommendation of the Section 42A reporting officer was that the specific relief requested by Federated Farmers was uncertain and did not align with the policy direction of Policies 15.4.2 and 15.4.3. It was concluded that an activity that does not comply with the permitted activity standards should require a resource consent.

98. The Topic 19 Section 42A reporting officer also recommended the deletion of permitted activity standards specifying filling material to *"not use commercial cleanfill."* This was on the basis that there was no definition of commercial cleanfill and that the other permitted activity standards adequately manage the potential risks, specifically the permitted activity standard that limits the volume of fill to no more than 1000m³ within any 24-month period.[13]

[12] Rules 3.1.16, 3.3.16, 4.1.15, 4.3.15, 13.1.29, 13.3.18, 14.1.14, 14.3.9, 15.1.27, 15.3.17, 17.1.7, 17.3.5, 18.1.10, 18.3.6, 19.1.8, 19.3.6, 22.1.8, 22.3.7.

[13] Goslin, H (2018). Report on submissions and further submissions: Topic 19: Soil Quality and Land Disturbance. Marlborough District Council, paragraph 233.

99. I agree with the rationale of the Topic 19 Section 42A reporting officer in relation to permitting on-farm cleanfills and do not agree with the relief requested by Federated Farmers.

100. In assessing this submission it has become evident however that the MEP does permit cleanfills and the proposed Policy 16.2.3 as drafted does not recognise this. To address this discrepancy, I consider that Policy 16.2.3 should be deleted. The policy could be amended to reflect that where permitted activity standards are not met, resource consent is required. This however is the case for all activities and I therefore do not consider that such an amendment would provide any value. I consider that if the Hearing Panel believe there is scope to do so, Policy 16.2.3 should be deleted from the MEP.

Policy 16.2.4

101. Policy 16.2.4 reads:

Enable the application of solid waste to land from the processing of primary products, the disposal of animal waste in offal pits, the disposal of biodegradable material in farm rubbish pits or the processing/storage of compost or silage, where:

(a) this does not occur within a Groundwater Protection Area or into or onto soils identified as a Soil Sensitive Area as being at risk; and

(b) standards for permitted activities are met.

102. Three submissions have been received on this policy. M Chapman (348.15) seeks the deletion of the restriction of only disposing biodegradable rubbish in farm rubbish pits. M Chapman states that regulations are being imposed without any alternative forms of waste disposal being made available.

103. Federated Farmers (425.328) supports the policy in part but are concerned the provision is both enabling while also requiring compliance with permitted activity standards that are onerous and constrain waste disposal activities. Federated Farmers seek the following amendments:

Enable the application of solid waste to land from ~~the processing of primary products~~, primary production activities, including the disposal of animal waste in offal pits, the disposal of ~~biodegradable~~ material in farm rubbish pits or the processing/storage of compost or silage, ~~where~~ while avoiding or mitigating adverse effects.

~~(a) this does not occur within a Groundwater Protection Area or into or onto soils identified as a Soil Sensitive Area as being at risk; and~~

~~(b) standards for permitted activities are met.~~

104. Fonterra (1251.51) oppose Policy 16.2.4 and state that it is not clear why silage is included in the policy as it is not a waste and the storage and production of silage does not create waste. Fonterra seek that the reference to silage in the policy is removed.

105. Policy 16.2.4 seeks to enable the application or disposal of waste except in sensitive areas (Groundwater Protection Areas and Soil Sensitive Area) and where permitted activity standards are not met. The policy itself does not specify what can and cannot be disposed of as a permitted activity, rather this is established through the permitted activity rules and standards.

106. The assessment of the specific permitted activity standards regarding the disposal of rubbish in a farm pit is included in Matter 11. As discussed below, I do not consider it is appropriate to remove the restriction enabling only biodegradable to be disposed of in farm rubbish pits. Non-biodegradable rubbish has a greater risk of contaminants accumulating in soils and resulting in environmental harm and therefore I consider it is appropriate for the disposal of such waste to be subject to a resource consent.

107. The deletion of the sub-clauses (a) and (b) is not appropriate as the application of solid waste to land can result in adverse effects on soil, water quality and human health and it is therefore necessary to control such activities via resource consent. The restriction of the activities listed in the policy within Soil Sensitive Areas seek to limit the environmental, human health and property risks occurring in areas of known at risk soils. I therefore recommend no change to Policy 16.2.4.

108. In relation to Fonterra's submission, I consider that it is necessary to retain the reference to silage in the policy as the making and storage of silage can result in the discharge of leachate which poses risks to water quality. Again, further discussion on the permitted activity standards is provided below in Matter 13. Retaining Policy 16.2.4 ensures that there is a clear connection between the permitted activity rules and standards and Objective 16.2.

Policy 16.2.5

109. Policy 16.2.5 reads:

Where resource consent is required for the discharge of solid waste to land from primary production activities, decision makers shall consider the following matters in deciding whether or not to grant consent and whether conditions can be imposed to avoid or mitigate any adverse effects on the environment:

- *(a) the soil characteristics at the discharge location and whether the nature and volume of waste to be discharged will adversely affect soil structure;*
- *(b) where the discharge is within a Groundwater Protection Area or into or onto soil identified as a Soil Sensitive Area, the risks to groundwater, surface waterbodies or soil quality;*
- *(c) contamination of freshwater resulting from nutrient (nitrogen and phosphorus) and organic nutrients (BOD) through leaching, runoff and/or direct discharge;*
- *(d) the proximity of the discharge location to waterbodies with a high natural character or to waterbodies identified as having degraded water quality that needs to be enhanced through Policies 15.1.4 to 15.1.7 in Chapter 15 – Resource Quality (Water, Air, Soil); and*
- *(e) the potential for reduced amenity values due to odour, vermin or visual effects from the discharge, particularly where this occurs in close proximity to residentially zoned land.*

110. One submission has been received on this policy from Federated Farmers (425.329), who oppose Policy 16.2.5 as they consider that the discharge of solid waste to land from primary production activities should not require resource consent. Federated Farmers consider that farmers should be able to continue to discharge solid waste from primary production activities as a permitted activity, subject to certain standards, including set-backs from waterways.

111. In response to the submission from Federated Farmers I do not consider any changes to Policy 16.2.5 are required. Federated Farmers appear to be concerned that the policy direction means that the discharge or disposal of solid waste from primary production activities will always require resource consent whereas Policy 16.2.5 states *"where resource consent is required…"* This does not specify that resource consent is required for all such disposal activities. Further assessment of the rules associated with discharges from primary production activities is provided below. In my view, the permitted activity standards, as recommended to be amended, ensure that the potential environmental and human health impacts are managed. Where there is a greater risk of adverse effects, resource consents are required and should consider those matters listed in Policy 16.2.5.

Policy 16.2.6

112. Policy 16.2.6 reads:

In deciding whether to grant resource consent for any discharge of solid waste to land and the need to impose consent conditions to avoid, remedy or mitigate adverse effects, decision makers need to determine whether there will be:

- *(a) soil or groundwater contamination from the accumulation of heavy metals and other hazardous substances;*
- *(b) contamination of waterbodies through runoff of sediment or leachate*
- *(c) erosion, land instability and/or run-off of sediment into waterbodies due to land disturbance activities associated with the activity*
- *(d) reduced amenity values due to disposal of unauthorised material resulting in odours, rubbish accumulation and vermin*
- *(e) adverse effects to the mauri of ecosystems, waahi tapu sites and other sites of cultural significance by discharges of sediment or leachate onto or into land.*

113. One submission has been received on this policy from NMDHB. NMDHB (280.34) support in part Policy 16.2.6, but raise concerns that the provision does not consider additional matters, including adverse effects on public health or amenity, the contamination of groundwater and contaminants other than heavy metals or hazardous substances. NMDHB also question the lawfulness of consideration of the unauthorised disposal of material. NMDHB seek the policy is amended as follows:

In deciding whether to grant resource consent for any discharge of solid waste to land and the need to impose consent conditions to avoid, remedy or mitigate adverse effects, decision makers need to determine whether there will be:

(a) soil or groundwater contamination from the accumulation or leaching of heavy metals ~~and other~~, hazardous substances or other contaminants;
(b) contamination of waterbodies through runoff of sediment or leachate
(c) erosion, land instability and/or run-off of sediment into waterbodies due to land disturbance activities associated with the activity
(d) adverse effects on public health or amenity
~~(e) reduced amenity values due to disposal of unauthorised material resulting in odours, rubbish accumulation and vermin~~
(f) adverse effects to the mauri of ecosystems, waahi tapu sites and other sites of cultural significance by discharges of sediment or leachate onto or into land.

114. In relation to the requested addition of 'leaching' and 'other contaminants' in sub-clause (a), I consider this change is appropriate. Leachate from the disposal of solid waste can contain varying contaminants which may not be just heavy metals or hazardous substances. The Landfill Guidelines prepared by the Centre for Advanced Engineering state that:

The main components in the leachate from landfill sites may be conveniently grouped into four classes as follows:

- *Major elements such as calcium, magnesium, iron, sodium, ammonia, carbonate, sulphate and chloride.*
- *Trace metals such as manganese, chromium, nickel, lead and cadmium.*
- *A wide variety of organic compounds which are usually measures as total organic carbon (TOC) or chemical oxygen demand (COD). Individual organic species such as phenol can also be of concern.*
- *Microbiological components.*[14]

115. I consider that contaminants, other than hazardous substances and heavy metals could cause soil contamination. I also note there is little information known about emerging contaminants which may also be relevant. It is therefore my opinion that the change proposed by NMDHB ensures that any contaminants relevant to the solid waste discharge activity that may impact soil quality are considered. I recommend that sub-clause (a) is amended as requested.

116. In response to the request to include consideration of whether there would be any adverse effects on public health or amenity, I agree that it is important to include this matter. By adding specific reference to public health or amenity clarifies that consideration of such effects is necessary when determining applications for discharging solid waste. Although matters addressed by sub -clauses (a) and (b) could result in adverse effects on human health, I consider including a specific reference ensures this is a potential effect that will be addressed.

117. Finally, in regard to deleting sub-clause (d), I agree with there may be a question of legality since this consideration references 'unauthorised material'. Whilst I recognise that the disposal of unauthorised material in such facilities can occur, I believe that it cannot be considered within this policy. It is not possible to require resource consent applicants to manage the effects of activities by third parties through consent conditions. Resource consent conditions can however, specify operational practices which commonly restrict the type of materials that can be accepted and a requirement for inspections of waste as a means to manage the potential effects of discharges.

[14] Centre for Advanced Engineering (2000). 'Landfill Guidelines: Towards Sustainable Waste Management in New Zealand'. University of Canterbury, Christchurch.

118. On this basis, I agree that sub-clause (d) should be deleted. In addition, I note that the references in sub-clause (d) to amenity effects will continue to be addressed through the proposed additional sub-clause sought by NMDHB, to ensure that overall amenity impacts of waste disposal sites are considered by decision makers in the consenting process.

119. In my view, the changes requested by NMDHB will ensure the policy will best achieve Objective 16.2 and I recommend these amendments are adopted.

Policy 16.2.7

120. Policy 16.2.7 reads:

Avoid the disposal of hazardous waste in Marlborough, except where the hazardous waste can be safely accepted at the regional landfill.

121. One submission has been received on this policy from WVRAA. WVRRA (1235.9) support Policy 16.2.7 and note of particular concern is the disposal of old and damaged vineyard posts. WVRRA state that research is needed to develop safe ways of disposing of posts and storing these until a suitable disposal method is available.

122. I consider the submission from WVRAA does not raise any concerns that require amendments to the policy. The Chapter 16 provisions will require treated timber posts from vineyards to be disposed of in an appropriate location. In response to research needed regarding suitable disposal options, I consider methods 16.M.7, 16.M.12 and 16.M.13 support this request.

Policy 16.2.8

123. Policy 16.2.8 reads:

Encourage the responsible disposal of solid waste from remote locations.

124. Two submissions have been received on Policy 16.2.8. M and K Gerard (424.131) support Policy 16.2.8 and seek it is retained as notified. Federated Farmers (425.330) support in part Policy 16.2.8 and seek it is amended as follows:

The Council to provide accessible waste disposal options to enable ~~encourage~~ the responsible disposal of solid waste from remote locations, while also enabling on-farm waste disposal.

125. As noted above in relation to Objective 16.1, KCSRA (869.41) seek a policy to review and improve waste disposal and recycling options in the Marlborough Sounds and other remote areas. In my view, that request is best considered in relation to Policy 16.2.8.

126. I agree that providing accessible waste disposal options will allow for the responsible solid waste disposal in isolated areas. As assessed above however, I do not consider it is necessary to amend Policy 16.2.8. Methods are included in the MEP that specify how MDC will achieve the objectives and policies. In my view these methods address the concerns of Federated Farmers and KCSRA as they state MDC will continue to provide these facilities. The method is not limiting; therefore, it does support additional waste or recycling facilities to be provided.

127. With regards to on-farm waste disposal, I do not consider that a change to Policy 16.2.8 is necessary. Policy 16.2.4 already seeks to enable the disposal of biodegradable material in farm rubbish pits except where there may be adverse effects that need further consideration (within the Groundwater Protection Area and Soil Sensitive Area and where permitted activity standards are not met). This is implemented through the disposal of farm rubbish rules in the Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone where a permitted activity rule and standards are included. The suitability of the permitted activity standards are assessed further in Matter 11.

Recommendation

128. I recommend that Policies 16.1.1, 16.1.2, 16.2.1, 16.2.4, 16.2.5, 16.2.7 and 16.2.8 are retained as notified.

129. I recommend that Policy 16.2.3 is deleted from the MEP. [15]

130. I recommend that Policy 16.2.6 is amended as follows:

In deciding whether to grant resource consent for any discharge of solid waste to land and the need to impose consent conditions to avoid, remedy or mitigate adverse effects, decision makers need to determine whether there will be:

(a) soil or groundwater contamination from the accumulation or leaching of heavy metals ~~and other~~, hazardous substances or other contaminants[16]
(b) contamination of waterbodies through runoff of sediment or leachate
(c) erosion, land instability and/or run-off of sediment into waterbodies due to land disturbance activities associated with the activity
~~(d) reduced amenity values due to disposal of unauthorised material resulting in odours, rubbish accumulation and vermin~~[17]
(e) adverse effects on public health or amenity[18]
(f) adverse effects to the mauri of ecosystems, waahi tapu sites and other sites of cultural significance by discharges of sediment or leachate onto or into land.

Methods

16.M.1

131. Method 16.M.1 reads:

Permitted activity rules will enable the discharge of inert and appropriate putrescible wastes to land. This will assist in the diversion of waste from disposal in the regional landfill.

132. Two submissions were received on Method 16.M.1. Federated Farmers (425.323) support method 16.M.1 as they consider it is appropriate for permitted activity rules to enable the discharge of inert and putrescible waste to land, as this is a cost-effective and environmentally friendly way for farmers to deal with waste.

133. Fulton Hogan (717.60) also seek method 16.M.1 is retained as including permitted activity rules will help divert inert material from landfills.

134. Neither submitter has sought any changes to the method. On this basis, I do not recommend any changes to 16.M.1.

16.M.9

135. Method 16.M.9 reads:

Standards for the discharge of contaminants to land, water and air from waste management facilities and for monitoring of any such discharges, will be established through regional rules. These standards will apply to community infrastructure, such as the regional landfill and transfer stations. Rules enabling discharges to land resulting from primary production activities are provide for, subject to meeting standards.

Resource consents will be required for cleanfills and for the discharge to land of organic waste material from primary production activities where the discharge occurs in a Groundwater Protection

[15] 425.327 – Federated Farmers
[16] 280.34 - NMDHB
[17] 280.34 - NMDHB
[18] 280.34 - NMDHB

Area or in a Soil Sensitive Area. Resource consent will also be required where permitted activity standards cannot be met.

Prohibited activity rules will prevent the disposal of hazardous waste into the environment, except at the regional landfill.

136. One submission has been received on Method 16.M.9. Federated Farmers (425.331) supports in part Method 16.M.9. Federated Farmers state it is inappropriate to require resource consents for on-farm cleanfills and for the discharge of waste from primary production activities. Federated Farmers seek that on-farm waste disposal is a permitted activity.

137. As discussed in Matter 11, the disposal of farm waste can result in adverse effects. Federated Farmers have not provided any suggestions for additional permitted activity standards to manage on-farm cleanfills or provided any assessment as to whether the current permitted activity standards for cleanfills and discharging waste from farming activities (excluding those that restrict these activities) will be sufficient to manage potential environmental risks. I consider where the permitted activity standards of the proposed relevant rules cannot be complied with, it is appropriate for resource consent to be required to allow a more detailed analysis of the disposal activity proposed. In my view, any change to the method to adopt the relief requested from Federated Farmers would not support Objective 16.2.

Recommendation

138. I recommend that Methods 16.M.1 and 16.M.9 are retained as notified.

Additional provisions

139. Te Atiawa (1186.95) seek the inclusion of an anticipated environmental result to include specific goals and monitoring criteria for cultural values. This is supported by a further submission by Elkington whanau and Ngati Koata.

140. In my opinion, an additional anticipated environmental result is not necessary as the provisions in Volume 1-Chapter 3 Marlborough's tangata whenua iwi already address the monitoring of cultural values. Specifically, Method 3.M.5 specifies that MDC will work with Marlborough's tangata whenua to "develop cultural indicators to assist in monitoring the state of Marlborough's natural and physical environment." Although this is not an environmental outcome, I consider it demonstrates that work to understand cultural values will be undertaken. The submitter has not provided any proposed wording for the anticipated environmental result and this may not be possible until a method of measuring cultural values is developed.

141. MFIA (962.108) and NFL (990.252) have sought policies or methods to address the issue of illegal dumping of solid waste on public and private land. No suggested provisions have been provided by either submitter. I consider that it is not necessary to include a specific policy or method regarding illegal dumping. The provisions already included in Chapter 16, address the appropriate disposal of solid waste and seek to ensure that the effects of the discharge of waste are avoided, remedied or mitigated. The policies seek to reduce waste and provide recycling and waste disposal options while the methods enable on-site waste disposal where permitted activity standards are met through the regional rules. Method 16.M.12 specifically details that information on the impacts of illegal dumping on the environment will be provided to the community.

142. It would seem that the submitters are concerned about how the MEP provisions will be enforced to ensure that waste is disposed correctly. In my view it is not necessary for the MEP to provide direction on enforcement matters and I note that there are alternative statutory options available to MDC to address illegal dumping such as through bylaws. On this basis, I do not recommend any additional provisions are included in the MEP.

Recommendation

143. I do not recommend any new provisions are incorporated into Chapter 16.

Matter 2: Volume 1 - Liquid waste

144. This section assesses all submissions on provisions in Volume 1, Chapter 16 of the MEP in relation to liquid waste. The relevant provisions are listed below:

Table 3: Provisions assessed in Matter 2

Issue	Objective	Policy	Method	Anticipated Environment Result
16B	16.3	16.3.1	16.M.15	16.AER.3
		16.3.2	16.M.16	16.AER.4
		16.3.6	16.M.17	
		16.3.4	16.M.18	
		16.3.5	16.M.19	
		16.3.6	16.M.20	
		16.3.7	16.M.21	
		16.3.8		
		16.3.9		

145. Submissions were not received on all provisions. Where a provision has been submitted on, the submission(s) and analysis of those submission(s) is included below.

Issue and Objective

Issue 16B

146. Issue 16B reads:

The discharge of liquid wastes onto or into land has the potential to adversely affect the surrounding environment.

147. Three submissions have been received on Issue 16B. Dairy NZ (676.78) oppose Issue 16B as they consider that the rationale for including domestic wastewater in Issue 16B is not immediately clear. Dairy NZ suggest that to reduce potential confusion, domestic wastewater should be addressed in a separate provision.

148. NZDF (992.16) oppose provisions in Chapter 16 as it provides for discharges of waste to land but the definition of waste excludes stormwater, which NZDF considers is confusing. Additionally, the provisions of Chapter 15 appear to focus the policy relevant to stormwater on the preference for discharges to land but this does not appear to flow through into the MEP rules. NZDF seek amendments to the provision to improve clarity and direction in relation to stormwater discharges district wide, including to land. NZDF (992.50) have also requested supporting general rules to be inserted into Chapter 2 to provide a permitted activity rule for stormwater discharges to land. Related to this is a submission from Ravensdown (1090.63) who have sought that there is provision for a permitted activity rule for the discharge of stormwater to land. No permitted activity standards have been suggested.

149. Fonterra (1251.114) support in part Issue 16B but consider that the explanation only goes part way to identify discharges from industrial and trade processes. Fonterra seek an amendment to the third and fifth bullet point of the explanation of Issue 16B as follows:

A strong rural economy and a prevalence of residential living in rural and coastal environments mean that a wide variety of liquid wastes are created in Marlborough. These include:

- *domestic wastewater;*
- *dairy shed effluent;*
- ~~*winery wastewater; and*~~
- *vegetable and shellfish processing wastewater*
- *industrial and trade process wastewater*

150. In response to Dairy NZ's submission, I believe that the submitter is referring to the explanation to Issue 16B. I consider that it is appropriate for wastewater to be covered by Issue 16B as domestic wastewater is a liquid waste that has the potential to have adverse effects on the receiving environment. The purpose of Issue 16B, and the objectives and policies that address it, is to manage all liquid wastes not just those related to primary production or processing. I therefore consider it is not necessary to amend Issue 16B or the explanation.

151. The NZDF and Ravensdown have raised concerns regarding a lack of clarity as to how stormwater discharges to land are addressed via the MEP. The MEP definition of waste specifically excludes stormwater but the objectives, policies and methods of Chapter 16 are those relevant to discharges to land. I agree with NZDF that there is a lack of certainty in the MEP as to the approach to managing stormwater discharges and that this needs to be clarified.

152. It is my understanding that in the MEP it is intended to manage those stormwater discharges to land that contain contaminants via resource consents, as there are no permitted activity rules or standards. I understand that this does not include roof discharges to land or small-scale hardstand areas where the discharge does not contain any contaminants. This is because Section 15 of the RMA restricts discharges of contaminants to land that do not meet permitted activity rules, national environmental standards or which are not subject to resource consent. I also understand that in urban areas, the majority of stormwater discharges are conveyed to reticulated stormwater networks which discharge to water. This is addressed by separate MEP provisions.

153. To address the concerns raised by NZDF, I consider that it would be appropriate to include an explanatory note in the introduction of the chapter to specify how stormwater contaminant discharges to land are managed. I also recommend that the Chapter 16 title, Issue 16B, Objective 16.3 and method 16.M.16 are amended to incorporated reference to stormwater contaminant discharges. In my view the changes as recommended below provide certainty as to the approach to stormwater management and provide direction to plan users as to how stormwater contaminant discharges should be managed. I do not consider any amendments to the policies are required, as in my view, Policies 16.3.3 and 16.3.4 provide sufficient direction in relation to stormwater discharge permits. I also do not consider that any additional rules are necessary based on the above approach.

154. In response to Ravensdown's submission, as it is the intention of the MEP to require resource consent where stormwater discharges contain contaminants, I do not consider it is appropriate to include a permitted activity rule.

155. With regards to Fonterra's submission, the list provided in the explanation provides examples of different sources of liquid waste. As the list is not restrictive in that it only provides examples, I consider there is merit in adding industrial and trade process water to the list to provide clarity. Other types of liquid waste are addressed through the Objectives, Policies and Rules but I acknowledge that industrial and trade process water is a distinct category. I do not recommend the deletion of winery wastewater because of the extensive use of land in Marlborough for viticulture. Again, the list is not restrictive, but I consider leaving the reference in ensures clarity between the methods in the plan and Issue 16B.

Objective 16.3

156. Objective 16.3 reads:

The discharge of liquid wastes onto or into land is managed in a way that avoids adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural and amenity values.

157. Four submissions have been received on Objective 16.3. Federated Farmers (425.332) oppose Objective 16.3 as they consider that due to the case law resulting from 'King Salmon', the provision could risk effectively prohibiting discharges to land if any adverse effects result, which Federated Farmers considers is inappropriate and impractical. Federated Farmers seek the following amendment:

The discharge of liquid wastes onto or into land is managed in a way that avoids, mitigates, or remedies adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural ~~and amenity~~ values.

158. NZ Pork (998.39) and Ravensdown (1090.56) support Objective 16.3 and seek it is retained.

159. Fonterra (1251.52) oppose Objective 16.3 and state that is it not necessary to avoid all adverse effects but that it is appropriate that significant adverse effects are avoided. Fonterra seek the following change:

The discharge of liquid wastes onto or into land is managed in a way that avoids significant adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural and amenity values.

160. The requested amendment from Fonterra is opposed by Forest and Bird as they state it will not protect waterways as needed.

161. In response to the Federated Farmers submission, I agree that there is a risk that the objective as worded could effectively prevent applications for the discharge of liquid wastes to land being granted, or at the very least make it unclear whether activities that may not avoid minor effects could be allowed. I consider that simply stating effects should be avoided, remedied or mitigated does not adequately relate to the policies and address Issue 16B which seeks to minimise environmental impacts. I also consider the phrasing of avoid, mitigate and remedy describes actions, which is more appropriate for a policy rather than an objective, which should describe the outcome sought. I consider that relief based on what is sought by Fonterra would address. Federated Farmers' concerns and appropriately describe the desired environmental outcome. I do not however agree that '*significant adverse* effects' should be avoided, rather effects that are *"no more than minor".* Policies 16.3.2 and 16.3.3 in addition to the permitted activity rules and standards provide the context for interpreting what effects are acceptable and those that would be more than minor. Therefore, with this qualification of what would be determined as more than minor effects, in my opinion there is a clear linkage between the objective, policies and rules.

Recommendation

162. I recommend the Chapter 16 heading is amended as follows:

16. Waste and discharges to land[19]

163. I recommend that the third paragraph of the Introduction is amended as follows:

Avoiding waste altogether would be the best way to avoid the costs to people and the environment. However, not all waste can be avoided and management of waste is necessary to ensure that the costs and effects on the environment are minimised. The Council exercises waste management functions under multiple pieces of legislation.

In Marlborough the majority of stormwater in urban areas is discharged to water via the reticulated stormwater network, where this network is unavailable or potential effects could be significant stormwater may be discharged to land where filtration of contaminants is provided by soils. Stormwater from industrial and commercial land uses will likely contain contaminants requiring treatment prior to discharge. Without management, stormwater discharges containing contaminants

[19] 992.16 - NZDF

may cause environmental effects such as localised contamination of water resources or nuisance problems such as exacerbating flooding.[20]

The focus of this chapter of the Marlborough Environment Plan (MEP) is to set a framework for addressing Marlborough's significant waste management and discharge to land[21] *issues under the Resource Management Act 1991 (RMA). In addition to waste minimisation, the chapter focusses on the way in which the Council exercises its function of controlling the discharge of contaminants into the environment.*

164. I recommend that Issue 16B is amended as follows:

The discharge of liquid wastes and stormwater containing contaminants onto or into land has the potential to adversely affect the surrounding environment.[22]

165. I recommend that the first paragraph of the explanation to Issue 16B is amended as follows:

A strong rural economy and a prevalence of residential living in rural and coastal environments mean that a wide variety of liquid wastes are created in Marlborough. These include:

- *domestic wastewater;*
- *dairy shed effluent;*
- *winery wastewater; and*
- *vegetable and shellfish processing wastewater*
- *industrial and trade process wastewater*[23]

166. I recommend that Objective 16.3 is amended as follows:

The discharge of liquid wastes and stormwater[24] *onto or into land is managed in a way that avoids more than minor adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural and amenity values.*[25]

167. I recommend that an additional paragraph is inserted into Method 16.M.16 is amended as follows:

All stormwater containing contaminants which is discharged to land requires a resource consent. Where a stormwater does not contain any contaminants, the discharge of this water to land is not managed under the MEP. [26]

Policies

Policy 16.3.1

168. Policy 16.3.1 reads:

Ensure that wastewater management systems are designed, located and installed to effectively treat and/or contain the contaminants present in wastewater.

169. Two submissions have been received on Policy 16.3.1. Constellation Brands (631.48) support in part Policy 16.3.1 but seek the following amendments:

Where necessary to avoid, remedy or mitigate effects on the receiving environment, ensure that wastewater management systems, including the consideration of measures to minimise waste quantities and contaminants, are designed, located and installed to effectively treat and/or contain the contaminant present in wastewater.

[20] 992.16 - NZDF
[21] 992.16 - NZDF
[22] 992.16 - NZDF
[23] 1251.114 - Fonterra
[24] 992.16 - NZDF
[25] 425.332 – Federated Farmers; 1251.52 - Fonterra
[26] 992.16 - NZDF

170. Constellation Brands state that the policy does not recognise what an effective treatment system is or the extent to which contaminants are required to be treated. Constellation Brands consider that the proposed policy may not be consistent with Policy 4.1.1 if it seeks to require expenditure in wastewater treatment that may not be necessary.

171. Fonterra (1251.115) also support in part Policy 16.3.1 but state it is appropriate for the policy to refer to the best practicable option as this is a statutory term and takes into account the nature of the discharge and sensitivity of the receiving environment, the financial implications and effects on the environment compared to other options, the current state of technical knowledge and the likelihood the option can be successfully applied. Fonterra seek the following change:

Ensure that wastewater management systems are designed, located and installed to achieve the best practicable option and effectively treat and/or contain the contaminants present in wastewater.

172. Whilst I recognise that the current wording of Policy 16.3.1 does not specify the level of treatment required for wastewater discharges or what effective treatment is, I consider that it is not possible to provide this level of detail in the policy. Wastewater discharges may come from numerous sources and different receiving environments have differing levels of sensitivity. This means that the policy needs to be interpreted in the context of each case. I consider the wording proposed by Constellation Brands does not aid the interpretation of the policy as it is also not certain when it would be necessary to avoid, remedy or mitigate effects on the receiving environment without consideration of a particular scenario. I do not consider it is necessary to amend the policy wording.

173. In relation to Fonterra's request to refer to best practicable option, I consider that it is not appropriate just to include reference to best practicable option as it is a statutory term, rather it must be determined that the best practicable option will best achieve the objectives of Chapter 16.

174. The RMA defines best practicable option as:

in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to-

(a) the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and
(b) the financial implications, and the effects on the environment, of that option when compared with other options; and
(c) the current state of technical knowledge and the likelihood that the option can be successfully applied.

175. Policy 16.3.1 supports Objective 16.3 which as recommended to be amended above, seeks to avoid significant adverse effects of the discharge of liquid wastes onto or into land. I consider that reference to best practicable option as suggested by Fonterra is not appropriate as it creates a conflict within the policy and may not achieve Objective 16.3. The implementation of the best practicable option does not require the most effective treatment option (highest contaminant removal) to be implemented, it instead allows for consideration of different possibilities and whether they suitably address the nature of the discharge and sensitivity of the receiving environment whilst also taking into account financial implications and whether the proposed methodology can be successfully implemented. I consider the insertion of 'best practicable option' into the policy conflicts with the requirement to 'effectively treat and/or contain the contaminants present in wastewater' as adopting the best practicable option may not result in effective treatment of wastewater. Other policies of Chapter 16 allow for the consideration of aspects of the best practicable option which when assessed together with Policy 16.3.1 provide the context for the level of contaminant removal required. Specifically, Policies 16.3.3 and 16.3.4 require consideration of the context of the discharge which includes the sensitivity and site constraints and the extent of treatment necessary. On this basis, I consider the other policies of the MEP address the concerns of Fonterra and I recommend that the policy remains as notified.

Policy 16.3.2

176. Policy 16.3.2 reads:

Require discharge permits for the discharge of contaminants onto or into land where there are significant environmental constraints to effective wastewater management.

177. Five submissions have been received on Policy 16.3.2. S Laprida (218.2) submits that any ship or barge used in aquaculture should be excluded from the provision.

178. Constellation Brands (631.49) generally support Policy 16.3.2 but seek the following amendment:

Require discharge permits for the discharge of contaminants onto or into land where there are significant environmental constraints to ensure effective wastewater management <u>in accordance with Policy 16.3.1.</u>

179. Dairy NZ (676.79) oppose the policy and raise concern regarding the scientific basis for including soils as potentially sensitive. No specific relief is requested.

180. Indevin Estates Limited (776.43) submit that the scale of the Soil Sensitive Area mapping is too extensive and seek that the MEP includes a method requiring the ongoing commitment of MDC to further refine the Soil Sensitive Area Mapping.

181. NZ Pork (998.40) support Policy 16.3.2 and seek that where there are significant constraints to effective wastewater management, the discharge of contaminants onto or into land should be permitted.

182. In response to the submission from S Laprida, I consider that it is not necessary to provide an exclusion for ships or barges related to aquaculture activities. No explanation as to why discharges from this source should be excluded has been provided and I consider that it is unlikely such discharges would be occurring to land.

183. Constellation Brands seek to link Policy 16.3.2 with Policy 16.3.1. Their submission does not explain reasons to include this connection, but it is inferred that it is due to Policy 16.3.1 requiring wastewater systems to be '*designed, located and installed effectively…'*. I consider the proposed amendment does not provide any great benefit in the understanding of Policy 16.3.2. Policy 16.3.1 does not explain what is meant by effective wastewater management and both policies will need to be considered together when assessing resource consents for wastewater discharges. I therefore do not consider it is necessary to amend Policy 16.3.2.

184. In response to Indevin Estates concerns regarding the Soil Sensitive Area mapping, this is addressed more specifically in Matter 16. In summary, I agree with the submitter that further investigation by MDC is necessary to refine the Soil Sensitive Area mapping. A new method is recommended to be inserted into the MEP as discussed further in Matter 16.

185. Regarding NZ Pork's submission, NZ Pork have submitted in support of the policy which seeks to require consents where there are environmental constraints to effective wastewater management but then stated where there are such constraints, discharges should be permitted. It is therefore unclear from the submission if NZ Pork support or oppose the policy. In any case, I consider that due to increased environmental risks where effective wastewater management is challenging, it is necessary to require discharge permits in such circumstances. This is to allow a thorough analysis of the discharge activity and receiving environment to determine if the proposed discharge is appropriate and will avoid significant adverse effects as required by Objective 16.3.

Policy 16.3.3

186. Policy 16.3.3 reads:

Approve discharge permit applications to discharge contaminants onto or into land where:
- *(a) the discharge is within the ability of the land to treat and/or contain contaminants present in the liquid waste, taking into account:*
  - *(i) the rate of discharge (including variability in the rate of discharge);*
  - *(ii) the nature and concentration of contaminants within the liquid waste;*

(iii) *the hydraulic properties of the soil within the land application area and any relevant physical, chemical or biological soil properties;*
(iv) *any other discharge of contaminants to the same land or to land in close proximity to the discharge;*

(b) the discharge does not adversely affect the drinking water quality of groundwater adjacent to or down gradient of the discharge, either alone or in combination with any other discharge;
(c) the land application area is located as far as practicable from any surface waterbody or coastal water;
(d) it is inappropriate (due to the potential impact on the performance of treatment plants and associated infrastructure) or impracticable to discharge the liquid waste into reticulated sewerage system;
(e) the discharge will not initiate instability or make existing instability worse; and
(f) the treatment unit and land application area are accessible for servicing.

187. Eight submission points have been received on Policy 16.3.3. Federated Farmers (425.333) support in part Policy 16.3.3 but state the provision is not clear whether it applies to farm dairy effluent or to domestic wastewater and that if it applies to both, the policy is too broad. Federated Farmers consider it would be appropriate to include the line "where relevant" so that only matters of relevance are assessed in applications. Federated Farmers also suggest Policies 16.3.3 and 16.3.4 could be combined.

188. Te Runanga o Ngati Kuia (501.81) oppose the policy and state that a policy should not direct an application for consent be granted and considers that determining whether a discharge either on its own or in combination with other discharges affects the drinking water quality of groundwater is difficult to determine. It is inferred that Te Runanga o Ngati Kuia seek the policy is deleted.

189. Constellation Brands (631.50) support Policy 16.3.3 but seek an amendment to sub-clause (c) to improve clarity as follows:

(c) The land application area is located ~~is located as far as practicable from any surface waterbody or coastal water;~~ and the land application system is managed, such that the discharge of wastewater directly or via overland flow to a surface waterbody or coastal water is avoided.

190. Ravensdown (1090.57) support Policy 16.3.3 and seek that it is retained as notified.

191. Fonterra (1251.53, 1251.116) have stated they both support in part and oppose the policy. Fonterra note:

- Sub-clause (b) imposes a very high barrier as it refers to any adverse effect on drinking water regardless of whether the quality of water would continue to meet drinking water standards.
- It is appropriate for the provision to refer to best practicable option.

192. Fonterra (1251.53, 1251.116) seek the following amendments:

Approve discharge permit applications to discharge contaminants onto or into land where they demonstrate best practicable option and where:…

(b) Where groundwater is suitable for drinking, the discharge does not adversely affect the drinking water quality of groundwater adjacent to or down gradient of the discharge, either alone or in combination with any other discharge;…

193. In response to Federated Farmers submission, I agree that several sub-clauses of the policy may not be relevant to dairy farm effluent discharges or discharges of other liquid waste, these include sub-clauses (d) and (f). I therefore agree that the policy should be amended to require consideration of only those matters relevant to the particular discharge subject to the resource consent application. With regards to the request to combine Policy 16.3.3 and Policy 16.3.4, I do not agree that this is appropriate. I consider that Policy 16.3.3 is more related to the location of the system rather than the design of the system, which is addressed in Policy 16.3.4. On this basis, I believe that each policy serves a different purpose and that they should remain separate.

194. In response to the submission from Te Runanga o Ngati Kuia, I consider that Policy 16.3.3 does provide helpful guidance to decision makers of matters that need to be considered when assessing if it is appropriate to approve discharge permits. I consider that if each matter is achieved, it is highly likely that the effects of the discharge would be minimal and therefore the permit would be suitable to grant. With regard to assessing the impacts on drinking water quality, including potential cumulative impacts, this is commonly necessary and is undertaken by applicants when applying for consents to discharge contaminants to land. I disagree that is it not possible to do this. I therefore consider Policy 16.3.3 should not be removed from the MEP.

195. Constellation Brands seek an amendment to sub-clause (c) to *'provide clarity as to the outcome being sought by the policy'.* I agree that the current wording of Policy 16.3.3(c) may be somewhat unclear as to what is meant by locating land application systems as far as practicable from any surface waterbody or coastal water. I also consider that the current wording of sub-clause (c) does not clearly link with Objective 16.3 as it is avoiding the discharge of contaminants to the waterbody which is important rather than necessarily ensuring the system is located as far as possible from a waterbody or coastal water. To improve the connection of the policy with Objective 16.3, I agree with the submitter that there should be an amendment to the sub-clause. I recommend the following wording:

    (c) the land application area is located ~~as far as practicable from~~ and managed so that the discharge of contaminants directly, or via overland flow, to any surface waterbody or coastal water is avoided.

196. In response to Fonterra's request, as assessed above, I consider that including reference to the best practicable option is appropriate where it will better achieve the objectives of the MEP. The analysis described in paragraph 176 is relevant to this policy also. As the best practicable option does not require the highest level of treatment, I consider that to achieve Objective 16.3 implementing the best practicable option should be a minimum requirement to ensure an appropriate level of wastewater treatment. I consider that inserting a requirement for demonstrating that at least the best practicable option is utilised could be a useful addition to set guidance as to what a discharge option needs to achieve. This will allow a wider consideration of financial implications and current technological limitations alongside the nature of the discharge and sensitivity of the receiving environment. I therefore recommend that the policy is amended to include a new sub-clause requiring the consideration of whether an application demonstrates that at a minimum, the best practicable option is utilised.

197. In response to Fonterra's request for changes to sub-clause (b), I consider the requested amendment is not appropriate when read in conjunction with the introductory sentence of the policy. I consider that the amendment is not necessary as the sub-clause as currently written allows for the determination of whether drinking water impacts are relevant to the discharge permit application. I therefore do not recommend that sub-clause (b) is amended.

Policy 16.3.4

198. Policy 16.3.4 reads:

    When considering discharge permit applications to discharge contaminants onto or into land, have regard to:

    (a) the extent of treatment prior to discharge;
    (b) the method of distribution to and within the land application area following treatment;
    (c) alternative options for managing the contaminants, including discharge to an alternative location or to a reticulated community sewerage system;
    (d) the need for reserve land application areas;
    (e) site constraints, including geology, topography, slope, climate and presence of waterbodies or structures;
    (f) relevant guidelines and standards; and
    (g) potential cumulative effects.

199. Four submissions have been received on Policy 16.3.4. Federated Farmers (425.334) support in part Policy 16.3.4 but state the provision is not clear whether it applies to farm dairy effluent or to domestic

wastewater and that if it applies to both, the policy is too broad. Federated Farmers consider it would be appropriate to include the line "where relevant" so that only matters of relevance are assessed in applications. Federated Farmers also suggest Policies 16.3.3 and 16.3.4 could be combined.

200. Constellation Brands (631.51) also support in part the policy but the following amendment to sub-clause (a) to ensure consistency with Policy 16.3.1:

> *(a) The extent ~~of treatment prior to discharge~~ to which the treatment prior to discharge is appropriate for the land application area and receiving environment.*

201. Ravensdown (1090.58) support the policy and seek that it is retained.

202. Fonterra (1251.117) state that it is appropriate and necessary for the policy to refer to the best practicable option. Fonterra seek the following amendment:

> *When considering discharge permit applications to discharge contaminants onto or into land, have regard best practicable option and to:…*

203. In response to Federated Farmers' submission, as discussed above, there are aspects of the policy that are not relevant to agricultural liquid waste, dairy effluent or other liquid contaminant discharges. This includes references to land application areas which relate to on-site wastewater management systems and discharging contaminants into a reticulated community sewerage system. I therefore agree that when assessing discharge permits, only those matters that are relevant to the particular proposal should be assessed. As discussed in paragraph 194 above, I consider it is not appropriate to combine Policy 16.3.3 and 16.3.4.

204. With regard to the request from Constellation Brands to amend sub-clause (a), I consider that there is benefit in amending the policy to align with Policy 16.3.1 which requires wastewater management systems to effectively treat contaminants present in the discharge. The level of treatment required will be influenced by the nature of the receiving environment with higher levels of contaminant removal necessary where the receiving environment is more sensitive, for example in close proximity to groundwater wells or surface water bodies. The nature of the receiving environment may also influence other aspects of the treatment system design other than the level of treatment provided though for example the extent to which other alternative options for managing the discharge need to be considered. Therefore, I consider that it would be appropriate to insert an additional sub-clause into Policy 16.3.4 to state:

> *(a) The location of the land application area and the sensitivity of the receiving environment.*

205. In response to Fonterra's request to insert a reference to the best practicable option, I consider it is only appropriate to do so where it is supportive of the objectives. In this case, I consider the policy is directing plan users to consider different aspects of treatment system design rather than the potential impacts on the receiving environment. I consider that the insertion of best practicable option into this provision does not aid in the interpretation of the policy or better support the objective. I therefore do not recommend it is amended as requested by Fonterra.

Policy 16.3.5

206. Policy 16.3.5 reads:

> *When considering discharge permit applications to discharge contaminants onto or into land, have regard to the cultural values of Marlborough's tangata whenua iwi.*

207. Two submissions have been received on Policy 16.3.5. Federated Farmers (425.335) support the intent of the policy however consider that as currently worded the provision is overly burdensome due to it covering all cultural values. Federated Farmers state it is not clear what cultural values may be required to be considered. Federated Farmers have requested the following amendments:

When considering discharge permit applications to discharge contaminants onto or into land, have regard to sites of spiritual and/or cultural significance ~~the cultural values~~ of Marlborough's tangata whenua iwi.

208. Federated Farmers also seek that sites of spiritual and cultural significance are included in the MEP by way of reference to waahi tapu sites.

209. Te Atiawa (1186.94) support in part the policy but state that the consideration of cultural values should be referred to as 'have particular regard to' or 'recognise and provide for' rather than 'have regard to'.

210. In response to Federated Farmers requested amendment to Policy 16.3.3 and inclusion of significant sites in the MEP, I agree that providing more certain information on particular areas of cultural interest or concern would be of benefit to users of the MEP. However, I am of the understanding that the information necessary to identify sites and include them in the MEP is not available. I also note that the consideration of cultural values in the consent process is more than just assessing the potential impact on culturally significant sites. Because of this, I do not agree with the amendments sought by Federated Farmers.

211. With regard to the submission from Te Atiawa, I consider the wording of Policy 16.3.5 may not reflect the statutory requirements under Part 2 of the Resource Management Act. While Part 2 does not refer to 'cultural values' explicitly, aspects of what would constitute cultural values are referenced in Sections 6 and 7. Section 6 requires all persons exercising functions and powers under the Resource Management Act to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga; and the protection of protected customary rights. Section 7 requires all persons exercising functions and powers under the Resource Management Act to have particular regard to kaitiakitanga and the ethic of stewardship.

212. Additionally, Chapter 3 of the MEP includes objectives and policies in relation to addressing issues associated with Marlborough's tangata whenua iwi. In the context of Policy 16.3.5, I consider the most relevant provision is Objective 3.5 which states:

Resource management decision making processes that give particular consideration to the cultural and spiritual values of Marlborough's tangata whenua iwi.

213. I consider that it is necessary to revise the wording of Policy 16.3.5 to reflect a higher level of consideration of cultural values when assessing discharge permit applications. In my opinion, the phrase 'have regard to' means that some consideration of cultural values may be undertaken while assessing an application, but those values can be easily dismissed and not necessarily given suitable weight. While Sections 6 and 7 of the RMA include terminology, which places more importance on the assessment of matters of relevance to cultural values, Objective 3.5 of the MEP already adopts phrasing to reflect the consideration of cultural values and I consider this is more appropriate to include in Policy 16.3.5. In my opinion, the terminology 'give particular consideration' directs plan users to consider cultural values where they are relevant but does not impose a mandatory requirement to provide for those values. Cultural values may not be a relevant consideration in all discharge permit applications and/or may not always be impacted by discharges. It is my view that the request from Te Atiawa to amend the policy to "recognise and provide" for those cultural values is not appropriate.

214. To ensure consistency with other MEP provisions, I recommend that Policy 16.3.5 is amended as follows:

When considering discharge permit applications to discharge contaminants onto or into land, ~~have regard~~ give particular consideration to the cultural values of Marlborough's tangata whenua iwi.

Policy 16.3.6

215. Policy 16.3.6 reads:

Avoid the use of soak pits for the disposal of contaminants in liquid waste.

216. One submission has been received on this policy from Federated Farmers. Federated Farmers (425.336) oppose this policy and seek that it is amended to discourage the use of soak pits rather than avoid.

217. Federated Farmers do not provide further explanation as to why the policy should be to discourage the use of soak pits rather than avoid the use of them.

218. I note that the Section 32 report for Chapter 16 states:

The Council recognises that soak pits are not an effective method of managing the discharge of wastewater to land. They result in a concentrated discharge of contaminants into the environment as the wastewater receives little or no treatment as it passes through the soak pit. The solids present in wastewater also tend to clog the soak pit in time, creating the potential for ponding. Because of this, the Council is prohibiting the future use of soak pits but will provide a phase-out period for existing discharges into soak pits to be replaced with a land application area.

219. Policy 16.3.6 is part of the approach to achieve Objective 16.3 which as recommended to be amended, seeks to avoid more than minor adverse effects on water and soil quality. Discharging wastewater via a soak pit without an appropriate level of treatment does have the potential to result in adverse effects. It is my understanding that there have been many difficulties using soak pits in the Marlborough Region to date and that often this has led to adverse effects. Issues arise due to hydraulic loading, clogging and a lack of treatment provided prior to a discharge entering groundwater. It is based on this experience that it is proposed to avoid the future use of soak pits. Federated Farmers have not provided any supporting information to demonstrate why soak pits should only be discouraged and unless further information is provided, I recommend retaining the policy as it is currently drafted.

Policy 16.3.7

220. Policy 16.3.7 reads:

Require discharge permits for the discharge of contaminants onto or into land where there are significant environmental constraints to effective wastewater management.

221. One submission has been received on Policy 16.3.7 from Constellation Brands. Constellation Brands (631.22) support policy 16.3.7 and seek it is retained as notified, as such no changes are recommended to the provision.

Policy 16.3.8

222. Policy 16.3.8 reads:

Monitor the operational performance of existing wastewater management systems and require poorly performing systems to be upgraded to or replaced with systems that effectively treat and contain all wastewater to the discharge site.

223. Two submissions have been received on Policy 16.3.8. Federated Farmers (425.337) oppose Policy 16.3.8 as they consider it is not clear what wastewater systems it applies to and that it is very difficult to monitor the performance of on-site wastewater systems because the whole system is usually buried. In addition, Federated Farmers strongly oppose policies that combine both domestic wastewater and agricultural effluent as there are different issues with the discharges. Federated Farmers seek that the policy is deleted.

224. Constellation Brands (631.52) support in part the policy and the intention that systems are performing appropriately to ensure adverse effects are avoided, remedied or mitigated. However, Constellation Brands submit that the policy does not provide clarity as to what is considered a poorly performing system and seeks the following amendments:

Monitor the operational performance of existing wastewater management systems and require ~~poorly performing~~ systems which are not providing sufficient treatment to avoid significant adverse

environmental effects *to be upgraded to or replaced with systems that* ~~*effectively treat and contain all wastewater to the discharge site*~~ *provide a suitable quality of treated wastewater to avoid adverse effects on the discharge area and receiving environment.*

225. In response to Federated Farmers submission, I disagree that it is unclear what systems Policy 16.3.8 applies to. Although wastewater is defined currently defined in the MEP, it is recommended to change this definition to refer to Human Effluent as discussed further in Matter 10. There would then be no definition of wastewater, however I consider the plain reading of wastewater based on the dictionary definition is sufficiently clear. The Oxford English Dictionary defines wastewater as:

used water that contains waste substances from homes, factories and farms.

226. In relation to the monitoring of domestic wastewater systems, I consider that this is possible as where issues are evident, ponding may occur, odours may be present, overlying vegetation may be growing poor or contaminants may be evident in groundwater or surface water. On-site wastewater management systems are able to be routinely inspected and maintained to ensure effective operation, therefore I do not consider it is necessary to amend the policy.

227. Constellation Brands seek an amendment to Policy 16.3.8 to provide clarity as to what constitutes a poorly performing wastewater system. I consider the change sought by the submitter is not suitable as it refers to *"avoid significant adverse environmental effects".* I consider poorly performing wastewater systems may need to be upgraded or replaced even where effects are not at a 'significant' level. I consider that Policy 16.3.8 needs to be considered alongside Method 16.M.20 which requires the development and implementation of a Warrant of Fitness scheme for existing systems which will guide the determination of where existing systems are poorly performing. The introduction of this monitoring system will provide further clarification to interpret Policy 16.3.8. I therefore do not consider it is necessary to amend the provision.

Policy 16.3.9

228. Policy 16.3.9 reads:

Encourage artificial wetlands as a means of managing the discharge of contaminants.

229. Three submissions have been received on Policy 16.3.9. M and K Gerard (424.133) support Policy 16.3.9 and seek that it is retained as notified.

230. Federated Farmers (425.338) also support the policy and believe that MDC can have a role in encouraging the use of artificial wetlands to manage contaminants and would support MDC taking an active role with landowners to establish wetlands where there is an identified benefit. Federated Farmers seek that a new method is included which sets out MDC's role in working with landowners to encourage the development of artificial wetlands.

231. Constellation Brands (631.53) oppose Policy 16.3.9 as they are concerned the policy identifies wetlands as a treatment method over all other potential treatment and management systems. Constellation Brands consider the policy may reduce the consideration of other alternative treatment systems or preclude the adoption of innovative technologies.

232. With regard to Federated Farmers request for a new method, I consider that this is not necessary as the methods in Chapter 16 already include this type of encouragement. Specifically, 16.M.19 outlines that information will be provided that ensures there is *"greater awareness of the advantages and disadvantages of different wastewater management systems and their suitability for different environments."* I consider this method will already ensure that information regarding the use of artificial wetlands to treat wastewater, I therefore do not consider an additional method is necessary.

233. I disagree that Policy 16.3.9 may result in a reduction of alternative treatment systems or new technologies due to the other policies within Chapter 16. Policy 16.3.7 seeks to promote good practice in wastewater management systems and Policy 16.3.1 seeks to ensure systems are fit to provide adequate treatment. Policies 16.3.3 and 16.3.4 provide guidance as to what a system needs to achieve and matters to consider in system design and approval of discharge permits. Reading these

policies together, I consider that any treatment system can be considered and would be approved if it aligns with the policies and the overall objective to avoid significant adverse effects on water and soil quality, land and water ecosystems, slope stability and cultural and amenity values. I do not consider that Policy 16.3.9 should be deleted or amended.

Recommendation

234. I recommend that there are no changes to Policies 16.3.1, 16.3.2, 16.3.6, 16.3.7, 16.3.8 and 16.3.9.

235. I recommend that Policy 16.3.3 is amended as follows:

Approve discharge permit applications to discharge contaminants onto or into land where as relevant to the discharge:[27]

(a) the discharge is within the ability of the land to treat and/or contain contaminants present in the liquid waste, taking into account:
(i) the rate of discharge (including variability in the rate of discharge);
(ii) the nature and concentration of contaminants within the liquid waste;
(iii) the hydraulic properties of the soil within the land application area and any relevant physical, chemical or biological soil properties;
(iv) any other discharge of contaminants to the same land or to land in close proximity to the discharge;
(b) the discharge does not adversely affect the drinking water quality of groundwater adjacent to or down gradient of the discharge, either alone or in combination with any other discharge;
(c) the land application area is located ~~as far as practicable from~~ and managed such that the discharge of contaminants directly, or via overland flow to any surface waterbody or coastal water is avoided[28]*.*
(d) it is inappropriate (due to the potential impact on the performance of treatment plants and associated infrastructure) or impracticable to discharge the liquid waste into reticulated sewerage system;
(e) the discharge will not initiate instability or make existing instability worse; ~~and~~
(f) the treatment unit and land application area are accessible for servicing~~.~~ And
(g) the application demonstrates that, at a minimum, the best practicable option is utilised.[29]

236. I recommend that Policy 16.3.4 is amended as follows:

When considering discharge permit applications to discharge contaminants onto or into land, have regard to, as relevant to the discharge[30]*:*

(a) the extent of treatment prior to discharge;
(b) the location of the land application area and the sensitivity of the receiving environment[31]*;*
(~~b~~c) the method of distribution to and within the land application area following treatment;
(~~c~~d) alternative options for managing the contaminants, including discharge to an alternative location or to a reticulated community sewerage system;
(~~d~~e) the need for reserve land application areas;
(~~e~~f) site constraints, including geology, topography, slope, climate and presence of waterbodies or structures;
(~~f~~g) relevant guidelines and standards; and
(~~g~~h) potential cumulative effects.

237. I recommend that Policy 16.3.5 is amended as follows:

When considering discharge permit applications to discharge contaminants onto or into land, ~~have regard~~ give particular consideration[32] *to the cultural values of Marlborough's tangata whenua iwi.*

[27] 425.333 – Federated Farmers
[28] 631.50 – Constellation Brands
[29] 1251.116 - Fonterra
[30] 425.334 – Federated Farmers
[31] 631.51 – Constellation Brands
[32] 1186.94 – Te Atiawa

Methods

Method 16.M.19

238. Method 16.M.19 reads:

Provide information, including guidelines, to landowners, resource users, wastewater management system designers and the public:

- *To ensure there is greater awareness of the advantages and disadvantages of different wastewater management systems and their suitability for different environments;*
- *To improve the standard of design and installation of waste management systems by designers to appropriately assess site characteristics and constraints;*
- *To promote an awareness of the importance of ongoing management and maintenance to the performance of wastewater management systems and the factors that can affect performance;*
- *To encourage improved management and maintenance of wastewater management systems; and*
- *To report on monitoring of discharges to land.*

On-site wastewater management systems to be targeted by the method include:

- *Wastewater management systems;*
- *Farm waste management systems; and*
- *Winery wastewater management systems.*

Establish a register to record the details of all on-site wastewater management systems in the Marlborough Sounds.

239. One submission has been received on Method 16.M.19. C Smith (592.11) supports in part this method but seeks that area guidelines should be formulated by MDC.

240. I consider that there is no need to amend the method to address the request from C Smith. The method describes that guidelines will be developed to provide information to landowners, amongst others and these guidelines may be area specific to ensure information provided is relevant.

Method 16.M.20

241. Method 16.M.20 reads:

Develop and implement, within five years of the MEP becoming operative, a Warrant of Fitness scheme for existing on-site wastewater management systems not authorised by a resource consent in the Marlborough Sounds and in Groundwater Protection Areas. This scheme will require an initial inspection of the adequacy and effectiveness of existing on-site wastewater management systems and subsequent re-inspections every five years. The inspections will include an assessment of the capacity and integrity of the treatment unit (e.g. septic tank) and an assessment of the conditions of means of distribution and land application area(s).

242. Four submissions have been received on Method 16.M.20. Okiwi Bay Ratepayers Association Inc (269.1) oppose Method 16.M.20 for existing on-site wastewater systems not authorised by resource consents, as they consider that many systems in Okiwi Bay would fail due to the requirement for large areas of land. They seek that the MEP provides for existing properties which cannot meet the requirements without requiring further upgrades provided the systems are working within their initial design capabilities.

243. Federated Farmers (425.339) also oppose this method as they question how achievable it would be for MDC to inspect all on-site domestic wastewater systems as all components are generally buried. Federated Farmers also question the scientific basis for MDC targeting on-site wastewater systems as they do not believe they are a significant contributor to poor water quality outcomes, especially in extensive rural settings. Federated Farmers seek that this method is deleted from the MEP.

244. QCSRA (504.74) oppose the method. QCSRA state regular desludging would be acceptable but seek that MDC discuss the approach with affected communities and allow 7 years to design.

245. Mt Zion Charitable Trust (515.1) oppose method 16.M.20 and seek that the provision is deleted. No reasons have been provided.

246. In response to the submission from the Okiwi Bay Ratepayers Association Inc, I consider it cannot be determined at this point whether on-site wastewater systems in Okiwi Bay would fail as the Warrant of Fitness system is yet to be developed. I also disagree that existing systems should be able to continue to discharge without upgrades if operating within their original design capabilities. For most old systems, their 'original design capabilities' are unlikely to be recorded or retained by landowners. Older systems could be causing unacceptable environmental effects even if operating to their original design and in such circumstances, I consider it is appropriate to require these systems to be upgraded or replaced. This aligns with Policy 16.3.1 and Objective 16.3. I do not consider that the method requires any amendments.

247. With regard to Federated Farmers concerns, as noted above, I consider that it is possible for inspections of existing on-site wastewater systems to be undertaken. In relation to the scientific basis for 'targeting' on-site wastewater systems, I understand that MDC have received 191 complaints about domestic wastewater systems over the previous 10 years indicating that there a possible issue with these systems. Additionally, evidence presented by Aquaculture NZ and the Marine Farming Association about monitoring undertaken in the Marlborough Sounds as part of mandatory water quality monitoring for food safety raises concerns about discharges from poorly designed and operating septic tanks affecting coastal water quality.[33]

248. In response to the concerns from QCSRA, I do not consider any amendments to the method are necessary. The method does not specify timeframes for requiring systems to be upgraded and as drafted still allows for consultation with communities.

Recommendation

249. I recommend that there are no changes to Methods 16.M.19 and 16.M.20.

Anticipated Environmental Results

16.AER.3

250. Anticipated Environmental Result 16.AER.3 states:

There are no significant adverse effects on receiving environments as a result of the discharge of liquid wastes to land.

251. The indicators for monitoring effectiveness are:

The annual median values of the following soil parameters for soils within land application areas routinely monitored will fall within target ranges, as defined by Landcare Research (Landcare Research 2003);

(a) soil pH;

(b) SAR ratio

There is no major non-compliance with permitted activity rules or discharge permit conditions for dairy shed effluent and winery wastewater discharges in any year.

The rate of minor non-compliance for dairy shed effluent and winery wastewater discharges will not exceed 15 percent in any milking season or vintage in any year.

[33] Statement of Evidence of Alan Ross Campbell in support of the submissions of the Marine Farming Association Incorporated and Aquaculture New Zealand Limited for Hearing Block 4, Topic 11: Coastal Environments (26 March 2018).

252. MDC (91.135) have submitted on 16.AER.3 seeking an amendment to the second indicator to better reflect the anticipated environmental result. MDC seek the following change:

There is no major non-compliance with permitted activity rules or discharge permit conditions for dairy shed effluent and winery wastewater discharges <u>that cause significant adverse effects</u> in any year.

253. I consider that the relief requested by MDC is not appropriate as major non-compliances with permitted activity rules or conditions causing significant adverse effects is a very low threshold to set and is difficult to determine. I consider that it would be more appropriate to specify there are no major non-compliances that cause *more than minor* effects as this is a higher threshold for severity of effects and is a more familiar concept as it is considered for the notification decision in the consent process. As it is a more familiar term, I consider it would be easier for MDC to assess the consequences of non-compliances with permitted activity rules and discharge permits. I therefore recommend that monitoring effectiveness indicator is amended to specify there are no major non-compliances resulting in more than minor effects.

254. If the Hearing Panel consider there is scope, I also consider a consequential change should be made to the anticipated environmental result 16.AER.3 as it currently states *there are no significant adverse effects on receiving environments as a result of the discharge of liquid wastes to land.* For the reasons discussed above, I consider it would appropriate for the anticipated environmental result to specify that there are *no more than minor adverse effects* rather than *significant adverse effects*. It is my view that this change will enable a simpler assessment of the MEP provisions as the concept of more than minor effects will be more widely understood.

Recommendation

255. I recommend that the monitoring effectiveness indicators for anticipated environmental result 16.AER.3 are amended as follows if the hearing panel agree there is scope to do so:

There are no ~~significant~~ <u>more than minor</u> adverse effects on receiving environments as a result of the discharge of liquid wastes to land.[34]

256. I recommend that the monitoring effectiveness indicators for anticipated environmental result 16.AER.3 are amended as follows:

The annual median values of the following soil parameters for soils within land application areas routinely monitored will fall within target ranges, as defined by Landcare Research (Landcare Research 2003);

(a) soil pH;

(b) SAR ratio

There is no major non-compliance with permitted activity rules or discharge permit conditions for dairy shed effluent and winery wastewater discharges <u>that cause significant adverse effects</u>[35] *in any year.*

The rate of minor non-compliance for dairy shed effluent and winery wastewater discharges will not exceed 15 percent in any milking season or vintage in any year.

[34] Consequential amendment, 91.135 - MDC
[35] 91.135 - MDC

Matter 3: General submissions across various rules

257. A number of submission points have been received across the same or similar standards for various rules. Rather than repeat each submission point when considering the different discharge rules, these common submission points have been discussed here and are not assessed further below.

258. The issues subject to common submissions are:

- Fish and Game: Discharges need to comply with water quality standards;
- Rarangi District Residents Association: Soil Sensitive Overlay and water quality testing;
- Nitrogen Loading Standard;
- Forest and Bird: Waterbody setbacks;
- Fish and Game: Open Space 3 Zone;
- Te Atiawa: Cultural Sites; and
- Butt Drilling Limited: Setbacks from bores.

Fish and Game: Discharges need to comply with water quality standards

Submissions and analysis

259. Fish and Game submit that all discharges, specifically the application of agrichemicals, fertiliser or lime and vertebrate toxic agents need to comply with the Water Quality Standards outlined in Appendix 6.[36] Fish and Game submit that the discharge of agrichemicals, fertiliser or lime and vertebrate toxic agents must meet these standards so as to be in accordance with Section 69 of the RMA.

260. Fish and Game (509.451) oppose discretionary rule 19.4.3 unless the permitted activity standards are amended in accordance with their submission. Specifically, in the Open Space 3 Zone, Fish and Game seek the inclusion of a reference to compliance with water quality limits.

261. Appendix 6 of the MEP relates to Environmental Flows and Levels, therefore I believe that Fish and Game are referring to Appendix 5 Water Resource Unit Values and Water Quality Classification Standards. In my view, the permitted activity standards will ensure that any contaminants that enter water will have minimal impact and therefore are expected to achieve the water quality classification standards. The discharge to water rules in section 2.16 to 2.20 will address any direct discharges to water of agrichemicals.

262. As such, I do not consider the additional standard is necessary.

Recommendation

263. I do not recommend any changes to rules related to the application of agrichemicals, fertiliser or lime and vertebrate toxic agents in relation to this submission. [37]

[36] 509.311, 509.312, 509.313, 509.438, 509.442, 509.437, 509.441

[37] Application of agrichemicals (3.1.22, 3.3.22, 4.1.21, 4.3.21, 5.1.18, 5.3.13, 6.1.11, 6.3.8, 7.1.13, 7.3.11, 8.1.13, 8.3.12, 9.1.11, 9.3.6, 10.1.9, 10.3.6, 11.1.5, 11.3.5, 12.1.32, 12.3.21, 17.1.9, 17.3.7, 18.1.12, 18.3.8, 19.1.17, 19.3.15, 21.1.15, 21.3.15, 23.1.17, 23.3.4) Application of fertiliser or lime (3.1.23, 3.3.23, 4.1.22, 4.3.22, 17.1.10, 17.3.8, 18.1.13, 18.3.9, 19.1.19, 19.3.17, 23.1.18, 23.3.5) Application of vertebrate toxic agent (3.1.24, 3.3.24, 4.1.23, 4.3.23, 19.1.16, 19.3.14, 20.1.8, 20.3.6)

Rarangi District Residents Association: Soil Sensitive Overlay and water quality testing

Submissions and analysis

264. The RDRA have submitted in support of a number of discharge rules provided Rarangi is confirmed as a Soil Sensitive Area and if annual testing of the Rarangi Aquifer is undertaken.[38] The RDRA state that there has been rapid expansion of vineyards in Rarangi which raises concerns about contaminants entering the shallow aquifer and that monitoring the effects of this expansion will be increasingly important. The RDRA seek that the costs of this monitoring are borne by the industry rather than the ratepayer.

265. Regarding the testing for agrichemicals in the Rarangi shallow aquifer, I consider that this is not a matter that can be addressed in the objectives and policies of the MEP. Where resource consents are required, monitoring of groundwater quality can be required via conditions of consent. I note that anticipated environmental result 15.AER.3 states *'Water quality in Marlborough's aquifers is suitable for drinking.'* This is to be monitored by MDC and in my view does also address the concerns of the RDRA.

266. In relation to the Soil Sensitive Overlay, this is discussed further in Matter 16. To summarise, it is recommended that the overlay remains as proposed in the MEP.

Recommendation

267. I recommend there are no changes to rules related to the application of an agrichemical, fertiliser or lime, compost or solid agricultural waste, discharge of agricultural liquid waste or making compost or silage in a pit or stack or the stockpiling of agricultural solid waste in relation to this submission. [39]

Nitrogen Loading Standard

Submissions and analysis

268. Several discharge rules include a permitted activity standard that sets a total cumulative nitrogen loading rate of no greater than 200kg N/hectare/year.[40] This standard has been subject to numerous submission points from the following submitters:

- Federated Farmers;
- Dairy NZ;
- Ravensdown;
- FANZ; and
- Horticulture NZ

269. Federated Farmers comment that the standard is unclear as to what its purpose is, it is difficult to measure and that setting nitrogen loading limits is better addressed via a limit setting process that will occur in due course.[41]

[38] Application of an agrichemical (1089.8), Application of fertiliser or lime (1089.10), Application of compost or solid agricultural waste (1089.11), Discharge of agricultural liquid waste (1089.12), Making compost or silage in a pit or stack, or stockpiling agricultural solid waste (1089.14)
[39] Application of agrichemicals (3.1.22, 3.3.22, 4.1.21, 4.3.21, 5.1.18, 5.3.13, 6.1.11, 6.3.8, 7.1.13, 7.3.11, 8.1.13, 8.3.12, 9.1.11, 9.3.6, 10.1.9, 10.3.6, 11.1.5, 11.3.5, 12.1.32, 12.3.21, 17.1.9, 17.3.7, 18.1.12, 18.3.8, 19.1.17, 19.3.15, 21.1.15, 21.3.15, 23.1.17, 23.3.4)
Application of fertiliser or lime (3.1.23, 3.3.23, 4.1.22, 4.3.22, 17.1.10, 17.3.8, 18.1.13, 18.3.9, 19.1.19, 19.3.17, 23.1.18, 23.3.5)
Application of compost or solid agricultural waste (3.1.25, 3.3.25, 4.1.24, 4.3.24, 19.1.20, 19.3.18)
Discharge of agricultural liquid waste (3.1.26, 3.3.26, 4.1.25, 4.3.25, 19.1.21, 19.3.19)
Making compost or silage or stockpiling agricultural waste (3.1.33, 3.3.33, 4.1.32, 4.3.32, 19.1.24, 19.3.22)
[40] Application of fertiliser or lime (3.3.23, 4.3.22, 17.3.8, 18.3.9, 19.3.17, 23.3.5)
Application of compost or solid agricultural waste (3.3.25, 4.3.24, 19.3.18)
Discharge of agricultural liquid waste (3.3.26, 4.3.25, 19.1.21, 19.3.19)
Discharge of dairy farm effluent (3.3.28, 4.3.27, 19.3.19)
[41] 425.678, 425.571, 425.581

270. In relation to the application of fertiliser or lime, Federated Farmers have sought that the standard is amended to only reference the total cumulative nitrogen loading from the application of fertiliser.[42]

271. Dairy NZ have submitted on the standard within the rules relating to the application of fertiliser, compost or solid agricultural waste and the discharge of dairy effluent.[43] DairyNZ have sought that the permitted activity standard is amended to refer to the total cumulative nitrogen loading "from this activity" rather than the total cumulative inputs of all activities. No reasons have been provided for the requested change.

272. Ravensdown have submitted that setting a blanket input control such as proposed in the standard is not an effect based approach and an output based approach provides for innovation and flexibility in farming systems.[44] Ravensdown acknowledge that an output based system would require substantial work and changes to the MEP and that Farm Environment Plans could be used to collect data before applying controls on nutrient discharges. Ravensdown state "where the application of nitrogen at greater than 200kg/ha/yr is warranted, accountability can be provided by the requirement for a Farm Environment Plan to demonstrate appropriate use and how potential adverse effects are avoided, remedied or mitigated.

273. Ravensdown suggest the following amendment:

Total cumulative nitrogen (N) loading on the areal extent of land used for the application must not exceed 200 kg N/ha/year (excluding N from direct animal inputs) unless there is XXX Provision to manage nutrient discharges demonstrating appropriate controls with a Farm Environment Plan.

274. FANZ have raised concerns with the permitted activity standard related to the application of fertiliser or lime and the discharge of dairy effluent being input based rather the effects based.[45] FANZ have sought an amendment to the permitted activity to allow more than 200kg/N/ha/yr to be applied where appropriate controls have been demonstrated in a Farm or Nutrient Management Plan. The amendment sought is as follows:

Total cumulative nitrogen (N) loading on the areal extent of land used for the application must not exceed 200 kg N/ha/year (excluding from direct animal inputs) unless there is provision to manage nutrient discharges demonstrating appropriate controls with a Farm or Nutrient Management Plan to be provided to the Council.

275. Horticulture NZ have submitted in relation to the permitted activity standard included in the application of compost or solid agricultural waste and the discharge of agricultural liquid waste rules.[46] Horticulture NZ states that the limit is arbitrary and does not take into account plant uptake, nutrient management or best practice. Horticulture NZ has sought the deletion of this standard.

276. The permitted activity standard for nitrogen loading controls the cumulative nitrogen applied to a property. I understand that a nitrogen loading limit of up to 200kg/N/ha/year has previously been accepted in New Zealand as the upper limit of nitrogen that is beneficial to pasture growth.[47] The loading limit is based on the assumption that applying no more than 200kg/N/ha/year effectively replaces nitrogen fixed by clover/pasture, therefore the quantity of nitrogen leached is minimal. I note that under the WARMP, this nitrogen loading standard is included but it is per activity, therefore the MEP approach has reduced the total nitrogen loading permissible taking a conservative approach to managing potential nitrate issues.

277. Although the standard is based on pasture/clover uptake and does not consider other vegetative cover, I do not consider there is sufficient information to specify nitrogen loading limits for different crop types. I therefore do not agree with the submissions of Horticulture NZ.

[42] 425.835, 425.805
[43] 676.95, 676.103, 676.142, 676.148
[44] 1090.69, 1090.81, 1090.96, 1090.106, 1090.120, 1090.121
[45] Permitted activity standards: 3.3.23.4 (1192.59), 3.3.28.7 (1192.62), 4.3.22.3 (1192.74), 4.3.27.6 (1192.76), 19.3.17.4 (1192.89, 1192.92)
[46] 769.105, 769.106)
[47] Davies-Colley et. al 2003. *Effects of Rural Land Use on Water Quality.* National Institute of Water and Atmospheric Research. Wellington.

278. Because the nitrogen loading limit is based total nitrogen loading, I do not agree with the requests from Federated Farmers and Dairy NZ to allow the discharge of 200kg/N/ha/yr for each activity as this would allow significantly more nitrogen to be applied to land per year. In light of the NPSFM and as MDC are yet to undertake cumulative limit setting (as discussed further below), I do not consider it would be appropriate to allow 200kg/N/ha/yr per discharge activity to occur. The most recent State of the Environment Report from 2015 notes that along with microbial contamination, elevated nitrate levels in groundwater is the most common form of groundwater contamination. An increase of nitrates from the 2008 monitoring report was evident in some aquifers but it is not known if this is a trend.

279. Changing to a more output focused approach such as nutrient budgeting and requiring Farm Environment Plans to allow for variations in farming practices (to allow less or more nitrogen losses) as a permitted activity is a significant shift from the proposed MEP approach. Such an approach would require nutrient limit setting to be undertaken which requires significant technical information to set suitable loss rates. This has not yet been completed in Marlborough. This approach is planned to be undertaken as directed in Chapter 15 and as outlined in the staged programme for implementation discussed above. Specifically, Policy 15.1.3 states:

    To investigate the capacity of fresh waterbodies to receive contaminants from all sources, having regard to the management purposes established by Policy 15.1.1 in order to establish cumulative contaminant limits by 2024.

280. The explanation to Policy 15.1.3 describes that at the time of notifying the MEP, MDC did not hold enough data to set contaminant limits and therefore MDC are working on progressive implementation of the NPSFM. As described above, this work includes the collection of information to support the establishment of cumulative water quality limits and the preparation and notification of plan changes to introduce those limits by 30 June 2024.

281. In addition, Method 15.M.3 describes that MDC will undertake catchment specific research to determine the ability of freshwater bodies to assimilate contaminants loads.

282. While I acknowledge that an output focused approach such as suggested by Ravensdown may be preferable compared to the proposed MEP provisions, I consider there is insufficient information available to MDC to pursue this management framework at this time. I consider the current policies and methods already indicate that further research is needed to move towards setting catchment limits. As part of the preparation and notification of plan changes to introduce the cumulative catchment limits I would anticipate that the current MEP nitrogen loading standard would be reviewed and it may be determined that Farm Environment Plans are also a suitable part of that approach. However, until such time as sufficient information is available, I consider the current cumulative nitrogen loading standard will effectively manage the potential risks to water quality, particularly groundwater quality.

283. Overall, it is my view that there is insufficient information to support the shift in direction that submitters seek. I therefore do not consider it is appropriate to delete or amend this permitted activity standard.

Recommendation

284. I recommend there are no changes to rules related to the application of fertiliser or lime, compost or solid agricultural waste, discharge of agricultural liquid waste or discharge of dairy farm effluent as a result of these submissions.

Forest and Bird: Waterbody Setbacks

Submissions and analysis

285. Forest and Bird have submitted on rules regarding the application of fertiliser or lime, the application of compost or solid agricultural waste and the discharge of dairy effluent, stating that fertiliser should not

be applied within 20m of any wetland or other waterbody.[48] No further explanation is provided in the submission as to why a 20m setback is required.

286. I consider that a 20m setback from any waterbody is not necessary as the rules already include a permitted activity standard to prevent fertiliser from being deposited in or on a river, lake, Significant Wetland or drainage channel that contains water and the discharge of compost, agricultural solid waste or dairy effluent within 20m setback from rivers, lakes, Significant Wetlands, drainage channels and Drainage Channel Networks.

287. Forest and Bird have not provided any reasons as to why a 20m setback should apply to other wetlands or other waterbodies. From the definitions of river, lake, drainage channel and drainage channel network, I am not clear what other waterbodies would not be subject to this setback. Without further information to understand the concerns of Forest and Bird, I do not recommend any changes to the permitted activity standards associated with rules for the application of fertiliser or lime, the application of compost or solid agricultural waste and the discharge of dairy effluent.

Recommendation

288. I recommend there are no changes to rules related to the application of fertiliser or lime, compost or solid agricultural waste or discharge of dairy farm effluent in relation to this submission.

Fish and Game: Open Space 3 Zone

Submissions and analysis

289. Fish and Game have submitted on several rules in the Open Space 3 Zone stating that farming activities should not be permitted in this zone as they are not appropriate.[49] Fish and Game have sought the removal of these rules from the permitted activity list for the Open Space 3 zone[50]. These rules relate to: the application of compost or solid agricultural waste into or onto land; the discharge of agricultural liquid waste (except dairy farm effluent) into or onto land; the disposal of farm rubbish into a pit; the disposal of offal or a carcass into an offal pit; making compost or silage in a pit or stack, or stockpiling agricultural solid waste; and storage of compost not in a pit or stack.

290. The Open Space 3 Zone includes a significant proportion of the Marlborough District. From reviewing the zoning maps and aerial photographs of land within the zone, it is evident that Open Space 3 zone includes areas currently used for farming such as the Molesworth station. Farming in the zone does appear to be limited and is likely to be controlled as it is largely on public land, for example Molesworth Station is managed by DOC and Wither Hills is managed by MDC. Because farming does occur within the zone, I do not consider it appropriate to delete this rule from the zone. Fish and Game have also not provided any further reasons as to why it would not be appropriate for farming activities to continue to occur where they are currently undertaken in this zone subject to compliance with the permitted activity rules and standards.

Recommendation

291. I recommend that rules 19.1.20, 19.1.21, 19.1.22, 19.1.23, 19.1.24, 19.1.25 are retained as notified.

Te Atiawa: Cultural Sites

Submissions and analysis

292. Te Atiawa have submitted on the rules regarding the disposal of farm rubbish and offal into pits, making compost or silage in a pit or stockpiling agricultural solid waste and the storage of compost not in a pit or stack seeking that such discharges should not be permitted where leachate or other

[48] 715.396, 715.397, 715.398, 715.438, 715.439, 715.440
[49] Rules: 19.1.20, 19.1.21, 19.1.22, 19.1.23, 19.1.24, 19.1.25
[50] 509.443, 509.444, 509.445, 509.446, 509.447, 509.448

contaminants could adversely affect the mauri or cultural values associated with a waterway or other cultural site.[51]

293. I consider there is insufficient information to recommend any additional permitted activity standards to these rules. Culturally significant sites are not mapped therefore I do not consider it is possible to ensure these activities do not occur where cultural sites may be impacted. The rules already include a permitted activity standard requiring setbacks from rivers, lakes, Significant Wetlands and drainage channels. Therefore, I consider it is unlikely there will be any effects on the cultural value of those waterbodies.

294. I understand that this issue was also discussed in the MEP hearings on Topic 2 – Marlborough's Tangata Whenua. The Section 42A report for Topic 2 outlines that mapping of site of significance did not eventuate in the preparation of the MEP and that if those sites are to be included at a future date, it would be appropriate to do so via variation of plan change to the MEP.

Recommendation

295. I recommend that rules 19.3.20, 19.3.21, 19.3.22 and 19.3.23 are retained as notified.

Butt Drilling Limited: Setbacks from bores

Submissions and analysis

296. Butt Drilling Limited have submitted on rules related to the discharge of human effluent, discharge of farm rubbish, disposal of offal or a carcass into an offal pit and making compost or silage or stockpiling agricultural waste.[52,53] Butt Drilling Limited have raised concerns over permitted activity standards requiring a 50m setback from bores and seek that this is reduced to 30m.

297. Butt Drilling Limited state the 50m setback is unworkable as most house sections do not have enough size to allow for these distances and in most rural settings the bore will have to be out in paddocks making them prone to damage from machinery and stock. Butt Drilling Limited have drilled over 1500 wells in the district and consider 30m separation is adequate.

298. I acknowledge that the increase in the required setbacks may pose some practical issues with locating wells and discharges, most commonly human effluent disposal fields on properties to meet the permitted activity standards. However, discharges of contaminants, particularly microbial contaminants can pose a high risk of contamination to groundwater depending on the treatment of the discharge and separation to groundwater beneath the land application area. The contamination of a community drinking water supply in Havelock North has recently highlighted the risk and possible consequences of discharges impacting groundwater quality. It is my view that a 30m setback is quite minimal when compared to pathogen die-off in aquifers and increasing the required setback to 50m is a necessarily conservative measure which provides additional time for further contaminant removal. I have spoken with MDC Groundwater Scientist Peter Davidson who is not aware of any widespread contamination of private drinking water sources by discharges to land, but who agrees it is necessary to adopt a conservative approach in setting separation distances from wells. Mr Davidson acknowledges through the State of Environment monitoring, MDC have not observed the significant presence of microbes in Marlborough's groundwater but following the Havelock North Inquiry findings, there will be more seasonal measurements in susceptible aquifers to confirm risks to domestic drinking water supplies.

299. While there may not be any extensive measurable adverse effects of discharges being within 30m of bores, I consider that it is prudent to increase the setback distance to 50m to protect human health. This may create a difficulty siting wells and discharges to meet permitted activity standards however this does not mean a discharge cannot be within 50m of a well. Through the consent process, a more in-depth analysis of the nature of the discharge and characteristics of the environment can occur which may result in a conclusion that a closer separation distance is sufficient.

[51] 1186.204, 1186.205, 1186.206, 1186.207
[52] 575.3, 575.4, 575.5, 575.8, 575.11 575.13, 575.14, 575.15, 575.16, 575.18, 575.15
[53] Rules: 3.3.31, 3.3.32, 3.3.33, 6.3.7, 8.3.14,10.3.10, 17.3.9, 19.3.20, 19.3.21, 19.3.22, 23.3.6

300. In my opinion the setback is a necessary method for ensuring discharges in more sensitive locations obtain consent and I consider that this is particularly important where many of the discharge rules do not include discharge contaminant limits. On the basis of the assessment above, I do not recommend the separation distance to wells is reduced from 50m.

Recommendation

301. I do not recommend any changes to rules 3.3.31, 3.3.32, 3.3.33, 6.3.7, 8.3.14,10.3.10, 17.3.9, 19.3.20, 19.3.21, 19.3.22, 23.3.6 in relation to this submission.

Matter 4: Application of agrichemicals

302. All zone chapters contain a permitted activity rule and standards for the application of agrichemicals into or onto land except The Port Zone, Port Landing Area Zone, Marina Zone, Coastal Marine Zone, Open Space 4 Zone and Lake Grassmere Saltworks Zone where the discharge of agrichemicals requires a discretionary activity consent.[54]

303. The Chapter 2 General Rules also include rules for the discharge of agrichemicals to air.[55] Submissions received on those rules are also assessed within this section of the report. As stated under the heading "Discharge to Air" these general rules only apply to roads and railway corridors identified on the zoning maps.

304. Agrichemicals are defined in the MEP as:

any substance, whether inorganic or organic, manufactured or naturally occurring, modified or in its natural state, that is used in any agriculture, horticulture, forestry, management of public amenity areas, or related activity, to eradicate, modify or control flora or fauna. This includes agricultural compounds, but excludes fertilisers, vertebrate pest control products and organ nutrition compounds.

305. If one or more of the permitted activity standards are unable to be met, the application of agrichemicals is classified as a discretionary activity. The permitted activity standards are largely the same in all zones, although there are no restrictions on the method of application in the Rural, Coastal Environment, Open Space 1, Open Space 2, Floodway and Airport Zone.

306. Submissions received on these provisions cover topics including the linkages with HSNO and the NZS 8409:2004 standard; application methods; discharges to air during application; and other miscellaneous matters.

307. Approximately 21 submissions were received in support of these provisions and sought no changes.[56] These submissions have only been considered where a change in the rules is recommended.

308. Approximately 16 submission points were received on the Chapter 2 General rules. Of these submissions, 5 support the provisions and have not sought any changes. The remaining submissions have been assessed together below.

309. Four submissions have also been received in relation to the definition of agrichemical. Two are in support and the other two support in part the definition.

Submissions and Assessment

References to HSNO and NZS Standard

Submissions

310. Many of the agrichemical application rules refer to three permitted activity standards:

- The agrichemical must be approved for use under the Hazardous Substances and New Organisms Act 1996.[57]
- The application must be undertaken in accordance with the most recent product label. All spills of agrichemicals above the application rate must be notified to the Council immediately.[58]

[54] Rules: 3.1.22, 3.3.22, 4.1.21, 4.3.21, 5.1.18, 5.3.13, 6.1.11, 6.3.8, 7.1.13, 7.3.11, 8.1.13, 8.3.12, 9.1.11, 9.3.6, 10.1.9, 10.3.6, 11.1.15, 11.3.5, 12.1.32, 12.3.21, 17.1.9, 17.3.7, 18.1.13, 18.3.8, 19.1.17, 19.3.15, 21.1.15, 21.3.15, 23.1.17, 23.3.4

[55] Rules: 2.21, 2.22, 2.23

[56] Wine Marlborough (431.59), S and J People's (450.24, 450.25), J Hickman (455.49, 455.50), G Mehlhopt (456.49, 456.50) Accolade (457.59), Blind River (462.21), Delegat (473.44), Clintondale Trust, Whyte Trustee Company Limited (484.62), Constellation Brands (631.32), Longfield Farm Limited (909.50), Pukematai Farm Limited (1045.4), Villa Maria (1218.50) Yealands Estate Limited (1242.30), Pernod (1039.122), Trelawne Farm Limited (445.7), Rarangi Golf Club Incorporated (591.5, 591.7, 591.8)

[57] Permitted activity standards: 3.3.22.1, 4.3.21.1, 5.3.13.1, 6.3.8.1, 7.3.11.1, 8.3.12.1, 9.3.6.1, 10.3.6.1, 11.3.5.1, 12.3.21.1, 17.3.7.1, 18.3.8.1, 19.3.15.1, 21.3.15.2, 23.3.4.1

- The application must be carried out in accordance with Sections 5.3 and 5.5 of NZS 8409:2004 Safe Use of Agricultural Compounds and Plant Protection Products – Management of Agrichemicals (NZS 8409).[59]

311. Federated Farmers (425.490, 425.566, 425.669, 425.774) and S Parkes (339.13) submit that agrichemicals are already regulated by HSNO and the NZS8409:2004 standard and request that the rule is deleted. MDC have also requested the permitted activity standard is deleted as it unnecessarily restricts the products that may be applied to those that are approved for use under HSNO and that was not intended.[60]

312. The South Marlborough Landscape Restoration Trust (476.18, 476.19, 476.20, 476.21) opposes standards 4.3.21.3 and 7.3.11.2 that requires agrichemicals to be used in accordance with the latest product labels and seeks its deletion. This is because the permitted activity standards already require the application of agrichemicals to comply with NZS 8409:2004.

313. DOC (479.253,479.254) submit on Rule 19.3.5 noting that in the Open Space 3 Zone, they utilise products for controlling weeds that are not created for that purpose and as such would not comply with the standard requiring the application of agrichemicals in accordance with product labels. DOC state that NZS8409:2004 does not require compliance with product label instructions and that the label instructions are not an indication of a threshold for an adverse environmental effect. DOC have proposed the following alternative wording:

The agrichemical must be approved for use under the Hazardous Substances and New Organisms Act 1996 and the discharge is in accordance with all the conditions of the approval."

~~"The application must be undertaken in accordance with the most recent product label.~~ All spills of agrichemicals above the application rate must be notified to Council immediately.

Analysis

314. I agree with the submissions from MDC, Federated Farmers and S Parkes regarding the permitted activity standard restricting the application of only products approved under HSNO. Not all agrichemicals may be classified as hazardous substances and therefore this restriction would prevent less harmful products from being applied as a permitted activity. Where an agrichemical product is controlled under HSNO, the user will already need to abide by any conditions of the approval under the HSNO management regime. I agree with MDC that this is not appropriate and have recommended all permitted activity standards requiring that the agrichemical must be approved for use under HSNO be deleted. I consider that removing these standards better aligns with the policies of the MEP, specifically Policy 15.5.1 which states:

Primarily rely on regulations promulgated under the Hazardous Substances and New Organisms Act 1996 to ensure hazardous substances are used, stored and transported in an appropriate manner.

315. The explanation to Policy 15.5.1 states that HSNO provides minimum controls for the use, storage, transportation and disposal of all hazardous substances through New Zealand and MDC is able to impose additional or more stringent controls. However, in most cases MDC is satisfied with the requirements imposed under HSNO with two exceptions:

- *the use and storage of hazardous substances in groundwater protection areas and on river beds, due to the vulnerability of the aquifers and rivers to contamination; and*
- *The discharge of hazardous waste to land or water.*

316. Neither of these exceptions apply in this situation, therefore I consider it is appropriate, in accordance with the policy direction in the MEP, to delete these standards.

[58] Permitted activity standards: 3.3.22.4, 4.3.21.3, 5.3.13.2, 6.3.8.2, 7.3.11.2, 8.3.12.2, 9.3.6.2, 10.3.6.2, 11.3.5.2, 12.3.21.2, 17.3.7.4, 18.3.8.4, 19.3.15.4, 21.3.15.1, 23.3.4.3
[59] Permitted activity standards: 3.3.22.5, 4.3.21.4, 17.3.7.5, 18.3.8.5, 19.3.15.5, 23.3.4.4
[60] Marlborough District Council (91.48, 91.49, 91.50, 91.51, 91.53, 91.54, 91.55, 91.56, 91.57, 91.58, 91.59, 91.60, 91.61, 91.62, 91.124)

317. A permitted activity standard has been included in the application of agrichemicals rules that requires the application to be carried out in accordance with Sections 5.3 and 5.5 of the NZS 8409:2004. I disagree with submitters' requests to delete this permitted activity standard. NZS 8409:2004 provides guidance to ensure that agrichemicals are used in a safe, responsible and effective manner. The standards are not legally binding on their own, but their implementation does assist in meeting HSNO regulations. As the standards are not binding on their own, I consider that it is appropriate to retain their reference in the permitted activity as this will ensure that the potential adverse effects of their use are appropriately managed.

318. In relation to the use of products in accordance with product labels, I consider that DOC's suggested changes to require products to instead be used in accordance with the HSNO approval is not appropriate because I have recommended this restriction is deleted. I consider that products should generally be used as recommended on the product label but as an alternative, if products are approved under HSNO and used in accordance with that approval, then I consider the environment risks will be appropriately managed. I recommend changes to reflect these two alternatives. A consequential amendment has been recommended to address spills of agrichemicals.

Application methods

Submissions

319. Some zones include permitted activity standards that restrict the application of agrichemicals to hand held methods[61] and in most zones prevent their discharge into a river, lake, Significant Wetland, drainage channel or Drainage Channel Network that contains water.

320. V Harris (130.1) submits in support of the Rule 3.3.22 permitted activity standards but requests that an additional standard is included that states:

All reasonable care must be exercised with the application so as to ensure that the agrichemical must not pass beyond the legal boundary of the area of land on which the agrichemical is being applied.

321. It is not entirely clear, but the concerns of V Harris appear to relate to the potential effects on properties at the urban-rural interface.

322. M Osbourne (243.4) opposes Rule 8.3.12.3 stating the term "all reasonable care" needs to be defined. M Osbourne is concerned about the discharge of agrichemicals from neighbouring properties.

323. Horticulture NZ (769.86, 769.103) requests amendments to Rules 2.22 and 3.3.22 to require the notification of water users prior to the application of agrichemicals and for those applying agrichemicals to be suitably qualified as demonstrated by holding a GROWSAFE certificate. Horticulture NZ state that this change is required as it is important that best practice is used for agrichemical applications.

324. PF Olsen (149.38, 149.56) support the rural and coastal environment rules but seek an amendment to the permitted activity standard that prevents agrichemicals being deposited into waterbodies. The relief sought is:

3.3.22.3 The application must not result in the agrichemical being deposited in or on a river, lake, Significant Wetland, drainage channel or Drainage Channel Network that contains water unless the water body is fully covered by vegetative material or slash

325. I Esson (440.5, 440.6) has submit on the Chapter 2 General Rules and the Rural Environment Zone rule stating that due to the RMA definition of 'river' the rule will prevent the discharge of agrichemicals to dry gullies. The submitters' concern seems to be in relation to weed management prior to the planting of plantation forestry.

[61] Urban Residential 1 and 2 Zone, Urban Residential 3 Zone, Coastal Living Zone, Business 1 Zone, Business 2 Zone, Business 3 Zone, Industrial 1 and 2 Zone.

326. P Gilbert (192.6) opposes Rule 8.3.12.5 restricting the application of agrichemicals to hand held equipment in the Rural Living Zone as there are still significant areas of commercial crops in the zone. P Gilbert seeks the deletion of the standard as in his view, there is no environment gain from its inclusion provided the other permitted activity standards are adhered to.

Analysis

327. The application of agrichemicals near property boundaries may result in those chemicals being discharged onto adjacent land. In most of the zones there is a permitted activity standard requiring that all reasonable care shall be undertaken to ensure that the agrichemical does not pass beyond the legal boundary. This standard is not included in the Rural Environment Zone, Coastal Environment Zone, Open Space 1, 2 and 3 Zones and the Floodway Zone where there is no requirement to apply the agrichemicals using hand held methods. As the condition is linked with the application method and as I consider it would be inappropriate to restrict application to only handheld methods in the above zones given the size of properties within these zones, I disagree with the suggestion from V Harris. I also consider that a definition of all reasonable care is not necessary as the interpretation will depend on the exact method of hand held application and the context of application. This may also be informed by guidance in NZS8409:2004.

328. Regarding the requirement to hold a GROWSAFE certificate, I consider that this is not necessary as the permitted activity standards already requires agrichemicals to be discharged in accordance with NZS8409:2004 and the GROWSAFE training is based on NZS8409:2004. Holding a GROWSAFE certificate may be a means of demonstrating compliance with the requirement to apply products in accordance with NZS 8409:2004 but in my opinion, does not need to be an additional requirement in its own right.

329. I disagree with the suggested amendments of PF Olsen to allow the application of agrichemicals in a waterbody that contains water if it is fully covered in vegetative material or slash. I consider there are environmental risks associated with a discharge of this nature and that an assessment of the adequacy of cover over a waterbody should be addressed via a resource consent.

330. In response to I Esson, I firstly note that the Chapter 2 General Rules are related to the application of agrichemicals in the road and rail corridor only. Secondly, as discussed above, I consider there are environmental risks with the application of agrichemicals to ephemeral waterways and that any discharge should be subject to resource consent.

331. I acknowledge that there are some larger land parcels located within the Rural Living Zone where it would be preferable for the mechanical application of agrichemicals to be permitted. However, I consider that this is inappropriate to permit across the zone as a whole as the purpose of this zone is to allow for greater residential living opportunities than in the Rural Environment Zone, which will inherently be on smaller land parcels. The restriction on discharge methods is also no greater than what is currently allowed by the WARMP and MSRMP.

Discharges to Air

Submissions

332. DOC (479.184, 479.185) has submitted in opposition on Rules 2.21.1 and 2.22.1 seeking their deletion as they should be combined with the discharge to land rules in each of the relevant zones. DOC (479.254) has also submitted that the Open Space 3 Zone rule should be amended to include the application of an agrichemical to air, or the associated discharge to air. No further reasons have been provided why these two rules should be combined.

333. DOC have proposed a new permitted activity for Rule 19.3.15:

19.3.15.6 Any spray drift resulting from the discharge is contained within the boundary of the property.

334. Trustpower (1201.139, 1201.140) have also submitted seeking the rule be expanded to allow for the aerial application of agrichemicals in the Rural Environment Zone. Trustpower seek the amendment of

the permitted activity rule and the addition of a new permitted activity standard to address the potential effects of aerial application:

3.1.22 and 3.2.22: Application of an agrichemical into or onto land, or application of an agrichemical by air onto land.

3.3.22.6. The agrichemical must not pass beyond the legal boundary of the area of land on which the agrichemical is being applied.

335. NZTA (1002.146, 1002.47) have submit on Rules 2.21.1 and 2.22.1 seeking that the phrasing of the rules are amended to also include the associated discharge of contaminants to air and onto or into land in circumstances which may result in a contaminant entering water. NZTA state that the proposed rules do not include the associated discharge to land and there are no other rules which would apply to the road corridor.

336. Transpower (1198.53, 1198.54) have submit on Rules 2.21 and 2.23 seeking that they are extended to apply to the application of agrichemicals associated with the National Grid. Transpower state that the National Grid is nationally significant infrastructure that shares the same linear infrastructure characteristics as the road and rail corridor, the Section 32 report does not provide clear rationale for confining these provisions to the rail and road corridor and such an approach would better give effect to the National Policy Statement on Electricity Transmission for the on-going operation and maintenance of the National Grid.

Analysis

337. It is my understanding that the intention of the Chapter 2 General Rules was to authorise the discharge to land of agrichemicals in the road and rail corridors which are not zoned in the Planning Maps. As the structure of the MEP is to list all rules relevant to each zone in a single chapter, there is no place for rules related to the road and rail designations. As such the three general rules were included to permit the application of agrichemicals for weed management in the transport corridors. I believe it was an error to specify the rules under the hearing "*Discharges to Air"* which is evident in the use of the term "application" in the permitted activity rule instead of discharge. I therefore recommend that the heading in Chapter 2 is amended to state *"Discharge to land within the road and rail corridors"* to make it explicit it is the application to land which is authorised and that the rules only apply to the road and rail corridor. An amendment is also necessary to Rule 2.23.2 to change the reference from "*any discharge to air…"* to "*any discharge to land within the road and rail corridors…".* In my opinion this addresses the submissions summarised above as it clarifies the purpose of the general rules. I do not consider it is necessary to therefore amend the zone-specific rules to reference any discharges to air.

338. In response to Transpower's request to extend the rules to the National Grid, I do not consider this is appropriate. The location of the National Grid infrastructure will be either within the road or rail corridor or a specified zone. The intent of the Chapter 2 rules is to address an issue with the zoning where the road and rail corridor do not have an associated zone chapter, therefore for weed management undertaken in association with the National Grid can be a permitted activity under either the zone-based rules or the general rules depending on which apply.

Miscellaneous

Submissions

339. Federated Farmers (425.566) oppose the restriction regarding the use of Triazine herbicide on Sensitive Soil Areas identified as free draining soils.[62] No reason has been provided for this opposition.

340. Federated Farmers (425.759) support in part Rule 21.3.15, which permits the application of agrichemicals in the Floodway Zone by the Council. Federated Farmers seek that the rule is amended

[62] Permitted activity standards: 3.3.22.2, 17.3.7.2, 18.3.8.2, 19.3.15.2

to allow the application of agrichemicals by any person in this zone as the rule currently prevents farmers from managing pests in the Floodway zone.

341. Horticulture NZ (769.87, 769.103) seek a restricted discretionary status where the application does not meet the permitted activity standards in the General Rules and Rural Environment Zone as there are clear matters of discretion that can be considered.

342. Pukematai Farm Limited (512.1) have sought the deletion of the application of agrichemical rules as they wish to continue their farming activity and this rule may prevent them from doing so.

Analysis

343. Regarding the restriction on the use of Triazine on free-draining soils, Triazine herbicides are used for weed control in orchards and vineyards and tend to leach into groundwater and persist for long periods. MDC have conducted 4 yearly pesticide monitoring since 1993 and annual monitoring at 3 of the most vulnerable sites since 2007. Some pesticides have been measured within groundwater in low concentrations with the most commonly detected member of the Triazine family. MDC have also undertaken an investigation on pesticide leaching under vineyards in the Rarangi area.[63] It was concluded that the use of herbicides containing Simazine (a member of the Triazine family) posed the greatest threat to the quality of shallow groundwater and were more likely to exceed the New Zealand Drinking Water Standards. Because these pesticides have been detected in groundwater and the free-draining soil sensitive area is the most at risk receiving environment, the restriction on the use of Triazine herbicide in these areas has been included in the MEP.

344. Federated Farmers have not provided a reason as to why they oppose this restriction or any evidence to suggest why it is appropriate. Based on the assessment above, I recommend that the permitted activity standard is retained to achieve Objective 15.1a.

345. The rules in the Floodway zone apply to river control and drainage works when carried out by Marlborough District Council when exercising its functions under the Soil Conservation and River Control Act 1941, the Land Drainage Act 1908 and in accordance with the Marlborough District Council Rivers and Drainage Asset Management Plan or the Marlborough District Council Marlborough Rivers Gravel Extraction Strategy, unless explicitly stated.

346. In response to Federated Farmers request to enable the application of agrichemicals by any person in the Floodway Zone, I agree that this is an appropriate amendment. The Floodway Zone includes both public and private land which is used for farming purposes. As the potential effects of the use of agrichemicals will be addressed by the existing permitted activity conditions, I consider the effects of application will be no different than the use in other zones. I note that this matter has already been addressed in Topic 9: Natural Hazards.[64] I recommend the same relief as outlined in the Topic 9 Section 42A report to amend the heading of Rule 21.1.15 and 21.3.15.

347. I have considered whether a restricted discretionary activity rule would be more appropriate than a discretionary rule for those discharges that do not meet the permitted activity standards in the General Rules and Rural Environment Zone. I consider that a discretionary activity status is appropriate as this will ensure consistency in the rule framework across the plan and allows full discretion to consider the specific circumstances and effects of any consent. Horticulture NZ have also not specified what the matters of discretion should include, therefore I consider it is appropriate to retain the discretionary activity classification.

348. In response to the submission from Pukematai Farm Limited, I consider it is necessary to include a permitted activity rule and standards for the application of agrichemicals to adequately address the potential environmental risks. The permitted activity rule and standards does provide for the application of agrichemicals to occur and if that standards cannot be met; the application may still occur but requires a resource consent. I do not consider it appropriate to permit all discharges of agrichemicals.

[63] Green et al 2002 *Pesticide leaching under Vineyards in the Rarangi area of Marlborough.* The Horticulture and Food Research Institute of New Zealand, Palmerston North.
[64] Whyte, P 2018. Report on submissions and further submissions Topic 9: Natural Hazards. Marlborough District Council, para 442.

Agrichemical definition

Submissions

349. Horticulture NZ (769.114) support the definition of agrichemical but seek an amendment to the last sentence to change 'organ' to 'oral' which is consistent with the definition in NZS8409:2004 Management of Agrichemicals.

350. Federated Farmers (425.377) also seek the definition is amended to change 'organ' to 'oral'. Federated Farmers state this is incorrect and explain that oral nutrition compounds are a substance ingested by an animal as feed, or a nutritional preparation intended for oral administration to an animal to achieve a nutritional benefit.

351. NZTA (1002.227) support the definition and seek it is retained as notified.

352. Pernod (1039.130) support fertiliser being excluded from the definition of agrichemical and for the same reason fertiliser is excluded, seek that compost should also be excluded.

Analysis

353. I agree with the comments from Horticulture NZ, it is evident that reference to 'organ' is an error and that 'oral' nutrition compounds are excluded from the NZS 8409:2004 standards. I recommend this error is corrected as requested by Horticulture NZ.

354. I also agree with the comments from Pernod in relation to the exclusion of compost. It is unclear whether compost would be used for the eradication or modification or control of flora of fauna, but in any case, I agree it is beneficial to clarify its exclusion in the definition. Separate rules apply to the storage and application of compost and I think it is useful to provide certainty that the agrichemical rules do not apply in relation to compost.

Recommendation

355. Amend the heading of the Chapter 2 General Rules as follows:

Discharge to <u>Land within the road and rail corridors</u> ~~Air~~[65]

356. Amend Rule 2.23.2 as follows:

Any discharge to <u>land within the road and rail corridors</u> ~~air~~ not provided for as a Permitted Activity. [66]

357. Delete the permitted activity standard from all rules which states:[67]

~~*x.x.x.x The agrichemical must be approved for use under the Hazardous Substances and New Organisms Act 1996.*~~[68]

358. Amend the permitted activity standard in all relevant rules relating to the use of agrichemicals in accordance with product labels as follows:[69]

<u>x.x.x.x The application must be undertaken either:</u>

(a) in accordance with the most recent product label; or

[65] 1002.146, 1002.47 - NZTA
[66] 1002.146, 1002.47 - NZTA
[67] Permitted Activity Standards: 3.3.22.1, 4.3.21.1, 5.3.13.1, 6.3.8.1, 7.3.11.1, 8.3.12.1, 9.3.6.1, 10.3.6.1, 11.3.5.1, 12.3.21.1, 17.3.7.1, 18.3.8.1, 19.3.15.1, 21.3.15.2, 23.3.4.1
[68] Federated Farmers (425.566, 425.669, 425.774) and S Parkes (339.13)
[69] Permitted Activity Standards: 3.3.22.4, 4.3.21.3, 5.3.13.2, 6.3.8.3, 7.3.11.2, 8.3.12.2, 9.3.6.2, 10.3.6.2, 11.3.5.2, 12.3.21.2, 17.3.7.4, 18.3.8.4, 19.3.15.4, 21.3.15.1, 23.3.4.3.

(b) *if the agrichemical is approved for use under the Hazardous Substances and New Organisms Act 1996, the discharge shall be in accordance with all conditions of the approval*.

~~*x.x.x.x The application must be undertaken in accordance with the most recent product label. All spills of agrichemicals above the application rate must be notified to Council immediately.*~~[70]

359. Include a new permitted activity standard to address possible spills of agrichemicals as follows:[71]

x.x.x.x All spills of agrichemicals above the application rate must be notified to Council immediately.[72]

360. Amend the heading of Rules 21.1.15 and 21.3.14 as follows:

Discharge of agrichemicals into or onto land by any person[73]

361. Amend the definition of agrichemical as follows:

Means any substance, whether inorganic or organic, manufactured or naturally occurring, modified or in its natural state, that is used in any agriculture, horticulture, forestry, management of public amenity areas, or related activity, to eradicate, modify or control flora or fauna. This includes agricultural compounds, but excludes fertilisers, compost,[74] *vertebrate pest control products and* ~~*organ*~~ *oral*[75] *nutrition compounds*.

[70] 479.253, 479.254 - DOC
[71] In the following rules: 3.3.22, 4.3.21, 5.3.13, 6.3.8, 7.3.11, 8.3.12, 9.3.6, 10.3.6, 11.3.5, 12.3.21, 17.3.7, 18.3.8, 19.3.15, 21.3.15, 23.3.4
[72] 479.253, 479.254 - DOC
[73] 425.759 – Federated Farmers
[74] 1039.130 – Pernod
[75] 769.114 – Horticulture NZ

Matter 5: Application of fertiliser or lime

362. The Rural Environment Zone, Coastal Environment Zone, Open Space 1 Zone, Open Space 2 Zone, Open Space 3 Zone and the Airport Zone have a permitted activity rule and permitted activity standards for the application of fertiliser or lime.[76] In all other zones, the application of fertiliser or lime requires a resource consent as a discretionary activity.

363. If one or more of the permitted activity standards are unable to be met, the application of fertiliser or lime is classified as a discretionary activity. The permitted activity standards are largely the same in all zones. In the Coastal Environment Zone and Airport Zone there is no restriction on applying fertiliser to a Soil Sensitive Area identified as free draining soil, which is a permitted activity standard for the other zones as there are no free draining soils mapped in these zones.

364. Submissions received on these provisions cover the application on free draining soils; the limit on nitrogen loading; fertiliser storage and application methods; restrictions on the use of lime and other miscellaneous matters.

365. In total, there are approximately 134 submission points on these provisions. Approximately 38 submissions were received in support and sought no changes.[77] These submissions have only been considered where a change in the rules is recommended.

366. Two submissions have been received seeking a definition of fertiliser.

Submissions and Assessment

Fertiliser application on free draining soils

Submissions

367. The application of fertiliser or lime permitted activity standards in the Rural Environment Zone, Open Space 1 Zone, Open Space 2 Zone and Open Space 3 Zone include a standard that states "*the application of fertiliser must not be applied to a Soil Sensitive Area identified as free draining soils".* 14 submission points were received on this standard across these zones. K Loe (454.107) and S and J People's (450.27) support the standard and seek that it is retained. 10 submitters seek amendments to the standard or its deletion, as set out below.

368. Federated Farmers (425.568, 425.831) and Dairy NZ (676.91) submit that the standard is an input based standard and should be amended to focus on adverse effects.

369. Delegat Limited (473.65) and Constellation Brands (631.55) state that there is no justification for the standard and that alternative options are available to ensure over-application of fertiliser is avoided, such as using foliar fertiliser sprays, timing of application and matching application with plant uptake. Both submitters seek that the standard is deleted.

370. Rarangi Golf Club Incorporated (591.9) submit that the standard will have a significant impact on the club's viability and the current fertiliser use on the course is limited. Rarangi Golf Club Incorporated seek that the golf club land is excluded from standard 3.3.23.1.

371. G Robb (738.41), M Robb (935.40) and D and C Robbins (640.40) submit that the restriction on applying fertiliser on free draining soils will make farming non-productive. No specific relief has been sought.

[76] Rules: 3.1.23, 3.2.23, 4.1.22, 4.3.22, 17.1.9, 17.3.8, 18.1.12, 18.3.9, 19.1.17, 19.3.17, 23.1.18, 23.3.5

[77] Wine Marlborough (431.60), S and J Peoples (450.15, 450.26, 450.27, 450.29, 450.22, 450.23), K Loe (454.106, 454.107, 454.108, 454.110, 454.111, 454.112), Accolade (457.60), Blind River (462.22), Delegat (473.45), Clintondale Trust, Whyte Trustee Company Limited (484.63), Constellation Brands (631.33), Flaxbourne Settlers Association (712.97), Longfield Farm Limited (909.51), Ravensdown (1090.61, 1090.70, 1090.71, 1090.91, 1090.97, 1090.98), S MacKenzie (1124.60), FANZ (1192.51, 1192.85), Yealands Estate Limited (1242.31), Pernod (1039.123), Trustpower (1201.150), Rarangi Golf Club Incorporated (591.10, 591.12, 591.13, 591.14), Trelawne Farm Limited (445.10), Dairy NZ (676.94, 676.139), S Parkes (339.8)

372. FANZ (1192.57, 1192.90) state that the Soil Sensitive Areas identified as free draining include some productive areas where it would be appropriate to allow fertiliser application provided the application rate, type and placement of fertiliser demonstrated in a Farm Management Plan or Nutrient Management Plan. FANZ suggest the following amendment:

The application of fertiliser must not be applied to a Soil Sensitive Area identified as free-draining soils, without demonstrating appropriate controls with a Nutrient Management Plan or a Farm Management Plan.

373. Pukematai Farm Limited (1045.3) submit that fertiliser or lime should be able to be used on any soil type and seek that the rule is deleted.

Analysis

374. The MEP Planning Maps identifies an area between Rarangi and the Wairau River as free draining soils on the Overlay Maps. Based on aerial photography, this area encompasses largely viticulture land use, residential properties at Rarangi Beach and the Rarangi golf course. The Soil Sensitive Areas have been developed by MDC based on reports prepared by AgResearch regarding soil risks associated with discharges to land and based on sensitive aquifer zones where there is a high level of groundwater use by individual bore owners. The Section 32 Report (Soil Quality) states that the free draining soils are considered high risk as they are located over an underlying shallow, unconfined aquifer which is therefore vulnerable to contamination. The application of fertiliser has the potential to result in contamination of shallow groundwater if the application rate is too high, or if fertiliser is applied during inappropriate conditions. Although the permitted activity standards include a total cumulative nitrogen loading limit (200kg/N/ha/yr), this may not be adequate to protect the shallow Rarangi aquifer system on its own. As such, I do not consider adequate information has been provided by submitters to justify the deletion or amendment of this standard.

375. As the area mapped is relatively small, few landowners will be impacted by the proposed standard. I consider it is appropriate for properties within the free draining soils area to be required to obtain a consent to enable an assessment of the risk to groundwater. This assessment will allow for the nature, quantity of fertiliser and application method to be assessed relative to the risk of groundwater contamination with suitable mitigation adopted. This mitigation may include foliar fertiliser sprays, timing of application and matching application with plant uptake as noted by Delegat Limited and Constellation Brands. Although there will be costs associated with obtaining consents in this area, I consider the cost is justified when considered against the potential risk. In addition, those affected by the rule could apply for longer duration consents covering their properties to avoid multiple permits and reduce overall consenting costs. This is already exemplified by a consent held by Constellation Brands that authorises the application of fertiliser to land which was granted in June 2018.[78] This consent authorises the application of fertiliser at a rate not exceeding 11.9 kg of nitrogen hectare per year and expires in June 2033.

376. As discussed in Matter 3 above, I do not consider it is appropriate to permit the application of fertiliser in the free draining soils area subject to appropriate controls being demonstrated in a Nutrient Management Plan or Farm Management Plan because there is likely to be a need for a considerable Council process and systems around these plans – which needs to be undertaken in a considered and staged way if the effects of farming activities are to be managed in this way. In addition, the term 'appropriate controls' is quite vague and unclear. It is my opinion that the suggested amendment from FANZ is too subjective to be included in a permitted activity rule.

Nitrogen loading limit

Submissions

377. 26 submission points were raised regarding the total cumulative nitrogen loading standard.[79] Of these, three were in support and the remaining submissions sought either the deletion of the standard or

[78] Resource Consent U170826
[79] Permitted activity standards: 3.3.23.4, 4.3.22.3, 17.3.8.5, 18.3.9.5, 19.3.17.4, 23.3.5.4

amendments.[80] Submission points from Federated Farmers, Dairy NZ, Ravensdown, FANZ and Horticulture NZ have already been discussed in Matter 3 above.

378. K Wilson (210.19, 210.30, 210.35, 210.36, 210.37, 210.38) submits that the rule makes no allowance for the type of farming system and suggests an alternative approach would be to use nutrient budgeting based on existing use or potential use for undeveloped land. Similarly, W Lissaman (255.28) states that the loading limit does not consider soil types or crop type and prevents any innovative land use.

379. Forest and Bird (715.400 and 715.442) submit that the nitrogen loading limit is too high and does not take into account the assimilative capacity of receiving waterbodies. Forest and Bird consider the limit should be set to give effect to the NPSFM.

380. Land Vision (904.16) seek that the loading limit should be increased and that there is no supporting information as to why only nitrogen has been included in the permitted activity standards.

381. S Parkes (339.9) submits that 'areal' should be deleted from the standard as it is too restrictive.

Analysis

382. As discussed in Matter 3 above, adopting a nutrient budgeting based on existing or potential use of land would require a significant shift from the current management approach adopted in the MEP, and I consider there is currently insufficient information to inform such a change.

383. In terms of the ability to consider soil types or crop types as raised by W Lissaman, I consider that the only method available to do this would be via the use of nutrient budgeting. As noted above, it is my opinion that it is not appropriate to impose such a requirement as a permitted activity standard at this stage.

384. In response to Forest and Bird's concern that the nitrogen loading limit is too high and Land Vision's submission that the limit is too low, in my opinion the current permitted activity standard sets a suitable standard which is less that the current WARMP, recognising recent groundwater monitoring results and managing potential risks until cumulative limit setting is undertaken. With regards to the NPSFM, MDC have a progressive implementation plan to give effect to the policy statement as outlined above in Matter 3. It may be determined during this progressive implementation period that adopting an 'output focused' approach is suitable, but I do not consider that such a decision can be pre-empted at this time.

385. I also do not consider it appropriate to remove the term "areal" from the standard as requested by S Parkes. The use of the term areal in this standard allows for the averaging of nitrogen applied across the total application area which is more practical for assessing compliance with the standard. It also can provide some flexibility in how nitrogen is applied across an area with allowing slightly more to be applied in one area if needed provided less is applied to offset that application rate. I therefore disagree with the submission from S Parkes that it is too restrictive.

386. On the basis of the assessment above, I do not recommend the deletion or amendment of the nitrogen loading permitted activity standard.

Fertiliser storage and application methods

Submissions

387. 33 submission points have been received on the permitted activity standards requiring fertiliser to be on an impermeable, bunded and covered surface and all reasonable care to be exercised when

[80] Trelawne Farm Limited (445.10). K Loe (454.110) Rarangi Golf Club Incorporated (591.12).

applying fertiliser or lime to ensure that it does not pass beyond the legal boundary where it is being applied. Of these submission points, eight are in support of the provisions and seek no amendments[81].

388. N Webby (46.1) submits that bunding of fertiliser storage areas should not be required on all four sides as it is impractical and negates the removal of fertiliser.

389. W Lissaman (255.2) seeks an amendment to the storage permitted activity standard allowing bagged products to be stored in their original packaging and covered without having to be located on an impermeable, bunded surface.

390. Federated Farmers (425.569, 425.803, 425.833), Ravensdown (1090.67, 1090.94, 1090.114, 1090.116, 1090.118, 1090.117), FANZ (1192.58, 1192.73, 1192.91) and Horticulture NZ (769.104) state that fertiliser is generally stored on-farm for short periods of times and that this may not be on an impermeable surface. Federated Farmers consider that it may be more appropriate to defer to HSNO regulations which provide national consistency to ensure the safe management of substances.

391. Dairy NZ (676.92) states that no surface is impermeable and that the rule is difficult to understand and monitor. S Parkes (339.11) also submits that it is not clear what impermeable is and notes that even concrete can be broken. Fonterra (1251.75) support minimising the potential for run-off or leachate. However, Fonterra considers the proposed rules are not necessary for small bags of fertiliser stored in dry sheds. Dairy NZ and Fonterra suggest an amendment to the standard to require stored fertiliser to be covered and not come into contact with surface water.

392. Federated Farmers (425.572, 425.807, 425.836) also seek an amendment to the permitted activity condition requiring all reasonable care to avoid spreading fertiliser or lime beyond the boundary. The suggested change is:

~~All reasonable care must be exercised with the application so as to ensure that the fertiliser or lime must not pass beyond the legal boundary of the area of land on which the fertiliser or lime is being applied~~ practical measures are taken to minimise fertiliser drift beyond the target area.

393. Dairy NZ (676.96) also submit that the requirement to take all reasonable care to ensure fertiliser does not pass beyond the legal boundary is uncertain and state that lime is difficult to control in any spreading conditions. S Parkes (339.7) seeks the deletion of the permitted activity standard as it is reliant on wind conditions which cannot be controlled.

Analysis

394. In relation to the storage of fertiliser and deferring to HSNO requirements, I consider that although HSNO may dictate storage and use requirements under HSNO approvals for substances controlled by the HSNO Act, it may not cover all fertiliser products. While fertiliser is not defined in the MEP, the Oxford English dictionary definition is *"a chemical or natural substance added to soil or land to increase its fertility".* The draft National Planning Standards include a proposed definition of fertiliser which is:

> *(a) means any substance or biological compound that is –*
>
> *(i) applied to plants or soils, whether in solid or liquid form; and*
>
> *(ii) supports or sustains the growth, productivity or quality of soils, plants or, indirectly animals; but*
>
> *(b) does not include livestock and human effluent, or pathogens."*

395. Based on these definitions, products such as manure may be defined as a fertiliser and not subject to HSNO. Due to the potential for leaching and subsequent adverse effects from all such products, I consider it is appropriate to specify standards for the storage of all fertiliser. In my opinion this

[81] K Loe (454.108, 454.112); Rarangi Golf Club Incorporated (591.10, 591.14) S and J Peoples (450.29, 450.23), Ravensdown (1090.71, 1090.92)

approach supports the policies of the MEP, specifically Objective 15.1a, Objective 15.1b, Objective 15.1c and Policy 15.1.30.

396. I understand the issues raised by submitters with respect to the practicality of complying with the permitted activity standard for fertiliser storage. Whilst I consider there should be some controls over the storage of fertiliser, I agree that the wording as currently proposed is unclear.

397. I consider all fertiliser products should be stored on an impermeable surface which is bunded and covered, including small bags. As fertiliser can quickly dissolve when in contact with water, not only is having the fertiliser securely stored preventing adverse environmental effects, it is in the interest of the landowner to do so to avoid product loss. There is a risk that the bags may rip or tear and therefore I do not consider adequate protection is afforded by the packaging.

398. Regarding the requirement for a storage surface to be 'impermeable', 'impermeable material or surface' is defined in the MEP:

means a material or surface that does not permit liquid substances to pass through. For clarity, impermeable material or surface does not include clay but does include, but is not limited to, concrete and synthetic material or surface.

399. Based on this definition, in my opinion it is clear what is defined to be impermeable, therefore I do not agree with Dairy NZ's concerns that no surface would be considered impermeable. I do however agree with N Webby that the standard is impractical and makes the removal of fertiliser difficult and consider that the standard needs to be amended to provide an exception for when fertiliser is being used.

400. To improve the clarity of the permitted activity standard, I recommend amendments to directly reference the definition of impermeable surface and to make it clear that the standard applies when fertiliser is not being used.

401. In response to the submissions from Federated Farmers, Dairy NZ and S Parkes regarding the permitted activity standard requiring all reasonable care to be taken when applying fertiliser or lime, I agree that the standard may be considered uncertain. I do however acknowledge that applying particularly lime can be difficult to prevent some deposition beyond the boundary. As discussed below, lime may be considered a contaminant based on the RMA definition but has low environmental risks when compared to fertiliser. Because of this I consider that it would be appropriate to differentiate between the potential for fertiliser or lime to pass beyond the boundary. Given the greater risks of applying fertiliser, I recommend that the term "all reasonable care" is removed from the permitted activity standard. I recommend that the standard is reworded to clearly state fertiliser shall not be applied in a manner that results in a discharge beyond the boundary of the site. In response to S Parkes, I agree wind conditions will influence compliance with the standard, but I consider the application can be undertaken when wind conditions are light to avoid the discharge beyond boundaries. Due to the lower environmental risks of applying lime, it is my view that a new standard should be included to specify that all reasonable care must be exercised to ensure lime must does not pass beyond the boundary of the site.

Restrictions on the use of lime

Submissions

402. Beef and Lamb (459.58-63) seek the removal of lime from the rules as lime is not included in the actual text of the conditions.

403. Federated Farmers (425.567, 425.746) also seek the removal of lime from the conditions as it does not reflect an effects-based rule and they are unsure why lime is captured.

Analysis

404. I consider that the application of lime should be enabled as a permitted activity as the application may be considered a discharge of a contaminant as it meets the definition of contaminant in the RMA. Contaminant is defined as:

includes any substance (including gases, odorous compounds, liquids, solids, and micro-organisms) or energy (excluding noise) or heat, that either by itself or in combination with the same, similar, or other substances, energy, or heat—

(a) when discharged into water, changes or is likely to change the physical, chemical, or biological condition of water; or
(b) when discharged onto or into land or into air, changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged.

405. Adding lime can improve plant growth and increase the activity of soil bacteria. Lime increases soil pH and therefore it changes the soil properties. On this basis, the application of lime would be defined as the discharge of a contaminant to land and without a permitted activity rule, this would require resource consent in accordance with Section 15 of the RMA.

406. I acknowledge that the application of lime has low environmental risks. For the avoidance of doubt, I consider that the rule should retain reference to lime. The permitted activity standards that relate to lime manage the total nitrogen loading rate, avoiding application when soil moisture exceeds field capacity and ensuring the lime does not pass beyond the boundary of the site. The nitrogen loading rate will not be impacted by the application of solely lime and I consider the remaining two relevant conditions may be simply complied with. As such, I do not recommend the removal of lime from the permitted activity rule and standard.

General

Submissions

407. Ragged Point Limited (1086.6) oppose the Coastal Environment Zone and seek that the application of fertiliser is allowed for farming purposes.

408. Pukematai Farm Limited (512.2) have sought the deletion of the Rural Environment Zone rule as they consider it may prevent them from continuing to farm their property.

409. Beef and Lamb (459.58-63) seek amendments to the application of fertiliser or lime rules to reflect an output focused approach and to rely on the fertiliser industry code of practice[82].

410. Beef and Lamb (459.21, 459.58) submit that the prescriptive nature of the rules conflicts with Policy 4.1.1 which seeks to only intervene in private property rights to protect the environment and wider public interest in the environment. Beef and Lamb consider that the MEP should introduce a new method to provide for and recognise the value of adopting Farm Environment Plans (FEP) and that an alternative pathway to exempt farmers from the fertiliser rules included if FEP meets a Council approved standard.

411. Federated Farmers (425.567) state that the fertiliser rules should be deleted as they are already regulated under HSNO, specifically the Fertiliser Group Standards.

412. Horticulture NZ (769.104) seek that where the application of fertiliser or lime cannot meet the permitted activity standards that the application should be assessed as a restricted discretionary activity. Horticulture NZ have suggested the following matters of discretion:

(a) The type of fertiliser to be discharged,
(b) The proposed method of application
(c) The nature of any training undertaken by the operator;
(d) Measures to avoid fertiliser drift;

[82] Rules 3.3.23, 4.3.22, 17.3.8, 18.3.9, 19.3.17, 23.3.5

(e) The extent to which the use or application complies with Code of Practice for Nutrient Management (Fert Assoc)
(f) The proximity of the use or application to potable water including roof water;
(g) The proximity of the use or application to waterbodies;
(h) The timing of application in relation to weather conditions; and
(i) Communication requirements.

413. PF Olsen (149.40, 149.57) support the Rural and Coastal Environment Zone rules but seek an amendment to the permitted activity standard that prevents fertiliser being deposited into waterbodies that contain water. They seek an exception to this standard where a waterbody is fully covered by vegetative material or slash.

414. MEC (1193.66) oppose the permitted activity rule for the application of fertiliser or lime as they consider the standards should be more rigorous. MEC consider that those applying fertiliser should be required to carry out an annual independent audit and annual monitoring and that the activity status should be amended from permitted to controlled. This will then allow monitoring of effects at consent holder's expense rather than the ratepayers.

415. Ravensdown (1090.123) have sought the inclusion of a definition of fertiliser based on the industry accepted definition. Ravensdown seek the following wording:

Any substance (whether in solid or liquid form) that is described as or held out to be for, or suitable for sustaining or increasing the growth, productivity or quality of plants or animals through the application of the following essential nutrients to plants or soils; nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, chloride, sodium as major nutrients, or manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine, selenium as minor nutrients of fertiliser additives, and includes non-nutrient attributes of materials used in fertiliser, but does not include substances that are plant growth regulators that modify physiological functions of plants.

416. Horticulture NZ (769.125) have also sought the inclusion of a definition of fertiliser. Horticulture NZ state that it is important the MEP is clear what is meant by fertiliser as it includes a number of components that are not necessarily essential nutrients. Horticulture NZ seeks the definition fertiliser is worded as follows:

A substance or biological compound or mix of substances or biological compounds that is described as, or held out to be for, or suitable for, sustaining or increasing the growth, productivity, or quality of plants or, indirectly, animals through the application to plants or soil of:
(i) essential nutrients; and
(ii) fertiliser additives; and
(iii) non-nutrient attributes of the materials used in fertiliser.

Analysis

417. In response to submissions from Ragged Point Limited and Pukematai Farm Limited, the proposed rules do allow for the application of fertiliser or lime as a permitted activity subject to meeting certain conditions. I consider the conditions, as recommended to be amended, are necessary to manage the potential environmental risks of fertiliser application. I therefore do not consider it is necessary to amend the proposed rules to address this submission.

418. With regards to Beef and Lamb's concern about the rule reflecting an input approach rather than an output approach, as discussed above, adopting a more output focused approach such as nutrient budgeting and requiring FEPs is a significant shift from the approach in the MEP. In my opinion such an approach is more appropriate to consider during the progressive implementation of the NPSFM which is to be undertaken at a later date.

419. Also, as noted above, I do not agree that the fertiliser rules should be deleted as HSNO may not regulate all fertiliser such as manure and therefore provided the rules do not contradict HSNO requirements, I consider it is appropriate to retain these provisions.

420. With regards to Horticulture NZ's request for a restricted discretionary activity rule, as for the application of agrichemicals, I consider that a discretionary activity status is appropriate as this will ensure consistency in the rule framework across the plan and allows full discretion to consider the specific circumstances and effects of each consent.

421. I disagree with the suggested amendments of PF Olsen to allow the application of fertiliser in a waterbody that contains water if it is fully covered in vegetative material or slash. I consider there are environmental risks associated with a discharge of this nature and that an assessment of the adequacy of cover over a waterbody should be addressed via a resource consent.

422. I do not agree with the submission from MEC. The current operative plans include permitted activity rules for the application of fertiliser and no information has been provided from the submitter to indicate there have been environmental impacts from fertiliser use that warrant further intervention. I am also unaware of any information held by MDC that demonstrates fertiliser use under the current permitted activity rules has resulted in adverse environmental effects that require further management.

423. In response to Ravensdown and Horticulture NZ's request for a definition of fertiliser, I agree that a definition would be a useful addition to the MEP as it is not clear what products would be classified as fertiliser. From reviewing Volume 1 of the MEP in my opinion the application of fertiliser or lime rules are intended to address products that *"maintain the nutrient status of soil and therefore soil productivity"* but may have an impact of water quality. I note there are no definitions in the current WARMP or MSRMP.

424. I consider the definition of Ravensdown is suitable as I understand this is the industry accepted definition of fertiliser. In my opinion the proposed definition addresses the concerns of Horticulture NZ. Read in context of the MEP provisions, the definition encompasses synthetic and natural products both of which if applied excessively or incorrectly could result in adverse effects on soil health and water quality. When considering the types of products that may be defined as fertiliser using this definition, the permitted activity standards are relevant to solid and liquid forms of fertiliser and products that utilise manure which also contain nitrogen, phosphorus and potassium which aid in plant growth but are nutrients that may impact groundwater or surface water quality. The definition is more extensive than the draft National Planning Standards and, in my opinion, better describes the nature of fertiliser but I note that depending on the outcome of the National Planning Standards this definition may need to be amended. Consultation on the draft National Planning Standards is currently occurring with submissions closing on the 17th of August, therefore there is uncertainty as to whether the proposed definition will remain as currently drafted. Due to this uncertainty and the more comprehensive description proposed by Ravensdown, I therefore recommend the definition as proposed by Ravensdown is included in the MEP.

Recommendation

425. Amend the permitted activity standard in all relevant rules relating to the storage of fertiliser as follows:[83]

x.x.x.x Fertiliser must be stored on an impermeable material or surface, bunded ~~surface~~ and covered at all times, <u>except when fertiliser is being applied.</u>[84]

426. Amend the permitted activity standard in all relevant rules relating to taking all reasonable care when applying fertiliser as follows:[85]

x.x.x.x ~~All reasonable care must be exercised with~~ <u>T</u>~~t~~he application must not result in ~~so as to ensure that the~~ fertiliser ~~or lime must not~~ pass<u>ing</u> beyond the legal boundary of the area of land on which the fertiliser or lime is being applied.[86]

427. Insert a new permitted activity standard in all relevant rules relating to taking all reasonable care when applying lime as follows[87]:

[83] Permitted Activity Standards: 3.3.23.2, 4.3.22.1, 17.3.8.2, 18.3.9.2, 19.3.17.2, 23.3.5.1
[84] 46.1 – N Webby
[85] Permitted Activity Standards: 3.3.23.6, 4.3.22.5, 17.3.8.6, 18.3.9.6, 19.3.17.6, 23.3.5.5
[86] 425.572, 425.807 – Federated Farmers; 676.96 – Dairy NZ

x.x.x.x All reasonable care must be exercised with the application must not result in so as to ensure that the lime must not pass beyond the legal boundary of the area of land on which the fertiliser or lime is being applied.[88]

428. Include a new definition of fertiliser as follows:

Fertiliser *means any substance (whether in solid or liquid form) that is described as or held out to be for, or suitable for sustaining or increasing the growth, productivity or quality of plants or animals through the application of the following essential nutrients to plants or soils; nitrogen, phosphorus, potassium, sulphur, magnesium, calcium, chloride, sodium as major nutrients, or manganese, iron, zinc, copper, boron, cobalt, molybdenum, iodine, selenium as minor nutrients of fertiliser additives, and includes non-nutrient attributes of materials used in fertiliser, but does not include substances that are plant growth regulators that modify physiological functions of plants."*[89] *For the purposes of the Plan, fertiliser excludes compost.*[90]

[87] Permitted Activity Standards: 3.3.23, 4.3.22, 17.3.8, 18.3.9, 19.3.17.6, 23.3.5
[88] 425.572, 425.807 – Federated Farmers; 676.96 – Dairy NZ
[89] 1090.123 - Ravensdown
[90] 425.388 – Federated Farmers

Matter 6: Application of a vertebrate toxic agent

429. As described above, the application of specific vertebrate toxic agents is exempt from Section 15 of the RMA under the Resource Management (Exemption) Regulations 2017 subject to certain conditions. Relevant to this Section 42A report is the use of sodium fluoroacetate (1080) and brodifacoum (only on offshore islands or land protected by predator-proof fencing). The application of 1080 and brodifacoum is permitted under the Resource Management (Exemption) Regulations 2017 subject to a number of conditions. The conditions set out in the regulations include providing written notice to the regional council of a number of details including the agent to be used, delivery method, application rate, map identifying the discharge area and period during which the discharge will occur. Following the application, the operator is required to provide notice of when the discharge occurred and a map identifying the discharge location.

430. The rules in the MEP will apply to the application of 1080 and brodifacoum on offshore islands or where there is predator-proof fencing where the conditions of the exemption regulations are not complied with.

431. The Rural Environment Zone, Coastal Environment Zone, Open Space 3 Zone and Open Space 4 Zone include permitted activity rules and standards related to the application of a vertebrate toxic agent.[91] In all other zones, the application of a vertebrate toxic agent requires a resource consent as a discretionary activity.

432. If one or more of the permitted activity standards are unable to be met, the application of a vertebrate toxic agent is classified as a discretionary activity. There are two permitted activity standards in the Rural Zone, Coastal Environment Zone and Open Space 3 Zone that specify the agent must be approved for use under HSNO and all reasonable care is to be exercised in the discharge to ensure the agent does not pass beyond the legal boundary of the land where it is applied. In the Open Space 4 Zone there are two additional standards; the discharge must be by the administering agency or a person authorised to carry out the activity by the agency and the discharge must not result in the agent being deposited on any roof or structure used as a catchment for water supply.

433. The definition of a vertebrate toxic agent in the MEP is

means a trade name product used to kill, control or limit the viability of vertebrate pests (such as rabbits, possums). Vertebrate toxic agents include products that have a negative effect on reproduction but do not include attractant or repellent substances that are not toxic.

434. Approximately 16 submission points were received on these provisions, of those submission points, two are in support or support in part.[92] Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended. The amendments sought to the provisions relate to the potential impacts on water quality; the application of vertebrate toxic agents within specified locations; the application of sodium fluoroacetate (1080) and the scope of the rule.

Submissions and Assessment

Potential impacts on water quality

Submissions and Analysis

435. DOC (479.251, 479.252) has requested an amendment to the rule to include the incidental discharge to water. This is on the basis that any incidental discharge will not contravene Section 70 of the RMA as the quantities of active ingredients and the broadcast rate is such that any effects will be minor or temporary.

[91] Rules: 3.1.24, 3.3.24, 4.1.23, 4.3.23, 19.1.16, 19.3.14, 20.1.8, 20.3.6
[92] PF Olsen Ltd (149.41, 149.58)

436. I do not agree with the submission from DOC. The application of a vertebrate toxic agent rules apply to discharges to land. Some vertebrate toxic agents, or agents that could be introduced in the future, are persistent in water and there are sensitivities, particularly to contamination of drinking water supplies. Any discharge to water, incidental or otherwise, needs to be considered under the discharge to water rules in sections 2.16 to 2.20 of the MEP.

Application of vertebrate toxic agents within specified locations

Submissions

437. Waitai Station (162.1, 162.2, 162.3, 162.4) oppose the provisions as they apply to D'Urville Island and surrounding islets. This is because these areas are possum free and do not have a pest issue with rabbits, therefore the use of vertebrate toxic agents is not necessary. Waitai Station state that the ecosystem is interconnected therefore the potential impacts of using such agents could have widespread impacts affecting farming and hunting, and that there might also be impacts on customary harvesting. Waitai Station therefore seek the use of toxic vertebrate agents in these locations is classified as a prohibited activity.

438. P Rene (1023.1, 1023.8) also opposes the provisions on private land on D'Urville Island and a number of other islands. P Rene has also sought that the application of toxic vertebrate agent in these areas is a prohibited activity. No clear reason for the amendments has been provided.

439. B and L McLeod (393.1) oppose Rule 19.1.16 and state that they oppose any toxins being used on land and the foreshore in relation to D'Urville Island.

Analysis

440. I do not consider it is necessary to amend the rules to require resource consent or prohibit the use of vertebrate toxic agents in the areas specified by these submitters. Although there may be no pest species present now that would require control via the application of vertebrate toxic agent, there may be a requirement to do so in the future. The use of common vertebrate toxic agents is also controlled under HSNO. I consider that if used in accordance with the HSNO approval, the effects of the discharge will be minimised and there is no need for further regulation beyond this in the MEP.

Application of sodium fluoroacetate (1080)

Submissions

441. S and J People (450.30, 450.31) oppose the rule as they do not wish 1080 to be applied near their property. P Rene (1023.1, 1023.4) also opposes the application of 1080 by any means on private land, specifically D'Urville Island and other islands.

Analysis

442. As outlined above, the use of 1080 is exempt from Section 15 of the RMA and therefore the regional plan requirements if it meets specified conditions set out in the Resource Management (Exemption) Regulations 2017. In addition, 1080 is approved under the HSNO regulations. The approval requires 1080 to be used under the control of an approved handler and by a person who has a controlled substance licence.

443. A report prepared by the Parliamentary Commissioner for the Environment in 2011 (prior to the introduction of the regulations) states that:

- There is a strong case for the use of 1080 to be a permitted activity under the RMA;
- 1080 does not leave residue in water or soil or bioaccumulate. It naturally breaks down in the environment;
- If 1080 enters waterways it biodegrades into non-toxic by products within two to six days; and

- In soil, 1080 undergoes biodegradation by micro-organisms and dilution following leaching.[93]

444. As the application of 1080 is effectively permitted under national regulations subject to meeting conditions regarding providing notice to the regional council and no other standards that restrict the location of use, in my opinion this is a national direction that subject to complying with other statutory requirements, the use of 1080 is low risk. This is reinforced by the comments by the Parliamentary Commissioner for the Environment. The proposed MEP permitted activity standards require the use of invertebrate toxic agents in accordance with HSNO approvals and that all reasonable care to be undertaken to ensure that the vertebrate toxic agent does not pass beyond the legal boundary of the site. This will ensure that the discharge does not impact on neighbouring properties.

445. Additionally, the permissive approach to allowing the use of 1080 and other invertebrate toxic agents implements the policy direction of the MEP. The following objectives and policies are supported by the permitted activity rules:

- *Objective 8.1 – Marlborough's remaining biodiversity in terrestrial, freshwater and coastal environments is protected;*
- *Policy 8.2.1 – A variety of means will be used to assist in the protection and enhancement of areas and habitats with indigenous biodiversity value, including… pest management…;*
- *Objective 14.2 – The sustainability of Marlborough's rural economy is not adversely affected by the spread or introduction of pests; and*
- *Policy 15.4.5 – Control of animal pests will be a significant focus in maintaining and enhancing soil quality, particularly in the hill and high country of the Wairau, Waihopai, Taylor, Awatere, Ure/Waima and Clarence river catchments.*

446. On this basis, I consider that the HSNO approval will ensure the appropriate handling and use of 1080 and there is no reason to require resource consent for all applications of 1080 or to prohibit its use as it implements the policy direction of the MEP.

447. In undertaking this assessment it has become evident that the linkage between the exemption regulations and the MEP plan requirements is not clear. I therefore recommend that this connection is clearly stated in the MEP to provide direction to plan users to check the exemption regulation conditions. In my opinion it would be beneficial for the following statement to be included under each of the relevant rules:

This rule does not apply to the application of sodium fluoroacetate or brodifacoum (on land that is protected by predator-proof fencing or an island of New Zealand other that the North and South Island) where the application complies with the conditions for exemptions stated in the Resource Management (Exemption) Regulations 2017.

448. I consider the above statement can be incorporated into the MEP as a Schedule 1, Clause 16 amendment.

Miscellaneous

Submissions

449. Fish and Game (509.435) oppose the Open Space 3 Zone Rule 19.1.16 and seek amendments but these amendments have not been detailed in the submission.

Analysis

450. As Fish and Game have not detailed what relief they seek, I have not been able to consider their submission further.

[93] Wright, J 2011. *Evaluating the use of 1080: Predators, poisons and silent forests.* Parliamentary Commissioner for the Environment, Wellington.

Recommendation

451. Insert the following statement under each rule[94]:

This rule does not apply to the application of sodium fluoroacetate or brodifacoum (on land that is protected by predator-proof fencing or an island of New Zealand other that the North and South Island) where the application complies with the conditions for exemptions stated in the Resource Management (Exemption) Regulations 2017. [95]

[94] Rules: 3.1.24, 3.3.24, 4.1.23, 4.3.23, 19.1.16, 19.3.14, 20.1.8, 20.3.6
[95] Schedule 1, clause 16 - RMA

Matter 7: Application of compost or solid agricultural waste

452. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to the application of compost or solid agricultural waste.[96] In all other zones, the application of a compost or solid agricultural waste requires a resource consent as a discretionary activity.

453. If one or more of the permitted activity standards are unable to be met, the application of compost of solid agricultural waste is classified as a discretionary activity.

454. In all three zones, the same two permitted activity standards apply, these are:

    1. *The application must not occur within:*
        (a) 50m of a bore;
        (b) 20m of a river, lake Significant Wetland or drainage channel;
        (c) 10m of a dwelling on any adjacent land in different ownership.
    2. *The total cumulative nitrogen (N) loading from all discharges on the areal extent of land used for the application must not exceed 200 kg N/ha/year (excluding N from direct animal inputs).*

455. Compost is not defined in the MEP. The definition of agricultural solid waste is

    means organic agricultural waste that has a moisture content of less than or equal to 75% and exhibits the properties of a solid, eg, it can be stacked and hold a definite angle of repose.

456. Agricultural waste is defined in the MEP as:

    means the waste from the customary and generally accepted activities, practices, and procedures that farmers adopt, use or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production and harvesting of agricultural crops that include agronomic, horticultural, silvicultural and aquaculture activities

457. Approximately 26 submission points were received on the application of compost or solid agricultural waste rules. Of these, 12 submission points are in support or support in part the provisions and have sought the rules and standards to be retained as proposed.[97] Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended. The amendments sought to the provisions by submitters relate to the contents of compost or solid agricultural waste and setbacks.

458. Two submitters have provided comment on the definition of agricultural solid waste. MDC has sought amendments which are discussed further below and NZ Pork (998.71) support the definition. One submission has also been received from Federated Farmers requesting a new definition of compost.

Submissions and Assessment

Contents of compost or solid agricultural waste

Submissions

459. Federated Farmers (425.573, 425.671, 425.747) submit that the entire rule should be deleted as if the purpose is to control the application of grape marc, the effects of grape marc being fed to livestock are de minimis. Federated Farmers also note that grape marc is not 'applied to land', it is fed to livestock.

[96] Rules: 3.1.25, 3.3.25, 4.1.24, 4.3.24, 19.1.20, 19.3.18
[97] Wine Marlborough (431.61), Accolade (457.61), Blind River (462.23), Delegat Limited (473.46), Fish and Game (509.314), Constellation Brands (631.34), Indevin Estates Limited (776.35), Longfield Farm Limited (909.52), NZ Pork (998.43, 998.51), Villa Maria (1218.52), Yealands Estate Limited (1242.32).

460. Trustpower (1201.141, 1201.142) support the inclusion of the rule in the Rural Environment Zone but have sought an amendment to allow "other vegetative matter" to also be applied to land. Trustpower states other vegetative matter will have similar effects and it is suitable to apply this in the rural environment. Trustpower state that vegetative matter includes tree trimmings, vegetative flood debris and vegetative debris from Hydro Electric Power Scheme (HEPS) intake screens.

Analysis

461. The proposed rules for the application of compost and solid agricultural waste do not apply to just grape marc. Materials such as compost, bark, timber shavings, material removed from sedimentation bins, spent grains, stable bedding and stable sweepings would also be managed under the proposed rules.[98] Given the breadth of materials that could be applied under the rules, I consider that the rule should be retained. If no permitted activity rule was included in the MEP, the application of compost or solid agricultural waste would require a consent under section 15 of the RMA as it is a form of discharge to land. In my view, the permitted activity standards appropriately manage the risks of the activity, therefore there is no need to require a resource consent where the permitted activity rules are met.

462. In response to Trustpower's submission, I consider that the examples of vegetative matter would not be considered solid agricultural waste as it does not relate to waste generated from agricultural activities. There is no definition of compost in the MEP, the Oxford English Dictionary defines compost as *"decayed organic material used as a fertiliser for growing plants"*. Based on this definition, I also consider the examples of vegetative matter would not be defined as compost and as such not be subject to the permitted activity rule and standards. I do not consider the materials identified by Trustpower would result in any discharge occurring and as such would not be managed by the proposed rules.

Setbacks

Submissions

463. Pernod (1039.124) generally support the provisions but consider the separation distance to bores should be reduced from 50m to 20m as this would prevent using parts of their vineyard for applying compost of solid agricultural waste.

Analysis

464. Due to the potential for leachate production and contaminants to be discharged to land from the application of compost of agricultural solid waste, including pathogens, separation between the application and bores is required to protect drinking water quality. A separation distance of between 30m and 50m is required for certain discharges in the current operative plans (WARMP and MSRMP) depending on the aquifer or location. In the MSRMP, an offal pit must be greater than 50m from a bore and in the WARMP an offal pit must be at least 30m from any well. I consider the separation distance is appropriate as a permitted activity standard to avoid potential adverse effects of contaminants on bore owners. Pernod has not provided any evidence to suggest why a setback of 20m will still maintain this level of protection. The setback does not prohibit the application of compost or solid agricultural waste within the setback distance, rather a resource consent would be required to assess the potential risks to bores. I do not recommend amending the setback from bores in the permitted activity standard.

Definitions

Agricultural solid waste

465. MDC (91.84, 91.146) have submitted on the definition of agricultural solid waste seeking amendments to address an unintended gap between the definitions of agricultural liquid waste and agricultural solid waste. MDC seek the following amendment to the definition of agricultural solid waste:

[98] Marlborough District Council. *Agricultural and Horticultural Discharges.*

means organic agricultural waste that has a moisture content of less than or equal to 75% and exhibits the properties of a solid, e.g, it can be stacked and hold a definite angle of repose. For the purposes of the Plan, if any waste does not meet the definition of agricultural liquid waste it is treated as a solid waste.

466. I consider that this additional sentence in the definition is necessary in order to understand the distinction between the definition of agricultural solid waste and agricultural liquid waste. The definition of agricultural liquid waste refers to waste with a moisture content of more than or equal to 95% therefore there is waste which may be in between the two definitions as currently drafted, i.e. waste with a moisture content between 75% and 95%. The proposed additional amendment clarifies that such waste is considered agricultural solid waste.

467. I recommend the definition is amended as requested by MDC.

Compost

468. Federated Farmers (425.388) have submitted requesting a new definition is added to the MEP to define compost. Federated Farmers state the term is used in excess of 18 times in the MEP. No specific wording for the definition of compost has been provided.

469. I agree with Federated Farmers that a definition of compost would be beneficial not only due to the number of times the term is used with the MEP, but also to ensure it is clear for plan users which provisions apply to compost and those that apply to fertiliser. The Oxford English Dictionary definition of compost is *"decayed organic material used as a fertiliser for growing plants".* This common understanding of the term compost does not provide certainty as to which provisions would be relevant when assessing the rules for applying, making or storing compost. The specific use of the term fertiliser and compost in the MEP and different provisions relating to each material indicates that there is a different management approach to these products and therefore the MEP must be clear as to what each provision addresses.

470. The term compost is used in Policies 16.2.4 and 16.2.5 and rules regarding the application of compost to land, making compost in a pit or stack and storage of compost not in a pit or stack. With the use of term in mind, it is my view that compost should be defined as follows:

means a stable product suitable for use as a soil conditioner manufactured from the decomposition of organic matter.

471. In my opinion the recommended definition captures the source of compost which can include materials such as green waste, processed fibrous products like paper or cardboard, processing foods, and biosolids and its beneficial use for improving the condition of soil. To avoid any confusion, I also recommend that the definition of fertiliser specifically excludes compost. I have also considered the potential overlap between this proposed definition of compost and definitions of agricultural waste, agricultural solid waste and agricultural liquid waste. As discussed in Matter 17, I have recommended an amendment to the definition of waste included in the MEP. This definition makes it clear that waste is something that is to be disposed or discarded and this definition needs to be considered when interpreting the definitions related to agricultural waste sources. Compost is not something to be disposed or discarded as it has beneficial uses, therefore in my opinion is not a waste. I note that the proposed MEP rules already make a distinction between compost and agricultural waste supporting this view point.

Recommendation

472. Amend the definition of agricultural solid waste as follows:

means organic agricultural waste that has a moisture content of less than or equal to 75% and exhibits the properties of a solid, e.g, it can be stacked and hold a definite angle of repose. For the purposes of

the Plan, if any waste does not meet the definition of agricultural liquid waste it is treated as a solid waste.[99]

473. Include a definition of compost as follows:

means a stable product suitable for use as a soil conditioner manufactured from the decomposition of organic matter.[100]

[99] 91.84 - MDC
[100] 425.388 – Federated Farmers

Matter 8: Discharge of agricultural liquid waste

474. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to the discharge of agricultural liquid waste.[101] Agricultural liquid waste for the purposes of the rules excludes dairy farm effluent. In all other zones, the discharge of agricultural liquid waste requires a resource consent as a discretionary activity.

475. If one or more of the permitted activity standards are unable to be met, the discharge of agricultural liquid waste is classified as a discretionary activity.

476. In the Rural Environment Zone and Open Space 3 Zone, the rule includes nine permitted activity standards which require:

- The discharge must not occur into or onto a Soil Sensitive Area;
- The discharge must not occur within 50m of a bore (unless the bore intercepts the confined layer of Riverlands FMU or the confined layer of the Wairau Aquifer FMU), 20m of a river, lake, Significant Wetland, drainage channel of Drainage Channel Network and 10m of the boundary of any adjacent land in different ownership;
- A high rate discharge system must not be used on land with an average slope of 7˚ or greater and the slope must not exceed 11.3˚;
- The discharge must not occur when the soil moisture exceeds field capacity.
- Ponding must not be detectable beyond 24 hours after the discharge;
- The discharge must not result in anaerobic soil conditions;
- The total cumulative nitrogen loading must not exceed 200kg/N/ha/yr;
- The pH of the liquid waste must range between 4.5 and 9 immediately prior to discharge; and
- Records of pH levels must be kept and available upon request by the Council.

477. In the Coastal Environment Zone rule the permitted activity standards are largely identical except there is no standard regarding the Soil Sensitive Area and no reference to the Riverlands FMU or Wairau Aquifer FMU.

478. Agricultural liquid waste is defined in the MEP as:

means the agricultural waste that has a moisture content more than or equal to 95%.

479. Approximately 42 submission points were received on the discharge of agricultural liquid waste. Of these submission points, 17 submission points are in support or support in part the provisions and have sought the rules and standards to be retained as proposed.[102] Three submissions were received on the definition of agricultural liquid waste, MDC support the definition with amendments whilst Longfield Farm Limited (909.78) and NZ Pork (998.70) support the definition. Approximately 16 submissions were received on the definition of agricultural waste, NZ Pork (998.72) support the definition whilst all other submitters have sought amendments. These requested amendments are discussed below.

480. Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended.

481. The amendments sought to the provisions relate to discharge locations; the timing and methodology of the discharge; the scope of the rule and activity classification and definitions.

[101] Rules: 3.1.26, 3.3.26, 4.1.25, 4.3.25, 19.1.21, 19.3.19

[102] Wine Marlborough (431.62), Constellation Brands (631.35), Longfield Farm Limited (909.76, 909.77), NZ Pork (998.44, 998.52, 998.54, 998.55, 998.56, 998.59, 998.60), Villa Maria (1218.53), Yealands Estate Limited (1242.33), T Lasham (357.7)

Submissions and Assessment

Discharge locations

Submissions

482. E and A Ryan (347.4) seek the deletion of the Rural Environment Zone rule as it will have a negative impact on their farming operations as they consider the rules are overly restrictive and have no factual basis. A further submission from W Lissaman supports E and A Ryan's comments noting that the Soil Sensitive Areas overlay is inherently incorrect and requires ground truthing.

483. Ravensdown Limited (1090.72) seek an amendment to permitted activity standard 3.3.26.1 requesting that discharges within a Soil Sensitive Area may occur as a permitted activity where the discharge has effects that are less than minor.

Analysis

484. In relation to the concerns raised by E and A Ryan, these are discussed in more detail in Matter 16. To summarise, I consider that there are improvements that can be made to the overlay mapping to address some accuracy concerns raised by submitters but that the Soil Sensitive Area does provide an important screening tool to enable a more thorough consideration of certain activities where soil characteristics increase the likelihood of adverse effects. This particular permitted activity standard implements Objective 16.3 and Policy 16.3.2. Objective 16.3 seeks to manage the discharge of liquid waste in a manner that avoids adverse effects on soil quality, land and water ecosystems and slope stability. Policy 16.3.2 states discharge permits are required for the discharge of contaminants onto or into land where there are significant environmental constraints. The explanation to the policy specifically notes the risks of soils with high permeability and limited ability to provide contaminant removal, poorly drained soils with low permeability rates and loess soils which have a high potential for tunnel gully erosion. I disagree with the comments from E and A Ryan as I consider there is adequate factual basis and the standard is necessary to implement the objectives and policies of Chapter 16.

485. Regarding Ravensdown's request to allow discharges within with Soil Sensitive Area as a permitted activity where the discharge has less than minor effects, I consider that it is not suitable to provide a permitted activity standard subject to an assessment of effects. Plan users must be able to determine whether a proposed activity is permitted or not and the suggestion from Ravensdown does not provide sufficient certainty as the determination of whether effects will be less than minor may be subjective.

Timing and methodology of discharge

Submissions

486. Ravensdown (1090.73, 1090.99) have sought the deletion of standards 3.3.26.5 which states "*Ponding must not be detectable beyond 24 hours after the discharge"* and 4.3.25.5 which states "*the discharge must not result in anaerobic soil conditions."* Ravensdown consider these matters are addressed by standards 3.3.26.3 and 3.3.26.4 which restrict the slope of land and discharges when soil moisture exceeds field capacity and 4.3.25.3 and 4.3.25.4 which state the discharge must not occur when the soil moisture exceeds field capacity and ponding must not be detectable beyond 24 hours after the discharge.

Analysis

487. In my opinion there is some overlap and possible duplication in the permitted activity standards that address ponding, soil moisture and anaerobic soil conditions. For example, discharging liquid waste when soil does not exceed soil capacity is likely to also avoid ponding and anaerobic soil conditions, as ponding can lead to anaerobic soil conditions. However, there may be situations where a discharge commences when soil moisture is not exceeded and some temporary ponding may result. Under the proposed rules, providing this ponding does not occur for longer than 24 hours, the discharge would likely be permitted as it is also unlikely to result in anaerobic soil conditions. Ravensdown have not

provided any further evidence assessing the implications of deleting that standards or demonstrating that the remaining permitted activity standards sufficiently address potential environmental effects. On this basis, I do not recommend the deletion of the permitted activity standards as requested.

Scope of rule, activity status and definitions

Submissions

488. Federated Farmers (425.574, 425.672, 475.748) have submitted that the rule is unclear as to what it is intended to manage. Federated Farmers consider that if the rule is intended to cover grape marc as livestock feed, it should be clearer but that it is also not necessary as the effects of feeding grape marc to stock are de minimus.

489. Several submitters have submitted on either the rule for the discharge of agricultural liquid waste or the definition of agricultural waste.[103] These submitters have sought amendments to the definition of agricultural waste to refer directly to viticulture and viticulture processing.

490. MDC (91.147) have submitted in support of the definition of agricultural liquid waste but seek an amendment to include the sentence:

For the purposes of the Plan, if any waste does not meet the definition of agricultural liquid waste it is treated as agricultural solid waste.

491. MDC have sought this amendment to close the gap between the definition between agricultural solid waste and agricultural liquid waste.

492. Fish and Game (509.315) submit that the Rural Environment Zone rule should be deleted as activities such as discharging agricultural liquid effluent should require resource consent. No further explanation as to why resource consents should be required has been provided.

493. MEC (1193.67, 1193.99) oppose the Rural Environment Zone permitted activity rule and request that the activity status is changed from permitted to controlled. MEC state that winery wastewater can cause nutrient enrichment, salination of waterways, degrade soil structure and contaminate soils. MEC seek that the rules include a measurement of electrical conductivity, salts and potassium and that monitoring of the impacts of industries should be carried out by the industry not the ratepayer.

494. Davidson Group Ltd (172.6, 172.10) also oppose the Rural Environment and Coastal Environment Zone rules and seek the activity status is changed to controlled or discretionary. Davidson Group Ltd are concerned there are no bacteria, application rate, Biochemical Oxygen Demand (BOD) or chemical limits in the rule and there is no requirement for a soils assessment.

Analysis

495. The proposed rules for the application of liquid agricultural waste do not apply to just grape marc. Waste and wastewater from processing fruit, vegetables, fish and crops may also be discharged under the proposed rules. Given the range of possible waste sources, I consider that a permitted activity rule is necessary. If no permitted activity rule was included in the MEP, the application of agricultural liquid waste would require a consent under section 15 of the RMA as it is a form of discharge to land. In my view the permitted activity standards adequately manage the environmental risks and as such I consider the permitted activity rule should be retained. Additionally, the inclusion of the permitted activity rule and standards aligns with Policy 15.1.8 which seeks to encourage the discharge of contaminants to land in preference to water.

496. In response to the submissions on the definition of agricultural waste, I consider it is necessary to amend the definition. The definition of agricultural waste is important as the term is referred to in the definition of agricultural liquid waste.

[103] Accolade (457.62, 457.76, 457.75), Delegat Limited (473.47, 473.67, 473.68), Indevin Estates Limited (776.36, 776.49, 776.50) Wine Marlborough (431.86), Trelawne Farm Limited (445.16), Clintondale Trust, Whyte Trustee Company Limited (484.64), Longfield Farm Limited (909.79), WilkesRM Limited (359.43), Villa Maria (1218.78)

497. Agricultural waste is defined in the MEP as:

means the waste from the customary and generally accepted activities, practices and procedures that farmers adopt, use or engage in during the production and preparation for market of poultry, livestock and associated farm products; and in the production and harvesting of agricultural crops that include agronomic, horticultural, silvicultural and aquaculture activities.

498. As above, the sources of agricultural liquid waste can be from numerous production activities. The definition already refers to horticultural and agricultural activities. It is clear from the definition that the rule is intended to cover viticulture waste and to avoid confusion, I agree it is appropriate to amend the definition to specifically reference viticulture to clarify that winery wastewater and grape marc are agricultural waste.

499. With regards to the definition of agricultural liquid waste, as assessed in paragraph 466 above, I consider that the proposed amendment from MDC clarifies waste that has a moisture content between 75% and 95% is agricultural solid waste.

500. In my view, the Rural Environment Zone is the most appropriate zone for the discharge of agricultural liquid waste to occur, subject to the discharge being appropriately managed. Chapter 14 of the MEP seeks to enable primary productive use whilst maintaining and enhancing the quality of natural resources. Fish and Game have not provided any further reasons as to why it would not be appropriate to allow discharges of agricultural liquid waste subject to the permitted activity standards. MEC have also not provided any information discussing whether the current permitted activity standards are inadequate to manage the environmental risks. Whilst I agree that there is some risk in the discharge of winery wastewater, I am not clear from the submission how the permitted activity standards are deficient. In my opinion the permitted activity standards require that discharges in more sensitive locations require resource consent to consider the appropriateness of the discharge on a case by case basis and manage risks to groundwater and surface water. I consider that the permitted activity rules implement the policies of Chapter 14, particularly Policy 14.1.1, 14.1.3 and 14.1.4. I therefore do not agree with the submissions from Fish and Game and MEC to remove the permitted activity rules and standards.

501. Similarly, Davidson Group Ltd have raised concerns with a lack of discharge quality limits and that there is no requirement for a soils assessment by a recognised professional. Whilst there is no requirement for a soils assessment, the permitted activity conditions do address the infiltration capacity of soils to receive liquid waste and soil quality is managed via the restriction on causing anaerobic soils. Davidson Group Ltd have also not provided any information on suitable application rates or discharge quality limits. I consider there is inadequate information regarding the deficiencies of the current standards at this point to incorporate additional permitted activity standards nor any information on what those limits should state. In addition, as described above MDC did consider including discharge limits as permitted activity standards but dismissed this to instead focus on enabling discharges in low risk environments. Nutrient limits may be set following the cumulative limit setting process to be undertaken by 2024 and other contaminants limits proved difficult to measure due to significant variability.

Recommendation

502. Amend the definition of agricultural waste as follows:

means the waste from the customary and generally accepted activities, practices and procedures that ~~farmers~~ producers adopt, use or engage in during the production and preparation for market of poultry, livestock and associated farm products; and in the production and harvesting of agricultural crops that include agronomic, horticultural, silvicultural, viticultural and aquaculture activities. In addition, winery wastewater and grape marc constitutes agricultural waste. [104]

[104] 457.62 – Accolade; 473.47 – Delegat Limited; 776.36 – Indevin Estates Limited

503. Amend the definition of agricultural liquid waste as follows:

means the agricultural waste that has a moisture content more than or equal to 95%. "For the purposes of the Plan, if any waste does not meet the definition of agricultural liquid waste it is treated as agricultural solid waste.[105]

[105] 91.147 - MDC

Matter 9: Discharge of dairy effluent

504. The Rural Environment Zone and Coastal Environment Zone include permitted activity rules and standards relating to the discharge of dairy effluent[106].

505. If one or more of the permitted activity standards are unable to be met, the discharge of dairy effluent is classified as a discretionary activity.

506. The Rural Environment Zone and Coastal Environment Zone permitted activity standards are almost identical and require:

- The discharge must not occur within 50m of a bore (unless the bore intercepts the confined layer of Riverlands FMU or the confined layer of the Wairau Aquifer FMU), 20m of a river, lake, Significant Wetland, drainage channel of Drainage Channel Network and 10m of the boundary of any adjacent land in different ownership;
- A high rate discharge system must not be used on land with an average slope of 7˚ or greater and the slope must not exceed 11.3˚;
- The discharge must not occur when the soil moisture exceeds field capacity;
- Ponding must not be detectable beyond 24 hours after the discharge;
- The discharge must not result in anaerobic soil conditions;
- The total cumulative nitrogen loading must not exceed 200kg/N/ha/yr;
- For a new dairy farm established after 9 June 2016 and from 9 June 2019 for any existing dairy farm:
    - There must be an on-site storage system with a minimum of 3 months storage, or if less than three months, the storage capacity must be certified by a recognised professional to allow for the deferral of discharges;
    - The storage system must be sealed with an impermeable material certified by a recognised professional;
    - The storage must not be within, 20m of a river, lake, Significant Wetland, drainage channel of Drainage Channel Network, 20m of the boundary of any adjacent land in different ownership or a Flood Hazard Area.

507. In Rural Environment Zone there is an additional permitted activity standard stating that the discharge shall not occur into or onto a Soil Sensitive Area.

508. Dairy Farm Effluent is defined in the MEP as:

means all dairy effluent and contaminated washwater generated on the site of the farm dairy and associated yard areas. This includes machine washwater, put washings, faecal matter, and washwater deposited on hard stand area.

509. Approximately 312 submission points were received on the discharge of dairy farm effluent into or onto land. Of these submission points, approximately 214 submission points are in support or support in part the provisions and have sought the rules and standards to be retained as proposed.[107]

[106] Rules 3.1.28, 3.3.28, 4.1.27 and 4.3.27

[107] A Doole (524.7, 524.8, 524.10, 524.11, 524.12, 524.14), A Parr (529.7, 529.8, 529.10, 529.11, 529.12, 529.14), A Millen (532.7, 532.8, 532.10, 532.11, 532.12, 532.14), C McBride (594.7, 594.8, 594.9, 594.10, 594.11, 594.12, 594.13, 594.14), C McLean (598.7, 598.8, 598.10, 598.11, 598.12, 598.14), C Soderberg (599.7, 599.8, 599.10, 599.11, 599.12, 599.14), D McBride (662.7, 622.8, 662.9, 662.10, 662.11, 662.12, 662.13, 662.14), F Chayter (701.7, 701.8, 701.10, 701.11, 701.12, 701.14), J Rossell (827.7, 827.8, 827.9, 827.10, 827.11, 827.12, 827.13, 827.14). J Tillman (833.7, 833.8, 833.10, 833.11, 833.12, 833.14), K Raeburn (861.7, 861.8, 861.9, 861.10, 861.11, 861.12, 861.13, 861.14), K Walshe (865.7, 865.8, 865.10, 865.11, 865.12, 865.14), M Dewar (915.7, 915.8, 915.10, 915.11, 915.12, 915.14), Silverwood Partnership (1049.7, 1049.8, 1049.9, 1049.10, 1049.11, 1049.12, 1049.13, 1049.14), T Stein (1179.8, 1179.9, 1179.10, 1179.11, 1179.12, 1179.13, 1179.14, 1179.15), The Sunshine Trust (1194.7, 1194.8, 1194.10, 1194.11, 1194.12, 1194.14), V Frei (1209.7, 1209.8, 1209.10, 1209.11, 1209.12, 1209.14), W Oliver (1228.7, 1228.8, 1228.10, 1228.11, 1228.12, 1228.14), W Tillman (1230.7, 1230.8, 1230.10, 1230.11, 1230.12, 1230.14), DOC (479.209, 479.210), Ravensdown Limited (1090.62, 1090.77, 1090.78, 1090.79, 1090.82, 1090.83, 1090.85, 1090.102, 1090.103, 1090.104, 1090.107, 1090.108, 1090.110), FANZ (1192.52), T Lasham (357.6), Land Vision Limited (904.4, 904.6, 904.7, 904.8, 904.9, 904.10, 904.11, 904.13), Dairy NZ (676.100, 676.101, 676.145, 676.146), S and S White (93.7), Hall Family Farms Ltd (141.2), Federated Farmers (425.579, 425.676), R Edward and L Hill (378.8, 378.9, 378.11, 378.12, 378.13, 378.15), J Craighead (418.13, 418.12, 418.10, 418.9, 418.8, 418.6), Fly-fish Marlborough (419.8, 419.7, 419.5, 419.11, 419.14, 419.13), Windsong Orchard (420.10, 420.9, 420.7, 420.14, 420.13, 420.11), J

510. Two submissions have been received on the definition of “high rate discharge system’ opposing the definition.

511. One submission has been received on the definition of dairy farm effluent and one submission has been received seeking a definition of ‘recognised professional’.

512. Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended. The amendments sought to the provisions by submitters relate to the scope of the rule and activity classification, discharge location, storage and discharge design and methodology and discharge limits.

Submissions and Assessment

Scope of rule and activity classification

Submissions

513. Fish and Game (509.317) have submitted that activities such as the discharge of dairy farm effluent should require consent and seek that the permitted activity rule is replaced with a discretionary rule. A further submission from Dairy NZ oppose Fish and Game’s submission stating that the activity would be adequately managed by the proposed permitted activity standards.

514. MEC (1193.68) have also sought for the activity classification to be amended from permitted to controlled due to the need for monitoring such activities which should be paid by consent holders rather than the ratepayer.

515. Opus (1006.2, 1006.6) have sought the separation of Rule 3.3.27 into two rules, one for the storage of dairy farm effluent and the other for the discharge of dairy farm effluent. The reason provided is that separating the rules will provide greater clarity as at present the standards are attempting to cover both activities and creates confusion.

516. FANZ (1192.75) submit that Rule 4.3.27 does not need to refer to new dairy farms as they have proposed a new rule to provide for new dairy farms and the discharge of dairy farm effluent as a restricted discretionary activity (Rule 4.5.3).

517. FANZ (1192.63, 1192.64, 1192.65, 1192.66, 1192.75, 1192.77, 1192.78, 1192.79, 1192.80) have also sought an amendment to Rule 3.3.28 to re-structure permitted activity standards 3.3.28.8-11 to improve clarity. The proposed changes do not change the requirements of the rule.

Analysis

518. Fish and Game and MEC submit that all discharges of dairy effluent should be subject to resource consent as either a controlled or discretionary activity. Under the WARMP it is not permitted to discharge dairy farm effluent, the discharge is a controlled activity. Under the MSRMP, a permitted activity rule and standards are included. Fish and Game have not provided any explanation as to why resource consent should be required for dairy farm effluent discharges, other than stating *‘activities of this nature should require resource consent.’* MEC have raised the need for monitoring such activities which should be undertaken by consent holders rather than the council and being funded by ratepayers. In my opinion, the permitted activity standards, as recommended to be amended, adequately address the risks associated with the discharge. Without further information from the submitters to support a resource consent requirement for all discharges, I consider that it is appropriate to retain the permitted activity rules.

Steggle (421.10, 421.9, 421.7, 421.14, 421.13, 421.11), J Richardson (422.10, 422.9, 422.7, 422.13, 422.11), C Shaw (423.11, 423.10, 423.8, 423.15, 423.14, 423.11), J and P Harvey (430.4), Millen Associates Limited (972.7, 972.8, 972.10, 972.11, 972.12, 972.13), S Browning (1109.7, 1109.8, 1109.9, 1109.10, 1109.11, 1109.12, 1109.13, 1109.14), MEC (1193.79, 1193.80, 1193.82), S Parkes (339.6, 339.5), N and C Morrison (367.1)

519. In response to Opus' request for a land use consent rule and a discharge rule, I consider that it is not necessary to split the proposed rules. Although there are permitted activity standards related to effluent storage requirements, effluent storage is a key part of the mitigation for a discharge of dairy farm effluent and non-compliance with those standards influences the effects of the discharge. For example, if insufficient effluent storage is provided, deferred irrigation is less likely, potentially resulting in the discharge of effluent in inappropriate conditions. I also note that the current operative rule in the MSRMP already includes a permitted activity condition requiring contingency measures to be in place to ensure there is no contravention of the other permitted activity conditions in the event of system failure or adverse climatic conditions. This contingency is most likely to be provided by way of effluent storage, therefore what is proposed in the MEP is unlikely to differ from what is currently required.

520. FANZ state there is no need for Rule 4.3.27 as the issue is covered by their proposed Rule 4.5.3 which seeks to combine Rules 4.6.8 and 4.3.27. I do not agree with the view of FANZ as MEP Rule 4.6.8 relates to the use of land for a dairy farm rather than the discharge of collected dairy effluent. In my opinion, based on the rule drafting approach adopted in the MEP, I consider a separate dairy effluent discharge permitted activity rule should be retained for plan consistency.

521. FANZ have also sought to restructure the Rural Environment Zone rule as it relates to existing dairy effluent discharges. Whilst the relief requested does not change the requirements of the proposed rule, I do not consider the amendments sought are necessary to understand the permitted activity standards.

Discharge location

Submissions

522. A number of submitters have raised concerns about the permitted activity standard restricting the discharge of dairy farm effluent to land within the Soil Sensitive Areas:

- FANZ (1192.60, 1192.61) have raised concerns with the rule being input based rather than effects based. In relation to permitted activity standard 3.3.28.1, FANZ seeks that the standard is amended to allow the discharge into or onto a Soil Sensitive Area where appropriate controls are demonstrated in a Nutrient Management Plan or Farm Environment Plan.
- Hall Family Farms Ltd (141.1) seek that their property is removed from the soil sensitive overlay to enable them to continue to apply dairy shed effluent to their property. Hall Family Farms Ltd disagree with the soil mapping (impeded drainage) as they have not found drainage to be an issue and requiring resource consent will add additional costs to their farming operation.
- Federated Farmers (425.576) and Dairy NZ (676.97) oppose standard 3.3.28.1 which restricts the discharge onto a Soil Sensitive Area because the use of an effluent storage calculator determines the required storage and takes into account soil risk for all sites. Both submitters consider the other standards of the rule should ensure adverse effects are avoided.
- Land Vision Limited (904.2) consider that permitted activity standard 3.3.28.1 does not allow for variation of soil profiles or drainage characteristics within the identified Soil Sensitive Areas and does not provide for an actively managed effluent irrigation system. The mapping is also at a large scale which does not relate to the paddock scale at which farmers operate. Land Vision Limited submit that high risk soils such as loess soils or those with impeded drainage can receive effluent if appropriately managed.
- Pukematai Farm Limited (1045.2) seek the deletion of standard 3.3.28.1 as they oppose Soil Sensitive Areas.
- Ravensdown (1090.75) are concerned with the input nature of the standards, specifically in relation to the restriction on discharges onto Soil Sensitive Areas, Ravensdown seek an amendment to provide for discharges where appropriate controlled can be demonstrated in a Farm Environment Plan.

523. Several submissions have been received regarding the permitted activity standards limiting the slope on land where dairy farm effluent can be applied:

- Federated Farmers (425.578, 425.675) oppose the restriction on the use of a high rate discharge system on land with an average slope of 7˚ or greater as effluent can be applied at a high rate by a slurry tanker with little risk if applied at a low depth. Federated Farmers also

consider the standard is impractical to implement as a farmer would not be able to determine the slope in paddocks.

- Dairy NZ (676.99, 676.144) also consider that current science suggests that effluent can be applied on slopes greater than 11.3˚ using slurry tankers or umbilical systems which are high rate, if applied at a low application depth. Dairy NZ has sought the deletion of part of standard 3.3.28.3 which prevents the discharge on slopes exceeding 11.3˚ as a permitted activity.
- Land Vision Limited (904.3) have sought the deletion of the standard restricting the discharge of effluent to slopes greater than 11.3˚ as provided soils are suitable, run-off will not result and the limit is not consistent with effluent pond calculators and supporting information from AgResearch.
- Fonterra (1251.79, 1251.80) support the permitted activity rule but seek to amend standards 3.3.28.3 and 4.3.27.2 to delete the reference to 'high rate' and amend this to 'high depth' because a high rate discharge may still have a low application depth.

524. Federated Farmers (425.577, 425.674) have submit on the permitted activity standard requiring setbacks from bores and property boundaries. Federated Farmers state that there is no need to specify a setback from a property boundary as the adverse effects on house are already managed by the setback that houses have from property boundaries and has sought that this is deleted. Federated Farmer also request the setback from bores is reduced from 50m to 20m but no reasons have been provided.

Analysis

525. Several submitters have raised concerns about the restriction of effluent discharges within Soil Sensitive Areas. Submitters seek:

- The standard is amended to allow discharges where appropriate controls are in place;
- Removal of the restriction as it does not reflect soil conditions at the specific property; or
- The deletion of the standard as the use of an effluent storage calculator to size effluent storage or appropriately managing the application of effluent can manage soil constraints.

526. As discussed in Matter 16 the Soil Sensitive Areas identify vulnerable soils within the Marlborough region where more in-depth consideration of discharges is necessary. The examples provided by Ravensdown and FANZ for implementing appropriate controls require the preparation of a management plan. This is a more output focused approach which differs to the methods adopted by MDC in the MEP and also would require a significant level of audit to determine if the controls described are adequate. Because of this need for oversight and the potential subjectivity of that assessment, I do not consider it is appropriate to permit discharges subject to these management plans. I consider that such management plans could be prepared and provided as part of a resource consent process.

527. In relation to the accuracy of the Soil Sensitive Areas and the scale of mapping, these issues have been discussed in Matter 16. As outlined below, I recommend a new method is inserted into the MEP that specifies MDC will undertake further work to refine the mapping. I do not consider it is necessary to delete the Soil Sensitive Areas Overlay or permitted activity standards until that work is completed as the overlay remains a useful screening tool to ensure resource consents are required for those activities such as discharging dairy farm effluent where there is a greater likelihood of adverse effects occurring.

528. In response to the management of soil constraints via sizing of effluent storage facilities or effluent application, I agree these measures can assist but do not believe that the deletion of the standard will manage environmental risks. The use of an effluent storage calculator is discussed further below; however, I believe the use of such calculators does not address the risks managed by all the Soil Sensitive Areas. The mapping of soils within the Soil Sensitive Area acknowledges areas where either free draining soils provide limited contaminant removal, drainage is impeded and therefore is susceptible to ponding or there is a risk of erosion. Dairy effluent calculators such as that created by Massey University do consider soil characteristics in determining effluent storage requirements, but this is more relevant to ensuring infiltration through soils rather than risks to water quality or potential erosion. The Dairy NZ Effluent Storage Calculator has been developed by Horizons Regional Council and Massey University. The calculator works by looking at farm inputs, soil risks in effluent blocks,

catchment areas, washwater, effluent irrigation depths and the daily volume of effluent generated.[108] As effluent storage calculators do not consider the potential effects of discharges in sensitive locations, I do not recommend that the permitted activity standard restricting discharges in Soil Sensitive Areas is deleted.

529. Rules 3.3.28 and 4.3.27 include a permitted activity standard that states:

A high rate discharge system must not be used to discharge onto land with an average slope of 7˚ or greater, and the slope must not exceed 11.3˚ (1:5) at any point"[109]

530. A high rate discharge system is defined in the MEP as:

a system that delivers a discharge rate of >10mm/hr on an instantaneous basis, for example, but not limited to, travelling irrigators.

531. Three submitters oppose the restriction noting that effluent can be applied on slopes at a high rate exceeding these slopes if applied at a low depth.

532. While I agree that it may be possible to discharge effluent at a low application depth (but high rate) on sloping soils, I consider that slope is a key landscape feature that can influence the effects of effluent discharges. No specific evidence from submitters has been provided to support the deletion of the standard and demonstrate potential adverse effects will be adequately managed, other than providing some examples of what might be lower risk application methods. I consider that it is appropriate that resource consent is required for effluent discharges on land exceeding the slope limits as it allows analysis of other site characteristics and discharge methodologies necessary to confirm if environmental effects will be adequately managed. In my opinion, this will best achieve Objective 16.3.

533. In terms of Federated Farmers' concerns regarding the practicality of measuring slope, I agree that slope can be difficult to assess accurately by eye. The MEP definition of slope is:

means the angle of a hillslope from the horizontal, measured at right angles to the contour. Where compound slopes are involved, the slope will be taken as the average slope measured over a 50m length of the area of land being disturbed. Where there is doubt, the slope is to be measured at least to the accuracy of a hand held clinometer or better.

534. From the definition of slope, it is clear that survey precision when determining slope is not necessary as it states a hand-held clinometer can be used. Slope is commonly used as a performance standard around the country, and I consider that tools such as hand-held clinometers, as well as downloadable apps for smart phones, can be used to determine slope relatively easily. MDC may also prepare guidance to assist in the implementation of these rules which would provide farmers with more certainty. Due to the potential effects of applying effluent on sloping land, I do not recommend the standard is deleted.

535. In response to Federated Farmers submissions in relation to setbacks, I disagree with the request to delete the standard in relation to property setbacks. In my view, this separation distance is not only protecting any dwellings that may be located on a neighbouring site but also the use of that site. I consider a 10m setback to a boundary is important to protect neighbouring landowners and Federated Farmers have not provided sufficient information to justify this deletion. In relation to the separation from bores, Federated Farmers have also not provided any evidence to indicate a setback of 20m will continue to protect bore supplies. I do not agree with the request to reduce the setback.

Storage and discharge design and methodology

Submissions

536. A number of submitters have commented on the proposed timeframe for existing dairy farm operations to comply with permitted activity standards requiring 3 months of effluent storage, the sealing of the

[108] Dairy NZ (2015) *A guide to using the Dairy Effluent Storage Calculator (DESC).*
[109] Permitted activity standards 3.3.28.3 and 4.3.27.2

storage system with an impermeable material and to comply with setbacks from waterbodies, property boundaries or being within a Flood Hazard Area. These submissions include:

- S and S Leov (326.6) support the need to improve effluent storage but consider there is a significant cost on existing dairy farms to upgrade their infrastructure as required by the rules. S and S Leov consider the proposed deadline of 9 June 2019 is too soon to be able to upgrade ponds particularly considering the current economic climate and need to obtain consents and materials. S and S Leov have sought the deadline is extended until 9 June 2022 which is consistent with the proposed compliance date for prohibited activities.[110]
- Hall Family Farms Ltd (141.3) have submitted on standard 3.3.28.8 which requires after 9 June 2016 there to be a minimum of three months effluent storage capacity, or if less than three months certification from a recognised professional that standards 3.3.28.4-6 will not be breached. Hall Family Farms seek that MDC will certify effluent storage systems prior to constructing the ponds.
- H Collins (397.8) does not support permitted activity standard 3.3.28.11, specifically the date. H Collins requests the 9 June 2019 date is amended to three years after the plan is operative.
- Federated Farmers (425.585, 425.682) have raised concerns regarding the timeframe for existing effluent storage ponds to meet standards 3.3.28.8-10 and 4.3.27.7-9. Federated Farmers submit that investment in effluent systems is a significant costs and existing farms should have three years from the date the plan becomes operative as opposed to three years from the plan being notified. Federated Farmers note that the planning process takes some time to complete and the standard may change, therefore the time period should apply from when these standards are certain.
- Dairy NZ (676.109, 676.154) state that some existing farms will be entirely within a flood hazard area and the timeframe for implementation is quite short. Dairy NZ also seek the timeframe for standards 3.3.28.9-10 apply from three years after the plan is made operative.
- Fonterra (1251.87, 1251.88) submit that it is important for farmers to have certainty of the rules and sufficient timeframes to adjust or invest in new infrastructure. Fonterra therefore request that standards 3.3.28.11 and 4.3.27.10 apply three years from the plan becoming operative.

537. Several submissions have raised concerns regarding the permitted activity standard requiring three months of effluent storage capacity, or if less than three months capacity is provided, certification from a recognised professional that standards preventing the discharge when soil moisture exceeds field capacity, ponding is not detectable beyond 24 hours after the discharge and the discharge must not result in anaerobic soil conditions will be met. The submissions include:

- Hall Family Farms (141.3) state that on their farm they do not require three months storage and suggest that the use of the Massey University Dairy Effluent Storage Pond Calculator should be used to assess the extent of storage required. Hall Family Farms Ltd (141.5) support building back up storage with less than three months capacity as they do not believe that three months is required in Marlborough. Hall Family Farms wish to base storage requirements on the Massey University Storage Calculator.
- Federated farmers (425.582) support standard 3.3.28.8 but seek an amendment to delete the reference to the requirement for three months of storage. This is on the basis that the required storage capacity for an individual farm should be determined by a recognised professional as some areas will not require 3 months storage and others may require more. Federated Farmers consider that having a completed pond storage calculation should be adequate to comply with the condition and have also sought clarification as to what constitutes a recognised professional.
- B L and C F Leov Bulford (340.4) oppose the requirement to provide 3 months storage for existing dairy farms as on their property they have not experienced a period of 90 days where effluent cannot be applied. B L and C F Leov Bulford suggest that a minimum of 60 days is a more appropriate timeframe.
- MEC (1193.86, 1193.90) seek the inclusion of a new permitted activity standard requiring farmers to use the Dairy NZ Dairy Effluent Storage Calculator (or similar) to assess how much storage their system needs based on soil type and rainfall data. MEC state that this is required to ensure effluent storage meets industry standards.

[110] Rules 3.7.4, 3.7.5

- Opus (1006.1) states the rule arbitrarily assumes that 3 months storage is required to ensure effluent can be applied at all time when there is a soil moisture deficit. The storage requirements are better assessed using the Massey University Dairy Effluent Storage Calculator (DESC).
- Fonterra (1251.83, 1251.84) support the ability for farmers to calculate their own storage requirements according to their farming systems and property characteristics.

538. A number of submissions have suggested that the permitted activity standards include a requirement for completing a pond drop test rather than the requirement for sealing storage systems with an impermeable liner. These submissions include:

- Federated Farmers (425.583) support standard 3.3.28.9 which requires storage systems to be sealed with an impermeable liner for new dairy farms established after 9 June 2016 however they consider it is not clear what is mean by impermeable material. Federated Farmers state it is important for existing dairy farms to demonstrate their ponds can meet this standard otherwise they may need to get consent or replace their system unnecessarily. Federated Farmers state that other councils provide for a pond drop test to demonstrate a pond is not leaking.
- Dairy NZ (676.106, 676.151) have also submitted on standards 3.3.28.9 and 4.3.27.8 and state that no sealed surface is impermeable and, in most cases, if you can demonstrate a pond is not leaking there is no impact on water quality. Dairy NZ also note that other regional require drop tests to be completed. Dairy NZ do not seek pond drop tests as a mandatory requirement but a method to prove a pond does not leak. Dairy NZ also seek clarification as to what certification and recognised professional mean.
- Opus (1006.5) state the wording of 3.3.28.9 is ambiguous and suggest that certification is limited to the permeability of the sealing material rather than the whole effluent system. There are no sealing materials which are truly impermeable as expansion or shrinkage can lead to cracks in concrete or synthetic liners can be damaged in service. Opus state that there is a need to periodically check ponds are not leaking and request that acceptable leakage rates are determined by a pond drop test. Acceptable leakage rates and the methodology from Environment Southland's Water and Land Plan should be adopted as acceptance criteria.
- Opus (1006.3) also raises that a new requirement should be included to ensure that existing structures are located and performing satisfactorily. It is proposed that by 9 June 2019, all existing effluent storage greater than 35 cubic metres is certified by a recognised professional confirming the location meets the permitted activity standards, there is sufficient effluent storage as determined by the DESC and leakage rates are acceptable determined by a pond drop test.

539. Several submitters have raise a question as to who is a recognised professional:

- Hall Family Farms (141.3) seek further clarification as to who is a "recognised professional" and that MDC will certify storage prior to it being built.
- Opus (1006.1) states the term Recognised Professional is unhelpful. MDC should consider carefully how they will determine who is recognised and who is not. Opus consider the storage structure certification process should be overseen by Chartered Professional Engineers as this will require work to be approved, checked and signed off.
- IPENZ (274.2, 274.3) submit that the design of any agricultural structure of facility should be undertaken by a Chartered Professional Engineer (CPEng). A CPEng and members of IPENZ are bound by a code of ethics which requires them to take reasonable steps to safeguard health and safety, have regard to effects on the environment and report adverse consequences and act competently. Although the requested relief is not explicitly stated, it is inferred that IPENZ seek that the "recognised professional" referred to in 3.3.28.3 should refer to "chartered professional engineer".
- Fonterra (1251.83, 1251.84) seek clarification on who is a recognised professional and what the nature of certification required is. Fonterra suggest that a recognised professional is either:
  - Someone who has completed the Massey University Effluent System Design and Management Course; or
  - Is an accredited effluent design company; or
  - Is a certified effluent warrant of fitness assessor (by Dairy NZ).
- Dairy NZ (676.104, 676.105, 676.149, 676.150) oppose permitted activity standards 3.3.28.8 and 4.3.27.7 and have sought amendments to replace references to certification by a

recognised professional to approval by Council. Dairy NZ state that a farmer should only need to show they have completed a pond storage calculation and the Council should decide if its satisfactory and seek that the MEP includes a definition of recognised professional.

540. A number of submission points have been received regarding the permitted activity standards that manage soil conditions and potential run-off as a result of the discharge of dairy effluent.[111] These submission points include:

- MEC (1193.83, 1193.84, 1193.85, 1193.87, 1193.88, 1193.89) oppose standards 3.3.28.4 and 4.3.27.3 *"the discharge must not occur when the soil moisture exceeds field capacity",* 3.3.28.5 and 4.3.27.4 *"Ponding must not be detectable beyond 24 hours after the discharge"* and 3.3.28.6 and 4.3.27.5 "*The discharge must not result in anaerobic soil conditions."* MEC state that the standards do not represent industry best practice which requires an adequate soil moisture deficit to be available prior to discharge. In addition, ponding should not be part of best practice effluent disposal to land.
- Federated Farmers (425.580, 425.677), Dairy NZ (676.102, 676.147), Ravensdown (1090.80, 1090.105) and Fonterra (1251.81, 1251.82) oppose standards 3.3.28.6 and 4.3.27.5 which states *"The discharge must not result in anaerobic soil conditions"* and have requested it is deleted. The submitters state that:
  - It is not clear what is meant by anaerobic soil conditions;
  - The standard addresses concerns already managed by standards 3.3.28.4 and 3.3.28.5; and
  - It is difficult for a farmer to know whether they could comply with the standard.
- R Heta (1066.10, 1066.14) also opposes 3.3.28.11 and 4.3.27.10 and seeks that the provision should support industry best practice, including not discharging when soil moisture is at or near field capacity to avoid ponding.

541. Opus (1006.1, 1006.3, 1006.4, 1006.5) support the rules but seek specific amendments to the permitted activity standards to address the following:

- The recognised professional does not have control over operational practices undertaken by the farmer therefore the certification will be limited to the conditions intended to be put in place by the operator. This also does not recognise critical influencing factors such as equipment modifications, poor maintenance, overstocking or poor operational performance. These factors will compromise the certification and potentially undermine the credibility of certifier.
- New structures should be designed and constructed in accordance with the IPENZ Practice Note 21: Farm Dairy Effluent Pond Design and Construction.

542. Forest and Bird (715.404) oppose standard 3.3.28.11 and seek to require dairy farm effluent storage for existing farms.

Analysis

543. Forest and Bird (715.403) oppose permitted activity standard 3.3.28.11 which requires all farms to comply with the permitted activity standards related to effluent storage, sealing of the storage system with an impermeable material and setbacks. Forest and Bird consider all dairy farms should require effluent storage. Permitted activity standard 3.3.28.11 and 4.3.27.10 does require farm effluent storage for three months or certification sufficient storage is provided to defer discharges when soil conditions are unsuitable from 9 June 2019. I consider no changes are required to the standards to address Forest and Bird's concerns.

544. Several submitters have raised a concern regarding the timeframe for existing dairy effluent discharges to comply with the permitted activity standards specifying the storage volume, sealing of effluent storage and to comply with setbacks. Permitted activity standards 3.3.28.11 and 4.3.27.10 require compliance by 9 June 2019. All submitters seek that the date is extended to provide more time for any upgrading of infrastructure necessary and ensure there is certainty regarding the rule

[111] Permitted activity standards 3.3.28.4, 3.3.28.5, 3.3.28.6, 4.3.27.3, 4.3.27.4 and 4.3.27.5

framework. It has been suggested by H Collins, Federated Farmers, Dairy NZ and Fonterra that the date should be three years after the plan becomes operative.

545. I agree with submitters that there is some uncertainty regarding the permitted activity requirements prior to the plan becoming operative and that upgrading infrastructure will take a reasonable level of investment. Additionally, where those dairy farm effluent discharges are currently permitted under the MSRMP, section 20A of the RMA does not require those farmers to obtain consent until after rule becomes operative. This may be after the June 2019 timeframe.

546. Due to the potential changes to the permitted activity standard during the plan development process, including any appeals, I consider that the timeframe should be from the rule becoming operative in accordance with Section 86F of the RMA. This will provide plan users certainty as to what upgrades are necessary. I do not however consider that a three-year timeframe from the rule becoming operative is an appropriate timeframe to apply particularly given such systems are more likely to be resulting in adverse effects. I consider a timeframe of 24 months after the plan becoming operative is more appropriate as this significantly reduces the length of time where a system may be operating in a manner that could result in adverse impacts. The proposed MEP rules have already signalled this change may be needed providing sufficient time for farmers to plan for these works once the rules are confirmed. In my opinion, this best achieves Objective 16.3 whilst acknowledging the costs to existing dischargers.

547. I therefore recommend that the discharge rules are amended to require existing dairy farms to meet permitted activity standards requiring 3 months of effluent storage, the sealing of the storage system with an impermeable material and to comply with setbacks from waterbodies, property boundaries or being within a Flood Hazard Area within 24 months of the plan becoming operative.

548. The MEP introduces a new permitted activity standard requiring dairy effluent storage for at least three months or certification from a recognised professional that there is adequate storage to defer discharge so that the following standards are not breached:

- *The discharge must not occur when the soil moisture exceeds field capacity;*
- *Ponding must not be detectable beyond 24 hours after the discharge; and*
- *The discharge must not result in anaerobic soil conditions.*

549. Five submitters have raised concerns regarding the requirement for three months storage as being either too onerous or not farm-specific. It has been suggested that the required effluent storage is determined by using an effluent storage calculator such as that developed by Massey University. As discussed above, the Dairy NZ effluent storage calculator looks at inputs such as cow numbers, the volume of wash down water and other effluent sources, the climate (rainfall and evapotranspiration) in the area and how frequently effluent is discharged to land to determine the volume of storage required for days when farm conditions are unsuitable. Deferring the irrigation of effluent during times when on-farm conditions are not suitable is a key mitigation measure to minimise the potential effects of the discharge to avoid run-off and excessive leaching of contaminants.

550. Submitters concerned with the permitted activity standard requiring three months effluent storage seek that the standard is amended to require the use of an effluent storage calculator to determine the necessary storage volumes and that only 60 days storage is required.

551. The permitted activity standard requires three months effluent storage as a minimum unless a recognised professional certifies that a lesser volume is sufficient. A recognised professional is most likely to use an effluent storage calculator as a means of demonstrating where less than 3 months effluent storage is adequate. Therefore, in response to submissions from Hall Family Farms, Federated Farmers and B L and C F Leov, I do not consider any amendments to the permitted activity standards are necessary as an effluent calculator can be used to demonstrate a lesser storage volume requirement to comply with the permitted activity rule.

552. Federated Farmers, Opus, MEC and Fonterra state that an effluent storage calculator should be used as it more accurately assess individual properties' effluent storage requirements. I agree this is correct but as the permitted activity standard already allows for the demonstration of where less than three months of storage is required, the outstanding issue is whether more than 3 months storage is likely to

be needed. In this case, the permitted activity standard may then need to be amended to ensure the discharge of dairy farm effluent can be deferred.

553. I understand that the 3-month storage volume was based on the most likely storage volume required for dairy farms in Northern Marlborough where there is higher rainfall and soils with lower permeability resulting in a greater need to defer discharges. I am not however aware of effluent calculations that demonstrate this but believe that there was a desire by consulted stakeholders for certainty regarding the maximum storage requirement.

554. As there is no information available to support the three-month storage volume as a maximum requirement, there is a risk that in some circumstances farms will need more than 3 months effluent storage. I consider that this risk is somewhat addressed by the other permitted activity standards as the standards preventing discharge when soil moisture exceeds field capacity, ponding and the causation of anaerobic soil conditions will also dictate the volume of effluent storage necessary to enable deferred irrigation to comply with those requirements.

555. I do however consider that relying on an effluent storage calculator completed by a recognised professional may be more robust and more effective method at ensuring farmers can defer irrigation when on-farm conditions are not suitable. The effluent storage calculator considers all aspects of the discharge from sources of effluent and the site constraints for applying effluent, therefore a farm specific volume can be determined. There are some possible pitfalls with simply requiring all farmers to use an effluent calculator to determine their required effluent storage volumes through a permitted activity standard. It is my view that to do so, a specific calculator or method of calculation would need to be referenced in the permitted activity standard to ensure the rule is sufficiently certain. This raises an issue if that calculator or method of calculation is updated. In that situation, this could result in many effluent storage ponds being non-compliant if the change in calculator or calculation increases effluent storage requirements. Addressing this challenge has not been necessary in many other regions as it is my understanding the approach taken by other authorities is to require consent for any effluent storage and discharge over a specified volume. This enables consideration of the most appropriate method of calculation at the time a consent is lodged and results in a consent that specifies the required effluent storage volume.

556. On balance, based on the information currently available I consider that it is unnecessary to amend the effluent storage requirements to increase the minimum storage needed or specify the use of an effluent storage calculator. If, however, further evidence could be provided to demonstrate how the challenges of requiring effluent storage calculations as part of a permitted activity may be overcome, I consider that it could be a more robust method of ensuring adequate effluent storage volumes are provided.

557. Federated Farmers, Dairy NZ and Opus have suggested that the permitted activity standards include a requirement to undertake a pond drop test as a means of demonstrating a pond is not excessively leaking. The current permitted activity standards of Rule 3.3.28 and 4.3.27 include "*for a new dairy farm established after 9 June 2016, the storage system must be sealed with an impermeable material certified by a recognised professional."* All three submitters state that no material is truly impermeable and that by requiring a pond drop test, acceptable leakage rates can be set and assessed.

558. A pond drop test completed using accurate electronic measurement technology can determine losses with an accuracy better than 1mm. Pond drop tests are required elsewhere in New Zealand with maximum leakage rates set in other regional plans. These tests are generally required on an on-going basis as a means to demonstrate the pond is not leaking excessively and is therefore fit for purpose and minimising environmental impacts. This is commonly completed for clay lined ponds which are most at risk of leakage when compared to concrete or synthetically lined. Pond drop tests can however be carried out on a range of pond types.

559. The current permitted activity standard requires that a recognised professional must certify that the storage system is lined with an impermeable material. The definition of 'impermeable material or surface' does not include clay but does include concrete or synthetic material. Certification by a recognised professional could involve a pond drop test or a structural assessment of the pond liners' integrity. As discussed further below, a recognised professional is recommended to be a person who is farm dairy effluent system design accredited.

560. Because the definition of impermeable surface only includes materials such as concrete and synthetic materials, the risks of leakage are lower, but I agree with submitters that even these materials may not definitively prevent effluent passing through. I consider that the certification process by the recognised professional is sufficient to ensure that effluent ponds are not leaking due to the qualifications of those professionals. If the recognised professional undertakes a pond drop test to demonstrate compliance with the permitted activity standard and it shows leakage, the discharge would require resource consent enabling an assessment as to the level of the leakage and potential effects.

561. Opus raised a concern regarding the potential for concrete and synthetically lined ponds to leak following construction as joins expand and crack or damage to the liner occurs during maintenance. I agree with the concerns raised by Opus and believe the permitted activity standard is currently unclear whether the storage system is only required to be certified as having an impermeable liner at the time of construction or if there is an on-going requirement for the system to be lined with an impermeable material. I consider there should be an on-going requirement for the effluent storage system to be lined with an impermeable material and believe an amendment to the permitted activity standard is necessary. I recommend that the permitted activity standard is amended as follows:

For a new dairy farm established after 9 June 2016, the storage system must <u>at all times</u> be sealed with an impermeable material certified by a recognised professional <u>at the time of construction and upon request by Council.</u>

562. In my view this amendment will ensure that effluent storage systems are sealed with an impermeable material on an on-going basis and allows for MDC to request an application demonstrates this post-construction.

563. Submissions have been received on the term "recognised professional", specifically as to who qualifies as a recognised professional in the context of dairy effluent system design and construction. The MEP defines recognised professional as:

means a suitably qualified and experienced person in their field.

564. The permitted activity standards refer to a recognised professional in the following standards:

- *For a new dairy farm established after 9 June 2016, there must be an on-site storage system with a minimum of 3 months storage or, if less than 3 months, the storage capacity must be certified by a recognised professional as being sufficient to allow for discharges to be deferred so that standards 3.3.28.4, 3.3.28.5 and 3.3.28.6 are not breached. The certification must be provided to the Council prior to effluent entering the storage system; and*
- *For a new dairy farm established after 9 June 2016, the storage system must be sealed with an impermeable material certified by a recognised professional.*

565. I agree with the submitters that there should be further clarification of what constitutes a recognised professional given the importance of their role in certifying effluent systems. With regards to Opus' and IPENZ suggestion a recognised professional should be a Chartered Professional Engineer (CPEng), I consider that a CPEng would provide a high level of assurance that effluent systems are designed and constructed sufficiently as they are required to abide by industry standards. There may be issues with the availability of CPEng in Marlborough to undertake this work, so I consider it would be beneficial to consider what other professionals would be suitable to certify effluent storage systems.

566. An alternative as suggested by Fonterra is to specify a recognised professional is someone with specific qualifications or accreditation. There is a nationwide accreditation programme that is designed to provide dairy farmers with assurance that effluent management systems are fit for purpose in accordance with Farm Dairy Effluent Design Standards and Code of Practice. A fit for purpose effluent system designed is to:

- Capture all farm dairy effluent;
- Spread the farm dairy effluent at a time that allows uptake by plants;
- Uniformly spread the farm dairy effluent to the desired depth and at the desired intensity;
- Control farm dairy effluent application to within the boundaries of the application area;

- Ensure that farm dairy effluent systems can be operated safely; and
- Comply with all regulatory requirements, including consent conditions.[112]

567. Those companies who have been accredited have submitted an application to an assessment panel who has determined the applicant has quality assurance systems and procedures in place and effluent system designs are of an acceptable standard. Accreditation is provided for two years at which point it must be renewed.

568. I consider it would be appropriate to amend the permitted activity standard to refer to a recognised professional who is farm dairy effluent system design accredited or a CPEng. This will ensure that the certification of effluent ponds is undertaken by persons who are suitably qualified to do so. I have discussed this with the MDC Compliance Team who confirm that describing recognised professionals as proposed is appropriate.

569. With regards to Hall Family Farms and Dairy NZ's request that MDC will certify or approve storage prior to being built, I do not consider that this is appropriate as those recognised professionals are likely more qualified than MDC staff to certify effluent storage systems. Effluent storage is a key component of mitigating dairy effluent discharges and as such I consider it is necessary for a robust process to ensure those systems are designed and constructed appropriately. In my view the recommended amendment to the standards regarding recognised professionals ensures this level of robustness.

570. In response to MEC's opposition to the permitted activity standards that specify no discharge shall occur when soil moisture exceeds field capacity; ponding must not be detectable beyond 24 hours after discharge; and the discharge must not result in anaerobic soil conditions, I agree that together these standards do allow discharges of dairy effluent that do not meet industry best practice. Specifically, I do not consider that ponding for up to 24 hours is appropriate.

571. The Dairy NZ Farm Dairy Effluent Design Standards and Code of Practice states the application intensity of effluent must not exceed the expected infiltration rate of the soil or there should be no run-off of effluent and there is a soil moisture deficit equal to or greater than the applied depth. In addition, the Dairy NZ website states that it is essential to prevent ponding and run-off and to avoid applying effluent to saturated soils.

572. The definition of ponding in the MEP is:

> *means the formation of pools of surface liquid, other than liquid momentarily present on the surface at the commencement of the absorption process.*

573. In my opinion, any effluent that is applied to land that results in the formation of pools of liquid on the land surface poses a risk of run-off into nearby waterways or properties and could affect groundwater sources. Due to the risks of ponding and the industry direction to prevent ponding, I recommend that the permitted activity standard is amended to not permit any ponding.

574. In terms of the permitted activity standards regarding anaerobic soil conditions, alongside MEC, Federated Farmers, Dairy NZ and Ravensdown oppose the provision. In my opinion, the most likely cause of anaerobic soil conditions as a result of effluent ponding is due to the prolonged ponding of effluent or water however there may be other reasons. Based on the recommendation regarding the ponding permitted activity standard above, I consider that it is unlikely the discharge of effluent would result in anaerobic soil conditions, but the submitters have not provided evidence that all circumstances that may lead to such soil conditions are addressed by the remainder of the permitted activity standards. Out of an abundance of caution, I recommend the standard is retained. I note that the MEP includes a definition of anaerobic soils which is:

> *means soils that are permanently or seasonally saturated by water that results in reduced plant growth, plant death, adventitious root growth; colour changes in soil (dark soil horizons due to accumulation of organic matter or formation of grey or gley colours due to reduction of iron species);*

[112] Farm Dairy Effluent System Design Accreditation Programme 2013

growth of black slime, algae or planktonic species on the soil surface; rotten egg odours; crusting of the soil surface.

575. Based on this definition I disagree with Federated Farmers, Dairy NZ, Ravensdown and Fonterra that it is not clear what is meant by the term and that it would be difficult for a famer to determine compliance with the standard.

576. In response to R Heta and MEC's comments on the permitted activity standard regarding applying effluent when soils do not exceed field capacity, I consider that this standard does reflect good practice and supports the achievement of Objective 16.3. When this standard is considered with the recommended changes to the permitted activity standard relating to ponding of effluent, I consider the discharge of effluent will be required to be undertaken at an application rate and depth that represents industry good practice. I therefore do not consider any amendments to permitted activity standards relating to soil moisture.

577. Opus have raised a concern that farmer operating practices will compromise the certification of effluent systems. As assessed above, certification by a recognised professional is required in relation to providing less than 3 months effluent storage and for confirming an effluent storage system is sealed with an impermeable material. The certification of effluent storage volumes would likely be based on an effluent storage calculator and would relate to the required storage prior to the discharge commencing. The accumulation of solids and regular maintenance would be necessary to maintain that level of storage. The permitted activity standards do not require the on-going maintenance of that certified level of effluent storage and in my opinion, that is a deficiency of the discharge rule. I consider that the permitted activity standard should be amended to confirm that where less than 3 months storage is provided, that certified storage volume must be maintained. I consider this amendment addresses the concerns of Opus.

578. Opus have raised an additional submission point in relation to the design of effluent storage ponds, seeking that the IPENZ Practice Note 21 is referenced. I consider that it is not necessary to amend the discharge rules to require effluent systems to be designed in accordance with the IPENZ practice note as the permitted activity standards already address the storage volume and lining of the effluent system which are two critical aspect for the performance of effluent systems. The requirement for 3 months effluent storage or certification by a recognised professional ensures that the sizing of effluent ponds is adequate whilst the certification of the lining of ponds will minimise impacts. It is likely that when certification of the sealing of ponds is undertaken, a recognised professional would consider that industry design and construction guidelines which in my opinion provides the necessary level of robustness.

Discharge limits

Submissions

579. H Collins (397.7) opposes the nitrogen loading standard and queries the blanket limit of 200kg/ha/yr rather than a limit based on farm specific conditions.

580. S Parkes (339.4) supports in part the cumulative nitrogen loading standard but seeks to delete the term "areal". No reason for the deletion from this standard has been provided.

Analysis

581. As discussed above, the permitted activity standard limiting the application of nitrogen to land to no more than 200kg/N/ha/yr is based on plant uptake by pasture. Whilst I acknowledge a farm specific loading rate may be desirable, I consider that there is inadequate information to adopt this approach at this time, and in my opinion, this is better addressed when cumulative contaminants limits are set by 2024.

582. S Parkes has also sought the removal of the term 'areal' from the nitrogen loading standard in relation to the application of fertiliser or lime. As assessed in paragraph 386, I also do not consider it appropriate to remove the term "areal" from the standard as this removes the ability to average the

application of nitrogen across the area of discharge increasing the difficulty to comply with the standard.

Definitions

High Rate Discharge System

583. Federated Farmers (425.401) has submitted in opposition on the definition of 'high rate discharge system' seeking that the definition is deleted from the MEP. Federated farmers state that the definition is ambiguous and is not a term widely used in the agricultural industry. Federated Farmers state that the particular method or technology a farmer used for land application of dairy effluent should not be regulated by the MEP, rather any regulation should focus on effects.

584. Land Vision Limited (904.15) have submitted in support of the definition of high rate discharge system and it is inferred they seek it is retained as notified.

585. High rate discharge system is defined as:

means a system that delivers a discharge rate of >10mm/hr on an instantaneous basis, for example, but not limited to, travelling irrigators.

586. The term 'high rate discharge system' is referred to in the permitted activity standard restricts the use of a high rate discharge system on land with an average slope of 7˚ or greater, or on any slope exceeding 11.3˚.

587. I disagree with Federated Farmers that the definition and associated permitted activity standard is not 'effects based' nor a term that is not widely used. In my experience there is a common distinction in land application methods between low rate and high rate discharge methods, particularly when considering discharges of dairy effluent.

588. Discharging higher rates of effluent onto sloping land increases the risks of effluent run-off. No evidence from submitters has been provided that deleting or amending the definition would still prevent surface run-off and, on this basis, I do not recommend any changes to the definition. As currently proposed, I consider the definition alongside the permitted activity standards will ensure that Objective 16.3 is achieved.

589. On the basis of the assessment above, I consider it would be inappropriate to delete the definition of high rate discharge system.

Dairy farm effluent

590. MDC (91.145) have submitted on the definition of dairy farm effluent seeking that it includes reference to farms with sealed feed pads that also have washdown directed into the effluent collection facility. MDC have sought the definition is amended as follows:

means all dairy effluent and contaminated washwater generated on the site of the farm dairy and associated yard areas. This includes machine washwater, pit washings, faecal matter, and washwater deposited on hard stand area <u>and sealed feed pads</u>.

591. I consider it is appropriate to amend the definition of dairy farm effluent as suggested by MDC as where sealed feed pads are installed, the washdown water is commonly discharged via the dairy shed washdown facilities. Similar contaminants are produced on feed pads and the sizing of discharge infrastructure can simply take into account the additional sealed area.

592. I recommend the definition is amended as requested by MDC.

Recommendation

593. Amend the permitted activity standard in all relevant rules relating to the ponding of effluent as follows:[113]

The discharge must not result in the ponding of effluent. ~~*Ponding must not be detectable beyond 24 hours after the discharge.*~~[114]

594. Amend the permitted activity standard in all relevant rules relating to the compliance date for dairy farms existing at 9 June 2016 as follows:[115]

x.x.x.x 24 months after the plan becomes operative, ~~*From 9 June 2019*~~*,*[116] *Standards x.3.x.x, x.3.x.x and x.3.x.x apply to a dairy farm existing at 9 June 2016 and a new dairy farm established after 9 June 2016.*

595. Amend the permitted activity standard in all relevant rules relating to the required effluent storage volumes as follows:[117]

x.x.x.x For a new dairy farm established after 9 June 2016, there must be an on-site storage system with a minimum of 3 months storage or, if less than 3 months, the storage capacity must be certified by a recognised professional who holds a farm dairy effluent design accreditation or is a Chartered Professional Engineer[118] *as being sufficient to allow for discharges to be deferred so that standards x.3.x.x, x.3.x.x and x.3.x.x are not breached. The certification must be provided to the Council prior to effluent entering the storage system and the certified storage volume must be maintained at all times*[119]*.*

596. Amend the permitted activity standard in all relevant rules relating to the required effluent storage volumes as follows:[120]

x.x.x.x For a new dairy farm established after 9 June 2016, the storage system must at all times[121] *be sealed with an impermeable material certified by a recognised professional who holds a farm dairy effluent design accreditation or is a Chartered Professional Engineer*[122] *at the time of construction and upon request by Council.*[123]

597. Amend the definition of dairy farm effluent as follows:

means all dairy effluent and contaminated washwater generated on the site of the farm dairy and associated yard areas. This includes machine washwater, pit washings, faecal matter, and washwater deposited on hard stand area and sealed feed pads.[124]

[113] Permitted activity standards: 3.3.28.5, 4.3.27.4
[114] 1193.84, 1193.88- MEC
[115] Permitted activity standards: 3.3.28.11, 4.3.27.10
[116] 326.6 – S and S Leov; 397.8 – H Collins; 676.109, 676.154 – Dairy NZ
[117] Permitted activity standards: 3.3.28.8, 4.3.27.7
[118] 1251.83, 1251.84 – Fonterra; 274.2, 274.3 - IPENZ
[119] 1006.1, 1006.3, 106.4, 1006.5 – Opus
[120] Permitted activity standards: 3.3.28.9, 4.3.27.8
[121] 1006.5 - Opus
[122] 1251.83, 1251.84 – Fonterra; 274.2, 274.3 - IPENZ
[123] 1006.5 - Opus
[124] 91.145 - MDC

Matter 10: Discharge of human effluent

598. All zone chapters contain a permitted activity rule and permitted activity standards for the discharge of human effluent into or onto land except the Business 1 Zone, Business 3 Zone, Industrial 1 and 2 Zone, Port Zone, Port Landing Area Zone, Marine Zone, Coastal Marine Zone, Open Space 4 Zone, and Floodway Zone.[125]

599. If one or more of the permitted activity standards are unable to be met, the discharge of human effluent into or onto land is classified as a discretionary activity unless classified as prohibited.

600. The permitted activity standards are largely the same across the zones and requires:

- Effluent must be treated via an on-site wastewater management system which must be maintained in an efficient operating condition at all times.
- There must be no increase in the rate of discharge due to an increased occupancy of the building(s).
- There must be:
  - No ponding of effluent
  - Run-off or infiltration of effluent beyond the property boundary or into a river, lake, Significant Wetland, drainage channel, Drainage Channel Network, groundwater or coastal water.
- The discharge rate must not exceed 2000 litres per day, averaged over any 7-day period.
- Effluent must be able to:
- Infiltrate through at least 600mm of unsaturated soil following primary treatment; or
- Infiltrate through at least 300mm of unsaturated soil following secondary treatment.
- The discharge must not occur within a Groundwater Protection Area.
- The discharge must not occur within 50m of a bore unless the bore intercepts the confined layer of the Riverlands FMU or the confined layer of the Wairau Aquifer FMU.
- The discharge must not be within a Level 2 or 3 Flood Hazard Area.

601. In the Coastal Environment Zone, Coastal Living Zone, Open Space 3 Zone and Airport zone, the permitted activity rule only relates to on-site wastewater management systems lawfully established prior to 9 June 2016.

602. In the Rural Environment Zone and Rural Living Zone, a new discharge of human effluent after 9 June 2016 must not occur into of onto a Soil Sensitive Area.

603. In the Urban Residential 1 and 2 Zone, Urban 3 Residential Zone, Business 2 Zone, Open Space 1, 2 and 3 Zones, there is a condition stating that there must not be a Council operated sewerage system designed for that purpose within 30m of the property boundary or 60m of the closest building.

604. The Open Space 1 Zone and Open Space 2 Zone includes condition stating that no objectionable odours must be able to be detectable.

605. The Open Space 3 Zone includes an additional permitted activity rule and standards for discharges of human effluent through a long drop toilet. The permitted activity standards require:

- There must not be a Council operated sewerage system designed for that purpose within 60m of the long drop toilet.
- The bottom of the long drop is located above the natural groundwater level at all times.
- The long drop toilet must not be located within 50m of a river, lake, Significant Wetland or drainage channel or within 30m of a bore.
- The long drop toilet must not be constructed on unconsolidated gravels, coarse or medium fine sands, fissured rocks or scree.
- Once the human effluent reaches within 1m of the original ground level, or the long drop is no longer used, the contents of the long drop must be covered with soil to a depth of at least 1m.

[125] Rules 3.1.30, 3.3.30, 4.1.29, 4.3.29, 5.1.17, 5.3.12, 6.1.10, 6.3.7, 7.1.15, 7.3.13, 8.1.15, 8.3.14, 10.1.10, 10.3.7, 17.1.11, 17.3.9, 18.1.14, 18.3.10, 19.1.15, 19.3.13, 22.1.11, 22.3.10, 23.1.19, 23.3.6

- The long drop toilet must be constructed so that no surface runoff enters the toilet.

606. There are also prohibited activity rules in the Rural Environment Zone, Coastal Environment Zone, Coastal Living Zone, Open Space 1 Zone, Open Space 2 Zone, Open Space 3 Zone and Lake Grassmere Salt Works Zone. The rules prohibit the discharge of human effluent into or onto land through a soak pit established after 9 June 2016.

607. Definitions relevant to the discharge of human effluent are:

- On-site wastewater management system: *means a system that services a residential dwelling, or other facility that generates domestic wastewater, by receiving, treating and absorbing the domestic wastewater within the property boundaries of the site of generation. The system consists of a treatment unit and land application area.*

- *A new on-site wastewater management system is one installed after 9 June 2016 and includes an extension to, or replacement of, an existing land application area.*

- Land application area: *means an area of land that is set aside to allow wastewater from a treatment unit to be applied into or onto soil for further in-soil treatment and absorption. The method of distribution and nature of the land application area can vary, and includes trenches, beds, mounds and dripper lines, but does not include soak pits.*

- Soak pit: *means an unfilled hole or hole backfilled with media that creates a concentrated point of discharge and allows the rapid movement of wastewater to depth.*

- Wastewater: *in relation to on-site wastewater management systems, means wastewater originating from household or personal activities including toilets, urinals, kitchens, bathrooms (including shower, washbasins, bath, spa bath but not spa) and laundries. Includes such wastewater flows from facilities serving staff, employees, residents, students, guests in institutional, commercial and industrial establishments, but excludes commercial and industrial wastes, large scale laundry activities and any stormwater flows.*

608. Approximately 28 submission points were received on the discharge of human effluent into or onto land (including via long drop toilet). Of these submission points, 4 submission points are in support or support in part the provisions and have sought the rules and standards to be retained as proposed (DOC 479.249, 479.250 and Fish and Game 509.455). Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended. The amendments sought to the provisions by submitters relate to the scope of the rule, discharge system design and discharge methodology and the discharge location.

609. Three submissions have also been received on the definition of wastewater.

Submissions and Assessment

Definition

610. MDC (91.116) have submitted on the definition of wastewater, seeking that it is amended to provide greater clarity and consistent with the wording of the rules relating to the discharge of human effluent. MDC seek the following amendments:

~~*Wastewater*~~ ***Human effluent***	*in relation to on-site wastewater management systems, means* ~~*wastewater*~~ *human effluent originating from household or personal activities including toilets, urinals, kitchens, bathrooms (including shower, washbasins, bath, spa bath but not spa) and laundries. Includes such wastewater flows from facilities serving staff, employees, residents, students, guests in institutional, commercial and industrial establishments, but excludes commercial and industrial wastes, large scale laundry activities and any stormwater flows.*

611. A further submission from Federated Farmers supports the requested change as it improves clarity.

612. Federated Farmers (425.417) also submit on the definition of wastewater seeking that it was retained as notified. Given Federated Farmers support for MDC's submission I consider they are satisfied with the changes proposed.

613. Fonterra (1251.160) have submitted in opposition to the definition of wastewater and have sought it is amended to only refer to broad categories. Fonterra has sought the definition is amended as follows:

means liquid (and liquids containing solids) waste from domestic, industrial, commercial premises including (but not limited to) toilet wastes, silage, industrial and trade wastes and gross solids.

~~*in relation to on-site wastewater management systems, means wastewater originating from household or personal activities including toilets, urinals, kitchens, bathrooms (including shower, washbasins, bath, spa bath but not spa) and laundries. Includes such wastewater flows from facilities serving staff, employees, residents, students, guests in institutional, commercial and industrial establishments, but excludes commercial and industrial wastes, large scale laundry activities and any stormwater flows.*~~

614. I agree with the comments from MDC. The rules in the MEP refer to the discharge of human effluent, not wastewater. I consider amending the definition from wastewater to human effluent will ensure plan users are clear as to what is addressed by these rules. I also consider that this amendment ensures that the policies of Chapter 16 which refer to 'wastewater' can be interpreted as relating to any source of wastewater rather than just human effluent as the definition currently shows. I consider that changing the term wastewater to human effluent in the definition as shown is not necessary and creates confusion.

615. In response to Fonterra's submission, I consider that the definition of wastewater should remain as is currently intended, to address discharges of human effluent. The term wastewater is only referred to in relation to the discharge of human effluent. Other rules refer to liquid waste or agricultural liquid waste which are defined separately.

616. I recommend the definition is amended as requested by MDC.

Scope

Submissions

617. Federated Farmers (425.683) submit that the provisions of Rule 4.1.29 need to be reframed as discharges from 'on-site wastewater systems' rather than 'discharges of human effluent' as wastewater systems contain a range of contaminants.

618. G Barnett (1258.12) opposes Rule 3.7.7 and has sought clarification as to whether this includes a long drop and point source discharge, for example on farm.

619. M and K Gerard (424.166) have submitted that there are no permitted activity rules in the Coastal Environment Zone for discharges from long drop toilets which can be useful in remote locations such as hut sites, woolsheds and stock yards. M and K Gerard seek the rule as drafted in the Open Space 3 zone is included in the Coastal Environment Zone.

620. EBCS (100.27) opposes Rule 4.7.7 which prohibits the discharge of human effluent through a soak pit established after 9 June 2016 if it is intended to apply to long drop toilets. EBCS consider that appropriately sited long drop toilets are the most environmentally sustainable method to deal with small volumes of human effluent on large properties and have sought clarification that the rule does not apply to long drop toilets in the Coastal Environment Zone.

621. QCSRA (504.84) have sought clarification whether Rule 7.5.4 applies to effluent as it is understood that soak pits are only used to discharge greywater.

622. Dominion Salt Limited (355.9) have submitted on Rule 22.1.11 which relates to discharges of human effluent in the Lake Grassmere Salt Works Zone. Dominion Salt Limited have submitted that the rule should cover greywater as well as effluent to ensure greywater is appropriately addressed.

Analysis

623. Federated Farmers and Dominion Salt Limited have sought clarification of the scope of the rule as to whether it covers 'wastewater' and 'greywater'. The permitted activity rule is referred to as the 'discharge of human effluent' and requires discharge via an on-site wastewater management system.

624. The definition of on-site wastewater management system notes that it is a system that services a residential dwelling or other facility that generates domestic wastewater. Human effluent is recommended to be defined as the current definition of wastewater. This is waste originating from numerous domestic sources including bathrooms, kitchens and laundries. Based on this definition, it is clear that human effluent is intended to cover both blackwater and greywater. I consider the amendment to the definition of wastewater to instead refer to human effluent also addresses the submission from QCSRA as Rule 7.5.4 refers to human effluent.

625. G Barnett, M and K Gerard and EBCS have sought clarification on provisions relating to long drop toilets, either to clarify if the prohibited activity rules apply to discharges via long drop toilets or to include permitted activity rules for long drop toilets in the Coastal Environment Zone.

626. Based on the current wording of the rules, the discharge of contaminants through a long drop toilet would not be permitted as the discharge would not be treated by an on-site wastewater management system as a long drop does not consist of a treatment unit and land application area. With regards to the prohibited activity rules, it may be determined that discharges via a long drop toilet could be considered as discharges through a soak pit. Soak pit is defined in the MEP as *"an unfilled hole or hole backfilled with media that creates a concentrated point of discharge and allows the rapid movement of wastewater to depth."* The long drop hole could be considered an 'unfilled hole' and it does allow a concentrated point of discharge, although possibly not the rapid movement of wastewater to depth.

627. I consider that based on the current rule framework it is unclear how discharges of effluent through a long drop would be classified where no specific rule is provided. I believe that it would be inappropriate prohibit such discharges in remote areas where effects can be easily minimised and where discharges are already occurring without adverse effects. I therefore agree with M and K Gerard and EBCS that an additional rule should be included in the Coastal Environment Zone to permit the discharge of effluent to land via long drop toilets. I consider that same reasoning applies to providing a permitted activity rule in the Rural Environment Zone however no submitters have sought this change. If the Hearing Panel consider this could be a consequential change, I also recommend the same rule is inserted into the Rural Environment Zone.

628. In my view the rule in the Open Space 3 zone is suitable with some amendments. I recommend that discharge of effluent through a long drop toilet in the Coastal Environment Zone is permitted subject to permitted activity standards that specify:

- The discharge must not occur into or onto a Soil Sensitive Area;
- There must not be a Council operated sewerage system designed for that purpose within 60m of the long drop toilet;
- The bottom of the long drop is located above the natural groundwater level at all times;
- The long drop toilet must not be located within 50m of a river, lake, Significant Wetland, drainage channel or drainage channel network, 50m of a bore or within a Level 2 or 3 Flood Hazard Area;
- The long drop toilet must not be constructed on unconsolidated gravels, coarse or medium sands, fissured rocks or scree;
- Once the human effluent reaches within 1m of the original ground level, or the long drop is no longer used, the contents of the long drop must be covered with soil to a depth of at least 1m; and
- The long drop toilet must be constructed so that no surface runoff enters the toilet.

629. I recommend that the new permitted activity Rural Environment Zone rule is subject to the same permitted activity standards as recommended above, plus the following standard:

- The discharge must not occur within a Groundwater Protection Area.

630. There are no mapped Groundwater Protection Areas in the Coastal Environment Zone, therefore the above standard is not necessary in that permitted activity rule.

Discharge system design and discharge methodology

Submissions

631. Fish and Game (509.318) state that the discharge of human effluent should be in accordance with the AS/NZS 1547:2012 Onsite Domestic Wastewater management standard and seek the inclusion of a new permitted activity standard.

632. Davidson Group Ltd (172.8) oppose the standard restricting any increase in the rate of discharge due to increase occupancy and seek its deletion. The submitter considers the standard is unnecessary and any increase in load will typically require enlargement of the system under the Building Code. P Gilbert (192.7) also oppose this standard but have not specified any relief.

633. K Wilson (210.20, 210.21, 210.22, 210.23, 210.24) opposes the permitted activity standard in relation to the maximum discharge rate of 2000 litres per day averaged over a 7-day period.[126] K Wilson states the standard should specify a maximum rate per area that can be applied reflecting the contour, soil type and rainfall of the area where the discharge is to occur. The submitter is concerned the rule may affect the operation of the MDC sewerage treatment plant. K Wilson seeks the standard is re-written to include a maximum discharge rate per unit area.

634. Federated Farmers (425.587, 425.684) opposes the permitted activity standards regarding the required unsaturated soil depths as this unnecessarily restricts the type of system that can be installed.[127] Federated Farmers seek the deletion of this standards.

Analysis

635. Fish and Game have not provided any reasons for why the permitted activity standards should include a requirement for on-site wastewater management systems to be in accordance with AS/NZS 1547:2012. AS/NZS 1547:2012 provides the requirements for on-site domestic wastewater management treatment units and their land application systems to achieve sustainable and effective on-site wastewater management. The standards set out mandatory requirements and advised practices and differentiate between normative provisions which are integral to the standard and informative provisions which are for information and guidance only.

636. The current MEP permitted activity standards focus on enabling the discharge of human effluent where the discharge is not within a sensitive location, for example the Marlborough Sounds area where any new discharge in the Coastal Environment Zone requires resource consent, within setbacks to waterbodies and wells and within the Soil Sensitive Area. This ensures that in those locations where there is a greater potential impact, resource consent is required. The AS/NZS 1547:2012 guidelines are used by MDC in the consent process as an aid to determine the suitability of a discharge system.

637. Because the permitted activity standards only enable small-scale discharges in low risk receiving environments, I consider it is not necessary to require compliance with the AS/NZS 1547:2012. In my opinion the current permitted activity standards ensure that Objective 16.3 will be achieved. I do however consider it could be useful to amend the explanations of Policy 16.3.3 and Policy 16.3.4 to make it clear that the AS/NZS 1547:2012 standards will be used as a tool for assessing discharge permits.

[126] Permitted activity standard 3.3.30.4, 4.3.25.9, 18.3.10.6, 19.3.12.2
[127] Permitted activity standards 3.3.30.5 and 4.3.29.6

638. In response to Davidson Groups' concerns, whilst the increase in loading may then be subject to requirements under the Building Code, the Building Code does not necessarily address the potential environmental effects of the discharge. Clause 13G of the Building Code relates to 'foul water' and the objective of the provision is to:

- *Safeguard people from illness due to infection or contamination resulting from personal hygiene activities; and*

- *Safeguard people from loss of amenity due to the presence of unpleasant odours or the accumulation of offensive matter resulting from foul water disposal.*[128]

639. Under the clause, buildings where there is no sewer must be provided with an adequate system for the storage, treatment and disposal of foul water. In my opinion, the permitted activity standard restricting any increase in the rate of discharge should be retained. This enables a site-specific assessment via a resource consent to ensure that the discharge will be appropriately treated and better ensures the achievement of Policy 16.3.1 and Objective 16.3.

640. With regards to K Wilson's request for maximum application rates per area, I consider that there is insufficient information to achieve this as it is reliant on site specific conditions such as soil type and slope. The permitted activity standards already specify that there must be no ponding or run-off or infiltration to a waterbody, therefore I consider that the effects that would be managed via an application rate are already managed by the current standards. I do not recommend any changes to address this submission.

641. Federated Farmers seeks the deletion of the permitted activity standards that require discharges of primary treated effluent to infiltrate through 600mm of unsaturated soil and secondary treated effluent to infiltrate through 300mm of unsaturated soil. Ensuring wastewater applied to land passes through unsaturated soil allows further removal of contaminants through natural biological processes. Federated Farmers have not provided any explanation as to which types of systems would be prevented from being installed. I consider that there is inadequate information provided that demonstrates potential effects of discharges will still be managed through the deletion of this standard. I consider that ensuring discharges pass through a depth of unsaturated soil is a critical measure to minimise risks to groundwater quality. I therefore do not agree with the request from Federated Farmers.

Discharge location

Submissions

642. R Light (129.5) submits that there is insufficient information to support the introduction of the flood hazard overlay over the Tuamarina area where there has previously been no overlay which triggers resource consent for the discharge of human effluent. R Light states that inadequate consultation has occurred and ground truthing of the flood hazard overlay is required to ensure there is adequate justification to trigger resource triggers. R Light has sought that the rules in the WARMP are carried over until sufficient background work is completed for the overlays.

643. Federated Farmers (425.588, 425.685) submit that the permitted activity standards 3.3.30.8 and 4.3.29.8 which states *the discharge must not be within a Level 2 or 3 Flood Hazard Area*, is too restrictive and unnecessary and has sought the deletion of this standard. No further explanation has been provided.

644. Federated Farmers (425.589) also consider permitted activity standard 3.3.30.9 is unnecessary which restricts new discharges of human effluent after 9 June 2016 into or onto a Soil Sensitive Area.

645. R Evans (1082.3) also opposes standard 3.3.30.9 due to the inaccuracy of soil maps. R Evans states that if the discharge is permitted with a qualified designer report, those soils that are misrepresented in the soil maps can be addressed by the designer stating there is no risk. R Evans has sought an amendment to the standard to allow the discharge as a permitted activity in the Soil Sensitive Area

[128] Building Code, Clause 13G Foul Water

provided a report is prepared by a Certified Assessor under the AS/NZS 1547:2012 standards. A further submission has been received from Remac Consulting supporting the views of R Evans. Remac Consulting state that where an existing discharge is upgraded as part of alterations or replacement of an existing dwelling, a new discharge permit should not be required. The relief requested by R Evans would negate the need for a consent in such situations.

646. S and J People's (450.28) have submitted on permitted activity standard 19.3.12.2 which requires the bottom of a long drop toilet to be above natural groundwater level at all times. S and J People's submit that the standard should be amended to require the bottom of the long drop toilet to be at least one metre above natural groundwater level at all times which is consistent with the current WARMP.

Analysis

647. R Light and Federated Farmers have raised concerns regarding permitted activity standards that restrict the discharge of wastewater in Level 2 and Level 3 Flood Hazard area. The permitted activity condition is not included in the WARMP or the MSRMP. The MEP has introduced Flood Hazard Overlay Maps which have been derived from a Flood Hazard Atlas held by MDC. The information held in the Atlas is based on known historical levels of flooding, physical surveys and aerial photographs of the extent of flooding.

648. Chapter 11 of the MEP, specifically Policy 11.1.9 seeks to manage activities in flood prone areas and sets a hierarchy of flood risk. Level 2 areas are identified as *land that suffers flooding but the depth/velocity of the flooding is not well understood or cannot easily be expressed relative to natural ground level, in a flood event with an annual recurrence interval of 1 in 50 years, or land within 8 metres of any lake, river of wetland."*[129] Level 3 areas are *"land that suffers flooding of deep, fast-flowing water in a flood event, with an annual recurrence interval of 1 in 50 years, or land in the bed of any lake or river or in any wetland.*[130]

649. Submissions on the natural hazard provisions of the MEP and the Flood Hazard Overlay maps have already been heard. This includes concerns raised by R Light regarding the accuracy of the flood hazard overlay over the Tuamarina area. The Section 42A report for the Natural Hazards topic includes a report prepared by Gavin Cooper (Consultant Planner) and Laddie Kuta (Consultant Rivers Engineer). Regarding R Light's concerns, the report outlines that the submission from R Light is accepted in part and recommends an amended Level 2 Flood Hazard area should apply to the property. The revised overlay map significantly reduced the area of Level 2 Flood hazard on the property around the dwelling and east of the dwelling.[131]

650. Wastewater systems located in flood prone areas may not function adequately resulting in ponding of wastewater while ground is saturated. Policy 16.3.2 seeks to require discharge permits for discharges where there are significant environmental constraints to effective wastewater management. I consider flooding represents such an environmental constraint to the discharge of wastewater. Policy 11.1.8 seeks to avoid locating houses, including associated on-site wastewater management systems where they could be inundated or otherwise damaged by flood events.

651. I therefore believe it is appropriate to retain the permitted activity standard due to this risk and to require resource consent for discharges located in Level 2 and 3 Flood Hazard areas to ensure adequate consideration of the potential impacts of flooding. Given the accuracy of the flood hazard overlay has been assessed and is recommended to be revised and the risks associated with wastewater systems in flood prone areas, I do not accept the submission from R Light.

652. In response to Federated Farmers concerns, no justification or further explanation of the reasons why the permitted activity standard is too restrictive has been provided. Due to the potential environmental risks associated with wastewater systems within areas subject to flooding, I do not accept Federated Farmers submission.

[129] Marlborough District Council (2016), Marlborough Environment Plan: Section 32 Report: Chapter 11-Natural Hazards, p.6
[130] Marlborough District Council (2016), Marlborough Environment Plan: Section 32 Report: Chapter 11-Natural Hazards, p.6
[131] Cooper, G and Kuta, L (2018) Section 42A Hearings Report for Hearing Commencing 28 May 2018: Report on submissions and further submission Topic 9: Natural Hazards. p 33.

653. R Evans and Federated Farmers have raised concerns regarding the permitted activity standards related to Soil Sensitive Areas. As noted above, Policy 16.3.2 seeks to require discharge permits for discharges where there are significant environmental constraints to effective wastewater management. I consider that information from a qualified designer assessing the suitability of soils to receive the discharge of wastewater requires a technical assessment and this is most appropriately completed during a resource consent process. I consider the proposed permitted activity standards best achieve the policies of Chapter 16.

654. In response to S and J People's concerns about the separation distance between bottom of a long drop toilet and groundwater, I note that the WARMP Conservation Zone rule included a permitted activity standard that specified the separation must be at least 1m from the highest groundwater level. A greater separation distances will minimise potential contamination of groundwater by allowing for the filtration of effluent in unsaturated soils. To best ensure the achievement of Objective 16.3, I agree with S and J People's that the permitted activity standard should require at least 1m separation from the highest groundwater level to minimise effects on groundwater quality.

Recommendation

655. Amend the definition of wastewater as follows:

~~*Wastewater*~~ ***Human effluent***	*in relation to on-site wastewater management systems, means wastewater originating from household or personal activities including toilets, urinals, kitchens, bathrooms (including shower, washbasins, bath, spa bath but not spa) and laundries. Includes such wastewater flows from facilities serving staff, employees, residents, students, guests in institutional, commercial and industrial establishments, but excludes commercial and industrial wastes, large scale laundry activities and any stormwater flows.*[132]

656. Amend the explanation of Policy 16.3.3 as follows:

The policy provides the criteria for determining whether discharge permit applications should be granted or not. Any applicant will have to demonstrate that the design of the proposed wastewater management system can satisfy all of the identified requirements on an ongoing basis. For the discharge of human effluent, the AS/NZS 1547:2012 standard should be used to assess the on-site wastewater management system.[133]

657. Amend the explanation of Policy 16.3.4 as follows:

The matters listed in this policy are relevant to the consideration of any discharge permit application under Policy 16.3.3 above. Each matter can influence the design of a wastewater management system and the suitability of the system to the site conditions and constraints. In this way (a) to (g) help to ensure that land application areas are sized to accommodate the volume of liquid waste to be discharged and that the liquid waste is discharged evenly over the land application area. A variety of standards and guidelines exist for the discharge of contaminants to land, providing a useful reference to help assess the appropriateness of proposed wastewater management system. For the discharge of human effluent, the AS/NZS 1547:2012 standard should be used to assess the on-site wastewater management system. [134]

658. Amend the permitted activity standard relating to the separation of the bottom of a long drop toilet and groundwater as follows:

19.3.12.2 The bottom of the long drop is located at least 1 metre above the ~~natural~~ highest groundwater level at all times.[135]

[132] 91.116 - MDC
[133] 509.318 – Fish and Game
[134] 509.318 – Fish and Game
[135] 450.28 – S and J People

659. Insert new rules into Coastal Environment Zone and the Rural Environment Zone if there is scope to do so as follows:

3.3.x.1. The discharge must not occur into or onto a Soil Sensitive Area

3.3.x.2 There must not be a Council operated sewerage system designed for that purpose within 60m of the long drop toilet.

3.3.x.3. The bottom of the long drop is located at least 1 metre above the highest groundwater level at all times.

3.3.x.4. The long drop toilet must not be located:

(a) within 50m of a river, lake, Significant Wetland or drainage channel;
(b) within 30m of a bore;
(c) within a Level 2 or 3 Flood Hazard Area.

3.3.x.5. The discharge must not occur within a Groundwater Protection Area.

3.3.x.6. The long drop toilet must not be constructed on unconsolidated gravels, coarse or medium sands, fissured rocks or scree.

3.3.x.7. Once the human effluent reaches within 1m of the original ground level, or the long drop is no longer used, the content of the long drop must be covered with soil to a depth of at least 1m.

3.3.x.7. The long drop toilet must be constructed so that no surface runoff enters the toilet.[136]

4.3.x.1. The discharge must not occur into or onto a Soil Sensitive Area

4.3.x.2 There must not be a Council operated sewerage system designed for that purpose within 60m of the long drop toilet.

4.3.x.3. The bottom of the long drop is located at least 1 metre above the highest groundwater level at all times.

4.3.x.4. The long drop toilet must not be located:

(a) within 50m of a river, lake, Significant Wetland, drainage channel or drainage channel network;
(b) within 50m of a bore;
(c) within a Level 2 or 3 Flood Hazard Area.

4.3.x.5. The long drop toilet must not be constructed on unconsolidated gravels, coarse or medium sands, fissured rocks or scree.

4.3.x.6. Once the human effluent reaches within 1m of the original ground level, or the long drop is no longer used, the contents of the long drop must be covered with soil to a depth of at least 1m.

4.3.x.7. The long drop toilet must be constructed so that no surface runoff enters the toilet.[137]

[136] 424.166 – M and K Gerard; 100.28 EBCS
[137] 424.166 – M and K Gerard; 100.28 EBCS

Matter 11: Discharge of farm rubbish

660. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to the discharge of farm rubbish.[138] In all other zones, the discharge of farm rubbish requires are resource consent as a discretionary activity.

661. If one or more of the permitted activity standards are unable to be met, the discharge of farm rubbish is classified as a discretionary activity.

662. In the Rural Environment Zone and Open Space 3 Zone, the permitted activity standards require:

- Only biodegradable material (except offal or a carcass) to be disposed of;
- Only farm rubbish sourced from the same property must be disposed of;
- The farm rubbish pit must not be located within a Groundwater Protection Area;
- The farm rubbish pit must not be located within 50m o a bore unless it intercepts the confined layer of Riverlands FMU or the confined layer of the Wairau Aquifer FMU, 20m of a river, lake, Significant Wetland, drainage channel or Drainage Channel Network or 50m of a property boundary or dwelling;
- Surface run-off must enter the pit; and
- When a pit is filled to within 0.5m of the original land surface, or is no longer used, the contents must be covered with a soil to a depth of at least 0.5m.

663. The permitted activity standards in the Coastal Environment Zone are identical except there is no standard in relation to Groundwater Protection Areas.

664. Approximately 113 submission points were received on these provisions, of which around 65 are in support or support in part and do not seek any amendments.[139] Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended.

665. The amendments sought to the provisions by submitters relate to the restrictions on the source of rubbish and contents, risks from or to surface water and a need for alternative waste disposal options.

Submissions and Assessment

Restrictions on the rubbish source and contents

Submissions

666. A number of submitters have raised concerns regarding the restriction of disposing offal or carcasses in a farm rubbish pit, restricting the material to only biodegradable matter and restricting the source of rubbish to the property where it is disposed.[140] Submitters note:

- It is ineffective to restrict the disposal of offal and carcasses in general rubbish pits;
- It is difficult to dispose of old fencing wire, netting, broken standards and staples from fences;
- It is impractical for farmers to have more than one pit;
- The large distances from rural properties make it impractical to comply with the proposed rules;

[138] Rules: 3.1.31, 3.3.31, 4.1.30, 4.3.30, 19.1.22, 19.3.20

[139] Craighead (418.2, 418.1), Fly-fish Marlborough (419.18, 419.19), Windsong Orchard (420.18, 420.19), J Steggle (421.18, 421.19), J Richardson (422.18, 422.19), C Shaw (423.17, 423.18), Fish and Game (509.319), Middlehurst Station Limited (970.18), R Edward and L J Hill (379.19, 379.20), A Doole (524.18, 524.19), A Parr (529.18, 529.19), A Millen (532.18, 532.19), C McBride (594.18, 594.19), C McLean (598.18, 598.19), C Soderberg (599.18, 599.19), D McBride (662.18, 662.19), F Chayter (701.18, 701.19), J Rossell (827.18, 827.19), J Tillman (833.18, 833.19), K Raeburn (861.18, 861.19), K Walshe (865.18, 865.19), M Dewar (915.18, 915.19), Silverwood Partnership (1049.18, 1049.19), S Browning (1109.18, 1109.19), T Stein (1179.17, 1179.18) The Sunshine Trust (1194.18, 1194.19), V Frei (1209.18, 1209.19), W Oliver (1228.18, 1228.19), W Tillman (1230.18, 1230.19) MEC (1193.98), Dairy NZ (676.116, 676.160, 676.144, 676.158), M and K Gerard (424.167), Forest and Bird (715.415), Federated Farmers (425.749)

[140] P Kemp (189.2), Middlehurst Station Limited (970.29, 970.30), H Thomson (4.1), N Webby (40.1), Federated Farmers (425.590, 425.591, 425.686, 425.687, 425.750, 425.751), D Ensor (437.1, 437.2), C and L King (483.1), D and C Robbins (640.41, 640.53), Dairy NZ (676.111, 676.156), G Robb (738.42, 738.53), M Robb (935.41, 935.53)

- It is common practice for offal and carcasses to be disposed of in the same pit;
- As farmers may have multiple properties, it is not practical to expect they will use a rubbish pit on each property; and
- Sometimes in remote areas a number of landowners share a rubbish pit.

667. North Rarangi Water Supply Incorporated (1000.7) seek to amend the permitted activity standards of 3.3.31 to cover vineyard waste (marc) storage on the Groundwater Protection Area. No further explanation as to why this is sought has been provided in the submission.

668. Dairy NZ (676.112, 676.157) have submitted seeking a definition of property in relation to permitted activity standard 3.3.31.2 and 4.3.30.2.

Analysis

669. I agree with submitters that it is ineffective and impractical to restrict the disposal of offal and carcasses in farm rubbish pits. Offal and carcasses are biodegradable and can be disposed of as a permitted activity. There is no restriction on the separation distances between farm rubbish pits and offal pits and there is no obvious reason why they must be separated based on the Section 32 report. I therefore consider the potential effects of allowing farm rubbish pits and offal pits to be combined, will be no different than if they were side by side. I do however consider that if offal is permitted to be disposed of in a farm rubbish pit, a new permitted activity standard regarding the separation to groundwater should be included to require farm rubbish pits to be installed above the highest groundwater level. This is consistent with the requirements of the disposal of offal rules and ensures that microbial contaminants can be removed through unsaturated soil prior to any liquid entering groundwater thereby reducing potential contamination of groundwater.

670. I disagree with the request to delete the permitted activity standard as it does restrict non-biodegradable rubbish from being disposed of as a permitted activity. As discussed further below, in my opinion this restriction should be retained. I do, however, consider that offal and carcasses as biodegradable material should be enabled to be disposed of in a single pit.

671. I therefore recommend that the permitted activity standard is amending to delete the exclusion of offal or carcasses. A consequential amendment to the definition of offal pit is also required to specify material other than offal or a carcass may be disposed of in the pit. This is discussed further in Matter 12.

672. Regarding the restriction to only biodegradable materials, I consider that it is not appropriate to remove this limitation. Although disposal of non-biodegradable materials such as old fencing wire and netting may be inconvenient, there is a greater risk of contaminants accumulating in the soil and affecting soil quality and water quality if leachate occurs. I consider that the inclusion of waste, other than biodegradable waste should be subject to a resource consent to determine the risks on case by case basis.

673. On the disposal of rubbish not sourced from the site where the pit is located, I consider that there are greater risks of unauthorised material being disposed where multiple landowners utilise the same rubbish pit. Where a rubbish pit is shared, the responsibility for the contents of the pit is less clear making any enforcement more difficult. If landowners wish to dispose of material in a shared rubbish pit, I consider it is appropriate for a resource consent to be required which can address issues of responsibility and management of access to the rubbish pit.

674. I do however consider there is merit in allowing a landowner to utilise a single rubbish pit for multiple properties. Matters of ownership and access are not an issue in this situation and I consider it would be more efficient to provide for the use of a single pit by the same landowner as a permitted activity than the landowner having to maintain separate pits for different properties. I recommend the permitted activity standard is amended to allow landowners to dispose of rubbish from other properties in their ownership.

675. In response to the submission from North Rarangi Water Supply Incorporated, I do not consider that any amendments to the heading of Rule 3.3.31 is required. The rule relates to the discharge of farm rubbish rather than waste storage.

676. With regards to Dairy NZ's submission seeking a definition of property, I consider that this is not necessary in the context of the rule, particularly as recommended to be amended. In my view the use of the term property in the permitted activity standard clearly relates to an area of land used by a person for the farming activity. As it is recommended to allow farm rubbish from multiple properties to be disposed of in a single farm rubbish pit if that property is held in the same ownership, I consider that this is reasonably clear that where a person owns or manages multiple farms, the rubbish can be disposed of in one location. I therefore do not consider a definition of property is necessary.

Risks from or to surface water and to groundwater

Submissions

677. Federated Farmers (425.592, 425.688, 425.752) have submitted on the permitted activity standard *"Surface run-off water must not enter the pit."* They note that it is impossible to comply with this standard as during heavy rain, overland flow into the pit may be unavoidable. Federated Farmers have requested the standard is amended to state *"Surface* *water* ~~*run-off*~~ *must not enter the pit."* Dairy NZ (676.115, 676.159) have also sought the same change, but no reasons are provided.

678. D and C Robbins (640.42), G Robb (738.43, 738.54), M Robb (935.42, 935.54) also note that it is impractical to avoid run-off into the pit during heavy rain. They have requested the standard is amended as follows:

~~*Surface run-off must not enter the pit.*~~ *All farm rubbish pits must be covered.*

Analysis

679. Regarding the entry of surface water into farm rubbish pits, the intent of this standard seems to be to avoid excess water in the pit which will affect the breakdown of the biodegradable material and encourage the dispersion of leachate. The water content of waste and exposure of waste to groundwater or surface water can significantly increase leachate production. 10% of rainfall becomes leachate, therefore stormwater diversions and site contouring is important to prevent substantial leachate production.

680. I do not agree that it is impractical to avoid surface run-off into a farm rubbish pit. To achieve this standard, rubbish pits will need to be sited appropriately in a location that is not a low point. Excess material excavated from the pit can also then be used to contour the land immediately around the pit to ensure rainfall drains away from the pit and/or create a bund to prevent run-off. Due to the importance of preventing excess water in the pit and as there are options available to landowners to construct rubbish pits in compliance with the permitted activity standard, I do not agree with the submission from Federated Farmers, Dairy NZ, D and C Robbins, G Robb and M Robb. I recommend that the standard is retained as proposed.

Provision for other waste disposal options

Submissions

681. A number of submitters support the provisions provided alternative options for the disposal of farm rubbish that cannot be disposed of on-farm are provided.[141] Submitters have sought support from MDC in providing rubbish and recycling collection services in remote communities and community education regarding appropriate waste disposal locations.

Analysis

682. While I agree that disposing of non-biodegradable material is difficult in remote locations and having community collection facilities for such waste would be beneficial, as would community education regarding appropriate waste disposal locations, I do not consider this is something that can be

[141] Middlehurst Station Limited (970.29), Millen Associated Limited (972.18, 972.19), S and S White (93.8), M Chapman (348.22), Federated Farmers (425.590, 425.686, 425.750), Bown Partnership (451.2), Dairy NZ (676.110, 676.155), C and L King (483.1)

addressed through the permitted activity standards of the MEP. The MEP does however include non-regulatory methods that are consistent with the submitters' request.[142]

Recommendation

683. Amend the permitted activity standard in all relevant rules relating to the source of farm rubbish follows:[143]

x.x.x.x Only farm rubbish sourced from the same property, or a property held in the same ownership, may ~~must~~[144] be disposed of to a farm rubbish pit.

684. Amend the permitted activity standard in all relevant rules relating to the restriction of disposal of offal or carcasses as follows: [145]

x.x.x.1. Only biodegradable material (~~except~~ including offal or a carcass) must be disposed of to a farm rubbish pit.[146]

685. Insert a new permitted activity standard in all relevant rules relating to separation of the pit to groundwater as follows:

x.x.x.x The farm rubbish pit must be located above the natural ground water level at all times.[147]

[142] See methods 16.M.3, 16.M.4, 16.M.7, 16.M.10, 16.M.12, 16.M.14
[143] Permitted Activity Standards: 3.3.31.2, 4.3.30.2, 19.3.20.2
[144] 425.591, 425.687, 425.751 – Federated Farmers
[145] Permitted Activity Standards: 3.3.31.1, 4.3.30.1, 19.3.20.1
[146] 189.2 - Kemp, P; 970.29, 970.30 - Middlehurst Station Limited
[147] 189.2 - Kemp, P; 970.29, 970.30 - Middlehurst Station Limited

Matter 12: Disposal of offal or carcasses

686. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to the disposal of offal or carcasses into an offal pit.[148] In all other zones, the disposal of offal or carcasses into an offal pit requires resource consent as a discretionary activity.

687. If one or more of the permitted activity standards are unable to be met, the disposal of offal or carcasses is classified as a discretionary activity. There are a number of permitted activity standards that apply to the rules which are largely the same across the three zones. The exception is the permitted activity standard *"The disposal must not occur into or onto a Soil Sensitive Area identified as loess soils*", which only applies in the Rural Environment Zone and Open Space 3 Zone.

688. Offal pit is defined as:

means a hole excavated on a rural property to be used on an ongoing basis for the purpose of disposing of offal or dead animals generated on that property.

689. Approximately 43 submission points were received on these provisions, of which around five are in support or support in part and do not seek any amendments.[149] Two submissions have been received in relation to the definition of offal pit. One supports in part the definition but seeks an amendment, the other opposes the definition.

690. Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended.

691. The amendments sought to the provisions by submitters relate to the restrictions on the source of offal or carcasses and contents; the location and construction of offal pits and definitions or clarification of the rule.

Submissions and Assessment

Restrictions on the offal or carcasses source and contents

Submissions

692. A number of submissions have been received on the permitted activity standards which state:

The offal or carcass must be from pastoral agriculture, except intensive farming, undertaken on the same property. [150]

Only offal or carcass may be disposed of to an offal pit. [151]

693. P Kemp (189.3) submits that offal and biodegradable farm waste should be able to be disposed of in the same pit as it is ineffective to require separate pits.

694. A number of submitters have requested amendments to the provisions to provide for the disposal of feral or wild carcasses in farm offal pits and to allow animals from intensive farming to be disposed of.[152] C Bowron (88.9) refers to OSPRI recommendations regarding the disposal of feral animal carcasses in farm offal pits to prevent the spread of disease. Submitters note there is no difference between the disposal of intensive and non-intensively farmed animals.

[148] Rules: 3.1.32, 3.3.32, 4.1.31, 4.3.31, 19.1.23, 19.3.21
[149] C and L King (483.2), Fish and Game (509.320), NZ Pork (998.45), M and K Gerard (424.168), S Parkes (339.3),
[150] Permitted activity standards: 3.3.32.1, 4.3.31.1, 19.3.21.1
[151] Permitted activity standards: 3.3.32.2, 4.3.31.2, 19.3.21.2
[152] C Bowron (88.9), S and S White (93.9), J Rudd (289.1), P Bown (305.1), Federated Farmers (425.593, 425.841), NZ Pork (998.61), S Parkes (339.3)

695. Federated Farmers (425.593, 425.689, 425.753) have raised concerns regarding the restriction of disposing offal or carcasses only from the property where the disposal occurs and the restriction on disposing intensively farmed stock.

Analysis

696. As assessed in paragraph 669 above, I agree that it is inefficient to restrict the disposal of offal and carcasses and biodegradable farm rubbish in a single pit. On the basis of the assessment above, I recommend that biodegradable material is permitted to be disposed of in offal pits.

697. Regarding the restriction of disposing of wild animals, intensively farmed animals and offal or carcasses from other properties, I consider that this standard ensures the scale of the offal or carcass disposal remains low in order to minimise adverse impacts, particularly in relation to water quality and human health. There is no permitted activity standard restricting the volume or size of the offal pit, therefore the permitted activity standards about the permitted contents of the offal pit indirectly manage the scale. I consider it is important to manage the size of offal pits as leachate from the decomposition of offal and carcases can create leachate with high concentrations of contaminants.

698. Due to the concentration of animals on properties carrying out intensive farming, I do not consider that it is appropriate to allow the disposal of offal or carcasses from such properties as a permitted activity. For similar reasons, I do not consider it is appropriate to allow for the disposal of offal or carcasses from other properties not within the same ownership.

699. I do however consider that it would be appropriate to allow the disposal of wild animals in farm offal pits provided the animals are from the same property. I consider it would be impractical for landowners undertaking pest control or hunting wild animals on their properties to dispose of offal or carcasses elsewhere. The scale of these activities is also likely to be low, therefore ensuring any adverse effects are minimised. I also note there is no restriction on the disposal of wild animals under the current operative WARMP and MSRMP and I am unaware of any issues raised with the current permitted activity rules.

700. In response to Federated Farmers' submission on the restriction of disposing offal or carcasses from other properties farmed by a single landowner, for the same reasons as discussed in paragraph 669 I consider it would be more efficient and practical to allow the disposal of offal or carcasses from multiple properties in the same ownership in a single offal pit. As intensively farmed animals cannot be disposed of as a permitted activity, I consider the scale of an offal pit serving more than one property will remain small and the setbacks required from bores, waterbodies, boundaries or dwellings will ensure any impacts of leachate are minimised. I recommend that the permitted activity standard is amended to allow landowners to dispose of offal or carcasses from properties in their ownership but not where the offal pit is located.

Location and construction of offal pits

Submissions

701. W Lissaman (255.27) submits that there is insufficient information provided to justify why offal pits on loess soils are prohibited and has sought clarification for this standard. Federated Farmers (425.595, 425.840) have sought the deletion of this standard as the effects of offal pits on loess soils will not be significant.

702. A number of submitters have sought the deletion or amendment to permitted activity standard 3.3.32.6, 4.3.31.5 and 19.3.21.6 which states[153]:

The offal pit must be completely covered by an impermeable material at all times or otherwise designed to prevent the entry of surface runoff when not in use.

[153] C Bowron (88.10), Federated Farmers (425.598, 425.809, 425.841), Bown Partnership (451.3), D and C Robbins (640.44, 640.55), Dairy NZ (676.117, 676.161), G Robb (738.44, 738.55), M Robb (935.44, 935.55), S Parkes (339.1), N and C Morrison (367.3)

703. Submitters note the following concerns:

- It is impractical to expect an offal pit will be covered with impermeable material at all times.
- It is unclear whether the term “not in use” refers to any time the pit is open, or when it is open to disposal of offal.
- It should be made clear that it is the entry of surface run-off into the pit which is the issue rather than exposure to rain.
- It is not practicable to prevent all surface run-off into pits in high rainfall areas.
- The provision is unnecessarily complex and could simply state the requirement is to manage surface water to prevent it entering the pit.
- Covering an offal pit is a health and safety issue as gases could build up, covering with dirt would be preferable.

704. Federated Farmers (425.597, 425.840) have sought the deletion of the permitted activity standard *“the offal pit must be located above the natural ground water level at all times.”* No reason for the deletion of this standard has been provided.

705. Federated Farmers (425.808, 425.839) also oppose the restriction on placing offal pits within 20m of a drainage channel and have sought this is deleted. No clear reason for this deletion has been provided.

Analysis

706. The design, location and construction of offal pits is paramount to minimise the potential effects on the environment and neighbouring landowners.

707. Loess soils are identified on the Soil Sensitive Overlay. These soils are identified as high risk due to their high erodibility as the excavation of and discharge of liquid wastes onto these soils can lead to tunnel gully erosion. As there is a greater risk of adverse effects of disposal when located on these soils, I consider it is appropriate to retain the permitted activity standard as proposed. This permitted activity standard supports the policies of Chapter 15, particularly Policy 15.4.6 which seeks to manage the soil erosion risk associated with loess soils.

708. In relation to the requirement for offal pits to be covered when not in use or designed to prevent the entry of surface runoff, I consider these design requirements are important to manage potential leachate production and health and safety concerns. I believe offal pits can be sited and constructed in a manner that prevent the entry of surface run-off when not in use by choosing locations that are not located in natural low points, contouring land surrounding the pit to direct run-off away from the pit and using excess excavated material to create a bund. The permitted activity standard does provide an option for either covering the pit with an impermeable material or preventing the entry of surface run-off. Therefore, if a pit cannot be sited and constructed to avoid run-off it must be covered.

709. I consider that the reference to “when not in use” does not require any further clarification. I believe it is clear that when offal or carcasses are not being disposed of into the pit, surface-runoff shall be prevented from entering the pit. I do however agree there is some uncertainty whether an impermeable cover is required when in use. To provide further clarity I have recommend amendments to the permitted activity standard to clarify that the offal pit does not need to be covered when in use.

710. Ensuring offal pits are located above the water table is necessary to avoid significant contamination of groundwater and possible impacts on groundwater users. As no reasons have been provided by Federated Farmers for the deletion of this standard, I recommend it is retained.

711. In response to Federated Farmers’ request for the removal of the permitted activity standard restricting the locating of offal pits within 20m of a drainage channel, I do not think this is appropriate. Drainage channels are likely to convey water into natural waterbodies and allowing offal pits within 20m of such channels poses a risk to the quality of the ultimate receiving waterbody.

Definition and rule clarification

Submissions

712. Federated Farmers (425.599) have submitted seeking clarification that the rules do not prevent the burial of stock in locations other than an offal pit. Federated Farmers state that requiring farmers to bury all livestock in offal pits is impractical particularly where animals are located in remote locations where vehicle or machinery access is not possible. Federated Farmers (425.416) request that the definition of offal pit is amended to clearly exclude the burial of a single animal and other plant material which may be disposed of to decompose. The amendment sought by Federated Farmers is as follows:

means a hole excavated on a rural property to be used on an ongoing basis for the purpose of disposing offal or dead animals and decomposable material generated on that property. Excludes single animal burial.

713. W Lissaman (255.27) submits that clarification is required around what constitutes an offal pit and requests this is defined. W Lissaman considers that the different dimensions of offal pits will have different environmental effects. W Lissaman (255.24) seeks that the definition of offal pit is amended as follows:

means a hole greater than 3m deep, excavated on a rural property to be used on an ongoing basis for the purpose of disposing offal or dead animals generated on that property.

714. Federated Farmers (425.593) also state that the use of the term 'intensive' is unclear and conflicts with the term *intensively farmed stock*.

Analysis

715. Regarding the disposal of single animals on remote properties, it is not the intention of the rule to require the burial of every dead animal in an offal pit such as on extensive farms, particularly in remote high-country settings. Rather the proposed rules are enabling to allow for the combined disposal of multiple animals in a single location. Other statutes and legislation, as well as education and advisory services can more appropriately deal with any nuisance or health effects of dead animals.[154] I therefore do not believe that any changes to the provisions are required.

716. In relation to the disposal of plant matter in offal pits, this is addressed above where it has been recommended that offal or carcass can be disposed of in a farm rubbish pit. As a consequence, I also recommend that the permitted activity standards restricting the disposal of only offal or a carcass in an offal pit are amended to also allow for the disposal of biodegradable material. A consequential change to the definition of offal pit is required to allow for the disposal of other biodegradable material. I have recommended that the definition is amended to state that an offal pit is primarily for the disposal of offal. In my opinion this does allow for smaller quantities of other material to be disposed of.

717. The definition of offal pit and permitted activity standards do not specify the maximum dimensions or volumes for offal pits. I consider the definition is sufficient and does not require amendments to allow offal pits of different dimensions. It is unclear why a hole greater than 3m constitutes an offal pit as opposed to alternative dimensions which could still meet the permitted activity standards. A consequential amendment to the definition is however required to allow for the disposal of offal from properties held in the same ownership as assessed above.

718. The MEP defines *Intensively farmed livestock* and *Intensive farming.* Although there are differences between the two definitions which could lead to confusion as intensively farmed livestock includes reference to cattle, deer and dairy cattle which are not specifically noted in the intensive farming definition, I consider the reference in the standard is suitable and links to the appropriate definition. I consider amending the standard to refer to another term may add to any confusion.

[154] The Health Act 1956 manages nuisance effects and risks to public health of the disposal of offal or carcasses.

Recommendation

719. Amend the permitted activity standard in all relevant rules relating to the source of offal as follows:[155]

x.x.x.x ~~The~~ Only offal or carcasses (except those from intensive farming) ~~must be~~ sourced from ~~pastoral agriculture~~ (~~except intensive farming~~) ~~undertaken on~~[156] the same property, or a property held in the same ownership may be disposed of to an offal pit.[157]

720. Amend the permitted activity standard in all relevant rules relating to permitted contents of an offal pit as follows:[158]

x.x.x.x Only offal, ~~or~~ a carcass or biodegradable material may be disposed of to an offal pit.[159]

721. Amend the definition of offal pit as follows:

means a hole excavated on a rural property to be used on an ongoing basis for the purpose of primarily[160] *disposing offal or dead animals generated on that property, or a property held in the same ownership.*[161]

722. Amend the permitted activity standard in all relevant rules relating to the covering of offal pits as follows:[162]

When not in use, ~~T~~the offal pit must be completely covered by an impermeable material at all times or otherwise designed to prevent the entry of surface runoff ~~when not in use~~.[163]

[155] Permitted Activity Standards: 3.3.32.2, 4.3.31.1, 19.3.21.1
[156] 88.9 – C Bowron; 93.9 – S and S White; 289.1 – J Rudd
[157] 425.593, 425.689, 425.753 – Federated Farmers
[158] Permitted activity standards: 3.3.32.2, 4.3.31.2, 19.3.21.2
[159] 189.3 – P Kemp
[160] 189.3 – P Kemp
[161] 425.593, 425.689, 425.753 – Federated Farmers
[162] Permitted Activity Standards: 3.3.32.6, 4.3.31.5, 19.3.21.6
[163] 88.10 – C Bowron

Matter 13: Making compost or silage or stockpiling agricultural solid waste

723. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to making compost or silage or stockpiling agricultural solid waste.[164] In all other zones, making compost or silage or stockpiling agricultural solid waste requires resource consent as a discretionary activity.

724. If one or more permitted activity standards cannot be met, making compost or silage or storing agricultural solid waste is classified as a discretionary activity. The Rural Environment Zone rule and Open Space 3 Zone rule include six permitted activity standards. These standards specify:

- The stack or stockpile must not be located on a Soil Sensitive Area identified as free draining soils or the pit must not be located on a Soil Sensitive Area identified as free draining or loess soils;
- Setback distances from bores, boundaries, rivers, lakes, Significant Wetlands, drainage channels and Drainage Channel Networks;
- The pit or stack is to be covered by an impermeable material when not in use;
- There must be no runoff or leachate from the pit, stack or stockpile; and
- Surface runoff must not enter the pit, stack or stockpile.

725. The Coastal Environment rule includes four permitted activity standards largely identical to the Rural Environment and Open Space 3 Zone standards except there are no standards relating to the Soil Sensitive Areas and 4.3.32.4 states '*stormwater must not enter the pit, stack or stockpile'* rather than surface run-off as referenced in the other zones.

726. Approximately 59 submission points were received on these provisions, of which around 13 are in support or support in part the provisions and do not seek any amendments.[165] Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended.

727. The amendments sought to the provisions by submitters relate to the location of the pit, stack or stockpile, the design and construction of the pit or storage area and other miscellaneous matters.

Submissions and Assessment

Location of the pit, stack or stockpile

Submissions

728. K Wilson (210.34, 210.33, 210.32) submits that the rules seem impractical as there are farms with no flexibility where a silage stack or pit can be located and silage is an integral part of the farming system. K Wilson seeks amendments to the rules but does not provide any specific requested changes.

729. E and A Ryan (347.5) oppose standard 3.3.33.2 which restricts the location of a pit on a Soil Sensitive Area identified as a free draining soil or a loess soil. E and A Ryan consider that the standard will negatively impact their farming operation and is overly restrictive and has no factual basis.

730. Federated Farmers (425.601, 425.602, 425.847, 425.846) oppose the standards which restrict the location of a stacks, stockpiles and pits within a Soil Sensitive Area identified as free-draining or loess soils[166]. Federated Farmers consider that silage is a beneficial activity and modern silage has a lower

[164] Rules: 3.1.33, 3.3.33, 4.1.32, 4.3.32, 19.1.24, 19.3.22
[165] Wine Marlborough (431.63), Accolade (457.63), Blind River (462.24), Delegat Limited (473.48), C and L King (483.3), Constellation Brands (631.36), Indevin Estates Limited (776.37), Longfield Farm Limited (909.54), NZ Pork (998.46), Villa Maria (1218.54), Yealands Estate Limited (1242.34), Dairy NZ (676.119, 676.162)
[166] Permitted Activity Standards 3.3.33.1, 3.3.33.2, 19.3.22.1, 19.3.22.2

moisture content and industry research shows the risks of leaching are minor. For this reason, Federated Farmers have sought the deletion of the standard.

731. Federated Farmers (425.603, 425.810, 425.845) also oppose the restriction on compost stacks, silage pits or stockpiles being 50m from a bore and 20m from a waterbody. Federated Farmers state a 5m setback is sufficient from bores, rivers and Significant Wetlands.

732. Dairy NZ (676.118) also oppose the restriction of stacks or stockpiles located within a Soil Sensitive Area identified as free draining soils. Dairy NZ have sought an amendment to standard 3.3.33.1 to provide for stacks or pits within this area if located on a sealed surface.

733. NZ Pork (998.62) submit that where a stack or stockpile is supported by a hardstand area with no leaching of contaminants, it should be a permitted activity irrespective of the Soil Sensitive Area. NZ Pork have also sought standard 3.3.33.1 is amended to permit stacks or stockpiles within a Soil Sensitive Area identified as free-draining soils if located on a sealed pad.

Analysis

734. Making compost, silage or stockpiling agricultural solid waste is likely to result in the production of some leachate containing various contaminants which may impact on groundwater quality. The Soil Sensitive Areas have been identified as vulnerable to erosion, impeded drainage or leaching. Information from Dairy NZ's Farm Fact sheet 'Designing silage and feed storage areas' states that if grass is cut and ensiled without wilting, over 500 litres of leachate per tonne of grass would be produced whereas if the grass is wilted to 25% dry matter, less than 30 litres per tonne is produced.[167]

735. Due to the risk of leachate production when making compost, silage or stockpiling agricultural waste, I consider the permitted activity standard restricting stacks or stockpiles on free-draining soils is a necessary restriction to avoid adverse effects. For this reason, I do not accept the decision requested from K Wilson, E and A Ryan and Federated Farmers. In relation to loess soils, again I do not consider that it is appropriate to remove this restriction as the discharge of leachate could exacerbate erosion. Restricting discharges into or onto loess soils is consistent with Policy 15.4.6 which seeks to control the discharges of liquid waste into or onto these soils.

736. I do however agree with Dairy NZ and NZ Pork that where a stack or stockpile is supported by a hardstand or impermeable surface, the effects of any leachate generation would be appropriately addressed. The MEP defines impermeable material or surface as *a "material or surface that does not permit liquid substances to pass through. For clarity, impermeable material or surface does not include clay, but does include, but is not limited to, concrete and synthetic material or surface."* Provided the surface or material underlying the stack or stockpile meets this definition and the stack or stockpile complies with the permitted activity standards regarding leachate runoff and surface/stormwater run-off, I consider that the potential effects of leachate discharges will be minimised while still achieving Objective 16.2 and implementing policy 16.2.4.[168] On this basis, I accept the decision requested from Dairy NZ and NZ Pork.

737. As a result of amending the permitted activity standard to allow the location of stacks or stockpiles on free draining areas where it is on an impermeable material or surface, a consequential change is also required to Policy 16.2.4. Policy 16.2.4 states:

Enable the application of solid waste to land from the processing of primary products, the disposal of animal waste in offal pits, the disposal of biodegradable material in farm rubbish pits or the processing/storage of compost or silage where:

(a) this does not occur within a Groundwater Protection Area or into or onto soils identified as a Soil Sensitive Area as being at risk; and

[167] Dairy NZ Farm Fact, *Designing silage and feed storage areas.* March 2012

[168] Objective 16.2: *"Avoid, remedy or mitigate actual or potential adverse effects arising from solid waste management activities."*
Policy 16.2.4: "Enable…the processing/storage of compost or silage where:
a) this does not occur within a Groundwater Protection Area or into or onto soils identified as a Soil Sensitive Area as being at risk; and
b) standards for permitted activities are met."

(b) standards for permitted activities are met.

738. Because I have recommended the location of a stack or stockpile can occur on Soil Sensitive Areas identified as free draining, this does not align with sub-clause (a) of Policy 16.2.4. I therefore recommend that the "and" between sub-clause (a) and (b) is changed to an "or". In my opinion this change still ensure the sensitivity of the Soil Sensitive Areas is managed as there are permitted activity standards in all relevant rules that relate to this overlay. The change will ensure there is a clear alignment between the permitted activity standard and the policy.

Storage facility construction and design

Submissions

739. Fish and Game (509.321) have submitted in support of the Rural Environment Zone rule but seek an amendment to require the sealing of the bottom of any pit, stack or agricultural waste stockpile to prevent leaching in order to protect water quality.

740. MEC (1193.106, 1193.100, 1193.101, 1193.102, 1193.103, 1193.105) submits that the standards of the Rural Environment Zone rule are inadequate to prevent leachate entering surface water. MEC seek that a new standard is included which requires any pit, stack or stockpile to be bunded. MEC (1193.104) also seek a volume limit on stacks.

741. H Collins (397.9) opposes standard 3.3.33.4 which requires a pit or stack to be covered by an impermeable material when not in use. H Collins states that farmers are aware that covering stacks is best practice and it is not necessary to require this in the rule.

742. Federated Farmers (425.604, 425.811, 425.844) and Dairy NZ (676.120, 676.163, 676.164) also oppose standards requiring pits or stacks to be covered by an impermeable material when not in use. Both submitters raise concerns that it is not practical to require farmers to constantly cover and uncover a silage stack. Federated Farmers and Dairy NZ state that when a silage pit is in use, the pit is covered with plastic specifically designed for this purpose to keep the silage tightly packed. Federated Farmers has sought the deletion of the standard while Dairy NZ have sought definitions for "impermeable" and "when not in use".

743. Federated Farmers (425.605, 425.812, 425.843) and Dairy NZ (676.122, 676.165) have also submitted on the standard which states *"there must be no runoff of leachate from the pit, stack or stockpile."*[169] Federated Farmers states that the standards should focus on runoff of leachate into a water body and have sought an amendment to the standard to reflect this. Dairy NZ consider the standard is not able to be efficiently or effectively implemented. Dairy NZ have sought the standard is amended to state:

Visible run-off of leachate from the pit, stack or stockpile must be intercepted before reaching a waterway.

744. Fonterra (1251.89) state that it is difficult to prove or disprove whether any leachate is being discharged from below a silage stack. Fonterra have sought an amendment to standard 3.3.33.5 to state:

There must be no ~~runoff of~~ visible leachate ~~from~~ leaving the pit, stack or stockpile area.

745. Federated Farmers (425.606, 425.814, 425.842) do not support the standard restricting surface run-off or stormwater entering the pit stack or stockpile.[170] They have sought the deletion of the standard but have not provided any reasons.

746. Dairy NZ (676.123, 676.166) have sought standard 3.3.33.6 and 4.3.32.1 is amended to refer to surface water rather than "surface runoff water" or "stormwater". No reasons for this amendment have been provided.

[169] Permitted Activity Standards 3.3.33.5, 4.3.32.3, 19.3.22.5
[170] Permitted Activity Standards 3.3.33.6, 4.3.32.4, 19.3.22.6

Analysis

747. As outlined above, making compost or silage and stockpiling agricultural solid waste can result in the production of leachate. Fish and Game have sought an amendment to the standards to require the sealing of the bottom of any pit, stack or agricultural waste stockpile to protect water quality. As assessed above, I have recommended that for stacks and stockpiles located within the Soil Sensitive Area identified as free draining, the stack or stockpile may be permitted in this area provided it is located on an impermeable material or surface. The current MSRMP includes a permitted activity rule for making compost or silage and does not require the surface it is located on to be sealed or impermeable. Fish and Game have not provided any information to suggest that the current rule is inadequate and while I agree that in sensitive locations such as over free-draining soils, additional mitigation may be necessary, in other less sensitive environments, the remaining permitted activity standards requiring pits or stacks to be covered when not in use, preventing the run-off of leachate and preventing surface water run-off into the pit, stack or stockpile will sufficiently minimise environmental effects. Any leachate produced which may discharge to land will be naturally treated by insitu soils and the permitted activity standard on separation distances to bores and surface water bodies will protect water quality. On this basis, I consider that it is not necessary to require all stacks, stockpiles and pits to be sealed.

748. MEC seek to amend the permitted activity standards to include a size limit on stack or stockpile size. MEC has not provided any specific information on what a size limit should be for a permitted activity standard. The current MSRMP does not limit the size of stacks or stockpiles and I am unaware of any concerns regarding the current size of stockpiles or stacks. Without any information on what size stacks or stockpiles should be restricted to, any complaints or issues regarding adverse effects currently occurring and due to the other permitted activity standards, I do not agree with MEC.

749. Regarding MEC's request for a new permitted activity standard requiring pits, stacks or stockpiles to be bunded, I do not agree that this is necessary. The permitted activity standards already require pits or stacks to be covered when not in use, the prevention of leachate runoff from the pit, stack or stockpile and the prevention of surface run-off entering the pit, stack or stockpile. I consider bunding could be one method to ensure compliance with the permitted activity standards but adding a requirement for bunding does not address any potential effect that is not already managed by existing standards.

750. H Collins, Federated Farmers and Dairy NZ have sought either the deletion or amendment to the permitted activity standards requiring pits or stacks to be completely covered by an impermeable material when not in use. In relation to the definition of impermeable sought by Dairy NZ, I note that 'impermeable material or surface' is already defined in the MEP. I therefore consider this submission point is already addressed.

751. With regards to the practicality of the standard, although covering silage pits is common practice, covering pits to prevent the ingress of rain is a critical measure to avoid significant leachate production and it also prevents the spoilage of the material. Silage specifically must be packed tightly and covered to avoid reduced quality or rotting therefore when not in use I agree it will most likely be covered. There is no definition of "when in use" or "use" in the MEP. Dairy NZ have not provided any suggested definition of "when not in use" and in my opinion the plain reading the term is sufficiently clear to mean when the pit or stack is not being accessed to either add or remove compost or silage. To avoid any confusion, I consider an amendment to the permitted activity standard could be beneficial to ensure this is clear. I therefore recommend that the permitted activity standard is amended as follows:

The pit or stack must be completely covered by an impermeable material when <u>the pit or stack is not being accessed to add or remove compost or silage</u> ~~when not in use.~~

752. In response to Federated Farmers, Dairy NZ's and Fonterra's submission regarding the runoff of leachate, I agree that it may be difficult to implement this standard, particularly in relation to leachate discharged to ground beneath the stack. I consider it is important to retain a restriction on the discharge of obvious leachate to land surrounding the stack as this could result in run-off into surface water bodies. I have considered the wording proposed by both submitters and consider the suggested changes do not adequately address potential impacts. This is because although leachate may

discharge to land beneath the stack or stockpile, visible leachate produced may also discharge to land surrounding the stack therefore increasing the area where contaminants may enter groundwater. The potential risks of leachate are not only to surface water. I therefore recommend that the standard is amended to state there is no visible runoff of leachate from the pit, stack or stockpile.

753. With regards to Federated Farmers' and Dairy NZ's requests to delete or amend the permitted activity standard relating to surface/stormwater runoff into a stack, stockpile or pit, I do not accept these submission points. Neither Federated Farmers or Dairy NZ have provided reasons for their requests therefore I do not understand the concern with the standard as proposed. I consider a restriction on surface water/stormwater entering a pit, stack or stockpile is vital to minimise leachate.

Miscellaneous

Submissions

754. Federated Farmers (425.600, 425.690, 425.754) have submitted on the title of the rule stating that the rule is more appropriately termed as *fermentation of compost or silage in a pit or stack….* as the making of silage involve the mowing and taking of grass to a pit where it is piled and covered in plastic to encourage fermentation. Federated Farmers have sought that the title of the rule is amended.

755. MEC (1193.69) oppose the Rural Environment Zone rule as ratepayers are paying for monitoring of permitted activities for industries including viticulture. MEC submit that the activity status should be changed from permitted to controlled and those making compost, silage or stockpiling agricultural waste should be required to carry out an annual, independent audit and monitoring of the effects of their activities.

Analysis

756. Federated Farmers have sought to change the title of the rule to reference fermentation. I do not consider this is necessary as I think it would add confusion to the rule rather than add clarity. Composting is not defined in the MEP, but I understand that the composting process is different from fermentation which occurs within silage pits. Composting relies on aeration of the material to encourage the break-down of organic matter whereas fermentation such as for silage making, relies on excluding oxygen from the stack or pit thereby creating anaerobic environment. Due to the differences in the processes, I do not recommend changing the title of the rule.

757. I do not agree with the submission from MEC. The current MSRMP includes a permitted activity rule for making silage and composting green waste and no information has been provided from the submitter to indicate there have been environmental impacts of making compost or silage that warrant further intervention. I am also unaware of any information held by MDC that demonstrates making compost or silage under the current permitted activity rules has resulted in adverse environmental effects that require further management.

Recommendation

758. Amend the permitted activity standard in all relevant rules relating to stacks or stockpiles within Soil Sensitive Areas identified as free-draining soils follows:[171]

x.x.x.x The stack or stockpile must not be located on a Soil Sensitive Area identified as free-draining soils~~.~~ unless the stack or stockpile is located on an impermeable material or surface.[172]

759. Amend Policy 16.2.4 as follows:

Enable the application of solid waste to land from the processing of primary products, the disposal of animal waste in offal pits, the disposal of biodegradable material in farm rubbish pits or the processing/storage of compost or silage where:

[171] Permitted Activity Standards: 3.3.33.1, 19.3.22.1
[172] 676.118 – Dairy NZ; 998.62 – NZ Pork

(a) *this does not occur within a Groundwater Protection Area or into or onto soils identified as a Soil Sensitive Area as being at risk; ~~and~~ or*[173]

(b) *standards for permitted activities are met.*

760. Amend the permitted activity standard in all relevant rules relating to the runoff of leachate as follows:[174]

x.x.x.x There must be no visible runoff of leachate from the pit, stack or stockpile.[175]

761. Amend the permitted activity standard in all relevant rules relating to covering pits or stacks as follows:[176]

x.x.x.x The pit or stack must be completely covered by an impermeable material when the pit or stack is not being accessed to add or remove compost or silage ~~when not in use.~~[177]

[173] 676.118 – Dairy NZ; 998.62 – NZ Pork
[174] Permitted Activity Standards: 3.3.33.5, 4.3.32.3, 19.3.22.5
[175] 425.605, 425.812, 425.843 – Federated Farmers; 676.122, 676.165 – Dairy NZ; 1251.89 - Fonterra
[176] Permitted Activity Standards: 3.3.33.4, 4.3.32.2, 19.3.22.4
[177] 425.604, 425.811, 425.844 – Federated Farmers; 676.120, 676.163, 676.164 – Dairy NZ

Matter 14: Storage of compost

762. The Rural Environment Zone, Coastal Environment Zone and Open Space 3 Zone include permitted activity rules and standards relating to the storage of compost.[178] In all other zones, the storage of compost requires resource consent as a discretionary activity.

763. If one or more permitted activity standards cannot be met, the storage of compost is classified as a discretionary activity. The Rural Environment Zone rule and Open Space 3 Zone rule include three permitted activity standards. These standards specify:

- The storage of compost must not occur within 20m of a river, lake, Significant Wetland or drainage channel, 10m of any dwelling on any adjacent land in different ownership or 50m of a bore;[179]
- If stored for longer than three months, the compost must be completely covered with an impermeable material; and
- If stored for longer than three months, the compost must not be located in a Soil Sensitive Area.

764. The Coastal Environment rule includes only two permitted activity standards identical to the Rural Environment and Open Space 3 zone standards except it does not include a standard relating to the Soil Sensitive Areas.

765. Approximately 16 submission points were received on these provisions, of which around 10 are in support or support in part the provisions and do not seek any amendments.[180] Where a submission is in support and no changes are sought, these submissions have only been considered where a change in the rule is recommended. The submission points received seeking amendments have largely sought the deletion of the rules and one submission point related to the location of compost storage.

Submissions and Assessment

Submissions

766. Federated Farmers (425.607, 425.691, 425.755) oppose the rules noting that the storage of grape marc is an important farming technique and should not be unnecessarily constrained by regulation. Federated Farmers has sought the rules are deleted.

767. E and A Ryan (347.6) submit that the rule will have a negative impact on their family operations and are overly restrictive and have no factual basis. This is in relation to the restriction of the storage of compost in Soil Sensitive Areas. E and A Ryan have sought the deletion of the Rural Environment Zone rule.

Analysis

768. If compost is exposed to rainfall for significant periods of time, this can encourage the production of leachate. As discussed above, compost leachate can contain a number of different contaminants, particularly nutrients and other organisms which generate a high biological oxygen demand (BOD). Because there is an environmental risk associated with the storage of compost, I consider it is necessary to include a permitted activity rule. I also note that the rule covers compost which may include composted grape marc but several other composted materials. In my opinion, due to the potential for leachate production and subsequent environmental effects, I consider that permitted activity rule and standards should be retained. This ensures that Policy 16.2.4 is implemented and that Objective 16.2 will be achieved.

[178] Rules: 3.1.34, 3.3.34, 4.1.33, 4.3.33, 19.1.25, 19.3.23
[179] In the Rural Environment Zone and Open Space 3 Zone this is unless the bore intercepts the confined layer of the Riverlands FMU or the confined layer of the Wairau Aquifer FMU.
[180] Wine Marlborough (431.64), Accolade (457.64), Blind River (462.25), Delegat limited (473.49), Fish and Game (509.322), Constellation Brands (631.37), Indevin Estates Limited (776.38), Longfield Farm Limited (909.55), Villa Maria (1218.55), Yealands Estate Limited (1242.35)

769. In relation to the restriction on storing compost in the Soil Sensitive Area, as for the making of compost or silage, I consider that it is appropriate to retain these permitted activity standards. The Soil Sensitive Areas have been identified as vulnerable to discharges therefore I do not support the deletion of the standard as requested by E and A Ryan. I note that in paragraph 736, I have recommended an amendment to the permitted activity standards to allow the making compost in a stack or stockpile within a soil sensitive area identified as free-draining. As the permitted activity standard in this rule specifies the Soil Sensitive Area more generally and is in relation to compost not in a pit or stack, I do not recommend the same amendment.

Recommendation

770. No changes to the provisions as proposed are recommended.

Matter 15: Hazardous Waste

771. Almost all zone chapters include a prohibited activity rule that either prohibits the disposal of hazardous waste into or onto land (other than into a lawfully established hazardous waste landfill) or the storage, reprocessing and disposal of hazardous waste into or onto land.[181] The only zones without a prohibited activity rule are the Coastal Marine Zone and the Floodway Zone where it would be a discretionary activity.

772. In the Rural Environment Zone, Coastal Environment Zone, Port Zone, Port Land Area Zone, Marina Zone, Lake Grassmere Salt Works Zone and the Airport Zone, the storage and reprocessing of hazardous waste is not prohibited.

773. Hazardous waste is not defined in the MEP.

774. Three submissions have been received regarding the hazardous waste rules, specifically in relation to the rules in the Rural Environment Zone, the Rural Living Zone and the Open Space 3 Zone. Two submissions are in support and one is in opposition. The submissions in support have sought the retention of the rules as sought and have only been considered when a change has been recommended[182].

Submissions and Assessment

775. Fonterra (1251.135) have submitted in opposition to the Rural Environment Zone rule. Fonterra are concerned that there is no definition of hazardous waste in the MEP and that process wastewater may be captured by the proposed rule. Fonterra also state that the use and storage of hazardous substances is regulated by HSNO and there is no requirement to duplicate these requirements in the MEP. Horticulture NZ have provided a further submission in support of Fonterra noting that it is unclear what is deemed to be hazardous waste.

776. Fonterra have sought the disposal of hazardous waste into or onto land as a discretionary activity.

777. Based on the direction set in Chapter 16 of the MEP, I do not consider it is appropriate to provide for the disposal of hazardous waste as a discretionary activity. The policies clearly convey a direction to only provide for disposal of such material in the regional landfill where it will not impact on the landfill liner, otherwise hazardous waste is to be disposed of outside of the Marlborough District.

778. I do agree however that there should be a definition of 'hazardous waste' to ensure it is clear what is subject to the prohibited activity rules. The current operative plan defines hazardous waste as *"hazardous substances which are unwanted and economically unusable."* This is consistent with the explanation to Policy 16.2.7. 'Hazardous substances' is defined in the MEP and refers to section 2 of the HSNO Act. Such substances are either on their own, or when in contact with air or water, explosive, flammable, corrosive, toxic, ecotoxic or have a capacity to oxidise.

779. I recommend that a new definition of hazardous waste is included in the MEP as follows:

Hazardous waste: means hazardous substances which are unwanted and economically unusable and discarded or discharged by its holder.

780. I consider this definition aligns with HSNO due to the definition of hazardous substances and is consistent with the New Zealand Waste Strategy which defines waste as *"any material, whether it is liquid, solid or gas, that is unwanted and unvalued and discarded or discharged by its holder*" and the Waste Minimisation Act 2008 which defines waste as:

(a) means anything disposed of or discarded; and

[181] Rules: 3.7.6, 4.7.6, 5.5.2, 6.5.2, 7.5.5, 8.5.4, 9.5.3, 10.5.2, 11.5.1, 12.5.2, 13.6.1, 14.5.1, 15.7.1, 17.5.3, 18.5.3, 19.5.2, 20.6.3, 22.6.2, 23.4.3

[182] S and J Peoples (450.18), Fish and Game (509.453)

(b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and

(c) to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.

Recommendation

781. I recommend a definition of 'hazardous waste' is included in Chapter 25 Definitions as follows:

Hazardous waste *means hazardous substances which are unwanted and economically unusable and discarded or discharged by its holder.*[183]

[183] 1251.135 - Fonterra

Matter 16: Soil Sensitive Areas Overlay

782. The Soil Sensitive Areas Overlay is included in Volume 4 of the MEP and identifies three types of sensitive or vulnerable soils, loess soils, soils with impeded drainage and soils that are free-draining.

783. The MEP refers to the Soil Sensitive Areas in a number of policies and rules as a means to manage potential effects of discharges and land use activities on water quality or slope stability.[184]

784. Approximately 20 submission points were received directly on the Soil Sensitive Area Overlay but as noted above, a number of submitters have raised concerns about the Soil Sensitive Area mapping in relation to specific permitted activity standards.

Submissions and Assessment

Submissions

785. Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited (1004.109, 1004.110, 1004.111, 1004.112) seek an amendment to the impeded soils category to remove it from the Business zones of Blenheim. Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited state that the application of the overlay to this zone is not relevant as there are no rules within the Business zones that relate to the overlay.

786. NZ Forest Products (995.47) submit that the impeded soils shown on the Soil Sensitive Area in Opihi Bay and Whangataura Bay appear far more extensive that the actual soils in the area. New Zealand Forest Products Holdings Limited seek that the overlay is amended to either delete this area or accurately show the extent of impeded soils.

787. Hall Family Farms Ltd (141.7) have also raised concerns about the mapping of impeded soils on their property as they believe the soils do not fit this characterisation. Hall Family Farms Ltd seek that their property is removed from the overlay.

788. Davidson Group Ltd (172.7) have submit on the overlay in relation to the mapped free draining soils. Davidson Group Ltd state there are large areas in the Wairau Valley of river gravels which are also free draining which should be part of the overlay. Davidson Group Ltd seek that the free draining soils are removed from the plan or extended to include all areas that are free draining.

789. Rarangi District Residents Association (1089.7) support the identification of Rarangi as a Soil Sensitive Area and seek this is retained.

790. D Sim (161.1, 161.2) opposes the Soil Sensitive Area overlay in respect to their property and as it triggers several resource consent requirements for different activities. D Sim seeks that an alternative management regime is established consisting of a Sustainable Agriculture Management Programme that incorporates a central body to accurately monitor the effects on the environment and recommending changes in management practices.

791. V and D Wadsworth (201.1) are concerned with the scale of the mapping which results in errors in many areas and making it difficult to apply at a property scale. V and D Wadsworth also consider that the rules relating to the Soil Sensitive Area are restrictive and not appropriate for their property which only includes a small area of sensitive loess soils. V and D Wadsworth seek that the Soil Sensitive Areas Overlay is reviewed and ground truthed and/or all landowners are able to participate in the mapping process to accurately reflect on-site soils and/or remove all area of their property from the loess mapping except a small area to be identified at the hearing.

[184] Policies: 11.1.9, 15.4.6, 16.2.4, 16.2.5. Rules for excavation, filing of land with clean fill, application of an agrichemical, application of fertiliser or lime, discharge of agricultural liquid waste, discharge of dairy farm effluent, discharge of swimming or spa pool water, discharge of human effluent, disposal of offal or a carcass, making compost or silage or stockpiling agricultural waste, storage of compost not in a pit or stack.

792. Levide Capital Limited (907.33) submit that the Soil Sensitive Areas identifies their property as loess soils but that this is not accurate based on on-site investigations. Levide Capital Limited seek that the Soil Sensitive Area Overlay is amended to remove areas of their property not meeting the criteria for the overlay.

793. M and H Neame (330.1) oppose the Soil Sensitive Area mapping in the lower Awatere Valley as the mapping is too broad and the implication of the mapping mean that they would be unable to plant fodder crops, lower stock number and be unable to diversify into viticulture. M and H Neame seek that the mapping is more precisely defined.

794. E and A Ryan (347.1) oppose the mapping of loess soils as it is too broad and they do not consider it accurately reflects soils on their property. E and A Ryan seek that the loess soils mapping is removed until it is ground truthed.

795. Federated Farmers (425.787) state that increased risks associated with the Soil Sensitive Areas should be addressed through non-regulatory methods as good management of soils is better and more cost-effectively addressed via education. Federated Farmers seek that the Soil Sensitive Areas and all associated provisions are removed from the MEP.

796. MEC (1193.108) support the Soil Sensitive Areas Overlay and view management of discharges within free draining soils is important for minimising risks of microbial contamination. MEC seek that the overlay is extended to include free draining riverbed soils including berms, soils in close proximity to estuaries and inlets and Rarangi is identified as a Soil Sensitive Area.

797. Villa Maria (1218.83) have sought that an additional method is included in the MEP to outline an ongoing commitment of MDC to further refining the Soil Sensitive Areas and boundaries.

798. Longfield Farm Limited (909.84), Delegat (473.75), Blind River (462.43) have submitted that the scale of the current mapping of the Soil Sensitive Areas is too extensive and that the MEP should include as a method the ongoing commitment of Council toward the further refining of the Soils Sensitive Areas and boundaries.

Assessment

799. Matthew Oliver, MDC Environmental Scientist – Land Management has prepared a Section 42A report attached as Appendix 1. Mr Oliver has assessed the submissions above in two topics:

- Mapping accuracy; and
- Comments on individual submissions.

800. The majority of submitters concerns are related to the accuracy of the mapping, with either disputes whether the identified Soil Sensitive Area is relevant to their particular property or the scale of the mapping is too broad to be useful on a per property basis.

801. Mr Oliver has addressed the accuracy of the mapping in Matter 1 of the attached Section 42A report. Mr Oliver has identified that due to how the overlay has been developed, there may be sites identified in the overlay where the risks of that soil are low. In terms of the scale of the mapping, again Mr Oliver identifies that the scale is quite coarse which means that the subtle changes in soils that can occur across a property or even at a paddock scale are not incorporated into the overlay.

802. Mr Oliver considers that the Soil Sensitive Area Overlay remains a useful screening tool to categorise areas where closer attention to soils are necessary to determine if certain activities such as excavation and discharges are suitable. To address issues with the accuracy of the overlay, Mr Oliver has stated MDC is currently seeking funding to map the region using LiDAR which will provide useful fine-scale digital information that will assist in more accurate soils mapping. Mr Oliver also recommends that MDC undertakes further work to:

- Confirm the scientific basis of the Soil Sensitive Areas via literature reviews;
- Compare the current polygons that determine the Soil Sensitive Areas to other sources of soil information; and

- Complete a desktop refinement exercise using the existing polygons, LiDAR and GIS data, and ground truthed information where available.

803. I agree with Mr Oliver's comments that the Soil Sensitive Area Overlay remains a useful tool for screening activities which may not be suitable on the specified soil types. The reference to the overlay within the MEP permitted activity standards does not prohibit land use and discharge activities from within the mapped areas. Rather a resource consent is necessary, landowners can obtain consents if it can be demonstrated the proposed activities will be undertaken in a manner where the risks posed by the sensitive soil types can be adequately managed. Mr Oliver has provided a summary of the risks different activities can have with all identified land use and discharge activities currently restricted in Soil Sensitive Areas posing a moderate to high environmental risk.

804. On the basis of the assessment above, I recommend that the Soil Sensitive Areas Overlay is retained as notified and all permitted activity standards that refer to the overly are maintained. In my opinion the Soil Sensitive Areas Overlay and permitted activity standards will ensure the achievement of Objectives 15.4 and 16.3 and Policies 15.4.6 and 16.3.2.

805. I do agree that it would be beneficial for MDC to further refine the Soil Sensitive Areas Overlay mapping as proposed by Mr Oliver and note that the incorporation of any revised mapping would need to be undertaken as a variation or plan change to the MEP. In my opinion it would be useful for the current MEP to recognise this work through the introduction of a new method. I recommend that a new method is inserted into Chapter 15 Chapter 15 that states high risks soils will be identified, mapped in Volume 4 and further refined by MDC. I recommend the following method is included in the MEP:

15.M.x Identification

Soils that are most susceptible to erosion or increase the vulnerability of groundwater or surface water to the adverse effects of discharges to land will be identified on the planning maps in Volume 4 of the MEP as Soil Sensitive Areas. A Soil Sensitive Area is an area of soil where certain activities may have a high risk of environmental harm, human health risks or property damage. Three different soils are categorised within the Soil Sensitive Area Overlay as follows:

- *Soil Sensitive Area-Free draining soils: the free draining soils are considered high risk because they are located over an underlying shallow, unconfined aquifer and therefore discharges onto these soils cold result in groundwater contamination.*

- *Soil Sensitive Area-Impeded soils: soils that are considered high risk because of the potential for movement of liquid waste across the soil surface which can convey waste from land to surface water.*

- *Soil Sensitive Area-Loess soils: soils that are considered high risk because of their potential for tunnel-gully erosion.*

The Council will undertake further investigations of vulnerable soils to refine the accuracy of the Soil Sensitive Areas Overlay mapping by taking into account published literature on Marlborough soils and the risks of different activities on specific soil types, site specific soil information and LiDAR mapping.

806. Mr Oliver has provided comments on submissions from individual submitters. Some submission points I have assessed already in this report. For those submission points that have not been assessed I largely agree with the conclusions of Mr Oliver but have noted below where I have come to a different recommendation:

- V and D Wadsworth (201.1). Mr Oliver recommends that definitions are included in the MEP or in a method of Soil Sensitive Area, Free draining soils, Impeded soils and Loess soils. As noted above, I have recommended these definitions are incorporated into a new method in Chapter 15.
- Levide Capital Limited (907.33). Mr Oliver has recommended that maintenance of existing erosion control structures is exempt from permitted activity standard 3.3.14.4. This permitted

activity standard is not related to the waste and discharge to land topic as such I am not in a position to make any comment as to whether this recommendation is appropriate.

- Villa Maria (1218.83) and Indevin Estates Limited (776.49). Mr Oliver has recommended that amendments to methods 15.M.40 and 16.M.15 to identify that MDC will further refine the overlay maps through the proposed polygon review process. As discussed above, I agree that the methods of the MEP should indicate that this work will be completed but I consider it is more appropriate for this to be included as a new method.

Recommendation

807. Insert a new method into Chapter 15 Resource Quality (Water, Air, Soil) as follows:

15.M.x Identification

Soils that are most susceptible to erosion or increase the vulnerability of groundwater or surface water to the adverse effects of discharges to land will be identified on the planning maps in Volume 4 of the MEP as Soil Sensitive Areas. A Soil Sensitive Area is an area of soil where certain activities may have a high risk of environmental harm, human health risks or property damage. Three different soils are categorised within the Soil Sensitive Area Overlay as follows:

- *Soil Sensitive Area-Free draining soils: the free draining soils are considered high risk because they are located over an underlying shallow, unconfined aquifer and therefore discharges onto these soils cold result in groundwater contamination.*

- *Soil Sensitive Area-Impeded soils: soils that are considered high risk because of the potential for movement of liquid waste across the soil surface which can convey waste from land to surface water.*

- *Soil Sensitive Area-Loess soils: soils that are considered high risk because of their potential for tunnel-gully erosion.*

The Council will undertake further investigations of vulnerable soils to refine the accuracy of the Soil Sensitive Areas Overlay mapping by taking into account published literature on Marlborough soils and the risks of different activities on specific soil types, site specific soil information and LiDAR mapping.[185]

[185] 141.7 Hall Family Farms, 995.47 – NZ Forest Products; 201.1 V and D Wadsworth; 907.33 – Levide Capital Limited; 330.1 - M and H Neame; 347.1 E and A Ryan; 1218.83 – Villa Maria, 909.84 – Longfield Farm Limited; 473.75 – Delegat; 462.43 – Blind River

Matter 17: Additional Definitions

808. A number of submissions have been received on definitions related to solid waste and discharges to land. Each definition and submissions received are assessed below.

Submissions and Assessment

Solid Waste

809. Solid waste is defined in the MEP as:

Means waste that has a moisture content of more than or equal to 75% and exhibits the properties of a solid, e.g it can be stacked and hold a definite angle of repose. For the purposes of the Plan, if any waste does not meet the definition of "solid waste" is treated as liquid waste.

810. MDC (91.584) have submitted on the definition stating that it contains an error and requires an amendment. MDC seek the definition is amended as follows:

means waste that has a moisture content of ~~more~~ less than or equal to 75% and exhibits the properties of a solid, e.g. it can be stacked and hold a definite angle of repose

811. Fonterra (1251.158) seek the deletion of the definition of solid waste stating that it is confusing and unnecessary as there is already a definition of waste and wastewater.

812. I agree with the amendment as suggested by MDC, this is obviously an error as a moisture content of more than 75% would be more consistent with a liquid.

813. In response to Fonterra's submission I consider that the definitions of waste and wastewater do not create confusion. Waste is defined as all materials that are unwanted, unvalued, discarded, discharged, emitted or deposited and the definition of wastewater relates to on-site wastewater systems discharging human effluent. I recommend the definition of solid waste is retained with the amendment as requested by MDC.

Liquid Waste

814. Liquid waste is defined in the MEP as:

Means waste material that has a moisture content of more than or equal to 95%. For the purposes on the Plan, if any waste does not meet the definition of "liquid waste" it is treated as solid waste.

815. Fonterra (1251.151, 1251.158) have submitted on the definition stating the inclusion of a definition for liquid waste, as well as wastewater is confusing and unnecessary and seek it is deleted. Fonterra consider the definition is redundant and notes that the definitions of liquid waste and solid waste do not cover material with a moisture content between 76% and 94%, thus creating confusion.

816. I consider that the definition of wastewater does not create any confusion with the definition for liquid waste. The wastewater definition relates to on-site wastewater management systems whereas the definition of liquid waste means any waste with a moisture content greater than 95%, this could be industrial or trade liquid waste. I do agree there is a gap between the definitions of solid waste and liquid waste as currently notified, however I consider that this is addressed by the additional sentence in the definition and as requested to be included in the definition of solid waste as discussed above. The amendment of the definition of solid waste and clarifies for waste materials with a moisture content between 76% and 94%, such material is to be treated as solid waste.

817. Based on the assessment above, I recommend retaining the definition of liquid waste as notified.

Waste

818. Waste is defined in the MEP as:

any material, solid, liquid, gas or radioactive, that is unwanted and or unvalued, and discarded, discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an adverse effect on the environment. It includes all unwanted or unusable by-products at any given place and time, and includes any other matter that may be discharged, accidentally or otherwise, to the environment. For the purposes of this Plan, waste does not include stormwater or treated human sewage.

819. Fonterra (1251.159) oppose the definition and seek that it is amended as defined in the Waste Minimisation Act 2008 to ensure consistency. Fonterra seek the definition is amended as follows:

Waste means:

(a) anything disposed of or discarded; and

(b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded."

~~*any material, solid, liquid, gas or radioactive, that is unwanted and or unvalued, and discarded, discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an adverse effect on the environment. It includes all unwanted or unusable by-products at any given place and time, and includes any other matter that may be discharged, accidentally or otherwise, to the environment. For the purposes of this Plan, waste does not include stormwater or treated human sewage.*~~

820. The definition in the MEP is the same as what is currently within the WARMP and the MSRMP. The definition proposed by Fonterra captures the fundamental aspect of the proposed MEP definition which in my opinion is any material that is unwanted or to be discarded/disposed of. The definition of waste is an important term in the MEP as it used widely but also is required to understand other definitions which include solid waste, liquid waste and agricultural waste.

821. In my view, it is practical to align the definition of waste with that include in the Waste Minimisation Act 2008 provided the amended definition retains the same intent. I am of the opinion that the definition proposed by Fonterra does achieve this and therefore recommend the definition is amended.

Grade A treated sewerage and Grade B treated sewerage

822. MDC (91.117, 91.118) have sought the inclusion of two new definitions in the MEP for "Grade A treated sewerage" and "Grade B treated sewerage" to provide certainty for plan users. MDC have sought the following additional definitions:

Grade A treated sewerage	Grade A treated sewerage has the same meaning as the Resource Management (Marine Pollution) Regulations 1998.
Grade B treated sewerage	Grade B treated sewerage has the same meaning as the Resource Management (Marine Pollution) Regulations 1998.

823. The terms "Grade A treated sewerage" and "Grade B treated sewerage" are referred to in the Coastal Marine Zone, specifically in prohibited activity rules 16.7.2 and 16.7.3. I consider that it is necessary to include this definition to enable plan users to clearly understand what activities are prohibited in this zone. I note that the rules to which these definitions relate to are being considered in Topic 11-Coastal Occupancy Charges.

824. I recommend that the definition as requested by MDC is included in the MEP.

Pit

825. Two submissions have been received on the definition of 'Pit'. Pit is defined in the MEP as:

in relation to the making of compost or silage, means a pit dug below ground or into the side of a hill. For the purpose of this definition, no excavation of the land is to be undertaken.

826. S Parkes (339.21) has submitted seeking the definition is clarified in relation to the phrase "No excavation of land is to be undertaken."

827. Federated Farmers (425.418) have sought the definition is deleted as it is poorly worded and lacking clarity. Federated Farmers state it is contradictory as it states the pit is dug, but then states no excavation of land is to be undertaken.

828. I believe that the inclusion of the sentence regarding excavation is an attempt to clarify that any excavation necessary to construct a pit is not addressed by the making of compost or silage rules. Those rules are titled '*Making compost or silage in a pit or stack, or stockpiling agricultural solid waste.'*

829. The construction of a pit would require some excavation and whether that excavation is permitted must be assessed under the excavation and filling rules. I recommend that the definition is amended to ensure this is sufficiently clear.

Cleanfill

830. Federated Farmers (425.384) have submitted in partial support of the definition of cleanfill. Federated Farmers seek the definition is amended to exclude activities required for the maintenance of farming operations. Federated Farmers state that cleanfill is often used on farms such as for the base of dairy races, around troughs and gateways or to maintain farm access tracks. Federated Farmers seek the following amendment:

means material that does not have the potential to contaminate the environment. This includes clay, soil, rock, concrete, Brick or demolition products that are free of combustible, organic materials and contaminants and are, therefore, not subject to biological or chemical breakdown. This will involve bulk filling operations where material is required to be carted to the filling site or specifically placed there. ~~rather than~~ This definition excludes cut to fill operations such as normally occurs with the construction of tracks, roads and landings and cleanfill required for normal farming activities.

831. The term cleanfill is in Policy 16.2.3 and rules for the filling of land with clean fill and commercial clean fills.

832. The cleanfill permitted activity standards have been assessed in Topic 19 Soil Quality and Land Disturbance Section 42A report but this submission was not included in that assessment. A similar issue has however been assessed where Federated Farmers sought to amend the permitted activity rules to allow for cleanfilling for 'normal farming activities'.[186] I agree with the assessment provided in the Topic 19 Section42A report. The proposed amendment to the definition is uncertain and subjective, as a 'normal farming activity' is likely to be interpreted differently from person to person. The direction of Policy 15.4.2 is to encourage land management practices that do not result in accelerated soil erosion and Policy 15.4.3 seeks to control land disturbance activities to minimise the potential for eroded soil to degrade water quality. I consider that the change requested by Federated Farmers would result in the rules related to cleanfilling not applying to such activities as the filling rules in the Rural Environment Zone and Open Space 3 Zone only relate to the filling of land with cleanfill. I consider to achieve the objectives of the MEP, such activities should be subject to resource consent if they cannot meet the permitted activity standards.

Impermeable material and when not in use

[186] Goslin, H (2018). Report on submissions and further submissions: Topic 19: Soil Quality and Land Disturbance. Marlborough District Council, paragraph 234-235.

833. Dairy NZ (676.121, 676.152, 676.164, 676.107) have sought a definition of 'impermeable' and 'when not is use' in relation to permitted activity standards 3.3.33.4, 3.3.28.9, 4.3.32.2. Dairy NZ have not provided suggested definitions.

834. Federated Farmers (425.680) have also sought a definition of 'impermeable surface' stating that in relation to the discharge of farm dairy effluent, it is not clear what is meant by an impermeable material.

835. Permitted activity standards 3.3.33.4 and 4.3.32.2 relate to making compost or silage in a pit or stack, or stockpiling agricultural solid waste and state:

The pit or stack must be completely covered by an impermeable material when not in use.

836. Permitted activity standard 3.3.28.9 relates to the discharge of dairy farm effluent and states:

For a new dairy farm established after 9 June 2016, the storage system must be sealed with an impermeable material certified by a recognised professional.

837. As assessed above, I consider that a definition of impermeable is not necessary as the MEP includes a definition of 'impermeable material or surface'. Impermeable material or surface is defined as:

means a material or surface that does not permit liquid substances to pass through. For clarity, impermeable material or surface does not include clay but does include, but is not limited to, concrete and synthetic material surface.

838. I consider the above definition is adequate for understanding the permitted activity standards Dairy NZ has listed.

839. With regards to the term 'when not in use', as discussed in paragraph 751 I consider that this does not need to be defined or further clarified. Dairy NZ have not provided any suggested definition and I consider the plain reading of the term is easily understood.

Ponding

840. Horticulture NZ (769.130) have submitted in opposition to the definition of 'ponding'. Horticulture NZ state:

- The definition does not include liquid that is momentarily present on the surface at the commencement of the absorption process;
- The use of the term 'momentarily' is imprecise and should also include reference to the discontinuance of the supply of liquid to the ponding, such as rainfall; and
- Rule 3.3.26.5 provides for 24 hours after the discharge and this should be included in the definition.

841. Ponding is defined in the MEP as follows:

means the formation of pools of surface liquid, other than liquid momentarily present on the surface at the commencement of the absorption process.

842. Horticulture NZ have sought the following amendment to definition:

means the intermittent formation of pools of surface liquid which remain for 24 hours after the source of liquid has ceased. ~~*means the formation of pools of surface liquid, other than liquid momentarily present on the surface at the commencement of the absorption process.*~~

843. Ponding is referred to in rules related to

- The discharge of agricultural liquid waste;
- The discharge of dairy farm effluent;

- The discharge of human effluent; and
- Excavation or filling.

844. I do not recommend any changes to the definition of ponding. In my view it is not appropriate to amend the definition to include liquid that is momentarily present on the surface at the commencement of the absorption process. Where ponding is referred to in the MEP, I consider it is intended to capture liquid that is on the ground surface for an extended period. The proposed permitted activity standards for the discharge of agricultural liquid waste and dairy farm effluent do allow ponding for up to 24 hours while the permitted activity standards for the discharge of human effluent and for excavation or filling seek to prevent ponding. In the context of those activities, I consider the definition should not include liquid that is evident at the ground surface for a moment as the potential effects of these pools of liquid would be very minimal. In my opinion the definition as proposed and referred to within the MEP achieves the objectives of the plan, specifically Objective 16.3.

Run-off

845. MDC (91.143) have sought an amendment to the definition of run-off to recognise that run-off does not always enter a river, lake or the sea, for example it can also potentially run into dams and offal pits. MDC seek the following change:

means water moving over the ground surface ~~and into a river, lake or the sea~~.

846. NZTA (1002.256) have also submitted on the definition of run-off and its use within the MEP. NZTA state that the MEP used various forms of the term including 'runoff', 'run off and 'run-off' which makes searching difficult. NZTA seek that the definition of run-off is retained but that all occurrences of 'runoff' and run off' are amended to 'run-off' for consistency.

847. I agree that run-off does not necessarily move into a river, lake or sea and note that the term is referred to in rules regarding the disposal of farm rubbish into a pit (run-off must not enter the pit) and making compost or silage in a pit or stack, or stockpiling agricultural solid waste (run-off must not enter the pit, stack or stockpile),

848. I consider the proposed amendment suggest by MDC is appropriate for the use in MEP and recommend the definition is revised as shown above.

849. I also agree with NZTA that the multiple forms of the term have been used within the MEP and for clarity I recommend that all occurrences of 'runoff' and 'run off' are amended to 'run-off'.

Stormwater

850. Federated Farmers (425.424) have submit that the definition of stormwater should be amended to exclude farm drains and land drainage canals and associated structures. Federated Farmers state the current definition risks encompassing run-off over land and from farm drains, over which a landowner has no control. Federated Farmers have sought the following amendments to the definition:

means rainfall that ~~runs off land~~ <u>is collected from impervious surfaces</u> and <u>directed into</u> ~~for which~~ specific drainage channels or pipes which have been constructed for this purpose.

851. NZTA (1002.261) have submitted in opposition to the definition of stormwater. NZTA state that the definition does not specifically include contaminants that may be dissolved or entrained in the run-off which may result in both the stormwater and contaminant discharge rules applying to stormwater discharges from the road network. NZTA state that the definition will also not capture run-off that flows to adjacent land by sheet flow as it is not collected in specific infrastructure. NZTA seek the definition is amended as follows:

<u>rainfall runoff from land, including constructed impervious areas such as roads, pavement, roofs and urban areas which may contain dissolved or entrained contaminants, and which is diverted and discharged to land and water</u> ~~means rainfall that runs off land and for which specific drainage channels or pipes have been constructed~~.

852. I do not agree with the amendments sought by Federated Farmers as not all stormwater is directed into drainage channels or pipes, for example secondary flow paths. I agree with NZTA that the current MEP definition does not capture the contaminants that are within stormwater and situations where drainage channels or pipes are not used to manage the discharge. In the current operative MSRMP, two definitions for stormwater are provided, one which defines non-point source stormwater and the other that defines point-source stormwater. The definition of non-point source stormwater is:

means rainfall that runs off land, or structures including roading networks in a diffuse manner for which no specific drainage channels or pipes have been constructed.

853. The term stormwater is used through the MEP in a number of provisions.[187] Based on NZTA's requested definition, I do not consider any issues arise in the interpretation of those policies, methods and rules. The proposed definition from NZTA incorporates the MSRMP definition of non-point source stormwater discharge and in my view adequately captures the source of stormwater, its characteristics (potentially containing contaminants) and how stormwater is influenced by human action (diverted/discharged). I recommend the definition of stormwater is amended as requested by NZTA.

Cut-off

854. NZTA (1002.229) have submit on the definition of cut-off seeking that it is deleted or amended to relate to its usage in the MEP. NZTA state that the definition relates to cut-off drains but is only used in Volume 2 of the MEP in relation to frost fan cut-off.

855. I have searched Volume 1 and Volume 2 of the MEP and believe the term cut-off is used twice in the MEP, once in relation to cut-off mechanisms for frost fans, and the other in relation to gravel removal within a dry part of a riverbed. Neither use of the term relates to the definition of cut-off which is:

means a construction for the purpose of intercepting/carrying surface run-off water into stable areas or into rivers or drains.

856. As the definition of cut-off does not relate to its use in the MEP, I agree with NZTA that it should be deleted from the MEP.

Recommendation

857. Retain the following definitions as notified in the MEP:

- Liquid Waste;
- Cleanfill;
- Impermeable material or surface; and
- Ponding

858. Delete the definition of cut-off.[188]

859. Insert the following definitions into Chapter 25:

Grade A treated sewerage	*Grade A treated sewerage has the same meaning as the Resource Management (Marine Pollution) Regulations 1998.*[189]
Grade B treated sewerage	*Grade B treated sewerage has the same meaning as the Resource Management (Marine Pollution) Regulations 1998.*[190]

[187] Volume 1: Policy 4.2.1, Policy 11.1.4, Policy 11.1.14, Policy 11.2.7, Policy 12.1.2, Policy 12.1.3, Policy 12.1.6, Policy 12.2.5, Policy 12.6.7, Policy 12.9.1, Policy 12.9.8, Policy 13.13.6, Policy 13.13.9, Policy 15.1.15, Policy 15.1.21, Policy 15.1.22, 15.M.9.
Volume 2: 2.16.3, 2.16.4, 2.16.6, 2.17.3, 2.17.4, 2.17.6, 2.18.1, 4.3.32, 9.2.1, 12.5.1, 13.1.27, 13.3.16, 14.1.12, 14.3.7, 15.1.25, 15.3.15, 16.1.14, 16.3.11, 22.1.4, 22.1.5, 22.3.3, 22.3.4, 22.4.3, 24.1.1, 24.1.2, 24.1.3

[188] 1002.229 - NZTA
[189] 91.117 - MDC

860. Amend the following definitions as follows:

Pit *in relation to the making of compost or silage, means a pit dug below ground or into the side of a hill. For the purpose of this definition, this does not include any excavation necessary to create the pit. ~~no excavation of the land is to be undertaken.~~*[191]

Run-off *means water moving over the ground surface ~~and into a river, lake or the sea~~.*[192]

Solid waste *Means waste that has a moisture content of ~~more~~ less*[193] *than or equal to 75% and exhibits the properties of a solid, e.g it can be stacked and hold a definite angle of repose. For the purposes of the Plan, if any waste does not meet the definition of "solid waste" is treated as liquid waste.*

Stormwater *means rainfall runoff from land, including constructed impervious areas such as roads, pavement, roofs and urban areas which may contain dissolved or entrained contaminants, and which is diverted and discharged to land and water ~~rainfall that runs off land and for which specific drainage channels or pipes have been constructed~~.*[194]

Waste *means:*

(a) anything disposed of or discarded; and

(b) includes a type of waste that is defined by its composition or source (for example, organic waste, electronic waste, or construction and demolition waste); and to avoid doubt, includes any component or element of diverted material, if the component or element is disposed of or discarded.

~~any material, solid, liquid, gas or radioactive, that is unwanted and or unvalued, and discarded, discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an adverse effect on the environment. It includes all unwanted or unusable by-products at any given place and time, and includes any other matter that may be discharged, accidentally or otherwise, to the environment. For the purposes of this Plan, waste does not include stormwater or treated human sewage.~~[195]

[190] 91.118 - MDC
[191] 339.21 – S Parkes; 425.418 – Federated Farmers
[192] 91.143 - MDC
[193] 91.584 - MDC
[194] 1002.261 - NZTA
[195] 1251.159 - Fonterra

Matter 18: General submissions

Submissions and Assessment

861. NFL (990.1) have submitted that a guiding principle of the MEP is to ensure that any regulation is in keeping with the scale of the activity regulated. NFL states that the MEP abandons this approach by making non-compliance with permitted activity standards a full discretionary activity. NFL have sought that all activities that are identified as full discretionary are reviewed to establish which can be controlled. NFL specifically identify the application of an agrichemical and fertiliser into or onto land should be controlled activities.

862. MEC (1193.109, 1193.110) oppose the prohibited activities rules as there is no prohibited activity for the use of CCA (copper-chromium-arsenic) treated timber posts in Soil Sensitive Areas.

863. WilkesRM Limited (359.6) submit that the MEP does not include any setbacks from Mean High Water Springs for discharges to land, for example the discharge of dairy farm effluent and the discharge of human effluent. WilkesRM Limited has sought the addition of permitted activity standards requiring an appropriate setback from Mean High Water Springs.

864. Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited (1004.37) have sought new provisions to provide for and encourage the investigation of sites with possible historic contamination and to provide a consent pathway for passive discharges associated with contaminated land where such passive discharges may pose a risk to human health and the environment. The submitters seek that a consent pathway is provided to enable the assessment of risk regarding on-going discharges and enable a framework for appropriate management response should any adverse effects arise. The requested rules framework seeks to include a new permitted activity rule for passive discharges with the following permitted activity standards:

- Where there has been a detailed site investigation that finds the discharge is highly unlikely to be a risk to human health or the environment are present or in the future; or
- Determines that the concentration of contaminants in groundwater:
    - At 50m from the source or the property boundary (whichever is lesser); and
    - Anywhere a surface water or bore used for the abstraction of water or lies within 50m from the source or the property boundary

      Does not breach the following standard:

        - Where the discharge is to groundwater identified on the planning maps as a FMU or groundwater protection area, either the Drinking Water Standards 2005 (Revised 2008) or where ambient water quality is naturally less than this standard it is not being degraded; or
        - Where the discharge is to a groundwater not identified on the planning maps as an FMU or groundwater protection area or as a sensitive aquifer, the Australia and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC) (200) at the level of protection for 80% of species, except benzene where the level or protection is 90% of species.

Or

- The passive discharge of contaminants onto or into land that has previously held resource consent for discharges and where the risk has been assessed and found to be within acceptable levels without control mechanisms and that all the consent conditions have been met to the satisfaction of Council.

865. A controlled activity rule has also been proposed for those discharges that cannot comply with the permitted activity rule.

866. The Marlborough Chamber of Commerce (961.85) support in part Chapter 16 of the MEP. The submitter states that the chapter does not make an allowance for changes and advancements in processes and innovative technology. No clear relief is requested.

867. In response to NFL's submission, it is my view that where the permitted activity standards cannot be met, the resource consent activity classification should remain fully discretionary. This allows consideration of any aspect of the proposed activity and the ability for applications to be refused where necessary. NFL have also not provided a list of suitable matters of control and I am not able to list these.

868. In terms of MEC's request to prohibit the use of CCA treated timber posts, I do not consider there is sufficient evidence to warrant a prohibited activity status. MEC have not provided any evidence to suggest that a prohibited activity rule is necessary. Investigations have been undertaken by MDC as a result of groundwater sampling indicating that arsenic levels were found to be above the human health limits specified in the New Zealand Drinking Water Standards. Research undertaken by Plant and Food Research in 2003/04 investigated the extent of arsenic leaching from CCA treated vineyard posts to groundwater. The results indicated that arsenic was leached from the posts but bound to soil and remained localised and did not travel through the soil layer into groundwater.[196] The MDC website notes that all research to date points to sampled arsenic levels in groundwater being from a natural source except for isolated sites linked to historic land uses such as landfills or sheep dips.[197] Given the lack of evidence to demonstrate an environmental risk, I do not recommend that any additional provisions in the MEP are necessary to address the concerns of MEC.

869. In response to the submission from WilkesRM Limited, I agree that there is a gap in the MEP provisions to manage the potential effects of discharges to land outside of the CMA, which have the potential to impact coastal water quality. In order to achieve Objective 16.3 which as recommended to be amended seeks to avoid significant adverse effects on water quality and water ecosystems, including coastal water, I recommend that setbacks from mean high water springs should be required. I also note that Policy 16.3.3 refers to locating land application areas as far from coastal water as possible and Policy 13.2.1 seeks to ensure the appropriate use of the coastal environment that avoids, remedies or mitigates adverse effects on the high level of water quality generally experiences in Marlborough's coastal waters.

870. With regards to a permitted activity rule that enables the passive discharge of contaminants, I do not agree with the request from the oil companies as they have not demonstrated the proposed rules will adequately address all potential passive discharges. Passive discharges from historic land contamination could be from a very broad range of activities including petrol stations, sheep dip sites and closed landfills. Due to the broad nature of potential discharges, I am not convinced that a permitted activity rule and controlled activity rule are appropriate. Unless further evidence can be provided, I consider that discharges from such sites may be better addressed via a resource consent process where each discharge can be considered on a case by case basis. The MEP as proposed requires consents for these discharges via the 'catch-all' rule in the zone chapters.

871. In response to the submission from the Marlborough Chamber of Commerce, I do not consider any changes to Chapter 16 are necessary. The provisions of the chapter do no inhibit the adoption of new processes or innovative technology and it is not clear what the submitter is requesting.

Recommendation

872. Amend the sub-clause of the common permitted activity standard requiring setbacks from waterbodies as follows:[198]

> *(b) 20m of a river, lake, Significant Wetland, drainage channel, ~~or~~ Drainage Channel Network or mean high water springs;*[199]

[196] Marlborough District Council *Arsenic* https://www.marlborough.govt.nz/environment/groundwater/issues/arsenic
[197] Marlborough District Council *Arsenic Values for the Wairau Plain.* https://www.marlborough.govt.nz/environment/groundwater/status/groundwater-quality/arsenic
[198] Permitted activity standards: 3.3.25.1, 3.3.26.2, 3.3.28.2, 3.3.28.10, 3.3.31.4, 3.3.32.4, 3.3.33.3, 3.3.34.1, 4.3.24.1, 4.3.25.1, 4.3.27.1, 4.3.27.9, 4.3.30.3, 4.3.31.3, 4.3.32.1, 4.3.33.1, 19.3.18.1, 19.3.19.2, 19.3.20.4, 19.3.21.4, 19.3.22.3, 19.3.23.1
[199] 359.6 – WilkesRM

Appendix 1: Report of Matthew Oliver

Proposed Marlborough Environment Plan

Section 42A Hearings Report for Hearing Commencing 10 September 2018

Report dated 24 July 2018

Report on submissions and further submissions Topic 14: Soil Sensitive Areas

Report prepared by

Matt Oliver

Environmental Scientist – Land Management

Contents

List of Figures

List of Tables

List of Abbreviations

MEP	Proposed Marlborough Environment Plan
RMA	Resource Management Act 1991
SSA	Soil Sensitive Area

Introduction

1. My name is Mr Matthew David Oliver. I am the Environmental Scientist – Land Management at Marlborough District Council ('Council'). I have held this position since October 2017. I hold the qualification of Bachelor of Viticulture from Lincoln University (2002) and a Certificate in Soil Nutrient Management from Massey University (2016). I have qualifications in organic farming, holistic management and systems analysis. I am currently studying for my Masters in Soil Science at Massey University.

2. My employment history includes running a soil and horticultural consultancy (2014-17), and as a vineyard manager and viticulturist (2003-2014). This work included: characterisation of soils for vineyard development, soil nutrient management, erosion control, fertiliser advice, irrigation design and management, financial management plans, as well as literature reviews for subjects as diverse as soil nutrient management, plant pathology, insect biology and amino acid bio-chemistry. I am a member of the New Zealand Society for Soil Science and the New Zealand Association of Resource Managers.

3. I have co-authored three Marlborough District Council publications. Soil Properties of the Wairau Valley and Soil Quality in the Marlborough Region 2016 & 2017.

4. My current role involves contracting and implementing scientific programs in soil quality monitoring, soil nutrient management, erosion control, and riparian management. A key facet of this role is to connect land management systems to their effects on receiving environments.

5. I was not involved with the preparation of the MEP. I was employed by the Marlborough District Council (Council) in October 2017 (after the MEP submission period had closed) and have been asked to evaluate the relief requested in submissions and to provide recommendations in the form of a Section42A report.

6. I have made submissions on the MEP (921, 922 and 946). None are related to the Soil Sensitive Areas and all were written prior to my employment by Council.

7. I have read Council's Section 32 reports and supporting documents that contributed to the development of the Soil Sensitive area concept.(Houlbrooke, Laurenson, & Carrick, 2011;Laurenson & Houlbrooke, 2015).

Code of Conduct

8. 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.

9. 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.

10. I am authorised to give this evidence on the Council's behalf.

Scope of Hearings Report

11. This report is prepared in accordance with section 42A of the Resource Management Act 1991 (RMA).

12. In this report I assess and provide recommendations to the Hearing Panel on submissions made on the Soil Sensitive Area Overlays. This includes submissions related to the accuracy of the mapping and addresses issues around understanding the implications of these overlays.

13. In particular, this report contains my assessment of submissions on the Soil Sensitive Overlays and related rules. These include:

    - Volume 1- Chapter 16, Waste. Policies for disposal of solid waste.

- Volume 2- Chapter 3, Rural Environment Zone. Rules for excavation, filling, application of agrichemical, application of fertiliser, discharge of liquid wastes (agricultural, farm dairy effluent, swimming pool water, human effluent), disposal of offal, making and storing compost or silage
- Volume 2- Chapter 5, Urban Residential 1 and 2 Zone. Rules for excavation, filling.
- Volume 2- Chapter 7, Coastal Living Zone. Rules for excavation, filling.
- Volume 2- Chapter 8, Rural Living Zone Rules for excavation, filling, discharge of liquid wastes (swimming pool water, human effluent).
- Volume 2- Chapter 12, Industrial 1 and 2 Zone. Rules for excavation, filling
- Volume 2- Chapter 17, Open Space 1 Zone. Rules for excavation, filling, application of agrichemical, application of fertiliser, discharge of liquid wastes (human effluent), disposal of offal, making and storing compost or silage
- Volume 2- Chapter 18, Open Space 2 Zone. Rules for application of agrichemical, application of fertiliser, discharge of liquid wastes (human effluent).
- Volume 2- Chapter 19, Open Space 3 Zone. Rules for excavation, filling, application of agrichemical, application of fertiliser, discharge of liquid wastes (agricultural), disposal of offal, making and storing compost or silage

14. 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.

15. 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.

16. Almost all submitters identified mapping accuracy as part of their submissions. This issue will be addressed as a standalone item with a brief response for each submitter individually. Remaining submissions will then be addressed individually.

Overview of Provisions

The Soil Sensitive Area Concept and Context

17. Two new features of the proposed Marlborough Environment Plan are the inclusion of Groundwater Protection Areas and Soil Sensitive Areas (SSA). Both are aimed at protection of important natural resources namely soil and water. While Groundwater Protection Areas aim solely at protecting municipal water supplies from direct contamination, the Soil Sensitive Area concept is designed to be more widely protective of certain vulnerable soils in order to protect both soil and water resources. The SSA concept describes three particular soil groupings that each have a unique vulnerability. All three SSA categories are intended to directly address issues that are long-standing for Marlborough. The SSA overlays should be viewed as a triage tool that enables and requires better assessment of soil conditions prior to particular activities occurring. Each SSA has been put in place to address a series of specific issues as discussed below. Each SSA is addressed in turn and a matrix provided in Tables 1 to 3 to illustrate the relative risks different activities pose within the SSA.

Soil Sensitive Area – Free Draining Soils

18. The SSA for free draining soils applies to a single area overlying the Rarangi Shallow Aquifer. It has evolved as a combination of groundwater hydrology and soil science. This has highlighted the potential risks to groundwater quality from surface discharges from landuse. This aquifer has long been used as a drinking water source through a large number of individual wells. Because of the widespread nature of the individual water supplies (compared to a single municipal supply) the use of a Groundwater Protection Area is not appropriate. Instead an SSA is proposed to require resource consent to apply materials known to be risks to groundwater quality or human health. This includes fertilisers and agrichemicals (specifically triazine herbicides) and the disposal of various kinds of solid and liquid waste. Council is currently engaged with two large landowners in the area studying how to set appropriate levels of fertiliser use in this area using adaptive management conditions on such resource consents.

19. The key risk for this SSA is the loss of contaminants to groundwater. The risk causing activities defined in the plan are shown in Table 1.

Table 1: Soil Sensitive Area – Free Draining Soils.

Rule	Reason	Environmental risk	Human health risk	Property risk
Rule 3.3.22.2 – Application of triazine herbicide	High mobility and persistence of herbicide in groundwater	High- water quality, aquatic plants,	Moderate- potential health effects not well quantified	High- effects on plants if water used for irrigation
Rule 3.2.23.1 – Application of fertiliser	Mobility of some fertilisers to groundwater	High – NES-FM ecological limits apply for nitrate	Moderate – drinking water standards apply	Low
Rule 3.3.26.1 – Discharge of agricultural liquid waste*	Mobility of nutrients to groundwater.	High – NES-FM ecological limits apply for nitrate	Moderate – drinking water standards apply	Low
Rule 3.3.28.1 – Discharge of farm dairy effluent*	Mobility of nutrients and microbes to groundwater.	High – NES-FM ecological limits apply for nitrate	Moderate – drinking water standards apply, microbial risks not well quantified	Low
Rule 3.3.30.9 – New discharge of human effluent*	Mobility of nutrients and microbes to groundwater.	High – NES-FM ecological limits apply for nitrate	High – drinking water standards apply, microbial risks well quantified	Low
Rule 3.3.33.1 - Making or storing compost or silage, stockpiling agricultural waste in a stack	Mobility of leachate to groundwater	High- effects on soil, groundwater and surface water	Moderate – drinking water standards apply, microbial risks not well quantified	Low
Rule 3.3.33.2 - Making or storing compost or silage, stockpiling agricultural waste in a pit*	Mobility of leachate to groundwater	High- effects on soil, groundwater and surface water	Moderate – drinking water standards apply, microbial risks not well quantified	Low
Rule 3.3.34.3 - Storing compost not in a pit or stack for more than 3 months*	Mobility of leachate to groundwater	High- effects on soil, groundwater and surface water	Moderate – drinking water standards apply, microbial risks not well quantified	Low

Rules that apply to all SSA indicated by an asterix *

Soil Sensitive Area – Loess soils

20. The loess –based soils of the hill country south of Blenheim are well known for severe tunnel gully erosion problems. This issue has been well studied in the past and is well understood to pose serious risks to property and (recently) to life. This SSA is proposed in order to control activities that might exacerbate such erosion features on these soils. Such activities include the excavation and filling of slopes, the creation of tracks and the disposal of waste. The key risk for this SSA is loss of soil strength leading to erosion. The risk causing activities defined in the plan are shown in Table 2.

Soil Sensitive Area – Impeded soils

21. Commonly, impeded soils can be thought of as heavier silts and clays. These soils have finer particle sizes and drainage is slower after rain. The increasing emphasis on land-based disposal of liquid wastes has led to an improvement in surface water quality. However, there are a number of risks associated with the practice of land based disposal. The most prevalent risk is where the assimilative capacity of the soil is overloaded by the discharge. These risks are increased on soils with reduced infiltration rates (wet, heavy soils) or increased preferential flow rates (dry, cracked soils). Both can lead to runoff with waste invariably finding its way to surface water. Certain soils are more at risk of this than others. This can result in the degradation of the soil structure and/or the failure of the waste to infiltrate the soil.

22. The creation of the impeded soils SSA is to allow better assessment of the drainage and assimilative capacity of these soils by requiring resource consent for activities that might pose a risk to surface water quality if the soil becomes overloaded. These activities include disposal of agricultural liquid waste (winery waste water in particular), farm dairy effluent and human effluent. The key risk for this SSA is reduced infiltration capability leading to low ability to assimilate discharges and runoff to surface water. Also, heightened risk of loss to groundwater due to preferential flow. The risk causing activities defined in the plan are shown in Table 3.

Table 2: Soil Sensitive Area – Loess Soils.

Rule	Reason	Environmental risk	Human health risk	Property risk
Rule 3.3.14.4 – Excavation on a slope greater than 7.5°	Undercutting or disturbance of erodible soils	High- slip, slump and sediment risks, increased flooding	Low	High- Soil movement and sediment, flooding
Rule 3.3.16.12- Filling with cleanfill	Instability of underlying soils	High- slip, slump and sediment risks, increased flooding	Low	High- Soil movement and sediment, flooding
Rule 3.3.26.1 – Discharge of agricultural liquid waste*	Runoff of effluent, induced instability from hydraulic and chemical load.	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Low	High- Soil movement and sediment, flooding
Rule 3.3.28.1 – Discharge of farm dairy effluent*	Runoff of effluent, induced instability from hydraulic and chemical load.	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Moderate-due to pathogen loading	High- Soil movement and sediment, flooding
Rule 3.3.29.2 – Discharge of swimming pool water	Runoff of water, induced instability from hydraulic and chemical load.	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Low	High- Soil movement and sediment, flooding
Rule 3.3.30.9 – new discharge of human effluent*	Runoff of water, induced instability from hydraulic and chemical load.	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Moderate-due to pathogen loading	High- Soil movement and sediment, flooding
Rule 3.3.32.3- disposal of offal or a carcass in an offal pit	Poor drainage from pit leading to instability	Moderate- depending on the size and drainage	Low	Low- effects likely localised
Rule 3.3.33.2 - Making or storing compost or silage, stockpiling agricultural waste in a pit*	Runoff of water, induced instability from hydraulic and chemical load. Poor drainage from pit leading to instability	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Low	High- Soil movement and sediment, flooding
Rule 3.3.34.3 - Storing compost not in a pit or stack for more than 3 months*	Runoff of water, induced instability from hydraulic and chemical load. Poor drainage from pit leading to instability	High- slip, slump and sediment risks, increased flooding, runoff to surface water	Low	High- Soil movement and sediment, flooding

Rules that apply to all SSA indicated by an asterix *

Table 3: Soil Sensitive Area – Impeded Soils.

Rule	Reason	Environmental risk	Human health risk	Property risk
Rule 3.3.26.1 – Discharge of agricultural liquid waste*	Runoff of effluent, reduction in soil quality from increased chemical load.	High- contamination of surface water, groundwater	Low	Moderate- enrolment on LLUR
Rule 3.3.28.1 – Discharge of farm dairy effluent*	Runoff of effluent.	High- contamination of surface water, groundwater	High-due to pathogen loading	Low
Rule 3.3.30.9 – new discharge of human effluent*	Runoff of effluent.	High- contamination of surface water, groundwater	High-due to pathogen loading	Low
Rule 3.3.34.3 - Storing compost not in a pit or stack for more than 3 months*	Runoff of leachate	High- contamination of surface water, groundwater	Low	Low

Rules that apply to all SSA indicated by an asterix *

Analysis of submissions

23. There were approximately 22 submissions received on provisions relevant to the Soil Sensitive Areas topic.

24. Of these submission points, none were in common formats.

25. A number of submitters address the issue of mapping accuracy and an overview of this issue is given but all submissions have been addressed individually.

Key issues

26. I have set out my analysis of the submissions points by issue and then by respective components of the topic, under the following headings:

    Matter 1: Mapping accuracy.
    Matter 2: Individual submissions.

Pre-hearing meetings

27. There have been no pre-hearing meeting for this topic.

Matter 1- Mapping accuracy

28. Many submitters raised the issue of the accuracy of the SSA overlay maps. Of particular concern were the SSA – Loess soils and SSA – impeded drainage overlays. A number asked that their property be removed from the maps as they believe that these soils are not present on their property.

29. Three issues arise regarding the accuracy of the maps:

    1. What criteria were used to decide on which soils belonged to which grouping?

    2. How were the mapping polygons drawn? (i.e. how was each area delineated on the map)

    3. What effect does map scale have on the mapping?

Criteria for SSA groupings

30. The SSA overlays represent groupings of soil types that have similar properties. The initial work to distinguish these groupings was by Houlbrooke, Laurenson, & Carrick, (2011) that characterised the environmental risk of land disposal of liquid wastes. This work identifies four categories of soils that have differing soil drainage characteristics. Two of these categories feed into the SSA categories.

31. Houlbrooke, Laurenson, & Carrick distinguish category B 'impeded drainage or low infiltration rate' and this corresponds directly with the SSA impeded soils overlay and they name the relevant soil types in section 7.3.1 (pp.33) of the report. They state:

> *Impeded drainage at depth … is a key soil feature identified as increasing the likelihood of overland flow and preferential flow through large continuous soil pores… and therefore pose an increased risk of contamination of surface drainage water (pp.27)*

32. The SSA-free draining soils was also determined in part by Houlbrooke, Laurenson, & Carrick (2011). Their category E 'other well drained but very stony flat land' identifies a number of soils that are free-draining but assigns them to a class that is low risk of contaminant loss to water. Subsequent in-house work by the Councils then-soil scientist Dr Colin Grey and others identified the unique local situation that makes the risk at Rarangi much higher. These conditions include the proximity to the surface of the aquifer, its use as a drinking water source in some areas, and changes in landuse over the aquifer at the time.

33. The criteria underlying the SSA – Loess soils are underpinned by a different set of information. This is well summarised by Campbell, (2011) "Soil survey of part of the Wither Hills-Redwood Hills area, Marlborough. Campbell surveyed and categorised soils in the area that are most susceptible to tunnel gully erosion. These soils included Wither, Vernon, Waihopai soils with the Wither soils displaying the worst tunnel gully problems. Again, the unique local situation was identified by Dr Grey and other council Staff (based on extensive soil science performed on these soils since the 1940's) and the decision made to create an SSA around the erosion risk of these soils.

34. It should be noted that following the departure of Dr Gray from Council, a second report from Laurenson & Houlbrooke, (2015) was commissioned to support the SSA concepts and overlays. This report makes clear that some aspects of the SSA are not described in the original 2011 paper and are supported by different information. Laurenson & Houlbrooke, (2015) also note the scale and mapping issues and need for ongoing improvement in soil survey information that is addressed in this report:

How were the mapping polygons drawn?

35. For all SSAs, polygons were used from the Fundamental Soils Layer (FSL). This was probably used because it covers the whole province and was the only digital resource for soil polygons. The Fundamental Soils Layer was created from a combination of the National Soils Database and the National Land Resource Inventory resulting in the first digital record of the soils of Marlborough. This layer was drawn from a combination of "*stereo aerial photograph interpretation, field verification and measurement as part of the 1:63 360/1:50 000 scale New Zealand Land Resource Inventory survey (Edition 1 1972–1979 and Edition 2 1988–1998 in four regions: Northland, Gisborne-East Coast,*

Wellington, and Marlborough) and from publicly available soil surveys" [1]. The field verification and spatial distribution as depicted in both FSL and the later S-Map was *"based on intensive airphoto interpretation and limited auger observations in the early 2000's".*[2]. The FSL has been updated with more recent soil survey information such as the 2005 Wairau Plains soil survey. This is why the older FSL layer matches the newer Wairau Plains soils layer. Note the Wairau Plains map was still 1:50,000 scale.

36. For the SSA free-draining soils, the Taumutu stony gravels FSL polygon was used. This soil type occurs both north and south of the Wairau Diversion but only the polygons north of the Diversion were included in the SSA as there is little intensive land use and few domestic water takes in the area south of the Diversion.

37. For the SSA- impeded soils, the FSL was again used and the soil types described as category B in Houlbrooke, Laurenson, & Carrick, (2011) determined which polygons were included in the overlay. As noted in the submissions, some of the polygons for impeded soils contain more than one soil type (e.g. Gibsons and Gibsons mottled phase soils). Often only one of the soil types should be included in the impeded drainage overlay (in this instance the Gibsons mottled phase). The solution will be better mapping at finer scale.

38. The SSA- Loess soils again used the FSL polygons. The only soil type included in this layer was the Wither soil. The Wither soil (as described by Campbell) is the most prone to tunnel gully erosion and although I am not aware about any documentation of this decision-making process, I assume that the Wither FSL polygon was chosen because it was the closest approximation to the most prone soil type. Note that the Wither soils mapped by Campbell, do NOT match those of the FSL in the area Campbell mapped.

39. Recalling that minimal ground truthing was performed at the time the FSL polygons were created and that the polygons were drawn many years prior to the work by Houlbrooke, Laurenson, & Carrick and Campbell if the FSL polygons were drawn incorrectly, then these errors have transferred to the SSA overlays.

What effect does map scale have on the mapping?

40. The simple answer is that mapping scale is everything. The FSL polygons used are mapped at 1:50,000 (at best). This means that 1cm on the map equals 50,000cm (500m) on the ground. One square centimetre therefore equals 25ha. The resolution that this scale provides is very coarse. Soils can change across a scale of metres and often the change can be subtle or graduated leading to the need for skilled judgement on where to draw the line. The inclusion and exclusion of a particular landform depends on that judgement and the ability to actually draw the polygon at that scale. For example, a patch of non-Loess soil within the SSA – Loess soils would need to be greater than 500m across to warrant exclusion from the polygon at 1:50,000 scale. That feature would need to be less than 50m across to be excluded on a 1:5,000 scale map. Given that the FSL mapping was essentially a desktop exercise, including the finer farm scale detail in the polygons would have been extremely difficult and costly.

41. Council is currently seeking funding to have the whole province LiDAR mapped. This data will provide the fine-scale digital base layer that will enable better mapping of soils. However, if finer scale mapping is desired (i.e. <1:10,000 or 1:5,000-farmscale mapping) the amount of ground truthing required is huge. Halving the scale (to improve detail) requires a four times increase in survey effort and observation points. For example: 1:5,000 mapping requires 4 observations per hectare to provide sufficient accuracy. A 1:50,000 scale map requires 1 observation per 25 hectares.

42. When using digital maps users can get a false sense of accuracy as it is possible to view coarse-scale maps at a finer scale than they were drawn. For this reason, the overlays can only be regarded as a triage tool at best and not a definitive guide to the actual soil types present. The overlay is effectively saying "we think loess/impeded/free-draining soils may be present on this landform, we should investigate further". That is the purpose of requiring resource consent.

[1] Source: Landcare Research, Soils Portal. https://soils.landcareresearch.co.nz/soil-data/types-of-soils-data-and-maps/ Accessed 21/12/17.
[2] Pers. Comm – Ian Lynn, 21/12/17

43. I note that many Councils around the country require farmers to prepare farm environment plans. Often this involves finer-scale soil and land use class mapping at 1:10,000 scale. MDC has not required this instead opting to use the SSA concept as a triage system for known soil problems. This triggers people wishing to perform activities on their property to seek resource consent thus enabling scrutiny of the activity and its potential environmental effects.

44. I note Volume 1, chapter 4, policy 4.1.2 indicates that the frameworks for allocation of natural resources will "*provide certainty about the quantities and/or locations of resources available and the circumstances in which they may be used and developed*". Volume 1, Chapter 15. Policy 15.4.1 indicates council will seek to "Improve understanding of the effects of landuse on soil quality".

Recommendation

45. In summary, the SSA overlays are based on old coarse scale maps and as such they are not accurate to the scale that most landowners would see as useful. However, they should be seen as a regional scale triage tool that triggers closer assessment of possible environmental effects when a limited range of potentially environmentally harmful activities are performed.

46. I suggest that the SSA concept is a sound one that can be used to help assess risk of well understood environmental effects. However, the accuracy of the overlays is obscuring the usefulness of the concept.

47. I understand it is beyond the scope of the Hearings Committee to recommend that the Overlays are reviewed.

48. Therefore my recommendation is that the mapping overlays are retained in their current form. Further to this, I would undertake to present to Council a plan variation/plan change incorporating an on-going process of refinement of the SSA layers as outlined below.

SSA Overlay Polygon Review process

49. A number of submitters indicated that their properties should be removed from the overlays due to the non-presence of the particular soil type on the property. I would suggest that Council has tried to address well-understood soil problems with the SSA concept and used the best tools available to it at the present time. Some landowners may have been included inappropriately however; the only methodology available to correct that would be for soils to be mapped at a finer scale. To address these concerns, I recommend the following course of action.

50. I propose to undertake a polygon review process in the coming 6-12 months to refine the accuracy of the SSA Overlays. The review process would include the following steps:

    - Confirm the scientific basis of the individual SSAs with literature reviews presented to Council.
        - This should include assessment of the relative risk of different activities on the individual SSAs.
    - Compare the current polygons to other sources of soil information.
    - Complete a desktop refinement exercise using the existing polygons at the current scale,
        - Use LiDAR and GIS data where available to better refine polygon boundaries,
        - Use limited ground truthing to verify desktop exercise,
        - Present the revised polygons to Council for approval.

51. As an example of this process Figure 1 shows the current Loess overlay map for Mr V Wadsworth's property. Mr Wadsworth has submitted regarding the accuracy of the overlay in his area. Council staff prepared a revised overlay for loess soils based upon the existing Loess layer and two refining factors:

52. Firstly, Lidar data was used to create a slope map layer. Any land less than 7.5° was removed from the existing overlay (recall that the rules apply to land over 7.5° slope) to provide Figure 2.

53. The second step was to assess the slope aspect again from Lidar data. This evaluated which slopes faced in the directions most likely to have deposits of Loess (facing NW to SE).

Figure 1: Current Loess Overlay map for Mr V Wadsworth's property (outlined in red).

Figure 2: The same property with areas less than 7.5° removed.

Figure 3: The same property with aspect included. Slopes facing NW to SE assumed to have loess deposits.

54. This process seems to have effectively isolated the slopes with the greatest likelihood of the presence of loess soils although refinement is required. The process also has some limitation currently with Lidar coverage limited over much of the loess overlay area. Some degree of manual ground truthing will also be required however, this will improve the accuracy of the overlays. Figure 4 illustrates the errors that may occur during the process.

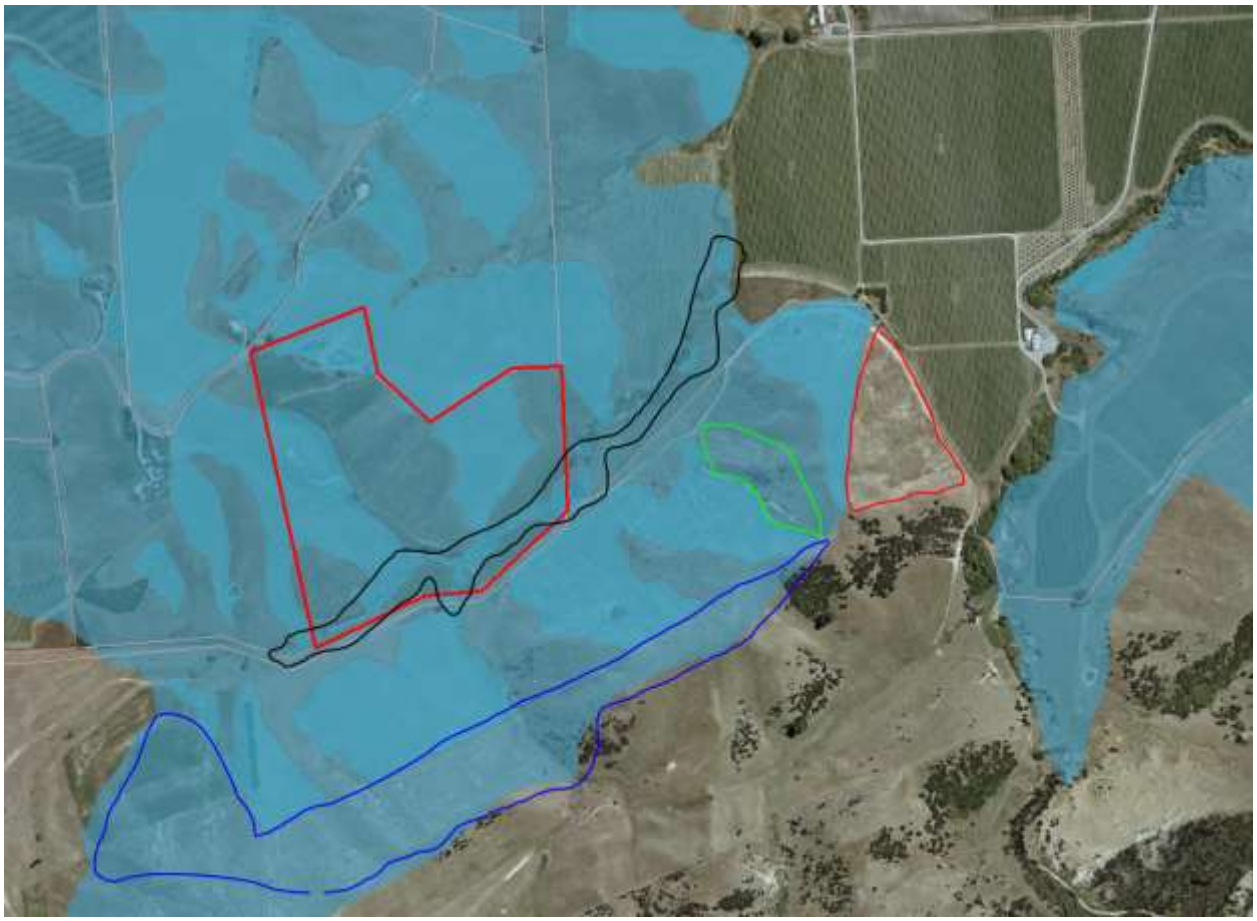

Figure 4: The original loess overlay and the refined overlay with errors in the process marked:

- **Red area eroded area not included in current SSA polygon,**
- **Blue area limited by Lidar coverage (should be included),**
- **Black area slope over 7.5° but not loess soils (stream bed, excluded),**
- **Green area eroding loess area outside aspect rules (should be included but aspect rules need to be changed).**

55. Alongside this process, upon completion of the LiDAR mapping a more detailed long-term soil survey process will be running. Mapping of Rarangi is proposed for the coming year. Other SSA could be mapped as a priority. The issue of scale will be a key concern with this process.

Matter 2 - Individual submissions

56. Recommended additions or new provisions to be shown underlined. Deleted text or provisions to be shown ~~struckthrough~~.

57. Individual submitters have asked for their properties to be removed from the overlays or for the soils on their properties to be ground truthed. I am happy to perform such visits should the Hearings Committee require it but I would point out that this is both potentially time consuming and that the amount of possible inaccuracies in the overlays are such that ground truthing single properties will not contribute a great deal to the overall accuracy of the overlays. Ideally, ground truthing should be carried out as part of the review process for greatest accuracy and integration soil types across properties.

58. Each submission is dealt with individually:

Federated Farmers of New Zealand (425.328 & 425.329)

59. Amend the wording of policy 16.2.4 and 16.2.5 from requiring consent for an offal or rubbish pit on a GPA or SSA to a permitted activity. Opposition noted from Te Atiawa o Te Waka-a-Maui Trust and support from Pernod Ricard Winemakers.

60. The difficulties of disposing of farm waste are acknowledged. In relation to the SSA rules, these policies attempt to limit environmental, human health and property risks from activities occurring in areas of known at risk soils. The rules as they relate to SSAs are limited in area and scope. The submitter wishes for the rules to be removed to benefit their members despite the potential downstream/downslope consequences to other landowners.

61. Offal pit rules apply only to SSA-loess soils although there is strong justification for extending them to SSA free draining soils also due to the risks of pathogen loss to groundwater. Rule 3.3.32.3- disposal of offal or a carcass in an offal pit limits this activity on Loess soils but does not apply to Free-draining soils. I submit that offal disposal in free-draining soils would pose a similar or greater risk to the disposal of human effluent or stockpiling agricultural waste in a pit on these soils. However, as this change is beyond the scope of the submission, I would propose it is added in a later plan change.

62. **Recommendation:** That the submission is rejected.

Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited (1004.109 & 1004.111 & 1004.112).

Submissions on SSA overlay map 1, 12 and 13

63. Amend the Soil Sensitive Overlays to not include the Business zones of Blenheim. (Submitter has indicated that an SSA free draining soil applies to Business 3 Zone. It does not and I understand they mean SSA impeded soils because this applies to the Business 3 zone.) Opposition noted from Te Atiawa o Te Waka-a-Maui Trust.

64. The implications of a soil with impeded drainage extends beyond the discharge and farming related issues discussed previously. The impact on other activities such as stormwater drainage, soil assimilative capacity and suitability for building should also be considered. When these additional factors are considered, it becomes appropriate that impeded soils should be considered when developing these areas.

65. **Recommendation:** That the submission is rejected.

New Zealand Forest Products Holdings Limited (995.47)

66. Delete or amend Soil Sensitive Map 2 to accurately show the extent of the impeded soils on the ground.

67. The soils in this area are classified on the digital FSL version as Kikiwa 34b soils. These soils are not commonly associated with this area but would meet the criteria for impeded soils. These soils are included in the Houlbrooke classification as impeded soils. However, on the original 1968 DSIR soil survey maps, the soils are noted as 34a Kaituna soils. Kaituna 34a soils are more commonly associated with this landscape form and these are not included in the Houlbrooke classification as impeded soils.

68. In this case, there may have been a genuine mistake made when these soils were classified in the digital FSL mapping process. I suggest this issue is included specifically in the review process discussed above and if the submitter wishes a field visit may be appropriate with the polygon naming being changed in a subsequent plan change process if found to be misidentified. This would then result in the soil being removed from the Impeded soil overlay.

69. **Recommendation:** that the submission is investigated further and a ground truthing exercise is completed.

Hall Family Farms Ltd (141.7)

70. Remove their property from the SSA overlays on the grounds that they will not be able to continue farming as a dairy farm due to being unable to discharge effluent. Support from Warwick Lissaman noted.

71. Firstly, implementation of the rule 3.3.28.1 does not make effluent spreading a prohibited activity, instead it requires that resource consent is sought to allow evaluation of environmental effects. I personally have evaluated two dairy farms on similar soils and while some changes may be needed to effluent disposal systems and areas to minimise environmental risk, both properties (on similar soils) are still operating. For resource consent to be granted, the submitters will need to provide details about the effluent disposal system, effluent storage capacity required and some assessment of the effluent risk of the soils. A guide is available at: https://www.dairynz.co.nz/publications/environment/pocket-guide-to-determine-soil-risk-for-fde-application/

72. I further note that the FSL has grouped two soil types together as one polygon (Figure 5). Within the fine sandy loam polygon, Gibsons soil has been grouped with Gibsons mottled phase soil The mottled phase is an impeded soil and the Gibsons soil is not according to Houlbrooke. As a result, the SSA layer has created a single polygon for the entire property (Figure 6).

73. A similar situation has occurred with the mapped Grovetown and Spring Creek soils that also occur on the farm but these are both impeded soils according to Houlbrooke so there is little need to separate them.

74. As a potential solution, the area likely to be Gibsons soil has been deleted in Figure 7 using the Lidar contour of 5 metres above sea level. This probably doesn't accurately delineate the actual soil types but illustrates how a polygon review process might proceed in this case. This issue will potentially affect a large number of polygons and may require farm-scale mapping to clarify due to the scale issues noted above. For this reason, I am not recommending a site visit as this situation will apply to a large number of properties and can be dealt with on more effectively during the review process. I would also be happy to clarify the issue with the submitter should they require further explanation.

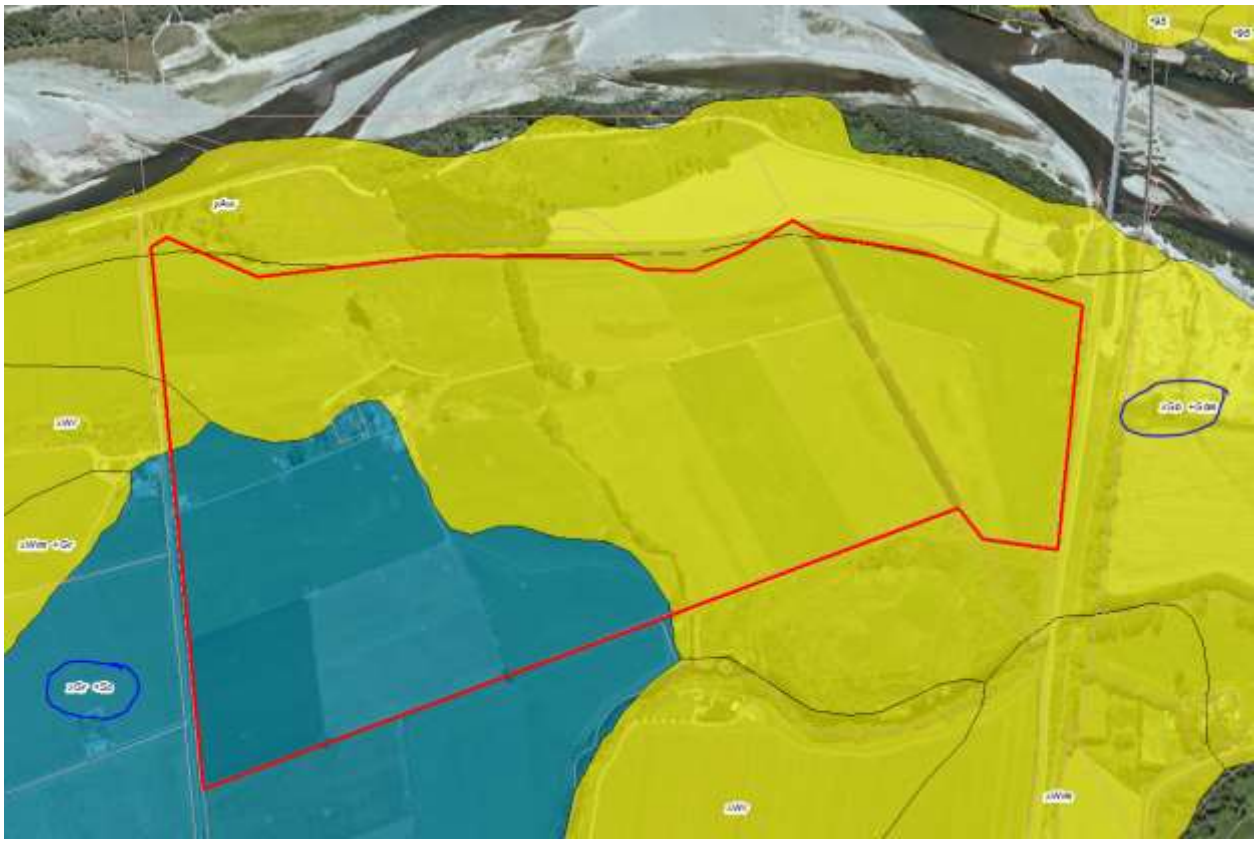

Figure 5: The Wairau Soils Layer polygons for Halls Family Farm. Note the symbols xGB + Gbm indicating the soil types for the yellow polygon and xGr + Sc for the blue polygon that cover the farm.

Figure 6: The impeded soils layer for Halls Family Farm

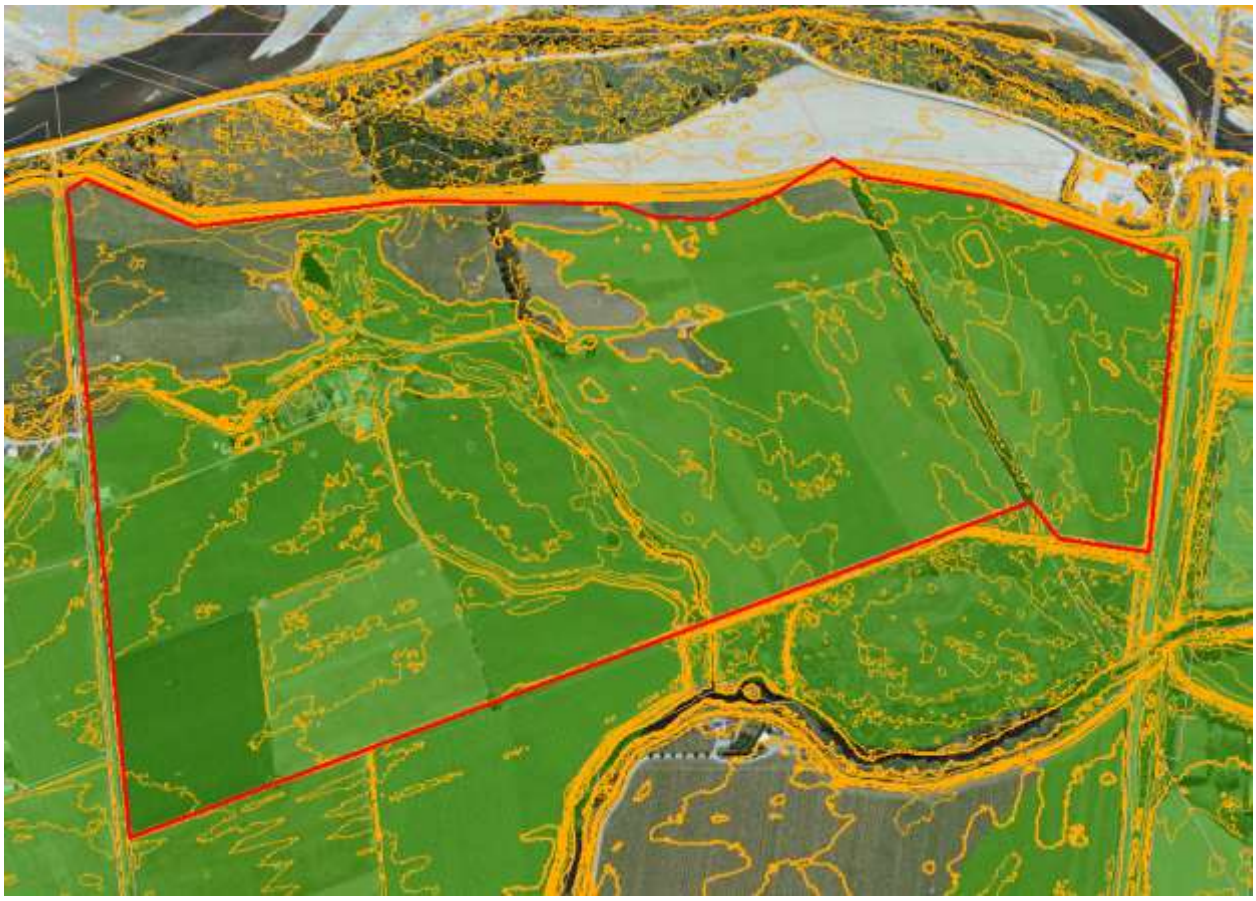

Figure 7: The Halls Family Farm with Gibsons soils removed to illustrate how Lidar data (yellow lines) could be used to delineate a refined impeded soils polygon.

75. Mr Lissaman's comment is valid and he is referred to the Matter 1 above.

76. I also refer the submitter to my comments in the Pukemaitai Farm Ltd submission below.

77. **Recommendation:** that the submission is rejected.

Davidson Group Limited (172.7)

78. That the SSA-free draining soils is extended to cover all free-draining soils in Marlborough for consistency.

79. I agree that consistency is desirable. Houlbrooke does identify all of the free-draining soils that could be included in an extended SSA free draining soils. However, the current Free-draining SSA is the result of a combination of factors:

- Soils with low water holding capacity and high permeability with an increased risk of contaminant leaching
- The presence of a shallow (1-4m below surface) aquifer
- Use of that aquifer for drinking water
- Not a municipal single point supply (otherwise Groundwater protection Area would apply)

80. The entire area of free draining soils as suggested by Houlbrooke has been evaluated using GIS and the results are seen in Figure 9 with comparison in Figure 8.

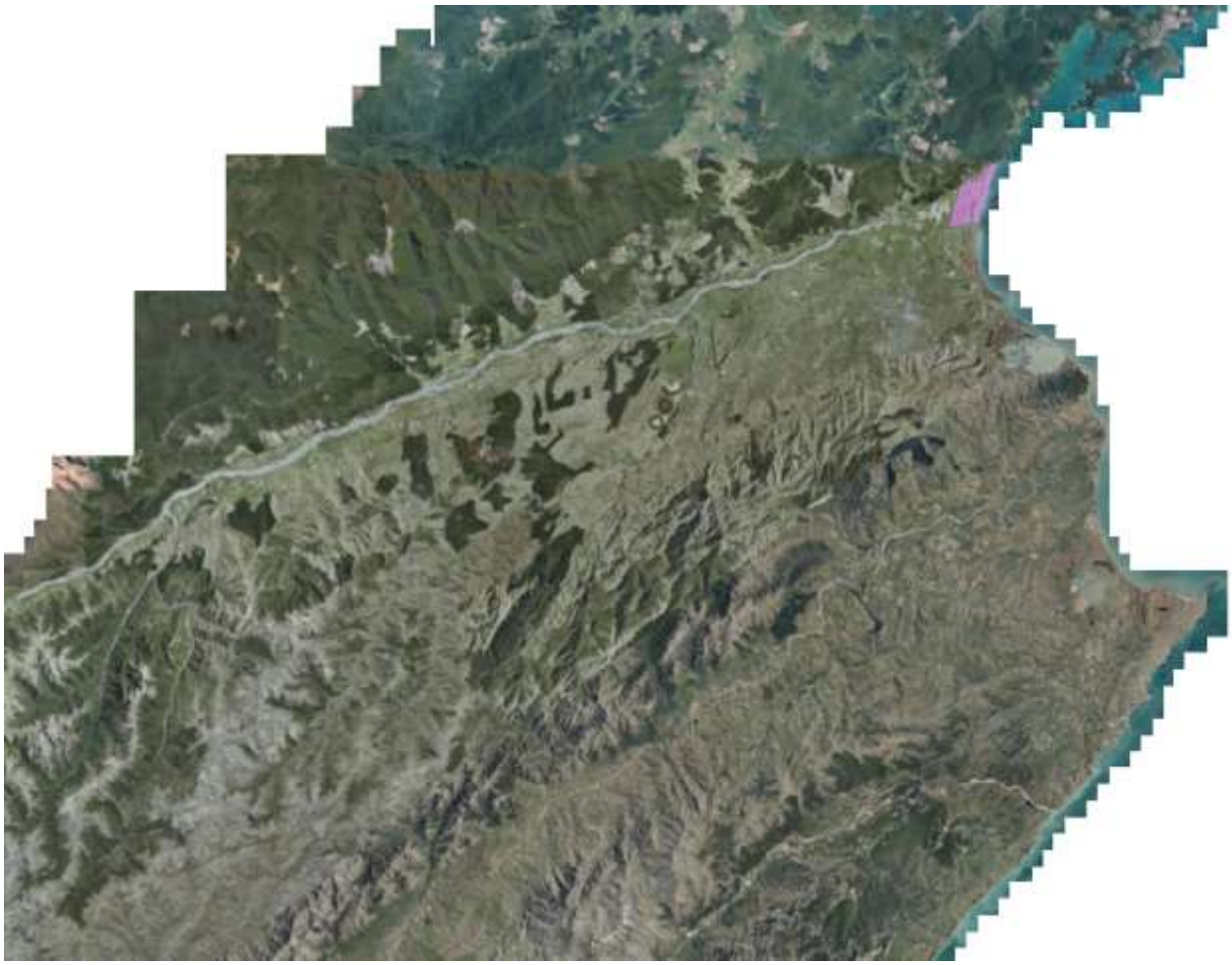

Figure 8: Current SSA-Free draining soils (Pink area). 964 hectares.

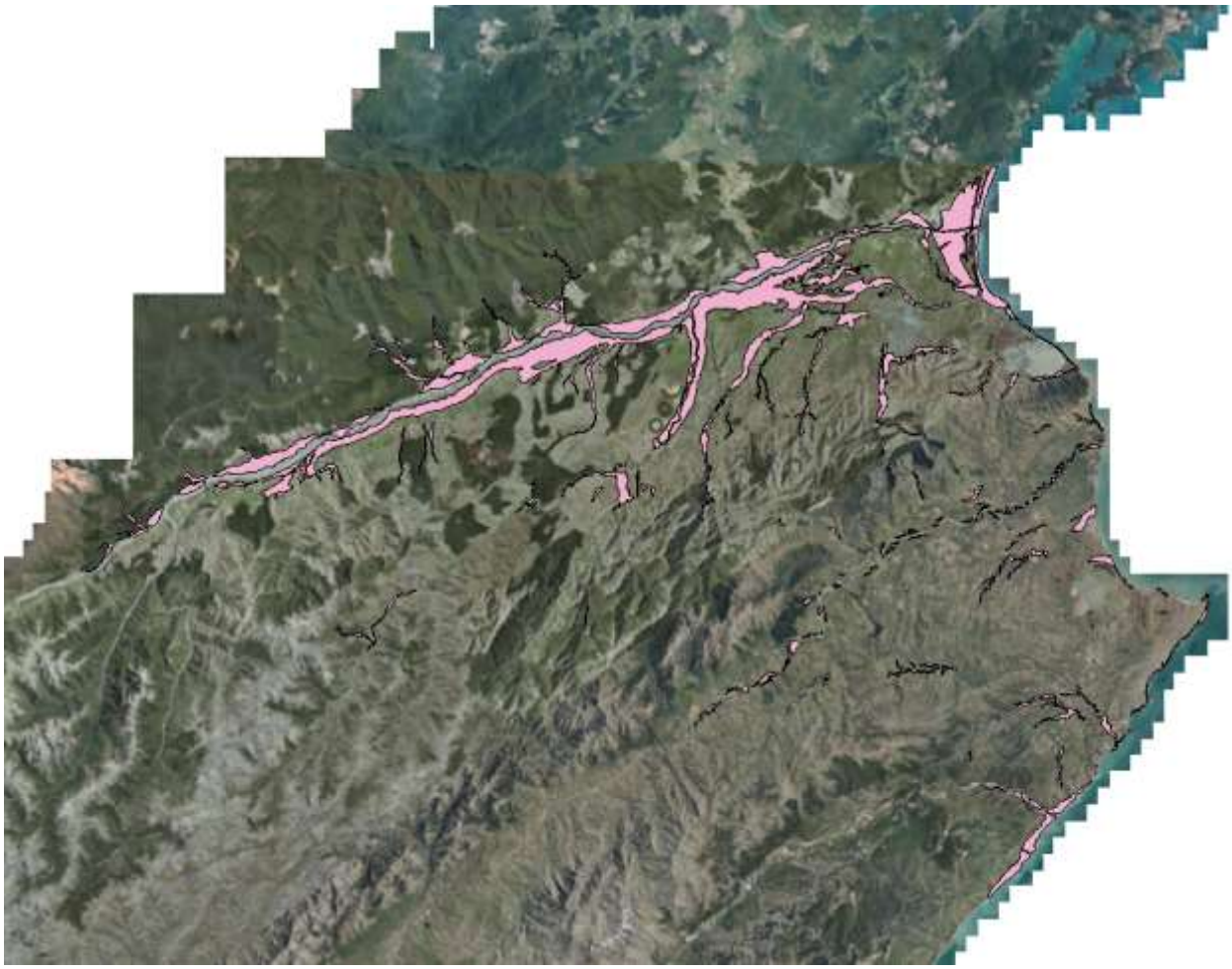

Figure 9: All free-draining soils as described by Houlbrooke (Pink area). 23,479 hectares.

81. This revised area also includes a large number of pre-existing discharge consents (Figure 10). I would suggest that it would be prudent for Council to include evaluating all free-draining soils as part of the plan change review process. That polygon review process should include assessment of all types of free draining soils as described by Houlbrooke, Laurenson and Carrick (2011), where these soils lie over groundwater infiltration areas or potential drinking water sources or where surface discharges might pose a risk to groundwater resources.

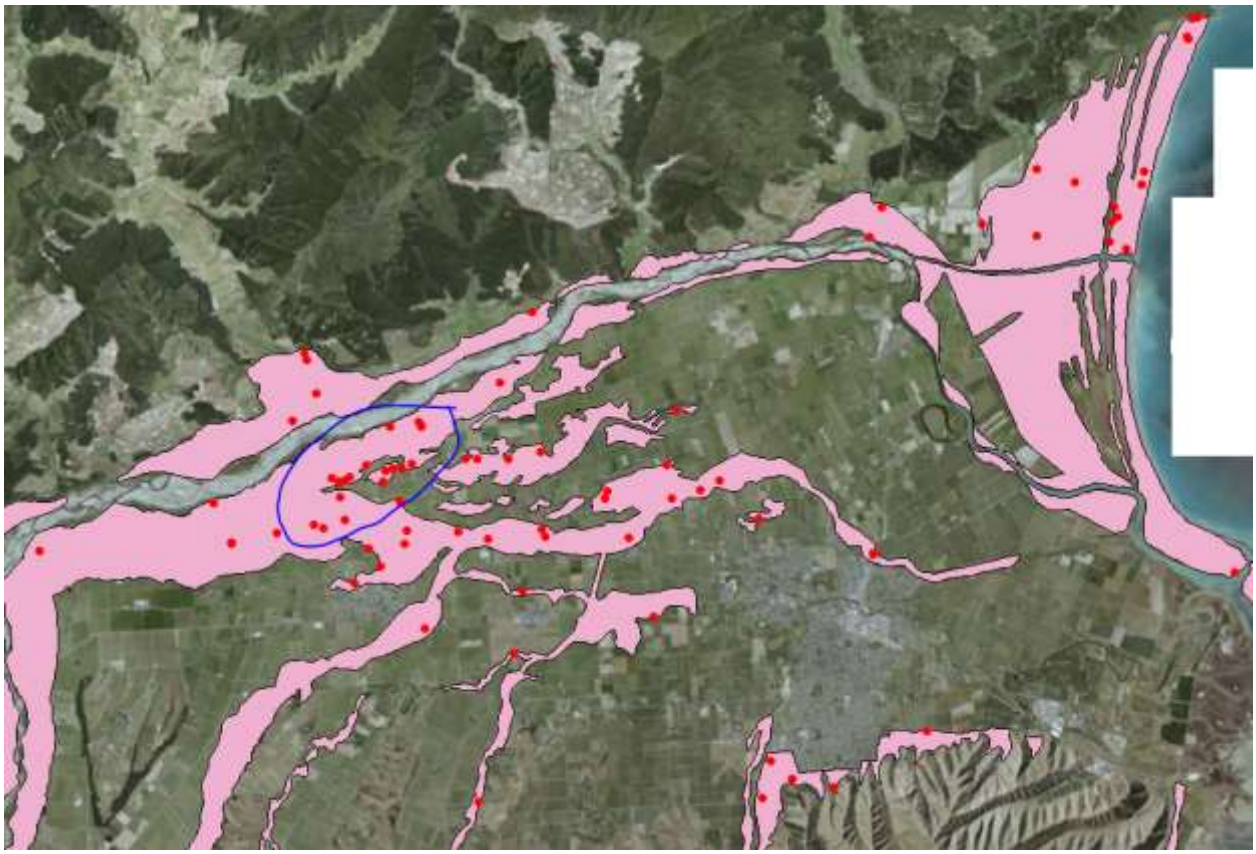

Figure 10: Close-up of Lower Wairau area showing revised free draining soils and locations of discharge permits. The blue circled area indicates a large number of discharge consents on free draining soils overlying a recharge zone for a large aquifer

Recommendation: That the submission is rejected.

Rarangi District Residents Association (1089.7)

82. Indicates support for the SSA free draining soils. Noted. Groundwater Protection area dealt with in Topic 13.

83. **Recommendation:** that the submission is accepted.

David Sim (161.1)

84. Raises matters regarding soil identification on his property, piecemeal resource consents and a wider concern regarding sustainable agriculture. With regards to mapping of his property Mr Sim is referred to the comments in Matter 1 in particular the comments regarding scale. Regarding the wider issue of sustainable agriculture, I am in agreement but it is an issue for a wider forum than this. Mr Sim raises the issue of landowner knowledge of soils. I agree with these sentiments and this will form part of the wider soil mapping process that council is undertaking.

85. With regards to the resource consent issue, I disagree; consents are a nationally mandated method to assess the effects of an activity. They are usually granted once and extend for a term. The fertiliser provisions he refers to apply to one specific area under specific circumstances (not his property). Landowners under that provision have already applied for consent and are working with Council to assess the effects.

86. **Recommendation:** that the submission is rejected.

Vallyn & Diana Wadsworth (201.1)

87. Seeks review and ground truthing of SSA Loess soils, to allow landowners to participate in the mapping process and/or remove their property from the overlay. Support from Mr Lissaman is again noted. His assessment of Mr Wadsworth is correct.

88. Mr Wadsworth raises valid issues in particularly related to the scale and accuracy of the mapping of Wither soils west of the Taylor River and I concur. His judgement about the scale issue is correct but as noted above any individual soil feature would need to be larger than 500m in any one dimension to warrant exclusion from a wider polygon at 1:50,000 scale. I refer him to the text and illustrations above and the idea of a polygon review process becoming part of a future plan change.

89. I agree that making individual landowners map their properties individually would be inefficient and expensive. However, Council will need to strike a balance between finer resolution mapping and expense. This will probably mean that Council maps would be finer scale than those currently available but farm-scale mapping (1:5,000/10,000) will remain the responsibility of the landowner when it is required. The SSA overlays are not intended to provide definitive proof of the existence of a particular soil type but to triage where further investigation might be needed. This may involve whole farm 1:5,000 mapping where the activity involves the entire property (say vineyard development) but for smaller scale activities (for example, construction of a structure), I would suggest Council would accept assessment of just the relevant area.

90. Both Mr Wadsworth and Mr Sim make valid points regarding the understanding that landowners develop about the soils on their properties. I suggest that this is a valuable resource for a soil scientist to access and will form an important part of the wider soil mapping process.

91. I disagree with Mr Lissaman's supporting statement that the policy will have negative impact on the environment as the policy is designed to require assessment of future activities in the SSA's by both Council and landowners. The policy should mean that landowners wishing to perform a 'risky' activity must consider the effects of that activity. I do agree that detailed mapping and best practice will have positive environmental outcomes however as noted above, farm-scale mapping will need to remain as a landowner responsibility with Council providing a finer scale triage tool than currently available to manage known risks.

92. I agree that there should be a definition of Loess soils included. I further suggest that the SSA concept is defined along with the three types.

93. **Recommendation*:*** That the submission is rejected but the following (or similar) definitions are included in the definitions section or in a method section:

- **Soil Sensitive Area**- An area of soil as mapped in overlay maps xx to xx where certain activities may have a high risk of environment harm, human health risks or property damage. In conjunction with rules, the *Soil Sensitive Area Overlays* will be used enable an assessment to be made through the consent process, as to whether it is appropriate for an activity to occur on a particular soil type. Three soils are identified in the Soil Sensitive Area Overlays, free draining soils, impeded soils and loess soils.

- **Soil Sensitive Area – Free draining soils**- The free draining soils are considered high risk because they are located over an underlying shallow, unconfined aquifer and therefore discharges onto these soils could result in groundwater contamination.

- **Soil Sensitive Area - Impeded soils** are considered high risk because of the potential for movement of liquid waste across the soil surface which can convey waste from land to surface water.

- **Soil Sensitive Area - Loess soils** are considered high risk because of their potential for tunnel-gully erosion.

Levide Capital Limited (907.33)

94. Seeks removal of parts of the submitter's property from the SSA Loess soils overlay, implementation of rules around management of tunnel gully erosion, that maintenance of existing headlands, swales and cutoff drains is a permitted activity, that excavation to repair tunnel gully erosion on slopes less than 25° be a permitted activity and that existing and new vineyards on loess soils are protected from unneeded expense and bureaucracy

95. Again, this submitter seeks removal of part or all of their property from the SSA Loess soils overlay. The same comments regarding scale and polygon accuracy apply here as per previous submissions. I note that the ENGEO report referred to in the submission does identify loess soils and tunnel gully erosion on the submitter's property but does not accurately map the location of these soils making removal from the overlay difficult. I note that Campbell (2011) has mapped the mid- and upper slopes of the area and these maps indicate a mixture of Waihopai and Vernon soils, both erosion prone in their own particular way. Campbell's work did not map the lower slopes indicated in the ENGEO report as appearing "to be underlain by variable thicknesses of loess/loess-gravel colluvium…" (pp.8). It would seem that parts of the property are loess soils and therefore finer scale mapping is again needed to differentiate the high risk areas. I would refer the submitter to the earlier comments regarding a plan change following a review of the relevant soil polygons.

96. The submission that Council should apply rules to mitigate the effects of tunnel gully erosion including best practice guidelines is clearly based on onsite experience. I suggest that the SSA concept is attempting to do this by requiring examination of activities on these specific soils. The rules are drafted to avoid excessive bureaucracy by stating the activities of concern and delineating the areas of concern. Mr Anderson's suggestion of best practice standards and specific rules regarding mitigation of tunnel gully erosion would essentially expose Council to a long process of determining the required standards and then setting rules following public consultation. I would also suggest that such rules would need to be drafted almost on a property by property basis dependant on the dominant landuse on the property.

97. The maintenance of existing erosion control structures is a fair point. I am not aware of many such structures in place and would welcome an opportunity to view and assess them. I would suggest that where such structures exist on loess soils AND excavation is required to maintain them, the landowners ability to maintain them is desirable and should be allowed for. However, I suspect that such structures may not be common over the entire SSA.

98. I do not support the proposal that repair of tunnel gully erosion on slopes less than 25° be a permitted activity. While repair of damaged areas is desirable, poorly timed or poorly designed work could pose larger risks to downslope landowners than currently exists. I think it is entirely appropriate that resource consent be required to allow assessment of any such risks.

99. With regard to the submitters concerns about new and existing vineyards, nothing in the proposed SSA rules seeks to hinder these operations. Again, the SSA concept is structured to enable and require assessment of potential effects from specific activities on soils with well understood risks. However, the point about new vineyards raises one issue that is not addressed in the MEP. This is the sub-soil ripping of loess soils prior to new vineyard installations. Vineyard establishment frequently involves extensive excavation, cultivation and sub-soil ripping. Under the proposed rules, excavation (for headlands, re-contouring or irrigation installation) and cultivation (on slopes greater than 20°) would require consent but not the practice of ripping. Ripping can be highly damaging in these soils. Often rows are arranged up and downslope with the subsoil ripped the same way. The large amount of soil cracking creates extensive preferential flow paths and leads to direct infiltration of water to the dispersive subsoils. This can lead on to create tunnel gully erosion features. Council knows of at least one major soil failure related directly to vineyard ripping on loess soils (available by request from Council).

100. In order to allow development of loess soils for viticulture (they can provide desirable 'terroir' and development of them is likely) some kind of assessment of the subsoil should be required prior to soil ripping operations in these soils. It would be my suggestion that a future plan change could include a rule in Volume 2 Chapter 3 Rule 3.3.13, Cultivation that:

> *Sub-soil cultivation greater than the depth of 150mm must not occur on a slope greater than 7.5° if the activity is within a Soil Sensitive Area identified as loess soils.*

101. This wording would trigger resource consent requirements with on site assessment of soil physical and chemical properties being a key factor in determining the environmental effects and risk of the application.

102. The submitter suggests new rules to ensure viticulture remains a permitted activity on these soils. Nothing in the proposed rules prevents viticulture from occurring on these soils. The rules seek to require assessment of certain activities that might be associated with viticulture only. I note that the submission is incorrect when it states “Furthermore, rule 3.3.16.12 states that "the filling required for the maintenance of established vineyards as well as for the creation of new vineyards must not occur in a Soil Sensitive Area identified as loess soils". Rule 3.3.16.12 instead states “The filling must not occur in a Soil Sensitive Area identified as loess soils.” I am unsure where the submissions quoted text is in the plan as I have been unable to locate it.

103. I note that in other parts of his submission (and as presented by the submitter under Topic 9- Natural Hazards), the submitter suggests the use of the SSA concept to delineate other soil-related hazards such as liquefaction, ground-shaking and tsunami. I would suggest that the SSA methodology is not appropriate for these natural hazards. As the submitter has pointed out, other councils have just created natural hazard overlays to deal with these issues. I would again suggest that the SSA concept has been created to deal with well understood soil related issues specific for areas within Marlborough. Utilising it for broader (and possibly less well understood) natural hazards is not appropriate.

104. **Recommendation:** that the submissions requested decision points 1, 2, 4 & 5 are rejected. That decision point 3 is accepted and rule 3.3.14.4 is altered to read:

> The excavation must not occur on a slope greater than 7.5° if the activity is within a Soil Sensitive Area identified as loess soils <u>except for the maintenance of existing erosion control structures.</u>

Malcolm and Helen Neame (330.1)

105. Seeks removal of their property from the Loess SSA on the grounds that they will be unable to diversify into viticulture. Support from Mr Lissaman is noted.

106. For similar reasons to those outlined for the Hall Family Farm submission above, this is incorrect. All that will be required is resource consent evaluating the possible effects of specific activities on these soils. Given that viticulture occurs on neighbouring properties, this should be easy to establish. I also note the issues related to the accuracy of the FSL polygons that have been used to map this area as discussed above.

107. **Recommendation:** The submission is rejected.

Edward and Amanda Ryan (347.1)

108. Seeks deletion of the SSA rules until the soils can be ground truthed. Support from Mr Lissaman is noted again.

109. As discussed above, ground truthing of soils is an expensive and time consuming business. I again note the issues related to the accuracy of the FSL polygons in this area and suggest that the polygon review process will go some way to alleviating this. I note that much of the SSA area that is mapped on both the Neame and Ryan properties is less than 7.5° slope and as such the most relevant rule (excavation) will not apply.

110. **Recommendation:** The submission is rejected.

Federated Farmers of New Zealand (425.787)

111. Seeks removal of the SSAs from the MEP and their use as a non-regulatory tool to assist decision making. Support from Pernod Ricard Winemakers New Zealand Ltd and MFIA, with opposition from Te Atiawa o Te Waka-a-Maui Trust and Forest and Bird is noted.

112. It is my assertion that the SSA concept serves as a triage tool to identify at-risk soils. These soils are at-risk because of well understood soil properties that can lead to serious environmental, human health and property risks. Often these risks are posed not to the landowners undertaking activities but to landowners downstream or downslope of the activity. Some of these risks might involve activities carried out by farmers. I feel that it is entirely appropriate to enable Council to have the ability to assess risky activities on specific landforms or soil types where the potential effects on other landowners might be serious.

113. In regards to the submission that non-regulatory tools are appropriate because farmers "generally know their land very well and are accustomed to the soil types. Farmers value and invest in their soils and the stability of their soils". I would submit that while this is true for many farmers, these rules are in place to enable evaluation of activities that are often not proposed by farmers. Often these proposals follow the sale of a property and establishment of more intensive landuses.

114. Until the writing of the MEP, the district has essentially had a voluntary regime with regards to the management of erosion from loess soils. Council have managed loess erosion on the Wither Hills Farm Park to the best of its capability and resources however, similar private land has seen little treatment for tunnel gully erosion over recent decades since the removal of soil conservation funding. Council have tried to lead by example but this seems to have had little effect. Consequently, a regulatory process (that is limited in its scope and subject to on-going refinement) seems appropriate.

115. With regards to the impeded soils overlay, this seeks simply to formalise a process that is common practice throughout the country with regard to discharge of agricultural effluent (dairy and winery effluent amongst other discharges).

116. I concur regarding the accuracy of the overlay maps and have proposed a process by which they can be amended to better reflect the actual soil types. I also agree that education and extension can be a valuable process that Council can use improve management of soils. It is our intention that these will be used as non-regulatory tools however, this doesn't remove the need for regulation to minimise the risks posed in the Soil Sensitive Areas.

117. **Recommendation**: The submission is rejected.

The Marlborough Environment Centre Incorporated (1193.108)

118. Support the identification of the SSA and widen the SSA overlays to include all free draining soils and soils close to estuaries and inlets.

119. Support for the SSA concept is acknowledged. The submitter is referred to the Davidson Group submission regarding expanding the free draining soils SSA to similar soils.

120. I cannot support the proposal to include land close to estuaries or inlets and alongside rivers as potential SSAs. While the minimisation of faecal contamination of these water bodies is clearly desirable, it is clear from the submission the author is referring to specific cases of contamination. These should be referred to Council compliance staff for action. This leaves a general risk of contamination as the driving idea behind the submission. As stated previously, the SSA concept deals with specific identified risks caused by a well understood soil property. If general contamination is caused by runoff from farms close to water bodies, this might be caused by impeded soils but the mitigation for this is not included in the rules for this SSA which deal more with point source discharges rather than the general loss of contaminants from pasture. The only viable mitigation in this case would be riparian planting. I note the MEP contains rules regarding setback rules for discharges to waterways

121. **Recommendation:** that the submission is rejected.

Villa Maria (1218.83) and Indevin Estates Limited (776.49)

122. Submit that Council includes as a method the ongoing commitment to refining the SSAs. The submitters note the "mapping is extensive" and is referred to the comments regarding scale above. Submissions in support by Awatere Water Users Group Incorporated, Lion - Beer, Spirits & Wine (NZ) Limited and Pernod Ricard Winemakers New Zealand Limited are noted.

123. I concur that Council should commit to further refining the overlay maps both through the polygon review process and via an on-going programme of more detailed soil mapping. Method 16.M.15 indicates Council will "*Identify in the MEP those areas with soils most susceptible to the adverse effects of the discharge of contaminants to land"* This text covers the discharges to land but not the protection of loess soils against erosion. I suggest that an addition is made to Method 15.M.40 to cover this and that additions are made to both methods to allow for the revision of the overlays.

124. **Recommendation:** that the submission is accepted.

> That a suitable method is incorporated into Volume 1 chapter 15, Issue 15F – Soil, 15.M.40 Information: Identify in the MEP those areas most susceptible to the adverse effects of the erosion caused by the dispersive nature of loess soils.
>
> Further that both methods 15.M.40 and 16.M.15: Review the Soil Sensitive Areas overlay maps on an on-going basis to reflect an improving understanding of the risk of activities occurring on these soils

Nelson Forests Ltd (990.1)

125. Seeks to establish a controlled activity level for full discretionary activities. In this context, the spreading of fertiliser.

126. I disagree. As stated previously, the SSA concept deals with specific identified risks caused by a well understood soil property. The spreading of fertiliser over an SSA only applies to the Free Draining SSA. This submitter wishes to change rules in order to simplify the consenting regime that they operate under. This is inappropriate in this circumstance given the risks and potential downstream effects. Council should retain the ability to subject applications to scrutiny if the activity poses risks as outlined previously.

127. **Recommendation:** The submission is rejected.

Land Vision Ltd (904.2)

128. The submission seeks the omission of rule 3.3.28.1. The submitter is correct in their assessment of the requirements to safely spread farm dairy effluent.

129. Again, the SSA concept is a triage method to allow assessment of effects on soils where a high risk of environmental harm exists. The overlays are to help landowners understand which areas might be at higher risk and therefore require assessment of those risks via the resource consent process.

130. The flaws with the mapping are acknowledged and the submitter is referred to the comments above.

131. **Recommendation:** The submission is rejected.

Richard Warwick Evans (1082.4 & 1082.6)

132. To include excavation/filling in a Soil Sensitive Area identified as loess soils as a permitted activity provided a design/report is prepared by a Chartered Professional Geotechnical Engineer.

133. Mr Evans raises some interesting points. While it is a valid point that submission of a design/report by a suitably qualified and experienced person could provide some certainty that a given activity carried out on an SSA was appropriate, it does not follow that the activity could then be a permitted one. Under the SSA concept, only those areas marked on the overlay would require such a report for resource consent. The point of the SSA is to trigger resource consent in areas that would likely require such an engineer's report or similar assessment of effects. The overlays provide the guidance to the public on which areas require deeper investigation of effects. Without the use of some kind of triggering mechanism such as the overlay map and consenting requirements, Mr Evans submission would require engineering reporting on a property by property basis for every project increasing costs and workloads.

134. The Council ability to assess applications is not relevant to this process. Firstly, Council retains significant expertise on-staff but also reserves the right to seek expert advice (and regularly does) where an application is beyond Councils ability to assess. Secondly, it is not Councils role to provide expert assessment of reports. The applicant has to provide an assessment of effects that makes it clear the proposed activity will not have effects. Mr Evans states that "no added value can be provided by obtaining resource consent". On the contrary, value will come from reduction in poor outcomes where currently no requirement for assessment exists. By limiting the area that requires consent (with the overlay map), and setting rules that indicate the activities that may pose a risk, Council has tried to limit the requirement for resource consent to the minimum thus keeping cost and bureaucracy to the minimum possible to provide certainty.

135. The mapping inaccuracies Mr Evans mentions are acknowledged and discussed at length above. In particular, the scale and polygon review process should go some way to alleviating Mr Evans concerns.

136. **Recommendation**: That the submission is rejected.

Pukematai Farm Ltd (1045.002)

137. Does not agree with soil sensitive areas and must have clarification of this ruling which is very vague.

138. It is acknowledged that changes of this nature can be challenging for long-established farming businesses. In the context of this farm, the SSA-impeded soils would currently apply along with the rules for farm dairy effluent discharge. The suggested polygon review process will probably reduce the area of impeded soils mapped on the overlay for this property.

139. The effect of rule 3.3.28.1 is to require resource consent for the discharge of dairy effluent. This has been discussed previously in my response to the Hall Family farms submission. The sole difference is that the soil types within the overlay polygons are different.

140. In order to address the submitters concerns, the issue of effluent storage and fertiliser use raised in the submission is relevant here also. Storage is now required to prevent overloading of the soil under wet conditions. Applicants need either:

- 3 months storage (to see them through winter); or
- An assessment that their storage is sufficient (depends on soil type and how quickly that soil can absorb effluent). A guide for this process is available.

141. On this farm fertiliser and lime use is not restricted. That rule applies only to the free-draining SSA at Rarangi currently (although this may change following the polygon review process). There is a chance that the farm may have a mixture of impeded and free-draining soils and that some restriction might apply in future but this will depend upon completion of more detailed mapping by Council to confirm. The submitter is welcome to discuss their concerns further with me should they wish.

142. This submission illustrates the difficulty that Council rules can pose to farmers. As an example, the wording of the rule 3.3.28.1 states "The discharge (of dairy farm effluent) must not occur into or onto a Soil Sensitive Area". Taken literally and perhaps without a good understanding of the wider RMA and resource consent process, this has caused a number of submitters' unnecessary concern for the future of their businesses. I suggest to these submitters that the way to think about these rules is to:

- first check that the activity they wish to perform is a permitted activity,
- then, check what standards apply to those activities
- then check any rules under those standards.

143. As an example – spreading dairy farm effluent is a permitted activity with standards that apply. Under those standards is the rule 3.3.28.1 stating "The discharge (of dairy farm effluent) must not occur into or onto a Soil Sensitive Area". While this seems to imply no FDE can be spread, it's a permitted

activity so we should add the words “without resource consent” to the end of the rule so it reads “The discharge (of dairy farm effluent) must not occur into or onto a Soil Sensitive Area without resource consent”. To be allowed to spread FDE on an SSA, you need to apply for resource consent to enable assessment of the environmental effects. It would seem that many rules that apply to permitted activities that farmers may wish to carry out should be read like this. Council hasn’t added these words because it’s implicit and would just make the whole document longer.

144. **Recommendation**: That the submission is rejected.

Concluding remarks

145. Through the course of preparing this report several issues have recurred. To briefly summarise the recurring issues in submissions:

- Many submissions commented on the inaccuracy of the overlay maps:
    - A proposal to conduct a review process is suggested for each SSA alongside a longer-term Council soil mapping process. Both will result in future plan changes to refine the accuracy of the SSA overlays.
    - The issue of scale needs to be better understood by submitters. The overlay maps as they stand can only be reliably used at 1:50,000 scale and as such can only provide a triage tool for the assessment of effects not a definitive guide to the precise location of a particular soil type or SSA. The smallest unit of resolution at this scale is 25 hectares. If the property of interest falls within an overlay and is less than 25 hectares, no guarantees can be offered as to the accuracy of the overlay maps.
- Many submissions showed a lack of understanding regarding the effect of the rules:
    - Improvements to the Soil Sensitive Areas definitions are suggested.

Appendix 2: Recommended decisions on decisions requested

Submission Number	Submission Point	Submitter	Volume	Chapter	Provision	Recommendation
4	1	Herb Thomson	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
40	1	Nicholas Webby	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
46	1	Nicholas Webby	Volume 2	3 Rural Environment Zone	3.3.23.2.	Accept in part
88	9	Chris Bowron	Volume 2	3 Rural Environment Zone	3.3.32.1.	Accept
88	10	Chris Bowron	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
91	135	Marlborough District Council	Volume 1	16 Waste	16.AER.3	Accept in part
91	56	Marlborough District Council	Volume 2	10 Business 2 Zone	10.3.6.1.	Accept
91	57	Marlborough District Council	Volume 2	11 Business 3 Zone	11.3.5.1.	Accept
91	58	Marlborough District Council	Volume 2	12 Industrial 1 and 2 Zones	12.3.21.1.	Accept
91	59	Marlborough District Council	Volume 2	17 Open Space 1 Zone	17.3.7.1.	Accept
91	60	Marlborough District Council	Volume 2	18 Open Space 2 Zone	18.3.8.1.	Accept
91	61	Marlborough District Council	Volume 2	19 Open Space 3 Zone	19.3.15.1.	Accept
91	124	Marlborough District Council	Volume 2	21 Floodway Zone	21.3.15.2.	Accept
91	62	Marlborough District Council	Volume 2	23 Airport Zone	23.3.4.1.	Accept
91	49	Marlborough District Council	Volume 2	3 Rural Environment Zone	3.3.22.1.	Accept
91	50	Marlborough District Council	Volume 2	4 Coastal Environment Zone	4.3.21.1.	Accept
91	51	Marlborough District Council	Volume 2	5 Urban Residential 1 and 2 Zone	5.3.13.1.	Accept
91	54	Marlborough District Council	Volume 2	8 Rural Living Zone	8.3.12.1.	Accept
91	55	Marlborough District Council	Volume 2	9 Business 1 Zone	9.3.6.1.	Accept
91	53	Marlborough District Council	Volume 2	7 Coastal Living Zone	7.3.11.1	Accept
91	84	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	116	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	117	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	118	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	146	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	147	Marlborough District Council	Volume 2	25 Definitions	25.	Accept

91	145	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	143	Marlborough District Council	Volume 2	25 Definitions	25.	Accept
91	48	Marlborough District Council	Volume 2	2 General Rules	2.22.1.1	Accept
93	7	Spencer & Susan White	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept in part
93	8	Spencer & Susan White	Volume 2	3 Rural Environment Zone	3.3.31.1.	Accept in part
93	9	Spencer & Susan White	Volume 2	3 Rural Environment Zone	3.3.32.1.	Accept in part
100	27	East Bay Conservation Society	Volume 2	4 Coastal Environment Zone	4.7.7.	Accept
129	5	Rebecca Light	Volume 2	3 Rural Environment Zone	3.3.30.8.	Accept in part
130	1	Vivienne Harris	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
141	1	Hall Family Farms Ltd	Volume 2	3 Rural Environment Zone	3.3.28.1.	Accept in part
141	5	Hall Family Farms Ltd	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
141	2	Hall Family Farms Ltd	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept
141	3	Hall Family Farms Ltd	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
141	7	Hall Family Farms Ltd	Volume 4	Overlay Maps	Soil Sensitive Area 3	Accept in part
149	38	PF Olsen Ltd	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
149	40	PF Olsen Ltd	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
149	41	PF Olsen Ltd	Volume 2	3 Rural Environment Zone	3.3.24.	Accept
149	56	PF Olsen Ltd	Volume 2	4 Coastal Environment Zone	4.3.21.	Reject
149	57	PF Olsen Ltd	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
149	58	PF Olsen Ltd	Volume 2	4 Coastal Environment Zone	4.3.23.	Accept
161	2	David Sim	Volume 2	3 Rural Environment Zone	3.	Accept in part
161	1	David Sim	Volume 4	Overlay Maps	Soil Sensitive Area 11	Accept in part
162	2	Waitai Station	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
162	1	Waitai Station	Volume 2	19 Open Space 3 Zone	19.3.14.	Reject
162	3	Waitai Station	Volume 2	4 Coastal Environment Zone	4.1.23.	Reject
162	4	Waitai Station	Volume 2	4 Coastal Environment Zone	4.3.23.	Reject
172	6	Davidson Group Ltd	Volume 2	3 Rural Environment Zone	3.3.26.	Reject
172	8	Davidson Group Ltd	Volume 2	3 Rural Environment Zone	3.3.30.2.	Reject

172	10	Davidson Group Ltd	Volume 2	4 Coastal Environment Zone	4.3.25.	Reject
172	7	Davidson Group Ltd	Volume 4	Overlay Maps	Soil Sensitive Area 4	Accept in part
189	2	Paul Kemp	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
189	3	Paul Kemp	Volume 2	3 Rural Environment Zone	3.1.32.	Accept
192	6	Perry Mason Gilbert	Volume 2	8 Rural Living Zone	8.3.12.5.	Reject
192	7	Perry Mason Gilbert	Volume 2	8 Rural Living Zone	8.3.14.2.	Reject
201	1	Vallyn & Diana Wadsworth	Volume 4	Overlay Maps	Soil Sensitive Area 11	Accept in part
210	37	Kevin Wilson	Volume 2	17 Open Space 1 Zone	17.3.8.5.	Reject
210	21	Kevin Wilson	Volume 2	18 Open Space 2 Zone	18.3.10.6.	Reject
210	36	Kevin Wilson	Volume 2	18 Open Space 2 Zone	18.3.9.5.	Reject
210	20	Kevin Wilson	Volume 2	19 Open Space 3 Zone	19.3.13.6.	Reject
210	35	Kevin Wilson	Volume 2	19 Open Space 3 Zone	19.3.17.4.	Reject
210	32	Kevin Wilson	Volume 2	19 Open Space 3 Zone	19.3.22.	Reject
210	19	Kevin Wilson	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
210	24	Kevin Wilson	Volume 2	3 Rural Environment Zone	3.3.30.4.	Reject
210	34	Kevin Wilson	Volume 2	3 Rural Environment Zone	3.3.33.	Reject
210	38	Kevin Wilson	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
210	23	Kevin Wilson	Volume 2	4 Coastal Environment Zone	4.3.29.5.	Reject
210	33	Kevin Wilson	Volume 2	4 Coastal Environment Zone	4.3.32.	Reject
210	22	Kevin Wilson	Volume 2	7 Coastal Living Zone	7.3.13.5	Reject
218	2	Salvador Delgado Oro Laprida	Volume 1	16 Waste	Policy 16.3.2	Reject
243	4	Marguerete Osborne	Volume 2	8 Rural Living Zone	8.3.12.3.	Reject
255	9	Warwick Lissaman	Volume 1	16 Waste	Policy 16.1.2	Reject
255	2	Warwick Lissaman	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject
255	28	Warwick Lissaman	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
255	27	Warwick Lissaman	Volume 2	3 Rural Environment Zone	3.3.32.3.	Reject
255	24	Warwick Lissaman	Volume 2	25 Definitions	25.	Reject
269	1	Okiwi Bay Ratepayers Assn Inc	Volume 1	16 Waste	16.M.20	Reject

274	2	Institution of Professional Engineers New Zealand (IPENZ)	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
274	3	Institution of Professional Engineers New Zealand (IPENZ)	Volume 2	3 Rural Environment Zone	3.3.28.9.	Reject
280	34	Nelson Marlborough District Health Board	Volume 1	16 Waste	Policy 16.2.6	Accept
289	1	James (Jim) Rudd	Volume 2	3 Rural Environment Zone	3.3.32.1.	Accept
305	1	Peter Bown	Volume 2	3 Rural Environment Zone	3.3.32.1.	Reject
326	6	Steven and Sarah Leov	Volume 2	3 Rural Environment Zone	3.3.28.	Accept in part
330	1	Malcolm and Helen Neame	Volume 4	Overlay Maps	Soil Sensitive Area 20	Accept in part
339	13	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.21.1.	Reject
339	12	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.21.4.	Reject
339	11	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.22.1.	Reject
339	9	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
339	8	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.22.4.	Accept in part
339	7	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.22.5.	Reject
339	6	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.27.3.	Accept in part
339	5	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.27.4.	Accept in part
339	4	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.27.6.	Reject
339	3	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.31.1.	Accept
339	2	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.31.4.	Accept
339	1	Sharon Parkes	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
340	4	B L and C F Leov Bulford	Volume 2	3 Rural Environment Zone	3.3.28.11.	Reject
347	4	Edward and Amanda Ryan	Volume 2	3 Rural Environment Zone	3.3.26.	Reject
347	5	Edward and Amanda Ryan	Volume 2	3 Rural Environment Zone	3.3.33.	Reject
347	6	Edward and Amanda Ryan	Volume 2	3 Rural Environment Zone	3.3.34.	Reject
347	1	Edward and Amanda Ryan	Volume 4	Overlay Maps	Soil Sensitive Area 20	Reject
348	42	Murray Chapman	Volume 1	16 Waste	Objective 16.2	Reject
348	15	Murray Chapman	Volume 1	16 Waste	Policy 16.2.4	Reject

348	22	Murray Chapman	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
355	9	Dominion Salt Limited	Volume 2	22 Lake Grassmere Saltworks Zone	22.1.11.	Reject
357	7	Trudie Lasham	Volume 2	3 Rural Environment Zone	3.3.26.	Accept
357	6	Trudie Lasham	Volume 2	3 Rural Environment Zone	3.3.28.	Accept
359	6	WilkesRM Limited	Volume 2	3 Rural Environment Zone	3.1.28.	Accept
359	43	WilkesRM Limited	Volume 2	25 Definitions	25.	Accept
367	1	Nigel and Christine Morrison	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
367	3	Nigel and Christine Morrison	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
378	11	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
378	8	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
378	9	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
378	19	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
378	15	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
378	12	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
378	13	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
378	20	Roger (Budyong) Edward and Leslie Janis Hill	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
393	1	Barry and Lila McLeod	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
397	8	Heather Collins	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
397	7	Heather Collins	Volume 2	3 Rural Environment Zone	3.3.28.7.	Reject
397	9	Heather Collins	Volume 2	3 Rural Environment Zone	3.3.33.4.	Reject
418	2	John Craighead	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
418	10	John Craighead	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
418	13	John Craighead	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
418	12	John Craighead	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part

418	1	John Craighead	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
418	6	John Craighead	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
418	9	John Craighead	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
418	8	John Craighead	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
419	19	Fly-fish Marlborough	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
419	5	Fly-fish Marlborough	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
419	8	Fly-fish Marlborough	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
419	7	Fly-fish Marlborough	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
419	18	Fly-fish Marlborough	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
419	11	Fly-fish Marlborough	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
419	14	Fly-fish Marlborough	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
419	13	Fly-fish Marlborough	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
420	19	Windsong Orchard	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
420	7	Windsong Orchard	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
420	10	Windsong Orchard	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
420	9	Windsong Orchard	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
420	18	Windsong Orchard	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
420	11	Windsong Orchard	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
420	14	Windsong Orchard	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
420	13	Windsong Orchard	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
421	19	Janet Steggle	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
421	7	Janet Steggle	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
421	10	Janet Steggle	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
421	9	Janet Steggle	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
421	18	Janet Steggle	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
421	11	Janet Steggle	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
421	14	Janet Steggle	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
421	13	Janet Steggle	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
422	19	Jan Richardson	Volume 2	3 Rural Environment Zone	3.1.31.	Accept

422	7	Jan Richardson	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
422	10	Jan Richardson	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
422	9	Jan Richardson	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
422	18	Jan Richardson	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
422	11	Jan Richardson	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
422	14	Jan Richardson	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
422	13	Jan Richardson	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
423	18	Chris Shaw	Volume 2	3 Rural Environment Zone	3.1.31.	Accept
423	8	Chris Shaw	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
423	11	Chris Shaw	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
423	10	Chris Shaw	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
423	17	Chris Shaw	Volume 2	4 Coastal Environment Zone	4.1.30.	Accept
423	12	Chris Shaw	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
423	15	Chris Shaw	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
423	14	Chris Shaw	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
424	132	Michael and Kristen Gerard	Volume 1	16 Waste	16.M.21	Accept
424	130	Michael and Kristen Gerard	Volume 1	16 Waste	Objective 16.1	Accept
424	131	Michael and Kristen Gerard	Volume 1	16 Waste	Policy 16.2.8	Accept
424	133	Michael and Kristen Gerard	Volume 1	16 Waste	Policy 16.3.9	Accept
424	166	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.3.29.	Accept
424	167	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept in part
424	168	Michael and Kristen Gerard	Volume 2	4 Coastal Environment Zone	4.3.31.	Accept in part
425	323	Federated Farmers of New Zealand	Volume 1	16 Waste	16.M.1	Accept
425	339	Federated Farmers of New Zealand	Volume 1	16 Waste	16.M.20	Reject
425	331	Federated Farmers of New Zealand	Volume 1	16 Waste	16.M.9	Reject
425	324	Federated Farmers of New Zealand	Volume 1	16 Waste	Objective 16.2	Reject
425	326	Federated Farmers of New Zealand	Volume 1	16 Waste	Objective 16.2	Reject
425	332	Federated Farmers of New Zealand	Volume 1	16 Waste	Objective 16.3	Accept in part
425	322	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.1.1	Reject

425	325	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.2.1	Accept
425	327	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.2.3	Accept in part
425	328	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.2.4	Reject
425	329	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.2.5	Reject
425	330	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.2.8	Reject
425	333	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.3	Accept
425	334	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.4	Accept
425	335	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.5	Reject
425	336	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.6	Accept in part
425	337	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.8	Reject
425	338	Federated Farmers of New Zealand	Volume 1	16 Waste	Policy 16.3.9	Reject
425	744	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.17.	Reject
425	746	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.19.	Reject
425	747	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.20.	Reject
425	749	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.22.	Accept in part
425	754	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.24.	Reject
425	755	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.25.	Reject
425	831	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.1.	Reject
425	833	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.2.	Reject
425	835	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.4.	Reject
425	836	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.6.	Accept in part
425	750	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.20.1.	Reject
425	751	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.20.2.	Accept
425	752	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.20.5.	Reject
425	748	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.	Reject
425	753	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.	Accept in part
425	837	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.2.	Reject
425	838	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.3.	Reject
425	840	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.5.	Reject

425	841	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.6.	Reject
425	847	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.1.	Reject
425	846	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.2.	Reject
425	845	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.3.	Reject
425	844	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.4.	Reject
425	843	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.5.	Reject
425	842	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.22.6.	Reject
425	759	Federated Farmers of New Zealand	Volume 2	21 Floodway Zone	21.3.15.	Accept in part
425	566	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.22.	Reject
425	567	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.23.	Reject
425	573	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.25.	Reject
425	574	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.26.	Reject
425	586	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.28.	Reject
425	599	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.32.	Accept in part
425	600	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.33.	Reject
425	607	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.1.34.	Reject
425	568	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
425	569	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject
425	571	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
425	572	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
425	576	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
425	585	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
425	578	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.3.	Reject
425	579	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept
425	580	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.6.	Reject
425	581	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.7.	Reject
425	582	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
425	583	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
425	587	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.30.5.	Reject

425	588	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.30.8.	Reject
425	589	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.30.9.	Reject
425	590	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
425	591	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.31.2.	Accept
425	592	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.31.5.	Reject
425	593	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.32.1.	Accept in part
425	594	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.32.2.	Reject
425	595	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.32.3.	Reject
425	597	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.32.5.	Reject
425	598	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
425	601	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.1.	Reject
425	602	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.2.	Reject
425	603	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.3.	Reject
425	604	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.4.	Reject
425	605	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.5.	Reject
425	606	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.33.6.	Reject
425	669	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.21.	Reject
425	670	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.22.	Reject
425	683	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.29.	Reject
425	690	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.32.	Reject
425	691	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.33.	Reject
425	803	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.1.	Reject
425	805	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
425	806	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.5.	Accept in part
425	671	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.24.	Reject
425	672	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.25.	Reject
425	682	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
425	675	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.2.	Reject
425	676	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.4.	Accept

425	677	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.5.	Reject
425	678	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.6.	Reject
425	679	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Reject
425	684	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.29.6.	Reject
425	685	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.29.8.	Reject
425	686	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.30.1.	Reject
425	687	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.30.2.	Accept
425	688	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.30.4.	Reject
425	689	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.31.	Reject
425	807	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.31.2.	Reject
425	809	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
425	810	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.32.1.	Reject
425	811	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.32.2.	Reject
425	812	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.32.3.	Reject
425	814	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.32.4.	Reject
425	808	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.31.3	Reject
425	839	Federated Farmers of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.21.4	Reject
425	490	Federated Farmers of New Zealand	Volume 2	2 General Rules	2.21.1	Reject
425	787	Federated Farmers of New Zealand	Volume 4	Overlay Maps		Reject
425	401	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	417	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Accept in part
425	388	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	416	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	384	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	418	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Accept
425	377	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Accept
425	680	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	424	Federated Farmers of New Zealand	Volume 2	25 Definitions	25.	Reject
425	577	Federated Farmers of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.2	Reject

425	674	Federated Farmers of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.1	Reject
430	4	John and Pam Harvey	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
431	59	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
431	60	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
431	61	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
431	62	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
431	63	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
431	64	Wine Marlborough	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
431	86	Wine Marlborough	Volume 2	25 Definitions	25.	Accept
437	1	David Ensor	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
437	2	David Ensor	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject
440	5	Ian Esson	Volume 2	2 General Rules	2.22.1.2	Reject
440	6	Ian Esson	Volume 2	2 General Rules	3.3.22.3	Reject
445	7	Trelawne Farm Limited	Volume 2	3 Rural Environment Zone	3.3.22.1.	Reject
445	8	Trelawne Farm Limited	Volume 2	3 Rural Environment Zone	3.3.22.2.	Accept
445	11	Trelawne Farm Limited	Volume 2	3 Rural Environment Zone	3.3.22.5.	Accept
445	10	Trelawne Farm Limited	Volume 2	3 Rural Environment Zone	3.3.23.4.	Accept
445	16	Trelawne Farm Limited	Volume 2	25 Definitions	25.	Accept
445	3	Trelawne Farm Limited	Volume 2	2 General Rules	2.22.1.1	Accept in part
445	5	Trelawne Farm Limited	Volume 2	2 General Rules	2.22.1.3	Accept in part
445	6	Trelawne Farm Limited	Volume 2	2 General Rules	2.22.1.4	Accept in part
450	31	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
450	24	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.1.17.	Accept in part
450	15	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.1.19.	Accept in part
450	28	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.3.12.2.	Accept
450	22	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.3.17.1.	Accept
450	23	Shaun and Jane Peoples	Volume 2	19 Open Space 3 Zone	19.3.17.6.	Accept in part
450	25	Shaun and Jane Peoples	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
450	26	Shaun and Jane Peoples	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part

450	30	Shaun and Jane Peoples	Volume 2	3 Rural Environment Zone	3.1.24.	Reject
450	27	Shaun and Jane Peoples	Volume 2	3 Rural Environment Zone	3.3.23.1.	Accept
450	29	Shaun and Jane Peoples	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
450	11	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.1.15.	Accept in part
450	10	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.3.13.4.	Accept
450	18	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.5.4.	Accept
450	17	Shaun and Jane Peoples	Volume 2	8 Rural Living Zone	8.5.5.	Accept
451	2	Bown Partnership	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
451	3	Bown Partnership	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
454	106	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
454	107	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.3.23.1.	Accept
454	108	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.3.23.2.	Accept
454	110	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.3.23.4.	Accept
454	111	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.3.23.5.	Accept
454	112	Kevin Francis Loe	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
455	50	John Hickman	Volume 2	19 Open Space 3 Zone	19.1.17.	Accept in part
455	49	John Hickman	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
456	50	George Mehlhopt	Volume 2	19 Open Space 3 Zone	19.1.17.	Accept in part
456	49	George Mehlhopt	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
457	71	Accolade Wines New Zealand Limited	Volume 1	5 Allocation of Public Resources	Objective 5.8	Accept in part
457	59	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
457	60	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
457	61	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
457	62	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept
457	63	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
457	64	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
457	76	Accolade Wines New Zealand Limited	Volume 2	3 Rural Environment Zone	3.3.26.	Accept
457	75	Accolade Wines New Zealand Limited	Volume 2	25 Definitions	25.	Accept
459	23	Beef and Lamb New Zealand	Volume 2	17 Open Space 1 Zone	17.3.8.	Reject

459	60	Beef and Lamb New Zealand	Volume 2	17 Open Space 1 Zone	17.3.8.	Reject
459	24	Beef and Lamb New Zealand	Volume 2	18 Open Space 2 Zone	18.3.9.	Reject
459	61	Beef and Lamb New Zealand	Volume 2	18 Open Space 2 Zone	18.3.9.	Reject
459	25	Beef and Lamb New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.	Reject
459	62	Beef and Lamb New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.	Reject
459	26	Beef and Lamb New Zealand	Volume 2	23 Airport Zone	23.3.5.	Reject
459	63	Beef and Lamb New Zealand	Volume 2	23 Airport Zone	23.3.5.	Reject
459	21	Beef and Lamb New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
459	58	Beef and Lamb New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
459	22	Beef and Lamb New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
459	59	Beef and Lamb New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
462	43	Blind River Irrigation Limited	All	All		Accept
462	21	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
462	22	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
462	23	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
462	24	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
462	25	Blind River Irrigation Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
473	75	Delegat Limited	All	All		Accept
473	44	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
473	45	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
473	46	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
473	47	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
473	48	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
473	49	Delegat Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
473	65	Delegat Limited	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
473	67	Delegat Limited	Volume 2	3 Rural Environment Zone	3.3.26.	Accept
473	68	Delegat Limited	Volume 2	25 Definitions	25.	Accept
476	18	South Marlborough Landscape Restoration Trust	Volume 2	3 Rural Environment Zone	3.3.22.4.	Reject

476	21	South Marlborough Landscape Restoration Trust	Volume 2	3 Rural Environment Zone	3.3.22.5.	Reject
476	19	South Marlborough Landscape Restoration Trust	Volume 2	4 Coastal Environment Zone	4.3.21.3.	Reject
476	20	South Marlborough Landscape Restoration Trust	Volume 2	7 Coastal Living Zone	7.3.11.2	Reject
479	249	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.1.14.	Accept in part
479	251	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
479	253	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.1.17.	Accept in part
479	250	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.3.12.	Accept in part
479	252	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.3.14.	Reject
479	254	Department of Conservation	Volume 2	19 Open Space 3 Zone	19.3.15.	Accept in part
479	259	Department of Conservation	Volume 2	20 Open Space 4 Zone	20.1.8.	Reject
479	260	Department of Conservation	Volume 2	20 Open Space 4 Zone	20.3.6.	Reject
479	209	Department of Conservation	Volume 2	3 Rural Environment Zone	3.1.28.	Accept in part
479	210	Department of Conservation	Volume 2	3 Rural Environment Zone	3.3.28.	Accept in part
479	184	Department of Conservation	Volume 2	2 General Rules	2.21.1	Reject
479	185	Department of Conservation	Volume 2	2 General Rules	2.21.1	Reject
483	2	Colin and Lynette King	Volume 2	3 Rural Environment Zone	3.1.32.	Accept in part
483	3	Colin and Lynette King	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
483	1	Colin and Lynette King	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject
484	62	Clintondale Trust, Whyte Trustee Company Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
484	63	Clintondale Trust, Whyte Trustee Company Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
484	64	Clintondale Trust, Whyte Trustee Company Limited	Volume 2	25 Definitions	25.	Accept
501	81	Te Runanga O Ngati Kuia	Volume 1	16 Waste	Policy 16.3.3	Reject
504	74	Queen Charlotte Sound Residents Association	Volume 1	16 Waste	16.M.20	Reject
504	75	Queen Charlotte Sound Residents Association	Volume 1	16 Waste	16.M.21	Accept

504	84	Queen Charlotte Sound Residents Association	Volume 2	7 Coastal Living Zone	7.5.4.	Accept in part
509	435	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
509	437	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.17.	Reject
509	441	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.19.	Reject
509	443	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.20.	Reject
509	444	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.21.	Reject
509	445	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.22.	Reject
509	446	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.23.	Reject
509	447	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.24.	Reject
509	448	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.1.25.	Reject
509	436	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.3.14.	Reject
509	438	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.3.15.	Reject
509	442	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.3.17.	Reject
509	451	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.4.3.	Reject
509	453	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.5.2.	Accept
509	455	Nelson Marlborough Fish and Game	Volume 2	19 Open Space 3 Zone	19.5.4.	Accept in part
509	311	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.22.	Reject
509	312	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.23.	Reject
509	313	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.24.	Reject
509	314	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
509	315	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.26.	Reject
509	317	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.28.	Reject
509	318	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.30.	Reject
509	319	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.31.	Accept in part
509	320	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.32.	Accept in part
509	321	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.33.	Reject
509	322	Nelson Marlborough Fish and Game	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
512	1	Pukematai Farm Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Reject

512	2	Pukematai Farm Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Reject
515	1	Mt Zion Charitable Trust	Volume 1	16 Waste	16.M.20	Reject
524	10	Alice Doole	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
524	7	Alice Doole	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
524	8	Alice Doole	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
524	18	Alice Doole	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
524	14	Alice Doole	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
524	11	Alice Doole	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
524	12	Alice Doole	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
524	19	Alice Doole	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
529	10	Alison Jane Parr	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
529	7	Alison Jane Parr	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
529	8	Alison Jane Parr	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
529	18	Alison Jane Parr	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
529	14	Alison Jane Parr	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
529	11	Alison Jane Parr	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
529	12	Alison Jane Parr	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
529	19	Alison Jane Parr	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
532	10	Anthony Patrick Vincent Millen	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
532	7	Anthony Patrick Vincent Millen	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
532	8	Anthony Patrick Vincent Millen	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
532	18	Anthony Patrick Vincent Millen	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
532	14	Anthony Patrick Vincent Millen	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
532	11	Anthony Patrick Vincent Millen	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
532	12	Anthony Patrick Vincent Millen	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
532	19	Anthony Patrick Vincent Millen	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
575	11	Butt Drilling Limited	Volume 2	18 Open Space 2 Zone	10.3.10.9.	Reject
575	14	Butt Drilling Limited	Volume 2	17 Open Space 1 Zone	17.3.9.9.	Reject
575	13	Butt Drilling Limited	Volume 2	19 Open Space 3 Zone	19.3.20.4.	Reject

575	15	Butt Drilling Limited	Volume 2	19 Open Space 3 Zone	19.3.21.4.	Reject
575	16	Butt Drilling Limited	Volume 2	19 Open Space 3 Zone	19.3.22.3.	Reject
575	18	Butt Drilling Limited	Volume 2	23 Airport Zone	23.3.6.7.	Reject
575	3	Butt Drilling Limited	Volume 2	3 Rural Environment Zone	3.3.31.4.	Reject
575	4	Butt Drilling Limited	Volume 2	3 Rural Environment Zone	3.3.32.4.	Reject
575	5	Butt Drilling Limited	Volume 2	3 Rural Environment Zone	3.3.33.3.	Reject
575	8	Butt Drilling Limited	Volume 2	6 Urban Residential 3 Zone	6.3.7.8.	Reject
575	10	Butt Drilling Limited	Volume 2	8 Rural Living Zone	8.3.14.6.	Reject
591	4	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.22.1.	Reject
591	5	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.22.2.	Accept
591	7	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.22.4.	Accept
591	8	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.22.5.	Accept
591	9	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
591	10	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.23.2.	Accept in part
591	12	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.23.4.	Accept
591	13	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.23.5.	Accept
591	14	Rarangi Golf Club Incorporated	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
592	11	Clifford John Smith	Volume 1	16 Waste	16.M.19	Accept in part
594	10	Corinne McBride	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
594	7	Corinne McBride	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
594	8	Corinne McBride	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
594	18	Corinne McBride	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
594	14	Corinne McBride	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
594	11	Corinne McBride	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
594	12	Corinne McBride	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
594	19	Corinne McBride	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
594	9	Corinne McBride	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
594	13	Corinne McBride	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
598	10	Carol Raewyn McLean	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept

598	7	Carol Raewyn McLean	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
598	8	Carol Raewyn McLean	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
598	18	Carol Raewyn McLean	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
598	14	Carol Raewyn McLean	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
598	11	Carol Raewyn McLean	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
598	12	Carol Raewyn McLean	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
598	19	Carol Raewyn McLean	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
599	10	Carney Ray Soderberg jr	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
599	7	Carney Ray Soderberg jr	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
599	8	Carney Ray Soderberg jr	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
599	18	Carney Ray Soderberg jr	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
599	14	Carney Ray Soderberg jr	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
599	11	Carney Ray Soderberg jr	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
599	12	Carney Ray Soderberg jr	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
599	19	Carney Ray Soderberg jr	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
631	48	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.1	Reject
631	49	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.2	Reject
631	50	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.3	Accept
631	51	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.4	Accept
631	22	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.7	Accept
631	52	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.8	Reject
631	53	Constellation Brands New Zealand Limited	Volume 1	16 Waste	Policy 16.3.9	Reject
631	32	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
631	33	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part

631	34	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
631	35	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
631	36	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
631	37	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
631	55	Constellation Brands New Zealand Limited	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
640	40	Douglas and Colleen Robbins	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
640	41	Douglas and Colleen Robbins	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject
640	42	Douglas and Colleen Robbins	Volume 2	3 Rural Environment Zone	3.3.31.5.	Reject
640	44	Douglas and Colleen Robbins	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
640	53	Douglas and Colleen Robbins	Volume 2	4 Coastal Environment Zone	4.3.30.2.	Reject
640	54	Douglas and Colleen Robbins	Volume 2	4 Coastal Environment Zone	4.3.30.4.	Reject
640	55	Douglas and Colleen Robbins	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
662	10	Donald McBride	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
662	7	Donald McBride	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
662	8	Donald McBride	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
662	18	Donald McBride	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
662	14	Donald McBride	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
662	11	Donald McBride	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
662	9	Donald McBride	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
662	13	Donald McBride	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
662	12	Donald McBride	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
662	19	Donald McBride	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
676	78	Dairy NZ	Volume 1	16 Waste	Issue 16B	Reject
676	79	Dairy NZ	Volume 1	16 Waste	Policy 16.3.2	Reject
676	91	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
676	92	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject

676	95	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
676	94	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.23.5.	Accept
676	96	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
676	97	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
676	109	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
676	99	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.3.	Reject
676	100	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.4.	Accept
676	101	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept
676	102	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.6.	Reject
676	103	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.7.	Reject
676	104	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
676	106	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
676	110	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.31.1.	Reject
676	111	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject
676	114	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.31.4.	Accept
676	115	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.31.5.	Reject
676	116	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.31.6.	Accept
676	117	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
676	118	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.33.1.	Accept
676	119	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.33.3.	Accept in part
676	120	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.33.4.	Reject
676	122	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.33.5.	Accept in part
676	123	Dairy NZ	Volume 2	3 Rural Environment Zone	3.3.33.6.	Accept in part
676	136	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.22.1.	Reject
676	138	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
676	139	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.22.4.	Accept
676	140	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.22.5.	Reject
676	142	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.24.2.	Reject
676	154	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part

676	144	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.2.	Reject
676	145	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.3.	Accept
676	146	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.4.	Accept
676	147	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.5.	Reject
676	148	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.6.	Reject
676	149	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Reject
676	151	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
676	155	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.30.1.	Reject
676	156	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.30.2.	Reject
676	158	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.30.3.	Accept in part
676	159	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.30.4.	Reject
676	160	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.30.5.	Accept
676	161	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
676	162	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.32.1.	Accept in part
676	163	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.32.2.	Reject
676	165	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.32.3.	Accept in part
676	166	Dairy NZ	Volume 2	4 Coastal Environment Zone	4.3.32.4.	Reject
676	112	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	121	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	152	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	157	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	164	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	150	Dairy NZ	Volume 2	25 Definitions	25.	Reject
676	105	Dairy NZ	Volume 2	25 Definitions	25.	Reject
701	10	Frances Alexandra C Chayter	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
701	7	Frances Alexandra C Chayter	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
701	8	Frances Alexandra C Chayter	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
701	18	Frances Alexandra C Chayter	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
701	14	Frances Alexandra C Chayter	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept

701	11	Frances Alexandra C Chayter	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
701	12	Frances Alexandra C Chayter	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
701	19	Frances Alexandra C Chayter	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
712	97	Flaxbourne Settlers Association	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
715	396	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
715	400	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
715	397	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.25.	Reject
715	398	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.26.	Reject
715	404	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.28.11.	Reject
715	401	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
715	402	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.28.9.	Reject
715	403	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	3 Rural Environment Zone	3.3.28.10	Reject
715	438	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
715	442	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
715	439	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	4 Coastal Environment Zone	4.3.24.	Reject
715	440	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	4 Coastal Environment Zone	4.3.25.	Reject
715	415	Royal Forest and Bird Protection Society NZ (Forest and Bird)	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept in part
717	60	Fulton Hogan Limited	Volume 1	16 Waste	16.M.1	Accept
717	59	Fulton Hogan Limited	Volume 1	16 Waste	Policy 16.1.2	Accept
738	41	Glenda Vera Robb	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
738	42	Glenda Vera Robb	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject

738	43	Glenda Vera Robb	Volume 2	3 Rural Environment Zone	3.3.31.5.	Reject
738	44	Glenda Vera Robb	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
738	53	Glenda Vera Robb	Volume 2	4 Coastal Environment Zone	4.3.30.2.	Reject
738	54	Glenda Vera Robb	Volume 2	4 Coastal Environment Zone	4.3.30.4.	Reject
738	55	Glenda Vera Robb	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
769	103	Horticulture New Zealand	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
769	104	Horticulture New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
769	105	Horticulture New Zealand	Volume 2	3 Rural Environment Zone	3.3.25.2	Reject
769	106	Horticulture New Zealand	Volume 2	3 Rural Environment Zone	3.3.26.7.	Reject
769	114	Horticulture New Zealand	Volume 2	25 Definitions	25.	Accept
769	125	Horticulture New Zealand	Volume 2	25 Definitions	25.	Accept in part
769	130	Horticulture New Zealand	Volume 2	25 Definitions	25.	Reject
769	86	Horticulture New Zealand	Volume 2	2 General Rules	2.22	Reject
769	87	Horticulture New Zealand	Volume 2	2 General Rules	2.22	Reject
776	43	Indevin Estates Limited	Volume 1	16 Waste	Policy 16.3.2	Accept in part
776	35	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
776	36	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
776	37	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
776	38	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
776	49	Indevin Estates Limited	Volume 2	3 Rural Environment Zone	3.3.26.	Accept in part
776	50	Indevin Estates Limited	Volume 2	25 Definitions	25.	Accept in part
827	10	Jos Rossell	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
827	7	Jos Rossell	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
827	8	Jos Rossell	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
827	18	Jos Rossell	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
827	14	Jos Rossell	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
827	11	Jos Rossell	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
827	12	Jos Rossell	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
827	19	Jos Rossell	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept

827	13	Jos Rossell	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
827	9	Jos Rossell	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
833	10	Jason Tillman	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
833	7	Jason Tillman	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
833	8	Jason Tillman	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
833	18	Jason Tillman	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
833	14	Jason Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
833	11	Jason Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
833	12	Jason Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
833	19	Jason Tillman	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
861	10	Kerrin Raeburn	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
861	7	Kerrin Raeburn	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
861	8	Kerrin Raeburn	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
861	18	Kerrin Raeburn	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
861	14	Kerrin Raeburn	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
861	11	Kerrin Raeburn	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
861	12	Kerrin Raeburn	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
861	19	Kerrin Raeburn	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
861	13	Kerrin Raeburn	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
861	9	Kerrin Raeburn	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
865	10	Karen Walshe	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
865	7	Karen Walshe	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
865	8	Karen Walshe	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
865	18	Karen Walshe	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
865	14	Karen Walshe	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
865	11	Karen Walshe	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
865	12	Karen Walshe	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
865	19	Karen Walshe	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
869	41	Kenepuru and Central Sounds	Volume 1	16 Waste	16.	Reject

		Residents Association Incorporated				
904	16	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
904	2	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
904	4	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.1.	Accept
904	13	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
904	3	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.3.	Reject
904	6	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.4.	Accept
904	7	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept
904	8	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.6.	Accept
904	9	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.7.	Accept
904	10	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
904	11	Land Vision Limited	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
904	15	Land Vision Limited	Volume 2	25 Definitions	25.	Accept
907	33	Levide Capital Limited	Volume 4	Overlay Maps	Soil Sensitive Area 13	Accept in part
909	50	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
909	51	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
909	52	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
909	53	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
909	76	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
909	54	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
909	55	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
909	77	Longfield Farm Limited	Volume 2	3 Rural Environment Zone	3.3.26.	Accept in part
909	78	Longfield Farm Limited	Volume 2	25 Definitions	25.	Accept in part
909	79	Longfield Farm Limited	Volume 2	25 Definitions	25.	Accept in part
915	10	Margaret C Dewar	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
915	7	Margaret C Dewar	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
915	8	Margaret C Dewar	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
915	18	Margaret C Dewar	Volume 2	3 Rural Environment Zone	3.3.31.	Accept

915	14	Margaret C Dewar	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
915	11	Margaret C Dewar	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
915	12	Margaret C Dewar	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
915	19	Margaret C Dewar	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
935	40	Melva Joy Robb	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
935	41	Melva Joy Robb	Volume 2	3 Rural Environment Zone	3.3.31.2.	Reject
935	42	Melva Joy Robb	Volume 2	3 Rural Environment Zone	3.3.31.5.	Reject
935	44	Melva Joy Robb	Volume 2	3 Rural Environment Zone	3.3.32.6.	Reject
935	53	Melva Joy Robb	Volume 2	4 Coastal Environment Zone	4.3.30.2.	Reject
935	54	Melva Joy Robb	Volume 2	4 Coastal Environment Zone	4.3.30.4.	Reject
935	55	Melva Joy Robb	Volume 2	4 Coastal Environment Zone	4.3.31.5.	Reject
961	85	Marlborough Chamber of Commerce	Volume 1	16 Waste	16.	Reject
962	108	Marlborough Forest Industry Association Incorporated	Volume 1	16 Waste	Issue 16A	Reject
970	18	Middlehurst Station Limited	Volume 2	3 Rural Environment Zone	3.1.31.	Accept in part
970	29	Middlehurst Station Limited	Volume 2	3 Rural Environment Zone	3.3.31.	Accept in part
970	30	Middlehurst Station Limited	Volume 2	3 Rural Environment Zone	3.3.31.1.	Accept in part
972	10	Millen Associates Limited	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
972	7	Millen Associates Limited	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
972	8	Millen Associates Limited	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
972	18	Millen Associates Limited	Volume 2	3 Rural Environment Zone	3.3.31.	Accept in part
972	14	Millen Associates Limited	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
972	11	Millen Associates Limited	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
972	12	Millen Associates Limited	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
972	19	Millen Associates Limited	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept in part
972	13	Millen Associates Limited	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
990	1	Nelson Forests Limited	All	All		Reject
990	252	Nelson Forests Limited	Volume 1	16 Waste	Issue 16A	Reject
992	16	New Zealand Defence Force	Volume 1	16 Waste	Issue 16B	Accept in part

992	50	New Zealand Defence Force	Volume 2	2 General Rules	2.	Reject
995	47	New Zealand Forest Products Holdings Limited	Volume 4	Overlay Maps	Soil Sensitive Area 2	Accept in part
998	39	New Zealand Pork Industry Board	Volume 1	16 Waste	Objective 16.3	Accept in part
998	40	New Zealand Pork Industry Board	Volume 1	16 Waste	Policy 16.3.2	Accept
998	43	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
998	44	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
998	45	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.1.32.	Accept in part
998	46	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
998	51	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.25.2	Accept in part
998	52	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.1.	Accept
998	54	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.3.	Accept
998	55	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.4.	Accept
998	56	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.5.	Accept
998	57	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.6.	Accept
998	58	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.7.	Accept
998	59	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.8.	Accept
998	60	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.26.9.	Accept
998	61	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.32.1.	Reject
998	62	New Zealand Pork Industry Board	Volume 2	3 Rural Environment Zone	3.3.33.1.	Accept in part
998	70	New Zealand Pork Industry Board	Volume 2	25 Definitions	25.	Accept in part
998	71	New Zealand Pork Industry Board	Volume 2	25 Definitions	25.	Accept in part
998	72	New Zealand Pork Industry Board	Volume 2	25 Definitions	25.	Accept in part
1000	7	North Rarangi Water Supply Incorporated	Volume 2	3 Rural Environment Zone	3.3.31.	Reject
1002	227	New Zealand Transport Agency	Volume 2	25 Definitions	25.	Accept in part
1002	261	New Zealand Transport Agency	Volume 2	25 Definitions	25.	Accept
1002	256	New Zealand Transport Agency	Volume 2	25 Definitions	25.	Accept
1002	146	New Zealand Transport Agency	Volume 2	2 General Rules	2.21.1	Reject
1002	147	New Zealand Transport Agency	Volume 2	2 General Rules	2.21.1	Reject

1002	229	New Zealand Transport Agency	Volume 2	25 Definitions	25.	Accept
1004	110	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 4	Overlay Maps	Flood Hazard Area 3	Reject
1004	109	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 4	Overlay Maps	Soil Sensitive Area 1	Reject
1004	111	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 4	Overlay Maps	Soil Sensitive Area 12	Reject
1004	112	Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited	Volume 4	Overlay Maps	Soil Sensitive Area 13	Reject
1006	1	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.	Reject
1006	2	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.	Reject
1006	3	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.	Reject
1006	4	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
1006	5	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.9.	Reject
1006	6	Opus International Consultants Limited	Volume 2	3 Rural Environment Zone	3.3.28.10	Reject
1023	4	P Rene	Volume 2	19 Open Space 3 Zone	19.1.16.	Reject
1023	1	P Rene	Volume 2	4 Coastal Environment Zone	4.1.23.	Reject
1023	8	P Rene	Volume 2	4 Coastal Environment Zone	4.7.	Reject
1039	122	Pernod Ricard Winemakers New Zealand Limited	Volume 2	3 Rural Environment Zone	3.3.22.	Accept in part
1039	123	Pernod Ricard Winemakers New Zealand Limited	Volume 2	3 Rural Environment Zone	3.3.23.	Accept in part
1039	124	Pernod Ricard Winemakers New Zealand Limited	Volume 2	3 Rural Environment Zone	3.3.25.	Reject
1039	130	Pernod Ricard Winemakers New Zealand Limited	Volume 2	25 Definitions	25.	Accept
1039	111	Pernod Ricard Winemakers New Zealand Limited	Volume 2	2 General Rules	2.21.1	Accept
1045	4	Pukematai Farm Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part

1045	3	Pukematai Farm Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Reject
1045	2	Pukematai Farm Limited	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
1049	10	Silverwood Partnership	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1049	7	Silverwood Partnership	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1049	8	Silverwood Partnership	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1049	18	Silverwood Partnership	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1049	14	Silverwood Partnership	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1049	11	Silverwood Partnership	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1049	12	Silverwood Partnership	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1049	19	Silverwood Partnership	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1049	13	Silverwood Partnership	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
1049	9	Silverwood Partnership	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
1066	10	Raewyn Heta	Volume 2	3 Rural Environment Zone	3.3.28.11.	Reject
1066	7	Raewyn Heta	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
1066	8	Raewyn Heta	Volume 2	3 Rural Environment Zone	3.3.28.9.	Reject
1066	14	Raewyn Heta	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Reject
1066	11	Raewyn Heta	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Reject
1066	12	Raewyn Heta	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Reject
1082	3	Richard Warwick Evans	Volume 2	3 Rural Environment Zone	3.3.30.9.	Reject
1082	1	Richard Warwick Evans	Volume 2	4 Coastal Environment Zone	4.6.11.	Reject
1086	6	Ragged Point Limited	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
1089	8	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
1089	10	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
1089	11	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.3.25.	Reject
1089	12	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.3.26.	Reject
1089	14	Rarangi District Residents Association	Volume 2	3 Rural Environment Zone	3.3.33.	Reject
1089	7	Rarangi District Residents Association	Volume 4	Overlay Maps	Soil Sensitive Area 4	Accept
1090	56	Ravensdown Limited	Volume 1	16 Waste	Objective 16.3	Accept in part

1090	57	Ravensdown Limited	Volume 1	16 Waste	Policy 16.3.3	Accept in part
1090	58	Ravensdown Limited	Volume 1	16 Waste	Policy 16.3.4	Accept in part
1090	113	Ravensdown Limited	Volume 2	17 Open Space 1 Zone	17.1.10.	Reject
1090	114	Ravensdown Limited	Volume 2	17 Open Space 1 Zone	17.3.8.2.	Reject
1090	119	Ravensdown Limited	Volume 2	17 Open Space 1 Zone	17.3.8.5.	Reject
1090	115	Ravensdown Limited	Volume 2	18 Open Space 2 Zone	18.1.13.	Reject
1090	116	Ravensdown Limited	Volume 2	18 Open Space 2 Zone	18.3.9.2.	Reject
1090	120	Ravensdown Limited	Volume 2	18 Open Space 2 Zone	18.3.9.5.	Reject
1090	117	Ravensdown Limited	Volume 2	19 Open Space 3 Zone	19.1.19.	Reject
1090	118	Ravensdown Limited	Volume 2	19 Open Space 3 Zone	19.3.17.2.	Reject
1090	121	Ravensdown Limited	Volume 2	19 Open Space 3 Zone	19.3.17.4.	Reject
1090	61	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
1090	62	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.1.28.	Accept in part
1090	66	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
1090	67	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject
1090	69	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
1090	70	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.23.5.	Accept
1090	71	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.23.6.	Accept in part
1090	72	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.26.1.	Reject
1090	73	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.26.5.	Reject
1090	74	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.26.7.	Reject
1090	75	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
1090	85	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
1090	77	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.3.	Accept
1090	78	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.4.	Accept
1090	79	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.5.	Accept
1090	80	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.6.	Reject
1090	81	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.7.	Reject
1090	82	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part

1090	83	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
1090	91	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.1.22.	Accept in part
1090	92	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.1.27.	Accept in part
1090	94	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.22.1.	Reject
1090	96	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
1090	98	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.22.4.	Accept
1090	97	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.22.5.	Accept
1090	99	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.25.5.	Reject
1090	100	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.25.6.	Reject
1090	110	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
1090	102	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.2.	Accept
1090	103	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.3.	Accept
1090	104	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.4.	Accept
1090	105	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.5.	Reject
1090	106	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.6.	Reject
1090	107	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
1090	108	Ravensdown Limited	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept in part
1090	63	Ravensdown Limited	Volume 2	3 Rural Environment Zone	3.1	Reject
1090	123	Ravensdown Limited	Volume 2	25 Definitions	25.	Accept
1109	10	Steffen Browning	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1109	7	Steffen Browning	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1109	8	Steffen Browning	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1109	18	Steffen Browning	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1109	14	Steffen Browning	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1109	11	Steffen Browning	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1109	12	Steffen Browning	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1109	19	Steffen Browning	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1109	9	Steffen Browning	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
1109	13	Steffen Browning	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part

1124	60	Steve MacKenzie	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
1179	11	Thomas Robert Stein	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1179	8	Thomas Robert Stein	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1179	9	Thomas Robert Stein	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1179	17	Thomas Robert Stein	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1179	15	Thomas Robert Stein	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1179	12	Thomas Robert Stein	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1179	13	Thomas Robert Stein	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1179	18	Thomas Robert Stein	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1179	10	Thomas Robert Stein	Volume 2	3 Rural Environment Zone	3.3.28.10	Accept in part
1179	14	Thomas Robert Stein	Volume 2	4 Coastal Environment Zone	4.3.27.9	Accept in part
1186	95	Te Atiawa o Te Waka-a-Maui	Volume 1	16 Waste	16.	Reject
1186	94	Te Atiawa o Te Waka-a-Maui	Volume 1	16 Waste	Policy 16.3.5	Accept in part
1186	204	Te Atiawa o Te Waka-a-Maui	Volume 2	19 Open Space 3 Zone	19.3.20.	Reject
1186	205	Te Atiawa o Te Waka-a-Maui	Volume 2	19 Open Space 3 Zone	19.3.21.	Reject
1186	206	Te Atiawa o Te Waka-a-Maui	Volume 2	19 Open Space 3 Zone	19.3.22.	Reject
1186	207	Te Atiawa o Te Waka-a-Maui	Volume 2	19 Open Space 3 Zone	19.3.23.	Reject
1192	85	The Fertiliser Association of New Zealand	Volume 2	19 Open Space 3 Zone	19.1.19.	Accept in part
1192	89	The Fertiliser Association of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.	Reject
1192	90	The Fertiliser Association of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.1.	Reject
1192	91	The Fertiliser Association of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.2.	Reject
1192	92	The Fertiliser Association of New Zealand	Volume 2	19 Open Space 3 Zone	19.3.17.4.	Reject
1192	51	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
1192	52	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.1.28.	Accept in part
1192	56	The Fertiliser Association of New	Volume 2	3 Rural Environment Zone	3.3.23.	Reject

		Zealand				
1192	57	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.1.	Reject
1192	58	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject
1192	59	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.23.4.	Reject
1192	60	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.	Reject
1192	61	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.1.	Reject
1192	66	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.11.	Reject
1192	62	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.7.	Reject
1192	63	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.8.	Reject
1192	64	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.9.	Reject
1192	65	The Fertiliser Association of New Zealand	Volume 2	3 Rural Environment Zone	3.3.28.10	Reject
1192	68	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.22.	Accept in part
1192	69	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.1.27.	Reject
1192	72	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.	Reject
1192	73	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.1.	Reject
1192	74	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.22.3.	Reject
1192	75	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.	Reject
1192	80	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Reject
1192	76	The Fertiliser Association of New	Volume 2	4 Coastal Environment Zone	4.3.27.6.	Reject

		Zealand				
1192	77	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Reject
1192	78	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Reject
1192	79	The Fertiliser Association of New Zealand	Volume 2	4 Coastal Environment Zone	4.3.27.9	Reject
1193	65	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.1.22.	Reject
1193	66	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.1.23.	Reject
1193	67	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.1.26.	Reject
1193	68	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.1.28.	Reject
1193	69	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.1.33.	Reject
1193	107	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
1193	99	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.26.	Reject
1193	86	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.	Reject
1193	82	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
1193	83	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.4.	Reject
1193	84	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.5.	Reject
1193	85	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.6.	Reject
1193	79	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
1193	80	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept in part
1193	98	The Marlborough Environment Centre	Volume 2	3 Rural Environment Zone	3.3.31.1.	Accept in part

		Incorporated				
1193	106	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.	Reject
1193	100	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.1.	Reject
1193	101	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.2.	Reject
1193	102	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.3.	Reject
1193	103	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.4.	Reject
1193	104	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.5.	Reject
1193	105	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.3.33.6.	Reject
1193	90	The Marlborough Environment Centre Incorporated	Volume 2	4 Coastal Environment Zone	4.3.27.	Reject
1193	87	The Marlborough Environment Centre Incorporated	Volume 2	4 Coastal Environment Zone	4.3.27.3.	Reject
1193	88	The Marlborough Environment Centre Incorporated	Volume 2	4 Coastal Environment Zone	4.3.27.4.	Reject
1193	89	The Marlborough Environment Centre Incorporated	Volume 2	4 Coastal Environment Zone	4.3.27.5.	Reject
1193	110	The Marlborough Environment Centre Incorporated	Volume 2	4 Coastal Environment Zone	4.7.	Reject
1193	109	The Marlborough Environment Centre Incorporated	Volume 2	3 Rural Environment Zone	3.7.	Reject
1193	108	The Marlborough Environment Centre Incorporated	Volume 4	Overlay Maps		Reject
1193	108	The Marlborough Environment Centre Incorporated	Volume 2	2 General Rules	2.22.1	Accept in part
1194	10	The Sunshine Trust	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1194	7	The Sunshine Trust	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1194	8	The Sunshine Trust	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1194	18	The Sunshine Trust	Volume 2	3 Rural Environment Zone	3.3.31.	Accept

1194	14	The Sunshine Trust	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1194	11	The Sunshine Trust	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1194	12	The Sunshine Trust	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1194	19	The Sunshine Trust	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1198	53	Transpower New Zealand Limited	Volume 2	2 General Rules	2.21	Reject
1198	54	Transpower New Zealand Limited	Volume 2	2 General Rules	2.23	Reject
1201	139	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Reject
1201	141	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Reject
1201	140	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.22.	Reject
1201	150	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.23.	Reject
1201	142	Trustpower Limited	Volume 2	3 Rural Environment Zone	3.3.25.	Reject
1209	10	Verena Frei	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1209	7	Verena Frei	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1209	8	Verena Frei	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1209	18	Verena Frei	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1209	14	Verena Frei	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1209	11	Verena Frei	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1209	12	Verena Frei	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1209	19	Verena Frei	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1218	83	Villa Maria	All	All		Accept in part
1218	50	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
1218	51	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
1218	52	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
1218	53	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
1218	54	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
1218	55	Villa Maria	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
1218	78	Villa Maria	Volume 2	25 Definitions	25.	Accept in part
1228	10	Winston Robert Oliver	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1228	7	Winston Robert Oliver	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept

1228	8	Winston Robert Oliver	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1228	18	Winston Robert Oliver	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1228	14	Winston Robert Oliver	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1228	11	Winston Robert Oliver	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1228	12	Winston Robert Oliver	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1228	19	Winston Robert Oliver	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1230	10	Wendy Tillman	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept
1230	7	Wendy Tillman	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept
1230	8	Wendy Tillman	Volume 2	3 Rural Environment Zone	3.3.28.9.	Accept
1230	18	Wendy Tillman	Volume 2	3 Rural Environment Zone	3.3.31.	Accept
1230	14	Wendy Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept
1230	11	Wendy Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept
1230	12	Wendy Tillman	Volume 2	4 Coastal Environment Zone	4.3.27.8.	Accept
1230	19	Wendy Tillman	Volume 2	4 Coastal Environment Zone	4.3.30.	Accept
1235	9	Wairau Valley Ratepayers and Residents' Association	Volume 1	16 Waste	Policy 16.2.7	Accept in part
1242	30	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.22.	Accept in part
1242	31	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.23.	Accept in part
1242	32	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.25.	Accept in part
1242	33	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.26.	Accept in part
1242	34	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.33.	Accept in part
1242	35	Yealands Estate Limited	Volume 2	3 Rural Environment Zone	3.1.34.	Accept
1251	114	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Issue 16B	Accept in part
1251	52	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Objective 16.3	Accept
1251	51	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Policy 16.2.4	Reject
1251	115	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Policy 16.3.1	Reject
1251	53	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Policy 16.3.3	Accept in part
1251	116	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Policy 16.3.3	Accept in part
1251	117	Fonterra Co-operative Group Limited	Volume 1	16 Waste	Policy 16.3.4	Reject

1251	77	Fonterra Co-operative Group Limited	Volume 2	18 Open Space 2 Zone	18.3.9.2.	Reject
1251	78	Fonterra Co-operative Group Limited	Volume 2	19 Open Space 3 Zone	19.3.17.2.	Reject
1251	75	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.23.2.	Reject
1251	87	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.28.11.	Accept in part
1251	79	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.28.3.	Reject
1251	81	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.28.6.	Reject
1251	83	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.28.8.	Accept in part
1251	89	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.3.33.5.	Accept
1251	135	Fonterra Co-operative Group Limited	Volume 2	3 Rural Environment Zone	3.7.6.	Accept in part
1251	76	Fonterra Co-operative Group Limited	Volume 2	4 Coastal Environment Zone	4.3.21.1.	Reject
1251	88	Fonterra Co-operative Group Limited	Volume 2	4 Coastal Environment Zone	4.3.27.10.	Accept in part
1251	80	Fonterra Co-operative Group Limited	Volume 2	4 Coastal Environment Zone	4.3.27.2.	Reject
1251	82	Fonterra Co-operative Group Limited	Volume 2	4 Coastal Environment Zone	4.3.27.5.	Reject
1251	84	Fonterra Co-operative Group Limited	Volume 2	4 Coastal Environment Zone	4.3.27.7.	Accept in part
1251	151	Fonterra Co-operative Group Limited	Volume 2	25 Definitions	25.	Reject
1251	158	Fonterra Co-operative Group Limited	Volume 2	25 Definitions	25.	Reject
1251	159	Fonterra Co-operative Group Limited	Volume 2	25 Definitions	25.	Accept
1251	160	Fonterra Co-operative Group Limited	Volume 2	25 Definitions	25.	Reject
1258	12	Gary Barnett	Volume 2	3 Rural Environment Zone	3.7.7.	Accept in part