Proposed Marlborough Environment Plan

Topic 14: Waste and Discharges to Land

Hearing dates:	10 – 12 September 2018
S42A Report Writer:	Adele Dawson/Matthew McCallum-Clark
Conflicts of Interest:	None
Interim decision:	None

(Note: A list of conflicts of interest which arose during the process are available to view on the Marlborough District Council Website)

Structure of Decisions

1. It is important that the topic decision is read as a whole together with the tracked change version of the Plan. The decision on each topic contains the reasons for the Panel's decisions. These comprise either adoption of the reasoning and recommendations of the original Section 42A Report or the replies to evidence, or a specific reasoning by the Panel[1].

2. The tracked change version of the relevant PMEP provisions forms an integral part of the decision. The source of the change in terms of the topic that the subject matter was dealt with is clearly identified in the track changes version of the plan. This records all amendments (additions and deletions) to the notified PMEP provisions made by the Panel.

3. Where the PMEP provisions **remain as notified**, it is because:

   (a) The Panel has decided to retain the provision as notified for reasons set out in this decision; or

   (b) The Panel adopted the reasoning and recommendation of the Section 42A Report Writer to retain the provision as notified as recommended in the Reply to Evidence; or

   (c) The Panel adopted the reasoning and recommendation of the Section 42A Report to retain the provision as notified in the original Section 42A report.

4. Where there is a **change to a provision** within the plan it is because:

   (a) The Panel has amended a provision for reasons set out in this decision in response to a submission point which the Section 42A report writer(s) does not recommend in their reports; or

   (b) The Panel adopted the reasoning and recommendation of the Section 42A Report Writer to change the provision to that recommended in the Reply to Evidence; or

   (c) The Panel adopted the reasoning and recommendation of the Section 42A Report Writer to change the provision to that recommended in the original Section 42A report; or

[1] (The only exception to that approach relates to the Noise section of the Nuisance topic where the reasoning and recommendations in the responses to Minutes 54 and 59 may have been adopted, rather than the reasoning and recommendations in the Section 42A Report or the Reply to Evidence report. The reasons for that difference in that topic are dealt with in detail at the commencement of the Noise section of the Nuisance topic decision. In respect of that topic the approach to understanding of the individual submission point decisions addressed in paragraphs 13.3 to 13.5 below should be adjusted accordingly to apply references to the Section 42A Report and/or Reply to Evidence in those paragraphs as being references to the responses to Minutes 54 & 59 for that Nuisance topic.)

(d) A consequential change has been necessary following on from a decision in either a), b) or c).

5. Where there is a **different recommendation** between the Section 42A Report and the Reply to Evidence (i.e., the recommendation by the Section 42A report writer(s) has changed as a result of hearing the evidence of submitters), unless the Panel decision specifically adopts the original report's reasoning and recommendations, the reasoning and recommendations in the (later) reply to evidence has been adopted and it must be taken to prevail.

6. There are limited circumstances where the Panel has taken the opportunity to give effect to national policy statements or implement national environmental standards. Where this occurs the relevant decision clearly sets out the nature of the change and the reason for the change.

7. Finally, there are limited circumstances where the Panel has decided that **alternative relief** is more appropriate than that requested by the submitters, but still within the scope of the relief sought. This is recorded in the Panel's decision.

National Environmental Standards for Sources of Human Drinking Water

Technical Nature of Change

8. The National Environmental Standards for Sources of Human Drinking Water (NESHDW) came into effect on 20 June 2008 and set 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 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 (e.g. spills) that may adversely affect sources of human drinking water.[2]

Section 42A Report

9. The Section 42A Report identifies that the NESHDW is directly relevant to Topic 14 as permitted activity rules are included in the PMEP for activities that have the potential to affect community drinking water supplies.

10. The report writer considers from his review of the waste and discharge to land rules in the PMEP, amendments are necessary to several rules to ensure the Plan gives effect to the NES, specifically that the permitted activity rules should not result in community drinking water supplies being unsafe for human consumption.

11. While Volume 4 of the PMEP provides all zoning maps and includes the Groundwater Protection Areas overlays, these identify protection zones around community supplier bores where activities are restricted via the permitted activity rules. While these overlays include several discharge activities there are other discharges to land currently not restricted by permitted activity standards. They need to be addressed to meet the requirements of the NES. NESHDW requires regional councils to protect sources of human drinking water. The Council must be satisfied that permitted activity rules will not result in community drinking water supplies being unsafe for human consumption following existing treatment. There are other

[2] NESHDW Clause 10 and Clause 14

permitted activity discharges that can occur in groundwater protection areas creating a risk to the drinking water supply.[3]

A suggested permitted activity standard

12. The following permitted activity standard is currently included in some PMEP rules: *The (activity) must not occur within a Groundwater Protection Area.*[4]

13. The report writer recommends this permitted activity standard should be included along with others for the following activities:

- Application of compost or solid agricultural waste;[5]
- Making compost or silage or storing agricultural solid waste;[6]
- Storage of compost;[7]
- Discharge of agricultural liquid waste;[8]
- Discharge of dairy farm effluent;[9] and
- Disposal of offal or a carcass.[10]

14. No submissions sought this relief. But given that the standards/conditions had not specifically been requested in a submission, and given their technical nature, the Panel sought clarity as to its authority to include these provisions.[11] The Panel also sought clarification of paragraph 52 of the Section 42A Report.

15. The report writer in response identified:

- The Section 42A Report identifies that the drinking water NES now gives a general ability to include these provisions.
- Clause 10 NESHDW sets out the requirement to protect drinking water supplies, primarily through restricting changes in areas that may affect drinking supplies; the additional conditions do recommend this and fit within the existing drinking water framework of the PMEP.

[3] Section 42A Report, paragraph 19.
[4] Section 42A Report, paragraph 51.
[5] Rules: 3.3.25, 4.3.24, 19.3.18
[6] Rules: 3.3.33, 4.3.32, 19.3.22
[7] Rules: 3.3.34, 4.3.33, 19.3.23
[8] Rules: 3.3.26, 4.3.25, 19.3.19
[9] Rules: 3.3.28, 4.3.27
[10] Rules: 3.3.32, 4.3.31, 19.3.21
[11] Section 42A Report, Reply to Evidence, page 1.

- Clause 14 NESHDW identifies that the regional council is not required to amend an existing rule in the plan that does not comply with regulation 10 until the earlier of a plan change or variation that relates to the existing rule is introduced.

16. As part of the clarification of paragraph 52, the report writer also amended his recommendation as follows:

> *I recommend this permitted activity standard should be <u>added to</u> ~~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;*[12]
> - *making compost or silage or storing agricultural solid waste;*[13]
> - *storage of compost;*[14]
> - *discharge of agricultural liquid waste;*[15]
> - *discharge of dairy farm effluent;*[16] *and*
> - *disposal of offal or a carcass.*[17]

17. It is the opinion of the report writer that adequate protection from the activities identified is missing from the PMEP although the framework is there to provide for a new standard for permitted activity rules if the Panel agrees there is scope for the recommendations to provide for this.

Consideration

18. The Panel agrees because of the critical importance of protecting groundwater for drinking water purposes. There are eight community water supplies that are currently protected by groundwater overlays. Clauses 10 and 14 of NESHDW give clear authority to achieve this protection, as follows:[18]

> *10 Limitations on permitted activity rules for activities upstream of abstraction points*
>
> *(1) A regional council must not include a rule or amend a rule in its regional plan to allow a permitted activity, under section 9, 13, 14, or 15 of the Act, upstream of*

[12] Rules: 3.3.25, 4.3.24, 19.3.18.
[13] Rules: 3.3.33, 4.3.32, 19.3.22.
[14] Rules: 3.3.34, 4.3.33, 19.3.23.
[15] Rules: 3.3.26, 4.3.25, 19.3.19.
[16] Rules: 3.3.28, 4.3.27.
[17] Rules: 3.3.32, 4.3.31, 19.3.21.
[18] Section 42A Report, Reply to Evidence, page 1.

an abstraction point where the drinking water concerned meets the health quality criteria unless satisfied that the activity is not likely to—

(a) introduce or increase the concentration of any determinands in the drinking water so that, after existing treatment, it no longer meets the health quality criteria; or

(b) introduce or increase the concentration of any aesthetic determinands in the drinking water so that, after existing treatment, it contains aesthetic determinands at values exceeding the guideline values.

…

14 Regional council not required to immediately amend rules in plan

A regional council is not required to amend an existing rule in a plan that does not comply with regulation 10 until the earlier of the following:

(a) a scheduled review of the plan; or

(b) a plan change or variation that relates to the existing rule is introduced.

Decision

19. Include the following as permitted activity rules for the listed activities as follows:[19]

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

Activities:

- *application of compost or solid agricultural waste;*
- *making compost or silage or storing agricultural solid waste;*
- *storage of compost;*
- *discharge of agricultural liquid waste;*
- *discharge of dairy farm effluent; and*
- *disposal of offal or a carcass.*

[19] Section 42A Report, pages 16-17. Reply to Evidence, page 1.

Application of chemicals

Rule 19.3.15

Application of an agrichemical into or onto land.

20. The most relevant agrichemical application rules refer to three permitted activity standards to which submissions are related as follows:

    - The agrichemical must be approved for use under the Hazardous Substances and New Organisms Act 1996.[20]
    - The application must be undertaken in accordance with the most recent product label. All spills of agrichemicals must be notified to the Council immediately.[21]
    - The application must be carried out in accordance with Agricultural Compounds and Plant Protection Products – Management of Agrichemicals Act 1997 (NZS 8409) with Sections 5.3 and 5.5.

21. DOC as one of the four submitters to one of the three standards is concerned with Rule 19.3.15 noting that in Open Space 3 Zone, the Department utilises products that are not created for that purpose for controlling weeds and therefore would not comply with the standard requiring the application of agrichemicals in accordance with product labels. The Department considers that NZS 8409:2004 does not require compliance with product label instructions and that these are not an indication of a threshold for an adverse environmental effect. DOC seeks wording changes so that the word 'discharge' is used rather than 'application' as follows:[22]

    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.

Section 42A Report

22. The report writer provides an introduction to the subject of agrichemicals in the PMEP as follows:[23]

    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

[20] 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.
[21] 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.
[22] DOC (479.253, .254). Tim Ensor, Evidence, paragraphs 6.2-6.3.
[23] Section 42A Report, Reply to Evidence, page 5.

Zone, Coastal Marine Zone, Open Space 4 Zone and Lake Grassmere Saltworks Zone where the discharge of agrichemicals requires a discretionary activity consent.

The Chapter 2 General Rules also include rules for the discharge of agrichemicals to air, but these rules only apply to roads and railway corridors identified on the zoning maps. Submitters have raised this as an issue, and there is clear overlap with the air chapter of the MEP.

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.

23. The report writer considers use of the word 'discharge' is consistent with Resource Management (Exemption) Regulations 2017 (vertebrate toxic agents). At the time the PMEP was drafted, consultation with the farming community identified that for activities such as applying fertiliser, lime or agrichemicals, the word 'application' was more easily understood than 'discharge'. As this is a formal document with legal effect, use of the word 'discharge' is recorded so the report writer recommends to change all uses of 'application' in the rules and associated standards to 'discharge'.

Consideration

24. The Panel reconsidered this recommended decision from a plan user's perspective and decided that there is utility in retaining the word 'application'. The decision was also made to include the words ('involving a discharge') after 'application' in the relevant rules and standards.

Decision

25. Add to the multiple relevant rules and standards the words '*application <u>involving a discharge'</u>*.

Issue 16A

Large quantities of solid waste are generated in Marlborough.

26. The final paragraph of the explanatory text for Issue 16A reads:

Waste management in the Marlborough Sounds and in isolated parts of South Marlborough presents a considerable challenge. Providing opportunities to minimise solid waste and offering a collection and disposal service for residual solid waste to those who reside or holiday in more remote locations (in many cases, without road access) is difficult, due to the cost and practicality of providing these services. Solid

waste is also generated on the considerable number of boats using the Marlborough Sounds. Some people have responded to these challenges of isolation by disposing of their solid waste on-site, especially where the waste is generated on farms (e.g. rubbish and offal pits). There is also the risk of illegal dumping of solid waste on river reserves and roadsides. Illegal dumping has significant environmental implications and can result in the contamination of land and water resources (creating a public health hazard) and the potential for the spread of plant pests from green waste. It is also unsightly in areas that are usually visually appealing.

27. There were two submissions on Issue 16A. One submitter supports the issue but raises a concern about illegal dumping of solid waste on private land.[24] Another submitter opposes Issue 16A and seeks clear policies and methods to address the problem of illegal dumping of solid waste on both public and private land.[25]

Section 42A Report

28. Initially, the report writer considered that both submitters' requests are inappropriate to address via amendments to the issue as both seek policies and methods to address their concerns.[26] Further consideration of whether the current provisions or if new policies and methods are required, is identified elsewhere in the Section 42A Report. No change was recommended.

29. In the Reply to Evidence, the report writer reconsidered that the issue could potentially be expanded to address private as well as public land, but overall, including RMA – linked methods, the relief sought is unlikely to change illegal dumping. For the Litter Act 1979, the Nuisance Bylaw 2017 and Waste Bylaw 2017 are the existing, and more appropriate legislative mechanisms to address the issue. Of note, s 15 of the Litter Act states:[27]

Every person commits an offence and is liable on conviction, in the case of an individual, to a fine not exceeding $5,000 or, in the case of a body corporate, to a fine not exceeding $20,000, who deposits any litter or, having deposited any litter, leaves it—

(a) in or on a public place; or

(b) in or on private land without the consent of its occupier

30. The report writer recommends no change from the Section 42A Report.

[24] MFIA (962.108).
[25] NFL (990.252).
[26] Section 42A Report, paragraph 73.
[27] Section 42A Report, Reply to Evidence.

Consideration

31. The Panel concluded there must be some redress to the illegal dumping of solid waste on private land which we heard in evidence could be difficult to monitor particularly in remote forest areas. In our opinion, this redress requires an amendment to the fifth sentence of the explanation to Issue 16A so that it is not specific to land tenure only.

Decision

32. The fifth sentence of the last paragraph of the explanation to Issue 16A is amended to read:

… There is also the risk of illegal dumping ~~of solid waste on river reserves and roadsides~~. Illegal dumping has significant environmental implications and can result in the contamination of land and water resources (creating a public health hazard) and the potential for the spread of plant pests from green waste. It is also unsightly in areas that are usually visually appealing.

Introduction

33. The report writer recommends Chapter 16, Volume 1, is headed as follows:

16. Waste <u>and discharges to land</u>

34. NZDF oppose provisions in Chapter 16 as it provides for discharges of waste to land but the definition of waste in the PMEP 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 PMEP rules. NZDF seek amendments to the provision to improve clarity and direction in relation to stormwater discharges district wide, including to land. No permitted activity standards have been suggested.[28]

35. The report writer agrees with NZDF that there is a lack of certainty in the PMEP as to the approach to managing stormwater discharges and that this needs to be clarified.

36. It is the report writer's understanding that in the PMEP 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. The report writer understands 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 s 15 RMA restricts discharges of contaminants to land only and not discharge of water to land. He also understands that in urban areas, the majority of stormwater discharges are conveyed to reticulated stormwater networks which discharge to water. This is addressed by separate PMEP provisions

[28] NZDF (992.16).

37. To address the concerns raised by NZDF, the report writer considers 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. He also recommends that the Chapter 16 title, Issue 16B, Objective 16.3 and Method 16.M.16 are amended to incorporate reference to stormwater contaminant discharges. In his 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. He does not consider any amendments to the policies are required, as policies 16.3.3 and 16.3.4 provide sufficient direction in relation to stormwater discharge permits. He also does not consider that any additional rules are necessary based on this approach.

Consideration

38. As there is uncertainty regarding the treatment of stormwater discharge to land, the Panel agreed to resolve this uncertainty by inserting a new paragraph into the Introduction. The Panel also agreed with the report writer's recommendation to add the words 'and discharge to land' to the heading and this is amended accordingly.

Decision

39. The chapter heading is amended to read:

16. Waste <u>and discharges to land</u>

40. The Introduction is amended as follows:[29]

… The Council exercises waste management functions under multiple pieces of legislation.

<u>In Marlborough the majority of stormwater in urban areas is discharged to water via the reticulated stormwater network.</u>

Where this network is unavailable <u>potential effects on water could be significant. Where it can be demonstrated that filtration of contaminants may be provided safely by soils, stormwater could be discharged to land. Stormwater from industrial and commercial land uses will likely contain contaminants requiring treatment prior to discharge. Without management, stormwater discharges containing contaminants may cause environmental effects such as localised contamination of water resources or nuisance problems such as exacerbating flooding.</u>

The focus of this chapter of the Marlborough Environment Plan (MEP) is to set a framework for addressing Marlborough's significant waste management <u>and discharge to land</u> issues under

[29] NZDF (992.16).

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.

41. Insert 'and discharge to land' into third paragraph of Introduction as follows:[30]

The focus of this chapter of the Marlborough Environment Plan (MEP) is to set a framework for addressing Marlborough's significant waste management <u>and discharge to land</u> 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.

Policy 16.3.3

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.

42. Several submitters request: it is not clear whether the provision applied to farm dairy effluent or to domestic wastewater and that if it applies to both, it is too broad – include the words 'where relevant' so that only matters of relevance are assessed in applications – further Policies 16.3.3 and 16.3.4 could be combined;[31] an amendment to sub-clause (c) is required 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*

[30] NZDF (992.16).
[31] Federated Farmers (425.333).

managed, such that the discharge of wastewater directly or via overland flow to a surface waterbody or coastal water is avoided.[32]

43. Another submitter notes that 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 to refer to 'best practicable option as an assessment option. Fonterra therefore seeks the following amendments:[33]

> *Approve discharge permit applications to discharge contaminants onto or <u>into land where they demonstrate best practicable option</u> and where: …*
>
> *(b) <u>Where groundwater is suitable for drinking</u>, 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; …*

Section 42A Report

44. In terms of Federated Farmers submission, the report writer agrees that the policy should be amended to require consideration of only those matters relevant to the particular discharge subject to the resource consent application. Further, Policy 16.3.3 is more related to the location of the system rather than its design, which is addressed in Policy 16.3.4. Each of these policies serves a different purpose and they should remain separate.

45. With respect to Constellation Brands, the report writer agrees that the current wording of Policy 16.3.3(c) is unclear as to what is meant by '*the land application area is located as far as practicable from any surface waterbody or coastal water*'. It also does not clearly link with Objective 16.3 which seeks to avoid the discharge of contaminants to a waterbody. This is important rather than ensuring the system is located as far as possible from a waterbody or coastal water.[34] In these terms the report writer agrees with the submitter that there should be an amendment to sub-clause (c) as follows:

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

46. In terms of Fonterra's requests, the report writer refers to Objective 16.3 that will be achieved by implementing the term 'best practicable option' as a minimum requirement to ensure an appropriate level of wastewater treatment. This term could also be useful guidance to include

[32] Constellation Brands (631.50).
[33] Fonterra (1251.53, 1251.116).
[34] Section 42A Report, paragraphs 187, 189, 191-192, 193.

in Policy 16.3.3 as to what a discharge option needs to achieve. It would allow wider consideration of financial implications and current technological limitations alongside the nature of the discharge and sensitivity of the receiving environment.

47. The report writer's recommendation is to include a new sub-clause requiring a consideration of whether an application demonstrates, as a minimum, the best practicable option is utilised.

Consideration

48. We agree that discharge applications should be able to be approved where an applicant demonstrates the best practicable option is applied.

49. The report writer provides the following recommendations which the Panel accepts for the reasons given including the statutory guidance provided in s 52 RMA as follows:

> **Best practicable option, 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**

50. 'Best practicable option' has too many matters of interpretation and discretion built in to allow it to be used as a black and white test in every case. The question of weight accorded each provision depends on the particular case. An evaluation of the best method should take account of all of the factors mentioned in the section's provisions. What is reasonable in each case will be a question of fact and degree. A new (g) to reference the best practicable option should be added to the policy.[35] But the words 'at a minimum …' should be deleted from the report writer's recommended wording for new paragraph (g) because that defeats the evaluation exercise that the best practicable option provides.

Decision

51. Amend Policy 16.3.3 as follows:

Policy 16.3.3 – Approve discharge permit applications to discharge contaminants onto or into land where <u>as relevant to the discharge</u>:

(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);

[35] Fonterra (1251.53, 1251.116).

(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.

(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 a 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 the best practicable option is utilised.

Policy 16.3.5

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

52. Federated Farmers support the intent of the policy but request that the currently worded provision is burdensome due to its covering of all cultural values and they prefer:[36] *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.*

53. Te Ātiawa support the policy but state the consideration of cultural values should be referred to as 'have particular regard to; or 'recognise and provide for' rather than 'have regard to'.[37] As currently stated it does not provide a strong enough direction.

[36] Federated Farmers (425.335).
[37] Te Atiawa (1186.94).

Section 42A Report

54. The report writer in response makes several observations:

- The consideration of cultural values in the consent process is more than assessing the potential impact on culturally significant sites.
- The wording of Policy 16.3.5 may not reflect the statutory requirements under Part 2 (s 6 and 7) RMA which the report writer identified. At this time the information necessary to identify sites and include them in the PMEP is not yet available.
- The most relevant provision in the Plan is Objective 3.5 which includes the wording 'Resource management decision making processes that give 'particular consideration' to the cultural and spiritual values of Marlborough's tangata whenua iwi.
- As a result, 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. The term '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 given suitable weight.
- On the other hand 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.
- The request from Te Ātiawa to amend the policy to 'recognise and provide' for those cultural values is not appropriate because currently those values are not all able to be recognised or provided for. 'Give particular consideration' is the more appropriate term'.[38]

Consideration

55. We do not agree in the context of waste discharge that 'give particular consideration' to cultural values is strong enough. The values may be considered but without any input from iwi, equally these values are misrepresented if not properly informed, and then cast aside. 'Recognise and provide for' is stronger, implying shared information and a positive outcome.

56. Our conclusion is to replace 'have regard to' with 'recognise and provide for' as more practical terminology in the context of 'best practicable option' *a) the sensitivity of the receiving environment to the adverse effects on tangata whenua iwi.*

[38] Section 42A Report, paragraphs 206-214.

Decision

57. Policy 16.3.5 is amended as follows:[39]

When considering discharge permit applications to discharge contaminants onto or into land~~, have regard to~~ recognise and provide for the cultural values of Marlborough's tangata whenua iwi.

Discharge of Human Effluent

16.M.20 Warrant of Fitness

58. Matter 10 addresses the discharge of human effluent via on-site systems and long-drop toilets. 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, Maine Zone, Coastal Marine Zone, Open Space 4 Zone, and Floodway Zone.

59. Method 16.M.20 states as follows:

> *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 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 condition of the means of distribution and land application area(s).*

60. Four submissions were received in respect of 16.M.20 requesting: that the PMEP provides for onsite wastewater management system properties that cannot meet the requirements without requiring further upgrades, provided the systems are working within their initial design capabilities.[40]

61. In evidence, Mr Curr of the Okiwi Bay Ratepayers Association seeks removal of restrictions on existing disposal systems of human effluent, including from the warrant of fitness (WOF) test, with Okiwi Bay's preference towards a community reticulated system. Mr Curr is particularly concerned that individual ratepayers will be required to upgrade their own systems at a cost that is not dissimilar to a community-based system. This he considers is inefficient.

[39] Section 42A Report, paragraph 237.
[40] Okiwi Bay Ratepayers Association Inc (269.1).

62. QCSRA oppose the method and state that regular desludging would be accepted but seek that the method includes an option for MDC to discuss the approach with affected communities and allow seven years for design.[41] Federated Farmers also oppose this method and question how achievable it would be for MDC to inspect all on-site domestic wastewater systems as all components are generally buried. The submitter also questions the scientific basis for MDC targeting on-site wastewater systems as it does not believe farmers are a significant contributor to poor water quality outcomes, especially in extensive rural settings. Federated Farmers seek the method is deleted from the PMEP.[42]

Section 42A Report

63. The Section 42A Report generally recommends greater emphasis on guidance in AS/NZS 1547:2012 Standard and recommends provisions for long-drop toilets in additional zones. Otherwise the notified provisions of the PMEP are generally recommended to be retained as notified.

64. In response to the submission from the Okiwi Bay Ratepayers Association, the report writer considers that it cannot be determined at this point whether on-site wastewater systems in Okiwi Bay would fail, as the WOF system is yet to be developed. He also disagrees 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. These older systems could be causing unacceptable adverse effects if operating within their original design, and in such circumstances the report writer considers it is appropriate that these systems are upgraded or replaced. This aligns with Policy 16.3.1 and Objective 16.3. The method therefore does not require an amendment.[43]

65. In terms of Federated Farmers' concerns, the report writer considers it is possible for inspections of existing on-site wastewater systems to be undertaken. He identifies that MDC has received 191 complaints about domestic wastewater systems over the previous 10 years, indicating that there is a possible issue with the effective functioning of these systems. Evidence presented by AQNZ and MFA 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.[44]

[41] QCSRA (504.74).
[42] Federated Farmers (425.339).
[43] Section 42A Report, paragraph 246.
[44] MFA and AQNZ, Alan Ross Campbell, Evidence.

The report writer recommends greater emphasis on the guidance provided for in the AS/NZS 1547:2012 Standard and adding provision for long drop toilets in additional zones.

66. As a result the report writer's general recommendation is that the notified PMEP provisions are to be supported.

Consideration

67. The report writer in his Reply to Evidence, raised the question of scope relating to some of the issues raised by Mr Curr who is particularly concerned that individual ratepayers will be required to upgrade their systems at a cost that is not dissimilar to a community-based system. The submitter considers the cost to individual ratepayers of upgrading is inefficient and a treatment system and reticulation should be progressed.

68. We consider where there are problems in Okiwi Bay with existing on-site wastewater systems the emphasis should be on a reticulated community scheme.

69. The report writer makes the point, which we share, that a treatment plant and reticulation are likely to be the preferred outcome, and potentially failing systems ought to be subject to monitoring and upgrade in the meantime.[45] With this approach in mind we have made several amendments to Method 16.M.20 that relate to an alternative to the Warrant of Fitness scheme which may be more acceptable to residents.

Decision

70. Amend Method 16.M.20 as follows:

~~Develop and implement, within~~ Within five years of the MEP becoming operative, develop either implementation of a Warrant of Fitness scheme for existing on-site wastewater management systems not authorised by resource consent in the Marlborough Sounds and in Groundwater Protection Areas or commence the development of a reticulated community scheme. ~~This~~ The Warrant of Fitness 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 condition of the means of distribution and land application area(s).

[45] Section 42A Report, Reply to Evidence, page 16.

71. As a consequential amendment, the first indicator for 16.AER.4 is amended to read:

A warrant of fitness scheme is established and operated for all on-site wastewater management systems or a reticulated wastewater system is developed to address cumulative adverse effects of on-site wastewater management systems in a particular location.

Anticipated Environmental Results

16.AER.3

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

72. 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.*[46]

73. MDC seeks an amendment to the second indicator to better reflect the anticipated result by amending the second to last paragraph to include *'… discharges that cause significant adverse effects in any year'*.[47]

Section 42A Report

74. The report writer considers that the relief requested by MDC, that there is no major non-compliance with permitted activity rules or discharge permit conditions causing significant adverse effects, is not appropriate as it is a very difficult threshold to identify and determine. It should be more appropriate to specify there are no major new compliances that cause 'more than minor' effect as this is a higher threshold for severity of effects. The report writer recommends that the monitoring effectiveness indicator is amended to specify there are no major non-compliances resulting in more than minor effects.

[46] Section 42A Report, paragraphs 250-251.
[47] MDC (91.135).

75. It is further recommended that a consequential change should be made to the anticipated result 16.AER.3 to specify there are 'no more than minor adverse effects' rather than 'significant adverse effects' as it is a simpler assessment to make.[48]

Consideration

76. The Panel considered that the recommended text should be reworded to better reflect the AER so that the emphasis is on 'there are no effects that are more than minor on...' with the recommended text amended accordingly.

77. The Panel also noted that the third indicator was not sufficiently clear with respect to the '15 percent' and considers that a cl 16 amendment to include the phrase 'of operations' should be inserted after '15 percent'. This addition does not amend the intent of the AER.

Decision

78. 16.AER.3 is amended as follows:[49]

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

79. Reword the second indicator so that the emphasis is on effects not being more than minor, as follows:[50]

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 adverse effects that are more than minor</u> in any year.

80. Amend the third indicator as follows:

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

[48] Section 42A Report, paragraphs 252-256.
[49] MDC (91.135) consequential amendment.
[50] Section 42A Report, paragraph 256.

Discharge to Air

2.21 Permitted Activities

2.21.1 Application of an agrichemical

2.22 Standards that apply

2.22.1 Application of an agrichemical

2.23 Discretionary Activities

81. DOC submitted in opposition to 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 have also submitted that the Open Space 3 Zone rule should be amended to include the application of an agrichemical to air. No reasons were given why these two rules should be combined. [51]

82. DOC have also proposed a new permitted activity rule for 19.3.15: *Any spray drift resulting from the discharge is contained within the boundary of the property.*

83. Trustpower seeks a rule be expanded to allow for the aerial application of agrichemicals in the Rural Environment Zone.[52] It seeks the permitted activity rule and the addition of new permitted activity standards to address the potential effects of aerial applications through Standards 3.1.22, 3.2.22 and 3.2.66:

> *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.*

84. Transpower submits on Rules 2.21 and 2.23 and requests they are extended to apply to agrichemicals associated with the National Grid.[53] The company considers that because the National Grid is a nationally significant infrastructure that shares the same liner 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. But an amended approach would better give effect to the National Policy Statement on Electricity Transmission for the ongoing operation and maintenance of the National Grid.[54]

85. NZTA submits in respect of Rules 2.21.1 and 2.22.1 also seeking that the phrasing of the rules is amended to include the associated discharge of contaminants to air and onto land 'in

[51] DOC (479.184, 479.185).
[52] Trustpower (1201.139, 1201.140).
[53] Transpower (1198.53, .54).
[54] Section 42A Report, paragraph 336.

circumstances where the contaminants may result in entering water'. The proposed rules do not include the associated discharge to land and there are no other rules which would apply to the road corridor.[55]

Section 42A Report

86. In response to NZTA, it is the report writer's understanding that:

- The intention of Chapter 2 General Rules is 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 PMEP 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.
- Three general rules are included to permit the application of agrichemicals for weed management in the transport corridors.
- The reference to specify the rules under the heading 'Discharges to Air', which is evident in the use of the term 'application' in the permitted activity rule instead of 'discharge', appears to be in error.
- The recommendation to the heading in Chapter 2 is to amend the wording to state: 'Discharge to land within the road and rail corridors' to make it explicit. It is the application to land that is authorised.
- 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 …'.
- It is not necessary to therefore amend the zone-specific rules to reference any discharges to air.[56]

87. With respect to Transpower's request to extend the rules to the National Grid, the report writer considers this amendment is inappropriate as 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 chapter. Therefore 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.[57]

[55] NZTA (1002.146, .47).
[56] Section 42A Report, paragraph 337.
[57] Section 42A Report, paragraph 338.

Consideration

88. Given that the reference to 'Discharge to air' in 2.21 to 2.23 is in error, the rules do not specify 'Discharge to land' for the reasons given and the fact for Transpower that the National Grid infrastructure will either be in the road or rail corridor or a specified zone, amendment is unnecessary - because weed management is a permitted activity.

89. The Panel accepts the report writer's recommendation that this section of rules should be amended to regulate discharges to land.

90. The Panel is amenable to changing Rule 2.21.1 and Standard 2.22.1 to provisions regulating the discharge of agrichemicals to land for the reasons set out above. It has also agreed to add other discharges to land to 2.21 via the Topic 15 and 18 decisions.

91. Technically, the Panel cannot accept NZTA's request to convert this section of general rules to a section managing the discharge of contaminants to land only. This is because another request by the same submitter to provide for land uses (namely excavation and filling) in the road corridor in Topic 13 – Water Quality was considered and accepted. This has necessitated an expansion to the activities managed in this section of rules (2.21, 2.22 and 2.23). In spite of the technical rejection of the relief requested, the Panel's view is that the decision in Topic 13 – Water Quality achieves the outcome sought by NZTA. That is the structure of 2.21, 2.22 and 2.23 enables a broader range of permitted activities that would reasonably be expected (subject to standards) to be undertaken by NZTA or KiwiRail in the road and rail corridor respectively.

Decision

92. The heading in Chapter 2 General Rules is amended as follows:

Activities <u>within the road and rail corridors</u> ~~Air~~

93. Rule 2.32.2 is amended as follows:[58]

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

References to HSNO and NZS Standard

94. 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.

[58] Section 42A Report, paragraphs 355, 356.

- The application must be undertaken in accordance with the most recent product label. All spills of agrichemicals must be notified to the Council immediately.
- 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).

95. Submitters request that the rule for agrichemical discharges to land be deleted as it is already provided for under HSNO.

96. Specifically, several submitters submit that as agrichemicals are already regulated by HSNO and the NZS 8409:2004 standard, the rule should be deleted.[59] MDC also requests that the permitted activity standard is deleted as it unnecessarily restricts the products that may be applied to land to those activities approved by use under HSNO and this was not intended.[60]

Section 42A Report

97. The report writer accepts the submissions from MDC, Federated Farmers and S Parkes for the following reasons:

- Not all agrichemicals may be classified as hazardous.
- This status will prevent less harmful products from being applied as a permitted activity.
- If the product is used under HSNO the user is required to abide by any conditions under the HSNO management regime.
- Removing the standards better aligns with the policies of the PMEP, especially 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.

- HSNO provides minimum controls for the use, storage, transportation and disposal of all hazardous substances throughout New Zealand, and MDC is able to impose additional or more stringent controls.
- 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

[59] Federated Farmers (425.490, .566, .669, .774) and S Parkes (339.13).
[60] MDC (91.48, .49, .50, .51, .53, .54, .55, .56, .57, .58, .59, .60, .61, .62, .124).

discharge of hazardous waste to land or water. As neither of these exceptions apply, the report writer recommends it is appropriate to delete these standards.[61]

98. In terms of the permitted activity standard that has been included in the application of agrichemical rules in accordance with the context of sections 5.3 and 5.5 of NZS8409:2004, the report writer does not recommend its deletion. The standards are not legally binding on their own, but their implementation does assist in meeting HSNO regulations and their retention in the permitted activity will ensure that the potential adverse effects of their use are appropriately managed.

Consideration

99. The Panel considered whether there was an inconsistency between Policy 15.3.4 (discharge to air) and the listed standards (for the discharge to land); and whether there was a conflict between the intent of a policy of avoidance of spray drift and the standards which required best practicable option to minimise spray drift via NZS 8409:2004 (this was specifically raised by Hort NZ in evidence). The Panel's conclusion is that there is not an inconsistency and there is no conflict. It is appropriate to have a policy seeking to avoid spray drift beyond the boundary of the property on which it is being used due to the potential for adverse effects on neighbouring properties, especially if there are sensitive activities in close proximity. The Plan seeks to achieve the objective through the application of best practice methods as set out in NZS8409:2004. There is no inconsistency between a policy having that intent of avoidance of spray drift and a practical method of achieving that. Adherence to NZS8409:2004 should result in agrichemicals being applied in circumstances that avoid spray drift from occurring beyond the boundary of the property.

100. However, they agreed that any perception of inconsistency could be addressed through addition of commentary to the explanation clarifying the basis on which the application of agrichemicals is regulated under the Plan.

Decision

101. The explanation to Policy 15.3.4 as amended as follows:

"… The policy signals that the Council's role in controlling the ~~discharge~~ application of ~~contaminant~~s agrichemicals ~~to air is restricted~~ is to ensure that there are no off-site adverse effects. The application of agrichemicals onto crops or unwanted vegetation typically involves spraying the agrichemical into air and subsequent settlement of the droplets onto the vegetation. The Plan regulates the application (involving discharge) of agrichemicals as a

[61] Section 42A Report, paragraphs 315-316.

discharge to land that is the intended receiving environment. However, the potential for spraydrift occurs as a result of inappropriate application methods and practices (e.g. applying agrichemicals in windy conditions). The property boundary is therefore established as the point to which management is applied, as agrichemicals have the potential to cause health effects and other unintended consequences once they move beyond the boundary of the property on which they are being used. ~~Spraydrift usually occurs as a result of inappropriate application methods and practices (e.g. applying agrichemicals in windy conditions).~~ The Council will rely on agrichemical users applying best practice and exercising reasonable care to avoid spraydrift beyond their property boundary…"

102. Delete the permitted activity standard from all rules which states:

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

Fertiliser storage and application methods

Standard 3.3.23

Application of fertiliser or lime into or onto land

Standard 3.3.23.6

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

103. Federated Farmers seek an amendment to the permitted activity condition requiring all reasonable care to avoid spreading fertiliser or lime beyond the boundary. The suggested change requested is:[62]

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.

104. Dairy NZ also submit that the requirement to take all reasonable care to ensure fertiliser does not pass beyond the legal boundary is uncertain and consider that lime is difficult to control in any spreading conditions.[63] S Parkes seeks the deletion of the permitted activity standard on the grounds it is reliant on wind conditions which cannot be controlled.[64]

[62] Federated Farmers (425.572, 425.807, 425.836).
[63] Dairy NZ (676.96).
[64] S Parkes (339.7).

105. Federated Farmers also seek the removal of lime from the rules as lime is not included in the actual text of the conditions and nor does it reflect an effects-based rule; they are unsure why lime is captured at all.[65]

Section 42A Report

106. The report writer agrees with the submitters that the permitted activity standard requiring all 'reasonable care' to be taken when applying fertiliser or lime, may be considered uncertain. Applying lime particularly can be difficult to prevent some deposition beyond the boundary.

107. Under the RMA definition, lime may be considered a contaminant but with low environmental risks compared with fertiliser.

108. Given the greater risks of applying fertiliser, the report writer recommends that the permitted activity standard is reworded to remove the term 'all reasonable care', and to clearly state fertiliser 'shall not be applied in a manner that results in a discharge beyond the boundary of the site'.

109. Nevertheless, due to the lower environmental risks of applying lime, a new standard should be included to specify that all reasonable care must be exercised to ensure lime must not pass beyond the boundary of the site.

Consideration

110. The term 'reasonable care' in relation to fertilisers should be replaced by a requirement to ensure no passing of fertiliser beyond the legal boundary. In the Panel's opinion it is difficult to control lime in *any* spreading conditions so it should be removed from the absolute standard.

111. We concluded it is appropriate to remove the requirement for 'reasonable care' in relation to fertiliser to provide greater certainty and differentiate between fertiliser and lime. To achieve the required result considered by the Panel, the standard needs strengthening with the deletion of the words 'all reasonable care'. The Panel agrees with the report writer's suggestion that a new standard be included requiring all reasonable care must be exercised to ensure lime does not pass beyond the boundary.

Decision

112. The permitted activity standard in rules 3.3.23.6, 4.3.22.5, 17.3.8.6, 18.3.9.6, 19.3.17.6, 23.3.5.5 are amended as follows:[66]

[65] Federated Farmers (425.567, 425.746).
[66] Section 42A Report, paragraph 426.

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

113. A new permitted activity standard is inserted as follows:

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

New definition of fertiliser

114. Ravensdown have sought the inclusion of a definition of fertiliser based on the industry accepted definition. The company seek the following wording:[67]

> *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 ~~or~~ 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.*

115. Hort NZ sought similarly with its focus on fertiliser which includes a number of components that are not necessarily essential nutrients. In the submitters' opinion, the PMEP has to be clear as to what is meant by the definition of fertiliser as follows:[68]

> *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.*

[67] Ravensdown (1090.123).
[68] Horticulture NZ (769.125).

Section 42A Report

116. The report writer agrees a definition would be a useful addition to the PMEP as it is not clear what products should be classified as fertiliser. In his opinion the application of fertiliser or lime rules are intended to address products that maintain the nutrient status of the soil and therefore soil productivity, but these may have an impact on water quality.

117. In the report writer's opinion Ravensdown's definition is seen as the most acceptable. When considering the types of products that may be defined as fertiliser, the permitted activity standards should be relevant to soil, liquid forms of fertiliser and products that utilise manure which also contain nitrogen, phosphorus and potassium that aid in plant growth but may impact groundwater or surface water quality.

118. The definition is more extensive than the draft National Planning Standards but in the report writer's opinion better describes the nature of fertiliser. To the contrary Hort NZ's definition read in the context of the PMEP provisions, if applied excessively or incorrectly, could result in adverse effects on soil health and water quality.

119. At the time of the hearing, the report writer identified that consultation around the National Planning Standards was occurring. But due to the uncertainty at that time about the outcome the report writer suggested that Ravensdown's definition is accepted as the more comprehensive as it is the one which is largely recommended.

Consideration

120. The Panel agreed with the report writer's recommended wording, with the exception of the typographical error identified by Ravensdown – the word 'of' before fertiliser additives is to be amended to read 'or' fertiliser additives.

Decision

121. Include a definition of fertiliser as follows:

Fertiliser *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 or 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. For the purposes of the Plan, fertiliser excludes compost.*

Standards 3.3 and 4.3

Standards that apply to specific permitted activities

Standards 3.3.28.5 and 4.3.27.4

Ponding must not be detectable beyond 24 hours after the discharge

122. This issue relates to the permitted activity status that manages soil conditions and potential run-off as a result of the discharge of dairy effluent.

123. MEC opposes both the standards that ponding must not be detectable beyond 24 hours after discharge.[69] MEC considers that ponding should not be part of best practice effluent disposal to land. The Dairy NZ website states that it is essential to prevent ponding and run-off and to avoid applying effluent to saturated soils.[70]

124. The definition of ponding in the PMEP is:

> *means the formation of pools of surface liquid, other than liquid momentarily present on the surface at the commencement of the absorption process.*

125. MEC opposes 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.

126. The Dairy NZ Farm Dairy Effluent Design Standards and Code of Practice states that 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 that there is a soil moisture deficit equal to or greater than the applied depth.

Section 42A Report

127. In the report writer's 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, the report writer recommends that the permitted activity standard is amended to not permit any ponding.

Consideration

128. The Panel accepts the stricter recommended amendment to standards 3.3.28.5 and 4.3.27.4, removing 24 hours from the standard. A consequential change to Standards 3.3.26.5 and 4.3.25.4 to make the equivalent change to other standards is also required.

[69] MEC (1193.83, .84, .85, .87, .88, .89).
[70] Section 42A Report, paragraph 571.

Decision

129. The permitted activity standard in all relevant rules relating to the ponding of effluent is amended as follows:[71]

The discharge must not result in the ponding of effluent. ~~*Ponding must not be detectable beyond 24 hours after the discharge.*~~

Storage and discharge design and methodology

Standards 3.3.28.9 and 4.3.27.8

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

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

- *4.3.27.7: 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*
- *3.3.28.9 and 4.3.27.8: 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.*

131. Submitters have raised a question as to who is a recognised professional, especially for existing systems. They variously seek: clarification as to who is a recognised professional and that MDC will certify storage prior to it being built;[72] acknowledgement that the term 'recognised professional' is unhelpful – the storage structure certification process should be overseen by a Chartered Professional Engineer (CPEng) as this will require work to be approved, checked or signed off;[73]members of IPENZ are bound by a code of ethics to take reasonable steps to safeguard health and safety and the environment and promptly report adverse consequences;[74] new structures should be designed and constructed in accordance with the IPENZ Practice Note 21 Farm Dairy Effluent Pond Design and Construction;[75] a

[71] Section 42A Report, paragraph 593.
[72] Hall Family Farms (141.3).
[73] Opus (1006.1).
[74] IPENZ (274.2, .3).
[75] Opus (1006.1, 1006.3, 1006.4, 1006.5).

recognised professional should have 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;[76] replace references to certification by a recognised professional to certification by Council, with the former only having to complete a pond storage calculation, and the PMEP to include a definition of recognised professional.[77]

132. Several submitters raised concerns regarding the time frame 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. Extending the date will provide more time for upgrading infrastructure necessary and ensure there is certainty regarding the rule. It is submitted that the date should be three years after the plan became operative.[78]

Section 42A Report

133. Submissions have been received on the term 'recognised professional' in the context of dairy effluent system design and construction – the PMEP defines 'recognised professional' as meaning '*a suitably qualified and experienced person in their field*'.[79]

134. In terms of who might qualify as a recognised professional, given the importance of the role in certifying effluent systems, the report writer considers that while a CPEng certified professional engineer would provide a high level of assurance that effluent systems would be designed and constructed appropriately, there may be issues with the availability of a CPEng in Marlborough. An alternative may be dairy farmers be provided with an accreditation programme in accordance with Farm Dairy Effluent Design Standards and Code of Practice.

135. The Section 42A Report recommends continuing the rule addressing the discharge of dairy effluent, with more flexibility to assess storage volumes and more certainty with respect to reducing leakage; in particular, the recommended change is to specify who is able to certify the design of the pond.[80]

136. The report writer's response otherwise ranged over a number of issues:[81]

[76] Fonterra (1251.83, .84).
[77] Dairy NZ (676.104, .105, .149, .150).
[78] H Collins (397.8), Federated Farmers (425.585, 425.682), Dairy NZ (676.109, 676.154) and Fonterra (1251.87, 1251.88).
[79] Section 42A Report, paragraph 563.
[80] Section 42A Report, Reply to Evidence, page 14.
[81] Section 42A Report, paragraphs 543-546.

- Dairy farm effluent discharges are currently permitted under the MSRMP: s 20A RMA does not require a new consent until after the rule becomes operative in accordance with s 86F RMA.
- Agreement that there is uncertainty regarding permitted activity requirements prior to the plan becoming operative and new facilities will require a reasonable level of investment.
- A three year time frame from the rule becoming operative is inappropriate for upgrading infrastructure – 24 months 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. This best achieves 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.'*
- The discharge rules are amended to require existing dairy farms to meet permitted activity standards requiring three 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 a plan becoming operative.

137. In relation to effluent storage requirements, 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.[82] While the current standards require the storage system must be sealed with an impermeable material,[83] 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.[84]

138. The report writer identifies that pond drop tests are required elsewhere in New Zealand with minimum leakage rates set in other regional plans. This is commonly completed for clay lined ponds which are most at risk of leakage when compared to concrete or those synthetically lined.[85]

139. 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 which does

[82] Section 42A Report, paragraph 557.
[83] Rules 3.3.28 and 4.3.27.
[84] Federated Farmers (425.583), Dairy NZ (676.106, 676.151) and Opus (1006.5).
[85] Section 42A Report, paragraph 558.

not include clay but does include concrete or synthetic material. The recognised professional is recommended to be farm dairy effluent system design accredited.[86]

140. 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.[87]

141. The report writer recognises this problem believing the permitted activity standards are 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 ongoing requirement for the system to be lined with an impermeable material. Upon concluding that an amendment to the permitted activity standard is necessary to remedy the issue by providing for it on an ongoing basis, the report writer recommended two directly related amendments:

- Amend the permitted activity standard in all relevant rules relating to the required effluent storage volumes as follows:[88]

  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 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.

- Amend the permitted activity standard in all relevant rules relating to the required effluent storage volumes as follows:

  x.x.x.x For a new dairy farm established after 9 June 2016, the storage system must at all times 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 at the time of construction and upon request by Council.

Greater specificity sought:

142. In the evidence provided at the hearing, Opus[89] sought greater specificity as to the requirement for certification of the entire effluent system.

[86] Section 42A Report, paragraph 559.
[87] Section 42A Report, paragraph 561.
[88] Section 42A Report, Reply to Evidence, page 15.
[89] Opus (1006.5).

143. The report writer considers that Mr Metcalfe of Opus raises a valid issue with potential confusion as to exactly what is being certified, the criteria for certification, and the need for the whole system to be considered. Certification of the whole effluent system is suitable when a complete new system is being installed. However, when a system is being upgraded, re-consented or otherwise altered, there can be a reluctance to certify parts of the system as being "as new", as the relevant professional has not had any involvement with design or installation of those parts.

144. The report writer identified Dairy NZ provide a range of guidance for design and management of effluent systems. Critical to this is the avoidance of leakage. The PMEP requires certification for storage volumes if these are less than three months, and also certification of the lining material. Mr Metcalfe identified the need to generally certify that the system is sound and not leaking, and this is a key element of the Dairy NZ guidance. The rule requiring certification if the storage volume is less than three months is considered satisfactory. However, an alternative simplified wording for the rule relating to the impermeability of the liner is recommended.[90]

Consideration

145. The report writer extensively detailed issues arising from submissions relating to the requirement for certification of the entire effluent system. This has involved several iterations within the reporting process. Because the Panel has been part of the assessments of material, we are satisfied that the outcome encompasses the whole of the detail necessary to pinpoint the issues. We concluded, however, that the word 'soundness' in the proposed amendment should be changed to 'integrity' to better reflect the state of the whole of the system.

Decision

146. Rules 3.3.28.9 and 4.3.27 are amended to read:

For a new dairy farm established after 9 June 2016, the effluent collection and storage system must at all times be sealed to prevent leakage with an impermeable material and the integrity of the system and impermeable material to prevent leakage is certified at the time of construction and upon request by Council by a recognised professional who holds a farm dairy effluent design accreditation or is a Chartered Professional Engineer.

[90] Opus, Metcalfe Evidence, paragraph 7. Section 42A Report, Reply to Evidence, page 15.

Definitions of wastewater

147. MDC submitted on the definition of wastewater, requesting that the definition provide greater clarity and alignment with the wording of the rules relating to the discharge of human effluent and seeking the following amendments:[91]

> ***~~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*

148. Other submitters seek: clarification as to whether this applies to a long-drop and point source discharge, for example, on a farm;[92] recognition 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, stockyards; the rule in the Open Space 3 Zone should also be included in the Coastal Environment Zone.[93]

- East Bay Conservation Society (EBCS) considers that appropriately sited long-drops are the most environmentally sustainable method to deal with small volumes of human effluent on large properties and also sought clarification whether the rule applies to the long-drop toilets in the Coastal Environment Zone;[94] another submitter seeks clarification whether Rule 7.5.4 applies to effluent as it is understood that soak pits are only used to discharge grey water;[95] Rule 22.1.11 should cover grey water as well as effluent[96] - this submission is supported by Federated Farmers (reframed) as this request improves clarity.[97]

149. Fonterra submitted in opposition to definitions of wastewater and have sought it is to refer only to broad categories, with the definition replaced with the following wording:[98]

[91] MDC (91.116).
[92] G Barnett (1258.12).
[93] M and K Gerard (424.166).
[94] EBCS (100.27).
[95] QCSRA (504.84).
[96] Dominion Salt Limited (355.9).
[97] Federated Farmers (425.683).
[98] Fonterra (1251.160).

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.

Section 42A Report

150. As to whether the scope of the rule covers 'wastewater' and 'grey water', the report writer identifies that the permitted activity rule is referred to as the discharge of human effluent via an on-site wastewater management system, the definition identifying that it serves a residential dwelling or other facility that generates domestic wastewater. 'Human effluent' is recommended to be defined as part of the current definition of wastewater because it originates from domestic sources including bathrooms, kitchens and laundries. It is therefore clear that 'human effluent' is intended to cover both black water and grey water.

151. In terms of those submitters seeking clarification on existing provisions relating to long-drop toilets or the necessity to include permitted activity rules for long-drop toilets in the Coastal Environment Zone, based on the current wording of the rules the discharge of contaminants through a long-drop toilet would not be permitted. This is because a long-drop does not consist of a treatment unit and land application area. The long-drop may, however, be considered as a soak pit which is defined in the PMEP 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.'[99] This definition allows a 'concentrated point of discharge' but not 'the rapid movement of water to depth'.[100]

152. The report writer agrees with the submitters that because there is no special rule provided, it would be inappropriate to prohibit this type of discharge in remote areas where effects can easily be minimised. He therefore recommended an additional rule be included in the Coastal Environment Zone to permit the discharge of effluent to land via long-drops. It is further suggested the same reasoning apply to the Rural Environment Zone but has no submitters addressing this issue, but if the Panel considers this could be a consequential change, then the report writer would recommend that same rule be inserted to that zone.

153. In discussing the discharge of effluent through a long-drop in the Coastal Environment Zone, the report writer considered the rule in the Open Space Zone would be suitable with some amendments including existing permitted activity standards.[101]

[99] QCSRA (504.84).
[100] Section 42A Report, paragraphs 623-626.
[101] Section 42A Report, paragraphs 627-628.

Consideration

154. The use of wastewater does not align with the rules which refer to human effluent.

155. The Panel considered that there is no scope to insert new rules into the Coastal Environment Zone and the Rural Environment Zone as sought by M and K Gerard and EBCS as the issue relates to the *definition* of wastewater.

156. It is therefore necessary to adjust the definition so that it applies to human effluent, replacing 'wastewater' with the definition text 'human-induced effluent'.

Decision

157. For the reasons recommended by the report writer, we accept that the definition of wastewater is amended as follows:

~~Wastewater~~ ***Human induced-effluent*** *in relation to on-site wastewater management systems, means ~~wastewater~~ human-induced 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*

Disposal of offal

158. An offal pit is defined in the PMEP 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.*

159. 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. In all other zones, the discharge of farm rubbish requires a resource consent as a discretionary activity. 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.

160. 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; …*

161. P Kemp 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.[102] Offal and carcasses are biodegradable and should be able to be disposed of via the permitted activity rule.[103]

Section 42A Report

162. The report writer agrees with the submitter 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 S32 Report.' He considers the potential effects of allowing farm rubbish pits and offal pits to be combined will be no different if they were side by side. He does however 'consider 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.'

Decision

163. Amend the permitted activity standard in all relevant rules relating to the restriction of disposal of offal or carcasses as follows:[104]

x.x.x.1 Only biodegradable material (except offal or a carcass <u>from intensive farming</u>) ~~must~~ <u>may</u> be disposed of to a farm rubbish pit.

Storage facility construction and design

Standards 3.3.33.5, 4.3.32.3 and 19.3.22.5

There must be no runoff of leachate from the pit, stack or stockpile.

164. Six submissions, all inter-related, seek changes to leachate reaching water bodies.

165. These submissions 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;[105] an acknowledgement that farmers are aware that covering stacks is best practice and it is unnecessary to require this in the rule;[106] an acknowledgement that the standards of the Rural Environment Zone rule are inadequate to prevent leachate entering surface water – a new

[102] P Kemp (189.3).
[103] Middlehurst Station Ltd (970.18).
[104] Permitted Activity Standards: 3.3.31.1, 4.3.30.1, 19.3.20.1.
[105] Fish and Game (509.321).
[106] H Collins (397.9).

standard is sought with requires any pit, stack or stockpile to be bunded together with a volume limit on stacks;[107] an acknowledgement that covering by an impermeable material of pits and stacks is not necessary when not in use. It is not practical to require farmers to constantly cover and uncover a silage stack.

166. When a silage pit is not in use it is covered with plastic specifically designed for this purpose to keep silage tightly packed – delete the standard; or standards should focus on leachate into a waterbody and seek an amendment to reflect this;[108] that the standard is not able to be efficiently and effectively implemented and should read as follows:[109] *Visible run-off of leachate from the pit, stack or stockpile must be intercepted before reaching a waterway*; it is difficult to prove a or disprove whether any leachate is being discharged from below a silage stack – the submitter seeks an amendment to state: *There must be no runoff of visible leachate from leaving the pit, stack or stockpile area*.[110]

Section 42A Report

167. In terms of the submitter seeking bunding to prevent leachate surface water run-off, the report writer considers this unnecessary as the permitted activity standard already requires pits or stacks to be covered when not in use, the prevention of runoff from pit, stack or stockpile, and the prevention of surface run-off entering the pit, stack or stockpile. The requirement for bunding therefore does not address any potential effect that is already not being managed by existing standards. Any leachate that is produced will be treated naturally by insitu soils and the permitted activity standards on separation distances to bores and surface water bodies will protect water quality.[111]

168. 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 material spoilage. Silage specifically has to be packed tightly and covered to avoid reduced quality or rotting. Therefore when a silage pit is not in use it is most likely to be covered. Plain reading of the phrase 'when not in use' is clear but to avoid any confusion, the report writer recommends the permitted activity standard to read:

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.~~

[107] MEC (1193.106, 1193.100, 1193.101, 1193.102, 1193.103, 1193.105, 1193.104).
[108] Federated Farmers (425.605, 425.812, 425.843).
[109] Dairy NZ (676.122, 676.165).
[110] Fonterra (1251.89).
[111] Section 42A Report, paragraphs 747, 749.

Consideration

169. The Panel considered that Fonterra's submission is the most persuasive. The standards should focus on leachate reaching water bodies. This must be the intent of the policy.

Decision

170. Standards 3.3.33.5, 4.3.32.3 and 19.3.22.5 are amended as follows:[112]

There must be no runoff or infiltration of leachate into groundwater from the pit, stack or stockpile.

Definition of pit

171. 'Pit' is defined 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.*

172. S Parkes requests the definition is clarified in relation to the phrase "No excavation of land is to be undertaken".[113] Federated Farmers submit the definition should be deleted as it is poorly worded and lacking clarity because it is contradictory. It states 'the pit is dug', but then states 'no excavation of land is to be undertaken'.[114]

Section 42A Report

173. The report writer believes 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 on silage rules.

174. The construction of a pit would require some excavation and whether that excavation is permitted must be assessed under the excavation and filling rules. The report writer recommends that the definition is amended to ensure this is sufficiently clear.[115]

Consideration

175. The Panel agrees the definition lacks clarity and there is a contradiction in that the pit must be 'dug' but the standards require no excavation.

176. The report writer provides a definition by including the phrase 'means a pit dug below ground' but this does not resolve the issue. The Panel concluded the word 'dug' should be deleted with the remainder of the standard to remain as recommended by the report writer.

[112] Section 42A Report, paragraph 760.
[113] S Parkes (339.21).
[114] Federated Farmers (425.418).
[115] Section 42A Report, paragraphs 828-829.

Decision

177. The definition of 'pit' is amended 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~~.*

Definition of stormwater

178. 'Stormwater' is defined as:

> *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.*

179. NZTA seek to clarify the intent of the definition. Omit the reference to 'which may contain dissolved and entrained contaminants' from the recommended wording as the presence of contaminants changes the nature of the discharge.[116]

180. Federated Farmers submit that the definition of stormwater should be amended to exclude farm drains and land drainage canals and associated structures. The farmers consider that the current definition risks encompassing run-off over land and from farm drains; over which a landowner has no control. The submitter seeks the following definition:[117]

> *means rainfall that ~~runs off land~~ is collected from impervious surfaces and directed into ~~for which~~ specific drainage channels or pipes which have been constructed for this purpose.*

181. NZTA submit in opposition to the definition of stormwater because it 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 discharged from the road network. NZTA state 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 replaced as follows:[118]

> *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*

[116] NZTA (1002.261).
[117] Federated Farmers (425.424).
[118] NZTA (1002.261).

Section 42A Report

182. The report writer does not agree with the amendments sought by Federated Farmers as not all stormwater is directed into drainage channels, pipes or secondary flow paths.

183. Instead the report writer agrees with NZTA that the current PMEP 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 MSRMP two definitions for stormwater are provided, one which defines non-point source stormwater and the other that defines point-source stormwater which is defined as follows:

> *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.*

184. The report writer identifies that the term 'stormwater' is used throughout the PMEP in a number of provisions where the issue of interpretation has not been raised. As the proposed definition from the NZTA incorporates the MSRMP definition of non-point source stormwater discharge, the report writer concluded that no issues arise from that definition in the interpretation of its relevant policies, methods and rules. In his view the definition adequately captures the source of stormwater, its characteristics (potentially containing contaminants) and how stormwater is influenced by human action (diverted/discharged). He recommends the definition of stormwater is amended as requested by NZTA.[119]

Consideration

185. Another particular aspect where the Panel formed a different view than that recommended by the report writer in his Reply to Evidence, related to the relief sought by those who submitted it was necessary for a rule to be provided to enable discharge of stormwater to land. The wording proposed, and recommended, closely aligned with the proposed permitted activity rule for discharges of stormwater to water.

186. Ravensdown in particular made submissions strongly to that effect, and in his Reply to Evidence the report writer recommended a particular wording for a possible rule. By contrast, the original Section 42A Report had relied on s 15 RMA as providing a rationale for rejecting the requested rule on the basis it was unnecessary.

187. The Panel have formed the view that the original Section 42A Report advice should be followed. The provisions of s 15 and s 2 RMA when read closely together, place an emphasis on the presence of contaminants and the effect of those contaminants. The consequence of the two sections, in our view, means a rule in a plan is not required for discharges of

[119] Section 42A Report, paragraph 853.

stormwater to land, unless the stormwater contains contaminants to an extent which will change the quality of the receiving land, or the stormwater containing the contaminants may enter other water.

188. It is worth stating s 15 is a provision which controls discharges of contaminants – not stormwater per se.

189. In terms of s 15 discharges of contaminants to land are treated in a very different manner than direct discharges to water. The latter are directly controlled, regardless of the level of contaminant – see the second part of s.15 (I)(a).

> ***15 Discharge of contaminants into environment***
>
> ***(1) No person may discharge any—***
>
> ***(a) contaminant or water into water; or***
>
> ***(b) contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or***
>
> ***(c) contaminant from any industrial or trade premises into air; or***
>
> ***(d) contaminant from any industrial or trade premises onto or into land—***
>
> ***unless the discharge is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent.***

190. By contrast discharges of contaminants to land are only controlled where the contaminant is present 'in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water".

191. Moreover, the definition of 'contaminant' itself further limits the application of s.15 in respect of discharges to land. s 2 (b) RMA defines contaminants as follows:

> ***contaminant includes any substance (including gases, odorous compounds, liquids, 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***

192. As can be seen, in respect of discharges to land, to qualify as a contaminant as defined in the RMA a substance must be of a nature that it "*changes or is likely to change the physical, chemical, or biological condition of the land or air onto or into which it is discharged."*

193. The Panel's view is that the provisions of s.15(1)(b) when combined with the s.2 (b) definition of 'contaminant' are not intended to capture discharges of water to land, even if that stormwater contains some level of contaminant, if those discharges have so little effect that

they do not change *"the physical, chemical, or biological condition of the land".* In short, the discharge of stormwater to land in circumstances where the effects are *de minimis* to the condition of the land itself, are not caught by s 15.

194. Section 15(1)(b) makes it plain such discharges of contaminants to land are only restricted where they may result in the contaminant "*entering water*". So, if the rate of, or manner of, discharge to land occurs in a way which does not lead to the stormwater entering other water, then again s.15 does not restrict the discharge of the stormwater to land.

195. No rule is therefore needed to enable the discharge of stormwater to land in circumstances where s 15 is not engaged.

196. (The Panel notes that Ravensdown holds a resource consent U161090 for a 20 year term, which authorises it to discharge to land through an irrigation system stormwater which is described in the application as 'liquid waste'. The consent described the stormwater as containing '*the nutrient contaminants arising from the site to existing landscaping'.* That outcome accords with the conclusions the Panel has reached above.)

197. The definition as notified does not recognise that contaminants become entrained in stormwater. The definition does not capture stormwater that runs onto land via sheet flow and is not collected in infrastructure.

198. As recommended the intent of the definition is amended as identified by NZTA and the report writer, but with the exclusion of the reference 'which may contain dissolved or entrained contaminants' from the recommended wording, as the process of contaminants changes the nature of the discharge.

Decision

199. The definition of 'stormwater' is amended as follows:

Stormwater *means rainfall ~~that runs off~~ run-off from land, including contaminated impervious areas such as roads, pavements, and urban areas is diverted and discharged to land and water ~~and for which specific drainage channels or pipes have been constructed.~~.*

Soil Sensitive Areas Overlay

Method 15.M.40

200. The PMEP 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.[120]

201. The Soil Sensitive Areas (SSA) Overlay is included in Volume 4 of the PMEP and identifies three types of sensitive or vulnerable soils, loess soils, soils with impeded drainage and soils that are free-draining.

202. A number of submissions were received on the accuracy of the SSA Overlays. A number of other submissions related to the SSA mapping in relation to specific permitted standards.

203. A report by MDC's soil scientist identifies the limitations of the SSA Overlays. This report also acknowledges the difficulties in rectifying the definitions at this point in time due to a lack of data information.[121]

Overlays

204. The Oil Companies requested that the impeded soils category be removed from the Business zones of Blenheim. They state that the overlay to this zone is not relevant as there are no rules within the Business zones that relate to overlay.[122]

205. NZ Forest Products consider that the impeded soils shown on the SSA in Opihi and Whangataura Bays appear far more extensive than the actual impaired soils in the area; the company requests that the overlay is amended to accurately identify the extent of the impeded soil or delete the area from the overlay.[123]

206. Hall Family Farms Ltd consider that the mapping of impeded soils on their property do not fit the characterisation of the property and the area should be removed from the overlay.[124]

207. Davidson Group Ltd identify that there are large areas in the Wairau Valley of river gravels which are also free draining and which should be part of the overlay. Either these soils are

[120] 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.
[121] Matthew Oliver, Soil Scientist Land Management for MDC. See Soil Sensitive Areas Report Appendix 1, Section 42A Report.
[122] Z Energy Limited, Mobil Oil New Zealand Limited and BP Oil Limited (1004.109, 1004.110, 1004.111, 1004.112)
[123] NZ Forest Products (995.47).
[124] Hall Family Farms Ltd (141.7).

removed from the plan or the overlay be extended to include all areas that are free draining.[125]

208. MEC support the overlay and consider management of discharges within free draining soils is important for minimising risks of microbial contamination. The organisation request that the overlay is extended to include free draining river bed soils including berms, soils in close proximity to estuaries, inlets and Rarangi as a Soil Sensitive Area.[126]

209. V and D Wadsworth are concerned with the scale of the mapping which results in errors in many areas and make it difficult to apply at a property scale. They also consider the rules relating to Soil Sensitive Areas are restrictive and not appropriate due to the fact their property only includes a small area of loess sensitive soils. The overlay should be reviewed and ground truthed – and/or landowners should be included in the mapping process around the loess soils.[127]

210. Levide Capital Ltd submit that the SSA Overlay identify its property as loess soils but consider this is not accurate based on on-site investigations. The company requests that the Soil Sensitive Overlay is amended to remove areas of their property not meeting the criteria set down for the overlay.[128]

211. D Sim opposes the SSA Overlay in respect of the Sim property as it triggers a number of consents required for different activities; an alternative management regime should be established consisting of a Sustainable Agriculture Management Programme that incorporates a central body to accurately monitor the effects on the environment and recommends changes in management practices.[129]

Mapping

212. M and H Neame oppose Soil Sensitive Areas mapping in the lower Awatere Valley as the mapping is too broad while the implications of the mapping means that they would be unable to plant fodder crops, run lower stock numbers and be unable to diversify into viticulture. The mapping should be more precisely defined.[130]

[125] Davidson Group Ltd (172.7).
[126] MEC (1193.108).
[127] V and D Wadsworth (201.1).
[128] Levide Capital Limited (907.33).
[129] D Sim (161.1, 161.2).
[130] M and H Neame (330.1).

213. E and A Ryan also oppose the mapping of loess soils as it is too broad and they seek that the mapping be removed until it is ground truthed.[131]

214. Federated Farmers state that the 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 through educational practices. Federated Farmers seek that the Soil Sensitive Areas and associated provisions are removed from the PMEP.[132]

215. Villa Maria seek an additional method is included in the PMEP to outline an ongoing commitment of MDC to further refining the Soil Sensitive Areas and their boundaries.[133]

216. Several vineyard owners and wineries including Longfield Farm Ltd, Delegat and Blind River, also agree the scale of the current mapping of the Soil Sensitive Areas is too extensive and the PMEP should include as a method the ongoing commitment of Council to the further refining of the Soil Sensitive Areas and boundaries.[134]

Section 42A Report

217. The Section 42A Report recognises the deficiencies of the broad scale mapping of the Soil Sensitive Areas relying on the information in Appendix 1 of a Technical Report from Matthew Oliver, Environmental Scientist for MDC.[135]

218. At the request of the Panel, during the hearing at the right of reply, Mr Oliver, undertook to review the loess soil overlay as set out in Figure 4 of the Supplementary Report. The results of his review are set out in the report 'Revised Soil Sensitive Areas Loess Overlay'.

219. This technical report:

- Identifies that many submitters raise the accuracy of SSA Overlay maps including loess soils and their risk of erosion which may increase the environmental risk of land disposal of liquid wastes.
- Identifies that for all SSA overlay polygons depicting the soil sensitive areas for the overlays and maps were used from the Fundamental Soils Layer (FSL) survey.[136]

[131] E and A Ryan (347.1).
[132] Federated Farmers (425.787).
[133] Villa Maria (1218.83).
[134] Longfield Farm Limited (909.84), Delegat (473.75), Blind River (462.43).
[135] Section 42A Supplementary Report, Reply to Evidence, page 18.
[136] FSL 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. Edition 2 1998 updated in more recent survey information such as the 2005 Wairau Plans soil survey.

- Minimal ground truthing was performed at the time the polygons were created and were drawn many years before more recent research was available for several areas of Marlborough. If the polygons were drawn incorrectly, then these errors have been transferred to the SSA overlays and are not drawn to the scale most landowners would consider useful.
- Mr Oliver will undertake a polygon review process in the upcoming 6-12 months to refine the accuracy of the SSA Overlays which will include:
    - Confirming the scientific basis of the individual SSAs.
    - Comparing the current polygons to other sources of soil information.
    - Completing a desktop refinement exercise using LiDAR and GIS data where available to better refine polygon boundaries.
    - Use limited ground truthing to verify desktop exercise.
    - Presenting the revised polygons to Council for approval.

Consideration

220. Matthew Oliver's report identified the limitations of the accuracy of the Soil Sensitive Overlays identifying their drawbacks. The report also acknowledges the difficulties in rectifying the deficiencies at this point in time due to lack of resources to complete the data and information (LiDAR was not wholly available to map the areas in question – ground truthing is expensive and very time consuming). Mr Oliver sets out a potential review process into the overlay mapping to rectify the situation in his report.[137] The report writer incorporates the conclusion of Mr Oliver in his Reply to evidence, recognising that the LiDAR data enabled refining of the maps in the area where it is presently available. This process he recommends can be re-run in updated maps provided that it removes slopes less than 7.5 degrees, does not add any land that is not within the notified layer, and removes slope aspects that are unlikely to have loess soils.[138]

221. The report writer recommends the SSA Overlay is retained as notified and permitted activity standards that refer to the overlay are maintained and will ensure the achievement of Objectives 15.4 and 16.3 and Policies 15.4.6 and 16.3.2.

222. It would be useful for the PMEP to recognise Mr Oliver's work for the Council through the introduction of a new method and as suggested by a number of submitters. This could be

[137] Section 42A Report, Appendix 1, page 26.
[138] Reply to Evidence, pages 17-18.

inserted into the soil quality provisions of Chapter 15 to define the SSA Overlay and to commit to further refinement of overlays.

223. As a consequential effect of this change, it is recommended a new indicator for 15.AER.9 be introduced.

224. We note that Mr Oliver recommended a review of this whole issue in his report while the report writer incorporated a review into the same method with which we agree. The Panel also considers that the method should be added to Method 15.M.40.

225. The addition to Method 15.M.40 and the revised 15.AER.9 confirm the Council's commitment to address the mapping and overlay of Soil Sensitive Areas and that it will be completed. As identified by the report writer the soils of Marlborough are too potentially valuable to lose.

Decision

226. An addition is inserted to the end of Method 15.M.40 as follows: [139]

The Council will promote the use of the Visual Soil Assessment tool to enable resource users to monitor soil quality on their own properties.

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 could 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.*

[139] Hall Family Farms (141.7), NZ Forest Products (995.47); V and D Wadsworth (201.1); Levide Capital Limited (907.33); M and H Neame (330.1); E and A Ryan (347.1); Villa Maria (1218.83), Longfield Farm Limited (909.84); Delegat (473.75); Blind River (462.43).

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.

227. As a consequential effect of this change, introduce a new indicator to 15.AER.9 as follows:

A review of the accuracy of the Soil Sensitive Overlays is completed.

Revised Soil Sensitive Overlays – loess soil

228. Individual submitters asked for their properties to be removed from the overlays or for the soils on the properties to be ground truthed.

229. Mr Oliver indicated he would be happy to perform such visits should the Panel require it but he 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.

230. Alternatively Mr Oliver suggested a desktop methodology could be applied in relation to the locality in which the Wadsworth property is situated to illustrate the effects of the application of that methodology by way of comparison to figures 1 to 3 of the original report. The Panel requested that be done on all properties affected by the loessial overlay which are covered by existing LiDAR data.

231. The witness then addressed a number of these submissions rejecting one,[140] recommending another be investigated,[141] and yet another noting verbally that its request requires further explanation and has 6-12 months work.[142]

232. Mr Oliver's Reply to Evidence responded to the requests made at the hearing by the Panel for illustrative mapping of his recommended methodology. LiDAR data was first used to create the slope map layer – land less than 7.5° slope. [143] LiDAR data was also used to reassess the slope aspect. His reply illustrated through Figures 1-4 those effects. . Figure 1: shows the current loess overlay map for the Wadsworth property zoned in red. Figure 2: illustrates the same property with areas less than 7.5 degrees slope removed. Figure 3: depicts the same

[140] Oil Companies (1004.109 & 1004.111 & 1004.112)
[141] New Zealand Forest Products Holdings Limited (995.47).
[142] Hall Family Farms Ltd (141.7). See Figures 5, 6, 7, pages 18-19 Appendix 1.
[143] Section 42A Report, Appendix 1, paragraph 52.

property with slopes facing northwest to southeast which can be expected to have loess deposits. Figure 4: depicts the outcome of the application of the methodology showing greatly diminished areas of loess soils.

Consideration

233. The Panel accepted Mr Oliver's methodology as giving more precise results. As LiDAR coverage is extended the Panel considers it would be beneficial for that methodology to be applied to all of the areas where loessial soils are identified for subsequent plan change processes.

234. The Panel agreed that the Soil Sensitive Areas overlay relative to loessial soils in the Plan on Mr V and Mrs D Wadsworth's property and all other locations depicted in Figure 4 of the Reply to Evidence is to be amended to accord with Figure 4.

Decision

235. The Soil Sensitive Areas overlay is amended to reflect Figure 4 of the Reply to Evidence, as follows: