DECISION OF THE ENVIRONMENT COURT

MANAWATU – WANGANUI REGIONAL COUNCIL

PROPOSED ONE PLAN APPEALS

PART 1 – INTRODUCTION AND PRINCIPLES

PART 2 – LANDSCAPES AND NATURAL FEATURES

PART 3 – INDIGENOUS BIOLOGICAL DIVERSITY

PART 4 – SUSTAINABLE LAND USE/ACCELERATED EROSION

PART 5 – SURFACE WATER QUALITY – NON-POINT SOURCE DISCHARGES

BEFORE THE ENVIRONMENT COURT

	Decision No [2012] NZEnvC 182
IN THE MATTER	of appeals under cl 14 of Schedule 1 to the Resource Management Act 1991
BETWEEN	ANDREW DAY (ENV-2010-WLG-0000158) CHIEF OF THE NZ DEFENCE FORCE (ENV-2010-WLG-000144) EARNSLAW ONE LTD (ENV-2010-WLG-000146) FEDERATED FARMERS OF N Z (ENV-2010-WLG-000148) GENESIS POWER LTD (ENV-2010-WLG-000159) HANCOCK FOREST MANAGEMENT NZ LTD (ENV-2010-WLG-000161) HORTICULTURE NZ (ENV-2010-WLG-000155) MERIDIAN ENERGY LTD (ENV-2010-WLG-000149) MINISTER OF CONSERVATION (ENV-2010-WLG-000150) N Z FOREST MANAGERS LTD (ENV-2010-WLG-000164) N Z HISTORIC PLACES TRUST (ENV-2010-WLG-000147) N Z PORK INDUSTRY BOARD (ENV-2010-WLG-000151) N Z TRANSPORT AGENCY (ENV-2010-WLG-000153) OSFLO SPREADING INDUSTRIES LTD (ENV-2010-WLG-000143) P F OLSEN LTD (ENV-2010-WLG-000165) PROPERTY RIGHTS IN NEW ZEALAND INC (ENV-2010-WLG-000152) RAYONIER N Z LTD (ENV-2010-WLG-000162) TRUSTPOWER LTD (ENV-2010-WLG-000145) WANGANUI DISTRICT COUNCIL (ENV-2010-WLG-000156) WATER and ENVIRONMENTAL CARE ASSOCIATION INC (ENV-2010-WLG-000160) WELLINGTON FISH AND GAME COUNCIL (ENV-2010-WLG-000157) Appellants
AND	THE MANAWATU-WANGANUI REGIONAL COUNCIL Respondent

Court: Environment Judge C J Thompson
Environment Commissioner K A Edmonds
Environment Commissioner J R Mills

DECISION ON APPEALS: PART 1 - INTRODUCTION AND PRINCIPLES

Decision issued: 31 AUG 2012

Costs are reserved

PART 1 – Introduction and Principles **Page**

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Introduction

[1-1] The Proposed One Plan was notified by the Manawatu-Wanganui Regional Council on 31 May 2007. It was given the name *One Plan* because the Council took advantage of s80(2) of the RMA and merged into one document both a Regional Policy Statement (Part 1 of the One Plan) and a Regional Plan (Part 2). The Regional Council's *first generation* Plans were: the Manawatu Catchment Water Quality Plan, the Manawatu-Wanganui Beds of Rivers and Lakes and Associated Activities Plan, the Manawatu-Wanganui Region Oroua Catchment Water Allocation and River Flows Plan, the Manawatu-Wanganui Regional Air Plan, the Manawatu-Wanganui Regional Coastal Plan and the Manawatu-Wanganui Regional Land and Water Plan. Those six Plans have been operative since the 1990s and early 2000s – and the topics covered by them are incorporated into the One Plan.

[1-2] Throughout the Parts of the decision, we shall use the widely-adopted acronym *POP* in referring to the Proposed One Plan.

[1-3] The rohe of the Regional Council covers a substantial part of the central and southern North Island, incorporating parts of the Waitomo, Stratford and Taupo Districts, the whole of the Ruapehu, Rangitikei, Wanganui, Manawatu, Tararua and Horowhenua Districts, and Palmerston North City. Its topography varies from the largely rolling to flat and quite intensively farmed and cultivated expanses of Horowhenua and Manawatu, to the high mountains of the Tararua and Ruapehu Districts. Substantial rivers run through it, and it has a long, flat coastline to the west, and a shorter and much steeper coastline marking the eastern boundary of the Tararua District.

Approach to the hearing and the structure of the decision

[1-4] As is indicated by the intitulement of this decision, the POP attracted a number of appeals, which was hardly surprising given its breadth of coverage and its approach as a second-generation regional planning document. Through extensive negotiations, Court-assisted mediation and expert witness conferencing, differences over many topics have been resolved. We take this opportunity to commend the parties, and their witnesses, for their willingness to constructively participate in those processes, and to thank those members of the Court who facilitated some of them.

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Many of the concerns of appellants and those who had joined the proceedings as s274 parties were dealt with in that way, and they did not take part in the hearings.

[1-5] Broadly described, the topics still requiring resolution in at least some respects are: Landscapes and Natural Features; Biodiversity; Sustainable Land Use/Accelerated Erosion, and Surface Water Quality – Non-Point Source Discharges. The hearings were arranged to deal with each of those as a discrete topic.

[1-6] As the parties are aware, for a significant part of the hearing the evidence recording equipment failed. It appeared to be recording but in fact it was not. We have been able to rely upon the contemporaneous notes taken by the members of the Court to assist our collective memories of the evidence, and we have to say that they and the written briefs of evidence-in-chief have sufficed, as we heard little to substantively contradict the evidence-in-chief in the course of cross-examination.

[1-7] We should also say clearly that in coming to our conclusions we will not attempt a written review of all of the evidence we heard. To do so would make the decision of intolerable and unnecessary length. For instance, on the Surface Water Quality topic alone we had evidence from 47 witnesses, some of whom lodged two or three briefs. As is customary in this Court, the members of the Court pre-read the written briefs of each witness, so that only cross-examination, re-examination and clarifying questions from the Court was required after each witness was sworn. The evidence on some issues went to extremely fine levels of detail on aspects of modelling, for example, and we do not think it necessary to lay out all of that in considering the appropriate contents of relatively high-level policy documents.

[1-8] We propose to structure the decision so as to deal with the general background of POP and the legal principles we are to be guided by in considering the evidence and coming to decisions in this Part, and then have separate Parts dealing with the individual topics, as set out in para [1-5].

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The roles and functions of a regional council

[1-9] The functions required of a regional council are extensive, and are set out in s30 of the RMA (and it is common ground that the Act as it stood between 2005 and 2009 is the version to be applied in dealing with these appeals). Section 30 is set out in full in Appendix 1 to this part of the decision. Of all the functions contained in that section, very few do not have some relevance in considering the outstanding topics of these appeals.

A summary of requirements for regional policy statements and regional plans

[1-10] Those functions are complemented by the contents required of a regional policy statement contained in s62, the full text of which is contained in Appendix 2.

[1-11] The equivalent requirements for regional plans are in s67, and the full text of that section is in Appendix 3.

[1-12] Rounding out those requirements are the provisions of s32, set out at Appendix 4. These describe the evaluation required of the contents of a proposed plan or policy statement. In particular, we note subsections (3) and (4).

[1-13] Drawn from the Act, we set out a working summary of the matters to be taken into account in assessing and approving Regional Policy Statements and Regional Plans:

Regional Policy Statements

1. The purpose of a regional policy statement is to achieve the purpose of the Act (s59).
2. In relation to other RMA documents, the regional policy statement must:
   - not be inconsistent with any water conservation order;
   - give effect to a national policy statement;
   - give effect to a New Zealand Coastal Policy Statement (s62(3));
3. The regional council shall have regard to the extent to which the regional policy statement needs to be consistent with the policy statements and plans of adjacent regional councils ((s61(2)(b)).
4. When preparing its regional policy statement the regional council shall:

- have regard to any management plans and strategies under other Acts, and to any relevant entry in the Historic Places Register and to various fisheries regulations (s61(2)(a));
- take into account any relevant planning document recognised by an iwi authority (s61(2A)(a)); and
- not have regard to trade competition (s61(3)).

5. The regional policy statement should be prepared in accordance with the regional council's functions under s30, the provisions of Part 2, and its duty under s32 and regulations (s61).

6. The regional policy statement must state its significant issues, objectives, policies for the issues and objectives and methods (excluding rules) to implement the policies, principal reasons, environmental results, processes for dealing with cross boundary issues, the local authority responsible for specifying objectives, policies and methods (for various purposes in s62(1)(i)) and procedures used to monitor the efficiency and effectiveness of the policies or methods contained in the statement (s62).

Regional Plans

1. The purpose of a regional plan is to assist a regional council to carry out its functions in order to achieve the purpose of the Act (s63).

2. When preparing its regional plan the regional council must give effect to any national policy statement or New Zealand Coastal Policy Statement (s67(3)).

3. The regional plan must not be inconsistent with any other regional plan for the region or a water conservation order or a determination of the Chief Executive of the Ministry of Fisheries about aquaculture permits (s67(4)).

4. When preparing its regional plan the regional council shall:

(a) have regard to any proposed regional policy statement in the region (s66(2));

(b) give effect to any operative regional policy statement (s67(3)(c));

(c) have regard to the extent to which the plan needs to be consistent with the regional policy statements and plans or proposed regional policy statements and plans of adjacent regional councils (s66(2)(d)).

5. A regional plan must also record how it has allocated a natural resource under s30(1)(fa) or (fb) and (4), if it has done so (s67(4)).

6. When preparing its regional plan the regional council shall also:

- have regard to the Crown's interests in land of the Crown in the CMA (s66(2)(b));

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- have regard to any management plans and strategies under other Acts, and to any relevant entry in the Historic Places Register and to various fisheries regulations (s66(2)(c));
- take into account any relevant planning document recognised by an iwi authority (s66(2A)(a)); and
- not have regard to trade competition (s66(3)).

7. A regional council must prepare a regional plan in accordance with its functions under s30, the provisions of Part 2, any direction given by the Minister for the Environment, and its duty under s32 and any regulations (s66).

8. A regional plan must also state its objectives, policies to implement the objectives and the rules (if any) (s67(1)) and may (s67(2)) state other matters.

9. The rules (if any) are for the purpose of carrying out its functions (other than those in s30(1)(a) and (b)) and achieving the objectives and implementing the policies of the plan (s67(1)(c) and s68(1)).

10. In making a rule the regional council shall have regard to the actual or potential effect on the environment of activities (s68(3)).

Part 2 of the RMA

[1-14] Every decision made under the RMA must be guided by the provisions of Part 2 of that Act, which contains its purpose and principles. Three sections of Part 2 are to be considered. Section 8, requiring consideration of the principles of the Treaty of Waitangi has, of course, featured in the Council's work on POP to this point. But there are no Treaty issues directly arising from the matters we have to resolve, so we shall not set it out here.

[1-15] Section 7 contains matters to which decision-makers are to ... *have particular regard*:

> In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—
>
> (a) Kaitiakitanga:
>
> (aa) The ethic of stewardship:
>
> (b) The efficient use and development of natural and physical resources:
>
> (ba) The efficiency of the end use of energy:
>
> (c) The maintenance and enhancement of amenity values:
>
> (d) Intrinsic values of ecosystems:
>
> (e) Repealed.

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(f) Maintenance and enhancement of the quality of the environment:

(g) Any finite characteristics of natural and physical resources:

(h) The protection of the habitat of trout and salmon:

(i) The effects of climate change:

(j) The benefits to be derived from the use and development of renewable energy.

[1-16] Section 6 contains matters declared to be of national importance, which decision-makers are to are to *recognise and provide* for:

> In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:
>
> (a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
>
> (b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:
>
> (c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:
>
> (d) The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:
>
> (e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.
>
> (f) the protection of historic heritage from inappropriate subdivision, use, and development.
>
> (g) the protection of protected customary rights.

There do not seem to be any issues directly arising under paras (e), (f) and (g), but one way or another all other matters of national importance arise and the POP must *...recognise and provide for* ... them.

[1-17] All of those issues lead to the purpose of the Act, contained in s5:

> 5 Purpose
>
> (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.
>
> (2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—
>
> (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
>
> (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

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(c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Section 32

[1-18] Section 32 RMA requires an evaluation to be made of objectives, policies, rules and other methods contained in proposed policy statements and plans. The full text of the section is set out in Appendix 4. For present purposes the particularly relevant parts of the section are these:

> (3) An evaluation must examine—
>
> (a) the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and
>
> (b) whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.
>
> (3A) This subsection applies to a rule that imposes a greater prohibition or restriction on an activity to which a national environmental standard applies than any prohibition or restriction in the standard. The evaluation of such a rule must examine whether the prohibition or restriction it imposes is justified in the circumstances of the region or district.
>
> (4) For the purposes of the examinations referred to in subsections (3) and (3A), an evaluation must take into account—
>
> (a) the benefits and costs of policies, rules, or other methods; and
>
> (b) the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.

[1-19] The requirements of the section will of course be met by at least some of the general reasoning of the decision-maker in coming to conclusions about the planning document in question, so that general reasoning can be referred to in explaining, in terms of s32, decisions about appropriateness, benefits and costs, and, where relevant, risks: see eg *Foodstuffs (Otago Southland) Properties Ltd v Dunedin CC* (1993) 2 NZRMA 497. The plan or statement provisions in question should be considered as a part of whole, and may overlap, or inter-relate with, others: see eg *Rational Transport Soc v N Z Transport Agency* HC Wellington CIV-2011-485-2259, 15 December 2011. The tests are to be read in the context of Part 2 of the Act, and not considered just in monetary terms: see *Port Otago Ltd v Dunedin CC* (C004/2002). And in assessing issues such as flora and fauna habitat, landscape, amenity and the impacts of such values on industry and farming communities, economic analysis will be of limited value: see *Minister of Conservation v Otago RC* (C0071/2002).

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[1-20] In respect of each Part of the decision to follow, these are the principles we shall be guided by in coming to decisions as to whether the plan or RPS provisions in question meets the s32 requirements, but we will not repeat this recitation of them, or the decisions interpreting them, for each Part.

Section 290A – the Council's decision

[1-21] Section 290A requires the Court to ... *have regard to* ... the first instance decision that is the subject of the appeal. In this set of appeals, DV POP contains that decision, made in this instance by a Hearings Panel under delegated authority from the Council. Section 290A does not mean that the first instance decision is presumed to be correct and that an appellant has the onus of demonstrating that it is incorrect. But it does require the Court to give the decision genuine and open-minded consideration in coming to its decision. There is also the view that where an issue is finely balanced on the material before the Court, the first instance decision can be given weight as an expression of informed local opinion on a matter of local significance. That might be the more so in a Plan appeal, where questions of policy are particularly significant: - see eg *H B Land Protection Soc Inc v Hastings DC* (W57/2009).

[1-22] In this series of appeals, we also should note that in the course of negotiation, mediation and expert witness conferencing before and during the hearing, the Council has been prepared to make a number of changes, some fundamental, to the provisions of DV POP. Those changes will be apparent as we move through the topics. So what we are dealing with now is not, in many respects, the *pure* decisions version of POP, and for those issues s290A is thus of limited or no practical effect. But some elements of the DV POP remain and we shall have regard to it accordingly. Where we differ from it, we shall endeavour to explain the reasons for so doing.

Results

[1-23] The outcomes will be indicated at the conclusion of each part of the decision. In many, if not all, cases the conclusions we reach may require redrafting of various provisions of POP. Several of the parties suggested, and we entirely agree, that the most efficient way of dealing with that will be to ask the Council, conferring where necessary with affected parties, to redraft the provisions and to then present the Court

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with them for approval. To that extent, the Decision may be regarded as *interim*. We ask that the revisions and redrafted provisions be returned to the Court for consideration by Friday, 26 October 2012.

[1-24] In each case where changes to Plan provisions are required, there may need to be consequential changes to other provisions in the same *stream*. For instance, if a Policy requires redrafting, there may need to be consequential changes to Rules to ensure that they implement, or achieve, the objectives and policies of the plan. Similarly, policies may need attention to ensure that they continue to implement objectives, and so on.

[1-25] In the process of drafting those final versions, we think it will also be necessary to cross-refer to the draft Consent Orders already prepared to give effect to the mediated and negotiated outcomes. Various RPS and Plan provisions have been adapted since those agreements were made, and it may be necessary to revisit the terms of the draft Consent Orders.

Costs

[1-26] It is the usual practice of the Court to not make awards of costs on plan appeals, and we do not encourage any applications here. However, as a matter of formality, we shall reserve costs. If there is to be any application it should be lodged within 15 working days of the issuing of the final decision approving the Plan provisions, and any response should be lodged within a further 10 working days.

Appendix 1 – full text of s30 – Functions of regional councils

30 Functions of regional councils under this Act

(1) Every regional council shall have the following functions for the purpose of giving effect to this Act in its region:

(a) The establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region:

(b) The preparation of objectives and policies in relation to any actual or potential effects of the use, development, or protection of land which are of regional significance:

(c) The control of the use of land for the purpose of—

(i) Soil conservation:

(ii) The maintenance and enhancement of the quality of water in water bodies and coastal water:

(iii) The maintenance of the quantity of water in water bodies and coastal water:

(iiia) the maintenance and enhancement of ecosystems in water bodies and coastal water:

(iv) The avoidance or mitigation of natural hazards:

(v) The prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances:

(ca) the investigation of land for the purposes of identifying and monitoring contaminated land:

(d) In respect of any coastal marine area in the region, the control (in conjunction with the Minister of Conservation) of—

(i) Land and associated natural and physical resources:

(ii) the occupation of space on land of the Crown or land vested in the regional council, that is foreshore or seabed, and the extraction of sand, shingle, shell, or other natural material from that land:

(iii) The taking, use, damming, and diversion of water:

(iv) Discharges of contaminants into or onto land, air, or water and discharges of water into water:

(iva) The dumping and incineration of waste or other matter and the dumping of ships, aircraft, and offshore installations:

(v) Any actual or potential effects of the use, development, or protection of land, including the avoidance or mitigation of natural hazards and the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances:

(vi) The emission of noise and the mitigation of the effects of noise:

(vii) Activities in relation to the surface of water:

(e) The control of the taking, use, damming, and diversion of water, and the control of the quantity, level, and flow of water in any water body, including—

(i) The setting of any maximum or minimum levels or flows of water:

(ii) The control of the range, or rate of change, of levels or flows of water:

(iii) The control of the taking or use of geothermal energy:

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(f) The control of discharges of contaminants into or onto land, air, or water and discharges of water into water:

(fa) if appropriate, the establishment of rules in a regional plan to allocate any of the following:

(i) the taking or use of water (other than open coastal water):

(ii) the taking or use of heat or energy from water (other than open coastal water):

(iii) the taking or use of heat or energy from the material surrounding geothermal water:

(iv) the capacity of air or water to assimilate a discharge of a contaminant:

(fb) if appropriate, and in conjunction with the Minister of Conservation,—

(i) the establishment of rules in a regional coastal plan to allocate the taking or use of heat or energy from open coastal water:

(ii) the establishment of a rule in a regional coastal plan to allocate space in a coastal marine area under Part 7A:

(g) In relation to any bed of a water body, the control of the introduction or planting of any plant in, on, or under that land, for the purpose of—

(i) Soil conservation:

(ii) The maintenance and enhancement of the quality of water in that water body:

(iii) The maintenance of the quantity of water in that water body:

(iv) The avoidance or mitigation of natural hazards:

(ga) the establishment, implementation, and review of objectives, policies, and methods for maintaining indigenous biological diversity:

(gb) the strategic integration of infrastructure with land use through objectives, policies, and methods:

(h) Any other functions specified in this Act.

(2) A regional council and the Minister of Conservation may perform the functions specified in subsection (1)(d) to control the harvesting or enhancement of aquatic organisms to avoid, remedy, or mitigate –

(a) the effects on fishing and fisheries resources of occupying a coastal marine area for the purpose of aquaculture activities;

(b) the effects on fishing or fisheries resources of aquaculture activities.

(3) However, a regional council and the Minister of Conservation must not perform the functions specified in subsection (1)(d)(i), (ii), or (vii) to control the harvesting or enhancement of aquatic organisms for the purpose of conserving, using, enhancing, or developing any fisheries resources controlled under the Fisheries Act 1996.

(4) A rule to allocate a natural resource established by a regional council in a plan under subsection (1)(fa) or (fb) may allocate the resource in any way, subject to the following:

(a) the rule may not, during the term of an existing resource consent, allocate the amount of a resource that has already been allocated to the consent; and

(b) nothing in paragraph (a) affects section 68(7); and

(c) the rule may allocate the resource in anticipation of the expiry of existing consents; and

(d) in allocating the resource in anticipation of the expiry of existing consents, the rule may—

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(i) allocate all of the resource used for an activity to the same type of activity; or

(ii) allocate some of the resource used for an activity to the same type of activity and the rest of the resource to any other type of activity or no type of activity; and

(e) the rule may allocate the resource among competing types of activities; and

(f) the rule may allocate water, or heat or energy from water, as long as the allocation does not affect the activities authorised by section 14(3)(b) to (e).

Appendix 2 – full text of s62 RMA – The required contents of a regional policy statement

62 Contents of regional policy statements

(1) A regional policy statement must state—

(a) the significant resource management issues for the region; and

(b) the resource management issues of significance to –

(i) iwi authorities in the region and

(ii) the board of a foreshore and seabed reserve to the extent that those issues relate to that reserve; and

(c) the objectives sought to be achieved by the statement; and

(d) the policies for those issues and objectives and an explanation of those policies; and

(e) the methods (excluding rules) used, or to be used, to implement the policies; and

(f) the principal reasons for adopting the objectives, policies, and methods of implementation set out in the statement; and

(g) the environmental results anticipated from implementation of those policies and methods; and

(h) the processes to be used to deal with issues that cross local authority boundaries, and issues between territorial authorities or between regions; and

(i) the local authority responsible in the whole or any part of the region for specifying the objectives, policies, and methods for the control of the use of land—

(i) to avoid or mitigate natural hazards or any group of hazards; and

(ii) to prevent or mitigate the adverse effects of the storage, use, disposal, or transportation of hazardous substances; and

(iii) to maintain indigenous biological diversity; and

(j) the procedures used to monitor the efficiency and effectiveness of the policies or methods contained in the statement; and

(k) any other information required for the purpose of the regional council's functions, powers, and duties under this Act.

(2) If no responsibilities are specified in the regional policy statement for functions described in subsection (1)(i)(i) or (ii), the regional council retains primary responsibility for the function in subsection (1)(i)(i) and the territorial authorities of the region retain primary responsibility for the function in subsection (1)(i)(ii).

(3) A regional policy statement must not be inconsistent with any water conservation order and must give effect to a national policy statement or New Zealand coastal policy statement.

Appendix 3 – full text of s67 RMA – The required contents of a regional plan

67 Contents of regional plans

(1) A regional plan must state—

(a) the objectives for the region; and

(b) the policies to implement the objectives; and

(c) the rules (if any) to implement the policies.

(2) A regional plan may state—

(a) the issues that the plan seeks to address; and

(b) the methods, other than rules, for implementing the policies for the region; and

(c) the principal reasons for adopting the policies and methods; and

(d) the environmental results expected from the policies and methods; and

(e) the procedures for monitoring the efficiency and effectiveness of the policies and methods; and

(f) the processes for dealing with issues—

(i) that cross local authority boundaries; or

(ii) that arise between territorial authorities; or

(iii) that arise between regions; and

(g) the information to be included with an application for a resource consent; and

(h) any other information required for the purpose of the regional council's functions, powers, and duties under this Act.

(3) A regional plan must give effect to—

(a) any national policy statement; and

(b) any New Zealand coastal policy statement; and

(c) any regional policy statement.

(4) A regional plan must not be inconsistent with—

(a) a water conservation order; or

(b) any other regional plan for the region; or

(c) a determination or reservation of the chief executive of the Ministry of Fisheries made under s186E of the Fisheries Act 1996.

(5) A regional plan must record how a regional council has allocated a natural resource under section 30(1)(fa) or (fb) and (4), if the council has done so.

(6) A regional plan may incorporate material by reference under Part 3 of Schedule 1.

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Appendix 4 – Full text of s32 RMA

32 Consideration of alternatives, benefits, and costs

(1)In achieving the purpose of this Act, before a proposed plan, proposed policy statement, change, or variation is publicly notified, a national policy statement or New Zealand coastal policy statement is notified under section 48, or a regulation is made, an evaluation must be carried out by—

(a) the Minister, for a national policy statement or a national environmental standard; or

(b) the Minister of Conservation, for the New Zealand coastal policy statement; or

(c) the local authority, for a policy statement or a plan (except for plan changes that have been requested and the request accepted under clause 25(2)(b) of Part 2 of Schedule 1); or

(d) the person who made the request, for plan changes that have been requested and the request accepted under clause 25(2)(b) of Part 2 of the Schedule 1.

(2) A further evaluation must also be made by—

(a) a local authority before making a decision under clause 10 or clause 29(4) of the Schedule 1; and

(b) the relevant Minister before issuing a national policy statement or New Zealand coastal policy statement.

(3) An evaluation must examine—

(a) the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and

(b) whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.

(3A) This subsection applies to a rule that imposes a greater prohibition or restriction on an activity to which a national environmental standard applies than any prohibition or restriction in the standard. The evaluation of such a rule must examine whether the prohibition or restriction it imposes is justified in the circumstances of the region or district.

(4) For the purposes of the examinations referred to in subsections (3) and (3A), an evaluation must take into account—

(a) the benefits and costs of policies, rules, or other methods; and

(b) the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.

(5) The person required to carry out an evaluation under subsection (1) must prepare a report summarising the evaluation and giving reasons for that evaluation.

(6) The report must be available for public inspection at the same time as the document to which the report relates is publicly notified or the regulation is made.

Hearing: at Palmerston North on 26 and 27 March 2012

DECISION: PART 2 – LANDSCAPES AND NATURAL FEATURES

Counsel and parties participating in this topic:

T L Hovell for Genesis Energy Ltd
A J L Beatson and N J Garvan for Meridian Energy Ltd
J C Campbell and J A Munro for Mighty River Power Ltd
S J Ongley and A Camaivuna for the Minister of Conservation
L C R Burkhardt for TrustPower Ltd
W J Bent – s274 party
A M Mildon for herself, and for R G Mildon, Huatau Marae and Tararua Aokautere Guardians – s274 parties
J W Maassen and N Jessen for the Manawatu-Wanganui Regional Council

PART 2 – Landscapes and Natural Features **Page**

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Introduction

[2-1] This topic had two principal points requiring resolution. First, what provisions would be sufficient and appropriate to address TrustPower Ltd's interest in securing a policy pathway for *repowering* [ie the replacement of existing turbines] its existing windfarms, known as T1 and T2, at the northern end of the Tararua Ranges, to the east of Palmerston North city. Secondly, whether POP's Policy 7-7 should be in the form as resolved at Court-assisted mediation, or in an alternative form proposed by some of the participating energy companies.

TrustPower's position – repowering of its existing windfarms

[2-2] TrustPower wished to see more recognition of its existing investment in the Tararua windfarms and did not want to be forced to, figuratively if not literally, start afresh when it comes time to replace the existing turbines. It feared that might come about because, as seems generally accepted, the northern Tararuas are at or close to windfarm saturation point and cumulative adverse effects are large on the planning horizon. Its immediate concerns with Policy 7-7 (set out in para [2-6]) were that it might be *triggered* by its repowering of the existing windfarms.

[2-3] During the course of the hearing TrustPower and the Council were able to agree on a formula of words which satisfied them both. In a joint memorandum, this was presented to us as:

> **Amend Explanation to Policy 7-7 by adding the following text:** (Insert at end of fourth paragraph in 7.7)
>
> In the application of Policy 7-7(aa) to the repowering of existing wind farms within their consented site or footprint, the assessment of cumulative landscape and visual effects and their significance should not be limited to the consideration of one factor, such as changes in height. Instead the changes to the existing environment should be considered in their entire context including any benefits from reduced density and a more visually coherent pattern of development with respect to the characteristics and values of the ONFL. In this context, 'repowered' means the replacement of turbines that have reached the end of their economic life with updated turbine technology to continue to make the best use of the available energy resource.
>
> **Amend Policy 3-4 Renewable Energy by adding the following clauses:**
>
> (v) the benefits of enabling the increased generation capacity and efficiency of existing renewable electricity generation facilities
>
> (v) the logistical or technical practicalities associated with developing, upgrading, operating or maintaining an established renewable electricity generation activity

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Amend the Explanation to Policy 3-4 by adding the following text (Insert at end of first paragraph in 3.7.1)

In relation to the application of Policy 3-4(v), 'upgrading' has the ordinary meaning of the word, as used in the National Policy Statement on Renewable Electricity Generation 2011. [We note that the NPS does not define the term 'upgrading' and we proceed on the assumption that the parties meant no more than that the term should be given its ordinary meaning of 'raising to a higher standard'].

[2-4] The agreement contained, as one might expect, the proviso that if the Court was persuaded to remove or make more significant changes to Policy 7-7(aa) then that formula may require revision. No other party overtly disagreed with that resolution, so far as it affects the repowering of existing windfarms, and neither do we. Subject to the wider issues relating to Policy 7-7, this agreement deals with the first issue requiring resolution.

The content of Policy 7-7

[2-5] The issue of *Landscape* appears in Chapter 7 of POP, the title of which is *Indigenous Biological Diversity, Landscape and Historic Heritage.* Although the debate centres on Policy 7-7, the Objective to which it gives effect is of course also relevant. As amended at Court-assisted mediation, it provides:

Objective 7-2: Outstanding natural features and landscapes, and natural character

(a) The characteristics and values of:

(i) the Region's outstanding natural features and landscapes, including those identified in Schedule F, and

(ii) the natural character of the coastal environment, *wetlands*, *rivers* and *lakes* and their margins

are protected from inappropriate subdivision, use and development.

(b) Adverse effects including cumulative adverse effects, on the natural character of the coastal environment, *wetlands, rivers* and *lakes* and their margins, are:

(i) avoided in areas with outstanding natural character, and

(ii) avoided where they would significantly diminish the attributes and qualities of areas that have high natural character, and

(iii) avoided, remedied or mitigated in other areas.

(c) Promote the rehabilitation of or restoration of the natural character of the coastal environment, wetlands, rivers and lakes and their margins.

[2-6] Also as modified at Court-assisted mediation, the two Policies related to Objective 7-2(a)(i) now read as:

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Policy 7-7: Regionally outstanding natural features and landscapes
The natural features and landscapes listed in Schedule F Table F1 must be recognised as regionally outstanding and must be spatially defined in the review and development of district plans. All subdivision use and development directly affecting these areas must be managed in a manner which:

(aa) avoids significant adverse cumulative effects on the characteristics and values of those outstanding natural features and landscapes, and

(a) except as required under (aa), avoids adverse effects as far as reasonably practicable and, where avoidance is not reasonably practicable, remedies or mitigates adverse effects on the characteristics and values of those outstanding natural features and landscapes.

Policy 7-7A: Assessing outstanding natural features and landscapes
The Regional Council and Territorial Authorities must take into account but not be limited to the criteria in Table 7.2 when:

(a) identifying outstanding natural features and landscapes, and considering whether the natural feature or landscape is conspicuous, eminent, remarkable or otherwise outstanding, and

(b) considering adding to, deleting from, or otherwise altering, redefining or modifying the list of outstanding natural features or landscapes listed in Table F1 of Schedule F, or

(c) considering the inclusion of outstanding natural features or landscapes into any district plan, or

(d) establishing the relevant values to be considered when assessing effects of an activity on:

(i) outstanding natural features and landscapes listed in Table F1 of Schedule F, or

(ii) any other outstanding natural feature or landscape.

The relevant portions of Schedule F in the decisions version are these:

(da) The skyline of the Puketoi Ranges defined as the boundary between the land and sky as viewed at a sufficient distance from the foothills so as to see the contrast between the sky and the solid nature of the land at the crest of the highest points along the ridges	(i) Visual and scenic characteristics, particularly the visual prominence of the skyline in the eastern part of the Region (ii) Geological features, particularly the asymmetrical landform termed a cuesta

(ia) The skyline of the Ruahine and Tararua Ranges – defined as the boundary between the land and sky as viewed at a sufficient distance from the foothills so as to see the contrast between the sky and the solid nature of the land at the crest of the highest points along ridges. The skyline is a feature that extends along the Ruahine and Tararua	(i) Visual and scenic characteristics, including aesthetic cohesion and continuity, its prominence throughout much of the Region and its backdrop vista in contrast to the Region's plains (ii) Importance to tangata whenua and cultural values (iii) Ecological values including values associated with remnant and

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Ranges beyond the areas in (h) and (i) above	regenerating indigenous vegetation (iv) Historical values (v) Recreational values

The references to ... *the areas in (h) and (i) above* in (ia) ... are to the Ruahine Forest Park and the Tararua Forest Park respectively.

Table 7.2, mentioned in Policy 7-7A as containing the criteria to be considered, is this:

Table 7.2 Natural Feature and Landscape Assessment Factors

Assessment factor	Scope
(a) Natural science factors	These factors relate to the geological, ecological, topographical and natural process components of the natural feature or landscape: (i) Representative: the combination of natural components that form the feature or landscape strongly typifies the character of an area. (ii) Research and education: all or parts of the feature or landscape are important for natural science research and education. (iii) Rarity: the feature or landscape is unique or rare within the district or Region, and few comparable examples exist. (iv) Ecosystem functioning: the presence of healthy ecosystems is clearly evident in the feature or landscape.
(b) Aesthetic values	The aesthetic values of a feature or landscape may be associated with: (i) Coherence: the patterns of Land cover and land use are largely in harmony with the underlying natural pattern of landform and there are no, or few, discordant elements of land cover or land use. (ii) Vividness: the feature or landscape is visually striking, widely recognised within the local and wider community, and may be regarded as iconic. (iii) Naturalness: the feature or landscape appears largely unmodified by human activity and the patterns of landform and land cover are an expression of natural processes and intact healthy ecosystems. (iv) Memorability: the natural feature or landscape makes such an impact on the senses that it becomes unforgettable.
(c) Expressiveness (legibility)	The feature or landscape clearly shows the formative natural processes or historic influences that led to its existing character.

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(d) Transient values	The consistent and noticeable occurrence of transient natural events, such as daily or seasonal changes in weather, vegetation or wildlife movement, contributes to the character of the feature or landscape.
(e) Shared and recognised values	The feature or landscape is widely known and is highly valued for its contribution to local identity within its immediate and wider community.
(f) Cultural and spiritual values for tangata whenua	Māori values inherent in the feature or landscape add to the feature or landscape being recognised as a special place.
(g) Historical associations	Knowledge of historic events that occurred in and around the feature or landscape is widely held and substantially influences and adds to the value the community attaches to the natural feature or landscape.

The Council's position

[2-7] The Council supports the present text of Policy 7-7, or something very close to it, because it believes that it provides direction on the appropriate/inappropriate use and development of Outstanding Natural Features and Landscapes (ONFLs) to ensure that their qualities and values are not compromised. It also believes that the importance of renewable energy generation is well recognised and supported by Chapter 3 of POP.

Genesis' position

[2-8] Genesis operates the Tongariro Power Scheme on the central plateau of the North Island, and has also applied for resource consents to establish and operate the Castle Hill windfarm. Both are within, or partly within, the region. It also has substantial generating assets elsewhere in the country. Mr Hovell advised that his client's position was that in its present form Policy 7-7(aa) is generally inconsistent with the purpose of the RMA; that it fails to give effect to the National Policy Statement for Renewable Electricity Generation (NPSREG) (and s7(j)); that it is not the most appropriate way to achieve Objective 7-2; that the Policy's requirement of avoidance of cumulative adverse effects does not promote the sustainable management of resources, and that the Council's assessment of *inappropriate* (in terms of s6(b)) development in relation to ONFLs is flawed.

[2-9] The version of Policy 7-7 advanced as curing those shortcomings by the consultant planner called by Genesis, Mr Richard Matthews, is this:

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Policy 7-7: Regionally outstanding natural features and landscapes
The natural features and landscapes listed in Schedule F Table F1 must be recognised as outstanding and must be spatially defined in the review and development of district plans. All subdivision, use and development:

i) within these areas must be managed in a manner which:

(aa) avoids significant adverse cumulative effects on the characteristics and values of those outstanding natural features and landscapes as far as reasonably practicable and, where avoidance is not reasonably practicable, remedies or mitigates those effects, and

(a) except as required under (aa), avoids, remedies or mitigates adverse effects on the characteristics and values of those outstanding natural features and landscapes.

ii) directly affecting these areas must be managed in a manner which avoids, remedies or mitigates adverse effects on the characteristics and values of those outstanding natural features and landscapes.

The significant differences between his version and the post-mediation version are of course that his version would require *avoidance* of significant adverse cumulative effects caused by subdivision, use and development *within* the ONFLs, and then only *as far as reasonably practicable*, with remedy and mitigation as options. Further, his version would allow the options of avoidance, remedy and mitigation for subdivision, use and development *directly affecting* (but not necessarily within) the ONFLs.

[2-10] Mr Matthews expresses the view that ... *In some instances, avoidance may not be practicable, therefore the option to remedy or mitigate any potential adverse cumulative effects should be provided.* We cannot agree with that proposition, for the reasons we shall shortly discuss. In any event, given the lack of opposition to TrustPower's modified version, we take it that it is regarded as, at least, acceptable.

Mighty River Power's position

[2-11] Within the region, Mighty River Power Ltd (MRP) has consent for a windfarm at Turitea, somewhat to the south of the existing windfarms on the Tararua ranges to the east of Palmerston North, and it is in the course of seeking consent for a further windfarm on the Puketoi Range, east of Eketahuna. It also has hydro development interests on the Whangaehu River, north of Whanganui. Broadly, it supports Chapter 7 of POP but believes that two matters need improvement: – Policy 7-7, and the definitions of the Tararua, Ruahine and Puketoi Ranges as ONFLs in Schedule F.

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[2-12] MRP points out, as do the other power companies, that electricity is essential to providing for the wellbeing of people and communities. Further, supplying electricity from renewable sources not only meets that need but also contributes to managing the effects of climate change, and the conservation of resources for the benefit of future generations. No one disputes those propositions.

[2-13] Ms Campbell goes on to submit that Policy 7-7 fails to give effect to Part 2 and the NPSREG – Policies C, E2 and E3 in particular, and that there is an internal conflict between Chapter 3 and Policy 7-7 of POP.

[2-14] The issue of the definitions of some ONFLs in Schedule F of POP was debated among the landscape architecture witnesses, and we shall discuss that as a discrete topic.

Meridian's position

[2-15] For Meridian, Mr Beatson and Ms Garvan make rather similar criticisms of Policy 7-7 and Schedule F. Dealing with the policy, the submission is that Objective 7-2(a) is quite consistent with s6(b) in speaking of *inappropriate use and development* but the Policy is at odds with the Objective because it effectively imposes a blanket prohibition on *any* use and development which brings about significant cumulative adverse effects on an ONFL. The Meridian position therefore is that significant cumulative adverse effects on an ONFL do not necessarily mean that the use or development causing those effects will be inappropriate in s6 terms, and that in adopting the present formula of Policy 7-7, the Council is creating an internal inconsistency within POP, and is failing to give effect to the Act.

[2-16] As between the energy companies, it can be seen that there are common themes in the issues they raise and we shall address the arguments in a common way also, rather than by addressing each set of submissions individually.

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The section 274 parties' positions

[2-17] For the s274 parties she represented, Ms Mildon made it clear that they entirely agree with the position taken by the Council, and the evidence presented by Ms Clare Barton, the Council's planning witness, and Mr Clive Anstey, the Council's landscape witness, in support of it. She powerfully made the point that the physical and visual environment is much more than just *a view*, and that landscapes can range from the small and discrete to the bold and panoramic. She suggested that there could be no more obvious example of cumulative adverse effects than the southern Ruahine/northern Tararuas and the ... *conglomeration of disparate windfarms* ... along its skyline and ridges and spurs. She strongly disagreed with the view that that section of the skyline should be excluded from Schedule F(ia) on the basis that it was already strongly compromised. She maintained that, notwithstanding its present state, it remains an indivisible part of the panorama from the Manawatu plains.

[2-18] Mr John Bent was also entirely supportive of the Council's stance in respect of cumulative effects, reminding us of the Court's comment in *Outstanding Landscape Protection Society v Hastings DC* [2008] NZRMA 8 ... "If a consent authority could never refuse consent on the basis that the current proposal is ... *the straw that will break the camel's back*, sustainable management is immediately imperilled".

[2-19] Against that background we shall discuss the issues raised by the power company appellants, which can be grouped under generic heads.

Policy 7-7 – conflict with the NPS Renewable Electricity Generation 2011

[2-20] Section 62(3) RMA requires an RPS to give effect to a National Policy Statement (NPS). Turning to the NPSREG, it first confirms that the development and operation of renewable energy generation activities are a matter of national significance and are the objective of the NPS. The particularly relevant portions of this NPS appear to be:

> C. Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities

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Policy C1

Decision-makers shall have particular regard to the following matters:

(a) the need to locate the renewable electricity generation activity where the renewable energy resource is available;

(b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;

(c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;

(d) designing measures which allow operational requirements to complement and provide for mitigation opportunities; and

(e) adaptive management measures.

Policy C2

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to the offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.

E2 Hydro-electricity Resources

Policy E2

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region or district.

E3 Wind Resources

Policy E3

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance and upgrading of new and existing wind energy generation activities to the extent applicable to the region or district.

[2-21] So there is an initial acknowledgement that there may be practical constraints in both establishing new generating infrastructure, and operating, maintaining and upgrading existing infrastructure. And that is followed by a very clear acknowledgement in Policy C2 that there may be adverse environmental effects that

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cannot be avoided, remedied or mitigated. In that case, the possibility of offsetting or compensation is specifically raised. But there is no affirmation that this sort of infrastructure occupies so special a place in the order of things that it may be established no matter what its effects may be. In other words, the regime that applies to generation infrastructure is the same regime that applies to other subdivisions, uses or developments, save for the additional factor of the NPS.

[2-22] It has to be accepted of course that the *constraints* in establishing and operating generation infrastructure can cut both ways. The infrastructure can only be established where the resource exists – generally in high and exposed places for wind, and generally in confined river valleys for hydro. Windfarms will therefore generally be prominently visible, and hydro dams may drown picturesque valleys, or channel otherwise naturally flowing rivers. As always in cases of sensitive receiving environments, it will be a matter of judgement as to which factor will hold sway: - the benefits of renewable generation on one side or, for instance ... *the protection of outstanding natural features and landscapes from inappropriate ... use, and development* ... in terms of s6(b), on the other.

[2-23] There really is no greater conflict or incompatibility between Policy 7-7 and the NPSREG than there is between s6(b) and s7(j). The two are reconcilable - both must be given their appropriate weight and a decision then must be made as to whether the proposed development would be *inappropriate* in that receiving environment.

[2-24] POP must be read as a whole and, when it is, it does not read as *thwarting* the NPS. While Policy 7-7 speaks of the recognition of ONFLs and the avoidance of one type of adverse effect, that does not mean that POP as a whole does not give effect to the NPS, any more than s6(b) could be said to fail to give effect to s7(j). If one reads, for instance, Chapter 3 of POP, it is clear that energy infrastructure is given its place in the scheme of things and that, as with any other RMA decision involving values and outcomes, it is to be weighed against other relevant factors.

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Policy 7-7 – not the appropriate way to achieve Objective 7-2(a)

[2-25] Objective 7-2 is set out in full at para [2-5]. For ease of reference, we repeat the relevant portion here:

> **Objective 7-2: Outstanding natural features and landscapes, and natural character**
>
> (a)The characteristics and values of:
>
> (i) the Region's outstanding natural features and landscapes, including those identified in Schedule F, and
>
> (ii) the natural character of the coastal environment, *wetlands*, *rivers* and *lakes* and their margins
>
> are protected from inappropriate subdivision, use and development.
>
> (b) Adverse effects including cumulative adverse effects, on the natural character of the coastal environment, *wetlands*, *rivers* and *lakes* and their margins, are:
>
> (i) avoided in areas with outstanding natural character, and
>
> (ii) avoided where they would significantly diminish the attributes and qualities of areas that have high natural character, and
>
> (iii) avoided, remedied or mitigated in other areas.

[2-26] The energy companies largely relied upon the evidence of Mr Matthews and Ms Irene Clarke, a consultant planner, called by Meridian, in support of the argument that the Policy does not give effect to Objective 7-2 or, as it was put for Meridian, it is *at odds with* the Objective. Ms Clarke's evidence might be better considered under the next, and partially overlapping, topic. Mr Matthews' view is that the policy ... *provides no direct link that makes it clear that the characteristics and values of the region's ONFLs are to be protected from inappropriate subdivision, use and development.* He goes on to say that there is no policy which provides an assessment of what might be appropriate development in an ONFL, contrasting it with the guidance given in the treatment of natural character in Objective 7-2(b). That management guidance requires that adverse effects on areas with high natural character be avoided where practicable, or otherwise remedied or mitigated, but (a) gives no such guidance.

[2-27] We agree that there may be some difference between the approach to landscape and that of natural character in Objective 7-2, but we fail to see that it somehow renders Policy 7-7 invalid. We see no incompatibility between the Objective and the Policy for landscape and natural character.

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Requiring avoidance of cumulative adverse effects does not promote sustainable management

[2-28] In beginning the discussion of *cumulative effects* we think we can do no better than to cite a portion of the evidence given by Mr Frank Boffa, a Landscape Architect called by TrustPower. It sets out what we understand to be the current thinking on what cumulative effects may actually be, and how to consider them. Mr Boffa's evidence was acknowledged by many of the other landscape architects at the hearing. He said this:

> [6] In the context of landscape and visual effects, cumulative effects are generally considered in relation to additional changes resulting from a new wind farm in conjunction with other surrounding (existing and consented) wind farms. The current approach to assessment of cumulative effects tends to be an additive approach where the effects (even if only minor) of proposed subsequent activities are added to and assessed in conjunction with the effects of existing installations.
>
> [7] This approach accords with the Parliamentary Commissioner for the Environment's (PCE) 2006 *Report Wind Power, People and Place*, which suggests that the consideration of cumulative effects requires the consideration of the effects of several wind farms located together and that the cumulative effects of wind farms relate particularly to landscape and visual impact ...
>
> [8] The assessment of cumulative landscape and visual effects are often considered under the following headings –
>
> *(a)* Simultaneous effects – where more than one wind farm and/or parts of them and their component elements and infrastructure are seen in a single field of view.
>
> *(b)* Successive effects – where more than one wind farm and/or parts of them and their component elements and infrastructure are seen in successive views from a single viewpoint.
>
> *(c)* Sequential effects – where a sequence of full or partial views over wind farms and their component elements and/or infrastructure are seen when moving through the landscape (as along a road or highway).
>
> [9] The *PCE* in *Wind Power, People and Place*, cites guidance published by the Scottish Natural Heritage as being the most comprehensive on cumulative effects. The guidance states that cumulative landscape and visual effects can arise from:
>
> - The number of and distance between individual wind farms;
> - How wind farms relate to each other visually;
> - The overall character of the landscape and its sensitivity to wind farms; and

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- The siting and design of wind farms.

[10] I tend to agree with the PCE in that the Guidance on how cumulative effects can arise looks to consider a wider range of factors rather than just how wind farms are viewed from particular locations. ...

[12] ... internal cumulative effects considerations tend to relate to the spatial composition of the turbines within a wind farm development relative to their overall visual coherence ... the consideration of internal cumulative effects tends to be focussed more on spatial design considerations relative to the development's 3 dimensional envelope and the patterns and appearance of the wind farm overall relative to this.

[2-29] In considering Policy 7-7(aa) and the cumulative effects of new or expanded windfarms, Mr Boffa goes on to say:

> With respect to Policy 7-7(aa), which requires the avoidance of significant adverse cumulative effects, taken at face value this is a reasonable requirement where additional wind farms or the expansion of existing wind farms are proposed. *(He goes on to distinguish the repowering of existing windfarms but, as recorded, that has been dealt with).*

For the reasons set out elsewhere, we entirely agree with that view.

[2-30] Ms Campbell encapsulated the further point made by the energy companies (other than TrustPower) in her submition that because of the number of windfarms in the region now; the places where future windfarms are likely to be proposed; the nature of windfarms and the wide range of their possible cumulative effects, ... *any proposal in the region for a windfarm will almost certainly have a cumulative effect*, and that the cumulative effect ... *could well be considered significant.* The general position was that such an outcome would place an unreasonable burden on energy companies attempting to go about their business.

[2-31] We think that there are four responses to that submission. The first is that a cumulative effect will not necessarily arise from the construction of any other windfarm in the region. It would, for instance, be very difficult to mount a *cumulative effect* argument by adding the effects of a proposal in the Ruapehu District to those already existing on the Tararuas, east of Palmerston North.

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[2-32] The second is that if there are cumulative effects on the receiving environment that, upon proper inquiry, are shown to be significant and to outweigh the acknowledged benefits of renewable energy generation, then it would be entirely proper to say ... *enough is enough.* That is exactly what the structure of the RMA provides for.

[2-33] The third response is to repeat that Policy 7-7 does not apply across the whole region – it is actually very site-specific. It applies only to those ONFLs listed in Table F1 of Schedule F and, insofar as practical impact on further windfarms is concerned, probably only to Item (da) – the skyline of the Puketoi Range; and Item (ia) – the skyline of the Ruahine and Tararua Ranges.

[2-34] Fourthly, it must be recognised that these provisions of POP were not drafted against the background of a blank regional canvas. The skyline and slopes of the Tararuas and Ruahines, south and east of Palmerston North, already accommodate more wind turbines per hectare than anywhere else in the country. It could reasonably be argued that the area has long since given effect to the NPSREG, and to s7(j), and that the time is near (some say it has passed) when, to give effect to other provisions of Part 2 – s6(b) in particular - decision-makers will have to say ... *enough is enough.*

[2-35] Ms Clarke noted that Objective 7-2 is not under appeal and is, in her view, an appropriate method of achieving the purpose of the Act. But it is her view that ... *Policy 7-7 is neither effective, efficient nor appropriate with reference to Objective 7-2(a).* In summary, she considers that it introduces an approach to cumulative effects which the Objective does not seek; that it potentially predetermines what is inappropriate subdivision use or development, and that it does not efficiently achieve the objective because Schedule F, defining ONFLs and their boundaries, is not accurate.

[2-36] Ms Clarke acknowledges the importance of considering cumulative effects, but asserts that a requirement to avoid all significant cumulative effects goes further than directing an appropriate consideration of them. She sees that as ... *a directive*

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and restrictive approach in how to protect the ONFL which is inconsistent with Part 2. Similar views were expressed by other witnesses called by the energy companies.

[2-37] The thrust of the submissions on the topic was that the focus on only *avoid* in Policy 7-7 seeks to recast Part 2 and that can only be done where there is a ... *strong evidential basis* ... and where all relevant factors have been considered. In working through the argument it is helpful to bear clearly in mind that Policy 7-7 does not speak of *every* adverse effect being avoided. It is much more precise than that, requiring the avoidance only of ... *significant adverse cumulative effects on the characteristics and values of those outstanding natural features and landscapes. Those* being the natural features or landscapes listed in Schedule F.

[2-38] Taking *significant* to have the meaning ascribed in the Concise Oxford – *extensive or important enough to merit attention* – what is to be avoided are adverse effects of that magnitude which are *cumulative* – ie which are additional to other adverse effects. So the end result is that, on only the defined features in this extensive region, additional adverse effects on characteristics and values are to be avoided, and the options of remedying or mitigating that category (and that category only) of adverse effect are not available.

[2-39] As a matter of principle, if it is open to a local authority, pursuant to s77A and s77B, to classify activities as *permitted* (at one end of the spectrum) to *prohibited* (at the other), then it seems unexceptionable for a local authority to say, in effect, ... *this category of land cannot absorb further significant adverse effects on its characteristics and values, even if some remedy or mitigation can be offered.* We know of no requirement in the law that all of the options to avoid, remedy or mitigate any adverse effect must always be recited, no matter what the nature of the effect may be, how minor or serious it may be, or how delicate or robust the receiving environment.

[2-40] A similar situation arose in *Wairoa River Canal Partnership v Auckland RC* [2010] NZEnvC 309. There, the ARC had adopted a Policy in its RPS which provided:

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> Countryside living avoids development in those areas or parts of areas identified, in the RPS, including Appendix B, or in regional or district plans, as having significant ecological, heritage or landscape value or high natural character and that contain:
>
> (a) significant ecological value; or
>
> (b) significant historic heritage (excluding significant historic built heritage); or
>
> (c) outstanding natural features and landscapes; or
>
> (d) high natural character;

In holding that the Policy was a proper one to be included, the Court said:

> [14] It is to be noted that an RPS may not, of itself, contain rules that prohibit, regulate or allow activities. But it may contain policies and methods directed to a particular end or outcome, with those policies and methods to be given effect through a District Plan, which must not be inconsistent with the RPS: - see s75(2)(b) and *North Shore CC (Re an Application)* [1995] NZRMA 74. Similarly, a *policy* may be either flexible or inflexible, broad or narrow: - see *ARC v North Shore CC* [1995] NZRMA 424.
>
> [15] In examining the proposed Policy 3 itself, the first thing to be noted is that it does not attempt to impose a prohibition on development - to *avoid* is a step short of to *prohibit*. Secondly, the *avoidance* is quite strongly qualified. CSL is to be avoided only in areas identified in the planning documents and that actually do contain significant ecological values; significant historic heritage; outstanding natural features or landscapes, or high natural character.
>
> [16] Certainly, the use of the term *avoid* sets a presumption (or a direction to an outcome) that development in those areas will be inappropriate and that, in both the linguistic and legal senses, really answers the point that the appellants attempt to make.

[2-41] Mr Hovell, and Mr Beatson and Ms Garvan, suggested that this decision could and should be distinguished, but we do not agree. Its reasoning was not activity specific, nor Auckland metropolitan area specific, and is applicable whether or not a s6 matter is in issue. That said, of course we do not rely on the *Wairoa* decision as an *authority*. It is simply the decision on an appeal in which a similar argument arose. In this instance, the NPSREG does not overwhelm all other planning considerations and it is, in any event, given effect to in the RPS and Plan, as we have discussed elsewhere. We simply consider that the *Wairoa* decision accurately states the relevant law, and that we should apply the same view here.

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[2-42] Mr Hovell submitted that Policy 7-7(aa) was determined ... *by Council in reference to s6(b) in a vacuum*... and he referred us to the evidence of Ms Barton at paras 14 and 82. We have to say that we find little or no support for the submission in those passages. Para 14 refers to the recognition of the limitation of the capacity of ONFLs to absorb the effects of development, and to absorb cumulative effects in particular. Para 82 continues the same theme and makes the point that the capacity of ONFLs should not be exceeded ... *unless there are compelling reasons for consent to be granted.* Ms Barton goes on to express the view that the issue of significant adverse cumulative effects should be addressed, and that whether or not effects of a given proposal fall within the rubric of *significant adverse cumulative effects* can be addressed on a case by case basis. We see nothing to disagree with in any of that. We see no deficiency in the Council's reasoning in adopting Policy 7-7, nor any gap in the evidence upon which it might have relied in coming to the view that the Scheduled ONFLs were worthy of their place there, and should be shielded from further or other significant adverse effects on their characteristics and values. Further, we do not think that the Council has foreclosed consideration of protection of the ONFLs from *inappropriate* subdivision, use and development. What may or may not be *inappropriate* will be considered in the context of a resource consent application.

Conflict with POP Chapter 3 – infrastructure

[2-43] In introducing the topic of infrastructure relating to energy, Chapter 3 of POP is quite fulsome:

> Energy
>
> Access to reliable and sustainable energy supplies is essential to the way society functions. People and communities rely on energy for transportation, and electricity for everyday activities at home and at work. A reliable and secure supply of energy, including electricity, is fundamental for economic and social wellbeing. Furthermore, the demand for electricity is increasing.
>
> Government has developed energy strategies and made changes to the RMA to encourage energy efficiency and greater uptake of renewable energy over use of non-renewable resources. Renewable energy means energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave and ocean current sources.
>
> The Government has made a commitment to reduce New Zealand's greenhouse gas emissions and to achieve increasingly sustainable energy use. This commitment is

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> expressed by the inclusion of sections 7(ba), 7(i) and 7(j) in the RMA in 2004 and in national strategy and policy documents dealing with energy, renewable energy, energy efficiency and conservation, and electricity transmission.
>
> The electricity transmission network is recognised by a national policy statement as a matter of national significance.
>
> As at 2009, the Government's target is for 90% of New Zealand's electricity generation to be from renewable energy resources by 2025. Collectively these Government policy instruments seek to achieve economy-wide improvements in the efficiency of energy use and an increase in the supply of energy from renewable energy resources.
>
> Given these national policy instruments and the presence of significant renewable energy resources with potential for development in the Region, the Regional Council recognises that it needs to provide for the development of renewable energy resources and the use of renewable energy.
>
> The Region has potential for the development of renewable energy facilities, given the areas with high wind speeds, the potential to develop hydroelectricity resources, and some potential for the use of wave energy around the coastline.
>
> The development and use of renewable electricity generation facilities face a number of barriers that include the difficulty in securing access to natural resources as well as functional, operational and technical factors that constrain the location, layout, design and generation potential of renewable energy facilities. The adverse environmental effects of renewable electricity generation facilities can also be a barrier, if they are not appropriately avoided, remedied or mitigated.

[2-44] That extract makes it clear that the Council was fully aware of the government's targets for renewable energy generation, and there is specific mention of ss7(ba), 7(i) and 7(j). Notable too is the last sentence, clearly recognising that adverse environmental effects can be a barrier to generation development if they cannot be avoided, remedied or mitigated. In other words, even a goal as important as renewable energy generation will not necessarily prevail over any other consideration. As with all RMA decisions involving benefits and disbenefits, it will be a question of deciding where the balance between them should lie, having regard to the factors and criteria set out in the primary and subordinate legislation.

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[2-45] The decisions version of Chapter 3 then has this Objective:

Objective 3-1: Infrastructure and other physical resources of regional or national importance

To have regard to the benefits of infrastructure and other physical resources of regional or national importance by enabling their establishment, operation, maintenance and upgrading.

And these Policies:

Policy 3-3: Adverse effects of infrastructure and other physical resources of regional or national importance on the environment

In managing any adverse environmental effects arising from the establishment, operation, maintenance and upgrading of infrastructure or other physical resources of regional or national importance, the Regional Council and Territorial Authorities must:

(a) allow the operation, maintenance and upgrading of all such activities once they have been established, no matter where they are located,

(b) allow minor adverse effects arising from the establishment of new infrastructure and physical resources of regional or national importance, and

(c) avoid, remedy or mitigate more than minor adverse effects arising from the establishment of new infrastructure and other physical resources of regional or national importance, taking into account:

(i) the need for the infrastructure or other physical resources of regional or national importance,

(ii) any functional, operational or technical constraints that require infrastructure or other physical resources of regional or national importance to be located or designed in the manner proposed,

(iii) whether there are any reasonably practicable alternative locations or designs, and

(iv) whether any more than minor adverse effects that cannot be adequately avoided, remedied or mitigated by services or works can be appropriately offset, including through the use of financial contributions.

Policy 3-4: *Renewable energy*

(a) The Regional Council and Territorial Authorities must have particular regard to:

(i) the benefits of the use and development of renewable energy resources including:

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(A) contributing to reduction in greenhouse gases,

(B) reduced dependency on imported energy sources,

(C) reduced exposure to fossil fuel price volatility, and

(D) security of supply for current and future generations,

(ii) the Region's potential for the use and development of renewable energy resources, and

(iii) the need for renewable energy activities to locate where the renewable energy resource is located.

(aa) The Regional Council and Territorial Authorities must give preference to the development of renewable energy generation and use of renewable energy resources over the development and use of non-renewable energy resources in policy and plan development and decision-making, except with regard to providing for security of supply in "hydro dry" years.

(b) The Regional Council and Territorial Authorities must generally not restrict the use of small domestic-scale renewable energy production for individual domestic use.

[2-46] What is to be taken from those provisions is a recognition of the importance of renewable generation, eg Objective 3-1, Policy 3-4(a) and Policy 3-3(b). What should be noted is the emphasis on *minor* adverse effects in that provision, and the direction in Policy 3-3(c) that more than minor adverse effects must be managed by being avoided, remedied, mitigated or even offset. Those are the sort of issues which can and should be taken account of in considering a particular proposal, when its benefits and disbenefits can be identified and their relative weights and importance assessed.

The dictating of a non-complying activity status in District Plans

[2-47] A theme common to several parties was that the terms of Policy 7-7 should not be upheld because they would be likely to lead territorial authorities who had Schedule F ONFLs in their districts to make activities in them *non-complying*, thus significantly raising the bar to resource consents by bringing into play the threshold tests of s104D.

[2-48] If that did happen, we fail to see why, if the Policy is adopted for good reason, such a consequence would count against it now. There are many activities that have *non-complying* status, and for good reason – usually because the receiving

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environment is regarded as particularly delicate or vulnerable and/or the activity in question is particularly noisome or noisy, or in some other way likely to produce serious adverse effects. If the Policy did affect District Plans in that way, a (for instance) windfarm proposal in a Schedule F ONFL could be advanced as having cumulative adverse effects that are no more than minor. If that argument succeeded, then the proposal will not fall foul of Policy 7-7 either, because the cumulative adverse effects will not, by definition, be *significant*.

[2-49] We note that the *Board of Inquiry into the Transmission Gully Plan Change Request*, in its decision and report of October 2011, at section 10.7, took it as a given that the possibility of requiring avoidance of adverse effects, without an option of remedy or mitigation, is an available provision, but chose not to adopt it on the material before it. There is no suggestion that such a provision was ultra vires. In the decision on the ensuing appeal to the High Court – *Rational Transport Society Inc v Board of Inquiry and Anor* [2012] NZRMA 298 (HC) at para [13] the provision of the Freshwater Plan to which the Plan Change applied is cited. It requires *avoidance* of adverse effects on identified wetlands, lakes and rivers and their margins, with no mention of remedy or mitigation. Again, the citation is without comment and again there is no hint in the judgment that such a provision could not stand, as a matter of law.

The definition of some ONFLs

[2-50] The definition of one of the ONFLs mentioned in Schedule F (which is part of the Regional Policy Statement component of POP) is also at issue. The ONFL in question is, as mentioned in para [2-6], described in the decisions version of POP as:

> (ia) The skyline of the Ruahine and Tararua Ranges – defined as the boundary between the land and sky as viewed at a sufficient distance from the foothills so as to see the contrast between the sky and the solid nature of the land at the crest of the highest points along ridges.
>
> The skyline is a feature that extends along the Ruahine and Tararua Ranges beyond the areas in (h) and (i) above.

There was some disagreement among the Landscape Architect witnesses about this. At an early stage Mr Coombs, engaged by MRP, and Mr Anstey, engaged by the Council, agreed on a revised formula, in these terms:

> (ia) The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks described in Items (h) and (i).

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[2-51] In the course of the first round of expert landscape witness conferencing the formula was further modified to read:

> (ia) The main and highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including within the Forest Parks described in (h) and (i).

[2-52] Mr Stephen Brown, a consultant landscape architect engaged by Meridian, was able to attend the resumed expert conference. Mr Brown had the view, and Mr Coombs appeared to come to agree with him, that the area of ridgeline (or skyline) between the Pahiatua Track and Wharite Road did not meet the ONFL criteria and should be excluded from Item (ia). They considered that the area is now highly modified and does not display the characteristics and values which ought to be associated with that item. They thought that the removal of the words ... *the full extent of*... from the description would go some way to meeting their concerns. Mr Brown considers that the Manawatu Gorge, which lies within the area he would exclude, should be an ONFL in its own right, which it is.

[2-53] Mr Brown's questioned area contains the part of both ranges between the southern-most extent of the Te Rere Hau windfarm and the northern edge of the Te Apiti windfarm – a linear distance of c14 – 15km. In his evidence he describes this part of the ranges landscape as:

> ... a present-day sequence of ridges and hilltops that is not only visually dishevelled and devoid of any real sense of cohesion and unity; it is also blatantly 'cultural' as opposed to 'natural'. Thus, while the ranges' landform may well remain apparent – indeed, it is emphasised by the historic clearance of native forest across both Ranges – it is visually subjugated by the matrix of pastoral, forestry and energy generation activities/structures that sit atop almost every visible ridge and hilltop. In my opinion, this landscape is certainly expressive; but rather than affirming the integrity of a natural or outstanding landscape – let alone both together – it clearly articulates the idea of a highly modified, and rather utilitarian, 'energy production' landscape.

He goes on to express the view that it is doubtful that, considered in isolation, any landscape architect would regard this sequence of ridges and hilltops as an ONFL, and that it is only the association with the extended ranges and state forest parks to the north and south that gives rise to the proposed ONFL under the description of *the*

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full extent of the Ruahine – Tararua chain. He considers that the area would not meet the amended *Pigeon Bay* factors set out in Table 7.2 of POP, and that even that table does not contain an important factor – ie does ... *this landscape or feature stand out among the other landscapes and features of the district?* His preference for the scope of the ONFL would be:

> Visual natural and scenic characteristics of the Ruahine and Tararua ranges, as defined by the series of highest hilltops along the Ruahine and Tararua Ranges, including the skyline's aesthetic cohesion and continuity, its prominence throughout much of the Region and its backdrop vista in contrast to the Region's plains.

[2-54] Further, he does not see the area as *outstanding* in the sense of it being ... *conspicuous, eminent, especially because of excellence ... remarkable in ...* (see *Wakatipu Environmental Society Inc v Queenstown Lakes DC* [2000] NZRMA 59).

[2-55] Mr Coombs remains content with the wording agreed between himself and Mr Anstey, and now adopted by the Council. That is:

> (ia) The series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua ranges, including within the Forest Parks described in items (h) and (i).

The characteristics and values associated with that ONFL are said to be:

> (i) Visual, natural and scenic characteristics of the skyline of the Ruahine and Tararua ranges, as defined by the series of highest ridges and highest hilltops along the full extent of the Ruahine and Tararua Ranges, including the skyline's aesthetic cohesion and continuity, its prominence throughout much of the region and its backdrop vista in contrast to the Region's plains.
>
> (ii) Importance to tangata whenua and cultural values
>
> (iii) Ecological values including values associated with remnant and regenerating indigenous vegetation
>
> (iv) Historical values
>
> (v) Recreational values.

[2-56] Mr Anstey has the opposite view to that of Mr Brown. He acknowledges that the full extent of the landscape has not yet been assessed, but while the portion in question is at a lower elevation and is not high in natural character, he considers its ridgeline is still natural. The lower elevation and the presence of turbines does not, in his view, mean that it ceases to be *outstanding*. He regards it as retaining elements

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that make it outstanding, and emphasises that it is part of a continuum that should not be broken down into little sections. He regards the recognition of the full extent of the skyline as being clearly required, with the series of highest ridges and highest hilltops being distinctive physical features which together *inform* the skyline.

[2-57] It is the position of MRP that in the absence of a sufficient consensus among the expert witnesses, such a definitive direction (ie including the full extent of both ranges) should not be enshrined in the RPS.

[2-58] We are then faced with an irreconcilable difference of expert views presented by people eminent in the field. This is plainly a matter on which informed and reasonable people may hold different views, and neither view can be the only correct one. We are not convinced that the MRP suggestion is the better way of resolving the issue – this is not a matter to be settled by a majority vote, although we must note that the one energy company with windfarms at the northern end of the Tararuas, TrustPower, does not share the view that the area should not be within the ONFL. It is the case also that such status is not new, in the sense that the whole skyline is described as an ONFL in the operative RPS.

[2-59] While regarding the area around the windfarms as ... *about as disturbed and modified as most rural landscapes get* ... Mr Brown is prepared to accept ... *a certain symbolic value associated with the idea of protecting the physical continuity and linkage of both Ranges.* It is plain, we acknowledge, that the presence of multiple turbines along the Te Rere Hau to Te Apiti stretch of the Ranges, and the pastoral land around them, deprives the area of some of its *natural* characteristic. But it remains nevertheless part of a continuum of landform having visual and scenic characteristics and it remains, undoubtedly, part of the prominent backdrop vista from and to the region's plains. That is largely the way the ridges and hilltops have been seen in earlier windfarm litigation – for instance in the decision of the Turitea Board of Inquiry the Te Apiti turbines were regarded as sitting comfortably in the landscape without undermining its characteristics and values.

[2-60] While there is no crisp, *one way or the other* answer, we conclude that the whole of the landform forming the eastern backdrop to the Manawatu plains, and the

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western backdrop to the northern Wairarapa/Tararua valley should be treated as one continuous entity, and we consider that the provisions now proposed by the Council give effect to that conclusion.

[2-61] That being so, we do not need to consider further amendments to Schedule F, or the possibility of having to use s293 to do so.

Summary of conclusions

[2-62] The specific concern of TrustPower about repowering its existing windfarms has been dealt with to its satisfaction, and that of the Council, and we see no reason to disagree with that outcome. The amendments to the explanations to Policies 3-4 and 7-7, and the amendment to Policy 3-4 itself, as set out in para [2-3] are approved.

[2-63] In terms of the principles discussed in Part 1 and set out in its Appendices, and the arguments raised, we consider that the provisions of POP (in particular Policy 7-7) requiring the *avoiding* of significant cumulative effects, without the specific alternatives of *remedying* or *mitigating*:

- give effect to the NPSREG – see paras [2-20] to [2-24].
- are the most appropriate way of achieving the Objectives, particularly Objective 7-2 – see paras [2-25] to [2-27].
- achieve the purpose of the Act – see paras [2-28] to [2-42].
- are not in conflict with Chapter 3 of POP – see paras [2-43] to [2-46].
- are not flawed because they may lead to activities having *non-complying* status in district plans – see paras [2-47] to [2-49].

[2-64] Nor do we find that the Council's interpretation of *inappropriate* in terms of s6(b) is flawed. Further, the definition of Item (ia) in Schedule F set out in para [2-55] is satisfactory – see paras [2-50] to [2-61].

[2-65] We ask that the Council, in consultation with other affected parties as necessary, redraft the affected portions of POP accordingly and present them for approval: - see para [1-23].

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Hearing: at Palmerston North: 28 – 30 March and 16 April 2012

DECISION: PART 3 – INDIGENOUS BIOLOGICAL DIVERSITY

Counsel and parties participating in this topic:

P R Gardner for Federated Farmers of New Zealand
H A Atkins for Horticulture New Zealand
A J L Beatson and N J Garvan for Meridian Energy Ltd
K Serjeant for the Wellington Fish and Game Council
S J Ongley and A Camaivuna for the Minister of Conservation
J Gregory for Transpower NZ Ltd and Powerco Ltd
L C R Burkhardt for TrustPower Ltd
J W Maassen and N Jessen for the Manawatu-Wanganui Regional Council

PART 3 – Indigenous Biological Diversity **Page**

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Introduction

[3-1] This part of the Decision involves the provisions on indigenous biological diversity (indigenous biodiversity for short) in both the regional policy statement and regional plan components of the POP and the land use rules applying to it.

[3-2] The Council's position was that rare and threatened habitats should receive a greater degree of recognition and protection, and that its policy and rule framework with *discretionary* activity status for activities in rare, threatened and at-risk habitats would achieve this.

The parties' positions

[3-3] The Minister of Conservation and the Wellington Fish and Game Council wanted a stronger policy and rule response, with *non-complying* activity status for activities in rare and threatened habitats on the basis that this would mean that consent could be granted only after close inquiry.

[3-4] Meridian Energy Ltd, TrustPower (adopting Meridian's submissions and sharing some witnesses), Transpower NZ Ltd and Powerco Ltd supported the Council's position on *discretionary* activity status. While there were slightly different positions on some issues, the energy companies basically sought changes to the policy and rule regime in both the RPS and the Regional Plan which would change the scope of the criteria that qualified habitats for *rare and threatened* status and treat them in the same way as *at-risk* habitats, as well as to the hierarchy of actions to be taken in considering effects on all three types of habitats. These changes were opposed by the Council, the Minister, and Fish and Game as weakening the recognition and protection of indigenous biodiversity.

[3-5] Federated Farmers submitted that there is no justification for the approach of managing indigenous biodiversity at a regional scale and opposed the rule framework. In an earlier decision in the same set of proceedings ([2011] NZEnvC 403) the Court held that the RMA empowered the Regional Council to make rules to control land use for the purpose of maintaining indigenous biodiversity - a decision

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since upheld by the High Court – see *Property Rights in NZ Inc v Manawatu-Wanganui RC* [2012] NZHC 1272.

[3-6] The parties' positions evolved up to and during the hearing, which made it difficult for everyone involved. A further complication was the change in the Council's position from the provisions of the DV POP. The outcomes of mediation and the expert witness conferencing, particularly from the ecologists and the planners, were not always well aligned.

Biodiversity - the resource, issue and general approach

[3-7] The decline of indigenous biodiversity is one of the four most critical issues addressed in the POP. The Plan records that the region has only 23% of its original vegetation cover and 3% of its wetland habitat remaining. Most of the forest is found in the hill country and the ranges, with fragments scattered throughout the lower-lying and coastal areas of the Region, where typically less than 10% of original habitat remains. That remaining natural habitat is small, fragmented, and under pressure from pests and disturbance. Much of the remaining indigenous biodiversity is in poor condition and health.[1] We note here that there was evidence from ecologists that the state of indigenous biodiversity now differs from what was recorded in the POP when it was notified in 2007. For example Dr Philippe Gerbeaux, an expert on wetlands giving evidence for the Minister, says that only 2.6% of wetland habitat now remains.

[3-8] The Plan has a focus on habitats, rather than individual species or genetic diversity, as the mechanism to most effectively sustain regional indigenous biodiversity into the future. It categorises habitats into *rare, threatened* or *at-risk habitats.* The description in the s42A report of Ms Fleur Maseyk, an ecologist, broadly explains the framework:

> ... the proposed framework for protection of indigenous biodiversity is based on habitat types rather than individual species. Habitat types were largely identified using predictive modelling. Comparisons between former and current extent of habitat types was conducted to determine degree of loss. Original and current extent of indigenous vegetation cover was primarily projected using robust national spatial

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[1] 7.1.2 DV POP

data sets and predictive models. The use of these national spatial data sets and predictive models is common practice for analysis of this sort, and for determining the need for priorities for protection of indigenous biodiversity. These data sets also serve as key reference data for expected spatial distribution of each habitat type.

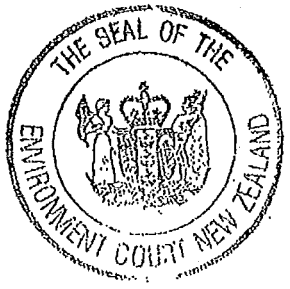
[3-9] Schedule E of the Plan identifies 32 habitats that are *rare, threatened* or *at-risk habitats*. These habitats are not depicted on the maps but are identified in the first table in the schedule (Table E.1). However, for a habitat to then qualify, it must meet at least one of the criteria described in the second table (Table E.2(a)) and not be excluded by one of the criteria in the third table (Table E.2(b)). The criteria in Table E.2(a) set thresholds (particularly size thresholds) above which a habitat type makes a major contribution to biodiversity. The exclusions in Table E.2(b) of the schedule relate to matters such as planted vegetation.

[3-10] Ecology and planning witnesses explained the advantages of this predictive approach over the traditional mapping and scheduling, or the listing of specific areas of indigenous biodiversity, as:

- habitat extent can change over time through natural or induced disturbance or successional events, and static maps can become quickly out of date
- determining the exact extent of an area of habitat in time and space is best done by in-field confirmation, guided by ecologically defined descriptions
- restrictions on activities, or a requirement to obtain a resource consent, only apply to the area of interest
- consistent treatment of the resource
- being more effective and efficient.

[3-11] There is an introductory provision to Schedule E that states:

> It is recommended that a suitably qualified expert is engaged for assistance with interpreting and applying Schedule E. This could be:
>
> (a) a consultant ecologist, or
>
> (b) the Regional Council staff, who currently provide this service free of charge, including advice and a site visit where required in the first instance. It may that following this initial provision of information, the proposal will require an Assessment of Ecological Effects to be provided as a component of the consent application. In such instances it is recommended that a consultant ecologist be engaged to conduct the assessment.



> The Regional Council can, in all cases, provide any spatial data and existing information where available as relevant to the habitat and the proposed activity.

[3-12] There was no argument about the risks posed to the habitats. No party contested the general approach, (with the exception of Federated Farmers on the regulation of biodiversity) but there was some concern about the inclusion of some habitats, notably cliffs, scarps and tors.

Cliffs, scarps and tors

[3-13] There was a challenge from Meridian, TrustPower, Transpower and Powerco to the broad description of ... *cliffs, scarps and tors*... and the extent and application of this habitat type as a *rare habitat.*

[3-14] There was some agreement between the ecologists, Ms Maseyk, called by the Council, Ms Amy Hawcroft for the Minister, and Mr Matiu Park, for Meridian and TrustPower, that the definition or description of the naturally uncommon habitat type called *cliffs, scarps and tors* in Schedule E could be further refined, given time. This habitat type includes ecosystems where the relevant background publication: - Williams et al 2007[2] - indicates that further research may be required to determine whether the ecosystem is indeed *rare.*

[3-15] In closing submissions (particularly Appendix B) the Minister put forward proposed changes to Schedule E and associated definitions of *cliffs, scarps and tors,* and also three other related habitat types that would also require amendment – *screes and boulderfields, active dunelands,* and *stable dunelands.* These were recommended by Ms Hawcroft. The proposed amendments are to ensure that only those habitats comprising ecosystems clearly identified as *rare* in Williams et al 2007, be included as *rare habitats.*

[3-16] We direct that the ecologists should confer and refine the description habitat type and prepare a joint statement which includes the reasons for that refinement. (If there is any disagreement between the ecologists that should be identified to the

[2] Williams, PA; Wiser SK; Clarkson, B; Stanley: "New Zealand's historically rare terrestrial ecosystems set in a physical and physiognomic framework" NZ Journal of Ecology (2007) NZJEcol 19.

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Court along with the reasons for that disagreement in the normal way). The Council, in consultation with other affected parties as necessary should redraft Schedule E, with an explanation of the reasons for those amendments, and outlining suggested options for the process the Court could follow to consider and, if appropriate, to action those changes.

Objectives

[3-17] Objective 7-1: Indigenous biological diversity in the Regional Policy Statement component of the POP is not in contention. It provides:

> Protect areas of significant indigenous vegetation and significant habitats of indigenous fauna and maintain indigenous biological diversity, including enhancement where appropriate.

This objective reflects section 6(c) RMA which states that a matter of national importance to be recognised and provided for is:

> The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

It also reflects the responsibility of the Regional Council to maintain indigenous biodiversity in the region under s62(1)(i) RMA.

[3-18] Part II, the Regional Plan component of the POP, has in Chapter 12 - *Indigenous Biological Diversity* the following Objective 12-2: (this is not in contention - other than by Federated Farmers in terms of responsibility for regulation):

> The regulation of vegetation clearance, land disturbance, forestry and cultivation and certain other resource use activities to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna or to maintain indigenous biological diversity, including enhancement where appropriate.

RPS Policies

[3-19] The first RPS policy (7-1) in contention apportions the responsibilities for controlling land use activities for the purpose of maintaining indigenous biological diversity in the Region, as required by s62(1)(i). The Regional Council is to be responsible for developing objectives, policies and methods to establish a region-wide approach for maintaining indigenous biodiversity, including enhancement where appropriate. The Regional Council must also develop rules controlling the use

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of land to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna, and to maintain indigenous biodiversity, including enhancement, where appropriate.

[3-20] Only Federated Farmers took issue with the first policy, raising the merits of the apportionment of responsibilities, and opposing the concept of the regional plan containing rules controlling the use of land for indigenous biodiversity. Its position was that any rules should be in district plans. We return to this argument later.

[3-21] The second policy in contention (Policy 7-2A) concerns the management of activities affecting indigenous biological diversity. It introduces and differentiates between *rare and threatened habitats*, and *at-risk habitats*, with the Glossary to the POP defining these to be: - *an area determined to be* [in the particular category] *in accordance with Schedule E and, for the avoidance of doubt, excludes any area in Table E.2(b).* It then provides for their regulatory treatment. This was the focus of the hearing, along with the related policies in the Regional Plan (to which we refer and return when necessary).

[3-22] Federated Farmers also had concerns about the wording of a policy on the existing use of productive land. The Minister also had an appeal point on this clause and in closing advised that an agreement had been reached with Federated Farmers that the clause be reworded as:

> (iv) not restrict the existing use of production land where the effects of such land use on rare habitat, threatened habitat or at-risk habitat remain the same or similar in character, intensity or scale.

However Ms Barton, the planning witness for the Council, considered the qualifier *unreasonably* (which was in the original policy) should be retained. We concur with that view.

[3-23] The energy companies also had a concern about the wording of Policy 7-2A and sought cross-references to Chapter 3 the Infrastructure chapter.

[3-24] Part 1 - the RPS part of the POP - includes Chapter 3 (which is beyond challenge) on infrastructure. Chapter 3 has Objective 3-1:

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> To have regard to the benefits of infrastructure and other physical resources of regional or national importance by enabling their establishment, operation, maintenance and upgrading.

[3-25] Policy 3-1 then lists the infrastructure the Council must recognise, including the national grid and electricity distribution, and pipelines and gas facilities. Policy 3-3 sets out the requirements for the regional council and territorial authorities when managing adverse environmental effects arising from new infrastructure. Policy 3-3(a) relates to existing infrastructure, (b) to new infrastructure, stating that minor adverse effects should be allowed, and (c) sets out the factors that should be taken account when assessing new infrastructure as being:

- The need for new infrastructure
- The functional, technical and operational constraints of infrastructure
- Reasonably practicable alternative locations and designs
- Offsetting more than minor effects that cannot be avoided, remedied or mitigated.

[3-26] Policy 3-4 requires the regional council and territorial authorities to have regard to the benefits of the use and development of renewable energy resources.

[3-27] For the RPS Policy 7-2A Management of activities affecting indigenous biological diversity - the Council proposed some changes pertinent to infrastructure as follows:

> For the purpose of managing indigenous biological diversity in the Region:
>
> (e) When regulating the activities described in (c) and (d), the Regional Council must, and when exercising functions and powers described in Policy 7-1, Territorial Authorities must:
>
> ...
>
> (ii) consider indigenous biological diversity offsets in appropriate circumstances as defined in Policy 12-5.
>
> (iii) allow the maintenance, operation and upgrade of existing structures, including infrastructure [and other physical resources of regional or national importance as identified in Policy 3-1].

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[3-28] Transpower and Powerco wished the wording of Policy 7-2A (e)(ii) in the DV POP to remain, with the retention of the following piece in brackets which the Council proposed to remove:

> (ii) consider indigenous biological diversity offsets in appropriate circumstances as defined in Policy 12-5, [which may include the establishment of infrastructure and other physical resources of regional or national importance as identified in Policy 3-1].

The Minister was neutral as to whether clause (ii) should also state that the circumstances where offsets are considered *may include other physical resources of regional or national importance as identified in Policy 3-1.* (There was some confusion about the position of the parties on the bracketed part of (ii) with a suggestion that it may have been agreed but was omitted from the version presented to us.)

[3-29] We do not consider that the bracketed addition to Policy 7-2A(e)(ii) adds anything further than is already set out in policy in Chapter 3 which deals with infrastructure and other physical resources of regional or national importance and which refers to *offsetting more than minor effects that cannot be avoided, remedied or mitigated.* In any case, Policy 7-2A (with the associated Policy 12-5) does not impose any restriction on the types of activities that can be considered for indigenous biological diversity offsets. There has to be a limit to the extent to which there are cross-references between the various provisions in the RPS. Accordingly we do not agree to the addition of the bracketed wording.

[3-30] Appendix A of closing submissions on behalf of the Minister referred to there now being a lack of agreement on the bracketed addition to Policy 7-2A(e)(iii) [3-27], indicating that the amendment had previously been agreed between the Minister and the Council. We are not clear on the reason for the addition or for that matter the Minister's opposition to it. The clause is limited to *existing structures* and the definitions of maintenance, operation and upgrade are not open-ended. The definitions in the DV-POP in front of us impose constraints on the nature and extent of the activity and adverse effects on indigenous biodiversity (among other adverse effects). Policy 3-1 contains a long list of infrastructure and other physical resources of regional and national importance and we do not understand the Minister to have

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any quibble with the content of that policy. The RMA defines *infrastructure* in terms of the Council's function of the strategic integration of infrastructure with land use through objectives, policies and methods (s30(1)(gb)). Most, if not all, of the items listed would come under that definition of infrastructure in any event. In the absence of argument, we find Policy 7-2A(e)(iii) as proposed by the Council acceptable

[3-31] Ms Helen Marr, the planning witness for the Minister, gave evidence that she generally agreed that the DV POP gives effect to the national policy statements on electricity generation and electricity transmission in part through Chapter 3 "Infrastructure, Energy, Waste, Hazardous Substances and Contaminated Land". However she noted that the obligation to give effect to these national policy statements does not end with Chapter 3 which is contained in Part I – the RPS component of the POP. Appropriate cross-reference, or specific provisions, may be required in Part II – the regional plan component of the POP. (We return to this when discussing the policy framework of the regional plan.)

[3-32] Other RPS policies were not in issue.

Other Provisions

[3-33] The RPS contains a number of non-regulatory methods which refer to biodiversity. It also has these anticipated environmental results – which were not in issue:

> Except for change because of natural processes, or change authorised by a resource consent, by 2017, the extent of rare habitat, threatened habitat or at-risk habitat is the same as (or better than) that estimated prior to this Plan becoming operative, and the number of at-risk habitats has not increased.
>
> By 2017, the Region's top 100 wetlands and top 200 bush remnants will be in better condition than that measured prior to this Plan becoming operative.

What should the approach to recognising significant indigenous vegetation and habitats be?

[3-34] The POP (both the RPS Policy 7-2A and Regional Plan policies) differs in its approach to the recognition (and subsequent policy treatment) of habitats identified in Schedule E as *rare and threatened habitats*, which are deemed to be significant

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indigenous vegetation and significant habitats of indigenous fauna in terms of s6(c), and *at-risk habitats* which are not so deemed.

[3-35] All parties agreed that not all *at-risk habitats* are worthy of automatic s6(c) recognition as *significant indigenous vegetation and significant habitats of indigenous fauna.* The *at-risk* habitats are therefore subject to a second tier of assessment of significance beyond the methodology that informed the creation of Schedule E. This involves the assessment of individual areas against the criteria for assessing the significance of an area of habitat in Policy 12-6. The ecologists agreed that greater discretion is appropriate for habitats classified as *at-risk*, but areas of these habitat types are also vulnerable and subject to pressures that result in their continued decline, and therefore warrant some protection.

[3-36] The Council, the Minister, and Fish and Game consider *rare* and *threatened* habitats are, by definition, s6(c) significant indigenous vegetation and significant habitats of indigenous fauna. Accordingly, they contend that policy should reflect this. We were provided with a revised version of the policy provisions by Ms Barton at the conclusion of the hearing to make that intention clear. The Minister provided some amendments to those provisions with the intention of avoiding arguments that might arise from some of the terminology and language used. We use that version for further discussion.

[3-37] The energy companies wanted *rare* and *threatened* habitats to be treated the same way as *at-risk* habitats, and, before being determined to be a significant habitat, to go through the same additional filter (or second tier assessment) of the significance test that applies to *at-risk* habitats. In addition Mr Park proposed:

- the criteria for assessing significance of, and the effects of activities on, an area of habitat (Policy 12-6) should require *functioning ecosystem processes* as a threshold for representativeness of habitats (in addition to the other requirements).
- the condition of the habitat should be considered in assessing significance (rather than dealing with this at the stage of considering effects and the other matters in the resource consent process).

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- *Should rare and threatened habitats be, by definition, significant?*

[3-38] The DV POP emphasised the importance of site visits in assessing habitats. The evidence of Ms Barton, Ms Maseyk and Ms Hawcroft confirmed that site visits have always been anticipated to check whether a habitat as it exists *in the field* meets the objective criteria for *rare* or *threatened* habitat under Schedule E, Tables 1, 2(a) and 2(b). If the criteria are met, then such habitats are determined to be *significant* within the meaning of s6(c) and no additional subjective or evaluative exercise is required.

[3-39] We find in favour of *rare* and *threatened* habitats being deemed *significant* for the following reasons:

- the highly vulnerable status of *rare* and *threatened* habitats and the state of remaining biodiversity in the region
- disturbance of *rare* habitats is very likely to cause local extinction of indigenous species, or of ecosystem type, because these habitats are spatially highly limited, meaning that species that rely on them are unable to move into adjoining suitable habitat.
- *threatened* habitats, which have less than 20% of the original extent of the habitat remaining, will show a sharp decline in the number of species likely to survive if more original habitat is lost, based on the species-area curve. Even very small losses of habitat below the 20% threshold can significantly impact on species' ability to survive.
- the scarcity of wetlands
- it reflects international biodiversity treaties and conventions New Zealand is a signatory to, and the Biodiversity Strategy.
- it reflects the Government's policy direction as stated in the *Statement of National Priorities for Protecting Rare and Threatened Native Biodiversity on Private Land* (MfE, 2007).
- the robust analytical approach to identifying rare and threatened species.
- the types of habitats, with the classifications describing the characteristics in Schedule E, are able to be identified.
- the objective, rather than subjective, nature of the characteristics.

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- any deficiencies in identifying base information would be dealt with by another filter or layer, in considering the effects and the sustainability of the habitat.

- *Should 'functioning ecosystem processes' be a prerequisite to representativeness?*

[3-40] The criteria for significance are used for determining the ecological values of *at-risk* habitats, as well as being a consideration in the resource consent process. As proposed by the Council, Minister and Fish and Game, only one criterion within Policy 12-6 needs to be met for an area of habitat to be considered significant.

[3-41] Mr Park considered *functioning ecosystem processes* should be a prerequisite for representativeness, but this raised several questions. We accept that there is cause for concern: - the evidence of Ms Maseyk and Ms Hawcroft was that incorporating the concept of *functioning ecosystem processes* into Policy 12-6 as a criterion to be met, in addition to being either under-represented habitat type (criterion (i)(A)), or highly representative habitat type (criterion (i)(B)), would raise the threshold unacceptably high. It would mean that considerably fewer *at-risk* sites would pass the *significance* test, allowing for greater freedom to impact on indigenous biodiversity unrestrained by the resource consent process. This would be inappropriate given the evidence on the significance of the habitat types listed in Schedule E, and the demonstrated continued vulnerability and decline of areas of these habitat types. In addition, it would undermine the proper consideration of the values of these habitats during the resource consent process.

- *Should 'condition' be a criterion for significance?*

[3-42] Mr Park expressed concern about using *condition* in deciding the significance of habitats. As an example, he emphasised the degraded condition of the wetlands located in the Horowhenua sand dune country. However, in cross-examination, Mr Park conceded that given the rarity of these wetland habitats, a policy of avoiding adverse effects, even for wetlands in a degraded state, is appropriate.

[3-43] Ms Maseyk, Ms Hawcroft and Dr Gerbeaux were of the opinion that biodiversity which is not in good condition, or not of good quality, still has an

important role to play in biodiversity maintenance. Dr Gerbeaux referred to the same point for wetlands, making it clear that even small and modified areas of wetland habitat within the region are ecologically significant. These witnesses painted a graphic picture of the consequence of continuing to take out, or discount, the values of biodiversity across the region on the basis of its condition.

- *Conclusion on recognition of habitats*

[3-44] We agree with Ms Maseyk and Ms Hawcroft that the Council's approach reflects the appropriate process for determining ecological significance (and thus a demonstrated need for regulatory protection and a resource consent process) with the consideration of site-specific values and condition (critical to making sound management decisions) occurring at the resource consent stage. At the resource consent stage Policy 12-6 (b) requires consideration of:

> The potential adverse effects of an activity on a rare habitat, threatened habitat or at-risk habitat must be determined by the degree to which the proposed activity will diminish any of the above characteristics of the habitat that make it significant, while also having regard to any additional ecological values and to the ecological sustainability of that habitat.

[3-45] We conclude that the effects of the additional criteria proposed by Mr Park would not achieve the Objective and Policy of the RPS, or the Objective of the Plan, or Part 2 of the Act. We accept that *condition* is brought in through the sustainability point in the Policy and can and should be dealt with at the resource consent stage when considering effects (including cumulative effects) and the other matters required under section 104. Mr Park's approach, we think, confuses these two steps and cuts across the need for a strong planning framework and a precautionary approach to a scarce and irreplaceable natural resource.

What should the policy framework for considering resource consents comprise?

[3-46] Policy 12-5 specifically relates to consent decision-making for activities in *rare, threatened* and *at-risk habitats* ... and it is in issue.

[3-47] Under Policy 12-5 there is a different basis for granting consents that involve *any more than minor adverse effects* on a habitat's representativeness, rarity and

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distinctiveness, or ecological context, for *rare*, *threatened* or *at-risk* habitat which is assessed to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna. As proposed by the Council, the Policy contains a hierarchy of considerations, as follows:

- Avoid any more than minor adverse effects first
- Where these adverse effects cannot reasonably be avoided, remedy or mitigate adverse effects. [There are differences of opinion on whether this should only occur at the point where the adverse effect occurs, and what might be involved].
- Where these adverse effects cannot reasonably be avoided, remedied or mitigated the residual effects are to be offset. [There are differences of opinion on what an offset involves and whether it should result in a net indigenous biological diversity gain, and whether it should be the last resort.]

[3-48] The Minister preferred the rewording of Policy 12-5(b) as follows:

Consent must generally not be granted for resource use activities in a rare habitat, threatened habitat, or at-risk habitat assessed to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna under Policy 12-6, unless:

(i) Any more than minor adverse effects on that habitat's representativeness, rarity and distinctiveness, or ecological context assessed under Policy 12-6 are avoided.

(ii) Where any more than minor adverse effects cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse effect occurs.

(iii) Where any more than minor adverse effects cannot reasonably be avoided, remedied or mitigated in accordance with (b)(i) and (ii), they are offset to result in a net indigenous biological diversity gain.

[3-49] The Minister's position was that if the term *offsets* is used in a plan, and is expressly available to applicants wishing to undertake activities in areas having biodiversity value, the term should be used consistently with the Business Biodiversity Offsets Programme principles (BBOP principles).

[3-50] In closing submissions the Minister put forward two optional definitions:

For the purposes of this Policy:

> *Offset* means a measurable conservation action designed to achieve no net loss and preferably a net gain of biodiversity on the ground once measures to avoid, minimise and remedy adverse effects have been implemented.
> *Minimise* means to reduce the duration, intensity and/or extent of adverse effects.

If adopted, these definitions would need to be consistent with the policy framework.

[3-51] Meridian did not oppose the reference to and use of biodiversity offsets in policy, but opposed the hierarchy of avoid, remedy, minimise and offset, seeking flexibility so that the applicant could determine the most appropriate approach, having weighed up all factors, effects, risks, costs and benefits under the framework of the POP. Its position was that allowing flexibility of options can result in a better environmental benefit than would a rigid policy. Meridian and other energy companies also opposed the requirement for a *net gain* for a biodiversity offset.

- *What are the BBOP principles?*

[3-52] Mr Spencer Clubb, a Senior Policy Analyst with the Department of Conservation, who is leading the drafting of good practice guidance on the application of biodiversity offsetting in New Zealand, gave evidence. During technical expert conferencing all the ecological experts giving evidence agreed that the term *biodiversity offsets* should be consistent with the Business and Biodiversity Offsets Programme (BBOP) definition and principles. These were initially developed in 2006, and work since has changed the sequence of, but not the content of, the principles.

[3-53] The BBOP principles define *biodiversity offsets* as:

> ... measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity.

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[3-54] The Proposed National Policy Statement on Indigenous Biodiversity similarly defines *biodiversity offsets* as:

> ... measurable conservation outcomes resulting from actions which are designed to compensate for more than minor residual adverse effects on biodiversity, where those affects arise from an activity after appropriate prevention and mitigation measures have been taken. The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure and ecosystem function.

[3-55] There are a set of principles establishing a framework for designing and implementing biodiversity offsets and verifying their success (and criteria and indicators). Of particular relevance is Principle 3 of the BBOP principles:

> Adherence to the mitigation hierarchy: A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.

[3-56] Mr Clubb's evidence was that *minimisation* means: ... measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided, as far as is practically feasible. Residual adverse effects that are left over after avoidance, minimisation and rehabilitation, are required to be offset.

[3-57] Mr Clubb said that there is a clear distinction and a clear hierarchy, that places biodiversity offsetting as a separate activity, designed to address residual adverse effects only after avoiding, remedying and mitigating those effects has taken place. He also said that biodiversity offsetting provides a means by which decisions can be made about proposals for *exchanging* or compensating for biodiversity loss in a more robust, transparent and accurate manner.

What weight should we give the BBOP principles?

[3-58] Mr Clubb went on to say that the approach to biodiversity offsetting as proposed by the Minister for the POP is consistent with international best practice. He considered the BBOP definition and principles for biodiversity offsetting are appropriate to New Zealand and that application of all the principles is necessary. He said that, by definition, biodiversity offsetting seeks to address residual adverse

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effects arising from project development after appropriate prevention and mitigation measures have been taken. He said that the definition and principles of offsetting as a final step in the *mitigation hierarchy* (and often referred to in BBOP as a *last resort*) have been agreed by international consensus, including from prominent members of the ecological community in NZ and overseas.

[3-59] We also note that the Proposed National Policy Statement on Indigenous Biodiversity, on which the POP approach is modelled, reflects BBOP principles. Notwithstanding that it has no statutory effect, and the number of submissions made on it, we consider the document is worthy of respect as a reflection of considered opinion, particularly as it reflects international best practice.

[3-60] Finally, there is the evidence of the ecologists about the state of biodiversity in the region and the high risks – likelihood and consequences – of adopting any less rigorous approach.

Should offsetting be required?

[3-61] An argument was made that a biodiversity offset is a subset of remediation or mitigation (and even, potentially, avoidance) and should not be specifically referred to or required.

[3-62] Meridian submitted that the *Final Decision and Report of the Board of Inquiry into the New Zealand Transport Agency Transmission Gully Plan Change Request* has close parallels with the matters considered by the Court and that it had taken this approach. The appeal to the High Court against this decision did not deal with this particular matter.

[3-63] With respect to the Board of Inquiry, we do not consider that offsetting is a response that should be subsumed under the terms *remediation* or *mitigation* in the POP in such a way. We agree with the Minister that in developing a planning framework, there is the opportunity to clarify that offsetting is a possible response following minimisation – or mitigation - at the point of impact.

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[3-64] A related argument was that the law does not allow the policy approach of a hierarchy, but requires that any proposal should be treated in the round under the *avoid, remedy or mitigate* mantra. We have already dealt with that argument in Part 2 of the decision dealing with Landscape. We find it acceptable and appropriate for the regional plan to state a preference for the way effects on biodiversity should be dealt with, including by instituting a hierarchy.

Should avoidance be the first response?

[3-65] We had understood from the planners' conferencing record that the planners agreed that avoiding significant adverse effects should be pursued before moving to the lower level of remedying or mitigating such effects. There were some questions about this in the course of the hearing. However, avoidance is the first response in the BBOP principles and we accept the reasons given to us by various ecology and planning witnesses for that.

What should the second step of remedying and mitigating provide for?

[3-66] In relation to Policy 12-5(b) and (c), the planners' conferencing record states:

> The Planners for TrustPower/Meridian, Transpower/Powerco, and Federated Farmers agreed that offset mitigation outside the affected area should be an option (not a last resort) for an applicant to propose and a decision-maker to consider, if it achieves a net indigenous biodiversity gain. The planners for MWRC and MoC/WFCG consider that wording that requires the consideration of onsite mitigation before offsite mitigation or offsetting is more appropriate.

[3-67] During the hearing, differences emerged on what onsite mitigation, as opposed to offsets, would involve. The Minister's position was that an applicant should look to mitigate adverse effects at the point where the adverse effect occurs (in BBOP terms, after *minimising*) prior to having the option of *offsetting* outside or beyond that point:

> (ii) Where any minor adverse effects cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse effect occurs.

The ecology and planning witnesses for the Minister gave evidence that offsetting principles should be applied to *all* adverse effects that are *left over* after mitigating at the point of impact.

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[3-68] In cross-examination Ms Maseyk said that while it was preferable for mitigation to be at the point of the area affected, it should at least be as close to possible to it, and not beyond the ecological district. Ms Maseyk also considered that remedying or mitigating could involve, for example, fencing and undertaking pest management for another area with ecological values on a farm. She did not see that it need involve *like with like*.

[3-69] Ms Barton responded to the cross-examination of Ms Maseyk by putting forward the following revision:

> (ii) Where any significant adverse effects cannot reasonably be avoided, they are remedied or mitigated within the area of habitat directly affected by the activity or if that is not possible as close as possible to the area affected but not beyond the same ecological district.

[3-70] Mr Park also took a very broad view of remedying or mitigating, although he conceded he was not a planner.

What should the third step of offsetting involve?

[3-71] The Minister considered that offsetting principles should be applied to *all* adverse effects that are *left over* after mitigating at the point of impact. For these *residual* adverse effects, a net biodiversity gain is to be achieved. The Minister submitted that this principle should apply to any exchanges in biodiversity values, even where an applicant proposes to address such adverse effects *within* property boundaries, and even if that is at the *farm scale*.

[3-72] Other parties rejected the requirement for a net gain or even no net loss. Some argued that such a strict approach may not align with a regional council's function under s30(1)(ga) which requires only the maintaining of indigenous biodiversity. TrustPower submitted that a net indigenous biological diversity gain approach is at least a high-end approach to maintaining biological diversity, if not more than that. TrustPower also opposed the approach on the basis that the RMA is not a *no-effects* statute requiring all adverse effects to be fully avoided, remedied or mitigated in all circumstances and that the net indigenous biological diversity gain approach is unnecessarily restrictive. It also submitted that s6(c) of the RMA does

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not automatically mean a no loss or net gain approach. There was also a suggestion that offsetting residual adverse effects should be an aspirational goal.

[3-73] Mr Clubb gave evidence that biodiversity offsetting represents an exchange of biodiversity, even where it is like-for-like, and that there are good reasons for offsetting being last in the hierarchy. He said that any exchange of biodiversity, even if it is within quite close proximity, represents a certain loss of biodiversity value for an uncertain gain in biodiversity values elsewhere. If the BBOP principles are not applied to such exchanges then, over time, biodiversity will not be maintained.

[3-74] We had evidence from ecologists that without a net gain, there will be the continued loss of biodiversity. Also that non-compliance with the BBOP principles would result in the *continued nibbling away* of habitats, allowing further fragmentation and greater cumulative loss across the region.

Should there be greater flexibility for the use of offsets?

[3-75] Meridian and TrustPower opposed prescribing what they considered to be a rigid approach to the use of biodiversity offsets such as the proposed avoid, remedy, mitigate, offset hierarchy, requiring every adverse effect to be avoided, remedied, mitigated or offset and establishing policy criteria around what sorts of offsets should be provided in what circumstances. TrustPower submitted that it would use biodiversity offsets as a means of addressing biodiversity effects, but wanted flexibility which it considered to be consistent with the framework and purpose of the RMA.

[3-76] We accept the evidence of the planners, Mr Clubb, and some of the ecologists, that too much flexibility would certainly contribute to the continuing loss of biodiversity. Ms Marr and Ms Barton gave evidence that while the approach with the various steps is prescriptive, there is the opportunity to step-down the policy hierarchy when designing and consenting proposals. Mr Clubb said that the existence of the *mitigation hierarchy* would not unreasonably constrain biodiversity offsetting as a means of achieving good biodiversity outcomes: - the requirement to minimise effects within the area affected is to be followed as far as is practically feasible. While it is clear that all feasible efforts must be undertaken to mitigate

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within the site, this does not preclude good biodiversity outcomes from being achieved through an offset where this will be a better approach than impractical or unfeasible on-site mitigation.

[3-77] We accept Mr Clubb's opinion that uncertainty associated with achieving biodiversity gains through offsetting is one reason why it is further down the *mitigation hierarchy* than avoidance and minimisation, which have more certain outcomes for biodiversity. As Mr Clubb said, mitigation and compensation not required to meet the principles of biodiversity offsetting is even less certain to deliver desired biodiversity outcomes.

[3-78] We do not accept TrustPower's proposition that the policy approach is so narrow as to be likely to inhibit or confine innovative approaches which lead to sound and desirable biodiversity outcomes. Nor does it act as a veto to infrastructure proposals of national significance which may have significant adverse effects.

[3-79] In addition, we do not accept the suggestion made by some witnesses that the approach makes for additional complexity. The approach has the benefit of setting down clear steps which a resource consent application, evidence and decision-making have to address in a logical and robust manner. This is likely to result in improved analysis and evaluation of proposals, thereby reducing the risk of further biodiversity loss.

- *Are there problems with the application of biodiversity offsetting?*

[3-80] TrustPower submitted that there are a number of practical difficulties associated with implementing such an approach.

[3-81] The Minister accepted that biodiversity offsetting, and the methodologies surrounding it, are a developing field. However, the Minister's position was that the basic principles and definition of offsetting will not change and are now well established.

[3-82] Mr Clubb said that of particular importance is the explicit calculation of biodiversity losses and gains at matched impact and offset sites. He said there must

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be a form of rigour, otherwise it is impossible to demonstrate that gains match or exceed losses.

[3-83] Mr Clubb also gave evidence that the Department of Conservation is currently managing a three-year Biodiversity Offsets Research Programme. This is to be used to develop best practice guidance, consistent with international best practice. The programme is due for completion in mid 2012 and it is hoped best practice guidance will be available in draft form at about the same time.

[3-84] We will later consider the proposal from the Minister to add a provision to Policy 12-5(d), so that any biodiversity offsetting calculation is proportionate to the effects, and will overcome the potential difficulties raised by opponents of the approach.

[3-85] We also note that biodiversity offsetting was recently applied by the Environment Court in the *MainPower NZ Ltd v Hurunui District Council* [2011] NZEnvC 384 – a windfarm case.

- *Should the test be 'reasonably' or 'reasonably practicable'?*

[3-86] The BBOP principles use the term *as far as is practically feasible* as the criterion or point for when decision-making should cascade down to another level on the hierarchy.

[3-87] In her evidence in chief Ms Marr used *reasonably practicable* and proposed the following definition:

> *Reasonably practicable* requires consideration of the nature of the activity, the sensitivity of the receiving environment to adverse effects, possible alternative locations, designs or methods based on the current state of knowledge, the likelihood of successfully achieving avoidance, and financial implications.

[3-88] She said that this was broadly based on the definition of *to the extent practicable* adopted in the *Transmission Gully Plan Change* report (see para 3-62]). Ms Marr said that this wording would capture the concepts of whether alternatives are available, based on current states of knowledge and financial implications, or conversely whether the constraints were such that alternatives were not available.

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She said that it would involve more explicit recognition of the provisions in the renewable electricity generation and electricity transmission national policy statements and Chapter 3 (the RPS) of the POP. We note that the wording also contains elements of the definition of the *best practicable option* in the RMA.

[3-89] Ms Marr's approach was rejected by the other planners at their conferencing with a preference for simply using the word *reasonably* and leaving that word undefined. However, Mr Schofield, planning witness for Meridian, subsequently recommended using the phrase *reasonably practicable*.

[3-90] The Minister submitted that the inclusion of a definition of *reasonably practicable*, or explicit recognition of constraints, is not necessary in order to give recognition to the provisions in the energy National Policy Statements and Chapter 3 of the One Plan, but if *reasonably practicable* is to be used, it should be defined.

[3-91] In closing submissions the Minister preferred *reasonably* and so do we. As with *reasonably practicable* farming practices (which we discuss in Part 5) this concept is hard to nail down. The definition proposed by Ms Marr illustrates the subjective nature of what needs to be considered and ultimately weighed. *Reasonably* is an objective test, capable of being applied by decision-makers.

- *Conclusion on hierarchy of responses*

[3-92] We accept the approach of a hierarchy reflecting the BBOP principles. We find that the provisions put forward by the Minister of Conservation, in closing submissions with some amendments, better provide for maintaining indigenous biodiversity.

What should the biodiversity offset policy contain? What should an offset allow?

[3-93] Policy 12-5(d) contains the approach to (criteria for) an offset. The Council version provides that an offset must:

> (i) provide for a net indigenous biological diversity gain within the same habitat type, or where that habitat is an *at-risk habitat*, provide for that gain in a *rare habitat* or *threatened habitat* type, and

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(ii) generally be in the same ecologically relevant locality as the affected habitat, and

(iii) not be allowed where inappropriate for the ecosystem or habitat type by reason of its rarity, vulnerability or irreplaceability, and

(iv) have a significant likelihood of being achieved and maintained in the long term and preferably in perpetuity, and

(v) achieve conservation outcomes above and beyond that which would have been achieved if the offset had not taken place.

These place limits on what can be provided and counted (or considered) as a net indigenous biological diversity gain in the assessment of a resource consent. They also provide for a biodiversity offset not to be allowed in certain circumstances. We had evidence that these criteria draw on the BBOP principles.

[3-94] Some parties opposed the requirement in (i) for a net indigenous biological diversity gain, with Mr Schofield seeking its replacement with reference to *maintaining indigenous biodiversity*. For the reasons given earlier we hold there is good reason to retain Policy 12-5(d) in its current form.

[3-95] In closing submissions the Minister proposed two changes which we accept. These are to reword (d) as follows:

(i) provide for a net indigenous biological diversity gain within the same habitat type, or where that habitat is not an area of significant indigenous vegetation or a significant habitat of indigenous fauna, provide for that gain in a rare habitat or threatened habitat type, and

(ii) reasonably demonstrate that a net indigenous biological diversity gain has been achieved using methodology that is appropriate and commensurate to the scale and intensity of the residual adverse effect, and ...

[3-96] The first is to avoid any confusion regarding significant areas and the second should answer some of the concerns about the methodology in requiring it be proportionate to the nature and scale of the residual effect on biodiversity.

[3-97] With the above amendments proposed by the Minister we find the criteria for an offset based on the BBOP principles appropriate.

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Should there be regulation at a regional level?

[3-98] Before considering the rule framework in detail we consider the challenge from Federated Farmers about the allocation of responsibilities for managing biodiversity through policy, and more particularly the requirement for regional rules administered by the Regional Council. Mr Gardner for Federated Farmers submitted that leadership by the Regional Council should not involve regulation, but regulation (if any) should be left to territorial authorities.

[3-99] Mr Gardner repeated many of the arguments put forward at the earlier hearing that the legal context supports responsibility for biodiversity at a regulatory level being with the territorial authorities. We did not, and still do not, agree. The RMA makes it clear that a regional plan may adopt a regulatory approach to biodiversity. However, we cover off the points he made for completeness.

[3-100] Mr Gardner submitted that s33 of the RMA provides local authorities with the power to transfer their responsibilities to another public authority, and this had not occurred for biodiversity. That may be so, but it is a function which a regional council may undertake under s30(1)(ga), and no transfer is necessary for the Regional Council to undertake this function.

[3-101] He went on to submit that the practicalities and dynamics of achieving the integrated management of biodiversity are such that any rules relating to biodiversity should appear in district plans and not the regional plan. Federated Farmers' main concern was the way in which existing use rights apply, alleging control under the regional plan amounts to the expropriation of rights granted under the RMA through the district plan. This is on the basis that existing lawful uses that contravene a district plan rule may continue if their effects are the same or similar in character, intensity and scale to those which existed before the rule, but activities that contravene a regional rule must apply for consent within six months. He said this was equally applicable to instruments such as resource consents and certificates of compliance granted by the territorial authorities. Mr Gardner submitted that very clear wording is needed for legislation to be read as expropriating rights without compensation.

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[3-102] Ms Lynette Neeson a farmer, Dr Tessa Mills, a policy analyst, and Mr Shane Hartley, a planner, gave evidence for Federated Farmers.

[3-103] Policy 7-2A in the RPS portion of the POP specifically provides that the Regional Council and territorial authorities must not unreasonably restrict the existing use of production land where the effects of such land use on rare, threatened or at risk habitats remain the same or similar in character, intensity and scale.

[3-104] We find that there are sound resource management reasons for the approach of regulating biodiversity through the POP to achieve the objectives of the Plan and the *sustainable management of natural resources*. These include:

- the benefits of a consistent regional approach
- the links between biodiversity and water quantity and quality issues that are the responsibility of the region
- the parlous state of indigenous biodiversity in the region and the immediate need for regulation.

Discretionary v non-complying activity status

[3-105] The Council approach (supported by others) is that *discretionary* activity status, supported by strong policy, is sufficient to achieve the objectives of the POP and Part 2 of the RMA.

[3-106] The position of the Minister and Fish and Game is that activities in *rare* and *threatened* habitats should be *non-complying* and not *discretionary*. The Minister and Fish and Game propose the following to address issues raised by the parties:

- Bundling – a possible exemption for activities requiring consent as a result of indigenous biodiversity rules (a technical issue).
- Recognition of infrastructure in consent consideration matters (covered separately under the *exemption* heading).

- *A bundling exemption*

[3-107] The energy companies raised concerns about the legal principle of bundling of consent status for infrastructure proposals, based on the *non-complying* status for

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indigenous biodiversity rules. They regarded it as comprising a major hurdle for the consenting of worthwhile energy projects.

[3-108] The Council had initially proposed (but later moved away from) the following as a way of getting around the bundling issue:

> Where there is a proposal involving electricity generation or electricity transmission and the proposal involves, as a component of it, an activity that triggers a non-complying classification because of its effect on rare habitats or threatened habitats then [that activity will be assessed separately and] the classification of the other elements of the proposal and its constituent activities must not take on the non-complying classification by virtue of the bundling principle.

[3-109] The primary position of the Minister was that there is no need for a non-bundling policy or rule, as the case law on bundling is appropriate. The Minister considered that it is not the case that components of Policy 12-5 would get *picked-off* for separate consideration and the Policy must be read as a whole.

[3-110] As a secondary position, the Minister was prepared to delete the words in brackets in para [3-108] or alternatively, to add to the words after Policy 11A-7 Sites with multiple activities, and activities covering multiple sites:

> There may be circumstances where individual activities are considered at their given classification rather than the most stringent activity classification. Such circumstances will include activities associated with electricity generation or electricity transmission where a more stringent activity classification would otherwise apply to elements of the proposal by virtue of a component activity that triggers non-complying classification because of its effect on rare habitats or threatened habitats.

[3-111] The other parties questioned whether any exemption provisions (even a Rule) would work, raising doubts about the legality of such an approach. We find that there is no justification for including such an exemption from the bundling principle. We conclude that there is a discretion for the exercise of the bundling principle in law (as is already recognised in Policy 11A-7). That is sufficient.

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- *The gateway test of 'not contrary to' objectives and policies?*

[3-112] Clearly the *effects* gateway test under s104D is not the target, given the consent policy applies to *any more than minor adverse effects.*

[3-113] The Council prefers *discretionary* activity status because:

- The same, if not better, results can be achieved through *discretionary* activity status.
- The policy framework is strong and actively discourages activities in and effects on *rare* and *threatened* habitats.
- Practical application and workability, tested in practice under POP, resulting in workable outcomes for land owners and protection of important areas of indigenous biodiversity. The biodiversity provisions are a trigger for an on-site discussion with landowners on their activity, resulting in elective avoidance of Schedule E listed habitat. Biodiversity can also be discussed alongside water quality provisions and rules regarding land to determine the best outcome.
- The history and nature of *non-complying* activity status. A historical argument as to the origin, roots and changes in the nature of what was a specified departure under the Town and Country Planning Act.
- A more philosophical approach, based on there being few *non-complying* activities in the Plan, with *discretionary* activity status generally the default category.
- There is a potential for technical knock-out through the gateway test rather than a focus on achieving a sound environmental outcome.
- *Discretionary* activity status does not result in trade offs that automatically rule out *rare* and *threatened* habitats to avoid *non-complying* status when a better biodiversity outcome may be able to be achieved involving activities in these habitats.

[3-114] The energy companies also added:

- Infrastructure, such as power transmission and reticulation and access to infrastructure, cannot avoid *rare* and *threatened* habitats.

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- There is the potential for a worse result, with *at risk* habitats opted for rather than *rare* and *threatened* habitats, when the effects might be greater.
- The option selection and consent process is made more complex and costly.
- The flexibility of *discretionary* activity status is particularly needed to choose paths or routes for infrastructure.
- The policy framework is not suitable for an evaluation of whether a proposal is contrary to objectives and policies.
- It is difficult to find out whether a *rare* and *threatened* habitat and therefore *non-complying* activity status is involved.
- An application for a *discretionary* activity needs to be just as robust and a consent authority has to undertake a robust assessment, the objectives and policies provide clear direction to decision makers so issues will not be missed and there is greater certainty for applicants.

[3-115] We agree with the Minister and Fish and Game that *non-complying* activity status is the better approach. Our reasons are:

- The evidence of Ms Maseyk, Ms Hawcroft and Dr Gerbeaux informed us that there are few activities affecting *rare* and *threatened* habitats which would have minor adverse effects.
- *Non-complying* status sends a strong signal.
- If there is no s104D gateway, the consent authority need only have regard to the biodiversity policy framework, among other matters, including Part 2. Under s104(1) the decision-maker must give genuine attention and thought to any relevant provisions of a plan, but has discretion to decide there are countervailing considerations outweighing the strict application of even a strongly expressed policy. The greater discretion afforded to a decision-maker under a *discretionary* activity rule is inadequate to ensure biodiversity is maintained in the region. *Non-complying* activity status results in a more focussed examination of the biodiversity objectives and policies: -these are not just one of a number of plan provisions to have regard to.
- Section 6(c) is not a veto, but it has more weight if it is a s6(c) type gateway, and not only one of the matters to have regard to.

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- The need for some caution comes with the need to be satisfied that the proposal is not contrary to the objectives and policies.
- Other similar uses in the Plan involving resources at their limit (e.g. water) have *non-complying* activity status. Water is similar in that it involves a consent applicant obtaining information from the Council on the resource e.g. volumes already allocated.
- It would be clear to a decision-maker whether or not a proposal was contrary to the direction set by the provisions. A proposal would only meet the objectives and policies if it can demonstrate that it is designed to take reasonable measures to, first, avoid more than minor adverse effects, and, second, take reasonable measures to remedy or mitigate these effects and finally offset residual effects.
- *Non-complying* status need not militate against the process of working with landowners.

[3-116] In conclusion, we are not assured that a better, or even a similar, biodiversity result could potentially be achieved through considering proposals in the round through a *discretionary* activity status. Even though Part 2 provisions infuse the decision-making process under s104(1) they do not provide the same level of certainty that biodiversity will be maintained. While the policy is strong, there is the opportunity for applicants to step-down or work through the hierarchy and pass the gateway test for objectives and policies even where it is not possible to avoid all rare and threatened habitats. We therefore do not accept there is a high risk of technical knock-out arguments militating against sound proposals.

Should there be an exemption for certain activities?

[3-117] If *non-complying* activity status was to be decided upon, Meridian, TrustPower, Transpower and Powerco sought an exemption for renewable electricity generation and transmission activities within *rare* and *threatened* habitats as *discretionary* activities on the basis of:

- their strategic importance and national benefits
- the national policy statements applicable to these activities
- particular problems with the bundling approach for these projects, which may extend across property and regional boundaries

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- whether *non-complying* activity status gives effect to the RPS.

These considerations were advanced on the basis of not being relevant to other less constrained activities such as farming.

[3-118] A primary reason advanced for seeking an exemption was a concern about the ability of renewable energy and reticulation projects under the POP to pass the gateway tests in s104D RMA. A particular problem was perceived as infrastructure proposals being contrary to the specific indigenous biodiversity objectives and policies of the regional plan where (as was highly likely) these involved significant adverse effects on *significant habitats.* A related concern was that Chapter 3 in the RPS dealing with infrastructure and energy was not relevant to the gateway test, as the objectives and policies were not in, or referred to, or the matters contained in them, reflected in the regional plan.

[3-119] Ms Marr did not accept that renewable electricity and transmission projects should be given a separate (or *discretionary*) activity status as opposed to other activities. She considered that it would be preferable to alter Policy 12-5 to address the various concerns and to include direct consideration of the benefits of transmission or renewable energy generation rather than to lower the activity status across the board.

[3-120] In the Regional Plan part (Part 2) of the POP, Policy 12-5 on consent decision-making for activities in *rare habitats, threatened habitats* and *at-risk habitats* contains as its first limb the requirement (among other things) to have regard to (for all activities):

> (i) the Regional Policy Statement, particularly Objective 7-1 and Policy 7-2A

Ms Marr proposed the addition of the following in a new subclause (v), which was supported by Transpower and Powerco: ...

> for electricity transmission and renewable energy generation activities, any national, regional or local benefits arising from the proposed activity.

In that circumstance she still considered that assessing the Policy against the *not contrary to* test remains a useful exercise.

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[3-121] Mr Le Marquand, planner for Transpower, Mr Schofield, Mr Hartley and Ms Barton considered that the amendments proposed by the Minister and Fish and Game Council indicated a willingness to attempt to recognise and deal with issues with *non-complying* activity status for energy and electricity transmission. However, all considered it more efficient and effective to retain the certainty of the policy intent while requiring *discretionary* activity consent.

[3-122] In closing submissions the Minister proposed splitting Policy 12-5A into two parts - (1) and (2) - in order to enable an elevated consideration for electricity transmission and renewable energy activities in a new sub-clause 2, and provided a rewording. The proposed addition is:

> (2) For electricity transmission and renewable energy generation activities, providing for any national, regional or local benefits arising from the proposed activity.

That would be different from Ms Marr's earlier proposition to include a specific reference to having regard to the benefits of electricity transmission and renewable energy generation activities.

[3-123] We accept the proposal advanced by the Minister, but not the exemption to *non-complying* activity status sought by the energy companies. We find the compass of the new Policy 12.5A(2) will ensure the benefits of electricity transmission and renewable energy generation activities are factored into the decision-making without cutting across the hierarchy of consideration and treatment of adverse effects on significant indigenous vegetation and significant habitats of indigenous fauna.

[3-124] Transpower and Powerco still proposed the addition of the following criterion:

> (vi) when assessing offsets, the appropriateness of establishing infrastructure and other physical resources of national or regional significance.

This was advanced on the basis of its inclusion in the DV POP. This is limited to offsets rather than the hierarchy of consideration of adverse effects and uses the word *appropriateness* which rather begs the question. Along with our concerns about the wording, we do not accept there is a need for such a provision.

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Giving Effect to the National Policy Statements

[3-125] Section 62(3) RMA requires a regional plan to give effect to a National Policy Statement (NPS). There are three relevant National Policy Statements.

[3-126] We considered the NPS Renewable Energy Generation 2011 (NPS REG) in Part 2 – Landscape. In that decision we commented that the NPS recognises that there may be adverse environmental effects from generation activities that cannot be avoided, remedied or mitigated, and that the possibility of offsetting is specifically raised. But we also said that there is no affirmation that this sort of infrastructure occupies so special a place in the order of things that it may be established no matter what its effects may be and that the regime that applies to generation infrastructure is the same regime that applies to other uses and developments. That must surely also be the case for the activity status for renewable energy generation.

[3-127]Turning to the NPS Electricity Transmission 2008 (NPS ET), the objective is to recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of existing and the establishment of new transmission resources *while* managing the adverse environmental effects of the network. While there are many policies directed at ensuring that the benefits, and practical constraints of, operating, maintaining, developing and upgrading the electricity reticulation network are factored into decision-making, there are also policies on managing the environmental effects of transmission. These include:

> Policy 3
>
> When considering measures to avoid, remedy or mitigate adverse environmental effects of transmission activities, decision-makers must consider the constraints imposed on achieving those measures by the technical and operational requirements of the network.
>
> Policy 4
>
> When considering the environmental effects of new transmission infrastructure or major upgrades of existing transmission infrastructure, decision-makers must have regard to the extent to which any adverse effects have been avoided, remedied or mitigated by the route, site and method selection.

As with the NPSREG, we do not find that the NPSET gives electricity transmission activities so special a place in the order of things that it should override the regime

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that applies to indigenous biodiversity. In any case we were not persuaded that this regime would present insurmountable obstacles to continuing to operate and expand the electricity transmission network to meet the needs of present and future generations.

[3-128] There is also the *New Zealand Coastal Policy Statement 2010* to be given effect to. NZCPS Policy 11 is to protect indigenous biological diversity in the coastal environment and contains a strong policy direction to avoid all adverse effects of activities on the matters referred to in part (a). That includes indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare.

[3-129] In our view there is nothing in the NPS documents that means *non-complying* activity status would be inappropriate for renewable electricity generation and electricity transmission under the policy and rule framework proposed for the regional plan.

Outcome on discretionary v non-complying

[3-130] We conclude that there is no justification for an exemption from the activity status for renewable electricity generation and electricity transmission under the policy framework in the Regional Plan portion of POP. All activities should be *non-complying*.

[3-131] In terms of effectiveness we have already covered the reasons why *non-complying* activity status would be more effective in maintaining indigenous biodiversity. These reasons equally apply to electricity generation and reticulation activities.

[3-132] A lot of emphasis was put on the difficulties infrastructure proposals might face, with functional, operational or other constraints and in avoiding significant adverse effects on rare and threatened habitats, such as may be the case with route selection for transmission lines. We consider the evidence of planning witnesses that these difficulties would translate into problems with meeting the objectives and policies to be overstated. There is a cascade in the policy with a series of steps to be

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followed to evaluate significant adverse effects on significant indigenous biodiversity. There are appropriate responses which allow such constraints to be considered. The hierarchy of consideration and treatment includes as a last resort the ability to offset residual adverse effects.

[3-133] We do not accept that it is difficult to find out whether a *rare* and *threatened* habitat is involved, particularly as witnesses explained the extensive information gathering and comprehensive environmental assessment that would be undertaken for example for route selection for new major reticulation.

[3-134] We recognise that renewable energy and electricity transmission projects may involve large areas or corridors of land and multiple activities and that this *may* involve the bundling of these activities together for assessment. However, a decision-maker has a discretion as to whether to bundle such activities.

[3-135] We do not accept that *non-complying* activity status would be an impediment to the assessment of projects that would otherwise merit full consideration under s104 and Part 2 of the RMA. We do not accept that there is a high risk of technical knock-out arguments militating against sound proposals.

[3-136] For those reasons, we find that the proposed policy and rule framework would give effect to the National Policy Statements and the RPS.

[3-137] Section 7(j) of the RMA requires that all persons exercising functions and powers under the RMA, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to the benefits to be derived from the use and development of renewable energy. Those benefits include, in economic terms, enhancing the security of supply and strengthening the diversity of generation sources as well as environmental benefits. The revised policy now proposed by the Minister appropriately allows the consideration of the benefits of such infrastructure projects under the policy and rule regime.

[3-138] After considering the many matters in Part 2 (besides s6(c)), the intrinsic values of ecosystems in s7(d), maintenance and enhancement of the quality of the

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environment in s7(f) and the finite characteristics of natural resources in s7(g) that relate to indigenous biodiversity, there is also the need to safeguard the life supporting capacity of ecosystems as part of the *sustainable management of natural and physical resources.* We find that that an exemption for electricity generation and transmission as a discretionary activity would not promote *sustainable management.*

Summary of conclusions: Part 3

A. The ecologist witnesses should confer and refine the description of habitats and the Council should then report to the Court. Para [3-16].

B. Policy 7-2A should be redrafted in accordance with Paragraphs [3-27] to [3-30].

C. Rare and threatened habitats should, by definition, be significant in terms of s6. Paragraph [3-39].

D. Policy 12-6(a)(i) on representativeness should have *functioning ecosystem processes* as an alternative criterion and not a prerequisite. Paragraphs [3-41] and [3-45].

E. *Condition* should not be a criterion for significance. Paragraphs [3-44] and [3-45].

F. BBOP principles are a sound basis for policy. Paragraphs [3-58] to [3-60].

G. Offsetting is better not regarded as remediation or mitigation and comes last in the hierarchy. Paragraphs [3-63] to [3-64].

H. The term *reasonably* throughout Policy 12-5 is preferable to *reasonably practicable.* Paragraph [3-91].

I. Provisions should be added to Policy 12-5(d) to better describe and to qualify the methodology for evaluating net indigenous biodiversity gain. Paras [3-95] to [3-97].

J. There are sound resource management reasons for regulating biodiversity through the POP. Paragraph [3-104].

K. There is no justification for the Plan attempting an exemption to the bundling principle. Paragraph [3-111].

L. Non-complying activity status is the correct approach. Paragraph [3-115] and [3-116].

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M. There is no justification for exempting renewable energy and electricity transmission from non-complying activity status. Paragraph [3-130] and [3-138].

N. The POP regional plan provisions give effect to NP Statements and the RPS Paragraph [3-136].

Result and Directions

[3-139] We generally approve the amendments proposed in Appendix A to the Closing Submissions for the Minister - (with some limited exceptions). We attach the relevant parts of that Appendix, noting that we have made no decisions on the optional definitions (*offset* and *minimise*) put forward by the Minister. We direct the Council to prepare the necessary amendments and consequential amendments to the POP to give effect to this part of the decision after consulting, as appropriate, with the other affected parties.

Appendix A
(As presented by the Minister of Conservation)

Policy 7-2A: Management of activities affecting indigenous biological diversity

For the purpose of managing indigenous biological diversity in the Region:

(a) Habitats determined to be rare habitats and threatened habitats under Schedule E must be recognised as areas of significant indigenous vegetation or significant habitats of indigenous fauna.
(b) At-risk habitats that are assessed to be significant under Policy 12-6 must be recognised as areas of significant indigenous vegetation and significant habitats of indigenous fauna.
(c) The Regional Council must protect rare habitats, threatened habitats, and at-risk habitats identified in (a) and (b), and maintain and enhance other at-risk habitats by regulating the activities through its regional plan and through decisions on resource consents.
(d) Potential adverse effects on any rare habitat, threatened habitat or at risk habitat located within or adjacent to an area of forestry must be minimised.
(e) When regulating the activities described in (c) and (d), the Regional Council must, and when exercising functions and powers described in Policy 7-1, Territorial Authorities must:
    (i) allow activities undertaken for the purpose of pest plant and pest animal control or habitat maintenance or enhancement,
    (ii) consider indigenous biological diversity offsets in appropriate circumstances as defined in Policy 12-5, which may include the establishment of infrastructure and other physical resources of regional or national importance as identified in Policy 3-1,
    (iii) allow the maintenance , operation and upgrade of existing structures, including infrastructure and other physical resources of regional or national importance as identified in Policy 3-1, and
    (iv) not restrict the existing use of production land where the effects of such land use on rare habitat, threatened habitat or at-risk habitat remain the same or similar in character, intensity and scale.

Objective 12-2: Regulation of activities affecting indigenous biological diversity

The regulation of resource use activities to protect areas of significant indigenous vegetation and significant habitats of indigenous fauna or to maintain indigenous biological diversity, including enhancement where appropriate.

Policy 12-5A: Regional rules for activities affecting indigenous biological diversity

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The Regional Council must require resource consents to be obtained for vegetation clearance, land disturbance, cultivation, bores, discharges of contaminants into or onto land or water, taking, use, damming or diversion of water and activities in the beds of rivers or lakes within rare habitats, threatened habitats and at-risk habitats, and for forestry that does not minimise potential adverse effects on those habitats, through regional rules in accordance with Objectives 11A-1, 11A-2 and 12-2 and Policies 11A-1 to 11A-8.

Policy 12-5: Consent decision-making for activities in rare habitats, threatened habitats and at-risk habitats

(a) For activities regulated under Rule 12-6 and Rule 12-7, the Regional Council must make decisions on consent applications and set consent conditions on a case-by-case basis,

(1) For all activities, having regard to:

(i) the Regional Policy Statement, particularly Objective 7-1 and Policy 7-2A,

(ii) a rare habitat or threatened habitat is an area of significant indigenous vegetation or a significant habitat of indigenous fauna,

(iii) the significance of the area of habitat in terms of its representativeness, rarity and distinctiveness, and ecological context, as assessed under Policy 12-6,

(iv) the potential adverse effects of the proposed activity on significance, and

(v) for activities regulated under ss13, 14 and 15 RMA, the matters set out in Policy 12-1(h) and relevant objectives and policies in Chapters 6, 13, 15 and 16.

(2) For electricity transmission and renewable energy generation activities, providing for any national, regional or local benefits arising from the proposed activity.

(b) Consent must generally not be granted for resource use activities in a rare habitat, threatened habitat, or at-risk habitat assessed to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna under Policy 12-6, unless:

(i) Any more than minor adverse effects on that habitat's representativeness, rarity and distinctiveness, or ecological context assessed under Policy 12-6 are avoided.

(ii) Where any more than minor adverse effects cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse effect occurs.

(iii) Where any more than minor adverse effects cannot reasonably be avoided, remedied or mitigated in accordance with (b)(i) and (ii), they are offset to result in a net indigenous biological diversity gain.

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(c) Consent may be granted for resource use activities in an at-risk habitat assessed not to be an area of significant indigenous vegetation or a significant habitat of indigenous fauna under Policy 12-6 when:
  (i) There will be no significant adverse effects on that habitat's representativeness, rarity and distinctiveness, or ecological context as assessed in accordance with Policy 12-6, or
  (ii) Any significant adverse effects are avoided.
  (iii) Where any significant adverse effects cannot reasonably be avoided, they are remedied or mitigated at the point where the adverse effect occurs.
  (iv) Where significant adverse effects cannot reasonably be avoided, remedied or mitigated in accordance with (c)(ii) and (iii), they are offset, to result in a net indigenous biological diversity gain.

(d) An offset assessed in accordance with (b)(iii) or (c)(iv), must:
  (i) provide for a net indigenous biological diversity gain within the same habitat type, or where that habitat is not an area of significant indigenous vegetation or a significant habitat of indigenous fauna provide for that gain in a rare habitat or threatened habitat type, and
  (ii) reasonably demonstrate that a net indigenous biological diversity gain has been achieved using methodology that is appropriate and commensurate to the scale and intensity of the residual adverse effect,
  (iii) generally be in the same ecologically relevant locality as the affected habitat, and
  (v) not be allowed where inappropriate for the ecosystem or habitat type by reason of its rarity, vulnerability or irreplaceability, and
  (vi) have a significant likelihood of being achieved and maintained in the long term and preferably in perpetuity, and
  (vii) achieve conservation outcomes above and beyond that which would have been achieved if the offset had not taken place.

Optional definitions proposed by the Minister of Conservation:

For the purposes of this Policy:
Offset means a measurable conservation action designed to achieve no net loss and preferably a net gain of biodiversity on the ground once measures to avoid, minimise and remedy adverse effects have been implemented.

Minimise means to reduce the duration, intensity and/or extent of adverse effects.

Hearing: at Palmerston North: 17 to 19 April 2012

DECISION: PART 4 – SUSTAINABLE LAND USE/ACCELERATED EROSION

Counsel and parties participating in this topic:

P R Gardner for Federated Farmers of New Zealand
H A Atkins for Horticulture NZ and for Fonterra Co-operative Group Ltd
C J Sinnott for New Zealand Transport Agency
J A Burns for Wellington Fish and Game Council and the Minister of Conservation
N Jessen and J W Maassen for the Manawatu-Wanganui Regional Council

PART 4 – Sustainable Land Use/Accelerated Erosion **Page**

Introduction

[4-1] The issue of sustainable land management, including hill country land use, was a key focus of the POP. The wider dimensions of the negative effects on water quality were another important element, such as erosion accelerating the transport of Phosphorus (P) into waterways, contributing to the problems considered in Part 5 of the Decision.

[4-2] The DV-POP made some significant changes to the NV-POP, and further changes were made as a consequence of mediation and expert planning conferencing arising from appeals. While there were still differences on the policies, the focus of the hearing was largely about the rules, with Horticulture NZ, Federated Farmers and Fish and Game still having concerns about several of the provisions.

[4-3] The issues requiring resolution were:

- Whether the objectives and policies of Chapter 5 (the RPS), with its cross-references to Chapter 6 reflected the integrated management of land and water.
- Some policies in Chapter 12 - the Regional Plan.
- What should the threshold size be for small-scale land disturbance as a *permitted* activity in the rules?
- Riparian setbacks – what should their width be and how should land use activities associated with cultivation and ancillary erosion and sediment control land uses, as well as other activities within the setbacks, be treated in the rules?
- Should cultivation and ancillary erosion and sediment control land uses in a Hill Country Erosion Management Area (HCEMA) require a consent?
- What should the *permitted* activity performance conditions be for cultivation for land use works to minimise sediment runoff to water?
- Should cultivation and ancillary erosion control and sediment land uses be required to comply with a visual quality condition or standard to be a *permitted* activity?
- Should the default activity status for the rules requiring resource consents where there is non-compliance with the conditions and standards be *restricted discretionary* or *discretionary*?

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- Could the reserved-discretionary matters in the *controlled* and *restricted discretionary* rules be redrafted to better achieve effectiveness and efficiency?

The Regional Policy Statement

[4-4] Chapter 5 (the Land chapter) of the RPS part of the POP, as now proposed by the Council,[1] contains the following objectives:

> Objective 5-1: Managing accelerated erosion
>
> By the year 2017, 50% of farms within hill country land subject to an elevated risk of accelerated erosion will have in place, or be in the process of putting in place, farm-wide sustainable land management practices to minimise accelerated erosion and to provide for the water management values set out in Schedule AB by reducing sediment loads entering waterways as a result of accelerated erosion.
>
> Objective 5-2: Regulating potential causes of accelerated erosion
>
> Land is used in a manner that ensures:
>
> (a) accelerated erosion and increased sedimentation in water bodies (with resultant adverse effects on people, buildings and infrastructure) caused by vegetation clearance, land disturbance, forestry or cultivation are avoided as far as reasonably practicable, or otherwise remedied or mitigated, and
>
> (b) sediment loads entering waterways as a result of accelerated erosion are reduced to the extent required to be consistent with the water management objectives and policies for water quality set out in Chapter 6 of this Plan.

[4-5] Horticulture NZ and Federated Farmers sought to soften and replace the words *to provide for* with *to advance the achievement of the* water management values set out in Schedule AB in Objective 5-1. Those parties submitted that this approach would align the objective with what was proposed by some parties for water quality – an approach we reject in Part 5 of the Decision and we also do so here for the same reasons: - ultimately, that it would not promote ... *the sustainable management of natural and physical resources* under the RMA.

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[1] Exhibit C1 One Plan Sustainable Land Use and Accelerated Erosion Hearing

[4-6] The relevant supporting policies proposed by the Council are[2]:

Policy 5-1 Encouraging and supporting sustainable land management

The Regional Council will encourage and support the adoption of sustainable land management practices by:

(a) working with relevant owners and occupiers of farms within hill country land subject to an elevated risk of accelerated erosion to prepare voluntary management plans under the Council's Sustainable Land Use Initiative (SLUI) or Whanganui Catchment Strategy, which identify sustainable land management practices for each farm and work programmes for implementing any agreed changes.

(b) monitoring the implementation of voluntary management plans and sustainable land management practices within hill country land subject to an elevated risk of accelerated erosion and reporting this information on a two-yearly basis, and reviewing the effectiveness of the sustainable land management practices, and

(c) responding to requests from owners or occupiers of land that is not within hill country land subject to an elevated risk of accelerated erosion to prepare a management plan, provided this does not impede the achievement of (a).

Policy 5-2A Regulation of land use activities

(a) In order to achieve Objective 5-2, the Regional Council must regulate vegetation clearance, land disturbance, forestry and cultivation through rules in this Plan and decisions on resource consents, **so as to minimise any increase in the risk of erosion, minimise discharges of sediment to water, and maintain the benefits of riparian vegetation for water bodies.**

(b) ...

(c) The Regional Council will generally allow vegetation clearance, small-scale land disturbance, forestry and cultivation to be undertaken without the need for a resource consent if conditions are met. Vegetation clearance and land disturbance require a resource consent if they are undertaken in Hill Country Erosion Management Areas or in coastal

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[2] Exhibit C 1

foredune areas. Any other large-scale land disturbance activities will also require resource consent.

[4-7] Horticulture NZ and Federated Farmers did not support the addition of the bolded words in Policy 5-2A(a). We consider that those words give guidance that would otherwise be lacking on what is required of regulation and the management of activities to achieve the objective. The evidence of Mr Phillip Percy, a planner giving evidence for Fish and Game, and Mr Phillip Hindrup, a planner giving evidence for the Council supported this.

[4-8] In addition there is the following policy:

Policy 5-5: Supporting codes of practice, standards, guidelines, environmental management plans and providing information on best management practices

The Regional Council must ...

(a) support the development of codes of practice, standards, guidelines and other sector-based initiatives targeted at achieving sustainable land use,

(b) recognise appropriately developed and administered codes of practice, standards, guidelines or environmental management plans targeted at achieving sustainable land use, and incorporate them within the regulatory framework where applicable, and

(c) make information describing best management practices for reducing erosion and maintaining water quality and soil health available to all available landowners, occupiers, asset owners, consultants, developers and contractors.

[4-9] The Council also proposed to add the words *accelerated erosion* to the *Anticipated Environmental Result* in 5.6:

> By 2017, there will be a net reduction in the adverse effects on water quality, people, buildings and infrastructure caused by accelerated erosion, and hill country and coastal foredune wind erosion in the Region.

Without these words the provision does not make sense and we agree that this is a minor change that can and should be made.

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[4-10] Horticulture NZ and Federated Farmers did not support the links to Policies 6-1, 6-2, 6-3, 6-4 and 6-7 and the indicators of:

- Level of achievement of Schedule D numerics for deposited sediment, visual clarity and Phosphorus
- Changes to long-term mean sediment discharges of rivers to sea
- % of farms within the SLUI priority catchments that have Whole Farm Business Plans (WFBPs) in place and are being implemented.

[4-11] While Horticulture NZ questioned whether there is *scope* to add matters to the Anticipated Environmental Results, we conclude that these are consequential changes (requiring some amendment) in the light of the following points:

- There is undeniably a link between erosion and sediment and water quality, a point we do not understand any of the parties to take issue with. The integrated management of land and water resources would seem to justify the cross-referencing of water quality policies. Indeed Objective 5-2 refers to Chapter 6 of the RPS.
- Part 5 of this decision on the issue of the approach to and naming of Schedule D limits.
- Given the emphasis in the POP on the voluntary adoption and implementation of WFBPs as a method of reducing the risk of erosion and sedimentation, it would seem reasonable to have the percentage of such farms in the SLUI priority catchments as a measure (accepting that by itself it would not confirm the effectiveness of these Plans which is a reason for other additional indicators).
- The Anticipated Environmental Result indicators reflect the approach in the objectives and policies. The implementation of voluntary management plans is closely aligned to measuring progress in the achievement of Objective 5-1 and Policy 5-1 in particular, as reducing sediment loads entering waterways (and flowing into the sea) is aligned to Objective 5-2 and Policy 5-2A.

[4-12] Horticulture NZ and Federated Farmers also opposed some wording in the *Explanations and Principal Reasons* in 5.7, seeking that vegetation clearance, land disturbance and cultivation within or close to waterbodies be softened to activities with *increased potential to cause discharges of sediment to water*. We prefer the expression *high risk of causing discharges of sediment to water* as a better reflection of Policy 5-2A and the evidence.

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The Policy Framework in the Regional Plan

[4-13] The regional plan part of the POP must give effect to the RPS – see s67(3)(c). Chapter 12 of POP (Land Use Activities ...) contains one objective:

> Objective 12-1: Accelerated erosion – regulation of vegetation clearance, land disturbance, forestry and cultivation.
>
> The regulation of vegetation clearance, land disturbance, forestry and cultivation in a manner that ensures:
>
> (a) accelerated erosion and any associated damage to people, buildings and infrastructure and other physical resources of regional or national importance are avoided as far as reasonably practicable, or otherwise remedied or mitigated.

[4-14] It contains two policies that specify how activities will be regulated and provide guidance on consent decision-making respectively.

[4-15] The first policy at issue (with the difference in parties' positions noted) was:

> Policy 12-1A Regional rules for vegetation clearance, land disturbance, forestry and cultivation:
>
> The Regional Council must:
>
> (a) ... (relevant to biodiversity)
>
> (b) manage the effects of vegetation clearance, land disturbance and cultivation by requiring resource consents for those activities:
>
> (i) adjacent to some water bodies,
>
> (ii) involving the removal of some woody vegetation in Hill Country Erosion Management Areas,
>
> (iii) involving land disturbance [Fish and Game sought to add *or cultivation*] in Hill Country Erosion Management Areas,
>
> (iv) involving large-scale land disturbance, or
>
> (v) within a coastal foredune.

It was clear from the evidence that cultivation in HCEMAs has similar effects to land disturbance and it should be added.

[4-16] The second policy at issue (with the difference noted) was:

> Policy 12-1 Consent decision-making for vegetation clearance, land disturbance, forestry and cultivation

For vegetation clearance, land disturbance, forestry or cultivation and ancillary discharges to and diversions of surface water that requires resource consent under Rule 12-4 or Rule 12-5, the Regional Council must make decisions on consent applications and set conditions on a case-by-case basis, having regard to:

(aa)the Regional Policy Statement, particularly Objective 5-2 and Policies 5-2A and 5-5.

(fa) managing the effects of land disturbance, including large-scale earthworks, by requiring Erosion and Sediment Control Plans or other appropriate plans to be prepared.

(fb) managing the effects of forestry by requiring Erosion and Sediment Control Plans or other appropriate plans to be prepared.

(fc) managing the effects of cultivation on water bodies through the use of sediment run-off control methods and setbacks from water bodies.

Horticulture NZ and Federated Far

managing the effects of cultivation on water bodies through the use of appropriate sediment run-off control methods which may include setbacks from water bodies.

[4-17] We do not accept the version of Policy 12-1(fc) offered by Horticulture NZ and supported by Federated Farmers. The evidence made it clear that sediment run-off control methods and setbacks from waterbodies are required to manage the effects of cultivation and should be considered as part of the consent process; and the addition of the word *appropriate* adds nothing.

[4-18] There may need to be consequential changes to Policy 12-1 to correctly cross-reference rules.

The Rule Framework

[4-19] Mr Jessen, for the Council, submitted that to give effect to the RPS and the Regional Plan the rule framework must:

(a) Implement Policy 5-2A(c) by providing a permitted rule for land disturbance, vegetation clearance, cultivation and forestry;

(b) Implement Policy 5-2A(c) by providing a stronger activity classification (requiring a resource consent) for activities that take place on Hill Country Erosion Management Areas (HCEMAs), or adjacent to *some water bodies;*

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(c) Implement Policy 5-2A(a) by tailoring performance standards, conditions, or discretions in the rule framework so as to avoid or otherwise remedy or mitigate the effects of accelerated erosion;

(d) Implement Policy 5-5 by incorporating codes of practice, standards, guidelines or environmental management plans into the regulatory framework where applicable.

[4-20] We pause to note that in the ensuing paragraphs we discuss the issue of riparian margins. In the source documents these are variously described, seemingly at random, as riparian *margins*, riparian *setbacks* and riparian *buffers*. We shall use the term *setback*, or *riparian setback*, but we take all those terms as being synonymous.

[4-21] Mr Jessen submitted that the Council was generally supportive of the approach taken by the Hearing Panel and explained that changes had been agreed to the policy framework, and also to the rule framework, where the Council had agreed to meet concerns raised by some Appellants. The changes are as follows:

(a) regulatory control over small scale land disturbances (under 2,500m^2) through a *permitted* activity rule;

(b) the lowering of the slope criteria for identifying HCEMAs from 28 degrees to the NV-POP level of 20 degrees;

(c) larger setback distances from high quality or sensitive waterways;

(d) riparian setbacks are to apply to ephemeral streams with an active bed width greater than 1m;

(e) all the *permitted* activity rules require a performance standard condition to regulate ancillary discharges allowed by DV POP, requiring compliance with Schedule D numerics for visual clarity as a minimum water quality standard;

[4-22] Some of these changes are opposed by other parties. For completeness we note that Mr Hindrup also proposed that the default activity status for land uses that could not meet the conditions of a *permitted* activity or *controlled* activity rule should be a *restricted discretionary* activity and not a *discretionary* activity, a change opposed by Fish and Game.

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Small-scale Land Disturbance

[4-23] Again for completeness, we note and agree with the addition of a total area up to 2500m^2 per property per 12-month period to rule 12-1A. We had no evidence that any higher figure would achieve the objectives and policies of the Plan, despite submissions by Federated Farmers questioning it.

Regulation of Activities in Riparian Setbacks

[4-24] In the NV POP certain activities in the riparian setbacks of specified water bodies were not a *permitted, controlled* or *restricted discretionary* activity but were regulated by Rule 12-5 as a *discretionary* activity:

(b) For rivers, lakes and natural wetlands:

(i) In areas where the land slope is between 0 degrees and 15 degrees, within 10m of the bed of a river, lake or wetland.

(ii) In areas where the land slope is greater than 15 degrees, within the strip of land bordered by the bed of a river, lake or wetland, and a setback distance (being not less than 10m) at which the slope reduces to 15 degrees or 100m whichever is the lesser. (sic)

(c) For artificial water bodies, within 5m of the wetted perimeter of the water bodies.

[4-25] The DV POP moved away from this approach to a uniform riparian setback of 5 metres from rivers, lakes and wetlands.

[4-26] Fish and Game had a concern about a uniform setback of only 5m being required for small-scale land disturbance, large-scale land disturbance, cultivation and ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise runoff to water, and vegetation clearance and land disturbance in a HCEMA, in which a resource consent would be required to undertake these activities (the question of the resource consent category we deal with later). There now appears to be general agreement (with the exception of Federated Farmers) that for these activities a 10m setback should apply to wetlands and sites valued for trout spawning, as identified in Schedule AB. And for land disturbance and cultivation, Sites Of Significance - Aquatic (SOS-A) as defined in Schedule AB. We note that Counsel for Federated Farmers submitted, in apparent contradiction to the planning evidence of its witness, Mr Shane Hartley, that 5m setbacks should apply universally. Dr Jack McConchie, a water resources scientist, for Federated

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Farmers had questioned the definition and identification of particularly sensitive water bodies and appeared to consider the 5m width adequate.

[4-27] By the time of the hearing there were several questions remaining for the Court:

(a) what should the setback distances be from those waterways not on the agreed list of sensitive and highly valued waterways?

(b) should the setback be variable depending on slope?

(c) should the setback condition apply to intermittently flowing streams with active bed widths greater than 1m, or those with active bed widths greater than 2 metres?

(d) for cultivation, should ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise runoff to water inside a setback be *permitted* or require a resource consent, and if so what category of resource consent?

The Council's position

[4-28] In support of the 5m riparian setbacks the Council called Dr John Quinn, a water quality scientist, and Mr Allan Kirk, the Environmental Coordinator (Whanganui Catchment Strategy) who has a Bachelor of Agriculture Economics degree. Both witnesses supported a well managed 5m setback from 'normal' waterways and water bodies. Dr Quinn suggested that such a setback would result in an up to 80 percent reduction of sediment in surface run-off. This would decrease as hill slope, angle and clay content increase and soil infiltration decreases.

Fish and Game's position

[4-29] Associate Professor Death, a freshwater ecology specialist for Fish and Game, recommended a minimum setback width of 10m (and 20m for sensitive sites). Mr Norm Ngapo, a soil conservation witness for Fish and Game, suggested a minimum 6m setback on flat land (up to 7 degrees) and 10m beyond for slopes between 8 and 20 degrees. For all other slopes above 20 degrees he suggested a riparian setback of at least 20 metres. The risk of sedimentation discharge increases when works are carried out on land steeper than 7 degrees.

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[4-30] Associate Professor Death's evidence was that the role of riparian setbacks goes further than the prevention or reduction of sediment discharges. They also serve to maintain the natural character and proper ecological functioning of in-stream ecosystems. He proposed an alternative approach with a formula to calculate an appropriate riparian setback which, in his view, is a more practical solution than the slope angle method for calculating setback as part of the regulatory framework. This formula uses LUC average slope x by .62 added to a base buffer of 10 metres: i.e. buffer width = 10 + 0.62 x slope (m).

[4-31] In opening, Mr Burns for Fish and Game submitted the rules should provide for a variable setback based on slope:

- For pre-existing slopes between 0-7 degrees – 6m for activities on land adjoining lakes and rivers, and 10m for land adjoining wetlands and sites of significance;
- For pre-existing slopes between 7-20 degrees – 10m for all activities;
- For activities in Hill Country Erosion Management Areas (slopes over 20 degrees) – 10m for all activities.

Horticulture New Zealand's position

[4-32] While Horticulture New Zealand accepted the concept of variable setbacks, it wished to be able to undertake *ancillary activities* within that setback. The modified Rule 12-3 that Ms Lynette Wharfe, its planning witness, proposes requires that the restriction on the activities that could occur in the setback apply only to *cultivation* (as defined in the DV-POP) and not to ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise run-off to water. The purpose of her modification to the rule is to allow for sediment control measures to be undertaken within any required setback distance.

[4-33] Mr Andrew Barber, an agricultural engineer, gave evidence for Horticulture NZ suggesting that various sediment control measures such as bunding and benched headlands can be extremely effective in minimising sediment loss. Where these measures are in place stormwater does not flow across an imposed setback - making such a setback superfluous to minimise sediment loss. His evidence is that it makes sense to have a riparian setback *or* other more appropriate and effective sediment

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control measures such as those listed above - but not both a setback and sediment control measures.

[4-34] In answers to questions, Ms Wharfe was unable to specify any limits/restrictions to the type or scale of the measures that Horticulture New Zealand may want to undertake within 5m of a waterway.

[4-35] Mr Garth Eyles, a sustainable land management witness for Fish and Game, was clear that both the measures being undertaken and the substrate were important considerations when considering the placement of such measures within any riparian setback.

[4-36] Mr Ngapo's evidence was that sediment control often employed a range of measures. He was clear that for sediment control measures to replace a riparian setback, the sediment control plan would need to be assessed as a whole.

[4-37] We accept Mr Jessen's submission that a setback condition in a *permitted* activity rule cannot create an optimum riparian margin. We are mindful of Mr Hindrup's concerns that the definition of a *riparian setback* be simple to remember and to apply. We are satisfied from the evidence that a 5m setback is a realistic approach for land with a lower slope angle, providing a high degree of protection against sedimentation of waterways without placing too heavy a burden on farmers and growers.

[4-38] However, we are concerned about the efficacy of a 5m setback from a waterway in steeper country. Mr Percy favoured a slope angle trigger, although he did recognise this would make it more difficult to identify setbacks on the ground.

[4-39] Mr Jessen submitted that too many people would require the *assistance of technical expertise* (particularly estimating the angle of slope) to calculate the relevant riparian setback. We agree that an approach along the lines proposed by Professor Death would present considerable challenges. However, we find a slope angle of 20 degrees as the trigger for a 10m setback would be acceptable and could be applied by land users. We are aware that slope as a trigger is applied in several

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regional plans around the country, including in the neighbouring Waikato Regional Council area, as Mr Hartley pointed out. In any case the Council is already proposing slope as the determinant of whether or not land falls within a HCEMA. The 10m setback also relates well to the evidence the experts gave us on risks of erosion from cultivation and ancillary land disturbance activities in the Hill Country Erosion Management Area.

Should the condition apply to intermittently flowing streams with active bed widths greater than one metre or greater than two metres?

[4-40] All setback options proposed have sub-clauses that capture rivers that are not permanently flowing; - ie that are ephemeral.

[4-41] The DV POP adopted a 2m active bed width as the threshold for capture by this Rule (Rule 12-4 A). No reason was given by the Panel for selecting this figure. Horticulture New Zealand supports a 2m bed width. The only expert evidence on this matter was provided by Associate Professor Death and Mr Ngapo. Both supported a 1m bed width and Associate Professor Death concluded:

> As water runs down hill, management of small and ephemeral streams is critical for management of downstream larger waterways and biodiversity, this protection and management needs to be given to all ephemeral streams greater than 1m and all permanently flowing streams.

[4-42] Mr Christopher Keenan, Manager Natural Resources and Environment for Horticulture New Zealand, also gave evidence that growers had told him: ... *there are some, but very few, instances of water courses with an active bed width greater than 2m.* That would mean that very few, if any, of the region's ephemeral waterways would be captured by this Rule.

[4-43] Ms Wharfe's evidence was that there would be difficulties in defining the active bed of an ephemeral stream. While Horticulture NZ acknowledged that only natural or modified natural watercourses would be caught, there would be practical difficulties with this due to the nature of the drainage and irrigation systems throughout the region. Mr Keenan's evidence was that there are a number of totally

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artificial watercourses and it is almost impossible to determine what is totally artificial from what has been modified. We were not convinced of that and we had no expert evidence to substantiate it. Ms Wharfe too conceded that Horticulture NZ may accept the 1m capture threshold if amended wording (concerning modified water courses) is accepted. She advocated further expert conferencing to try to reach agreement on this matter.

[4-44] Ms Wharfe also indicated that there would be significant economic costs to growers if 1m was chosen, but we have no substantive evidence about that.

[4-45] We have already noted there was no evidence to challenge that of Associate Professor Death or Mr Ngapo, who advocated a 1m threshold on environmental grounds. We accept their evidence on this point.

Activity Status of Sediment Mitigation Measures Inside the Setback

[4-46] As a backstop Horticulture NZ supported *restricted discretionary* status for ancillary (to cultivation) land disturbance for the purposes of constructing erosion and sediment control methods to minimise run off to water inside the setbacks from water bodies. This was on the basis that this status would be commensurate with the potential level of effects and provide the Council with the ability to assess the activities and impose appropriate conditions. (This went along with supporting *restricted discretionary* activity status for cultivation activities not complying with the relevant *permitted* activity requirements.)

[4-47] Fish and Game considered *discretionary* activity status a better fit with the objectives and policies to deal with the effects of land disturbance ancillary to cultivation within the setbacks.

[4-48] In view of the evidence, noted above, regarding the potential effects and the variation and scale of possible mitigation measures, and the importance of the substrate when considering whether and where such measures are to be appropriately placed, we conclude that it is essential that the activity category can adequately deal with these matters. However, we leave open the question whether at least certain activities within a setback could be adequately dealt with as a *restricted*

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discretionary resource consent or whether full *discretionary activity* consideration is required, including the need to notify affected bodies such as Fish and Game for example. A change in status of course depends not only on the approach and content of the rule but also whether it would better achieve the objectives and policies of the Plan and Part 2 of the Act. This is a matter we ask the Council to consider in the course of redrafting the provisions, with such consultation as is appropriate.

Findings on Setbacks

[4-49] The setbacks from wetlands, the beds of lakes and permanently flowing rivers, and intermittently flowing rivers (or streams) of greater than 1m width should be:

- 5m on land under 20 degrees in slope, and
- 10m for:
  - A wetland as identified in Schedule E.
  - Sites valued for trout spawning as identified in Schedule AB.
  - Sites of Significance - Aquatic as identified in Schedule AB (only for small-scale land disturbance, large-scale land disturbance, cultivation and ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise run off to water, vegetation disturbance and land disturbance in a HCEMA, and not for vegetation clearance outside a HCEMA).
  - Land over 20 degrees in slope.

None of these rules for vegetation disturbance and vegetation clearance override those that deal with rare, threatened and at-risk habitats.

Should cultivation and ancillary activities in a HCEMA require consent?

[4-50] *Cultivation* is defined in the DV POP as:

Cultivation means preparing land for growing pasture or a crop and the planting, tending and harvesting of that pasture or crop but excludes:

(a) direct drilling of seed.

(b) no – tillage practices.

(c) recontouring land.

(d) forestry.

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(e) the clearance of woody vegetation and new tracking in a Hill Country Erosion Management Area.

[4-51] The threshold conditions or requirements of Rule 12-3 of the DV POP (among others) require that cultivation and ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise run off to water is not undertaken in a coastal foredune area. We have already dealt with the riparian setbacks that would apply to cultivation.

[4-52] The POP defines a *Hill Country Erosion Management Area* to mean:

> any area of land with a pre-existing slope of 20 degrees or greater on which *vegetation clearance, land disturbance, forestry* or *cultivation* is being or is to be undertaken.

(Earlier we noted the DV-POP had a slope of 28 degrees but the Council took a different position on this subsequently and returned to the NV-POP slope of 20 degrees.)

[4-53] Fish and Game considered a *restricted discretionary* resource consent should also be required for all cultivation (and ancillary land disturbance) in the HCEMA. Horticulture NZ was not opposed to this, but the Council was.

[4-54] Mr Hindrup's position was that, notwithstanding the added risks of erosion and sediment loss in cultivating slopes, because cultivation is not widely employed on hill country the risks posed are not great enough to warrant *restricted discretionary* activity status.

[4-55] Mr Kirk explained that cultivation is mainly carried out on flatter land, but with advances in technology and cheaper chemical and application costs, it is becoming more common on steeper land. He discussed the risks of cultivation (eg impacts on water quality as a result of sedimentation and accelerated erosion) on steeper land, particularly if managed poorly. Risks increase with greater slope and closer proximity to waterways.

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[4-56] Fish and Game argued that, irrespective of how much cultivation on steeper land occurs, if it is likely to give rise to adverse effects it should be regulated. Counsel submitted that a resource consent is required for all other activities on HCEMAs which may cause adverse effects, and cultivation should be controlled in those areas as well. We note though that Fish and Game is not concerned with minimum tillage/direct drilling and zero tilling in these areas.

[4-57] Mr Kirk's evidence was that not only is the steeper land vulnerable between the time it is sprayed (and the dying pasture is grazed – often by cattle) and the time the over-sown pasture or crop becomes established, it is also vulnerable when put under an intensive grazing regime to harvest the over-sown pasture or crop.

[4-58] Mr Eyles' evidence was that cultivation (by tractor) was becoming more common on slopes of between 20 degrees and 30 degrees. Traditional cultivation adds to the time that cultivated, vegetation-free soil is exposed to rain and subject to the risk of run-off/erosion.

[4-59] We find the evidence of both Mr Kirk and Mr Eyles on the risks of cultivation on steeper land persuasive. For this reason we do not agree with Mr Hindrup that control of cultivation on slopes greater than 20 degrees is unnecessary - particularly in the light of his concessions that ... *there was little downside to such a rule* ... and that ... *there was no clear cut choice in my mind... as to whether such a rule should apply.*

[4-60] For all of those reasons we agree with Fish and Game on this point and find that cultivation on slopes greater than 20 degrees should be a *restricted discretionary* activity. (This does not extend to cultivation and ancillary activities within the riparian setbacks which are dealt with separately in this decision.)

[4-61] We also conclude that there needs to be a consequential change to the definition of a *Hill Country Erosion Management Area* to include ancillary (to cultivation) land disturbance for the purposes of constructing erosion and sediment control methods to minimise run off to water. We observe that that is probably a

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consequence of the DV POP treating cultivation differently from land disturbance – a change from the NV POP.

What should certain performance conditions for the permitted activity cultivation rule require?

[4-62] One issue was the approach to the permitted activity condition/standard/term:

> For vegetable crops listed within the Commodity Levies (Vegetables and Fruit) Order 2007 a paddock assessment must be undertaken in accordance with the Code of Practice for Commercial Vegetable Growing in the Horizons Region (Horticulture New Zealand) Version 2010/2.

This was agreed by all parties. The Council sought to add:

> ... and bunding, silt traps, interception drains, to minimise sediment runoff to water must be installed prior to and maintained during cultivation.

[4-63] Horticulture NZ sought to qualify this with the addition of words along the line of ... *appropriate methods including...bunding...* . We find the addition proposed by Horticulture NZ would result in an unacceptable level of uncertainty for a *permitted* activity rule.

[4-64] A paddock assessment by itself of course would provide no assurance that the actions required to minimise sediment runoff proposed by the Council, and supported in evidence, would occur. However, the second part of condition (d) as proposed by the Council appears to largely repeat condition:

> (b) Bunding, silt traps, interception drains or other alternative methods to minimise sediment run-off to *water* must be installed prior to and maintained during cultivation.

We conclude that as condition (b) also applies to cultivation for vegetable crops, the second part of condition (d) as proposed by the Council is unnecessary.

Should the visual quality standard apply?

[4-65] A further issue was whether to have a requirement to comply with the Schedule D Visual Quality Standards/Numerics (which we consider to be conditions

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setting limits or quantitative thresholds for *permitted activity* status in this context) set out in the MWRC V POP.[3]

[4-66] Mr Hindrup's evidence was that the Code of Practice for Commercial Vegetable Growing in the Horizons Region (Horticulture NZ) version 2010/2 (COP) (referred to at para [4-62] [4-71] and [4-78]) provides useful – indeed essential - information on management practices for ensuring erosion is minimised on cultivated land. He considered that the inclusion of the document as a performance condition would give effect to Policy 5-5 POP which says:

> The Regional Council must ... recognise appropriately developed and administered codes of practice, standards, guidelines or environmental management plans targeted at achieving sustainable land use, and incorporate them within the regulatory framework where applicable.

[4-67] However, the Council acknowledged the limitations of the COP – noting the conference of the technical experts[4] who agreed that this method alone will not provide sufficient certainty that water quality outcomes intended by s70 RMA and Schedule D visual clarity limits will consistently be achieved.

[4-68] Mr Hindrup's evidence is that the Schedule D performance conditions (requiring compliance with the Schedule D visual clarity threshold limit appropriate to a *permitted* activity), in conjunction with the COP, provide the most efficient and effective means of preventing or minimising the adverse environmental effects of any discharge.

[4-69] Federated Farmers and Horticulture New Zealand do not support the use of the Schedule D Standards and regard the COP as sufficient. They regard the use of Schedule D as a condition to be impractical and unenforceable.

[4-70] Ms Wharfe's evidence is that understanding and enforcing such a condition is problematic. Associate Professor Death disagreed with Ms Wharfe and stated that:

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[3] Any ancillary discharge of sediment into water must not, after reasonable mixing, cause the receiving water body to breach the water quality numerics for visual clarity set out in schedule D for that water body

[4] Record of Technical Conference in March 2012.

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> A 20 percent change of visual clarity standard in Schedule D is scientifically accepted clear and enforceable ... and is commonly used even by school children.

Nor did he accept Ms Wharfe's evidence that it may be difficult to attribute blame to a particular property when a discharge occurred. He stated: *I can't really imagine any practical situation where that would happen ... .*

[4-71] We agree with Mr. Hindrup when he says that:

> It may be, over time, reliance on the COP and other minimisation methods may indeed adequately address the effects of sedimentation in waterways caused by cultivation, however given the technical experts' concerns in relation to the COP I consider that this performance standard is a necessary, enforceable and measurable boundary of effects for the permitted activity rule.

[4-72] For all those reasons we find that the combination of both threshold conditions for a *permitted* activity fulfills the Council's responsibilities and provides greater assurance that the requirements of s70 RMA would be met. Where either *permitted* activity threshold cannot be met, there is always the opportunity to apply for a resource consent.

Default Activity Status

[4-73] Fish and Game were concerned about a late change to the default activity status for activities which did not meet the conditions, standards or terms of the other rules in Chapter 12. The default status had been *discretionary* and it appeared that Mr Hindrup proposed it be changed to *restricted discretionary.* When questioned on this, he considered the matters over which discretion would be restricted could be clearly specified and that there would be no public notification for activities falling under Rule 12-4. He said that during his time at the Regional Council there had been no public notification required as the landowners tended to agree with the way the Council was managing or working with them.

[4-74] Fish and Game questioned whether, apart from the Horticulture NZ appeal which is confined to cultivation and ancillary activities, there is the scope to seek that change.

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[4-75] Stepping back from these specific rules and considering the rule framework holistically, we compare the *discretionary* activity default status here with that for activities covered in Part 5 of this decision and nitrogen leaching. It could raise bundling issues, although this is not the main reason for raising it. It may be that a default *restricted discretionary* activity rule could deal with the issues. Such a rule of course would need to specify the matters discretion is to be exercised over and more limited in its nature than a *discretionary* activity, otherwise there would be no justification for the change.

[4-76] We put this matter back to the Council to further consider and report on, after considering our comments on the general approach in the rule framework to *controlled* and *restricted discretionary* activities.

General Approach in the Rule Framework

[4-77] We had a number of questions about the effectiveness of the rules that relate to the way in which the matters over which control is reserved (for *controlled* activity status) and the discretions (for *restricted discretionary* activity status) which we put to planning witnesses. The planning witnesses, Mr Hindrup for the Council, Mr Percy for Fish and Game, and Ms Wharfe for Horticulture NZ, agreed that there was room for improvement.

[4-78] For large-scale land disturbance a *controlled* activity must be undertaken in accordance with an *Erosion and Sediment Control Plan* (Rule 12-1). There is a long list of matters over which control is reserved (or *restricted* to use the language in the Rule). The main concern (as Mr Hindrup confirmed) is the adverse effects of the activity and associated sediment run-off on soil conservation, surface water quality and aquatic ecology. We still have a number of questions, the tenor of which we put to several of the planning witnesses:

- The condition/standard/term requires the activity be undertaken in accordance with an *Erosion and Sediment Control Plan.* Control is then restricted to the provision of an erosion and sediment control plan. Presumably it is intended that the decision-maker has discretion to seek changes to the provisions or contents of an erosion and sediment control plan to ensure the activity adequately deals with the adverse effects.

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- The principles and erosion and sediment control measures set out in particular provisions of the Erosion and Sediment Control Guidelines for the Wellington Region (September 2002); and for cultivation and ancillary activities the measures in the Code of Practice for Commercial Vegetable Growing in Horizon Region (Horticulture New Zealand Version 2010/2) may *inform* the decision on whether those effects are adequately dealt with. It would be preferable to present them in that way (as a subset of the consideration of whether the adverse effects of concern are adequately dealt with).
- The condition restricts activities on land in or within riparian setbacks, but then there is control/discretion restricted to the provision of setbacks from water bodies. Is this intended to allow consideration of setback distances greater than those required as a threshold condition? If so it should make that clear. If it is intended to deal with the treatment or management of setbacks required by the condition, there could be questions about whether it cuts across and undermines the threshold condition requiring the activity not occur on land within the setback.
- There is a need to consider further the *Achievement of the water quality numerics set out in Schedule D.* What is intended here, given the performance condition requiring:
    - Any ancillary discharge of sediment into water must not, after reasonable mixing, cause the receiving water body to breach the water quality limits (amended from numerics reflecting its threshold nature) for visual clarity set out in Schedule D for that water body?

[4-79] For vegetation clearance, land disturbance and cultivation and ancillary land disturbance for the purposes of constructing erosion and sediment control methods to minimise run off to water (to be added) in a HCEMA, the *restricted discretionary activity* (Rule 12-4) raises a number of similar questions.

Overlap with Decision Part 5 – Surface Water Quality decision

[4-80] There are some matters that overlap with Part 5 of the decision – Surface Water Quality - and will require amendment in the light of the decisions made in that part. We ask that the Council prepare the necessary changes to the terminology to

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bring the objectives, policies and rules into line with our decision, conferring with other parties as required. That particularly relates to replacing the word *numerics* with a word that reflects it being a limit, threshold, condition, standard, or requirement for an activity to qualify for a particular resource consent category.

Summary of Conclusions – Part 4

A. We do not accept the Horticulture NZ and Federated Farmers proposal to amend Objective 5-1 – para [4-5]

B. We accept the Council's proposed amendment of Policy 5-2A – para [4-7]

C. We accept the Council's proposed amendment of the Anticipated Environmental Results in 5-6 – para [4-10] and [4-11]

D. We prefer the expression *high risk of causing discharges of sediment to water* in the Explanation and Principal Reasons in 5-7 – para [4-12]

E. Cultivation in HCEMAs should be included in Policy 12-1A – para [4-15]

F. We do not accept the version of Policy 12-1(fc) offered by Horticulture NZ – para [4-17]

G. Rule 12-1A should be amended to provide for small scale land disturbance – para [4-23]

H. A riparian margin of 5m is appropriate for low slope angle land – para [4-37]

I. A slope angle of 20° should trigger the requirement of a 10m riparian setback – para [4-39]

J. A 1m active bed width should trigger the riparian setback requirements – para [4-45]

K. Findings on riparian setbacks are all summarised at para [4-49]

L. Ancillary land disturbance (to cultivation) for the purposes of constructing erosion and sediment control methods to minimise run off to water in setbacks requires a resource consent (category to be further considered) - see paras [4-46] to [4-48]

M. Cultivation and ancillary land disturbance in a HCEMA requires a *restricted discretionary* resource consent - paras [4-50] to [4-61]

N. No amendment is needed to the permitted activity condition referring to vegetable crops listed within the Commodity Levies (Vegetables and Fruit) Order 2007 - paras [4-62] to [4-64]

O. The Schedule D visual quality condition or standard is to be a threshold requirement for cultivation and ancillary activities. - paras [4-65] to [4-72]

[4-81] We refer the following matters back to the Council in accordance with the general request contained in Part 1, para [1-23]:

A. Is there a need for any consequential amendments to the policies in the POP to correctly cross-reference Rules- see para [4-18]

B. Could ancillary activities (to cultivation) in a riparian setback be dealt with by a *restricted discretionary* activity rather than a *discretionary* activity? – para [4-48]

C. What consequential changes need to be made to the definition of a *Hill Country Erosion Management Area* to include ancillary land disturbance activities? - para [4-61]

D. What should the default activity status be – *restricted discretionary* or *discretionary* activity? – para [4-76]

E. How should the rules for *controlled* and *restricted discretionary* activity status be improved? – para [4-78] and [4-79]

F. What changes need to be made to the rules and other provisions in line with Part 5 of the decision? – para [4-80]

G. Are there any other consequential changes that need to be made to the POP?

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Hearing: at Palmerston North: 30 April – 4 May, 21 – 25 May, and at Wellington 7 June 2012

DECISION: PART 5 - SURFACE WATER QUALITY – NON-POINT SOURCE DISCHARGES

Counsel and parties participating in this topic:

A E Day
P R Gardner for Federated Farmers of New Zealand Inc
J J M Hassan, L Hinchey and K E Viskovic for Fonterra Co-operative Group Ltd
H A Atkins for Horticulture New Zealand
E M Jamieson and A Camaivuna for the Minister of Conservation
M G Conway for the Palmerston North City Council
M R G Christensen for Ravensdown Fertiliser Co-operative Ltd
J A Burns and C Malone for the Wellington Fish and Game Council
J W Maassen and N Jessen for the Manawatu-Wanganui Regional Council

PART 5 - Surface Water Quality – Non-Point Source Discharge **Page**

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Introduction

[5-1] This topic was the most contested of those requiring decisions from the Court. The central issue was the amounts and types of run-off and leachates arising from farming activities which find their way into waterbodies – primarily the rivers and lakes of the region. The run-offs and leachates of concern are primarily nitrogen (N) and phosphorus (P), and both contribute significantly to the growth of periphyton in the water.

[5-2] Most of the evidence on this topic focussed on nitrogen (N), and so shall we in this part of the decision. While both have similar effects on aquatic environments, their sources are different. The most concise explanation of the difference we saw is in the report of the Parliamentary Commissioner for the Environment: *Water quality in New Zealand: Understanding the Science* (2010), and we quote a passage from Chapter 9 of the report:

> The two nutrients get into water by largely different routes. Nitrogen occurs in forms that are highly soluble in water and so can travel via groundwater as well as across surfaces. This makes it particularly elusive – preventing it getting into water is a major challenge. Most phosphorus, on the other hand, gets into water with soil and if the soil can be stopped from getting into water, so will the phosphorus. Once in the water, however, much of the phosphorus is locked up in sediment and can be there for a very long time.
>
> Excess nutrients can have dramatic effects on water bodies. Nitrogen and phosphorus stimulate plant growth, leading to algal blooms (sometimes toxic), oxygen depletion, and ecological damage. Ammonia can kill fish, and elevated nitrate levels can make aquifers undrinkable.

That will explain why the evidence, and the decision, for this Part focuses on nitrogen. The phosphorus issue finds its place in Part 4 of the decision – Sustainable Land Use and Accelerated Erosion.

[5-3] Periphyton is a term covering communities of algae, fungi, bacteria, diatoms and cyanobacteria. It is the primary productive base of many aquatic ecosystems and is a natural part of freshwater biodiversity. But where there are elevated nutrient levels in the water, particularly in unshaded and low flood frequency waters, it flourishes and becomes a nuisance, accumulating into thick, slimy mats. That in turn affects the water's ability to sustain biodiversity and healthy aquatic ecosystems; it produces

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toxins and irritants making the water unsuitable for drinking by humans and animals, and for contact recreation. It can also physically clog water intakes for irrigation, water supply and industry.

[5-4] Broadly, the leachates and run-off come from faeces and urine deposited by farm animals, and from fertiliser applied to the land for pasture and crop purposes. Either or both of leaching and run-off will occur in almost any conditions where the raw material is present, but it follows that where rainfall is plentiful the rates will generally be higher, and with porous soils the rate of leaching will likely increase. This diffuse type of discharge of contaminants to water (or to land and thence to water) is known as *non-point source discharge* to distinguish it from discharges from a clearly identifiable *point source* such as an outfall from a sewage treatment plant.

[5-5] We note here that the POP recognises throughout the importance of farming and its contribution to the cultural social and economic wellbeing of the people and communities across the region. We are mindful of this strong theme in deliberating on the options presented by the parties.

What is being addressed

[5-6] The DV POP, at Chapter 6, summarises the issue concisely:

> The quality of many rivers and lakes in the region has declined to the point that ecological values are compromised and contact recreation such as swimming is considered unsafe. The principal causes of this degradation are:
>
> (a) nutrient enrichment caused by run-off and leaching from agricultural land, discharges of treated wastewater, and septic tanks
>
> (b) high turbidity and sediment loads caused by land erosion, river channel erosion, run-off from agricultural land and discharges of stormwater
>
> (c) pathogens from agricultural run-off, urban run-off, discharges of sewage, direct stock access to water bodies and their beds and discharges of agricultural and industrial waste.

[5-7] We should say, at this early point, that it does not answer that fundamental issue to say, as some did in addressing these appeals, that there is no present need to enhance water quality because the quality of some of the rivers and waterbodies in the region is no worse than average figures for similar water elsewhere in the country.

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That is an unappealing argument, the logical extension of which would be to say that so long as the natural quality of all of the country's rivers and lakes deteriorates at more or less the same rate, then we need do nothing to improve any of them. In response to such a view, we simply point to Part 2 of the RMA, and its use of phrases such as ... *sustaining the potential of natural ... resources; safeguarding the life-supporting capacity of ... water; ... the preservation of the natural character of ... wetlands, and lakes and rivers;* and ... *intrinsic values of ecosystems.*

[5-8] We should immediately say also that we have little sympathy for the line of argument that we should defer taking decisive action in the field of improving water quality (or, at the very least halting its further decline) because ... *the science is not sufficiently understood* ... or that ... *further analysis could give a more comprehensive process* ... or similarly phrased excuses for maintaining more or less the status quo. We will never know all there is to know. But what we undoubtedly do know is that in many parts of the region the quality of the natural water is degraded to the point of being not potable for humans or stock, unsafe for contact recreation, and its aquatic ecosystems range between sub-optimal and imperilled. We also know what is causing that decline, and we know how to stop it, and reverse it. To fail to take available and appropriate steps within the terms of the legislation just cited would be inexcusable.

[5-9] Related to that point, some parties put a great deal of emphasis on setting in place *voluntary or educative* approaches to tackling the acknowledged problems – meaning that time should be taken to educate and persuade all of those with a stake in the region's water quality towards a joint, and preferably voluntary, programme. *The Dairying and Clean Streams Accord* (of which more later) might be held up as an example of that style of approach. We have no difficulty with approaches of that kind – they are laudable, as far as they go. But history suggests plainly enough that alone they do not suffice to effectively deal with the problem. We agree with Dr Alison Dewes' (called by Fish and Game) comments that:

> Voluntary approaches have merit as innovators and early adapters tend to engage in this process. However, this approach alone is unlikely to achieve the desired environmental outcomes as it will not capture the worst polluters, nor will it account for rapid changes in land use that can occur in short time frames as a result of unpredictable changes in market forces.

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> ... there cannot be a reliance on voluntary approaches alone. I agree with Neels Botha where, in his evidence, he illustrates that voluntary approaches alone are unlikely to be as effective as a mix of policy instruments.

Even if those programmes exist, they need the reinforcement of a regulatory regime to set measurable standards and to enforce compliance with them by those who will not do so simply because ... *it is the right thing to do*.

[5-10] A variant of the theme was the proposition advanced by Dr Antony Roberts, the Chief Scientific Officer for Ravensdown, among others, that a *collaborative approach* involving the community setting acceptable N loss targets for individual catchments was required. He did not consider the One Plan process met this requirement, notwithstanding the ability of the community to participate in the formulating of policy and rules, and suggested that controls should only apply in the interim while such agreed targets are set. However, we recognise that the region has urgent water quality issues that require immediate action and are the focus of the POP. In addition there is the opportunity for the community to revisit objectives, policies and rules at any time in the future under the One Plan, such as on a catchment-specific basis.

[5-11] At para [5-209] we begin a discussion of the use of the term *numerics* in the POP. In the course of working through the positions and propositions of the various parties leading up to that point, we shall use terms such as *limits*, *maximums (*or *maxima) standards* and *targets*. In so doing we should not be taken to be approving or endorsing the terms as used in those contexts. That terminology needs to be carefully refined, and is dependent on the context – for instance whether it is being used in a policy or a rule.

Notified version of POP (NV POP)

[5-12] The notified version of POP (NV POP) brought within a regulatory regime the four intensive land uses of dairying, intensive (ie involving the use of irrigation) sheep and beef farming, cropping, and commercial vegetable growing, both existing and new. The regulatory regime was based around Land Use Capability (LUC) classification with limits on nitrogen leaching varying according to the LUC class of the land in question. Further, the N leaching limits became more stringent from year 1

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and thereafter at years 5, 10 and 20. It covered existing uses (except extensive sheep and beef farming) in 34 targeted water management sub-zones (WMSZ) within 11 catchments as well as new uses throughout the Region. The philosophy of this version was, and is, strongly supported by the Minister of Conservation and Fish and Game.

Decisions version of POP (DV POP)

[5-13] For the reasons it gave, the Hearing Panel established by the Council, comprised both of elected Councillors and independent appointees, made significant changes to the NV POP. Principally, intensive sheep and beef farming, cropping, and commercial vegetable growing were dropped from the regime regulating N leaching, leaving only new (and existing, within *targeted water management sub-zones*) dairy farming within it. The LUC basis of control (with one exception – new dairy operations at year 1 throughout the region) was set aside in favour of a regime of *reasonably practicable farming practices*. Further, a number of the targeted WMSZs were removed from the DV POP regime altogether, with a reduction to 24 WMSZs within seven catchments. There are varying degrees of support for that version among the parties.

The Council's position – the MWRC-V-POP

[5-14] There have been extensive discussions and negotiation between the parties since the DV POP was issued, the appeals lodged and (in some respects) since Court-assisted mediation. While they have not resulted in overall agreement, they have produced a further version of the debated portions of the POP which the Council, and some parties, to a greater or less extent, find acceptable. It was presented as the MWRC-V-POP.

[5-15] This version would base the figures for N leaching on the LUC classification for the land in question. It would allow a three year period of grace for existing dairy uses to achieve compliance (unless a resource consent in a more stringent activity class was obtained), but it would not have a staged reduction of the leaching limit over a period of years. It would require a review of the situation in 2017, with the possibility of bringing all rural land use activities including horticulture (commercial vegetable growing) into the regime after that review. That review would also consider amending the cumulative nitrogen leaching maximums. As additional land use

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activities are regulated the policy framework may include nitrogen trading mechanisms.

Mr Day's position

[5-16] Mr Day is generally, if not necessarily in every detail, aligned with the Minister's and Fish and Game's positions, with the significant difference that he advocates for the immediate introduction of an N leaching rights trading scheme. He does support an LUC based method, the regulation of other land uses such as all sheep and beef farming, and opposes the *grandparenting* of existing levels of N loss.

Federated Farmers' position

[5-17] Federated Farmers argued that quite apart from the merits of the issue, there is no scope to bring extensive sheep and beef farming within the nitrogen management regime, but agrees that it would be appropriate to include intensive (ie irrigated) sheep and beef farming within a rule regime. It does not agree that cropping (for fodder) should be an included activity and, apart from agreeing with the view that the casual basis on which land is used for cash cropping makes management of a resource consent regime too hard, it has no view about vegetable production. It submits that low risk dairying should be a *permitted* activity. The Federation generally supports the DV POP, and opposes the use of the LUC classification system as the basis for such a regime. It believes that there is uncertainty about what *reasonably practicable* steps might be. It does however support a so-called single figure N leaching regime where existing dairy farms should be required to do what is ... *reasonably practicable ... to reduce N leaching beyond a certain level to be given permitted activity status.* The Federation's proposed regime for new (beyond a *permitted* activity leaching level) and existing dairy farms involved progressively more stringent activity status at increasing leaching levels, with the Council having power to require reasonably practicable N leaching mitigation.

Fonterra's position

[5-18] Fonterra considers that all N-leaching land uses should be captured by the regime, otherwise dairying will be left to carry an unfair burden, but that to bring in extensive sheep and beef farming at present would be premature, and that it should be left to a future plan change. Such a change in the future could also, it suggests, be a

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vehicle for developments such as giving effect to the National Policy Statement Freshwater Management (NPSFM), a trading regime, and bringing other catchments and other forms of intensive farming into the rule regime. It is concerned that existing dairying should be treated conservatively, and that existing dairy farmers should not be ... *put* ... *out of business*. Fonterra proposes what its planning witness, Mr Gerard Willis, describes as a hybrid planning approach containing an element of capping some farmers at their current leaching rate (*grandparenting*), requiring and defining the adoption of reasonably practicable measures (the *best practicable option*) and beyond that the consideration of the *natural capital* approach.

Horticulture NZ position

[5-19] Horticulture NZ supports the DV POP, and accepts that it would be appropriate to review the regime in 2017. It opposes the positions taken by the Minister and Fish and Game; in particular it regards an LUC based regime as inappropriate for vegetable growing because it regards LUC as a pasture based classification system. Its view is that if vegetable growing is brought within a rules framework, it should be as a *permitted* activity. Its proposed addition of Domestic Food Supply as a value to Schedule AB of POP has been agreed with the Council in the course of mediation, and the Minister and Fish and Game have since accepted that also.

Minister of Conservation and Fish and Game positions

[5-20] These two parties were much of one mind on the issues and it is convenient to deal with them together. They take the view that intensive sheep and beef farming, horticulture and cropping should be reinstated in the Rule regime now, as should Lake Horowhenua, Coastal Rangitikei and the coastal lakes. They submit that for both of those issues, waiting until a regime review in 2017 to deal with them is simply to allow the situation to get worse, and would not comply with the requirement to give effect to provisions such as the NZ Coastal Policy Statement 2010 (NZCPS), the NPSFM, and the Act generally. As a broad proposition, both prefer the NV POP to the version arrived at by the Hearings Panel. Fish and Game also oppose the three year period of grace proposed for compliance by the Council, but accepts the possibility of a step-down being required in consent conditions.

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Palmerston North City's position

[5-21] Palmerston North City was largely content with the DV POP and raised only one substantive issue at the hearing – that of whether the term *numerics* in describing various leaching quantities in Schedule D would be more appropriate than standards, limits or targets. The City's submission is that it would be more appropriate, and we discuss that issue later, under the heading *The term 'numerics'*.

Ravensdown's position

[5-22] Ravensdown expressly accepts that water quality in parts of specified catchments in the region requires improvement. It disputes however that a thorough regulatory regime can be put in place because there is a ... *lack of a sufficiently detailed understanding of the relationship between actual land uses and actual effects on water quality.* That is particularly so, it says, in the case of the effects of dairy farming, while acknowledging that dairying has, and continues to, contribute to the current state of the water quality in specified catchments through N losses. It proposes a regime requiring ... *improvement towards* ... target loads over a five year period; non regulatory methods such as good practice and education; investigation of links between intensive farming and actual effects, aiming towards an agreed criteria or standard for each WMSZ to be introduced by way of a Plan Change. In the meantime it proposes that both new and existing dairy farms leaching under a single figure be *permitted* activities; and others require consent and the adoption of ... Tier 1 *reasonably practicable farm management practices.*

An overview of the relevant portions of POP – first, the Regional Policy Statement

[5-23] There are two relevant objectives on water quality:

> Objective 6-1 Water management Values
>
> Surface water bodies and their beds are managed in a manner which safeguards their life supporting capacity and advances the achievement of the Values in Schedule AB.[1]
>
> Objective 6-2 Water quality
>
> (a) Surface water quality is managed to ensure that:

[1] Fish and Game and the Minister wanted the underlined words added and the Regional Council and all other parties except Fonterra was prepared to accept that. Instead Fonterra wanted *with particular regard to safeguarding life supporting capacity* added to the end of the Objective.

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(i) water quality is maintained in those rivers and lakes where the existing water quality is at a level sufficient to support the Values in Schedule AB,

(ii) water quality is enhanced in those rivers and lakes where the existing water quality is not at a level sufficient to support the Values in Schedule AB,

(iii) accelerated eutrophication and sedimentation of lakes in the Region in prevented or minimised,

(iv) the special values of rivers protected by water conservation orders are maintained. ...

[5-24] Fish and Game, preferred that Objective 6.1, Policy 6.1 and Policy 6.7 require that water bodies be managed in a manner that safeguards their life-supporting capacity and ... *recognises and provides for* the values in Schedule AB, rather than *advances the achievement* of those values.

[5-25] Fish and Game said that it had agreed at mediation that it might accept ... *safeguard the life supporting capacity and advance the achievement* if all other matters (and in particular the rule stream) were resolved. However, as the hearing had progressed and other parties argued any advance (no matter how small or slow) towards achieving the values would be meeting the objectives, Fish and Game's discomfort with the term increased.

[5-26] Fish and Game submitted that *recognise and provide for* is a term used in the Act, with a readily understood meaning which has been the subject of judicial interpretation, and should be used. Also the Objectives and Policies of the plan should be to recognise and provide for the values the Plan has identified as important and should say so. We agree.

[5-27] The individual Values and their associated management objectives are set out in the Schedule AB Surface Water Management Values Key and repeated in Table 6.2. The Schedule AB Surface Water Management Values were at issue in only one area, with Hort NZ seeking the inclusion of Food Production. The Schedule AB Values are:

- Zone-wide values (except for LSC)

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- Life-supporting Capacity (LSC) Value
- Natural State (NS) Value
- Sites of Significance – Aquatic (SOS-A) Value
- Sites of Significance – Riparian (SOS-R) Value
- Inanga Spawning (IS) Value
- Whitebait Migration (WM) Value
- Sites of Significance – Cultural (SOS-C) Value
- Trout Fishery (TF) Value
- Trout Spawning (TS) Value
- Water Supply (WS) Value
- Flood Control and Drainage (FC/D) Value.

[5-28] Dr Olivier Ausseil, an expert witness for Fish and Game and DOC, who had been involved in their development, gave evidence on the derivation of these Values. He said the Values had been informed by the Schedule 3 Water quality classes in the RMA, with its different classes for water managed for the following purposes: aquatic ecosystems; fishery; fish spawning; the gathering or cultivating of shellfish; contact recreation; water supply; irrigation; industrial abstraction; natural state; aesthetic, and cultural. Section 69 RMA allows regional councils some latitude in including standards that are more stringent or specific and to include new classes and standards about the quality of water. It also requires that standards are not to be set which may result in a reduction in the existing quality of the water unless it is consistent with the purpose of the Act to do so.

[5-29] The catchments in the Region have been divided into Water Management Zones and Water Management Sub-zones for the purposes of managing water quality (among other things). Schedule D contains water quality *numerics* (recognising there is argument about the terminology) relating to the Schedule AB Values that apply to all rivers (region-wide quality *targets*) and additionally *targets* for rivers in a Water Management Sub-Zone, as well as for certain types of lakes. Table D.5A (D-17) contains the Key: Definition of abbreviations and full wording of the *targets*. (The RPS has a footnote stating: *Schedule D is not a component of Part 1 – the RPS. It is a component of Part II- the Regional Plan.* However, RPS policies refer to Schedule D and so we deal with it under the heading of the RPS.)

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[5-30] For rivers the region-wide quantitative water quality *targets* are for:

- Escherichia coli (*E.coli*)
- Periphyton filamentous cover
- Diatom or cyanobacterial cover
- Quantitative Macroinvertebrate Community Index (QMCI).

[5-31] For specific rivers in water management sub-zones the quantitative *targets* are for (and may vary):

- pH
- Temperature
- Dissolved Oxygen (D)
- Soluble carbonaceous chemical oxygen demand ($sCBOD^5$)
- Particulate organic matter (POM)
- Periphyton
- Dissolved reactive phosphorus (DRP)
- Soluble inorganic nitrogen (SIN)
- Macroinvertebrate Community Index (MCI)
- Ammoniacal Nitrogen
- Toxicants (Tox)
- Visual clarity.

Lakes have:

- Algal biomass
- Total phosphorus (TP)
- Total nitrogen (TN)
- Ammoniacal Nitrogen
- Toxicants (Tox)
- Visual clarity
- Euphotic depth
- Escherichia coli (*E.coli*)

[5-32] The evidence was that many of the above measures are referred to in the water quality classes of Schedule 3 RMA as quantitative standards and others provide quantitative measures for narrative standards: eg visual clarity. There was also reference to standards and guidelines on which these standards were based and

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reasons for any departure from them in the evidence from the Council's water quality witnesses. Mostly this evidence was uncontested. However, there were some issues raised about Schedule D and we deal with these later - see paras [5-44] to [5-46].

[5-33] Policy 6-2 Water quality targets (replaced by the word *numeric*) states:

> In Schedule D, water quality targets [replaced by the word *numerics*] relating to the Schedule AB Values (repeated in Table 6.2) are identified for each Water Management Sub-zone. Other than where they are incorporated into permitted activity rules as conditions to be met, the water quality targets [*numerics*] in Schedule D must be used to inform the management of surface water quality in the manner set out in Policies 6-3, 6-4 and 6-5.

(We question whether that statement is correct particularly given the other rule categories have similar conditions to *permitted* activities. However, we return to the question of the use of the word *numerics* later.)

[5-34] The three policies differentiate between situations where the water quality *numerics*, replacing the word *targets*, are met, not met and where existing water quality is unknown. (During the course of the hearings the parties agreed that the Schedule D *numeric* for sediment would only fall into the *state of the environment* monitoring category.)

[5-35] In summary:

- Policy 6-3 requires water quality to be managed to ensure the water quality *numerics* in Schedule D continue to be met beyond the zone of reasonable mixing within a WMSZ.
- Policy 6-4 requires where the existing water quality does not meet the Schedule D water quality numerics within a Water Management Sub-zone, water quality within that sub-zone must be managed in a manner that enhances existing water quality so that there is progress towards: the water quality *numeric* for the Water Management Sub-Zone in Schedule D; and/or the Schedule AB Values and management objectives that the water quality numeric is designed to achieve.
- Policy 6-5, covering a situation where there is insufficient data for a comparison with the Schedule D water quality *numerics,* requires management of water quality in a manner which maintains or enhances the existing water quality, has regard to the likely effect of the activity on the Schedule AB Values that the water quality *numeric* is designed to safeguard, and has regard to any information on the water quality in upstream or downstream WMSZs.

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[5-36] Under the heading of 6.4.2.3 *Discharges and Land use Activities Affecting Water Quality* there are policies in contention under the following headings:

- Policy 6-7 Dairy Farming Land use activities affecting groundwater and surface water quality
- Policy 6-7A Rural land use activities other than dairy farming affecting groundwater and surface water quality in Water Management Sub-zones listed in Table 13.1
- Policy 6-7B Existing dairy farming and other rural land use activities in WMSZs not listed in Table 13-1 (i.e. not the targeted sub-zones).

The parties are a long way apart on the content of all policies except Policy 6-7B. That policy refers to identifying certain sub-zones as priority catchments for monitoring and assessment and a recognition of a Plan Change process to add other WMSZs where the Schedule D water quality *numerics* are not met and/or the relevant Schedule AB values are compromised and all the contributing land use activities will be effectively managed. The fundamental differences in the approaches before us are reflected, as would be expected, in the policy alternatives advanced by the various parties. For example, the Council's policies refer to setting cumulative nitrogen leaching rates for each LUC class of land which must not be exceeded and provides for a three year step-down approach to achieving compliance. The policies proposed by Fish and Game and the Minister include all intensive land uses, whereas the Council's refer to a review of the adequacy of the approach in the One Plan as further monitoring data is available and no later than 30 June 2017. The Council's proposal mentions assessing progress on achieving the water quality numerics in Schedule D and whether extending regulatory control over all rural land use activities is justified. This includes amending the cumulative nitrogen leaching maxima and potentially the mechanisms to provide for nitrogen trading. Where parties oppose the Council's LUC approach there are other policy amendment proposals. It is not helpful to deal with the detailed wording of the policy alternatives without considering their foundation in the different policy regimes in front of us.

[5-37] Table 13-1 in the Regional Plan lists several Water Management Sub-zones (WMSZs) where existing dairy farming land use activities are to be regulated. Some parties are seeking the inclusion and re-inclusion (from the NV POP) of additional

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Water Management Sub-zones and the addition of other activities to be specifically regulated.

Secondly, the Regional Plan

[5-38] Objective 13-1 Management of discharges to land and water in the Regional Plan reflects the presented version of the RPS (as amended to align with our decision on Objective 6-1) stating:

> The management of discharges onto or into land (including those that enter water) or directly into water [and land use activities affecting groundwater and surface water quality] in a manner that:
>
> (a) Safeguards the life supporting capacity of water and recognises and provides for the Values and management objectives in Schedule AB,
>
> (b) provides for the objectives and policies of Chapter 6 as they relate to surface water and groundwater quality, and
>
> (c) where a discharge is onto or into land, avoids, remedies or mitigates adverse effects on surface water or groundwater.

[5-39] We do not understand other parties to object to the proposal from Fish and Game and the Minister to add the reference to *land use*, given the Regional Council is giving both land use consents and discharge permits for the activities involved. We agree that should be done, and note that this is also likely to be appropriate in other places in the Plan.

[5-40] Policy 13-1 Consent decision-making for discharges to water states:

> When making decisions on resource consent applications, and setting consent conditions, for discharges of water, or contaminants into water, the Regional Council must specifically consider:
>
> (a) the objectives and policies 6-1 to 6-8 of Chapter 6 (among other matters).

[5-41] Policy 13-2C Management of new and existing dairy farming land uses: - is another area of contention. As drafted by the Council, this policy refers to making decisions on resource consent conditions and setting consent conditions for existing dairy farming that meets the CNL (Cumulative Nitrogen Leaching) limits set for the LUC classes, within a three year step down period. Fish and Game and the Minister wish it to be amended to cover intensive farming and to cover all dairy farming,

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commercial vegetation production, cropping, and intensive sheep and beef farming without a three year *compliance* period for existing activities and having reducing limits in years 5, 10, and 20. Fish and Game also supports Mr Day's wish for it to go further and to cover extensive sheep and beef farming. We shall return to that last point later.

[5-42] The LUC class (and Table 13.2) as reflected in the policy is also in contention for the pastoral industry interests. Federated Farmers and Ravensdown also seek specific policy provisions that would allow a different rule regime from the one based on CNL limits set by LUC class for all existing and new dairy farms, with Fonterra confining itself to seeking a similar outcome for existing dairy farms.

[5-43] We are being asked to consider major competing positions on both the policy and the associated rule regime. We will deal with the issues about a management regime generally and then consider the policy and rule regime changes needed to implement our decisions.

Suspended and deposited sediment in Schedule D

[5-44] There were two matters in Schedule D that were in contention – suspended and deposited sediment. Associate Professor Death, called by Fish and Game, said this about sediment in surface waterbodies:

> Land use, primarily agriculture, results in increased levels of deposited fine sediment in surface waterbodies (up to 2000% more) that smothers plants and animals, buries habitats and changes the composition of fish and invertebrate communities, in turn reducing ecological health. The Proposed One Plan (POP) does not provide any guidance on acceptable levels of deposited sediment. The proposed addition to Schedule D (presented in Appendix 1) should go some way to correcting this.

We did not understand any other witness to dispute his opinion. The addition to Schedule D he mentioned is a set of Deposited Sediment percentages for each of the WMSZs, which range between 15% and 25%, except for Specified Sites/Reaches of Rivers with a Trout Spawning (TS) Value, in which case he proposes 10%. However, it was agreed between the parties that this Schedule D matter would only apply to

State of the Environment Monitoring and compliance with it would not be a threshold condition for activity status.[2]

[5-45] The Associate Professor goes on to say that imposing a limit on allowable water clarity reduction is necessary to reduce the risk of increasing deposited sediment levels – and is important in its own right to protect recreational, aesthetic and fishery values. He considers that a maximum clarity change of 20% to 30% dependent on the geology of the river is appropriate: with those figures being the equivalent of the ... *any conspicuous change in the colour or visual clarity* ... standards in s70 and s107 of the RMA. (We dealt with the Schedule D treatment of visual clarity in Decision 4 but cover it here for completeness.) We heard nothing to seriously dispute that, and we agree that this appears to be an appropriate step to take. We ask the Council to settle the appropriate percentage figure in accordance with para [1-23].

Schedule D standards for shallow lakes

[5-46] Dr David Kelly, an expert on aquatic ecology, for the Minister and Mr Max Gibbs for the Council agreed that the nutrient standard for shallow lakes in Schedule D, which was relaxed in the DV-POP, is inappropriate and recommended a new figure (490mg/m^3 TN, 30mg/ m^3 TP, 8mg/ m^3 chlorophyll-a). However, this amendment is outside the scope of these appeals and unless the Court is minded to use the discretion under s293 of the Act will require a later plan change. The Minister submitted that s293 would be appropriate because it is supported by the expert technical evidence, relevant parties are represented in the proceedings and no party would be prejudiced as the change to Schedule D would not affect the Table 13-2 leaching rates that would apply in the relevant water management subzones. After some reflection, we have come to agree with that view, and invite the Council to consider invoking that process.

Coastal Rangitikei catchment

[5-47] The NV POP included in Rule 13.2 (Agricultural Activities Table 13.1 Water Management Sub-zones) the area known as the *Coastal Rangitikei* catchment as a targeted WMSZ, but it was removed from the Chapter in the DV POP. Fish and

[2] There is a footnote to Schedule D: The Deposited Sediment Cover (%) numeric only applies for State of the Environment monitoring purposes to determine if the percentage cover of deposited sediment on the bed of the river will provide for and maintain the values in each WMSZ.

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Game, and the Minister of Conservation, are among those who wish to see it reinstated.

[5-48] It seems to be accepted by the expert witnesses that the lower Rangitikei River water quality is deteriorating in quality to the point (*on the cusp*, as one witness put it) of unacceptability. For reasons which do not reconcile with the evidence we heard, the Hearings Panel seemed to be saying that because its water quality had not got to the point of being critically bad, the evidence did not support retaining the Catchment in a management regime. We could not agree with that view of things. Such a view cannot be reconciled with the purpose and principles of the Act as expressed in, eg s5(2)(b), s6(a) and (c) and s7(aa), (d), (f), (g) and (h), or the objectives and policies of the POP.

[5-49] The Panel was also of the view that the loadings of pollutants in the lower River come largely from point source discharges – in the shape of sewage treatment plants and perhaps abattoirs. But the evidence was that 94.7% of the nitrogen in the river and its tributaries come from non-point sources. Similarly, the Panel said that the catchment has a .. *low number of dairy farming uses*. But the evidence was that some 20% of the catchment's land area is in dairying compared, for instance, to the 16-17% of the Upper Manawatu and the 18% of the Mangapapa, both of which are included in Chapter 13 of the DV POP. Further, given the high proportion of LUC Class I to III land in the catchment, and an ample quantity of non-allocated water, there is high potential for the expansion of dairying and the establishment of horticulture.

[5-50] Overwhelmingly, the evidence we heard is in favour of the Coastal Rangitikei Catchment being included as a targeted WMSZ, and in the leachate management regime.

Lake Horowhenua, coastal lakes, and related sub-zones

[5-51] The Minister of Conservation, supported by Fish and Game, wishes to see the West_4 and 5 (Kaitoke Lakes and Southern Wanganui Lakes), and Hoki_1 (Lake Horowhenua) water management subzones reinstated in Table 13-1 of POP. That would result in them being *specified* catchments and some land use activities would be

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regulated to control discharges of contaminants, with the intention of raising the quality of surface water. Those zones were included in NV POP but not in DV POP.

[5-52] There are 17 lakes and one wetland in the West_4 and 5 zones. Hoki_1a and 1b contain Lake Horowhenua, which is the largest dune lake in the country.

[5-53] In respect of Lake Horowhenua, the Hearings Panel noted that it ... *is subject to extremely elevated total and dissolved nitrogen and phosphorus concentrations. Ammoniacal nitrogen is also occasionally elevated to levels that are toxic to aquatic life.* It went on to note that Levin's sewage was discharged into the lake until the mid 1980s, and that it continues to receive stormwater from the town. The Panel concluded that there is an evidential basis for including the Lake's catchment in Table 13-1 ... *provided cropping and horticulture are retained as intensive land uses to be regulated.* It went on to conclude that those intensive land uses should not be regulated, and so the Lake was withdrawn from the Table.

[5-54] For the lakes in West_4 and 5, the Hearing Panel came to the view that there was not an evidential basis for including them in Table 13-1. For those lakes, there was no, or limited, water quality monitoring data, and such as there was indicated relatively low concentrations of SIN. Further, for the Kaitoke Lakes (West_4) intensive land uses comprise only 5% of the catchment, and for Southern Wanganui (West_5) only some 9%.

[5-55] In passing, we note that one of the items of relief sought in Federated Farmers' appeal was the removal of the Northern Manawatu Lakes (Management Zone West_6) from Table 13-1. That is not now being pursued.

[5-56] The case made by the Minister and Fish and Game placed considerable reliance on the evidence of Dr David Kelly, presently a senior scientist with the Cawthron Institute in its Coastal and Freshwater Section. He, in turn, discussed the coastal lakes analysis undertaken by Mrs Kathryn McArthur and contained in her s42A Report, and a National Coastal Lake Survey, reported on in 2009 and 2011. Dr Kelly told us that dune lakes are an internationally rare environment class, known only in New Zealand, Australia, Madagascar and south-eastern coastal USA.

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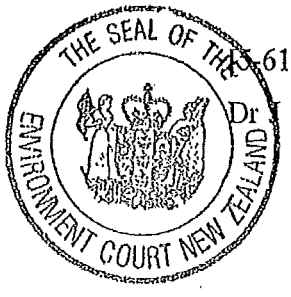
[5-57] In short, it is his conclusion that notwithstanding the lack of, or limited, monitoring of these lake systems it can be reliably said that 13 of these lakes are ... *nearly all predicted to presently exceed the POP standards for [total nitrogen] concentrations. This suggests that management within the lake catchments necessitates reductions in nutrient loadings to achieve POP standards, and future landuse development needs to be managed to limit nutrient losses.* He goes on to say that the figures for the five lakes within these management zones, for which there are available water quality data, support such a finding and that catchment nitrogen loading would need to be reduced by an average of 47% to meet POP standards for total nitrogen, and further reduced if a more protective nutrient standard was considered.

[5-58] As did other witnesses, Dr Kelly recognised that there is no one cure for Lake Horowhenua in particular. Its problems and its sources of N are complex, and may require a range of riparian and in-lake measures, such as sediment capping and dredging. Nevertheless its diffuse N sources still require management if the lake is to be brought within nutrient limits.

[5-59] The Council's present position on not including at least Lake Horowhenua and the northern Manawatu Lakes is that it considers that there has not been sufficient modelling of the impact of CNLs on them, but that there has been sufficient modelling in the case of the Coastal Rangitikei. That said, we understand the Council's position to be that, at worst, no harm could come from doing so, and Ms Barton agreed that in the case of Coastal Rangitikei it could be a precaution against deterioration to the point of total quality failure.

[5-60] That the problems of these lakes, with Lake Horowhenua as the worst case, are complex and remedies may extend beyond limitations of non-point source discharges, is absolutely not a reason to say ... *it's too hard* ... and do nothing about something that unquestionably must be contributing to the problem.



[5-61] Looking to the joint witness statement on this topic – recording the views of Dr J K F Roygard, Ms M E Clark, Dr Brent Clothier, Mrs Kate McArthur, Mr Max

Gibbs (all Horizons witnesses), Dr M R Scarsbrook (Fonterra), Ms Corinna Jordan (Fish and Game), Dr R G Death (Fish and Game), Dr O M N Ausseil (Fish and Game), Dr Lindsay Fung (Hort NZ), and Dr Kelly, we find a large measure of agreement with those views. For instance:

> All parties agree that from the ecological point of view the concern is with the management of water management zones or sub zones rather than their inclusion in Table 13.1 leaving 13.1 to be a matter for the planners.
>
> All parties agree that the actual measured state is likely to be as bad, if not worse, than the modelled state based on TN [total nitrogen] (ref D Kelly p.28 para 67 table 3).
>
> All parties agree that Dr Kelly's modelling is informative and sound for these lake catchments.
>
> Kaitoke Lakes (West_4)
>
> - All parties agree that the current state does not meet Schedule D limits.
> - All parties agree that the current state of the lakes are hypertrophic/supertrophic (with the exception of Kohata for which we do not have measurements) (ref D Kelly table 3 and fig 3 2012).
> - All parties agree that the Kaitoke Lakes zone requires management action.
>
> Southern Wanganui Lakes (West_5)
>
> - All parties agree that lakes in this zone require management action.
> - All parties agree that the modelling by Dr Kelly indicates the current state of total nitrogen does not meet Schedule D limits.
> - Anecdotal observations suggest the state of the lakes are degraded and they have algal blooms (ref TEB v9 p4400).
> - Modelling predictions show that 7 out of the 7 largest lakes within this zone are supertrophic to hypertrophic.
> - All parties agree that further monitoring of the lakes would be valuable in determining the current state.
>
> Lake Horowhenua (Hoki 1a and 1b)
>
> - All parties agree that the current state does not meet Schedule D limits.
> - All parties agree that the current state of the lake is hypertrophic (highest of the lot) and requires management action (ref D Kelly table 3 and fig 3 2012).

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[5-62] Given that degree of unanimity from a group of people pre-eminent in their field, the case for bringing these lakes and management zones into a management regime so that their situation can be improved (even if not completely cured) is, again, overwhelming.

Chapter 13 – all intensive farming, or only dairying?

[5-63] As we have said, the Hearing Panel dropped intensive sheep and beef farming, cropping, and commercial vegetable growing from the regime regulating N leaching leaving only new (and existing, within *targeted water management sub-zones*) dairy farming within it.

[5-64] We take this summary of their reasons from para 8.6.9.3 of the Panel's decision, discussing the types of intensive farming to be included in Rule 13-1:

> ... The range of leaching rates [for cropping] is therefore 6 to 35 kgN/ha/year, with most results being 24 kgN/ha/year or more. On that basis, it would seem appropriate to include cropping in Rule 13-1.
>
> However, we also heard compelling evidence that the farmed areas used for cropping varied on a paddock by paddock basis annually. In some areas, the land was typically involved in a ten year rotation whereby it would be cropped two years in a row and then left fallow (in pasture) for 5 to 10 years. The cropped paddocks were generally leased from farmers on a "hand shake" contractual basis. We find that it would be extremely problematic to include such a transient land use in a regulatory framework. For that reason, as well as the small areas of cropping noted below and the lack of information we had about the ability for cropping to meet the Rule 13-1 limits and the consequences for the farmers, we have decided that cropping should not be included in Rule 13-1.
>
> We are also mindful that, of the target catchments that we have decided should be retained in Table 13.1, only the Lake Horowhenua catchment (3%) has any area in cropping. In that catchment, the cropping area is very small compared to dairy and sheep and beef farming and so its overall contribution to nitrogen leaching will be commensurately small.
>
> In their End of Hearing Report in April 2010 the officers recommended that "market gardening" be deleted from the Glossary and from Rule 13-1 and the alternative term "commercial vegetable growing" be used instead. They recommended a definition of "commercial vegetable growing" as follows:

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Commercial vegetable growing means using an area of land greater than 4 hectares for vegetable growing, on an annual basis, for human consumption. Fruit crops and vegetables that are perennial are not included.

We were provided with evidence on the nitrogen leaching rates for commercial vegetables by the officers and submitters. Dr Clothier told us that for a large commercial vegetable enterprise near Levin his calculations using the SPASMO meta-model had predicted 431 kgN/ha/year of leaching over a two year period, or around 215 kgN/ha/year. We note, however, that the Levin enterprise had crop failures so it seems to us that those estimates should be used with care. Dr Shepherd used Overseer Version 5.4.3 to predict nitrogen losses from a potato crop at 10 kgN/ha/year. Dr Whiteman, appearing for Horticulture NZ, advised us of a "Fictitious Farm Strategy" prepared by LandVision for 400ha of crops comprising potatoes, carrots and brussel sprouts. This study also used Overseer Version 5.4.3. The vegetable crops and their predicted nitrogen leaching rates were potatoes at 58 kgN/ha/year, carrots at 18 and 19 kgN/ha/year and brussel sprouts at 30 kgN/ha/year.

We find that the latter Overseer predictions are more reliable than the earlier SPASMO results as they use more recent modelling software developed specifically for cropping situations. The range of predicted leaching rates is therefore 10 to 58 kgN/ha/year, with most results being 18 kgN/ha/year or more. On that basis alone, it would seem appropriate to include commercial vegetable growing in Rule 13-1.

However, commercial vegetable growing also occurs on a mix of leased and farmer-owned land. For example, Ms du Fresne told us that for her 200 ha enterprise "40% of the land is owned and 60% is leased. The nature of the leases varies, with some being renewable annually and some longer term, usually on a 3yrs basis with a right of renewal. The area of land that we grow on could change a number of times a year depending on when leases become available or cease." As with cropping, we find it would be extremely problematic to include such a transient land use in a regulatory framework. That is one reason why we have decided that commercial vegetable growing should not be included in Rule 13-1.

We also have very little evidence about the ability of commercial vegetable growers to meet the limits in Rule 13-1 or the consequences for them.

We are also mindful that of the target catchments or Sub-zones that we have decided should remain in Table 13.1, only the Managapapa (2%) and Lake Horowhenua (3.5%) have any areas in horticulture (which includes commercial vegetable growing). These are very small areas compared to the areas in dairy and sheep and beef farming and so their overall contribution to nitrogen leaching will be commensurately very small.

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In their End of Hearing Report in April 2010 the officers recommended that "intensive sheep and beef farming" be defined as:

Intensive sheep and beef farming means using land for sheep, beef and mixed sheep/beef farming on properties greater than 4 ha where irrigation is used in the farming activity.

We were provided with very little evidence on the nitrogen leaching rates of intensive sheep and beef farming by the officers and submitters. None of the 25 case study farms discussed in the evidence of Mr Taylor comprised irrigated sheep and beef farms. Dr Shepherd provided information on an irrigated beef unit in Dannevirke. He predicted a nitrogen leaching rate of 19 kgN/ha/year. That is a relatively high leaching rate but it does not relate to a sheep or sheep/beef enterprise. We received no evidence on the actual area of land within the Table 13.1 Sub-zones currently comprising irrigated sheep and beef farming. None of the tables in Mrs McArthur's evidence showing "proportional land use" for those catchments contained any data relating to irrigated sheep and beef farming. We accordingly find that there is no evidential basis for including intensive sheep and beef farming in Rule 13-1.

We find that only dairy farming should be retained as an "intensive farming land use" to be regulated under Rule 13-1. We accept that the term "dairy farming" must be defined. We have amended the definition of that term in the Glossary based in part on the recommendations of the officers.

Returning to our earlier findings regarding the target catchments to be retained in Table 13.1, this means that Lake Horowhenua should be deleted from that table as its retention depended upon market gardening (horticulture) being regulated under Rule 13-1.

The conclusions we have underlined are those that we particularly discuss in this and other sections of this Part of the decision.

[5-65] We record that there was no dispute among the galaxy of scientists who gave evidence that even with leaching from sources as diffuse as a paddock containing livestock or growing carrots, the amount of leachate can be calculated with acceptable margins of accuracy by using a tool such as OVERSEER. For nitrogen (N) for instance, the production of leachate is expressed as kilograms of N, per hectare, per year (XkgN/ha/yr).

[5-66] We pause to explain the OVERSEER® *tool*. It is a nutrient budget model from which farmers and their advisers can calculate both the inputs of nutrients by

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way of fertilisers, supplements and so on, and outputs by way of produce, nutrient transfers, gas emissions, leaching etc. It has been through several iterations since first developed – we were told that the sixth version is due for release very soon. It is a long-term equilibrium model which can predict nitrogen leaching, given a set of farming practices and average long-term rainfall. Its use in similar situations has been the subject of approving comment in earlier decisions of the Court – see eg *Carter Holt Harvey Ltd v Waikato RC* (A123/2008). We acknowledge that the horticulture industry expresses reservations about the workability of past and current versions of OVERSEER for horticulture. As Ms Atkins put it in opening, if the pending latest version – OVERSEER 6 - is not ... *everything we are hoping it to be* ... an alternative means of calculating leachate may need to be found. Without relitigating the principles, we would be prepared to consider an interim solution pending the outcome of trialling OVERSEER 6 in the context of horticulture, if the affected parties think it necessary.

[5-67] Nor is there any substantive dispute that the intensive land uses already mentioned – dairying, intensive sheep and beef, cropping, and commercial vegetable growing (ie horticulture) – each produce N leachate. While dairying is the land use most commonly criticised for the production of N pollutants, it is by no means solely to blame.

[5-68] We also note here that Dr Stewart Ledgard was engaged by Regional Council to analyse the use of the OVERSEER tool for the first instance hearing, and did so, but was then engaged by Fonterra on other issues. One study of 3300 dairy farms nationwide (including 143 in the Manawatu-Wanganui Region) gave an average N leaching figure of 22kgNha/yr in the region, compared to 34kgN/ha/yr nationally. The region's 75th percentile was 27kgN/ha/yr. The overall results indicate that much of the variability is management dependent, so many farms should be capable of reducing their leaching. That and other information indicates that there is a wide range of N leaching from dairy farms in the region – from 8 to 47kgN/ha/yr, as modelled using OVERSEER.

[5-69] In terms of N leachate currently being produced by the different land uses, there seemed to be a good measure of agreement that, as outlined by Dr Dewes, the

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result of the 2007 Clothier et al study into the Upper Manawatu catchment probably holds good for the region as a whole. In that study it was found that more than 90% of the total N in the river came from dairying and (extensive) sheep and beef farming. Of that, dairying contributed some 50%, while occupying some 17% of the catchment land area. Sheep and beef occupied some 77.3% of the land area and contributed the other 50%.

[5-70] Logically, three conclusions can be drawn from that. First, for the land area it occupies, dairying contributes a disproportionately high percentage of N leaching. Secondly, that unless, somewhere along the line, extensive sheep and beef farming can be brought into a N leaching reduction and management regime, one half of the problem will never be addressed. Thirdly, the dairy industry could rightly feel unfairly done by in being expected to spend money and effort to address its leachates, while their sheep and beef farming colleagues may carry on as they always have.

[5-71] The convincing case for including all of intensive land uses in a leachate management regime is summarised in the Joint Witness Statement produced on 23 March 2012 by these expert witnesses: Dr D C Edmeades (Federated Farmers); Dr A M Dewes (Fish and Game); Dr A H C Roberts (Ravensdown); Dr J K F Roygard (Horizons); Dr A D Mackay (Horizons); Dr R W Tillman (Federated Farmers); Dr L A Waldron (Fish and Game); Mr P H Taylor (Horizons); Mr I L Grant (Horizons); Dr B E Clothier (Horizons); Dr L E Fung (Hort NZ). They expressed their collective views in this way:

> All parties agree that all land use activities contribute to the water quality issue. There is evidence that sheep and beef farming, and dairy farming (including all cropping activities), are significant contributors to the N loadings in rivers and lakes in the Horizons Region. In some specific catchments there may be other significant sources of N.
>
> All parties recognise that all uses contribute, they also recognise that dairy farming results in high N loss per hectare relative to other pastoral land use activities and represents the greatest opportunity for making reductions to N loading.
>
> In some catchments, other land uses may present significant opportunities to make improvements to water quality. For example, commercial vegetable production, cropping.

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Sheep and beef farms have a low N loss per hectare relative to other farming activity but make up a large proportion of most catchments, and therefore contribute a significant amount of the non-point source N load.

Due to the large land area of sheep and beef a relatively small increase in N loss per hectare could cause a significant increase in diffuse N loss (Aussiel Table 18 & 19). Any intensification of land use on those units could result in a significant increase in N load.

All parties agree there are fewer opportunities on sheep and beef farms to reduce N loss through mitigation.

All parties agree that the contribution of sheep and beef farming, including cropping activities, to the in-river N loading should not be ignored by the One Plan.

All parties agree there is a three-to six-fold increase in leaching losses from extensive sheep farming to dairy farming on a per hectare basis (Clothier et al., 2007).

All parties agree that all land users in the catchment should contribute to solving the problems of water quality/in-river N levels. This is because there is a significant risk that the regulated land users will shift their load to unregulated land users.

All parties agree that there will be a need to set a N load goal per catchment. Once this has been established, all farmers must know the targets they are required to achieve.

All parties agree that <u>if</u> an allocation mechanism is instigated, it should be directed to all land uses in the catchment.

Little more need be said. The case is plainly made out for including the intensive land uses of dairying, cropping, horticulture and intensive sheep and beef farming within a leachate management regime. Issues of equity also arise if only dairy farming is subject to controls, while other land use activities which also leach nitrogen are not, a point repeatedly made by Mr Day. All intensive land uses need to be brought into the mix in order for the regulatory regime to be efficient and effective.

Scope to include extensive sheep and beef farming in the regulatory regime

[5-72] *Scope* in this context means the ability, as a matter of law, to consider and decide upon a particular issue. In turn, that depends on whether, at an appropriate stage in the proceeding, that issue has been raised by one or more of the parties in a way that makes it clear to all parties that the issue is *up for discussion.* Discussion of the point almost always involves a citation of the decision in *Re an application by Vivid Holdings Ltd* [1999] NZRMA 467 and the view expressed in that decision that to be within scope, the relief sought has to be ... *reasonably and fairly raised in the*

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course of submissions ... and whether it was raised ... *should be approached in a realistic workable fashion rather than from the perspective of legal nicety.*

[5-73] *Extensive sheep and beef farming* means the farming of cattle for meat and by-products, and of sheep for meat and wool, in the traditional way – without the use of processes such as irrigation. Mr Day submits that his original submission to the Council about NV POP was broad enough to capture extensive sheep and beef farming. In his submission he expressed the view that all land in the targeted catchments should be allocated an N loss figure. In that, he is supported by Fish and Game. Federated Farmers though point out that the Hearing Panel thought that there was not scope. The Panel said:

> ... there is no scope within submissions to include non-intensive sheep and beef farms within Rule 13-1. Even if submissions had sought that as an outcome, given the number of farms that would be potentially affected, that would be a matter more appropriately considered under a Plan variation or change.

[5-74] The Council's submission on the point also points to the decisions such as *Royal Forest and Bird Protection Soc v Southland DC* [1997] NZRMA 408 (HC) and *Estate Homes Ltd v Waitakere CC* [2006] NZRMA 308 (CA). It also identifies the actual language used by Mr Day in his submission (Exhibit MW10) – and indeed Mr Day quotes the extract himself. The language is quite tentative - ... *If by chance this model is correct and isn't economically prohibitive then more areas of land use should be included than those targeted to date.* In its summary of submissions on NV POP the Council certainly did not record Mr Day (or anyone else) as advocating the inclusion of extensive sheep and beef in the regime.

[5-75] We agree with the Hearing Panel on the point – there is no scope to bring extensive sheep and beef into the regime at present.

Section 293 process

[5-76] We also agree with the Council's submission that the use of s293 in these circumstances would be quite inappropriate. A move to include extensive sheep and beef farming would be one of great consequence throughout the region, and should be approached in an orderly and measured way. Given the number of persons and

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organisations who would have a vital interest, to use s293 to try to accomplish that within the present proceedings would be to create an administrative nightmare and would be very dubious procedurally.

[5-77] That is not to say that we are dismissive of the possibility on its merits. Given that extensive sheep and beef farming appears to produce about half of the N leachate in the region's waterbodies - see para [5-69] - the comprehensive and integrated sustainable management of resources would unquestionably be enhanced by the eventual inclusion of such a land use in a management regime. In the interests of equity among land users and in the interests of sustainable management we think the Council should promote a Plan Change as soon as it is able.

Practicality and costs of obtaining consents and permits for horticulture

[5-78] This issue arose in the context of commercial vegetable growing in the region. As part of avoiding risks to plant health for at least some varieties of vegetables, growers have a strategy of not growing some crops in the same ground in successive years. Sometimes the interval is longer than that. For instance, in the case of seed potatoes, a lapse of at least five years between crops in the same ground is required.

[5-79] Frequently, the crops will be grown on land not owned by the grower, but leased from another farmer who may, in other years, lease it to other growers where the successive crops are not incompatible, or may use it in his or her own farming operations for pasture or some other purpose. We understand that these lease arrangements are frequently quite informal, arranged at short notice, and settled on a handshake.

[5-80] It was argued that such casual and short-term arrangements could not reasonably be accommodated within a resource consent regime. It was said that the delay involved in preparing, lodging and negotiating a consent with the territorial authority could be incompatible with the ad hoc nature of the use, and that the costs of doing so, perhaps running into some thousands of dollars in each case, would be unsupportable for growers, who may have a number of such arrangements in place in any given year.

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[5-81] We have come to agree with Ms Helen Marr, the planner called by Fish and Game, that this concern has become overstated. If it was only to be the individual growers who could or would be required to seek the consents, we could see the basis for that argument. But, as was discussed at the hearing, it seems to us that it would make far more sense for a landowner, who knew or hoped that some of his or her holding might be attractive for such a purpose, to make a *whole of farm* application for a resource consent, with leachate and other factors being assessed at the high but plausible end of the range. The application would be presented on the basis that only a finite portion of the farm would be so used at any one time, and thus be leaching at up to the defined rate, in any one year. Depending on the exact nature of the consent required, its term could be indefinite or for a finite but still ample period of years, and the cost of the consent could be amortised over that time.

[5-82] We note too that, at present, (and there was no suggestion of changing them) to fall within the definitions of *cropping* and *commercial vegetable growing* in POP the areas occupied by those activities at any one time would have to exceed 40ha and 4 ha respectively. That, we imagine, may move many such casual and short-term uses outside the requirements for resource consents. If a consent was required, we assume it would be treated the same as other land uses.

[5-83] This argument appears to be the principal reason why the Hearings Panel did not include horticulture in the management regime, but on the evidence we heard we do not find it a sound and influential point, and we put it aside.

The Alternative Regulatory Regimes in front of us

[5-84] We now deal with the alternative regulatory regimes sought by the different parties – on the one hand the LUC based regime, and on the other, the possibilities offered by the pastoral industry bodies.

Land Use Capability Based Regimes

[5-85] We deal first with the common elements in the land use capability based approaches which Fish and Game/the Minister and the Council support. Then we move to considering the differences between the NV-POP with its Year 1, 5, 10 and 20 nitrogen leaching limits (supported by Fish and Game/the Minister) and the

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Council's proposal for only Year 1 nitrogen leaching limits for dairy-farming (with a three year step-down for existing dairy farming) which differs from the DV-POP. When we refer to *limits* the word is here used as indicating threshold limits for a *controlled* activity given the *restricted discretionary* activity default category allows consideration of greater leaching maxima under either of the proposed regimes. We recognise that the threshold limits for a *controlled* activity are the desired lower levels of nitrogen leaching, with that more favourable consent status set to encourage their adoption.

- *Land Use Capability (LUC) classifications*

[5-86] This system of classifying land is described as ... *a systematic arrangement of different kinds of land according to those properties that determine its capacity for long-term sustained production. Capability is used in the sense of suitability for productive use or uses after taking into account the physical limitations of the land.* It takes account of characteristics such as soil and rock types, landform and slopes, erosion susceptibility and history, vegetation cover, climate, and flood risk. There are eight classes. Classes 1 to 4 are suitable for arable cropping (including vegetable cropping), horticultural (including vineyards and berry fields), pastoral grazing, tree crop or production forestry use. Classes 5 to 7 are not suitable for arable cropping but are suitable for pastoral grazing, tree crop or production forestry use and, in some cases, vineyards and berry fields. The limitations on use reach a maximum with LUC Class 8. Class 8 land is unsuitable for grazing or production forestry, and is best managed for catchment protection and/or conservation or biodiversity.

[5-87] The NV POP adopted the LUC approach to leachate management because it was seen as focussed on the potential productivity of a given piece of land, rather than its current type and level of use. It also focuses on outputs, rather than inputs, and thus it allowed flexibility of choice of what can be produced on the land, and in the method of leachate management. It had a scheme of reducing N loss targets over a period of 20 years. The Hearing Panel did not retain the NV POP approach. Rather, it applied the LUC based N Loss target only to new dairy farms throughout the region, and with no reduction over time. The Minister, Fish and Game, Mr Day and the Council seek to have the NV POP approach restored.

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[5-88] Dr Ledgard regards the LUC based prescribing of N loss *limits* as having merit for future uses because it directs higher intensity farming uses onto land which has fewer limitations on its productive potential. He is not so supportive of it for existing uses because he believes that it does not recognise that the existing technologies in use have changed the productivity of the land, and that existing farms may thus be required to make major changes to meet what he describes as a relatively low N loss requirement.

[5-89] The proposal for an LUC based regime has its critics, some sternly so. Dr Edmeades, called by Federated Farmers regards it as a ... *fatally flawed* ... concept and thinks it most unfortunate that it was introduced into the debate. Dr Roberts, the Chief Scientific Officer for Ravensdown, is equally uncompromising, regarding it as having ... *no valid scientific basis.*

- *The basis of the LUC approach*

[5-90] The case for a natural capital/LUC approach begins with the premise that land available for primary production is a finite resource and that land based industries are the basis for the region's economic wellbeing. The allocation of an N loss limit based on the natural capital of the soils was identified in the report by *Clothier et al* (2007) as the best option to meet the dual requirements for continued economic growth and ongoing flexibility in land use in the region, while meeting water quality targets.

[5-91] The reasons why the Council selected the LUC approach was described by Mr. Maassen in these terms:

> NV-POP sought to identify those intensive food production systems that were the major contributors to non-point source nutrient leaching now and foreseeably in the future through growth as well as regulating those activities on a whole farm basis through annualised N output based leaching limits in kg/ha/year set at a level that achieves progress towards the water quality objectives while allowing maximum flexibility in land use recognising the different productive efficiencies of different soil types. This on-farm limit is expressed as a 'cumulative nitrogen leaching maximum' defined in the glossary of POP as:
>
> > Cumulative nitrogen leaching maximum means the total kilograms of nitrogen leached per hectare per year for the total area of a farm (including any land not

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used for grazing) and is calculated using the values for each land use capability class specified in Table 13.2.

Establishing limits requires a regime. A regime means a control methodology applied to a complex dynamic system in a coherent and reasoned fashion. Hallmarks of the regime had to be:

(a) Transferability – the ability to apply the regime to other water management zones where trends for non-point source contributions justified regulatory intervention;

(b) Scalability – the ability to apply the regime over a wider range of land uses contributing to poor water quality as required;

(c) Flexibility – allowing land owners to make decisions on resource use rather than being tied to existing patterns of activity;

(d) Output based – focussed on the effect and contaminant output of concern with individual farmers deciding how to achieve that at an operational level;

(e) Efficient – recognise the differences in finite soil resources and their relative productive efficiencies;

(f) Measurable – the mechanism had to be measureable through the application of current technology such as OVERSEER and enable calculation of the consequential outcomes of the regime for surface water quality.

[5-92] Dr Mackay, a Soil Scientist, currently Principal of Science and Programme Leader in the Climate, Land and Environment Group of Ag Research based on the Grasslands Campus in Palmerston North, was called by the Council. His evidence explains that in the absence of a method for calculating the soil's natural capital, a proxy that serves as a useful alternative is the ability of the soil to sustain a legume-based pasture that fixes nitrogen biologically under optimum management and before the introduction of additional technologies. Dr Mackay stated:

> A legume-based pasture is a self-regulating biological system with an upper limit of the amount of N that can be fixed, retained, cycled and made available for plant growth. Legume pasture dry matter base provides one indicator of the underlying productive capacity of the soil, taking into account the influence of new plant germplasm and the use of phosphorous, sulphur, potassium fertilisers, lime input, trace elements and technology to control pests and weeds. It reflects the underlying capacity of soil to retain and supply nutrients and water, and the capacity of the soil

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> to provide an environment to sustain legume and grass growth under the pressure of grazing animals.
>
> Estimates of the potential productive capacity of a legume-based pasture fixing N biologically under a *typical sheep and beef farming system* for each Land Use Capability (LUC) unit in New Zealand are listed under *obtainable potential carrying capacity* in the extended legend of the Land Use Capability worksheets, which are based on the capability for long-term sheep and beef livestock production.
>
> Using productivity indices (ie attainable potential carrying capacity) listed in the extended legend of the LUC worksheets for calculating the natural capital of soils is a new application of the information in the extended legend.

[5-93] We understand the criticisms of the LUC approach by Dr Edmeades, Dr Tillman and Dr Roberts, to fall generally under the following headings:

- LUC classes per se do not determine the actual or predicted amounts of N leached from dairy soils.
- The use of LUC in setting and managing nitrate leaching levels is not logical.
- The application of LUC to manage nitrate leaching in this case could *trap* future generations of farmers into a 1980's *time warp.*
- The LUC approach is inequitable.

We will consider those criticisms in turn.

- *LUC Classes Do Not Determine Actual or Predicted Amounts of N Leaching from Soils*

[5-94] It has never been suggested by the Council that LUC determined the actual or predicted amount of N to be leached. The actual N leached will be primarily determined by the land use and intensity of production. The LUC is a proven method of determining inherent soil productivity. The Council intends it to be used to allocate N leaching maxima across the various soil types and to encourage intensive farming towards higher quality soils. N leaching maxima will be allocated according to inherent soil productivity – irrespective of current land use or intensity.

[5-95] LUC Class I and II soils will produce more and require less input for output at a given level of production. The cost of technology inputs generally increases, as does the production. Soils on which production technologies have their biggest impact on production levels will also be those land types that provide the greatest challenge in

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mitigating N losses. Further, the number of options for mitigating N loss decreases as the producer moves from soils in LUC Classes I and II to those in Classes III and greater.

- *The Use of LUC in Setting and Managing Nitrate Levels is Not Logical*

[5-96] Dr Edmeades asserts that the LUC based approach is arbitrary and essentially meaningless because the anticipated effects on N loading relative to the current situation, when expressed as percentages, are within the margin of error associated with OVERSEER. In any case they are not dissimilar to the water quality differences anticipated to be achieved from the application of a single number limit advocated by Federated Farmers and other parties.

[5-97] It is our understanding that, (with the exception of Horticulture NZ, as discussed elsewhere) all the parties accepted OVERSEER as the best tool for measuring N loss from a farm. OVERSEER would be used in any of the regimes before us, with whatever inherent margin of error.

[5-98] In terms of the anticipated water quality results it is simply inaccurate to suggest that the *single figure* limits proposed by the appellants will achieve similar results to the LUC approach put forward as NV POP. We discuss this further elsewhere in our decision.

[5-99] We accept the evidence of Dr Mackay when he states:

> The major strength of this approach is that in calculating the N leaching loss limit, it considers the whole catchment and is not prescriptive. It is not linked to current land use, but rather linked to the underlying land resource in the catchment. The approach does not target the land use or intensity of use and it does not place limits on outputs; rather it allocated N leaching loss limits to each LUC unit based on the biophysical potential of the natural capital of the soil. It treats farms with the same resources in the same manner, regardless of current use. It disadvantages high input, highly productive farms on soils with little inherent natural capital (eg sand country, gravels and steep land soil) to limit N leaching, even when BMPs have been followed.

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He goes on to say that to achieve the most efficient use of resources with the least environmental impact, N leaching loss limits should be weighted towards those soils with the greatest natural capital, and continues:

> The LUC natural capital approach is also portable beyond the priority catchments and sends important messages (it does not reward the biggest polluters, does not penalise conservative behaviour and does not disadvantage owners of undeveloped land) and timely signals (eg establishes a target for mitigation practice and to find a threshold above which the capital investment in increasing production must be extended to mitigation technologies, including significant modifications to farm design).

[5-100] Dr Roberts' criticism of the LUC followed a similar theme to that of Dr Edmeades. He insisted that using a *1970s Land Classification* as a proxy for the natural capital of the soil resource is itself arbitrary. He argues that the white clover /grass system (on which LUC is based) is not natural and has in fact been created by input. We do not disagree. However, in our view that does not stop the LUC reflecting the inherent productivity of a particular soil resource and Dr Roberts conceded this in answers to questions from the Court – although he thinks there are better ways of doing it. He also agreed that under the proposed LUC regime the more intensive land uses will be *directed or encouraged* towards soils of higher quality. We see this as one of the major advantages of the LUC regime over those proposed by Federated Farmers, Fonterra and Ravensdown, and better providing for the efficient use of resources.

- *The Application of LUC Could Trap Future Generations of Farmers into a 1980s Time Warp*

[5-101] Dr Edmeades' point here is that there are a number of existing management practices (which he lists) and in the future there will be more developed that control nitrate leaching. He appears to be suggesting that an LUC based policy does not allow for the implementation of such technologies and for this reason dairy farming will be trapped into a 1980s *time warp*.

[5-102] We have difficulty with the logic of this argument. The LUC simply informs an allocation regime. The use of technologies such as those Dr Edmeades lists are

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available to anyone to assist in achieving the N cap for any particular LUC class, as they would be for any of the N loss management regimes before us. It is, however, acknowledged, as we have already stated, that as the LUC class/natural capital of soil declines, the available options to reduce N loss become fewer, and become more expensive.

- *The LUC Approach is Inequitable*

[5-103] Dr Edmeades argues that those farmers on lower quality soils: - Class III and beyond, who have invested in technologies such as irrigation, supplements, modern pasture species, and management are being disadvantaged. He states that dairy farming on this land will now be less profitable and for some may become uneconomic.

[5-104] The evidence did not support this argument. And the LUC classification for soils in sand country on the West Coast of the region, where irrigation and recontouring to create dairy farms has occurred on a large scale, has been refined to recognise the investment to overcome some of the production limitations of the soils – although Dr Roberts argues that the adjustment did not go far enough.

[5-105] In terms of such technologies as nutrient inputs, we agree with Ms Barton when she states:

> With regard to technologies such as nutrient inputs, these technologies, where applied, have had impacts on the levels of nutrient leaching from the farming operations. These inputs are hard to mitigate on lower quality soils and produce lower levels of production compared with elite soils. The requirement to manage this situation and provide mitigation is not unreasonable. It is more inequitable to fail to distinguish such farming operations from existing operators that do not generate the same effects or to fail to recognise the inherent capacity for greater production and mitigation on superior soils where they exist.

[5-106] Dr Edmeades also posits the scenario of intensive agricultural production on high quality soils where a farmer has a generous allocation for N leaching. It could well be possible for a farmer to employ current technologies in farm management practices to reduce the actual nitrate leaching below the limit required by the LUC, thereby contributing to even better water quality. He considers that the LUC regime

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will not encourage such activity. But neither will any of the other regimes, including the Fonterra approach which grandparents the N leaching level below 27kgN/ha/yr to the 2007-2010 leaching of an existing farm.

[5-107] An N trading regime would address this issue and we refer to the possibility of such a scheme elsewhere in the decision.

[5-108] Those opposed to the LUC approach stated that the *reasonably practicable* farm practices or *Best Practicable Option* (BPO's) would also address this issue. However we have reservations regarding the definition, practicalities and enforceability of any provisions related to *reasonably practicable* farm practices or BPO's. Further, we see no reason why many of those management options listed as BPO's should not form part of any farm management regime irrespective of what N leaching regime is adopted.

[5-109] Other approaches to managing N loss including *grandparenting* tend to penalise those farming superior soils and results in sub optimal utilisation of the finite soil resource. Farmers on high quality soils may be prevented from taking advantage of the productive potential of their soils if they have been *grandparented* to a production level below the soil's inherent productive capacity. It favours greater utilisation of inferior soils with associated increases in inputs necessary to sustain production.

[5-110] A further criticism of the LUC approach was contained in the findings of the Hearings Panel when they held that assigned N leaching maxima allocated across the LUC classes to be arbitrary. They found that the only scientifically robust figures were those of Dr Mackay before they were *adjusted* by the council officers to form Table 13.2 NV POP. For this reason the Panel rejected the LUC approach for existing dairy farms in favour of *reasonably practicable farm management practices.*

[5-111] The reasons given by the Council for the adjustment of Dr Mackay's original figures were to ... *recognise the likely distribution of existing leaching values particularly in the case of class IV and V soils. There were also social considerations and practical considerations applying to dairy farms in those situations that perhaps*

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warranted higher values than the natural productivity values. The Council argued that making such adjustments to address the needs of existing users and equity issues is a much more transparent and appropriate approach than jettisoning the LUC approach entirely. We agree.

[5-112] Interestingly, the Hearings Panel retained the LUC approach for new dairy farms (an approach supported by Dr Ledgard). The reasons given for the rejection of LUC approach for existing dairy farms was that it was inequitable and did not recognise the investment in technologies to improve production particularly on soils of LUC III and beyond. There would be a fiscal impact on these farms. We agree and think that outcome (to some extent) is inevitable. It is in our opinion an intended consequence of the proposed regime to encourage more intensive land use on the higher quality soils where fewer inputs such as N fertiliser are required. These soils provide more options for production and more options for mitigating N loss.

- *Conclusion on LUC*

[5-113] We find the evidence strongly supports the use of the LUC approach as a tool for allocating N limits for all the land uses contemplated by the Council for N loss management.

- *Setting the Nitrogen Leaching Maxima*

[5-114] We had evidence about the NV POP maxima for N leaching for Years 1, 5, 10, and 20 from several Council witnesses. For each target catchment, a calculation was made on what the annual load of SIN would be in the rivers if all land in the catchment leached at the allowable Table 13.2 maximum leaching rates. The Council then calculated what the load of SIN would need to be in those rivers if the standards in Schedule D are to be achieved.

[5-115] The Council provided evidence of the existing loads, the improvements required, and the attenuation factor from land to water. We did not understand any of that to be in dispute and we accept that to be an appropriate basis for settling the rules regime.

• *LUC based limits at years 1, 5, 10 and 20 (the Fish and Game/Minister) Option*

[5-116] The NV POP at Table 13.2 set reducing N loss targets or values, based on LUC calculations, for years 1, 5, 10 and 20 for all new farms and for existing farms in target water management sub-zones.

[5-117] The Minister, and Fish and Game, seek a return to the NV POP regime, with years 5, 10 and 20 in Table 13.2 to read:

Table 13.2 Cumulative nitrogen leaching maximum by Land Use Capability Class (kgN/ha/yr)

Period (from the year that rule becomes operative)	*LUC* I*	*LUC* II*	*LUC* III*	*LUC* IV*	*LUC* V*	*LUC* VI*	*LUC* VII*	*LUC* VIII*
Year 1	30	27	24	18	16	15	8	2
Year 5	27	25	21	16	13	10	6	2
Year 10	26	22	19	14	13	10	6	2
Year 20	25	21	18	13	12	10	6	2

[5-118] Two reasons given by the Hearing Panel for deleting the reducing loss targets for existing dairy farming are:

- The year 5, 10 and 20 nitrogen leaching reduction values were derived arbitrarily and do not relate to the achievement of the Schedule D water quality standards;
- The achievement of the year 20 leaching values will not resolve the actual environmental issues of concern (namely the high soluble inorganic nitrogen levels and levels of periphyton in the affected rivers) for those few rivers where Council has been able to assess the effect of Rule 13-1. In some of the target catchments which we have decided should remain in Table 13.1, we have no idea how effective the rule will be.

[5-119] The Hearing Panel's decision refers to the concern of submitters about the reducing leaching rates in Table 13.2 as being overly restrictive. It said:

> Given the concern about the year 5 and beyond leaching rates in Table 13.2, we next considered whether or not the achievement of the recommended year 20 leaching values would solve the actual environmental problem of concern, namely excessive soluble inorganic nitrogen (SIN) levels in rivers contributing to periphyton proliferation.
>
> A key conclusion we reach is that the effect of applying the Table 13.2 nitrogen leaching reductions is negated by allowing ongoing dairy conversions to occur (which

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> Rule 13-1 does[3]), such that after 20 years the river water quality and periphyton biomass will be no better in 20 years time than it is now. We accept that it will stop the situation from getting worse, but see little sense in such an approach.

The Hearing Panel went on to refer to around 20% of targeted dairy farms not being able to meet the year 20 leaching values in a practicable and affordable manner and the significant cost of imposing Rule 13-1 on existing dairy farms: these are matters we return to later.

[5-120] We had evidence that explained the rationale for the nitrogen leaching reduction values as being a uniform percentage decrease for the better LUC classes and a lesser percentage decrease for the LUC classes which would present a greater challenge for existing dairy farming. We are satisfied that they are useful in achieving the purpose of the One Plan regime. We also had different evidence, including the results of modelling, on the water quality outcomes that would be achieved in front of us than the Hearing Panel. In discussing the merits of reducing targets, Ms Marr, a consultant planner called by Fish and Game, summarises the position in this way:

> The environmental benefits of some of the options are set out in the evidence in chief of Dr Roygard et al, Dr Ausseil, Dr Dewes, and Associate Professor Death. These are modelled in the evidence of Dr Ausseil and Dr Roygard. The evidence is complex, but is helpfully summarised and agreed to by all experts at the expert conferencing. The experts agree that of the scenarios modelled, the NV POP year 20 numbers will lead to the greatest reduction in nitrogen pollution in the targeted catchments.

We look further at the modelling in considering the different regimes.

[5-121] When questioned, Mr Rhodes, an economics witness for the Council, said there are benefits to the 20 year regime, the time frame in the NV-POP, in the certainty it would create for investment decisions, such as on the life of infrastructure. It would signal the position a long way out and allow people to be aware of and take responsibility for the externalities of their farming activities within the framework of the One Plan. We see that as an advantage over the *single figure* and a reliance on a future Plan change or review. If resource consents are granted for a term of, say, 20 years (which was indicated as the likely term), it will be all but impossible to effectively reduce leaching, even if there is a rule change within that period. It also

[3] We presume the Hearing Panel was referring to Rule 13-1B, having new dairy farming land use activities as a *controlled* activity.

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better aligns with what Mr Maassen referred to as a *journey in time* and the need for a credible plan that provides a definitive pathway to the long term improvement in water quality particularly in the specified catchments.

[5-122] We address the other reasons given by the Hearing Panel for deleting the reducing loss targets for existing dairy farms elsewhere in this Decision.

The Year 1 limit (the Council approach)

[5-123] The DV POP at Table 13.2 set a single cumulative nitrogen leaching maximum by Land Use Capability Class. The table is this:

Table 13.2 Cumulative nitrogen leaching maximum by Land Use Capability Class (LUC) (kgN/ha/yr)

LUCI	LUCII	LUCIII	LUCIV	LUCV	LUCVI	LUCVII	LUCVIII
30	27	24	18	16	15	8	2

[5-124] The Hearing Panel considered that these limits (the Year 1 limits) should not apply to existing dairy farming in the targeted WMSZs but only to dairy conversions everywhere in the region. Among other reasons it concluded that firstly Dr Mackay's *natural capital* approach is not based on technological changes that have enabled farmers to lift productivity levels since the 1980s, and secondly ignores existing land use and existing levels of farm production which is inequitable and impracticable. The Panel also said that the officers have taken Dr Mackay's scientifically derived values and arbitrarily amended them to address the second point which has resulted in Table 13.2 lacking scientific robustness.

[5-125] However, subsequently the Council proposed that the Year 1 limits should apply to existing dairying in the targeted WMSZs, but that the maximum only needed to be achieved after three years. That involved requiring farm N loss to be estimated, using OVERSEER, and if that is higher than the CNL maximum measured as kgN/ha/yr, a 33% reduction in that amount, or 2kgN/ha/yr, whichever is greater, would then be required in each year over the ensuing three years. Further, the Council is proposing that Rule 13-1 should come into force in different years for different WMSZs; eg 1 July 2013 for Mangatainoka, 1 July 2014 for Upper Manawatu above Hopelands, etc – see Table 13.1.

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The Pastoral Industry Alternatives

[5-126] Before looking at the individual positions of the pastoral industry parties for dairying we summarise the rule regime sought, drawing on the helpful analysis and table provided by the Council in closing.

[5-127] The regimes for existing dairying were all based on management thresholds for on-farm average cumulative N leaching values:

Average cumulative leaching in kgN/ha/yr	<24	≥ 24 but ≤ 27	>27
Fonterra	Controlled up to N leaching to 2007-2010 years No power to require N leaching mitigation	As with <24	Controlled up to N leaching to 2007-2010 years Power to require reasonably practicable Tier 1 N leaching mitigations
Ravensdown	Permitted	Controlled No power to require N leaching mitigations	Controlled Power to require reasonably practicable Tier 1 N leaching mitigations
Federated Farmers	Permitted	Controlled Power to require reasonably practicable N leaching mitigations	Controlled Power to require reasonably practicable N leaching mitigations

Common features were:

- The management threshold based on an average N leaching value kilograms N/ha/year
- Below the management threshold the farming operation is grandparented to that number. In the Fonterra proposal, the capping or grandparenting of existing farmers at their current leaching rate was also to levels determined on the basis of N-leaching from the 2007-2010 years.
- The management threshold interventions are based on reasonably practicable measures requiring consideration of at least the following factors: present

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infrastructure, present farming system, capital structure of the farming business, cost.

- In the case of Fonterra and Ravensdown mitigations were limited to those classified as Tier 1.

[5-128] *Grandparenting*, taken literally in the RMA context, means allowing existing operators to carry on producing current levels of effects, particularly adverse effects, and imposing restrictions only upon new entrants to whatever activity is being dealt with. It hardly need be said that it is a concept usually favoured by existing operators, who rationalise it by pointing to the investment they have made in the activity, and claiming that it would be unfair to require them to change, (or cease, in extreme cases) the way they do things.

[5-129] The Fonterra regime for existing farms differed from the regimes proposed by Federated Farmers and Ravensdown in an important particular. The Fonterra regime, with its requirement that ... *the annual nitrogen leaching shall not exceed the maximum nitrogen leaching loss that occurred from the land over the period 2007-2010 (or such shorter period for which there is available information)* also involved *restricted discretionary* activity status for those farms wishing to exceed that level.

[5-130] Fonterra did not appear to take a position on new dairying in its opening or closing submissions, but confined its attention to existing dairying. However, positions different to the Council's were taken by Ravensdown and Federated Farmers on new dairying. Ravensdown took a similar position to the one taken on existing dairying. That is, up to 24 kg N/ha/yr would be a *permitted activity*, and above that a *controlled activity*. Between 24 and 27kg, there would be no power to require N leaching mitigations but above 27kg there would be power to require Tier 1 N leaching mitigation. Federated Farmers took a different position and proposed an average cumulative leaching in kg N/ha/yr of up to 24 as a *permitted activity*, but between 24 and 45 as a *controlled* activity with the power to require *reasonably practicable* leaching mitigation. In closing Federated Farmers ultimately proposed *restricted discretionary* activity status for over 27kg, submitting that in practice it was likely to be little different from a *controlled* activity.

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[5-131] New dairy farming anywhere in the region that does not meet the cumulative nitrogen leaching maximum would be a *restricted discretionary* activity under the Council's proposal, but not under the Ravensdown approach, or that of Federated Farmers, which proposed 45kg as the threshold for *non-complying* activity status. In summary, for new dairying:

Average cumulative leaching in kgN/ha/yr	<24	≥ 24 but ≤ 27	>27
Ravensdown	Permitted	Controlled No power to require N leaching mitigations	Controlled Power to require reasonably practicable Tier 1 N leaching mitigations
Federated Farmers	Permitted	Controlled Power to require reasonably practicable N leaching mitigations	Restricted Discretionary but >45 Non-complying

The Fonterra Option

[5-132] Dr Ledgard supports the requirement of DV POP that existing dairy farms in *targeted* catchments should be required to:

a) Prepare and comply with annual Nutrient Management Plans (Rule 13-1)
b) Exclude cows from waterways (Rule 13-1)
c) Avoid direct runoff from farm lanes to waterways (Rule 13-1)
d) Manage the use of fertilisers (Rule 13-2)
e) Comply with stock feed and feedpad use rules (Rule 13-3), biosolids discharge requirements (Rule 13-4), and farm effluent discharge requirements (Rule 13-6)

For existing dairy farms Dr Ledgard believes that the focus of reducing N leaching should be on the quartile of farms (assessed on a regional basis) leaching the greatest quantity of N and should require the adoption of *Tier 1* – (see para [5-136]) mitigation options.

[5-133] Mr Sean Newland did not give evidence in an expert capacity, but rather as Fonterra's Manager, Sustainable Dairying Policy. He said that Fonterra accepts the principle of all dairy farms in targeted catchments being regulated through a resource

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consent process, however he lodges a considerable caveat in the case of existing operations, and says, as did Dr Ledgard, that it is the *bad performers* who should be the main target of rules. Unlike Dr Ledgard though, he does not support a regime based on LUC classes. Through him, Fonterra proposes what he described as ... *a hybrid form of grandparenting*. His evidence is that Fonterra regards some of the Council's modifications to the DV POP as outlined by Ms Clare Barton, as:

- Relatively arbitrary in its time limits for farmers to meet N loss limits.
- Providing insufficient time to raise land manager awareness of the need to manage N loss from pastures and to up-skill and educate farmers on the available techniques to reduce N loss.
- Providing inadequate time to implement management tools on farms, particularly those likely to find it difficult to adapt without significant economic hardship.

We have touched on some aspects of this point in discussing Voluntary (and the like) approaches – see eg para [5-9]. We need to say here though that we were more than a little surprised to hear the country's largest dairy farming-related organisation, which champions the *Dairying and Clean Streams Accord* of May 2003 as a model of voluntary environmental best practice, telling us that: a) up to 20 years (from now) is a *relatively arbitrary* period within which to achieve quite modest N loss targets; and b) there are land managers out there who are unaware of the need to manage N loss from pastures, and who are unaware of available techniques to do so. We particularly note this extract from the *Priorities for action and performance targets* section of the *Accord*:

- Nutrients are managed effectively to minimise losses to ground and surface waters
  Performance target
  100% of dairy farms to have in place systems to manage nutrient inputs and outputs by 2007

We can only assume that if these *unaware land managers* do exist, they have been farming in some form of information vacuum for the last 20 years, and certainly for the nine years since the *Accord* was signed.

[5-134] The version of Policy 13-2C now advanced by the Council as an acceptable formula is this:

> Policy 13-2C: Management of new and existing dairy farming land uses
> When making decisions on resource consent applications, and setting consent conditions for dairy farming as a land use, the Regional Council must: ...

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(b) seek to exclude cattle from the following waterbodies within the water management sub-zones listed in Table 13.1:

(i) a wetland or lake that is a rare habitat, threatened habitat or at risk habitat.

(ii) a river that is permanently flowing, or is intermittently flowing with an active bed width greater than 1 metre at any time the bed contains water.

For the purposes of this policy "exclude" means stock access must be restricted to the waterbody by any permanent or temporary fence or barrier or any natural barrier. Where there are more than 1350 stock movements per week across a river identified in (b)(ii) then a culvert or bridge shall be installed.

We note that Fish and Game and the Minister propose replacing the word *seek* with a requirement to exclude cattle.

[5-135] We have considerable reservations about this provision. First, a policy that requires the Council to ... *seek to exclude cattle from ... water bodies* ... imposes no measurable standard at all. Keeping stock out of waterways is such a basic step in protecting waterways from effluent pollution that it must be regarded as an absolute requirement. *Seeking* to do so is simply not good enough. Secondly, we had no convincing explanation for the number of 1350 stock movements per week as the policy trigger for requiring a culvert or bridge which is reflected in the condition for *controlled* activity status. If, for instance, such a river is crossed by the race leading to and from the milking shed then, assuming twice per day milking, it will be crossed four times per day by each cow, so only 48 cows or fewer could be accommodated without a culvert or bridge. If the river is not bridged and these 48 cows crossed the river for milking twice each day, if only 10% of them defecate and/or urinate while doing so, this still means that on 19 occasions on each and every day, the waterbody will be polluted with directly deposited sewage. That cannot be acceptable in the present era. Again, we particularly note two parts of the *Priorities for action and performance targets* section of the *Dairying and Clean Streams Accord*:

- Dairy cattle are excluded from streams, rivers and lakes and their banks.

  Performance Target

  Dairy cattle excluded from 50% of streams, rivers and lakes by 2007, 90% by 2012.

- Farm races include bridges or culverts where stock regularly (more than twice a week) cross a watercourse.

  Performance Target

  50% of regular crossing points have bridges or culverts by 2007, 90% by 2012.

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We do of course hesitate before deciding not to accept an outcome agreed to by parties between themselves. But on occasions the Court feels compelled to do so. As outlined in *Halswater Holdings Ltd v Selwyn DC* (1999) 5 ELRNZ 192 notwithstanding what the parties may agree ... *there is still a proceeding to be determined as the Court still has a discretion (to be exercised judicially of course) to grant or refuse consent* ... (or, in this case, to settle upon RPS or Plan provisions which best accord with the purpose of the Act). On this topic, we cannot imagine any reason why the POP, a document being brought into existence nine years after the *Accord*, when both knowledge and management techniques are so much more sophisticated, should have less exacting standards than that document contains, and to allow it to do so would be to fail to give effect to the purpose of the Act.

[5-136] Thirdly, the restriction of ... *reasonably practicable measures* ... to those defined as *Tier 1* measures is not acceptable. As ultimately advanced by Mr Gerard Willis, Fonterra's consultant planner, with the purpose of reducing the subjectivity of interpreting ... *reasonably practicable measures* ... Tier 1 mitigation measures were defined as:

> *N fertiliser use:*
>
> -Application of N fertiliser according to FertResearch fertiliser Code of practice
>
> -Avoidance of winter N applications
>
> -Use of frequent low N rates (eg ≤30kgN/ha during slower growth and ≤50kgN/ha at other times
>
> -Reduction in N fertiliser use and replace lost production by low protein brought-in feed
>
> *Dairy farm [ie dairy shed] effluent*
>
> -Use of land application rather than two-pond discharge systems
>
> -Ensure application area is sufficient to achieve ≤150kgN/ha/yr (and reduce fertiliser N accordingly)
>
> -Use of storage (sealed for leakage), deferred application and low rate application methods as required according to soil risk
>
> *Brought-in feed*
>
> -Use of low-protein feed sources rather than brought-in pasture silage
>
> -Reduction in N fertiliser use and replace lost production by low-protein brought-in feed
>
> *Winter forage crops*
>
> -Minimisation of use of forage crops (particularly winter forage crops)

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-Minimal or nil cultivation for crop establishment

-Minimisation of N fertiliser use by soil N testing to define requirements

Soil management

-Apply DCD according to industry specifications

Farm management options

-Winter cows off-farm (preferably in low-N-sensitive catchment)

Tier 2 mitigation measures are:

... one of the following nitrogen leaching mitigation measures:

-Installing constructed or artificial wetlands

-Create riparian or buffer strips beside stream margins

-Cease use of N fertiliser

-Use stand-off pads or animal shelters (lined for effluent collection) during autumn/winter with effluent storage system and optimised land-application system for effluent use in low-risk periods

-Introducing ungrazed pasture or treed areas

Mr Willis acknowledges the Tier 1 measures to be ... *nil-low cost* ... . We would go further and classify them as generally being no more than the responsible farm management practices we would expect any farmer to follow, even if confident that his or her N leaching was satisfactory. If there is any question that a given farm may not meet a required leaching standard, it is self-apparent that more than stock-standard ... *nil-low cost* ... efforts and measures are required.

Some Other Considerations

[5-137] The Council, in closing, submitted that Fonterra's proposal had other weaknesses. These included the arbitrary nature of the nitrogen leaching limit of 27 kgN/ha/year, derived as the leaching from the 75th percentile of all dairy farms in the Manawatu Region, with the remaining 25% presented by Fonterra as targeting of farms where the most environmental gains are likely to be made as the primary purpose and targeting the laggards as the secondary purpose. This did not reflect the position across different catchments, such as the 49% across the Upper Manawatu Catchment. Also the Council was concerned, that the regime would unfairly grandparent existing dairy farms operating below the management threshold. The Council was of the view that there is no reason why those below the management threshold cannot, and should not, make a contribution to improving water quality. The evidence is plain that they can, and at a reasonable cost. Dr Tillman, a witness for

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Federated Farmers, said precisely that. The Council also criticised the assumptions in Dr Ledgard's modelling of the water quality improvements which we shall return to. Finally, and most importantly, the Council questioned how effective the rule regime would be in practice.

[5-138] We accept the point made by Mr Willis that the Fonterra approach does not focus on reducing N leaching from only the worst 25% when applied to the *specified water management zones*. But even though 49% of farms in the Upper Manawatu for example would exceed the 27 kgN/ha/year threshold and be caught under the more stringent *controlled* activity regime, that regime would allow leaching up to the level of the 2007-2010 years with consideration only of Tier 1 mitigations.

The Ravensdown Option

[5-139] As we said earlier, Ravensdown proposes a regime requiring ... *improvement towards* ... target loads over a five year period; non regulatory methods such as good practice and education; investigation of links between intensive farming and actual effects, aiming towards an agreed criteria or standard for each WMSZ to be introduced by way of a Plan Change. In the meantime it proposes that both new and existing dairy farms emitting less that 24kgN/ha/yr be *permitted* activities; those exceeding 24kg being *controlled* activities with those exceeding 27kg being required to adopt ... *reasonably practicable farm management practices* defined as Tier 1 mitigations.

[5-140] The Council also had a major concern about the suggestion from Ravensdown that the regime should only last five years, emphasising that it had already spent a considerable sum getting the One Plan to this point.

Federated Farmers' Option

[5-141] We have also mentioned that Federated Farmers agrees that it would be appropriate to include intensive (ie irrigated) sheep and beef farming within the Rule regime. As we said earlier it does not agree that cropping (for fodder) should be an included activity and, apart from agreeing with the view that the casual basis on which land is used for cash cropping makes management of a resource consent regime *too hard*, it has no view about vegetable production. It submits that low risk dairying

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should be a *permitted* activity. The Federation opposes the use of the LUC classification system as the basis for such a regime and supports a so-called single figure N leaching regime of 24 kgN/ha/yr above which existing dairy farms should be required to do what is ... *reasonably practicable* ... to reduce N leaching as a *controlled* activity. New dairy farms assessed as leaching not more than 24kgN/ha/yr would be a *permitted* activity; those between 24 and 27kg would be a *controlled* activity, and those assessed at more than 27 and up to 45 kgN/ha/yr would require a resource consent as a *restricted discretionary* activity. Beyond that, a *non-complying* consent would be required.

[5-142] The Council considered the Ravensdown and Federated Farmers regimes together because of their family likeness and considered them to have many of the same problems as the Fonterra approach. Importantly, the planning goals which they sought to implement were only to *maintain* water quality. Their planning witnesses acknowledged that they had to rely on the experts as to what the appropriate N leaching threshold figure should be for the various consent categories – so did Mr Willis, Fonterra's planner.

What the modelling tells us

[5-143] Extensive modelling of the different scenarios was done, including modelling over the course of the hearing as the *single figure* regimes proposed by some parties gradually emerged. The modelling tended to focus on the Manawatu and Mangatainoka Rivers, perhaps unsurprisingly because of their water quality problems.

[5-144] Fonterra submitted that the modelling work can only be used as a guide to rank the various proposals. We are well aware of the nature of modelling as a tool and of the need to take care in considering whether the modelling represents reality.

[5-145] While there was some questioning of the assumptions built into the models, they all show the most positive trend towards water quality improvement is the re-adoption of the NV-POP N cumulative N leaching maximums (with year 1-20 LUC based maximums) sought by Fish and Game (recognising that there will still be the ability to apply to exceed those maximums by way of successful resource consent application – just as there is under any of the scenarios modelled).

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[5-146] There is no doubt that the regime which is likely to deliver the best water quality outcome is the Fish and Game and Minister's one (with year 1-20 LUC-based limits), as confirmed by all the modelling (both the initial and further modelling) undertaken by Dr Roygard, Ms Clark, Dr Ausseil and Dr Ledgard. The yet further modelling carried out by Dr Roygard confirmed that. The Fish and Game/Minister regime is likely to achieve the desired water quality improvements more often, and for longer periods, especially during times of low flow which, as Dr Scarsbrook, an ecology witness for Fonterra, acknowledged is the most important time for maintaining aquatic values. The other approaches result in no, or very limited, improvement in water quality.

[5-147] While Dr Ledgard's modelling results came in quite late in the piece, we are satisfied that there was sufficient opportunity to adequately consider them, and prepare evidence about them.

[5-148] There were several issues raised about the assumptions and approach used in the modelling undertaken by Dr Ledgard (which mirror issues raised with the Fonterra's rule regime approach). We mention them for completeness. One concern was the limitations of the 10 year time horizon (as opposed to the 20 year) used in other modelling.

[5-149] A significant concern was that the Ledgard modelling did not factor in that fodder cropping could be undertaken on non-intensive sheep and beef farms to support the dairy industry (for example in the Coastal-Rangitikei Catchment) rather than on the dairy farms themselves. This would transfer nitrogen from one part of a catchment to another, but would not necessarily reduce it or improve water quality within the catchment (particularly if fodder cropping is not included within the rules regime). Also, the wintering-off of dairy cows on non-intensive sheep and beef farms could have the same effect.

[5-150] The modelling by Dr Roygard and Dr Ausseil was based on intensification scenarios (increase in dairying of 11% and 18%, and an increase in leaching from non-intensive sheep and beef farms from 10 to 12 kgN/h/year over the next 20 years) and an increase in cropping on non-intensive sheep and beef farms to support the dairy

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industry. These scenarios were accepted as realistic by the agricultural experts in conferencing (and by Dr Ledgard in his reply evidence).

[5-151] Dr Ledgard did not model an 18% intensification, or an increase in leaching on non-intensive sheep and beef farms, or an increase in cropping on non-intensive sheep and beef farms to support the dairy industry. However, in cross examination, Dr Ledgard accepted that intensification on non-intensive sheep and beef farms in the region could occur with an increase in nitrogen leaching by as much as *+22% on sheep and beef farms* over the next 10 years. Dr Ledgard accepted this on the basis of the evidence he presented to the Environment Court when it heard the Waikato Plan Variation 5 appeals. Dr Ausseil had modelled a 20% increase in nitrogen leaching over 20 years – a much more conservative figure.

[5-152] A yet further concern was the reality of assumptions about the lifting of the performance of existing dairy farmers and the likely ensuing reductions in N leaching. These included questions about whether existing dairy farmers, *grandparented* at the rate of 27 kgN/ha/year, would consider this to be an entitlement. The point was made that there would be no requirement or incentive for them to voluntarily reduce their leaching rate by implementing *Tier 1* mitigation practices and, perversely, there would be an economic incentive to leach up to this entitlement.

[5-153] In the end even Dr Ledgard accepted that there were a number of issues with the modelling he had undertaken and that Dr Roygard's modelling was more reliable.

[5-154] The regimes proposed by Ravensdown and Federated Farmers were not modelled by their proponents. This is not surprising given their late appearance during the course of the hearing. It is also hard to see how the concept of *reasonably practicable* farm management practices could be effectively modelled given the concept necessarily implies a judgment call. However we had sufficient modelling of different scenarios from Dr Roygard and Dr Ausseil so that taking even the most positive view of what the regimes might achieve, the results would be a long way short of meeting the objectives and policies and Part 2 of the Act.

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[5-155] Fonterra raised concerns that economic considerations were not factored into the development of the Schedule D limits and that the nutrient parameters in particular are overly conservative and largely unachievable. However, the evidence of witnesses for the Council, and particularly Associate Professor Death, satisfied us that the Schedule D limits were set in a pragmatic way, and represent a good, rather than excellent or perfect level of protection for water quality values. We accept that the nutrient limits were established recognising the need for trade-offs between what would be an ideal ecological outcome and social, practical and economic considerations. We recognise that no regime proposes meeting the Schedule D limits at all flows.

[5-156] We are satisfied that the Schedule D limits represent environmental bottom lines, which are intended to achieve the objectives of the Plan.

[5-157] We now turn to considering the social and economic effects of the different regimes in front of us.

Social and economic effects

[5-158] The primary industries submitted that the LUC regime would impose social and economic costs on existing dairy farmers, as well as on the community, and there needed to be robust and conclusive cost and benefit evidence to justify this. This is reinforced by the POP's recognition of the importance of farming to the social, cultural and economic wellbeing of the region and its people.

[5-159] In opening, the Council's position, which was described as aligned to Fish and Game and the Minister on existing farming, was described as:[4]

> Water quality improvements cannot be achieved while completely protecting the balance sheets of farmers or those who are capital constrained;
>
> Those farms that can meet the specified targets should be a controlled activity providing them with an easy consenting pathway that sets conditions to control the contaminant pathways for nutrients through a whole of farm consenting regime;

[4] Council's opening legal submissions, paragraphs 10(f) – (k).

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The rate of change expected of farmers significantly beyond the cumulative nitrogen leaching values must be reasonable and a consenting pathway must exist (through a restricted discretionary classification) for those intensive food production systems (in about the 90th percentile) that cannot meet the targets. No farm should be rendered uneconomic because the available array of mitigation measures will be insufficient over the life of the plan to achieve the specified nitrogen targets;

A full suite of mitigations must be considered by those farms that cannot meet the specified cumulative nitrogen leaching values including what Fonterra NZ Limited calls 'Tier 2' mitigations;

The choices as to the mitigation measures to be adopted and the rate of the implementation is primarily for the individual farmer to choose with the regulatory agency concerned with whether the targets are met and if not the sufficiency and pace of improvement and its overall reasonableness;

Those farmers in lower quality soils will be more challenged than others. A proper analysis by a farmer of the proper structure of the farming platform must include the farmer's mitigation responsibilities.

[5-160] Mr Jeremy Neild and Mr Anthony Rhodes were engaged by the Council to prepare a report on the economic impacts of the proposed N leaching values (ie the implementing of Rule 13.1 and Table 13.2) for the hearing before the Panel. Both are well-qualified to do so and gave evidence at the hearing. Their material is drawn from case studies supplied to them, and from data from MAF Farm Monitoring for the years 2007/08 to 2010/11, from which they draw what they describe as ... *an indication of the relative affordability of N loss mitigation costs.*

[5-161] They summarised the position in this way:

Overall, the average cost of N-loss mitigation is equivalent to less than 5% of annual cash farm expenses. This does not appear to be an excessive cost to pay to mitigate off-farm impacts. Clearly, at 16.6%, the cost of mitigation for Group 1 farms is much more significant. For Group 2 farms, an additional cost equivalent to 7.5% of cash farm expenses may be significant in periods of low product returns or lower-than-average production.

As has been previously discussed, individual farm modelling and optimisation may indicate a range of less costly solutions, especially for the more capable farm managers. Another method for assessing the affordability of these costs is to consider them in relation to the level of discretionary cash available in the business (also referred to as

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farm surplus for reinvestment). A useful index of affordability or resilience is the number of times the amount of discretionary cash can cover the proposed cost, Table 4. Across the period 2007/08 – 2010/11, the average level of discretionary cash was $117,794.

Depending on the Group within which a given farm falls, the cost of N loss mitigation will be covered by that discretionary cash figure between 1.62 and 21.54 times, with a figure for all Groups of 6.20 times.

[5-162] At the expert witness conferencing on this topic (LUC/Best Practice) - the witnesses recorded their view that: *All parties agree that the costs are hugely variable and farm specific, and depend on the magnitude of reduction of N loss required.*

[5-163] We note that the farms in Group 1 (higher rainfall and soils of lower quality than the average across the region) that will be financially impacted to the greatest extent number 48 out of a total of 428 farms in the target WMSZs.

[5-164] We do not underestimate an increase of 16.6% to their annual farm running costs. However, the work of Messrs Neild and Rhodes indicate that this Group across the period 2007/8 – 2010/11 generated on average $117,794 (discretionary cash or farm surplus for reinvestment) or 1.62 times the average cost of implementing NV POP Rules 13.1 and 13.6. We accept that this work involves the use of averages – something of a *blunt instrument* according to Mr Hassan. However, this is the only quantative evidence we have on this subject, there was no credible challenge to it and it reflects the range of debt profiles in the rural sector.

[5-165] With these figures in mind and the relatively small number of farms in Group 1, we are sceptical of Mr Hassan's submission that the NV POP (or similar) regime would put farmers out of business – and the social and economic costs that would follow.

[5-166] Mr Hassan went on to submit that the *POP regime seeks to provide growth opportunities for future land uses (eg, dairy conversions). To allow yet-to-be business to benefit from this growth potential at the cost of existing farmers who are put out of business is grossly inequitable and therefore highly undesirable.*

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[5-167] We cannot agree with this submission. Allowing existing dairy farmers to be excluded from the proposed LUC regime would itself be inequitable and inefficient. Existing farmers would have no requirement or incentive to improve their N losses and new entrants would bear the cost of any improvement in water quality. There would be no encouragement for intensive land uses to operate on higher quality soils nor would the desired water quality improvements be achieved.

[5-168] While we accept a small number of farmers will find the financial costs of compliance difficult under the *controlled* regime, taking an alternative regulatory pathway may well make the transition more financially palatable.

[5-169] It needs to be recognised too that there is good evidence supporting the view that depending on land class and management techniques being employed, significant N loss reductions can be made while at the same time improving farm profitability. Dr Alison Dewes, called by Fish and Game, is involved in developing farm systems for optimal profit while minimising the farm's environmental footprint. She notes that many farms are already within the proposed year 1 and year 20 LUC based limits. She agrees with Dr Ledgard and Mr Smeaton that a 10% reduction in leaching can be made without affecting profitability in most cases, and indeed concludes that reductions of 30% to 40% are possible while maintaining or improving farm profitability.

[5-170] Mr Peter Taylor, the Council's Manager – Rural Advice, has been involved in assisting farmers undertaking new dairy conversions in various parts of the region, implementing Rule 13-1B of DV POP which controls that process. For the 18 farms discussed in his evidence, he advises that eight would immediately comply. Of the ten needing to reduce N leaching, three would achieve compliance by the end of year one, and two by the end of year two. Of the remaining five, it would be possible for two, with some difficulty, and it would be very difficult for the remaining three, the greatest difficulty being financial rather than technical.

[5-171] Ms Marr would have qualified exceptions in Policy 13-2D – applicable to Policy 13-2C - for resource consent decision making for existing intensive farming land uses, to read:

> (i) where land has 50% or higher of LUC Classes IV to VIII and annual average rainfall of 1500mm or greater; or
>
> (ii) where uses cannot meet year 1 N leaching maximums in year 1 they shall be managed through consent conditions to ensure year 1 maximums are met within 4 years.

Ms Barton was inclined to recommend a similar approach to the treatment of land with challenging LUC classes and rainfall at first, but moved away from it, because she believed it may lead to inequities. Ms Marr continued to support it, although in a somewhat narrower form. Her rationale was that:

> ... it is appropriate to provide an exception or policy pathway for those small minority of properties that, because of their location, will find it difficult to meet the nitrogen loss maximums that are achievable elsewhere.

[5-172] We see Ms Marr's exceptions in Policy 13-2D as a reasonable concession to existing farmers who may otherwise genuinely struggle with the new regime, and believe them to be appropriate additions to the Plan's policies. But we cannot accept Ms Marr's qualification to exception (i) which she proposed as:

> That the nitrogen leaching from the activity does not exceed the nitrogen leaching demonstrated for the property from 1 July 2010 to 31 June 2011.

That might imply the potential to *grandparent* existing leaching. We consider that the *restricted discretionary* status would allow adequate consideration of all these matters.

[5-173] Later in this decision, we set out our reasons for not accepting the Council's approach which would allow an automatic three year step down to reach the CNL maximum, within a *controlled* activity status.

[5-174] On the basis of those figures and provisions, we conclude that the economic costs for a majority of farms will be manageable across a span of years, and thoroughly justified by the desired outcome.

[5-175] There was no specific evidence before us on the costs and benefits of the planning regimes proposed by Fonterra, Ravensdown or Federated Farmers that would

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lead us to the conclusion that those regimes should be preferred, particularly given our conclusion that other intensive land uses should be included in the regime. None of the regimes put forward by pastoral interests dealt with their suitability for other intensive land uses.

Putting farmers out of business

[5-176] Somewhat related to the issues both of economic costs and of *grandparenting* is our surprise at finding, in the closing submissions for Fonterra, the assertion that:

> The Court has questioned several witnesses throughout the hearing, on the topic of whether the POP regime should be used to put some existing farmers out of business.

If what that assertion means is that the Court was advancing the view that there should be some such purpose in whatever regime is settled upon, that simply is not so. What the questions were attempting to elicit was the opinion of expert witnesses about the possible outcome of a *situation* where, say, N loss limits are put in place and a given farm/farmer simply cannot meet them. Should that farmer be given some sort of exemption from a regime that his or her colleagues can comply with? Or, at the other end of the spectrum, should he or she be told that the category of farming, or the management regime, or the intensity of the operation being conducted on that particular type or class of land, is simply unsustainable because of the quantity of apparently irreducible nutrient loss? If the latter, the farmer will have decisions to make: - to seek a resource consent for a more stringent activity status; to change the category of farming or the management regime or intensity; or to move somewhere else. Those are the same options that might face the operator of any business in a changing rules regime, and there is nothing that gives farmers a privileged place in the scheme of things.

[5-177] Whether the *Grandparenting* be a pure or hybrid version, we regard it as an unattractive option. Quite apart from its inherent disadvantages of failing to provide an incentive to reduce leaching, such a process would be administratively inefficient. Ms Barton's evidence is that there are over 500 landowners in 35 water management zones, and each would need to be assessed to confirm the property's history, and thus its entitlements.

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Should there be a reference to reasonably practicable farm management practices?

[5-178] That phrase (or variations of it) appears at several places in the policy as well as the rules in the various versions of the One Plan. The DV POP contained it, such as in the controlled activity status for existing dairy farming land use activities (rule 13-1), with control reserved over the implementation of such practices. There was a lot of evidence as to what *reasonably practicable farm management practices* might involve. To be fair, the proposals put before us by all parties recognised its limitations, and sought to better define what it might include in policies as well as rules.

[5-179] Fish and Game submitted that such a phrase (or a variation of it) should not be used in the plan because:

- Farmers would seek to argue that any measure that increases costs is not practicable.
- For the default rules for intensive farming activities that do not comply with year 1 to 20 limits, it is better to reserve discretion over compliance with the nitrogen leaching maximums specified in Table 13.2 or maximum leaching limits.
- Implementation of *reasonably practicable farm management practices* will not necessarily reduce nitrogen leaching.
- It is not possible to quantify an amount of nitrogen leaching reduction that would be achieved by implementation of *reasonably practicable farm management practices*.
- It lacks certainty and would not prevent the transfer of nitrogen leaching from one part of a specified zone/catchment to another.

[5-180] We also accept that it is likely that new farm management practices to reduce nitrogen leaching will be available in the future - so a list of *reasonably practicable farm management practices* (in policy or rules) which decision-makers could refer too, even as a guide (as had been proposed by some parties), may become outdated. We also consider that including a hierarchy with *Tier 1* and *Tier 2* mitigation measures, as proposed by some witnesses, to not have utility or integrity in dealing with these issues. For example, there are some existing dairy farmers who farm on land less (or even not at all) suitable for dairy farming, resulting in high amounts of N leaching, and with little ability to reduce leaching. Implementing Tier 1 mitigation

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measures as far as *reasonably practicable* is not consistent with the principle of internalising adverse effects to an acceptable level. *Tier 2* mitigation practices may be necessary, or if the situation is serious enough, certain types of land should not be used for dairy farming at all.

[5-181] For those reasons, the phrase *reasonably practicable farm management practices* (or variations on the theme) should not appear in the surface water quality objectives, policies or the rules of the One Plan.

Trading of leaching 'rights' - scope and merits

[5-182] Some witnesses, particularly those of an economics bent, saw virtue in having, as part of the POP and presumably administered by the Council, a scheme through which farmers or growers who find themselves able to reduce leachates at a reasonable cost could sell the *rights* to leach N (being the difference between what they do leach and the maximum figure for their particular LUC) to those who are unable to reduce theirs to the maximum allowed level. Those who favour such an adjunct to the regulatory regime see it as a logical extension of the regulatory approach, providing an incentive to reduce leachates as far as can be done at reasonable cost, and a means for those who are unable to get below allowed levels to nevertheless continue their operations. Mr Phillip Percy, a consultant planner called on this topic by Mr Day, supported the introduction of such a scheme, and Mr Day regarded a trading scheme as most important in the modifications to the POP that he supported. Mr John Ballingall, an economist called by Fonterra, says that a trading scheme warrants and requires further analysis, but that to introduce it now would cause confusion and uncertainty.

[5-183] As was acknowledged by Mr Percy, the incentives of such a scheme will not necessarily all pull in the desired direction. While recognising that it may be profitable in net terms for one operation to reduce leachates and sell the rights, depending on the profit margins of another operation, one could speculate that it may be easier for that operation to simply buy in rights rather than reduce its emissions, so that the net quantum of leachates will remain as it began – which is not the desirable outcome for the receiving environment. Mr Percy did temper that concern a little by

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suggesting that the cap, within which trading could take place, should be fixed from the outset at the reduced 20 year level.

[5-184] Whether or not that might be so, we agree with witnesses such as Dr Daniel Marsh, the Chair of the Department of Economics at Waikato University, and called by Fish and Game, that the possibility of a trading scheme is insufficiently thought through and developed, both as to principles and as to practicalities, to be seriously considered as part of POP at present. Indeed the joint statement produced by the Economics witnesses, Mr J Ballingall (Fonterra); Mr Rhodes (Horizons); Mr Neild (Horizons) and Dr Marsh (Fish and Game) agreed that an ... *appropriately designed nitrogen trading scheme could improve the efficiency of achieving the desired outcomes.* They also agreed that such a scheme would be more efficient ... *when a wider range of land uses and a higher proportion of the catchment are included.* They were unanimous too in considering that the features or criteria outlined by Mr Ballingall at para 111 of his evidence would need to be considered in designing such a scheme. As we understand the evidence, that has not been done.

[5-185] The evidence is though that the concept has merit as an extension of the regulatory regime and, if it can be developed as such, a future Plan Change could bring it to fruition. We would encourage that further work, but we do not think that we can responsibly take it further now. That being our clear view, we do not need to embark on a discussion of whether Mr Day's Notice of Appeal was sufficiently broadly worded to provide scope for a trading scheme to be brought into POP.

National Policy Statement Freshwater Management

[5-186] The RMA provisions about National Policy Statements are not entirely easy to interpret or apply. Both as it stood between 2005 and 2009, and currently, s55 of the Act requires both operative and proposed regional policy statements and regional plans to be amended so as to *give effect to* a national policy statement. That is to be done:

- as soon as practicable; or
- within the time specified in the national policy statement

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The National Policy Statement Freshwater Management 2011 (NPSFM) was issued by notice in the Gazette on 12 May 2011 and is expressed to be effective from 1 July 2011. Policy E1 contains the timeframes within which the NPS is to be implemented:

> a) This policy applies to the implementation by a regional council of a policy of this national policy statement.
>
> b) Every regional council is to implement the policy as promptly as is reasonable in the circumstances, and so it is fully completed by no later than 31 December 2030.
>
> c) Where a regional council is satisfied that it is impracticable for it to complete implementation of a policy fully by 31 December 2014, the council may implement it by a programme of defined time-limited stages by which it is to be fully implemented by 31 December 2030.
>
> d) Any programme of time-limited stages is to be formally adopted by the council within 18 months of the date of gazetting of this national policy statement, and publicly notified.
>
> e) Where a regional council has adopted a programme of staged implementation, it is to publicly report, in every year, on the extent to which the programme has been implemented.

There is also what might be termed an interim policy provision, expressed to be made under s55, in Policy A4:

> By every regional council amending regional plans (without using the process in Schedule 1) to the extent needed to ensure the plans include the following policy to apply until any changes under Schedule 1 to give effect to Policy A1 and Policy A2 (freshwater quality limits and targets) have become operative:
>
> *"1. When considering any application for a discharge the consent authority must have regard to the following matters:*
>
> > *a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of fresh water including on any ecosystem associated with fresh water and*
> >
> > *b) the extent to which it is feasible and dependable that any more than minor adverse effect on fresh water, and on any ecosystem associated with fresh water, resulting from the discharge would be avoided.*
>
> *2. This policy applies to the following discharges (including a diffuse discharge by any person or animal):*
>
> > *a) a new discharge or*
> >
> > *b) a change or increase in any discharge –*

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of any contaminant into fresh water, or onto or into land in circumstances that may result in that contaminant (or, as a result of any natural process from the discharge of that contaminant, any other contaminant) entering fresh water.

3. This policy does not apply to any application for consent first lodged before the National Policy Statement for Freshwater Management takes effect on 1 July 2011."

Notably, the interim policy makes no specific reference to *proposed* regional plans, which presumably means that the definitions of *plan* and *proposed plan* in both the pre-2009 (see s2) version and s43AA and s43AAC of the post-2009 version will apply.

[5-187] Those definitions distinguish between proposed and operative plans – the term *plan* is not inclusive of both. We must take it then that the legislative intention was to make the interim regime applicable only to operative regional plans.

[5-188] So far as we are aware, the Horizons Council has not taken any decisions, formal or informal, under Policy E1. In terms of para d) it has until 12 November 2012 to adopt time-limited stages of implementation of the NPSFM, if it decides that full implementation by 31 December 2014 is impracticable and opts instead for a staged programme to be completed by 31 December 2030.

[5-189] All of which rather begs the question of what effect should be given to, or what account taken of, the NPSFM now - in the course of considering the appeals about the POP with the purpose of it becoming operative. That it must be given some status appears clear from the direct and mandatory command of s62(3) in respect of regional policy statements:

A regional policy statement ... must give effect to a national policy statement ...

And the matching provision of s67(3) in respect of regional plans:

A regional plan must give effect to -

(a) any national policy statement

[5-190] That may mean that unless steps are taken to modify them sooner, when these documents become operative at the end of the appeal process, they will not comply with s62 and s67 because so far, in the Schedule 1 process for the POP, no effort has been made to address the NPSFM. This is a matter the Council will need to turn its

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mind to. While we had evidence about the extent to which different versions of the provisions met the policy directives of the NPSFM we cannot give this any weight. That is not intended as a criticism - the NPSFM (as noted above) only came into force long after the POP was well advanced.

[5-191] We have given effect to the New Zealand Coastal Policy Statement 2010, particularly in including areas of the coastal environment in the targeted water management sub-zones.

The Policies

[5-192] We now come to our conclusions on the policy approaches required in both the RPS and Regional Plan to implement the objectives and our decisions, working off the various annotated versions provided to us at the beginning of the hearing by Ms Barton.

[5-193] We have already concluded that Objective 6-1, and Policies 6-1 and 6-7 of the RPS and Objective 13-1 of the Regional Plan need amending: - see paragraphs [5-23] to [5-26] and [5-38] and [5-39]. There may be other places in both the RPS and Regional Plan where an objective, policy, method or other material needs amending to be consistent with our decision. RPS policy provisions along the lines of the new Policy 6-X and the revisions to Policy 6-7 generally proposed by Fish and Game/Minister are appropriate to deal with the resource management issues and implement our decision. We accept that there may be a need to refine some of these provisions in the light of the Court's decision.

[5-194] Similarly the Fish and Game/Minister Regional Plan revision of the policy provisions in Policy 13-2C are generally suitable, with the exception of the item providing for 1350 cattle movements a week as the trigger for requiring culverts and bridges to accommodate cattle movements:- see paragraph [5-135]. Most of the Fish and Game/Minister version of a new Policy 13-2D is acceptable. However, the policy provision that could imply the potential for grandparenting of existing nitrogen leaching for existing intensive farming activity on land with 50% or higher of LUC Classes IV to VIII and has an average annual rainfall of 1500mm is not accepted. We note that the Council has already modified the LUC leaching allocation maxima for

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these classes and in any case we do not accept that there is any possibility of farming on Class VIII. Again, some fine tuning might be necessary.

Rule Regime

[5-195] We have already discussed the objectives and policies and now consider the details of the rule regime to implement them.

Additional activities to be subject to rules

[5-196] In line with our decision and the changes sought by Fish and Game and the Minister, Rules 13-1 and 13-1B will need to be amended to refer to existing *intensive farming* land use activities, with the activity described as for *any of the following types of intensive farming:*

(a) dairy farming

(b) commercial vegetable growing

(c) cropping

(d) intensive sheep and beef farming

... and associated with that *intensive farming.*

Similar changes are needed to Rules 13-1A and 13-1C which deal with new *intensive farming* in line with our decision and the changes sought by Fish and Game and the Minister.

Intensive farming – controlled or permitted status

[5-197] Mr Christopher Hansen, a consultant planner called by Ravensdown, has the view that there is no reason why both existing and new dairy farming could not have *permitted* activity status, and that such an outcome would represent good planning practice. Mr Hansen considered that everything that needed to be could be achieved through the *permitted* activity status:- conditions/standards/terms could be crafted to be certain and enforceable and that this would be more efficient.

[5-198] Ms Barton discusses this issue at some length in her evidence. She says that with the exception of Mr Hansen and Mr Hartley, the planner called by Federated Farmers, the planners agreed in their conference that a *permitted* activity status was inappropriate, a view she continues to hold. In summary, the reasons for her view are, first, that it is difficult to impartially and consistently demonstrate compliance with the

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OVERSEER model under a *permitted* regime, because it requires a good degree of technical knowledge to run accurately. Secondly, without the accountability inherent in a resource consent regime, there will be very little interaction between the farmer and the Council about addressing nutrient management. Thirdly, a *controlled* activity allocates the cost of monitoring and compliance to the farmer, whereas under a *permitted* regime it would be borne entirely by the Council. Fourthly, the discharge of farm animal effluent onto or into land is a controlled activity under Rule 13-6 and it makes sense to align the two activities to streamline and integrate the consenting process. Fifthly, under the operative Land and Water Regional Plan (Rule 4 page 21) the discharges of agricultural effluent require a resource consent as a *controlled* activity. This establishes an expectation with respect to the management of nutrient leaching effects associated with dairy farming. The effects of the discharge of farm animal effluent (as controlled through Rule 13-6) are similar to the effects associated with dairy farming land uses (covered by Rule 13-1 and 13-1B). The integrity of the POP would come into question if one activity with similar effects requires consent and the other does not.

[5-199] We accept these reasons arising from all of the material – evidence, joint statements and submissions - for not supporting a *permitted* activity rule:

- Rule 13-1 proposes a one farm consent to manage all contaminant vectors (not just N) based on a systems approach to farm management commended by the Parliamentary Commissioner for the Environment.
- Managing N leaching (effectively) would require significantly more interaction between a local authority and farmer than a *permitted* activity would allow.
- There is limited transactional efficiency given the consent needed for discharges of effluent (an activity caught by Rule 13-1 as ancillary to dairy farming).
- The *permitted* activity rules proposed would only really work on a fixed and not a graduated step-down in N leaching.
- A consent provides much greater certainty for a farmer than *permitted* activity status (which could be changed at any time).
- Control of land use to achieve water quality outcomes of *the commons* is best achieved by a consent identifying the metes and bounds of the farming activity, with explicit conditions, available for inspection as a public record, and with monitoring (at the expense of the consent holder) and enforcement.

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- A *permitted* activity rule would allow some farmers to leach up to the relevant threshold number without any control on management practices (with undesirable results).
- Mr Hansen acknowledged the benefits that having better on-farm information would have for future plan change decisions. Fonterra considered a *controlled* activity regime would deliver that information directly to the Council, allowing them to check and verify it within a resource consent process and a better approach.
- Section 70 requires that before a rule that allows, as a *permitted* activity, a discharge of a contaminant into water, or onto land in circumstances where it may enter water, can be included in a regional plan, the Court must be satisfied that, after reasonable mixing, certain adverse effects are unlikely to arise. Those effects include, under s70(1)(g), ... *any significant adverse effects on aquatic life.* There was no evidential basis on which we could conclude that the requirements of s70 would be met.
- The application of the OVERSEER model means there will be a level of discretion and uncertainty which is not appropriate for a *permitted* activity rule.
- It would not allow an iterative process between farmers and the Council, including the careful record keeping and auditing of the OVERSEER inputs and assumptions needed to ensure sound environmental outcomes.
- While the Council may have powers to impose a targeted rate under other legislation, that does not substitute for the direct recovery of the Council's actual and reasonable costs under the RMA from those parties carrying out an activity with actual and potential effects on the environment.

[5-200] We find the logic of that line of thought compelling and agree that a *controlled* activity status would better give effect to the purpose of the Act. We do not accept the *permitted* activity rule put forward by Horticulture NZ in closing for similar reasons. We note that Fish and Game submitted that we have no *scope* to impose *permitted* activity status in any event, but we do not need to decide the point, given our decision that *permitted* activity status is not justified.

Controlled activity conditions/standards/terms

[5-201] We do not accept the distinction between *Tier 1* and *Tier 2* mitigation measures proposed by some parties – see para [5-136].

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[5-202] For existing farms and conversion to new farming uses, the Council version had conditions/standards/terms as follows:

(a) A *nutrient management plan* must be prepared from the date specified in Table 13.1 and provided annually to the Council. The activity must be operated in accordance with the *nutrient management plan*.

(b) The *nutrient management plan* referred to in condition (a) above, must demonstrate that the nitrogen leaching loss will not exceed the *cumulative nitrogen leaching maximum* as set out in Table 13.2.

We agree with the version proposed by Fish and Game and the Minister with the conditions/standards/terms to be amended to read:

(a) A *nutrient management plan* must be prepared for the land and provided annually to the Regional Council.

(aa)The activity must be operated in accordance with the *nutrient management plan* prepared under (a).

(b) The *nutrient management plan* prepared under (a) must demonstrate that the nitrogen leaching loss will not exceed the *cumulative nitrogen leaching maximum* specified in Table 13.2.

[5-203] For existing and new uses the Council version had control reserved over:

(a) the implementation of the *nutrient management plan*.

Fish and Game and the Minister sought the addition of:

(aa) compliance with the nitrogen leaching maximums specified in Table 13-2.

We agree that the version provided by Fish and Game and the Minister is a better option for both existing operations and conversions to new types of farming – the Council version is too narrow and will not achieve the policies of the Plan.

Should the 'step down' require a separate consent category?

[5-204] The Council built a 3 year step-down or period of grace to the N leaching limit into the *controlled* activity rule. Fish and Game (and Ms Marr) did not support the proposed 4 year delay until existing dairy farms have to meet the Year 1 LUC numbers under Table 13.2. Ms Marr proposed that a failure to meet the N leaching limit in Year 1 (or any successive year) should require consent for a *restricted discretionary* activity.

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[5-205] Fish and Game submitted that the POP has already been so many years in preparation that no party could claim to be taken by surprise, and that the imperative for water quality improvement is becoming urgent. It submitted that the requirements of Table 13.2 should take effect once the plan becomes operative. We agree, and also observe that the Plan's provisions will not take immediate effect, nor will they simultaneously do so. Table 13-1 specifies the date Rule 13-1 comes into effect for individual water management sub-zones. However, some of those dates will need revision, depending on progress with making the Plan operative

Restricted discretionary activity rule

[5-206] The Council's approach to *restricted discretionary* activity status as the default category for existing dairying and conversion to different farming uses that would not comply with the *controlled* activity requirements, involving the restriction of discretion to (most relevantly):

(a) preparation of a *nutrient management plan* for the land

(b) the implementation of reasonably practicable farm management practices for minimising nutrient leaching, faecal contamination and sediment losses from the land.

[5-207] Fish and Game and the Minister opposed these provisions and sought their replacement with:

(a) preparation of and compliance with a *nutrient management plan* for the land

(aa) compliance with the nitrogen leaching maximums specified in Table 13.2

(b) measures to avoid, remedy or mitigate nutrient leaching, faecal contamination and sediment losses from the land.

We agree that the versions provided by Fish and Game and the Minister are a better option for both existing operations and conversions to new types of farming, given the uncertain and changing face of *reasonably practicable farm management practices.*

Should there be a discretionary or non-complying activity rule?

[5-208] No party suggested a *discretionary* activity status for existing farming was warranted as a default category (although that is the agreed position for new farming activities). At the hearing, Federated Farmers floated, as part of a package, the possibility of a *non-complying* activity rule for existing dairying - as a default rule. Given our decision on the substantive approach, and in the absence of evidence

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supporting another approach, we leave the default status categories to those proposed by the Council and otherwise agreed by the parties.

The term 'numerics'

[5-209] Ms Barton explained that the term *numerics* was developed by the participants in the mediation process to avoid deadlocks arising from the connotations of using terms such as *standards*, *targets* and *limits*. From there, the term found its way into the DV POP. We are very sympathetic to the use of the term as a way of getting people talking without becoming bogged down in shades of meaning. But when it comes to writing subordinate legislation which, after all, is what a statutory planning document is, accuracy of language is greatly to be desired. Without it, understanding, compliance and enforcement become difficult, if not impossible. The Shorter Oxford defines *numeric* as: *any number, proper or improper fraction or incommensurable ratio*. In the context of, for instance, Policies 6-3 to 6-5, using a term with that meaning conveys nothing – in fact it is nonsense. For instance, as proposed by Fonterra, Policy 6-4 would read:

> Where the existing water quality does not meet the relevant Schedule D water quality numerics within a Water Management Sub-zone, water quality within that sub-zone must be managed in a manner that enhances water quality in order to meet (in a manner consistent with Policy 6-7, and 6-8):
>
> (ii) the water quality numeric for the water management Zone in Schedule D; and/or
>
> (iia) the relevant Schedule AB values and management objectives that the water quality numeric is designed to safeguard.

What that must mean is that the figure specified in Schedule D for water quality in a particular WMZ is a *standard*, to be met, and if it is not met certain action must be taken. Ms Barton concludes her discussion of how the term arose by saying:

> 36. The numerics are applied as absolute standards in the context of permitted activities and are threshold limits for assessment through the resource consent process.

Without wishing to return to discussions involving ducks, we have a very clear view that if that is what a *numeric* is, then it should, for the avoidance of confusion and argument when these provisions come to be used in the real world, be given its real name. For what it is worth, we note that the Act's definition of *Conditions* is ... *in relation to plans and resource consents, includes terms, standards, restrictions, and prohibitions.* Also to fall into a particular consent category *the activity must comply with the requirements, conditions, and permissions ... specified in the ... plan* (s87A).

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[5-210] As additional matters to be thought of in addressing this point, we mention that the Shorter Oxford defines *limit* as *...a point beyond which something does not or may not pass* ... or ... *a restriction on the size or amount of something. Standard* is defined as ... *a required or agreed level of quality or attainment.* A *target* is ...*an objective or result towards which efforts are directed.*

[5-211] The NPSFM defines the term *target* as: - *A limit which must be met at a defined time in the future. This meaning applies only in the context of over-allocation.* In turn, *limit* is defined as:

> ... the maximum amount of resource use available, which allows a freshwater objective to be met ... and ... over-allocation is defined as being ... the situation where the resource:
>
> a) has been allocated to users beyond a limit or
>
> b) is being used to a point where a freshwater objective is no longer being met.
>
> This applies to both water quantity and quality.

[5-212] If a given numeric is a *limit*, it should be called that. If it is a *standard* or a *target*, then that is what it should be called. We have not lost sight of the concern expressed by Palmerston North City Council, and recognised by Mr Burns in his closing submissions for Fish and Game, that the term *numeric* as used in Schedule D should not be considered a *standard* for the purposes of s69. We have to say that we are not convinced about the concerns of the City Council, but if they cause difficulties in redrafting the affected provisions we are prepared to receive further submissions on the point.

Part 2 – sections 7, 6 and 5

[5-213] Of the 11 facets of s7 RMA, at least eight are engaged by this issue of surface water quality. The relevant parts of the section are:

> In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—
>
> (a) Kaitiakitanga:
>
> (aa) The ethic of stewardship:
>
> (b) The efficient use and development of natural and physical resources:
>
> (c) The maintenance and enhancement of amenity values:
>
> (d) Intrinsic values of ecosystems:

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(f) Maintenance and enhancement of the quality of the environment:

(g) Any finite characteristics of natural and physical resources:

(h) The protection of the habitat of trout and salmon:

Kaitiakitanga and the ethic of stewardship both embrace the concept that the present generation should husband natural and physical resources both for their own sake and for the sake of future generations – a concept that re-emerges in s5. Allowing water resources to deteriorate to the point of being unusable and even toxic is the antithesis of that. Nor is it efficient to use and develop the land and water resource in such a way that one's usefulness is destroyed by management practices, or the lack of them, on the other. Amenity values and the quality of the environment will not be maintained, and certainly not enhanced, by such profligate use. The capacity of the region's water to withstand such treatment is finite, and the overloading of waterways with nutrients lost from farming activities will eventually destroy the habitat of trout in many of them.

[5-214] In terms of s6 – matters of national importance to be recognised and provided for – these parts are particularly relevant:

> In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:
>
> (a) The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:
>
> (c) The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

It could plausibly be argued that at least some of subparas (b) and (d) to (g) could be relevant also, but for present purposes we shall confine ourselves to these two. The natural character of wetlands, lakes and rivers will certainly not be preserved from inappropriate use if they are made to decline in quality to the point of unusability and even toxicity by inadequate management of activities on the surrounding land. Nor will the indigenous vegetation, and particularly the indigenous fauna which have their habaitats in that water, be protected.

[5-215] All of the discussion leads to the purpose of the Act, as contained in s5:

> (1)The purpose of this Act is to promote the sustainable management of natural and physical resources.

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> (2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—
>
> (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
>
> (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
>
> (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

There can be no doubt of course that enabling ... *people and communities to provide for their ... economic ... wellbeing ...* includes so enabling the farmers and communities of the region. But that part of the purpose is not absolute, or necessarily even predominant. It must be able to coexist with the purposes in subparas a), b) and c). For the reasons already traversed, unless effective and thorough steps are taken to manage N leaching from the region's farms, none of those three purposes will be met.

[5-216] We have considered the theme throughout the POP of the importance of farming to the region. We are satisfied that our decision properly recognises and deals with the tensions between the social and economic wellbeing of the affected people and communities and slowing the decline of, and progressively improving the region's water quality.

Section 32

[5-217] In discussing the ranges of options presented by the parties, we have dealt with what we see as the most appropriate ways of achieving the purpose of the Act, and with whether the options for policies, rules and methods are, in our view, the most appropriate for achieving the objectives of the Plan. In so doing we have considered what we see as the costs and benefits of the alternatives presented. In this Part of the decision, we are particularly mindful of s32(4)(b):

> ... the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods

As we mention – see, eg para [5-8] – we are conscious that there are things we do not know about the relationships between water quality and ecological health, and there are issues about which those expert in the field hold different views. But we are convinced by the evidence we heard and accept that decisive action on the planning front is necessary now to minimise the risk of serious damage to the ecosystems which

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support plant, animal and human life, which contribute greatly to the economic, social and cultural wellbeing of the region and its communities.

Summary of conclusions for Part 5

A. RPS Objective 6-1 and Policies 6-1 and 6-7 and Plan Objective 13-1 should be drafted as ... *recognises and provides for ... the values in Schedule AB.* Paragraphs [5-23] to [5-26] and [5-38].

B. A reference to *land use* should be added in Objective 13-1 of the Plan and in other appropriate places. Paragraph [5-39].

C. Schedule D should contain deposited sediment (for State of the Environment monitoring) and visual clarity standards. Paragraph [5-45].

D. We consider that s293 could be an appropriate means of setting a nutrient standard for shallow lakes in Schedule D. Paragraph [5-46].

E. The Coastal Rangitikei Catchment should be brought within the policy and rules regime as a targeted sub-zone. Paragraph [5-50].

F. Lake Horowhenua, the coastal lakes and their related subzones should all be brought within the rules regime. Paragraphs [5-51] to [5-62].

G. All intensive land uses – dairying, cropping, horticulture and intensive sheep and beef - should be brought within the policy and rules regime. Paragraph [5-63] to [5-71].

H. Pending the proving of OVERSEER 6, possibly an interim tool for assessing N loss for horticulture may need to be considered. Paragraph [5-66].

I. Presently, there is not scope to include extensive sheep and beef farming in the rules regime. Paragraph [5-72] to [5-75].

J. The Council should consider a Plan Change to bring extensive sheep and beef within an N leaching regime. Paragraph [5-77].

K. It is practicable to obtain resource consents for horticulture. Paragraphs [5-78] to [5-83].

L. The LUC classification system should be used as a basis for leaching limits. Paragraph [5-85] to [5-113].

M. Reducing LUC based limits at years 1, 5 10 and 20 should be the basis of the policy and rules regime. Paragraphs [5-114] and [5-115].

N. In Policy 13-C(b) a requirement that the Council should *seek to exclude cattle* should be replaced with must *require the exclusion of cattle.* Paragraph [5-135].

O. In Policy 13-C the reference to *1350 stock movements* should be replaced with *stock movements.* Paragraph [5-135].

P. There may be an exception to Policy 13-2D for existing farming operations with defined limitations. Paragraphs [5-171] and [5-172].

Q. *Grandparenting* in the sense of allowing existing operations to continue to leach nutrients at rates based on their own historic performance should not form part of the rules regime. Paragraph [5-177].

R. *Reasonably practicable farm management practices* should not be included in any of the policy and rules regime. Paragraph [5-136] and [5-178] to [5-181].

S. A trading scheme has potential merit and should be further investigated with a view to a possible later plan change. Paragraph [5-182] to [5-185].

T. RPS and Plan policy provisions as suggested by the Minister and Fish and Game, with amendments, are appropriate. Paragraphs [5-193] and [5-194].

U. Intensive farming should be given *controlled* (and not *permitted*) activity status. Paragraph [5-197] to [5-200].

V. A 3 year period of grace to meet year 1 limits for existing farming operations in the *controlled* activity rule is not satisfactory but a policy can allow its consideration during consent applications for a *restricted discretionary* activity. Paragraph [5-173] and [5-204] and [5-207].

W. A revision of the Table 13.1 dates for various target water management sub-zones to come into effect is required. Paragraph [205].

X. The term *numerics* should be replaced with terms such as *target, standard* or *limit* as appropriate. Paragraph [5-209] to [5-212].

Dated at Wellington the 30th day of August 2012

For the Court

C J Thompson
Environment Judge

Appendix 1 - sections 69 and 70 RMA

69 Rules relating to water quality

(1) Where a regional council—

(a) Provides in a plan that certain waters are to be managed for any purpose described in respect of any of the classes specified in Schedule 3; and

(b) Includes rules in the plan about the quality of water in those waters,—

the rules shall require the observance of the standards specified in that Schedule in respect of the appropriate class or classes unless, in the council's opinion, those standards are not adequate or appropriate in respect of those waters in which case the rules may state standards that are more stringent or specific.

(2) Where a regional council provides in a plan that certain waters are to be managed for any purpose for which the classes specified in Schedule 3 are not adequate or appropriate, the council may state in the plan new classes and standards about the quality of water in those waters.

(3) Subject to the need to allow for reasonable mixing of a discharged contaminant or water, a regional council shall not set standards in a plan which result, or may result, in a reduction of the quality of the water in any waters at the time of the public notification of the proposed plan unless it is consistent with the purpose of this Act to do so

70 Rules about discharges

(1) Before a regional council includes in a regional plan a rule that allows as a permitted activity—

(a) A discharge of a contaminant or water into water; or

(b) A discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water,—

the regional council shall be satisfied that none of the following effects are likely to arise in the receiving waters, after reasonable mixing, as a result of the discharge of the contaminant (either by itself or in combination with the same, similar, or other contaminants):

(c) The production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials:

(d) Any conspicuous change in the colour or visual clarity:

(e) Any emission of objectionable odour:

(f) The rendering of fresh water unsuitable for consumption by farm animals:

(g) Any significant adverse effects on aquatic life.

(2) Before a regional council includes in a regional plan a rule requiring the adoption of the best practicable option to prevent or minimise any actual or likely adverse effect on the environment of any discharge of a contaminant, the regional council shall be satisfied that, having regard to—

(a) The nature of the discharge and the receiving environment; and

(b) Other alternatives, including a rule requiring the observance of minimum standards of quality of the environment,—

the inclusion of that rule in the plan is the most efficient and effective means of preventing or minimising those adverse effects on the environment.