BEFORE THE CANTERBURY REGIONAL COUNCIL


AND

IN THE MATTER OF: a submission on the Proposed Canterbury Land and Water Regional Plan

EVIDENCE OF HERBERT ROSS FAMILTON
FOR DIRECTOR-GENERAL OF CONSERVATION

Dated 2 April 2013

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STATEMENT OF EVIDENCE OF HERBERT ROSS FAMILTON

INTRODUCTION

Qualifications and Experience

1 My name is Herbert Ross Familton. I have been employed by the Department of Conservation (“DOC”) in the position of Resource Management Planner in its South Island Shared Services Office since 21 May 2012. I am appearing here today to present planning evidence for the Phase II hearings in support of the Director-General of Conservation’s (DG) submission on the proposed Canterbury Land and Water Regional Plan (“pCLWRP”).

2 In my current role I am responsible for providing information, advice and analysis on resource management issues for plan and consent hearings and appeals at a national level as part of my job within the Department’s Policy and Regulatory group based in Christchurch.

3 I hold a Bachelors of Arts Degree with Honours in Geography (1983) and a Masters in Regional and Resource Planning (1985) from the University of Otago. I have over twenty six years experience in the area of natural resources planning. I was admitted as a full member of the New Zealand Planning Institute (NZPI) in 1993.

4 Prior to my current employment with DOC, I was employed by the Auckland Council as Senior then Principal Specialist (Air) from 2011 to 2012. In this role, I was responsible for policy work and drafting for the agrichemical provisions of the air sections of Auckland Council’s Unitary plan. I was employed by Environment Canterbury as a Senior Resource Management Planner in the Policy Planning team from 2010 to 2011 in the Air Quality area. And, from 2006 to 2009, in the environmental flow areas, focusing on the Waipara, Hurunui, and Waiau catchments. As part of this work, I prepared the paper to Council to make chapters 1-3 of the Natural Resources Regional Plan operative.
Prior to the 2006 period, I was employed by DOC and the Department of Lands and Survey in a number of planning roles. I was the lead DOC official for the whole of Government submission that advised the Attorney–General for the Waitaki Catchment Water Allocation plan in 2005/2006. I processed restricted coastal activity coastal consents for the Minister of Conservation from 1997-2006 in the Southern Regional Office of DOC.

I produced a standard operating procedure (SOP) for the development of Conservation Management Strategies (CMS) nationally for DOC. The CMSs are equivalent to a Regional policy Statement (RPS) in the DOC Management Planning system under Part III of the Conservation Act.

In Canterbury, I lead the development of a number of DOC management plans, reviews, and amendments. This includes the Canterbury CMS, the Mt Cook/Aoraki National Park Management Plan, and the Arthur’s Pass National Park Management Plan.

The data, facts, information and assumptions I have considered in forming my opinions are set out in the part of the evidence in which I express my opinions. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

I have read the Environment Court’s Code of Conduct for expert witnesses and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues in the brief of evidence above are within my area of expertise.

The literature or other material which I have used or relied upon in support of my opinions are as follows:

(i) The Resource Management Act 1991
(ii) the National Policy Statement on Freshwater
(iii) the National Policy Statement on Renewable Energy Generation
(iv) The New Zealand Coastal Policy Statement
(v) The second and third report of the Land and Water Forum April and October 2012, Wellington, NZ.
(vii) The National Biodiversity Strategy
(ix) The Canterbury Conservation Management Strategy
(x) The expert witness evidence from Associate Professor Russell Death (Fish and Game witness), Michael Bennett (Federated Farmers witness), Animal Health Board, and Pam Guest, Dr Nicholas Dunn, Dr Phillippe Gerbeaux, Keith Briden, and Alastair Fairweather from the Department of Conservation

SCOPE OF EVIDENCE

11 My evidence will give a planning perspective of the relief sought by the Director-General’s (DG) submissions and further submissions and commenting on the Officer’s section 42A report Volume 2 recommendation on that relief for the Phase II hearings on the following matters:

- Policies 4.26
- Rules 5.21 to 5.38, 5.52 to 5.54, and 5.133 to 5.137
- Schedules 6
These rules include Pest Control and Agrichemical Discharges, Offal and Farm Rubbish Pits, Animal and Vegetable Waste, Discharge of Animal Effluent, Silage pits and compost, Fertiliser use and Livestock exclusion from Waterbodies.

12 Ms Pam Guest, an independent planning consultant, will address the issues associated with the farming and nutrient discharges for the DG’s submissions on Policies 4.28-4.38 and Rules 5.39-5.51 and Schedules 7 and 8.

13 I have enclosed, for the Hearing Commissioners’ information:
   • Appendices A - D. Proposed amendments to rules

14 Please note that references to sections and page numbers throughout this evidence are to the sections and page numbers contained in the section 42A report unless indicated otherwise.

15 The technical witnesses for the DG will address technical matters raised by the DG’s submission on the pCLWRP.

16 On matters which I consider warrant detailed discussion in the main body of this evidence I have utilised the following format:

Policy, Rule or Schedule Number:

(a) **DOC submission:** I briefly reiterate the DG’s submissions and/or further submission.

(b) **Officer Comment and Recommendation:** I briefly note the aspects of the Officer’s section 42A response that are relevant.

(c) **Comment:** I provide commentary of the DG’s position in light of the s42A report.

(d) **Recommendation:** in most instances I will insert a recommendation enlightened by the foregoing points (a) to (c).

17 Where I have not directly addressed a point in this evidence, the Commissioners may rely on the planning rationale and justifications offered in
the DG’s submission and/or further submission, or on Council’s section 42A report.

**Explanation of terms used in this evidence:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td>CAA</td>
<td>Civil Aviation Authority</td>
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<td>CMS</td>
<td>Conservation Management Strategy</td>
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<td>CWMS</td>
<td>Canterbury Water Management Strategy</td>
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<td>ECan</td>
<td>Canterbury Regional Council</td>
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<td>ECan Act</td>
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<td>DG</td>
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<td>DOC</td>
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<td>DA</td>
<td>Discretionary Activity</td>
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<td>ERMA</td>
<td>Environmental Risk Management Authority</td>
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<td>GPS</td>
<td>Global Positioning System</td>
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<td>HSNO</td>
<td>Hazardous Substances and New Organism Act 1996</td>
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<td>HNWB</td>
<td>High Naturalness Water Body</td>
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<td>HWRRP</td>
<td>Proposed Hurunui Waiau River Regional Plan</td>
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<td>NRRP</td>
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<td>National Policy Statement Renewable Electricity Generation 2011</td>
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<td>PA</td>
<td>Permitted Activity</td>
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<td>PCE</td>
<td>Parliamentary Commissioner for the Environment</td>
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<td>pCLWRP</td>
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<td>NCA</td>
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<td>PCE</td>
<td>Parliamentary Commissioner for the Environment</td>
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<td>RDA</td>
<td>Restricted Discretionary Activity</td>
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<td>RMA</td>
<td>Resource Management Act</td>
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<td>Acronym</td>
<td>Description</td>
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<td>RPMS</td>
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<td>Canterbury Regional Policy Statement (January 2013)</td>
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<td>TLA</td>
<td>Territorial Local Authority</td>
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<td>TP</td>
<td>Total Phosphorus</td>
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<td>VTA</td>
<td>Vertebrate Toxic Agent</td>
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<td>WCO</td>
<td>Water Conservation Order</td>
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<td>ZIP</td>
<td>Zone Implementation plan</td>
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SPECIFIC SUBMISSIONS ON THE pCLWRP PROVISIONS PHASE II

SECTION 1: POLICY

POLICY 4.26

18 This policy outlines Councils policy with regard to intensively farmed stock. The policy as notified, is as follows:

“To avoid damage to the banks of waterbodies, sedimentation and disturbance of the waterbody, direct discharge of contaminants, and degradation of aquatic ecosystems:

• intensively farmed stock is excluded from water bodies and wetlands; and

• stock is excluded from sensitive sites

• access to banks and beds by other stock is limited to stock species that prefer to avoid water and at stocking rates that avoid evident damage.”

DOC Submission

19 The DG’s submission supported the policy as drafted but further submitted in support of Fish and Game and Ashburton District Council’s submissions.

Officer Comment and Recommendation

20 The Officer’s report recommendation has taken a more pragmatic view and splits the policy into two with one referring to intensive stock and the other to authorised stock.

Comment

21 Fish and Game proposed a substantially amended draft policy to recognise that lowland water bodies are more vulnerable to the effects of high stock numbers as follows:
“Cattle, domestic or farmed deer, and domestic or farmed pigs, horses do not have access to the bed of any lake, river or wetland except in areas above 900m a.s.l. or a slope greater than 25 degrees.”

22 I agree with Fish and Game that intensively farmed stock have adverse effects on freshwater quality as outlined by Professor Death in paragraph 80 of his evidence. I find his views highly useful in outlining the sorts of effects intensive stock can cause.

23 Professor Death’s advice on best management practise for improving the ecological condition of freshwater is to “exclude all stock” (Death para 96).

24 Because intensively farmed livestock are generally only farmed in lowland areas, and it is generally possible to fence all lowland areas, my view is that the policy should at least initially focus on excluding intensively farmed stock in lowland areas. In the High country, the size of properties and the terrain often make complete stock exclusion from all water bodies difficult and expensive.

25 I therefore propose an amendment to the policy to focus the exclusion of extensively farmed stock in lowland areas. This is not to say that there will not be benefits in excluding stock in high county areas, it is just that the lowlands are where the effects are more apparent, the management needs greater, and the ability to pay for stock exclusion is higher. This enables the Policy to be more focused on a particular area.

26 It also makes it consistent with Principle 8 of the CWMS in the First Schedule of the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (ECan Act). This is a matter that ECan must have particular regard to under section 63 of the ECan Act. Principle 8 of the CWMS makes it a requirement for livestock to be excluded from all waterways in irrigated areas and that livestock are excluded from all lowland streams.

27 I therefore have added the words “irrigated areas” to bullet point one of the Policy and “lowland streams” to bullet point two to give effect to Principle 8.
note the consistency with this principle and Associate Professor Death’s evidence discussed above and note the alignment of the respective science and the principle 8 positions. It also creates a better policy alignment in my view to achieve the RMA 68.1 (b) requirement to ensure that the rules achieve the objectives and policies of the plan. It is consistent with my proposed rules changes on stock access Rules 5.133-5.137.

28 Ashburton District Council sought to include a definition of “sensitive site”. I agree with this comment and provide a proposed definition in my recommendations that may assist.

Recommendations

29 I recommend the Commissioners amend the policies as follows:

**New Policy 4.26A**

*Damage by intensive stock* to the bed and banks of waterbodies, sedimentation and disturbance of the water body, direct discharge of contaminants, and degradation of aquatic ecosystems is avoided by:

(a) excluding intensive stock from lakes, rivers, wetlands; and

(b) excluding stock from swimming, fish spawning and other sensitive areas and closely upstream, and

(c) excluding extensive stock from all waterways in catchments where irrigated farming is practised.

**New Policy 4.26B**

*Effects arising from any authorised stock access on water clarity and colour, land stability, vegetation cover and soil structure are minimised through design and construction of stock crossing points and management of the stock* and avoiding stock access in all lowland streams.

30 That a definition of “sensitive sites” be added to the plan to include: wetlands, schedule 17 sites, schedule 6 sites, Nohoanga entitlements, Topunui, and Statutory Acknowledgements under the NTCSA, ASCVs in the Coastal Plan, and sites scheduled in District plans as meeting the criteria for section 6(c) RMA and Policy 9.3.1 of the Canterbury RPS.
SECTION 2: RULES

RULES 5.21-5.28 PEST CONTROL (pages 6-17)

RULES 5.21-5.24 VERTEBRATE TOXIC AGENTS (VTAS)

31 This section contains all the rules relating to the discharge of VTAs to Land or Water

Rules 5.23 and 5.24

32 Rule 5.23 is the controlled activity rule for the aerial discharge of VTAs. Rule 5.24 is the discretionary default rule.

DOC Submission and Further Submissions

33 The DG’s submission opposed Rule 5.23 and sought that it be a permitted activity rule, subject to conditions. The AHB has further submitted in support of this submission. The DG’s submission supported the default rule 5.24.

Officer Comment and Recommendation

34 The Officer’s report recommends that Rule 5.23 remain a controlled activity. It also recommends changes to the Rule by decreasing the width of the wetted bed of the water body so that it now applies to all water bodies rather than those greater than 3 metres wide. It also recommended the 20 metre exclusion zone for bores apply to any water abstraction, rather than drinking water.

35 I note the Officer’s report recommends the submission of Horticulture NZ and NZAAA be accepted (page 9 section 42A report). It is not clear what the Officer recommends be accepted but the only reference to a submission of Horticulture NZ and NZAAA around Rule 5.23 relates to adding a new clause that aerial application of a VTA should only be undertaken by an AIRCARE accredited operator.

36 Despite the recommendation, no such clause has been added to Rule 5.23. This matter is discussed further below in relation to agrichemicals. My personal
view is that I do not support this addition for reasons discussed later in my evidence.

Comment

37 My method for assessing this Rule is:

- what was the historic Rule that applied and what has changed over time,
- Relevant changes to the RMA, the situation in Canterbury, and the RPS,
- what is New Zealand best practice with regard to VTA discharges,
- how has the regulatory environment changed over the last decade, and
- what would a thorough RMA assessment of all relevant instruments establish.

38 To determine what would be an appropriate activity status of this Rule I have reviewed a considerable amount of background material on this issue and have discussed it at length with Mr. Fairweather, Mr. Briden, and Mr. Bennett from Federated Farmers.

39 NRRP Rule WQL 18 PA was the previous Rule for the aerial discharge of vertebrate toxins that existed in Canterbury. Of significant note this was a PA Rule. I note that Mr. Fairweather comments on the duplication of these WQL 18 conditions with the HSNO Act and Health Act 1956 requirements in paragraphs 38-41 of his evidence. I also note a trend to VTA aerial application rules nationally becoming more permissive, that is permitted activity rules. In particular, I note the Taranaki, Manawatu/Wanganui, and Otago Regional Councils currently have permitted activity rules for the aerial discharge of 1080.

40 Mr. Fairweather outlines the importance of aerial VTA use compared to ground use in paragraphs 23-32 of his evidence. He outlines the DOC use of 1080 and pindone as a VTA in paragraphs 33 and 34 and 37 of his evidence respectively.

41 The evidence of Mr. Fairweather outlines the importance of VTAs for DOC’s pest control for Biodiversity and Biosecurity purposes. I also note the further
submission from the AHB on Rule 5.23 and the evidence lodged by Federated Farmers and the AHB noting what I could describe as the “mission critical” importance of aerially discharged vertebrate toxic agents to manage animal pests.

42 The regulatory environment has recently also changed with the introduction of the 2005 addition to section 30(1)(ga) of the RMA which requires Regional Councils establish, implement, and review objectives, policies and methods for maintaining Indigenous biological diversity.

43 RPS Biodiversity Objective 9.2.2 and Policies 9.3.3 and 9.3.4 are also relevant in this situation. In my view, a PA VTA Rule better gives effect to the RPS than a controlled activity for the reasons outlined in my paragraph 82.

Reviews of use of VTAs

44 Below I outline three recent reviews of the aerial application of VTAs (mainly 1080) which in my view strongly undermine any arguments for maintaining controlled activity status for this activity, and in particular the use of 1080.

ERMA (2008)

45 The recent ERMA (2008) re-assessment of 1080 stated that:

“for the time being, there is no practical alternative to the continued use of 1080 in areas where the preservation of our bush and agricultural production would be a serious risk” (ERMA, p3)

46 As part of an overall management regime, the ERMA review introduced three major improvements in 2008 to the controls on the use of 1080:

- Notification to ERMA of aerial operations
- New controls to mitigate the risks associated with aerial 1080 operations
- Improvements in the consultation, consultation, notification and management of aerial 1080 operations (ERMA page 9).
The 2009 Lough review on rabbits notes that “there will be continue to be reliance on toxins such as 1080 and pindone” (Lough page 69).

**PCE Evaluating the use of 1080 (June 2011)**

The even more recent (2011) PCE comprehensive review of 1080, included the following statements:

- “...not only should the use of 1080 continue (including in aerial operations) to protect our forests, that we should use more of it.” (PCE page 7) and, significantly (bold and underlining mine),
- “There is a solid and growing body of evidence that when used well 1080 leads to increases in a variety of native species” (PCE page 37)
- “There is a strong case for 1080 and other poisons to be permitted activities under the RMA.” (PCE p68)

The PCE review concludes that we should use more 1080 and that regional councils should be more permissive in their use to ensure the benefits of VTAs can be realised to maintain New Zealand’s indigenous biodiversity. The PCE puts it this way:

“The only option for controlling possums, rats and stoats on almost all of the conservation estate is to drop poison from aircraft. And 1080 is the only poison currently available for aerial pest control that can do this job.” (PCE page 67)

**Pilot Agrichemical Rating**

As a statutory requirement Pilots are also required to hold a pilot’s agrichemical rating issued by the Civil Aviation Authority under Civil Aviation Rule Part 61.

The ERMA and CAA regulatory requirements for aerial applications of VTAs are mandatory and provide a highly robust framework for aerial VTA application. Thus, in my view, the Officer’s comments do not recognise the regulatory
controls placed by ERMA under HSNO and the CAA under Civil Aviation Rules that should be factored into any decision on the activity status for aerial discharges of VTAs. These are outlined in paragraph 40 of Mr. Fairweather’s evidence.

Section 32 report

52 The Officer’s section 32 report relies on two specific arguments as to why a PA Rule is not appropriate for aerial discharges of VTAs. They are effectively that:

- A Rule such as WQL 18 is too complex and requires too much judgement with regard to matters such as notification, and
- It is considered that it would not meet the section 70 test for a PA Rule.

53 There is no evidence provided to support either of the above contentions in the section 32 report, particularly the latter.

54 I note that the Officer’s report and section 32 analyses do not mention the ERMA (2008) reassessment or the PCE 2011 report. My view is that the ERMA requirements discussed in page 9 and in detail later in the ERMA report address all of the issues discussed in paragraphs three and the first bullet point of the Officer’s Section 32 report on page 47. That is planning, consultation, and notification.

55 In that regard, the specific ERMA regulatory controls on the use of aerial 1080 have been considerably tightened since the release of the NRRP and the PA Rule WQL18.

56 Effects of case by case assessment by requiring a controlled activity consent (which must be granted) mean that DOC, farmers, and the AHB are likely to spend thousands of dollars in preparing AEEs and offering consent conditions that are duplicating requirements of HSNO and the Health Act 1956 as outlined by Mr. Fairweather. I am aware of Departmental estimates of notified resource consent applications costing in the $300,000 range. Such costs reduce the potential effectiveness of aerial VTA use.
Case by case assessment will involve council staff spending time on consents that are likely to have standard conditions imposed rather than on other discharges that have proven adverse localised or cumulative effects that require management (none of such which are outlined by Mr. Fairweather for aerial VTA application). It will also reduce the reaction time for pest operations to respond to pest incursions such as beech mast events by requiring consents which take time to prepare, consent, and implement.

If this requirement for controlled activity consent remains, for Government agencies on a fixed budget, each dollar spent on consents is one dollar less they can spend on pest control for biodiversity or biosecurity purposes. In my view, achieving biodiversity and biosecurity outcomes are much more effective with a permitted activity rule. They are also more efficient in that more money will be spent on operations rather than consenting and therefore achieve more pest control within the budget of each agency or farmer.

The effectiveness of aerial 1080 is discussed on pages 35-37 of the PCE report. 1080 has added effectiveness as it can control possums, mustelids, and rodents all at the same time. This is an added bonus for conservation management. Kill rates for possums now are over 90% for most operations; with nearly 100% of rats eliminated (their high breeding rate does allow their populations to recover quickly however). While there is less information on the kill rates of mustelids, from the three studies of radio transmitted stoats, only one has survived an aerial 1080 operation. We can therefore infer from these studies that 1080 is very effective at killing stoats. The PCE goes further and states that it is effectively the method of choice for aerial operations:

“There is no alternative poison available now or in the near future that could be used aerially and would be preferable to 1080”. PCE page 66)

The cost efficiency of aerial operations is discussed by the PCE on page 41 of her report, and she notes that for rugged areas 1080 is “the only realistic option” (PCE p41). The PCE notes the real advantage 1080 has over ground control at $12-16 per hectare compared to $40 on bush edges to $80 in rugged
terrain (which tends to be the areas DOC manages). Ground trapping for possums also will not target rats or mustelids which means if these pest species are also targeted greater costs will be incurred as additional traps or other control methods will be required. Additionally, ground control may not be able to trap in very rugged terrain.

One of the consequences of ground control is that predator populations recover more quickly and ground control may be required more frequently than aerial control. The PCE estimates that for possums this may mean control every 2 to 3 years rather than every 4 to seven years by aerial means. By way of comparison, the PC on page 42 of her report notes the total cost per hectare of possum control and monitoring for DOC in the Cascade area of South Westland of $13 per hectare for aerial 1080 compared to a quoted costs of $48 dollars a hectare for ground control. These clearly are demonstrable cost efficiency benefits of aerial VTAs compared to ground control, particularly in rugged country in my view.

Therefore I do not agree with the section 32 report contention on page 47 that the section 70 test cannot be met for aerial discharges of VTAs as a PA.

Environmental effects

The environmental effects of 1080 and Pindone are outlined by Mr. Fairweather in his paragraphs 34-r and 37-k. This is also discussed in the AHB evidence in paragraph 7 and 8 of their evidence. The AHB notes in paragraph 8 of their evidence that the PCE comments on the fact that “we do not need any more water samples to tell us that the way 1080 is used poses no real risks to water”.

I note Mr. Fairweather’s comments regarding aerial discharges of VTAs under 3 metres in paragraphs 35 and 36 of his evidence and on AIRCARE in paragraphs 39-40 of his evidence. This is supplemented by the AHB comments on paragraph 7 of their evidence. Mr. Fairweather notes that the application rates are critical parameters for the use of VTAs and the PCE review illustrates how
rapidly the average amount of 1080 has dropped over the years on page 48 of her report. Application rates of the active ingredient are therefore a critical condition to manage the effects of the VTAs.

65 The AHB evidence in paragraph 7 noted the study of Suren and Lambert (2004) attached as Appendix 2 of their evidence. This tested a worst-case example of stream contamination in a stream less than 3 metres wide by deliberately placing 1080 baits instream. They concluded that the whole concept of the need for baiting exclusion zones was questionable along streams of any width.

66 I therefore do not agree with the section 42A recommendation that there is a need to exclude water bodies less than 3 metres wide.

67 My assessment of all this information is that this evidence demonstrates that any effects on aquatic life will be minor. I therefore propose various mitigation measures outlined below.

**Proposed Mitigation Measures**

68 I therefore propose in a recommended Rule 5.23 in Appendix A below a maximum toxin application rate condition for these VTAs to minimise their effects further. Commissioners should note that the 1080 rate proposed is one third the legal amount permitted by ERMA under HSNO (Maximum allowed by EPA is 30g of toxin per ha).

69 The distribution of aerially discharged VTA baits can now be effectively verified by the use of differential global positioning (GPS) technology. This technology records the location and amount of bait distributed with a high degree of accuracy. GPS gives quality assurance that the baits are deposited where they were intended to be distributed. I therefore propose in a recommended Rule 5.23 in Appendix A a condition requiring differentially corrected GPS technology which gives a high degree of accuracy on aerial VTA bait distribution. The recommended Rule makes it mandatory for the maps of the
application area to be supplied to ECan and enables ECan to check this information if there are any questions about the operation.

70 I therefore conclude that in my view, a PA Rule for aerial discharges of VTAs, (provided adequate conditions are established in this Rule) is:

- efficient,
- effective,
- best practice,
- gives better effect to Section 30(1)(ga) of the RMA, and RPS than a controlled activity rule,
- able to meet the Section 70 test.

Recommendations – Regarding Rule5.23 and Rule 5.24

71 I recommend the Commissioners reject the Officer’s report recommendations with regard to Rule 5.23 on page 9 and 10, and replace it with the permitted activity aerial VTA Rule set out in Appendix X:

72 I recommend the Commissioners accept the Officer’s report recommendations with regard to Rule 5.24 on page 10.

Rule 5.25 to 5.29 Agrichemicals

DOC Submission

73 The DG’s submission sought various changes to Rule 5.25:

- First, to add “EPA approved” rather than HSNO to condition 1; and
- To delete “into or onto land, including the bed of a lake, river or artificial watercourse”. The net effect of this submission was to allow as a PA discharge to either land or water, either aerially or land/water based application.

74 The DG’s submission sought the following change to Rule 5.26:

- To delete the discretion matters and replace them with a clear list of matters that Council will restrict its discretion to.
The DG’s submission sought two changes to Rule 5.27:

- To delete “diquat or glyphosphate” and replace with EPA approved agrichemicals”; and
- To add condition 5 of Rule 5.25 which specifies if the discharge is from an aircraft that the pilot must be appropriately qualified and the discharge is recorded on a differential GPS system.
- The DG’s further submissions supported in part Horticulture NZ submission (page 21 and point 5.2) to the agrichemical Rules generally to the effect that an introductory certificate is sufficient and those applying the chemical do not need to be holders of a Registered Chemical Applicators Certificate.

**Officer Comment**

The Officer’s report recommends numerous changes to this section summarised as follows:

- Rule 5.25 Adding AIRCARE TM accreditation to condition 5, and to clarify that it is any bore used for “water abstraction” rather than water supply in condition 6.
- Rule 5.26 Adding “adverse effects on Ngai Tahu values” as a matter of discretion.
- Rule 5.27 Adding as a new condition “4. The discharge does not render freshwater unsuitable for consumption by farm animals or any abstracted water rendered unsuitable for its intended use.”
- Rule 5.28 the removal of the nonpublic notification section of the Rule so that consent applications meeting the terms of this Rule could be publically notified.
Comment - Introduction and General

81 The amendments proposed in the section 42A report do not address all the concerns raised in the DG’s submission.

82 I will discuss each Rule separately to outline any issue to support those changes because they better clarify the Rule and having read Mr. Briden’s evidence there are matters that in my view need further refining.

83 The DG’s submission asked for the use of the term “EPA approved” in his submission on these agrichemical Rules. The difference is not great in my view, but the key statutory requirement is that the agrichemical and the technique or method (including whether it is for use to land or water) must be approved under HSNO. The EPA is the approving authority for such chemicals; however they are approved under the HSNO legislation. ECAN has used HSNO in the plan and in my view the use of HSNO is appropriate as it is the correct legislation under which chemicals are approved.

84 To attempt to clarify this matter further I have therefore mirrored condition 1 from Rule 5.25 into Rule 5.27 to give the public surety that only EPA chemicals approved under HSNO can be used in these Rules. Condition 1 of Rule 5.25 effectively says that the chemical is approved for use under HSNO.

85 I do support the change to water abstraction rather than drinking water supply in condition 6 b) of Rule 52.5 for the reasons outlined in the section 42A report.

Water Discharge to water and land and aerial:

86 I have further considered the interplay between Rules 5.25 and 5.28. Rule 5.25 allows the discharge to land of agrichemicals where it may also enter water, but allows for aerial application in condition 5. Rule 5.26 is the default Rule to Rule 5.25.
However the application of Rule 5.27 is only for land based methods to
discharge diquat or glyphosate (as notified), but does not allow for aerial based
or other methods. Rule 5.28 is the default Rule for Rule 5.27. I consider this
Rule structure to be cumbersome, and this means it may be possible to have
two simple Rules, a PA and an RDA default.

I am of the view that there is at least one redundant default Rule here and
possibly two if the correct construction can be found to address a single PA
Rule for discharges of approved herbicides to land and water (both land and
aerially based).

If in any case it were felt that a separate Rule 5.27 is required for approved
herbicides to be discharged to water, I would recommend Rule 5.28 as the
default Rule for both Rules 5.25 and 5.27, eliminating the need for Rule 5.26.

If the argument that HSNO approval is a key consideration for either land or
water application, then condition 1 will ensure that it is only allowed if HSNO
permitted it for land or water application as appropriate. I therefore have
drafted an alternative PA Rule 5.25 and a publically notified RDA default Rule.
This, should it be accepted by the Commissioners, means that essentially Rules
5.26 and 5.27 are redundant.

I have drafted such two proposed Rules as alternative relief in my
recommendations (attached as Appendix B).

**Regulatory standards versus Industry Standards**

Mr. Briden’s evidence was particularly useful in explaining the difference
between and Industry standard such as GROWSAFE and AIRCARETM and the
regulatory requirements.

Mr. Briden’s evidence, in paragraphs 28-30, outlines the issues associated with
voluntary industry certification schemes and NZQA standards. In particular, I
refer to Mr. Briden’s evidence at paragraph 28 with regard to the EPA imposed
conditions for the use of herbicides and his comment that the correct term is
“approved handler”. I have therefore amended proposed Rules 5.25 to 5.28 accordingly to align to the EPA conditions, and have used the term “HSNO approved handler”.

94 These standards do not apply to DOC or ECAN staff as outlined in paragraph 28 of Mr. Briden’s evidence. If applied as currently written, these Rules as outlined by Mr. Briden would severely curtail DOC and ECAN and Volunteer efforts in Biodiversity and Biosecurity management. In my view this would be inconsistent with Council’s role to promote biodiversity user section 31(b) of the RMA and with DOC and farmers meeting Councils RPMS good neighbour requirements.

95 Essentially, I would argue that the discharge conditions must at least mirror the regulatory standards, which for land based methods is “HSNO approved handler” under EPA. For aerial applications, pilots are also required to hold as a statutory requirement a pilot’s agrichemical rating issued by the Civil Aviation Authority under Civil Aviation Rule Part 61. I have therefore also amended proposed Rules 5.25 to 5.28 accordingly to align to the CAA conditions and have used the term holds “a pilot’s agrichemical rating issued by the Civil Aviation Authority”.

96 What the Rules seek to do as currently drafted is to impose voluntary industry certification scheme requirements rather than the regulatory standards as set by EPA and CAA. My view is that the Rules should reflect the regulatory standards as set by the EPA and CAA rather than the voluntary industry standards which are subject to the regulatory standards in any case.

97 If the above is not accepted and the term AIRCARE™ is retained, Mr. Briden has suggested adding the wording “or equivalent industry based certification” and I would also support that.
**Rule R5.27**

98 Mr. Briden’s evidence covers the issue of the deletion of glyphosate from Rule 5.27. He states that the EPA has approved the use of glyphosate over water. He also outlines the wide use of glyphosate by various users as a pre plant spot spray and to release plants from weed competition.

99 Mr. Briden also notes the EPA approval of four new herbicides for use over water in its 10 December 2012 decisions (APP201365). Mr. Briden outlines the strict conditions that these substances are subject to under this approval to manage adverse effects in paragraphs 21-27 of his evidence. Because these chemicals are approved from time to time into the future, it is my view that the Rule should not stipulate which chemicals can be used, but rather require that they are approved under HSNO.

100 My recommended changes to Rule 5.25 and 5.27 as discussed in Appendix B of my evidence enable this to occur. If such an approach is not taken, then every time a new herbicide is approved by the regulator it would require a plan change to allow it to be used as a permitted activity. This in my view is neither effective nor efficient as EPA will have already considered the suitability of such herbicides for use and re-litigating the terms of their use on as case by case basis is inefficient. It is also quite possible that the new substances may have even less environmental effects than the previous approved versions, so by not allowing new HSNO approved substances, an enabling framework for their beneficial uses is not created.

**Section 70 test**

101 Having read Mr. Briden’s evidence on the EPA decisions on the conditions of use of these new substances I am satisfied that the section 70 test will be met for these chemicals. I therefore would strongly recommend that the PA Rules 5.25 and 5.27 enable any HSNO approved substance by the EPA to be a PA Rule because of the conditions set on their use by the EPA. This means I do not “consider” the test of section 70 to be met but that I am “satisfied” that the
section 70 test will be met in those cases due to the extensive conditions impose by the EPA.

102 I do not support the additional condition 4 proposed in the section 42A report in Rule 5.27. The DG’s submission did support this Rule with amendments but did not seek a condition 4 outlined in the Section 42A report. My rationale for not supporting this amendment is simple - this is a section 70(1)(f) requirement of the RMA. Section 70(1)(f) requires that PA Rule require Council to be satisfied that after reasonable mixing, the discharge of a contaminant will not result in “the rendering of freshwater unsuitable for consumption by farm animals”. It therefore should not be required.

103 The fact that it is included reinforces for me the concerns expressed in my evidence on Phase I hearings on page 62 paragraph 281 where I discussed the section 70 PA discharge Rules. The ECa section 42A report stated that it “considers” it has met the test rather than is “satisfied” it has met the PA discharge test. My view is that meeting the stock water drinking requirements after reasonable mixing is a regulatory ”given” for a PA discharge Rule.

Recommendation

104 I recommend the Commissioners amend the Officer’s report recommendations with regard to agrichemical Rules as set out Appendix B.

RULES 5.29-5.32 -OFFAL AND FARM RUBBISH PITS (pages 18-28)

105 This section contains all the Rules relating to use of offal and farm rubbish pits.

Rules 5.29 and 5.31

DOC submission:

106 The DG’s submission sought insertion of several conditions to Rules 5.29 and 5.31 including:

• The Council is notified in writing of the intended location and depth of the [offal pit and on-site refuse disposal pit] prior to it being dug (or
alternatively the DG sought the status of activity be upgraded to controlled).

- [offal and farm rubbish] is not discharged where it may enter water within 100m of a schedule 17 site.

**Officer Comment and Recommendation:**

**Notification to Council**

107 The Officer’s report noted DOC’s submission was similar to the framework for the NRRP and states that anecdotal evidence would suggest that this (requirement to provide number, location and volume to ECan) was not occurring under the current framework and was a condition not being actively enforced by the CRC. On that basis DOC’s submission was rejected.

**Schedule 17 site**

108 The Officer’s report did not address DOC’s submission on this point.

**Changing the word “site” to “property” in Rules 5.29 and 5.31**

109 The Officer’s report recommended changing references in Rules 5.29 and 5.31 from “site” to “property” on the basis that submitters sought clarification of the definition of “site”.

**Comment:**

110 I do not support the Officer’s recommendations noted above.

**Notification to Council**

111 Unless Ecan is informed of the location of the pits, it is impossible to assess risk to the environment and human health or to swiftly locate potentially problematic pits on a database. This risk could compound in future if the land is subdivided and put to more sensitive uses.
A further issue arises as the controls on the number of pits per “property” (see comment below about use of this word and lack of a definition) are largely ineffective:

- For offal pits the control is “no more than one pit is constructed or used per 100ha of “property area” per annum” (see comment below about use of this word and lack of a definition). There could be a series of new pits per 100ha for each farm year on year.
- For on-site refuse pits the only control is they are located on a site greater than 20ha with a volume less than 50m³, but there is no limit on the number per property.

Given there is no requirement to notify use of land for such pits, ECan will not know where these pits are, or where potential effects might arise.

In relation to the inability of ECan to require and collect information for use of pits, I note Rule 5.78 condition 6 which requires information on bore or gallery location, bore installation (including bore logs and intended uses) and other relevant information be submitted to the CRC within 20 working days of drilling the bore (page 258 section 42A report volume 1).

The section 42A report Volume 1 did not recommend any change to condition 6.

The section 42A report (Volume 2) notes landfills of any size need to be closely managed as they are potential sources of contamination of both land and water (page 24).

Given the above, I find it difficult to understand that ECan can require and enforce provision of information in relation to bores but not in relation to offal pits and on-farm rubbish pits. This is because the potential effects of offal pits and on-farm rubbish pits are potentially greater than bores as on their own, the environmental effects of bores can be relatively low provided some basic conditions are established.
Schedule 17 sites

118 Technical evidence for the DG was provided in hearing 1 in relation to the importance of the expanded list of Schedule 17 sites as these are sites of freshwater value for threatened and at risk freshwater fish, as outlined by Dr Dunn.

119 I am concerned that offal and on-site refuse disposal pits located within 100m of Schedule 17 sites may have adverse effects on these sites.

120 Inserting the requested condition will give effect to Part II of the RMA, Part 6AB of the Conservation Act 1987 and the Whitebait Fishing Regulations. (1994).

Changing the word “site” to “property” in Rule 5.29

121 “Site” is defined in considerable detail in the pCLWRP but “property” and “property area” are not defined at all.

122 I note the submission on this point sought clarification of the definition of “site” – not replacement of the term with a word that is not defined, is a general concept and therefore vague and lacking certainty in the context of this Rule.

123 This difficulty is compounded as the word “site” is still used in Rule 5.31 condition 1(a) - [the discharge is to a pit] “located on a site of greater than 20ha in area;” (emphasis mine).

124 It is unclear whether this is an error or deliberate.

Recommendation:

Notification to Council

125 I recommend new conditions be inserted into Rules 5.29 and 5.31 as follows (only combined here for convenience):
Information as to the intended use of the pit (offal/household and farm rubbish/both), its location (including mapping grid references), size and depth is to be provided to the CRC within 20 working days of installation of the pit.

Schedule 17 site

126 I recommend new conditions be inserted into Rules 5.29 and 5.31 as follows:

The discharge does not occur where it may enter water within 100m of a schedule 17 site.

Definition of “property” “property area”

127 I recommend new definitions of “property” and “property area” are inserted into the pCLWRP to clarify what these terms mean in the context of Rules 5.29 and 5.31.

RULES 5.33-5.34 -ANIMAL AND VEGETATIVE WASTE (pages 29-32)

128 This section establishes a permitted activity rule for discharge of animal and vegetative waste, Rule 5.33, and the default rule is a discretionary activity, Rule 5.34.

DOC submission:

129 The DG noted Rule 5.33 failed to impose any quantity limits on discharges of solid animal waste or vegetative matter (liquid or solid). In the absence of a land use rule in a district plan dealing with stock piling or storage of these types of waste there is nothing to limit the amounts that can be built up on a property over time.

130 Thus the DG sought Rule 5.33 be reworded to make the above discharges permitted activities only where predetermined quantity threshold and application rates are provided by the Rule.
All other discharges are to be deemed discretionary so long as they meet appropriate criteria (such as those in Rule 5.35(2)) or non-complying if they occur in areas where water contamination might occur.

The DG’s submission also noted overlaps between Rule 5.33 and other Rules e.g. Rule 5.36 and 5.37.

**Officer Comment and Recommendation:**

The DG’s submissions above were not accepted in the Officer’s report.

The Officer recommended Rule 5.33 largely remains as is, subject to additions to ensure waste is not discharged:

- where previous waster is still visible on the land surface;
- within 20m of a ...surface water body not listed in Schedule 17
- within 50m of a surface water body listed in Schedule 17.

**Comment:**

**Overlap with other Rules**

Given the general definitions in this section there is a high potential for overlap with these rules.

It seems likely the purpose of Rule 5.33 is to deal with solid animal waste, as opposed to liquid animal waste, but for reasons set out below, this is not clear.

In the absence of a clear explanation the Rules appear to apply to 3 categories of waste discharges:

- solid animal waste;
- vegetative waste (be it solid or liquid); and
- vegetative waste (either solid or liquid) that contains (solid or liquid) animal excrement.

The second category is problematic because it overlaps with the Rules which control silage and compost.
The last category is problematic because it overlaps with the poorly worded Rules on animal effluent covered by the stockholding Rules.

Although “solid animal waste” is defined in the plan “animal effluent” is not. The interface between these Rules and those in 5.35-5.36 (Stock Holding Areas and Animal Effluent) is therefore uncertain.

The dictionary definition of “effluent” indicates that it refers to liquid rather than solid waste however the point at which something ceases to be solid and becomes liquid is uncertain.

In this regard, I note a definition of “animal effluent” from the Northland Regional Water and Soil Plan (2004) of (bold mine):

Animal effluent – Dung and urine from animals (other than humans) kept in captivity. This does not include dung and urine deposited by individual animals put out to graze.

The Stock Holding Areas and Animal Effluent Rules make it an RDA to collect, store and treat animal effluent and to then discharge it onto land if it might enter water. As noted above, the Rule on animal and vegetative waste overlaps with the animal effluent Rule but makes it a PA rather than a RDA.

Elsewhere in the Plan, Rules on Silage pits and Compost control land-use and the discharges associated with using the land for stockpiling silage, compost and decaying organic matter. If you dump (i.e. discharge) vegetative waste or solid animal waste under Rule 5.33 you can do it as a PA. The silage pit and compost Rules also make it a PA. However, they do place volumetric limits on the size of the stockpile. By contrast, this Rule places no such volumetric limits on the stockpiling (i.e. discharge to land).

Lack of limits

As mentioned above, the DG raised the lack of volumetric limits in its submission and argued that the Rules should be re-drafted to make it clear:
• exactly which wastes were covered by these Rules to avoid overlap with the silage and compost Rules and the animal effluent Rules.
• that quantity thresholds and application rates should be provided for by the Rule in order for the PA Rule to operate. If those limits are breached then it should be a DA. Currently the Rule only stipulates that the waste should not be re-applied more than once every two months. That is a largely meaningless control given there are no quantity limits. Also, although it requires a 20m setback from surface water bodies that control would be meaningless too if the quantities involved mean that large amounts of leachate are produced.

146 The DG also pointed out that the Rule makes no distinction between discharges of relatively innocuous vegetative waste (e.g. grape marc) and more contaminating wastes like large dumps of pig manure.

147 The 2 Rules are drafted so as to cover:
• discharges into/onto land
• discharges into/onto land where the contaminant might end up in water.

148 In the former case (i.e. discharges which will not enter water) it is notable that the RMA only mandates for controls if the discharge is from trade or industrial premises. Farms are not captured by this definition since they are “production land”. Only those parts of a farm which are used to process (as opposed to produce) primary products are deemed to be industrial or trade premises and thus captured by section 15 RMA.

149 The DG explained this in his submission pointing out that waste from farm activities which is not likely to enter water is outside the scope of this discharge Rule. That seems to run counter to the overall thrust of the Rule which specifically refers to intensive farming activities.
“Hazardous waste”

It is notable that the first section 42A report has revised the definition of “hazardous substance”. However, the definition of “hazardous waste” is still problematic as the Rules require that discharges of the animal or vegetative waste not contain any “hazardous waste”. The definition of hazardous waste is so broad that essentially any waste capable of putrefying (e.g. animal faeces, grape marc, etc.) would qualify as “hazardous waste”.

Given the above, in my opinion Rule 5.33 is fundamentally flawed and the conditions undermine the very activity that the Rule is trying to enable.

Recommendation:

Rule 5.33 should be reworded to stipulate quantity threshold and application rates.

All other discharges should be discretionary so long as they meet appropriate criteria (such as those in Rule 5.35(2)) or non-complying if they occur in areas where water contamination might occur.

Provide a definition of “animal effluent” to make it clear it does not include animal waste.

Redraft Rules 5.33, 5.36 and 5.37 so the overlaps and inconsistencies are removed.

Accept Rule 5.34 as the default discretionary activity if it fails to meet conditions of Rule 5.33.

RULES 5.35-5.36 –STOCK HOLDING AREAS AND ANIMAL EFFLUENT (pages 33-46)

This section contains all the Rules relating to stock holding areas and land use and discharge rules for the discharge of animal effluent.

DOC submission and further submissions
The DG’s submission sought to unbundle the Rules and split them to clarify if they were landuse or discharge Rules and also to clarify that the landuse storage provisions so that they were disjunctive.

The DG also further submitted in support of the Fonterra submission (7.28 p 32) to make discharges of dairy shed effluent a NCA and the Fish and Game submission (p 64-65) to limit volume rate, location etc. and environmental constraints on these discharges.

**Officer Comment and Recommendation:**

The Officer’s section 42A report has supported the unbundling of the Rules as sought by many of the submitters, including the DG’s support for unbundling. Generally I am happy with the Officer’s recommendation with the following minor recommendations

**Comment:**

The plan would be improved by a definition of “animal effluent” as outlined in my evidence on Rules 5.29 to 5.32.

The Officers proposed wording for the landuse Rules R 5.35B and 5.35C is still conjunctive for the phrase “collection, storage and treatment of animal waste”. The DG’s submission sought that this be altered by replacing the “and” with “or” so that the wording is disjunctive. The reason for this wording is that this should be triggered by any one of these activities rather than requiring all three for the Rules to apply.

I support the Fonterra submission to make it an NCA to discharge dairy shed effluent to surface water and note the Officer has recommended that this be a NCA under Rule 5.36A. I support this recommendation.

I note the Fish and Game submission to include schedules 17 and XX and note that they have not been included in the matters of discretion for Rule 5.36. My view is that they are section 6 and 7 matters that should be considered under
this Rule, as they are potentially affected by animal effluent discharges as outlined in the evidence of Associate Professor Death and Dr Dunn.

165 I also note the Fish and Game relief sought the addition of Policy 4.11 as a specific matter for discretion. However as all relevant water quality Objectives and Policies are a matter for discretion in discretion matter 8, I think that the officer’s recommendations adequately covers policy 4.11. The Plan also covers relevant policies such as policy 4.10 which seek to recycle contaminants under subpart b), which is particularly relevant for Rule 5.36.

Recommendations:

166 I recommend that the Hearing Commissioners make the following minor amendments to the recommendations of the Officer’s section 42A report:

167 Add a definition of “animal effluent” as discussed in my evidence on Offal and Farm Rubbish pits (Rules 5.29 and 5.32)

168 Add “schedule 17 or schedule XX sites” to condition 5 of Rule 5.35.

169 Replace “collection, storage and treatment” in landuse Rules 5.35B and 5.35C with “collection, storage or treatment”.

RULES 5.37-5.38 – SILAGE PITS AND COMPOST (pages 47-51)

170 This section contains all the Rules relating to the land use and inadvertent discharges from silage pits.

DOC submission:

171 The DG’s submission sought to harmonise these Rules with the Animal and vegetative waste Rules and those covering Stock Holding Areas and Animal effluent. The submission also sought to clarify if “industrial and trade processes” include or exclude farming.

Officer Comment and Recommendation:
The Officer’s report recognised the benefits of the Rule harmonisation as sought by the DG’s submission and clarified the use of “industrial and trade process” in condition 3 of Rule 5.37A of the section 42A report.

Comment:

The definition of “organic matter” in the plan is so broad as to also include animal effluent, solid animal waste, offal and vegetative waste. In other words, it strays into the territory covered by other Rules.

I note that the benefits of Rule harmonisation have been accepted by the reporting officer and note they have clarified the use of the term “industrial and trade process” as per the RMA definition. This is useful in this case as the writer of the Rule has excluded industrial and trade process type silage operations which may have a considerably larger scale and effects, and can be considered under default Rule 5.38. Condition 1 of both Rules ensure that it is a silage pit or stockpile or decaying organic matter.

I assume that silage production and storage is a normal part of activities for which the RMA defines as “production land”. In this case, silage production is fermenting of green plants and their storage to feed farm animals. As that is the intended scope of the Rules, then I would recommend adding the word “production” to the short title of the Rules 5.37 and 5.37A, the that it reads: “The use of production land” to make it clear it is intended to be limited to farming activities, leaving the default Rule 5.38 for any industrial or trade process for other silage and composting activities.

I would recommend a definition of silage pit or stockpile in the definitions if there is submission scope to clarify the scope of this Rule otherwise it could apply to a range of organic matter, such as grape marc or other vegetative waste that it was not intended.
177 I have also recommended adding the words “fermenting or” to the new Rule 5.37 to make it consistent with the short title of the existing Rules 5.37A and 5.38.

Recommendation:

178 Define “silage pit or stockpile” in the definitions sections as: “A location where animal fodder is stored comprised of fermented green forage plants”.

179 Add the word “fermenting or” before “decaying” in the short title of Rule 5.37.

180 Alter the introduction of Rules 5.37 and 5.37A from “The use of land” to “The use of production land”.

RULES 5.52-5.54 – FERTILISER USE (pages 51-56)

181 This section contains all the rules relating to the discharge of fertilizer to land.

DOC submission:

182 The DG further submitted in support of Fish and Game on these Rules. The reasons for the further submission were essentially to:
   • Obtain clarity about how these Rules interact with farming Rules (including 5.50 – discharge of nutrients)
   • Establish appropriate buffer zones between fertiliser application and water bodies (and should reflect value of adjoining water body
   • Buffer/setbacks are required to ensure section 70 RMA test is met.

183 The DG’s general submission on meeting the section 70 RMA test for PA Rules is also highly relevant.

Officer Comment and Recommendation:

184 The Officer’s section 42A report has recommended the changes set out below.

185 Rule 5.52 – 2 minor changes are proposed - The changes are:
• Condition (2) “identified significant indigenous biodiversity site” now “significant indigenous biodiversity site identified in the relevant district plan”.

• Additional note (2) if resource consent is held for the discharge of a substance that may also meet the definition of fertiliser then no additional resource consent is required under Rules 5.53 or 5.54.

186 **Rule 5.53** –2 minor changes are proposed – The changes are:

• Condition (3) – add the words “an organisation that holds” before “an AIRCARE accreditation”.

• Condition (4) as for 3.4.1.1. above “identified significant indigenous biodiversity site” now “significant indigenous biodiversity site identified in the relevant district plan”.

187 **Rule 5.54** – Change from discretionary, to restricted discretionary activity.

**Comment:**

**Introduction**

188 There are three Rules which deal with discharging fertiliser onto land. Fertiliser is specifically excluded from the definition of “agrichemical” so it is not covered by the Rules dealing with Pest Control and Agrichemical Discharges. However, it seems that using fertilisers which contain Nitrogen will also fall within the nutrient discharge Rules covered by the heading “farming”. Consequently, applying a Nitrogen containing fertiliser might push a farmer over his/her nutrient loss allowance under the farming Rules even if the application is allowable under these specific fertiliser Rules. This in my mind does become problematic when we are clearly in an over-allocated nutrient situation in Canterbury, as my colleague Ms Guest has outlined in her evidence.

189 The submission of Fish and Game noted how these fertiliser Rules interact with the broader nutrient (specifically Nitrogen) discharge Rules which precede them. In particular, they pointed out that Rule 5.50 enables as a PA any “discharges of nutrients” so long as they are a result of a land use activity
which is permitted or consented to under the farming land-use Rules. Consequently, Fish and Game wanted the fertiliser Rules to either explicitly control application rates and loss rates from fertilisers or make it clear that the Rules on farming activities (which set the nutrient budgets) are to include fertilisers.

190 I note that the definition of “fertiliser” means:

- that essentially branded fertilisers fall within its ambit but dairy-shed effluent applied via an irrigator, for instance, would appear to not qualify.
- that fertilisers may contain nitrogen products but other products may also be applied under this definition and these Rules (e.g. Phosphorous, cadmium, sulphur, etc.)

191 It is notable that the PA farming Rules are focussed on nitrogen whereas phosphorous concerns only come into play if the nitrogen-focussed PA Rules in the farming section don’t apply and consent is needed as a RDA. Accordingly, the non-nitrogen components of the fertiliser (including phosphorous) are not subject to any controls regarding the rate of application or quantity.

192 Consequently, concerns surrounding fertiliser use which are not linked to the nitrogen component are virtually uncontrolled. For instance, there is a problem with heavy metals (cadmium) being released to land as a result of fertiliser use and phosphorous in areas where phosphorous is the limiting nutrient.

193 The cadmium and phosphorous problems might have been picked up and controlled by other Rules (or even by the RMA’s default DA Rule). However, the PA status of these specific fertiliser Rules (coupled with the definition of fertiliser) means that no additional consents would be required so long as the conditions in Rules 5.52 and 5.53 are met.
Issues

When addressing these Rules, there are several problems that I can identify as follows:

- It is unclear whether the fertiliser Rules either cut across or fall within the ambit of the farming nutrient discharge Rules (5.39-5.51). This confusion is problematic for both the nitrogen and non-nitrogen components of fertilisers.
- That confusion is exacerbated by the failure to impose any limits on the quantity or rate of application of fertiliser in the specific fertiliser Rules.
- The failure to resolve the potential overlap of the two sets of Rules and the failure to specify quantity and rate limits means that the section 70 test specified in the RMA may not be met.
- The section 32 Report fails to address the 3 problems identified above.
- That the setback requirements are inadequate and also inconsistent across the 2 PA Rules (i.e. Rule 5.52 re land-based application and Rule 5.53 re aerial application, and also inconsistent with the VTA Rules Rule R5.25-28.

Nitrogen Fertilisers

The fertiliser Rules make it a PA to discharge unlimited amounts of nitrogen containing fertiliser onto land whether by land-based or aerial methods. Note these are drafted as discharge rather than land-use Rules. The farming nutrient Rules set up a series of land use Rules which are designed to address the application of nitrogen to land. Essentially those Rules place few restrictions on the application of nitrogen to land until 2017 and therefore enable “farming activities” to carry on so long as records of nitrogen losses are kept. Presumably applying fertiliser is a “farming activity” and thus one of the land-uses anticipated by these Rules.

The farming nutrient Rules are drafted so as to piggy-back the discharges of “nutrients” (notably not just nitrogen) onto the land use Rules. Accordingly, if
you are permitted to use the land for a “farming activity” then the nutrient discharges associated with that activity are permitted also. However, these particular discharge Rules only refer to discharges which are enabled by the farming nutrient Rules. They do not refer to the fertiliser Rules.

197 The net effect of this plan situation is that the discharge of the nitrogen component of fertiliser is caught by the specific fertiliser Rules but probably also caught by the farming nutrient Rules. In the former case, it is a PA and no limits on quantity are applied. In the latter case, it may/may not be a PA depending on:
- where you are located,
- whether it is pre-post 2017,
- whether you meet the Schedule 8 tests or not,
- whether you have a FEP or not,
- whether you are over or under 20kg/ha/yr.

198 In other words, the same activity is controlled by two separate sets of Rules which are not consistent. I note consistency is a requirement of principle 2 of the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (ECan Act).

199 Since the fertiliser Rules are more specific than the farming Rules it seems probable that if there was an argument about which would apply it would be resolved in favour of the specific over the general. Consequently, unlimited amounts of fertiliser could be applied to land with no control on quantity or rate. I therefore recommend a maximum rate of fertiliser discharge in the Rules and a Rule mirroring the PA farming Rule which caps the yearly nitrogen loss rate at 20 Kg per year. However I do not have confidence that the section 70 Rule would be met in that situation and would recommend more analysis on this approach by appropriate ECan staff. The Commissioners will need some science advice on what would be a suitable rate in these zones.

200 Notably the s32 report approaches the issue by stating that: “Point source discharges from rural land uses (e.g. fertiliser applications, offal pits, and dairy
shed effluent) would be controlled by Rules based on section 15 of the RMA. A separate “catch all” Rule (Rules 5.50) authorises diffuse discharges under section 15”. Clearly the Officer believed that there was a distinction to be drawn between diffuse discharges on the one hand and point source on the other. Regrettably the wording of the Rules simply fails to achieve that end and the confusion and overlap explained above thus remains unresolved.

Non Nitrogen Fertilisers

201 The specific fertiliser Rules also enable unlimited amounts of other (i.e. non-nitrogen) products to be applied or “discharged” to land since there are no limits on rate or quantity specified in the PA Rules. Consequently, virtually unlimited quantities of phosphorous, sulphur, etc., can be applied to land so long as they form part of the fertiliser. Similarly, the non-nutrient attributes of the materials used in fertiliser (which could include heavy metals like cadmium) can also be applied in unlimited quantities.

202 In the absence of limits on quantity and rate of application there is virtually no control over the impacts those applications might have. There is also no analysis of the impacts the unlimited discharge of those non-nitrogen components might have on water or land in the section 32 report. Consequently, it enables unlimited amounts of non-nitrogen containing products to be applied to land (e.g. P and cadmium) without any consideration of the consequences.

203 Again the interaction between Rule 5.50 and the fertiliser Rules is problematic and confusing. On the one hand the fertiliser Rules enable these non-nitrogen fertiliser components to be discharged without any real control over the amounts. On the other, Rules 5.50 and 5.51 attempt to deal with all “nutrients”. In the absence of a definition of “nutrients” one is left to assume that phosphorous, sulphur, cobalt, potassium, etc. are all “nutrients” and thus within the scope of those Rules. It is less certain whether the “non-nutrient
attributes of the materials used in fertiliser” like cadmium, for instance are within its scope. I believe this point is important to clarify in the Rules.

204 Rule 5.50 enables as a PA the discharge of nutrients which are a result of the preceding farming land-use Rules. Notably those Rules are only concerned with limiting nitrogen-based nutrients. However, the way those preceding Rules operate is to enable farming activities so long as the nitrogen losses are dealt with according to the Rules. Since there is no mention of other types of losses (e.g. phosphorous etc.) one assumes that applying the non-nitrogen aspects of fertiliser will be an approved farming activity and thus a PA. Once again, there is no limit on rate or quantity. In both cases (nitrogen and non-nitrogen) there is confusion and overlap between the specific fertiliser Rules and the more general “farming” nutrient Rules.

205 In both cases it is probable that the specific Rules on fertiliser trump the general Rules on farming nutrients and the consequence is that unlimited amounts of fertiliser (with its myriad and potentially dangerous) constituents can be applied to land as a PA. The section 32 report contains no analysis to examine the impact the fertiliser might have in terms of the section 70 impacts on water quality. Likewise, there is no attempt to address the impacts discharging the fertiliser might have on the land or the food chain. This is especially concerning in the case of products which persist in the environment such as cadmium.

Significant Indigenous Biodiversity

206 I do support the addition of the wording “significant indigenous biodiversity site identified in the relevant District plan” as this gives effects to section 6(c) of the RMA and to Objective 9.3.2 and Policy 9.3.1 of the RPS.

Set Backs

207 I would support a change of the setback distance and water body with for Rule 5.53 for two reasons”
• Firstly, because the potential for drift of fertiliser from aerial applications is higher, due to the discharge point being higher, and allowing fertiliser to drift further than what it would from a land based application.

• Secondly I would also recommend a greater set back of 20 metres and a change in water body width to 3 metres rather than the 2 metres of recommended Rule 5.53. The benefit of such a change is that this then harmonises Rules 5.53 with the VTA Rule 5.23 condition 2, if my evidence is accepted. Such a Rule also aligns with the Part IVA Conservation Act 1987 requirements for marginal strip of 20 metres wide where the average width of a river is 3 metres or more.

208 This means that for aerial applications the standard setback is 20 metres from water bodies more than 3 metres wide, and I believe there is considerable regional benefit in a consistent Rule. By achieving this, it is my view that this gives effect to the consistent regulatory approach of principle 2 of the ECan Act.

209 This can also be justified by the situation with regard to nutrient allocation zones which clearly show that a large area of Canterbury is over-allocated in terms of nutrients as outlined in Ms Guest’s evidence and on page 11 of appendix 1 of the section 32 report

**New RDA Rule 5.54**

210 I note the recommendation to change Rule 5.54 to a restricted discretionary Rule. If that were to be the case then I would also recommend adding the “adverse effects on schedule 6 and 17 values”. This will ensure that any effects on freshwater bathing and sports and native fish can be considered in the consent application where this Rule applies. Otherwise, there is no condition that would allow ECAN to address any conditions required to sustain instream values specifically rather than in an objective or policy sense. In this case I would also recommend a condition which mirrors the section 70 test on aquatic values. I also think that a reference to achieving Table 1a water quality
outcome is important in this case, and that this should be a matter for Council discretion.

**Industry versus Regulatory Standards**

211 I also note the discussion on GROWSAFE and AIRCARETM which is an industry standard, but not a regulatory standard. As the DG did not make a submission on this I do not recommend any changes but the Commissioners have a perspective from my VTA evidence.

**Conclusion**

212 My overall impression is that it is highly debatable if these fertiliser Rules as currently structured could meet a section 70 test. They allow unlimited amounts of fertiliser to be discharged when it is clear there is a nutrient issue in Canterbury. I note there is no analysis of the effects of an unlimited PA for fertiliser discharge in the section 32 report.

213 In my view it is not effective to allow an unlimited discharge of fertilisers and associated non nutrient components of fertilisers when so many Canterbury catchments are over-allocated in terms of nutrients as illustrated by the map on page 4-8 of the plan. In this case, if it were the view that a PA Rule is the most appropriate method of managing fertiliser discharges, then I would recommend:

- a per hectare limit for Nitrogen and Phosphorous application which is informed by a science based limit based on the nutrient and based on the nutrient risk of the application in the relevant nutrient allocation zone, and
- a PA Nitrogen leaching rate for the fertiliser discharge Rules that mirrors the farming landuse Rule 5.46 PA limit of no more than 20 Kg/ha averaged over three years.
I note that the 20 Kg leaching limit is consistent and harmonises with the farming landuse Rules threshold and is the preferred option 2 in the nutrient discharge loss assessment on page 50 of the ECAn section 32 report.

This in my view gives better effect to NPS Objective B2, RPS Objectives 7.2.1-3 and Polices 7.33, and 7.3.5-37 than the current proposed or recommended Rules R 5.52- 5.54, as by setting maximum rates of fertiliser discharge and Nitrogen leaching, it more suitably manages fertiliser inputs and aligns to the farming landuse nutrient Rules.

**Recommendation:**

I would recommend that the Commissioners amend the Officer’s recommendations with regard to the fertiliser Rules as set out in Appendix C:

**STOCK EXCLUSION**

Livestock Exclusion from Waterbodies (Rules 5.133-5.137)

RULES 5.133-5.137 – STOCK EXCLUSION FROM WATERBODIES (pages 57-68)

This section contains all the Rules relating to the exclusion of stock from waterbodies.

**DOC submission:**

The DG’s submissions sought relief as outlined in pages 4-43 of his submission, and further submitted in support of the Fish and Game submission (pages 81-82).

**Officer Comment and Recommendation:**

The Officer’s recommendations are outlined in pages 61-68 of the Section 42A report. Extensive changes to the Rules are proposed.
Comment:

220 I am guided by the evidence of Associated Professor Death and the evidence of Dr Gerbeaux in this case. Associated Professor Death discusses in paragraph 96 of his Phase 1 evidence that “the best way to improve the ecological condition of waterways is to exclude all stock”. This is particularly important in the more degraded lower rivers and streams of the Canterbury Plains. However I am also mindful of the need for practical Rules that will work and be practical for the rural community.

221 Because of the hoof damage and wallowing damage caused by intensive stock as outlined in Associate Professor Death’s evidence, my view is that a permitted activity Rule cannot be met for intensive stock access to wetlands as their pugging will cause conspicuous change in the colour and visual clarity of the water and cause significant adverse effects on aquatic life. This is discussed in Dr Gerbeaux’s evidence. I therefore support a prohibited activity Rule for intensive stock access to wetlands.

222 The Rules have to be clear and practical as otherwise I would fear that farmers will not be able to comply easily. I favour a regulatory regime that is clear and differentiates between intensive stock with a policy focus on avoiding access to waterbodies and for non intensive stock of allowing access as a permitted activity within conditions that minimise their adverse effects.

223 I also note the ECAn Act supporting principle 9 Community and Commercial use (not discussed in the section 42A report) states that:

“Agricultural stock is excluded from all waterways in catchments where irrigated farming is practised and in all lowland streams”.

224 I also note that under proposed Rule 5.115 installation of bridges is a permitted activity and that by allowing bridges to be built for intensive stock in irrigated areas this creates an enabling framework to ensure that intensive stock will be excluded from all waterways, providing surrounding fencing is adequate.
This means that a permitted activity Rule is needed for non-intensive stock which is what the recommended Rule 5.135 addresses. However I am of the view that it should not be a PA for stock to graze wetlands due to their depleted state in Canterbury and that their protection is a matter of national importance under section 6(c) of the RMA, Objective A2 of the freshwater NPS, and RPS Policy 7.3.3. 1). The default for grazing of wetland is therefore a discretionary activity under Rule 5.136. These Rules 5.135 and 5.136 can cover non-intensive stock for the Hill and High Country areas of Canterbury, which are generally the areas above 600 metres.

I note the use of the water quality Escherichia Coli water quality standard in proposed Rule 5.135 but note this will be difficult to enforce in the field without detailed water quality samples.

Overall I am of the view that the principle 8 of the ECan Act is very clear and the best way to achieve these principles is to exclude all intensive stock via a prohibited activity Rule to rivers, lakes, and wetlands and allow access subject to conditions for other stock where this is above 600 metres. Other stock below 600 metres can be addressed by the default discretionary Rule 5.136. This Rule mix is the best combination to give effect to ECan Act principle 8 in my view.

Recommendation:

I recommend the following changes to the officers section 42A report recommendation:

- Define “intensive stock” as per outdoor intensive farming
- Define “stock” as any farm animal that does not meet the definition of “outdoor intensive farming”
- Rule 5. 133 (as set out in Appendix D)
SCHEDULES

Schedule 6 – Areas on Rivers or Lakes Commonly Used for Freshwater Bathing

DOC Submission

230 The DG’s submission on schedule 6 sought:

- That a map be inserted showing the location and current general suitability of all Canterbury’s rivers and lakes for contact recreation based on ANZECC guidelines.
- Replace freshwater bathing title with “contact recreation”.
- Replace the grid references use with NZ Transverse Mercator map and grid references.

Officer Comment and Recommendation

231 The Officer’s recommendation did not accept the map proposed in the DG’s submission on Schedule 6.

Comment

232 DOC has a role to foster recreation under section 6(e) of the Conservation Act 1987 where the use of any natural or historic resource is not inconsistent with its conservation.

233 I believe it is useful for the public to know the freshwater locations that are generally suitability for contact recreation by reference to this plan. I acknowledge that such a map cannot replace any more detailed up to date advisories ECan may be able to communicate via its internet site. However, I do note that in the recent “One Plan” decision on the Horizons Regional Council that a map similar in scope to the one sought by the DG’s submission on contact recreation standards was included in the plan.

234 Also, where water quality improvements have or will take place may mean that more areas are suitable for contact recreation in the future. “Contact
recreation” is the preferred term as it is used in the ANZECC Guidelines and principle 8 of the ECAn Act.

235 I am rather bemused that only 28 sites were mentioned in schedule 6 as suitable for freshwater bathing, and would hope that a more area focused approach would state that for example, that for the Hurunui River and tributaries above the Mandamus River, they would be suitable for freshwater bathing / contact recreation all the time. I am aware that due to nutrient and microbial inputs in the mid catchment, that the lower Hurunui is not suitable for contact recreation soon after a flood or fresh for example. I would expect the proposed HWRRP currently being considered by Council to lead to improvements in the contact recreation standard of the water in the lower Hurunui over time. The Department land management under the CMS should ensure water quality is maintained in these areas for contact recreation.

236 As such, I think such a schedule 6 is a minimalist and meagre “spot zone” approach and is inconsistent with principle 8 (Recreation and Amenity Opportunities) of the ECAn Act, which discusses terms such as “throughout Canterbury”. If the freshwater opportunity is limited to 28 sites then I am of the view that the opportunities are far greater than what schedule 6 allows. I also note that principle 8 of the ECAn Act also uses the term “contact recreation”. This does, in my view, give credence to a more generalised freshwater contact recreation suitability map as sought by the DG’s submission.

237 For example, the Hurunui area as discussed above there are many sites currently suitable for contact recreation, such as, the main stem of the Hurunui River, Lake Sumner, Lake Taylor, and Loch Katrine, all of which are associated or are areas managed by DOC and most of these sites are accessible by public road. Ensuring that their amenity values are retained for outdoor recreation and the freshwater component of this is an essential part of allowing their use for recreation. The mid sections of the Hurunui are nationally important for kayaking for but one example.
The latest Transverse Mercator map series is the official and most up to date LINZ map series and is the map series used throughout Government. I therefore recommend that this map projection be used in any map reference in any of the Plan’s schedules.

**Recommendations**

239 I recommended that the Commissioners add a map to schedule 6 noting the generalised suitability of Canterbury’s freshwater for contact recreation; and

240 That the latest LINZ Map series transverse Mercator topographic map grid references be used in schedule 6 for the sites identified; and

241 I am happy to answer any questions the Hearing Commissioners may have.

Herb R Familton  
Resource Management Planner  
Department of Conservation

2<sup>th</sup> April 2013
APPENDIX A – Proposed amendments to VTA Rules

Proposed new Rule 5.23:

5.23 The discharge of a vertebrate toxic agent from an aircraft, onto or into land, including the bed of a lake or river, in circumstances where a contaminant may enter water, is a permitted activity provided the following conditions are met:

1. The substance and the application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996; and
2. The pilot must hold an EPA controlled substances licence and a pilot's agrichemical rating issued by the Civil Aviation Authority; and
3. A public notice summarising details of the proposed discharge shall be published in the Press and one other local newspaper not more than 1 month before the proposed application; and
4. The application rate of the toxin shall not exceed 10g per hectare for 1080 per discharge or 10g per hectare for pindone per discharge; and
5. The maximum area of VTA discharge shall be defined on a map prior to the discharge and shall exclude all areas identified in condition 8; and
6. The person responsible for the discharge shall notify the RMA Compliance and Enforcement Manager at Environment Canterbury of the pending discharge and provide the map as defined in condition 5 at least 10 working days prior to the discharge; and
7. The aircraft used shall be guided by an on-board differential global positioning system, and the recorded flight paths shall be maintained for at least 12 months following the discharge, and be checked against the boundaries of condition 4 to ensure no discharge has fallen outside the target area. This information is to be made available to Environment Canterbury on request; and
8. The discharge is not:
(a) within 20 m of the wetted bed of a river, lake or artificial watercourse that is more than 3 m wide, a wetland boundary or the Coastal Marine Area or within 20 m of a bore used for water abstraction; or

(b) within a group or community drinking water supply protection area as set out in Schedule 1.
APPENDIX B – proposed amendments to agrichemical Rules

Amendments to Rules 5.25-5.27

Rule 5.25 The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land, including the bed of a lake, river or artificial watercourse, in circumstances where a contaminant or water may enter water is a permitted activity provided the following conditions are met:

1. The agrichemical use and application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996;
2. The discharge of the agrichemicals is undertaken in accordance with Section 5 and Appendices L and S of New Zealand Standard NZS 8409:2004 Management of Agrichemicals;
3. If required under the Hazardous Substances and New Organisms Act, the discharge is under the personal control of a HSNO approved handler.
4. No mixing or diluting of an agrichemical or rinsing or cleaning of containers or equipment takes place within:
   (a) 5 metres of a surface water body, or a bore; or
   (b) in the bed of a river or lake, or within the Christchurch Groundwater Protection Zone as shown on the Planning Maps, unless:
      (i) the mixing or dilution takes place within a sealed, bunded system that will contain a volume of at least 110% of the largest spray tank to be filled; or
      (ii) the mixing or dilution is for a hand-held application technique or method.
5. If the water used for mixing or dilution is being abstracted from a surface water body or groundwater, a backflow prevention system is in place to prevent the agrichemical from flowing back into the source water.
6. Where the discharge is from an aircraft:
   (a) The pilot must hold an EPA controlled substances licence and a pilot's agrichemical rating issued by the Civil Aviation Authority;
   (b) the flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request; and
   (c) the discharge in the bed of a river in Hill and High Country areas does not occur between the first day of September and the last day of November in any year; and

7. The discharge is not within:
   (a) a group or community drinking water supply protection area as set out in Schedule 1; or
   (b) within 10 m of any bore used for water abstraction.

Note: See also the Rules on vegetation clearance – 5.143 – 5.154.

Rule 5.26 The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land in circumstances where a contaminant or water may enter water that does not meet one or more of the conditions of Rule 5.25 is a restricted discretionary activity.

The CRC will restrict discretion to the following matters:

1. The effect of not meeting the condition or conditions of Rule 5.25.

Note: See also the Rules on vegetation clearance – 5.143 – 5.154.

Rule 5.27 The discharge of agrichemicals to a surface water body via land or aerial based methods is a permitted activity provided the following conditions are met:

1. The agrichemical and application technique or method is approved for use under the Hazardous Substances and New Organisms Act;
2. The discharge of the agrichemicals is undertaken in accordance with Section 5 and Appendices L and S of New Zealand Standard NZS 8409:2004 Management of Agrichemicals;
3. If required under the Hazardous Substances and New Organisms Act, the discharge is under the personal control of a HSNO approved handler.

4. If required under the Hazardous Substances and New Organisms Act, the discharge is carried out by a person who holds an approved handlers certificate; and

5. The discharge is not:
   (a) within a group or community drinking water supply protection area as set out in Schedule 1; or
   (b) into a river or artificial watercourse within 250 m upstream or 100 m downstream, or in a lake within 250 m, of any other surface water intake.

6. Where the discharge is from an aircraft:
   (a) The pilot must hold an EPA controlled substances licence and a pilot's agrichemical rating issued by the Civil Aviation Authority
   (b) the flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request; and
   (c) the discharge in the bed of a river in Hill and High Country areas does not occur between the first day of September and the last day of November in any year; and

   Note: See also the Rules on vegetation clearance – 5.143– 5.154.

Rule 5.28 The discharge of an agrichemical to a surface water body that does not meet one or more of the conditions in Rule 5.27 is a restricted discretionary activity.

The CRC will restrict its discretion to the following matters:

1. Measures to avoid, mitigate or remedy unintended adverse effects on aquatic ecosystems (in addition to the intended removal of the flora or fauna by the application of the relevant agrichemical), and human or animal drinking water;
2. The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and
3. The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.
4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.

Notification
Pursuant to sections 95A and 95B of the RMA an application for resource consent under this Rule will be processed and considered without public or limited notification.

Note that limited notification to affected order holders in terms of section 95F of the RMA will be necessary, where relevant, under section 95B(3) of the RMA.

OR ALTERNATIVELY SIMPLE VERSION

One PA and a default, with a consequential renumbering of other Rules

Rule 5.25A The discharge of an agrichemical, or agrichemical equipment or container washwater, into or onto land, including the bed of a lake, river or artificial watercourse, or water via land or aerial based methods is a permitted activity provided the following conditions are met:
1. The agrichemical and application technique or method is approved for use under the Hazardous Substances and New Organisms Act 1996;
2. The discharge of the agrichemicals is undertaken in accordance with Section 5 and Appendices L and S of New Zealand Standard NZS 8409:2004 Management of Agrichemicals;
3. The discharge is under the personal control of a HSNO approved handler if required under the Hazardous Substances and New Organisms Act.
4. No mixing or diluting of an agrichemical or rinsing or cleaning of containers or equipment takes place within:
   (a) 5 m of a surface water body, or a bore; or
(b) in the bed of a river or lake, or within the Christchurch Groundwater Protection Zone as shown on the Planning Maps, unless:
   (i) the mixing or dilution takes place within a sealed, bunded system that will contain a volume of at least 110% of the largest spray tank to be filled; or
   (ii) the mixing or dilution is for a hand-held application technique or method.

5. If the water used for mixing or dilution is being abstracted from a surface water body or groundwater, a backflow prevention system is in place to prevent the agrichemical from flowing back into the source water.

6. Where the discharge is from an aircraft:
   (a) The pilot must hold an EPA controlled substances licence and a pilot's agrichemical rating issued by the Civil Aviation Authority
   (b) the flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request; and
   (c) the discharge in the bed of a river in Hill and High Country areas does not occur between the first day of September and the last day of November in any year; and

7. The discharge is not within:
   (c) a group or community drinking water supply protection area as set out in Schedule 1; or
   (d) within 10 m of any bore used for water abstraction.

Note: See also the Rules on vegetation clearance – 5.143 – 5.154.

Rule 5.25B The discharge of an agrichemical to a surface water body that does not meet one or more of the conditions in Rule 5.25 is a restricted discretionary activity.

The CRC will restrict its discretion to the following matters:

1. Measures to avoid, mitigate or remedy unintended adverse effects on aquatic ecosystems (in addition to the intended removal of the flora or fauna by the application of the relevant agrichemical), and human or animal drinking water;
2. The provision of advice and information about the exercise of the consent to people and authorities in and adjacent to the application area; and

3. The adequacy of application methods, systems and management processes to prevent fugitive discharges and the recording of application areas.

4. The extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by, or is inconsistent with, the objectives and policies of this Plan relating to human and animal drinking water quality.
APPENDIX C – Proposed amendments to Fertiliser Rules

Rule 5.52 The discharge of fertiliser onto or into land in circumstances where a contaminant may enter water is a permitted activity provided the following conditions are met:

1. There is no fertiliser discharged when there is water ponding on the surface of the land; and
   That the application rate of fertiliser does not exceed:
   (i) Vkg/ha/yr for N and Vkg/ha/yr P for sensitive lake catchments
   (ii) Wkg/ha/yr for N and Vkg/ha/yr P for red zoned catchments
   (iii) Xkg/ha/yr for N and Vkg/ha/yr P for orange zoned catchments
   (iv) Ykg/ha/yr for N and Vkg/ha/yr P for green zoned catchments
   (v) Zkg/ha/yr for N and Vkg/ha/yr P for unclassified zoned catchments; and

2. That from 1 July 2017, the average loss of nitrogen, averaged over three consecutive years from 1 July in one year to 30 July the following year is 20 kilograms per hectare or less.

3. Fertiliser is not discharged directly into or within 10 m of the bed of a permanently flowing river, lake, artificial watercourse or within 10 m of a wetland boundary or any significant indigenous biodiversity site identified in the relevant district plan unless the equipment used has a current Spreadmark Certificate, in which case the setback distance is reduced to 5m.

Note:

1. *The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.*

2. *If resource consent is held for the discharge of a substance that may also meet the definition of fertiliser then no additional resource consent is required under Rules 5.53 or 5.5.4*
Rule 5.53 The discharge of fertiliser from an aircraft onto or into land in circumstances where a contaminant may enter water and into any river is a permitted activity provided the following conditions are met:

1. There is no fertiliser discharged when there is water ponding on the surface of the land;
2. The equipment used has a current Spreadmark Certificate;
3. The discharge is be carried out by a person who holds a GROWSAFE® Pilots’ Agrichemical Rating Certificate or an organisation that holds an AIRCARE™ Accreditation or a comparable industry standard;
4. That the application rate of fertiliser does not exceed
   (i) $V_{kg/ha/yr}$ for N and $V_{kg/ha/yr}$ P sensitive lake catchments
   (ii) $W_{kg/ha/yr}$ for N and $V_{kg/ha/yr}$ P red zoned catchments
   (iii) $X_{kg/ha/yr}$ for N and $V_{kg/ha/yr}$ P orange zoned catchments
   (iv) $Y_{kg/ha/yr}$ for N and $V_{kg/ha/yr}$ P green zoned catchments
   (v) $Z_{kg/ha/yr}$ for N and $V_{kg/ha/yr}$ P unclassified zoned catchments
5. That from 1 July 2017, the average loss of nitrogen, averaged over three consecutive years from 1 July in one year to 30 July the following year is 20 kilograms per hectare or less.
6. Fertiliser is not discharged directly into or within 20 m of the bed of a permanently flowing river or artificial watercourse that is more than 3m wide, any lake, or any wetland boundary or any significant indigenous biodiversity site identified in the relevant district plan; and
7. The flight paths are recorded by an on-board differential global positioning system and this record is kept for at least 12 months following the discharge and made available to the CRC upon request.

Note: The discharge of fertiliser may also be restricted by Rules 5.39 to 5.51.

Rule 5.53 The discharge of fertiliser onto land, or onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions in Rule 5.52 or Rule 5.53 is a restricted discretionary activity.
The CRC will restrict its discretion to the following matters:

1. the effect of not meeting the condition or conditions of Rules 5.52 or 5.53
2. The adverse effects of the activity on Ngai Tahu Values
3. The preparation, compliance with and auditing of the Farm environment Plan, and
4. the extent to which the proposed activity will prevent or compromise the attainment of the environmental outcomes sought by table 1a of this plan
5. The extent the proposed activity is consistent with the objectives and policies of this plan
6. The adverse effects on aquatic values
7. The adverse effects on schedule 6 and 17 values

That a definition of nutrient be added to the plan that includes nitrogen and phosphorous.

That the “non-nutrient attributes of the materials used in fertiliser” like cadmium, for instance, are defined within the scope of the definition of fertiliser.
APPENDIX D Proposed changes to Rule 5.133

Rule 5.133
1. Amend proposed recommended Rule 5.133 as drafted as follows:

The use and disturbance of the bed (including the banks) of a lake or river or a wetland by outdoor intensively farmed livestock for temporary or permanent stocking or temporary access is a prohibited activity.

2. Delete Rule 5.134 and proposed Rule 5.134A

3. New Rule 5.135

Rule 5.135 The use and disturbance of the bed (including the banks) of a lake, river or wetland for temporary or permanent stocking or temporary access and any associated discharges to water by stock is a permitted activity, provided the following conditions are met:

1. The use or disturbance and any associated discharge is not a prohibited activity under Rules 5.133 or 5.134
2. The disturbance of a lake or river by livestock does not, outside the Mixing Zone cause:
   (a) a conspicuous change in colour or clarity of the water;
   (b) the concentration of Escherichia coli to exceed 550 E.coli per 100 millilitres;
3. At a permanent stock crossing point on a river, the stock crossing point is not more than 20 m wide, is perpendicular to the direction of the water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land, and is aligned with a constructed track or raceway on other side of the crossing point;
4. Other than a permanent stock crossing point the disturbance does not result in pugging or de-vegetation that exposes bare earth in the bed (including the banks) of a lake or river by shall not result in the following effects being clearly visible in or on the bed, including the banks of a river or lake:
   242—pugging or trampling of the land; or
   243—areas of bare ground; and
5. Where the use and disturbance is not located in a lowland stream (i.e. not below 600 masl.)

The disturbance of a wetland shall not result in:
244—A conspicuous change in colour or clarity of the water;
245—Any clearly visible pugging or trampling of land.

5.2 The use and disturbance of a bed of a lake, river or wetland for a permanent stock crossing-point and any associated discharges is a permitted activity, provided the following conditions are met:

The use or disturbance is not a prohibited activity under Rules 5.133 or 5.134;

The crossing point is not more than 20 m wide;

The crossing point is perpendicular to the direction of water flow, except where this is impracticable owing to the natural contours of the riverbed or adjoining land;

The crossing point aligns with a constructed track or raceway on either side of the crossing point;

The crossing point does not obstruct the passage of fish;

The approaches to the crossing shall be located, constructed and maintained to ensure that the parts of the crossing approaching the area of the bed covered by water under low flow conditions are underlain by compacted gravel or some other material with an equivalent or better stability against erosion.

4. Rule 5.137 The use and disturbance of the bed (including the banks) of a lake or river or a wetland for temporary or permanent stocking and any associated incidental discharges that does not comply with one or more of conditions 2 to 5 in Rule 5.135, and for a permanent stock crossing point that does not comply with one or more of conditions 2 to 6 in Rule 5.136, is a discretionary activity.