BEFORE THE ENVIRONMENT COURT

Decision No. [2017] NZEnvC 53

IN THE MATTER	of the Resource Management Act 1991
AND	of appeals under clause 14(1) of the First Schedule to the Act
BETWEEN	FEDERATED FARMERS OF NEW ZEALAND (INC) MACKENZIE BRANCH (ENV-2009-CHC-193) Appellant (and others – continued over page)
AND	MACKENZIE DISTRICT COUNCIL Respondent

Court:	Environment Judge J R Jackson Environment Commissioner J R Mills
Hearing:	at Christchurch on 30 and 31 January, 1, 2, 3 and 7 to 10 February 2017 (Final submissions received 10 March 2017)
Appearances:	D Caldwell and J King for Mackenzie District Council K Forward for Mt Gerald Station Limited, The Wolds Station Limited and Irishman Creek Station (section 274 party) R Gardner for Federated Farmers of New Zealand (Inc) Mackenzie Branch A J Schulte for Fountainblue Limited, Pukaki Downs Tourism Holdings Partnership, Southern Serenity Limited, and Blue Lake Ltd and Ben Ohau Farming Trust as section 274 parties J Maassen for Meridian Energy Limited K J Wyss for Canterbury Regional Council S Newell for Director-General of Conservation J G A Winchester for Te Rūnanga o Ngāi Tahu and Te Rūnanga o Arowhenua Trust R G Haazen for Mackenzie Guardians Incorporated M Neilson for The Mackenzie Country Charitable Trust R B Enright and M Wright for Environmental Defence Society Incorporated
Date of Decision:	12 April 2017
Date of Issue:	13 April 2017

(continued)
MOUNT GERALD STATION LIMITED
(ENV-2009-CHC-181)

MACKENZIE PROPERTIES LIMITED
(ENV-2009-CHC-183)

MERIDIAN ENERGY LIMITED AND
GENESIS ENERGY LIMITED
(ENV-2009-CHC-184)

THE WOLDS STATION LIMITED
(ENV-2009-CHC-187)

FOUNTAINBLUE LIMITED & OTHERS
(ENV-2009-CHC-190)

R, R AND S PRESTON AND
RHOBOROUGH DOWNS LIMITED
(ENV-2009-CHC-191)

HALDON STATION
(ENV-2009-CHC-192)

Further Appellants

ELEVENTH DECISION

A: Subject to Orders B and C, under section 293 of the Resource Management Act 1991 the Environment Court confirms Plan Change 13 ("PC13") to the Mackenzie District Plan as renotified on 14 November 2015 subject to the following amendments:

(1) In Chapter 7 (Rural) of the Mackenzie District Plan Objective 3B(3) is to be added following Objectives 3B(1) and (2). It reads:

> (3) Subject to objective (1) above and to rural objectives 1, 2 and 4:
>
> (a) to enable pastoral farming;
>
> (b) to manage pastoral intensification and agricultural conversion throughout the Basin and to identify areas where they may be enabled (such as Farm Base Areas);
>
> (c) to enable rural residential subdivision, cluster housing and farm buildings within Farm Base Areas around existing homesteads (where they are outside hazard areas).

(2) In Chapter 3 (Definitions) of the Mackenzie District Plan:

(1) the definition of "Pastoral Intensification" for the Mackenzie Basin which goes beyond the existing definition in the Plan should be redescribed as a definition of "Agricultural conversion" as follows:

> "Agricultural conversion" means direct drilling or cultivation (by ploughing, discing or otherwise) or irrigation.

(2) a definition of "Tussock grasslands" should be inserted as follows:

> "Tussock grasslands" means areas generally supporting native tussock grasses but typically comprising a mosaic of vegetation types that could include considerable areas of bare/stoney ground, mixed exotic/native herbfield, cushion and mat vegetation, native shrubs and exotic species such as browntop and hawkweed.

(3) The policies in PC13 should be amended as described in the Reasons (<u>underlined</u> versions of modified policies are usually given).

(4) Policy 3B14 is struck out.

(5) The methods and rules in PC13 should be amended as described in the Reasons.

(6) All consequential changes to the rules necessitated by the changes referred to in Order (5) shall be made.

THE SEAL OF THE ENVIRONMENT COURT OF NEW ZEALAND

(7) The explanations and reasons are to be reviewed in PC13 and modified to reflect the Reasons for the Orders above.

(8) All questions about the location and extent of Scenic Grassland Area 7 on Mount Gerald Station are adjourned.

B: If any party considers that:

(a) there are any inconsistencies or mistakes in, or omissions from, the modifications to the policies, rules or maps proposed by the court; or

(b) that consequential changes are needed to rules or methods not mentioned by the court

— then they must advise the Mackenzie District Council of those in writing by **22 May 2017**.

C: The Mackenzie District Council shall prepare and circulate a copy of PC13 as confirmed by this decision (and including all amendments taking particular care with the numbering of the rules) and must lodge it with the Registrar by **17 June 2017** (or such extended date as the court may grant on application) for final confirmation.

D: If any party considers the version of PC13 lodged under the previous Order is inconsistent with the Reasons for this decision or is internally inconsistent then they must lodge and serve a memorandum identifying the disputed issues by **1 July 2017**, and the court will then set a timetable for resolving these issues.

E: (1) Any remaining questions as to the location and extent of Farm Base Areas is adjourned;

(2) The Mackenzie District Council is to report on progress on Farm Base Areas by **30 June 2017**.

F: Costs are reserved.

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REASONS

1. Introduction

1.1 The issue: should Plan Change 13 be confirmed?

[1] These proceedings relate to Plan Change 13 ("PC13") of the Mackenzie District Council. PC13 relates to the Mackenzie Basin[1]. The purpose of PC13 is "... to provide greater protection of the landscape values of the Mackenzie Basin from inappropriate subdivision, development and use"[2].

[2] The issue is whether the court should, under section 293(1) of the Resource Management Act 1991 ("the RMA" or "the Act")[3] confirm Objective 3B(3) and the policies and methods included in the version of PC13 lodged with the Registrar at the Environment Court on 27 May 2016 by the Mackenzie District Council ("the MDC" or "the Council"). Oversimplifying for the sake of brevity, this version of PC13 differs from earlier ones in including:

- one (subordinate) objective – Objective 3B3;
- a different suite of policies implementing the settled Objectives 3B1, 3B2 and the proposed 3B3;
- an amended definition of "pastoral intensification" so that (in the Mackenzie Basin) it includes cultivation, irrigation and direct drilling in addition to the previous "topdressing and oversowing";
- rules which make "pastoral intensification" generally a discretionary activity in the Mackenzie Basin (subject to some important exceptions considered later).

[3] The primary submission[4] for Federated Farmers of New Zealand Inc Mackenzie Branch ("FFM"), The Wolds Station Limited ("The Wolds") and Mt Gerald Station Ltd ("Mt Gerald"), are that PC13 in its post-consultation form should not be confirmed, and the Commissioners' decision reinstated. In the alternative it sought changes to PC13 to

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1 As defined in paragraph 2 and map 1 of *High Country Rosehip Ltd and Mackenzie Lifestyle Ltd v Mackenzie District Council* [2011] NZEnvC 387.

2 [2011] NZEnvC 387 at [4].

3 All references to the RMA are to the Act in its pre-2009 Amendment form because PC13 was originally notified in 2007.

4 R Gardner closing submissions para 2 [Environment Court document 41].

make changes in farming operations easier than the outcomes in PC13(s293V) or the later post-consultation version.

[4] Meridian Energy Limited ("Meridian") appeared largely in support of the thrust of the notified version of PC13[5] and indeed the post-consultation version. Its major qualification was that Meridian disagrees with the wording of Policy 3B14 on "Wilding Trees".

[5] Fountainblue Limited and its associated appellants' concerns relate to the final form of Objective 3B(3) and to the proposed implementing Policies 3B3 (development in Farm Base Areas) and 3B14 (Wildings).

1.2 The history of the proceedings

[6] The history of these proceedings is considerably longer than that of most plan changes. A brief chronology of the relevant earlier dates is:

- 19 December 2007 — PC13 notified;
- 3 September 2009 — MDC Commissioners decision issued;
- 14 December 2011 — First (Interim) Decision[6] issued by the court as *High Country Rosehip Ltd and Mackenzie Lifestyle Limited v Mackenzie District Council* ("*High Country Rosehip*")

...

[7] Because PC13 was notified before 1 September 2009, the applicable version of the Act is[7] the RMA prior to the 2009 and 2013 and subsequent amendments.

[8] In the First Decision[8] the Environment Court judged that the Mackenzie Basin is an outstanding natural landscape. We then proposed changes to objectives and suggested changes to policies. The court then issued directions under 293 RMA that

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5 The version notified on 14 November 2015.
6 *High Country Rosehip Ltd and Mackenzie Lifestyle Ltd v Mackenzie District Council* [2011] NZEnvC 387.
7 Section 161 Resource Management (Simplifying and Streamlining) Amendment Act 2009.
8 *High Country Rosehip,* above n 6.

the MDC should consult about changes to PC13 and then, after consultation[9] publicly notify the changes and lodge them with the court for confirmation.

[9] The years between the end of 2011 and the lodgment of a new version of PC13 with the Registrar for approval in 2016 were occupied by a series of appeals to the High Court – most relevantly in *Federated Farmers of New Zealand (Inc) Mackenzie Branch v Mackenzie District* Council[10] ("*Mackenzie (HC 2014)*") – and beyond (by the appellant FFM) and a series[11] of procedural and substantive[12] decisions.

[10] *Mackenzie (HC 2014)* was an appeal against the Sixth to Eighth Decision of this court. In relation to the Environment Court's exercise of its powers under section 293 Gendall J "found"[13]:

(a) the court "may have stepped beyond its role ... by drafting the proposed changes";
(b) "the [c]ourt was ill-equipped to carry out the section 32 analysis of the proposed changes given their extent"; and
[(c)] "Further ... the Council should be directed to publicly notify the changes so comment is sought and received on each issue".

Apparently each of those statements identifies an error of law by this court in the Sixth to Eighth Decisions. The High Court then gave directions as to the future course of the proceedings.

[11] In particular Gendall J directed[14] that after preparation of amendments to PC13 the MDC should publicly notify those changes and <u>then</u> consult under section 293 of the Act. As this court observed[15] in the Ninth Decision that order varied this court's original direction[16] in the First Decision which was that notification should occur after consultation. It may also be worth observing that the High Court appears to have

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9 Order E(3) in *High Country Rosehip,* above n 6.
10 *Federated Farmers of New Zealand (Inc) Mackenzie Branch v Marlborough District Council* [2014] NZHC 2616; (2014) 18 ELRNZ 712; [2015] NZRMA 52.
11 There have been ten decisions involving all the parties, and five others restricted to single appellants.
12 The Eighth Decision – [2013] NZEnvC 304 – settled Objectives 3B(1) and (2).
13 *Mackenzie (HC 2014),* above n 10 at [153].
14 *Mackenzie (HC 2014),* above n 10 at [154] and [170](b)(iv).
15 Ninth (Procedural) Decision *Federated Farmers of New Zealand (Inc) Mackenzie Branch and Others* [2014] NZEnvC 246 at 9(iv).
16 *High Country Rosehip,* above n 6 at Order E(3).

directed[17] the very action – notification of the plan change with the proposed changes – which the 2009 amendments[18] deleted from section 293.

[12] The timing directed by the High Court has caused quite serious problems. First issues have been raised over the fairness of the post-consultation version of PC13 (we consider these in part 2.2). More seriously, the Council did not have the benefit of the ideas brought in through consultation before it notified PC13(s293V). This has resulted in many of the potential improvements not being raised until circulated in the evidence for appellants[19] or section 274 parties.

[13] In its Ninth Decision[20], the Environment Court directed[21] the MDC to prepare changes under section 293 RMA to PC13 to the Mackenzie District Plan ("MDP") based on the matters referred to in the First Decision as modified by the various other decisions of the court and by the High Court in *Mackenzie (HC 2014)*. In order 9E the court then directed the MDC:

> (1) to publicly notify PC13 again on the following terms:
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> (a) the provisions amended under section 290 should be included to give the context;
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> (b) the provisions still in issue should be identified;
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> (c) the notice should invite written advice from any person who seeks:
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> (i) to be consulted; and/or
>
> (ii) to lodge a (late) section 274 notice to be heard by the Environment Court.
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> — in respect of the provisions still in issue being:
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> • (possibly) objective 3B(3);
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> • the substantially amended policies on the matters identified in Order 9D(1)(c) and (d); and
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> • all the methods of implementation (including rules);
>
> (2) to consult with all the persons who might be affected by the proposed change or who have made a submission in the light of the public notification;
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> (3) to make changes it considers appropriate (within jurisdiction) to PC13 arising out of the consultation; and
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> (4) to submit the changes to the court for approval together with a list of the persons who wish to be heard by the court.

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17 *Mackenzie (HC 2014)*, above n 10 at [170](b)(iv).

18 By section 133 Resource Management (Simplifying and Streamlining) Amendment Act 2009 (2009 no. 31).

19 E.g. Ms L M W Murchison's proposed Policy 3B15.

20 [2014] NZEnvC 246.

21 Orders 9A to 9D of [2014] NZEnvC 246 following the decision of the High Court in *Federated Farmers (HC)* [2013] NZHC 518.

[14] On 14 November 2015 a section 293 "package" was publicly notified and sent to a list of organisations and all rural landowners in the Basin. Expressions of interest in being consulted were invited and the Council then consulted extensively[22] with those people who had lodged submissions. Further, the public notice advised readers of their ability to join these proceedings (by lodging a late section 274 notice).

[15] On 28 April 2016 the MDC passed a resolution[23] approving an amended section 293 "package" "for lodgement with the ... court". A report on the package under section 32 RMA was also approved.

[16] The MDC then prepared the final post-consultation version of PC13 and lodged it in the court's Registry on 27 May 2016. We were advised by Mr Caldwell for the MDC that it was served on all parties (including section 274 parties) and the post-consultation version was sent to submitters from the MDC[24] together with advice as to how to join these proceedings if they wished.

[17] We will use the following abbreviations throughout this decision:

- "PC13(N)" for the plan change as notified on 19 December 2007;
- "PC13(C)" for the Commissioners' version issued on 5 September 2009;
- "PC13(8)" for version of the objectives finalised in the Eighth Decision[25] dated 23 December 2013;
- "PC13(s293V)" for the version notified on 15 November 2015;
- "PC13(pc)" for the version lodged on 27 May 2016 for approval by the court after public consultation.

1.3 The new section 274 parties

[18] Before, during and after the consultation process a number of persons applied to the court to become section 274 parties. Several applications for waiver were not opposed; others were granted by the court in the Tenth Decision[26]. At the risk of oversimplifying matters, we will briefly outline the positions of the section 274 parties.

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22 P Harte evidence-in-chief dated 15 July 2016 paras 13 to15 [Environment Court document 25].
23 Exhibit 25.2.
24 P Harte evidence-in-chief dated 15 July 2016 para 16 [Environment Court document 25].
25 Eighth Decision: [2013] NZEnvC 304.
26 [2016] NZEnvC 80.

Director-General of Conservation

[19] The Director-General of Conservation ("the DGC") lodged a submission with the Council on PC13(s293V) and a late section 274 notice with the court. Its submission and some suggested changes were "... to ensure that the ecological aspects of the [ONL] are recognised and provided for in a more comprehensive manner"[27]. That was a response to the court's invitation in Order E3(b) of the First (Interim) Decision.

Canterbury Regional Council

[20] The Canterbury Regional Council ("CRC") supported PC13(pc).

Te Rūnanga o Ngāi Tahu

[21] Te Rūnanga o Ngāi Tahu ("TRoNT") and Arowhenua Runaka lodged a notice expressing concern that their roles and values in relation to Te Manahuna (the Mackenzie Basin[28]) under the RMA are not adequately protected by PC13(pc). It is important (for jurisdictional reasons) that TRoNT lodged a submission on the original PC13 as notified.

Environmental Defence Society Inc and Mackenzie Guardians

[22] These two societies lodged submissions on similar lines to those of the DGC.

[23] Mr Enright, counsel for the Environmental Defence Society Inc ("EDS") submitted[29]:

> "A tipping point, exceedance of which will mean the Basin no longer qualifies as ONL, is at the risk of being reached". EDS submits that in neighbouring Omarama (Waitaki District Council jurisdiction) similar ecosystems to those of the Mackenzie Basin have been eradicated.[30]

[24] It is EDS' submission that part of the Mackenzie Basin within the MDC's jurisdiction is "the last bastion for much of [Te Manahuna's] ecology, geology,

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27 V M Smith evidence-in-chief at para 4.1 [Environment Court document 28].
28 We use the expression "Mackenzie Basin" in this decision to refer to that part of Te Manahuna within the Mackenzie District.
29 R B Enright closing submissions para 2 [Environment Court document 46].
30 Transcript p 186 line 26 – p 187 line 13.

geomorphology and associated iconic views"[31]. In the opinion of the botanist called by the Society, Mr N Head, development is "moving across the Basin"[32] yet landscape scale connectivity and coherence persist[33] and the Basin remains an ONL.

[25] In EDS' view:

> Loopholes in the operative planning framework have resulted in degradation and loss of ecological and corresponding landscape values[34]. Pursuant to s6(b) RMA and Objective 12.1.1 RPS, PC13 must install a regulatory regime that ensures protection of ONL characteristics and values.

Blue Lake Limited

[26] This company, which has an interest in Guide Hill Station on the eastern side of Lake Pukaki, is concerned about PC13 generally (in much the same way as other landowners and has a particular interest in a number of rules (including those relating to accommodation) and in the accuracy and need for the [Lakeside Protection Area] overlay[35].

Ben Ohau Farming Trust

[27] The sole issue for the Trust is the date for the exemption to Policy 3B13 and the related rule so that resource consent is not needed for "pastoral intensification" if a water permit to use water on land has been obtained from the CRC before 15 November 2015 (the date of notification of PC13(s293V)).

1.4 Recalling the issues

[28] In addition to recognition of the outstanding natural landscape of the Mackenzie Basin, PC13(N) described the issues to be dealt with in PC13 as[36]:

- rural lifestyle … and rural residential development … [which is] too extensive or in the wrong location …;
- subdivision … result[ing] in the loss of the former high country ethos and landscape pattern;

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31 Transcript p 187 lines 1-9.
32 Transcript p 187 line 10.
33 Exhibit 29.1 and Transcript p 456 lines 19-29.
34 The Mackenzie declaration decision: *Environmental Defence Society Inc v Mackenzie District Council* [2016] NZEnvC 253.
35 Blue Lake Limited section 274 notice, 15 December 2015.
36 PC13(N) p 4.

- ... more intensive use of the remaining farmed areas [especially with the] ... freeholding of former pastoral lease land;
- ... loss or degradation of views from the ... tourist highways;
- ... the extent to which additional irrigation will 'green' the Basin and change land use patterns.

[29] Many of the issues about domestication of the landscape have been dealt with by Objective 3A and its policies. What remains is the question of pastoral intensification and agricultural conversion.

[30] In PC13(C) the last sentence – referring to greening of the basin by irrigation – was omitted. The Environment Court held that was incorrect. The High Court ruled[37] that was an error of law: it is not mandatory[38] for a district plan to include any issue. However, the High Court's decision on this point is quite narrow: Gendall J specifically notes[39] that his ruling is "... not the death knell of the greening issue". We understand him to mean that merely because an issue is not stated in the final version of a plan or plan change does not entail it is not a live issue in the proceedings leading to that plan (change).

[31] The reason that the greening issue remains live is clear: the issues for a local authority (or on appeal the Environment Court) to consider are those raised in the plan (change) as notified. An "issue" in section 75(2)(a) RMA is simply a question which is to be answered by objectives and policies. It is not itself a policy or objective (although many read as if they are). An important point about the statement of an issue is that once a question is asked in a notified plan, it cannot be unasked. It may not be dealt with by objectives and policies if there is a reason for that, but so long as the proceedings are live (assuming there are general appeals) then an issue is live too: that is an important part of the participatory process incorporated in the RMA.

[32] None of the Environment Court "decisions" relied on by the High Court in *Mackenzie (HC 2014)* consider the question of deletion of an issue at all: *The Minister for the Environment v The Hurunui District Council*[40] was simply a Record of Determination – in which there was no actual decision – the court simply accepted the position of the parties. In any event the dispute between the parties (in that case) was

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37 *Mackenzie (HC 2014)*, above n 10 at [116].
38 Section 75(2)(a) RMA.
39 *Mackenzie (HC 2014)*, above n 10 at [116].
40 *The Minister for the Environment v The Hurunui District Council* [1999] (EnvC) C110/99.

over the application of the word "efficient" rather than over the deletion of an issue. The reworded issue remained in the district plan.

[33] Similarly the "Final Decision" in *Cammack and Evans v Kapiti District Council*[41] was effectively the endorsement of amendments to issues earlier approved by the Environment Court. A reading of the "issues" amended will show they are largely descriptive. There is only one place where the "issues" – in the proper sense of a question to be answered – are referred to in the "Final Version" of Plan Change 73 to the Kapiti Coast District Plan put to the court and attached to the Final Decision. The (substantive) Interim Decision[42] in that proceeding does not state that the issues are to be changed. Indeed it only refers to one sentence of the statement[43].

[34] *Carter Holt Harvey Forests Ltd v Tasman District Council*[44] is a full and careful decision of the Environment Court concerned with the "right to rainfall". The issue of reductions in surface and groundwater resources was held to be inappropriately located under the heading *Land Resources*[45] arising from tall vegetation and crop irrigation[46]. But the issue was not deleted. Rather the question was merely moved to *Freshwater Resources*[47], a different part of the plan.

[35] Thus the question about whether and, if so, how the greening of the ONL of the Basin by irrigation should be managed under PC13 is still live. We also note that these questions about the "greening issue" are ultimately moot (or irrelevant) because the issue is simply a different aspect of an unchallenged issue in PC13, which is "[should there be] more intensive use of the remaining farms"?

[36] In summary, two general sets of issues are raised by PC13 about what is appropriate use and development of recognised outstanding natural landscape ("ONL") of the Mackenzie Basin:

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41 *Cammack and Evans v Kapiti Coast District Council* (EnvC) W 82/2009.
42 *Cammack and Evans v Kapiti Coast District Council* (EnvC) W 69/2009.
43 *Cammack and Evans,* above n 42 at [277] second bullet point.
44 *Carter Holt Harvey Forests Ltd v Tasman District Council* (1998) 4 ELRNZ 93 (EnvC).
45 *Carter Holt*, above n 44 at 116.
46 *Carter Holt*, above n 44 at 116.
47 *Carter Holt*, above n 44 at 116.

(1) where, how and to what extent can residential and other non-farming buildings[48] be allowed in the Basin;

(2) should pastoral intensification and irrigated farming be managed?

1.5 The layout of this decision

[37] We update our description of the environment in Chapter 2 and in Chapter 3 of this decision we set out our understanding of our role under section 293 and then address various legal issues that arise. We identify the relevant instruments in Chapter 4. We will then answer the following questions consecutively:

- does Objective 3B(3) integrate with the rest of the district plan and not depart from the higher statutory documents? (Chapter 5)
- do the policies effectively implement the objectives of the district plan (and PC13)? (Chapter 6)
- are the rules effective? (Chapter 7)
- are the proposed policies and rules a more efficient use of the resources of the Mackenzie Basin than the status quo? (Chapter 8)
- overall evaluation (Chapter 9).

2. The environment

2.1 The First Decision's description of the environment

[38] The environment and landscape of the Mackenzie Basin is fairly comprehensively described in the First (Interim) Decision[49]. We will not lengthen this decision by repeating the facts as stated in the First (Interim) Decision: we simply adopt paragraphs [1] to [124] of that decision subject to the reservations we express below. These reservations arise principally out of the concern expressed by the court at several points[50] in the First Decision about the lack of ecological evidence at the earlier hearing. We now reconsider our findings about the environment in the light of the evidence given to us in 2017. All findings of fact are made on the balance of probabilities; all findings of the probabilities of future events and effects are made on the standard probabilistic scale.

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48 Buildings and other infrastructure associated with the Waitaki Hydroelectricity Power Scheme ("HEPS") are sui generis and managed by a set of (now settled) policies in PC13.

49 *High Country Rosehip,* above n 6.

50 *High Country Rosehip*, above n 6 at Order E(3)(b) at [15], and at [486] and [488] to [490].

[39] At the 2017 hearing we received considerable further evidence on two of the natural science values of the ONL – the geomorphological characteristics of the flat and lower land within the Basin and its ecological values; and on the cultural values and other values of the Basin to tangata whenua, to farmers and to other residents or visitors.

[40] Before we attempt to marshall that evidence, there are two aspects of the environment we should re-emphasise[51]: the altitudinal and rainfall gradients. The "flat and easy grassland" within the Mackenzie Basin runs from at an altitude of approximately 800 metres above sea level ("masl") on terraces at the head of Lake Tekapo (900 masl on Braemar above Pukaki) down to a low of 375 masl at Lake Benmore. In step with that is a rainfall gradient which moves from 780 millimetres per year in the north (above Braemar) to about 300 millimetres per year in the south at Haldon Station[52].

[41] The impact of these gradients on the ecology of the area is significant as we shall see. The gradients complicate the task of managing the adverse effects of activities because methods are unlikely to work uniformly across them.

[42] Dr Scott an agronomist called by FFM described [53]climate and water holding capacity as the major factors influencing plant growth and survival in the farmed areas of the Mackenzie Basin. He wrote that water holding capacity is determined by soil texture (it increases as textures become finer) and the level of soil organic matter. Dr Scott then observed[54]:

> Unfortunately most soils in the Mackenzie Country have very low levels of organic matter which exacerbates their low water holding capacity and poorly developed soil structure which together make them very prone to wind erosion … . One of the unseen benefits of pasture improvement is the rapid increase in levels of soil organic matter and general soil health.

51 See the First Decision at para 31.
52 P J Boyd evidence-in-chief at para 1.3 [Environment Court document 8].
53 W R Scott evidence-in-chief at para 5.3 [Environment Court document 16].
54 W R Scott evidence-in-chief at para 5.4 [Environment Court document 16].

2.2 Tangata Whenua evidence

[43] Ms M Waaka-Home gave evidence on behalf of Kati Huirapa with "... the unconditional support of Te Rūnanga o Arowhenua, and Te Rūnanga o Ngāi Tahu"[55]. Ms Waaka-Home is a kaitaiaki of the Waitaki catchment[56] including Te Manahuna[57] (the wider Mackenzie Basin).

[44] She wrote[58]:

> 7.1 For Kāi Tahu, mahika kai is the basis of our culture, and the unrelenting cultural imperative is to ensure that we as kaitaki keep the mahika kai intact. In addition it is the basis of Kāi Tahu's economy both historically and also today. Mahika kai is often described as the gathering of foods and other resources, the places where they are gathered and the practices used in doing so. Over many generations Kāi Tahu Whānui developed food gathering patterns based on the seasons and lifecycles of various birds, animals and plants. These patterns are similar to the seasonal calendar contained in Appendix 2 which reflects a general calendar for Te Waipounamu based on one known by Hone Taare Tikao recorded in the 1920s.
>
> 7.2 The Waitaki and Te Manahuna were a fundamental component of these systematic seasonal food gathering patterns. A particular example is that during the months from May to August special Kāi Tahu families travelled to the Upper Waitaki catchment to harvest tuna, weka and other resources. The reason families harvested tuna and weka during this time was because the fat content in these species was at its highest level, which placed far more value on these species as kai because the higher fat content made the preservation process much easier. As well, the tuna whaka heke (migration) on the coast would have also been completed for the season by this time.

[45] She listed many other plants and some birds harvested in Te Manahuna and described[59] efforts to restore mahinga kai with fish passes in the Waitaki and research programmes and[60] the traditional routes into Te Manahuna from the lowlands. These included the Waitaki River, and its upstream branches the Ōhau, Pūkaki and Takapo (Tekapo) Rivers; the Hakataramea Pass, and Te Kopi o Opihi (Burkes Pass). As signs of that occupation there are archaeological sites within Te Manahuna comprising old cooking areas and "ancient settlements ... locations ... where artefacts have been

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55 M Waaka-Home evidence-in-chief at para 2.1 [Environment Court document 4].
56 M Waaka-Home evidence-in-chief at para 2.3 [Environment Court document 4].
57 M Waaka-Home evidence-in-chief at para 2.8 [Environment Court document 4].
58 M Waaka-Home evidence-in-chief at paras 7.1 and 7.2 [Environment Court document 4].
59 M Waaka-Home evidence-in-chief at para 13.6 [Environment Court document 4].
60 M Waaka-Home evidence-in-chief at para 8.1 et ff [Environment Court document 4].

found, ancient rock art drawings, caves and rock shelters"[61] as shown on the map produced[62] by Ms Waaka-Home. Within the Mackenzie Basin, most of these sites are clustered around the southern ends of Lakes Pūkaki and Tekapo, at Whakarukumoana (Lake MacGregor) and along the rivers

[46] The Kāi Tahu Claims Settlement Act 1998 (KTCSA)[63] stipulates three mechanisms to acknowledge and recognise the relationship of Kāi Tahu with the cultural landscape of Te Waipounamu:

(a) Statutory Acknowledgements;
(b) Dual Place names; and
(c) Nohoanga.

[47] Ms Waaka-Home described[64] "Statutory Acknowledgements" as "an acknowledgment by the Crown of the particular cultural association that Kāi Tahu Whānui holds for specific areas and is intended to ensure that Te Rūnanga o Ngāi Tahu is informed when a proposal may affect one of these areas". The "Statutory Acknowledgements" in the Te Manahuna are:

- Aoraki (Mount Cook);
- Hakataramea River;
- Lake Ōhau;
- Lake Pūkaki;
- Lake Takapo (Tekapo);
- Lake Ao Mārama (Lake Benmore); and
- Whakarukumoana (Lake MacGregor).

[48] Under the KTCSA dual place names are to be included on official maps, road signs and explanatory materials. The dual place names in Te Manahuna are Aoraki / Mt Cook, and Mackenzie Pass / Manahuna.

[49] Under the KTCSA nohoanga have been given contemporary meaning through the establishment of temporary campsites near areas of cultural significance. Any Kāi

61 M Waaka-Home evidence-in-chief at para 9.4 [Environment Court document 4].
62 M Waaka-Home evidence-in-chief at Appendix 4 [Environment Court document 4].
63 See also the map of Te Manahuna with Statutory Acknowledgements Areas marked in red attached as Appendix 1 to the evidence of Tanya J Stevens.
64 M Waaka-Home evidence-in-chief at para 12.3 [Environment Court document 4].

Tahu person or family can camp at nohoanga[65] (subject to certain conditions). The nohoanga in Te Manahuna are located at the Lake Ōhau and the Ōhau River, Takamoana (Lake Alexandrina) and Whakarukumoana (Lake MacGregor).

[50] Ms Waaka-Home described[66] other methods in which Te Rūnanga o Arowhenua, and Te Rūnanga o Ngāi Tahu have been working to restore their cultural relationship with Te Manahuna. Relevantly these included:

- a programme called "Aoraki Bound" which involves paddling waka the length of Pūkaki, and a hikoi (walk) up Te Awa Whakamau (the Tasman River) the feet of Aoraki (Mt Cook) in addition to other hikoi[67] and field trips;
- "... visiting Pastoral Leases ... as part of the Tenure and Review process to protect our mahika kai and wāhi tapu ..."[68];
- restoration of traditional Kāi Tahu names in the naming of Conservation Parks – Ahuriri, Te Rua Taniwha, and Te Kahui Kuapeka;
- a wider working relationship with the Department of Conservation;
- establishment of a community facility – Te Whare Mahana – in Twizel township.

[51] The witness concluded[69]:

> Currently I consider that Plan Change 13 does not adequately recognise Ngāi Tahu ancestral, historic and contemporary values, rights or interests. In this way I firmly believe that Plan Change 13 is denying me my ability to exercise my role as Kaitiki (as described earlier in my evidence) which was delegated to me by birth and right.
>
> These ancestral, historic and contemporary values, rights and interests espoused in my evidence could invariably, and easily, be incorporated into the Plan Change. This would go a long way towards achieving the type of recognition that Ngāi Tahu is concerned with.
>
> The evidence of Ms Stevens details the appropriate planning concerns and mechanisms that could remedy the situation. I support Ms Stevens' recommendations as being appropriate to address many of the matters covered in my evidence.

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65 "Nohoanga" means "seat, abode, or encampment".
66 M Waaka-Home evidence-in-chief at para 14 [Environment Court document 4].
67 M Waaka-Home evidence-chief at para 14.8 [Environment Court document 4].
68 M Waaka-Home evidence-chief at para 14.3 [Environment Court document 4].
69 M Waaka-Home evidence-in-chief at paras 15.2 to 15.4 [Environment Court document 4].

[52] In considering Ms Waaka-Home's evidence we have borne in mind that the values of Te Manahuna to TRoNT and its hapu are an important part of the total values of the ONL. Despite that, we are troubled by her conclusion for two reasons. First, Ms Waaka-Home does not recognise that PC13 needs to be read in the context of the MDP as a whole, and of course Chapter 4 of the plan expressly relates to tangata whenua. The ancestral and historic values she writes of are incorporated into the MDP already, and do not need to be added into PC13. Second in relation to the "contemporary" component of those "values, rights, and interests" Ms Waaka-Home did not identify any way in which those values were specifically not being maintained or improved. With one exception her evidence gives no idea of any problem that needs fixing (provided the MDP is read as a whole). The exception is that Ms Waaka-Home's role as one of the Kaitiaki of Te Manahuna is not being recognised. However, that is beyond the scope of PC13, and may even require amendment to the RMA to resolve.

[53] We consider later whether our concerns are met by the evidence of Ms T J Stevens, the planner called by TRoNT.

2.3 Farming in the Mackenzie Basin

[54] Outside the townships (Tekapo and Twizel) in the Mackenzie Basin, farming is the second most "important" activity (behind tourism) in employment terms. However, as we observed in the First Decision[70] "... if 'importance' is rated by the direct contribution to the national economy ... the Waitaki Power Scheme ... wins hands-down over farming". Due to a combination of natural (low rainfall, poor soils, high altitude) and legal (leasehold rather than freehold land) factors, much of the land in the Mackenzie Basin has until recently been farmed relatively lightly as large stations grazing sheep and some cattle at low densities. For example we received evidence from Mr J B Murray one of the owners of The Wolds Station that it currently runs 10,300 sheep and 390 Angus cattle on 8,000 hectares[71]. That is a doubling[72] of stock numbers since 1984.

[55] We accept, as FFM's witness Ms L M W Murchison wrote[73], that the people – including the high country "pastoral farming" community and their activities and culture are part of the landscape and identity of the Mackenzie Basin. That raises issues as to

70 [2011] NZEnvC 387 at para 41.
71 J B Murray evidence-in-chief para 7 [Environment Court document 5].
72 J B Murray evidence-in-chief para 9 [Environment Court document 5].
73 L M W Murchison evidence-in-chief at para 43 [Environment Court document 33].

how landowners are actually farming and how that has changed, and is changing the image and ethos[74] of the "Mackenzie Country" as pastoral farming.

[56] "Pastoral farming" has a specific Australasian set of meanings. *The New Zealand Oxford English Dictionary*[75] defines "pastoral" as (relevantly):

> ... **1** of relating to, or associated with shepherds or flocks and herds. **2a** of. pertaining to, or engaged in stock-raising as distinct from crop-raising. **b** (of land) used for, or suitable to be used for, stock-raising. **3** (of a poem, picture, etc.) portraying country life, usu. in a romantic or idealised form,
>
> ...
>
> **Pastoral lease** *NZ & Aust.* **1** an agreement under which an area of crown land is held on condition that it is used for stock-raising. **2** the land so held. **Pastoral property** (or **run**) *NZ & Aust.* A stock-raising establishment.

[57] Ms L M W Murchison is an experienced farmer from the Hurunui District in addition to having planning and resource management qualifications. She described[76] how in her opinion "oversowing topdressing, fencing, shelterbelts and dryland cultivation" need to be included as pastoral farming. That evidence is too broad and general to persuade us on the balance of probability that it is an accurate description of what has occurred in the Mackenzie Basin. Ms Murchison does not describe the role of the conditions of pastoral leases, or on what sort of scale and intensity those various practices have taken place.

[58] Mr G H Densem the landscape architect consulted by the MDC wrote[77]:

> 52. Pastoral intensification has occurred over the 150 years of pastoral runholding in the Mackenzie Basin. Under traditional regimes, which dominated until the 1990's, improved 'green' paddocks existed within the sheltered homestead block, while over the wider run, tussock variably intermingled with oversown exotic browntop grasses, forming a visually 'brown' dry grassland landscape. This was the basis of the high country landscape character identified in my 2007 study.[78]
>
> 53. Since the 1990's, but particularly since 2009, intensification has proceeded in the various stages described in paragraph 4.8 of my September 2015 paper, namely:

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74 PC13(N): Issues.
75 *The New Zealand Oxford English Dictionary* (2005) OUP p 825.
76 L M W Murchison evidence-in-chief at para 6 et ff [Environment Court document 33].
77 G H Densem evidence-in-chief 15 July 2016 at paras 52-53 [Environment court document 19].
78 G H Densem *The Mackenzie Basin Landscape* November 2007, 2.8-2.20 (p 11), 3.2-3.2 (p 17).

Cultivated or irrigated regimes:

1. Cultivated, irrigated pastures of largely green character within traditional homestead areas, now identified under Plan Change 13 as Farm Base Areas;
2. Cultivated, irrigated pastures of largely green character within consented irrigation areas outside Farm Base Areas, following Environment Canterbury water allocation hearings;
3. Seasonally green cultivated but unirrigated crop areas outside Farm Base Areas.

Dryland Regimes:

4. Extensive dryland grazing at low stocking rates, that maintains the tussock/browntop cover of the Basin. This may include oversown but uncultivated grasslands, that may be predominantly exotic Browntop, that remain generally brown through the year.
5. Retired conservation lands managed for ecological values, particularly maintenance of its fragile tussock covering, which may involve occasional maintenance grazing. Many such areas are above the 700m contour;
6. Retired, protected areas with specific ecological values such as wetlands, within the Basin floor and rivers.

[59] Traditionally the principal farming techniques in the Basin were burning of tussock, grasslands and scrub, grazing by sheep (at different stocking rates), "subdivisional fencing"[79], topdressing (often aerial) with fertiliser and oversowing with exotic grass-seed. We accept that limited ploughing and cultivation took place around homesteads or on the rarer pockets of fertile soils. Similarly there has been small scale border dyke irrigation where location of streams and topography has allowed it – notably at the downstream end of the Basin (on Haldon Station). Direct drilling has become widespread since the late 1950s. Mr Murray described[80] his father direct drilling after he purchased The Wolds Station in 1957.

[60] Topdressing with fertiliser and oversowing (often aerially since the 1950s) have also become regular practices in the Basin. Dr Scott pointed out why the application of fertilizer has become important in the high country, quoting[81] from a paper he wrote in 1995:

79 This does not mean fencing of a formal subdivision under Part 10 of the RMA but fencing of areas to enable more intensive stock pressure.
80 J B Murray evidence-in-chief at para 13 [Environment Court document 5].
81 W R Scott evidence-in-chief at para 8.3 [Environment Court document 16].

> High country pastoral farming is now reaching the stage, as elsewhere in New Zealand, that for sustainability, the mineral removal in products must be more than balanced by added fertiliser.

[61] Topdressing and the other activities have changed in intensity and scale since 1995. Direct drilling has covered wider areas as the equipment has become better able to cover more difficult terrain and more efficient. Compared with the petrol MF35 tractor used by Mr Murray's father in the early 1960s, closed cab tractors of more than 100 horsepower are now standard, as are five metre plus wide direct drills.

[62] We will turn to the quantitative evidence of changes in practices in the Mackenzie Basin shortly, but we can summarise to this point with a qualitative conclusion that there are very large differences between the pastoral farming traditionally carried on in the Basin and the agricultural businesses carried on south of Lake Ruataniwha (within Waitaki District).

[63] Until the last few years many of the stations in the Mackenzie Basin were held under pastoral leases under the Crown Pastoral Land Act 1998 ("the CPLA"). A significant proportion of the Mackenzie Basin is still held under such leases[82]. A pastoral lease gives the holder the "exclusive right of pasturage over the land"[83] but no right to the soil[84]. Burning[85], cropping, cultivation, ploughing, topdressing and/or oversowing are forbidden[86] without the written consent[87] of the Commissioner of Crown Lands ("CCL")[88].

[64] Many changes are due to a process under the CPLA called "Tenure Review" which has freeholded[89] much of the flat and easy land in the Mackenzie Basin, while returning higher land (and some wetlands and other reserves) to the Crown. The objects of Part 2 CPLA are stated in section 24 of that statute to be:

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82 Dr Walker produced a map showing the tenure review situation: evidence-in-chief Appendix 10 [Environment Court document 17].
83 Section 4(a) CPLA.
84 Section 4(c) CPLA.
85 Section 15 CPLA.
86 Section 16(1) CPLA.
87 Section 16(2) CPLA.
88 This raises an interesting point for claims of existing uses over former pastoral leasehold land: the claimant will need to produce copies of the written consents of the CCL.
89 See S Walker evidence-in-chief Figure A10 [Environment Court document 17].

24 Objects of Part 2

The objects of this Part are —

(a) to—

(i) promote the management of reviewable land in a way that is ecologically sustainable:

(ii) subject to subparagraph (i), enable reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under reviewable instrument; and

(b) to enable the protection of the significant inherent values of reviewable land—

(i) by the creation of protective mechanisms; or (preferably)

(ii) by the restoration of the land concerned to full Crown ownership and control; and

(c) subject to paragraphs (a) and (b), to make easier—

(i) the securing of public access to and enjoyment of reviewable land; and

(ii) the freehold disposal of reviewable land.

[65] Some families have been farming in the Basin for a long time: Mr S J Cameron advised that his family and later the Ben Ohau Trust have been farming the land at Ben Ohau since 1891. He wrote[90]: "Over those 125 years my family has developed and used the land for sheep farming (primarily wool production), beef cattle and cropping, as have our neighbours. Our connection with the land at Ben Ohau is very real, as is our desire to protect it for my children and future generations to come".

[66] Because of the effects of oversowing and topdressing on native plants, the MDC has a (district-wide) definition of "Pastoral Intensification" as meaning: "... subdivisional fencing, topdressing and oversowing."[91] Under the MDP control on pastoral intensification only occurs within ecological sites called Sites of Natural Significance ("SONS").

[67] In fact farming techniques in the Basin have more recently included more widespread cultivation but more commonly direct drilling, herbicide application (usually when drilling but sometimes when oversowing), and irrigation. The effects of all these activities vary of course, with the frequency and extent of their use. Mr J B Murray described[92] how he currently manages The Wolds under a constantly assessed programme for different parts of the property in cycles:

90 S J Cameron evidence-in-chief at para 18 [Environment Court document 6].
91 Mackenzie District Plan pp 3 to 8.
92 J B Murray evidence-in-chief para 25 [Environment Court document 5].

- oversowing once every five to ten years;
- topdressing every two to three years.

[68] For consistency we will use three descriptions:

(1) "traditional pastoral farming": grazing of stock with limited oversowing and topdressing (plus limited cultivation and a small dairy herd/sometimes one milking cow) around a homestead;
(2) "pastoral intensification": subdivisional fencing and/or topdressing and/or oversowing[93];
(3) "agricultural conversion": direct drilling, cultivation, topdressing and/or oversowing or herbicide application, and/or irrigation.

[69] Both pastoral farming and pastoral intensification require weed and pest (rabbit) control. The costs are large. Mr R J Boyd who has lived and worked on Haldon Station for 35 years and managed it since 1987 gave evidence[94] that on its 22,000 hectares Haldon Station spends:

- $50 - $60,000 per annum on rabbit control;
- $25 - $30,000 per annum on wilding tree eradication;
- $20,000 per annum "on other wood weeds – Broome/Gorse/Willow"[95];
- "countless programmes on … possum, ferret and other mammalian pest control".

[70] Mr Densem described the visual effects of the changes and intensification of farming techniques as follows[96]:

> The above regimes represent a progression between unmodified brown areas of the basin and the modified green areas. The ONL value derive particularly from the former. Beyond a certain level of improvement, the site becomes green and akin to a lowland rural area. It then no longer possesses a high country character and therefore detracts from the ONL. However light intensification and oversowing generally maintain the dry grassland character, and thus ONL values of the Basin.
>
> …

93 This is a defined term: MDP pp 3 to 8.
94 P J Boyd evidence-in-chief at para 2.2 [Environment Court document 8].
95 P J Boyd evidence-in-chief at para 2.2 [Environment Court document 8].
96 G H Densem evidence-in-chief 15 July 2016 at paras 54 to 56 [Environment Court document 19].

> Intensification also degrades the characteristic landscape continuity and simplicity of the Basin by introducing green pastures, shelterbelts, buildings, roads and lighting that break up the extensive traditional landscape. The new houses, sheds, irrigators, farm roads and improved paddocks arising from these generally occur in the wider landscape and not within the traditional cultural pattern of Farm Base Areas (homesteads, home paddocks).

2.4 The *Mackenzie Agreement*

[71] Towards the end of the First Decision the court noted the existence of what is called "*The Mackenzie Agreement*"[97] relating to the wider "Mackenzie Country" of which the Mackenzie Basin is part. The court hoped unresolved matters in PC13 might be resolved under that agreement. That has not occurred. However the *Mackenzie Agreement* has been referred to by a number of witnesses and counsel – notably by FFM which says it supports the Agreement – so we will set out its more relevant provisions.

[72] An informal group called the "Upper Waitaki Share Vision Forum" produced *The Mackenzie Agreement: A Shared Vision and Strategy* in 2011. Signatories included the Mackenzie Federated Farmers, Otago High Country Federated Farmers, EDS, The New Zealand Fish and Game Protection Society Inc, "Tourism Waitaki", "Existing Irrigators" (represented by Mr P J Boyd), the Mackenzie Irrigation Company, the Mackenzie Guardians Inc, and Mr J O'Neill as an independent person appointed by the MDC. The *Mackenzie Agreement* sets out a "vision", which includes a mixed land use pattern incorporating irrigated and dry land agriculture, tourism and the protection or management of land for biodiversity and landscape purposes. That is a vision the Council supports. The *Mackenzie Agreement* is still supported by some other parties including FFM[98].

[73] The *Mackenzie Agreement* contemplated that a trust could be set up (inter alia) to assist to protect land with high natural science values as compensation for pastoral intensification or agricultural conversion. Mr M Neilson gave evidence[99] about the implementation of that aspect of the *Mackenzie Agreement* and attached a copy of a Mackenzie Country Trust Deed to his evidence. Apparently funding from the Government was available to set up the Trust, so it has some additional backing at higher levels than the local authorities.

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97 C Vivian evidence-in-chief Attachment CV-C [Environment court document 26].

98 R Gardner opening submissions para 13 [Environment Court document 2.2]; closing submissions para 3 [Environment Court document 41].

99 M J M Neilson evidence-in-chief [Environment Court document 3.6].

[74] The *Mackenzie Agreement* identified an area of 269,000 hectare of "flat and easy country"[100] in the larger Mackenzie Country comprising the Mackenzie Basin (within the Mackenzie District) and an area between the Ohau River and the south side of Omarama (within the Waitaki District). It provides for 64,342 hectares[101] to be developed. It continues[102]:

> The ... development area includes about 26,000 ha of land which under our Vision and Strategy will be intensified whether by irrigation or by intensified dryland farming practices. Under mid-range assumptions, this development strategy is capable of generating $100 million/year of additional export productions, and an increase in land values of $400 million. The resulting increase in rates payable from this land must exceed $1 million a year, and the tax payable by landholders and employees must exceed $5 million a year – a total of at least $6 million of public revenues. The cost of protecting land under JMAs will vary widely but it seems reasonable to assume an average cost of $50/ha/year. If the target area for conservation is set at 100,000 ha (of which 26,000 is already conservation land, or is in the process of becoming conservation land), then additional land for biodiversity and tussock protection managed under JMAs would cost $3.7 million a year.

[75] The scale of more intensive development proposed as at 2011 within the larger area of flat and easy country was[103]:

- 7,500 ha already developed for irrigation:
- 7,500 ha proposed for relatively small scale irrigation on 29 large sheep and beef properties;
- 9,600 ha proposed for large scale, intensive livestock farming on 5 properties.

The total of those three development areas is 24,600 hectares and the sub total of proposed irrigated development areas is 17,100 hectares.

2.5 Changes to the environment since the First Decision

[76] After the hearing we realised that the evidence we had received at the hearing was not easy to reconcile with the areas referred to in the *Mackenzie Agreement*. We requested a memorandum from counsel for the MDC (with an opportunity for the other parties to respond) to understand whether development of the areas of "flat and easy

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100 *Mackenzie Agreement* p 5.
101 Ibid, at p 22 (and in Table 3).
102 Ibid, at p 22.
103 *Mackenzie Agreement* p 5.

land" outlined in Page 5 of the *Mackenzie Agreement* of 2011:

- is still being worked towards;
- has been achieved; or
- have been exceeded.

[77] On 22 March 2017 the court received a very useful report and analysis from Mr Caldwell and Ms King, counsel for the MDC. As they observe[104]:

> The comparison is not straightforward. The evidence of the various witnesses addressing the change in land use did not specifically address the comparison sought by the Court. Rather, that evidence focused on the degree of loss for various time periods between 1990-2016. Nor did the evidence specify with any degree of precision what changes were as a result of intensification, as opposed to forestry, wilding spread or similar[105].

We are grateful to Mr Caldwell and Ms King for their work and rely on it in what follows. Other parties responded and we now work through the evidence and submissions.

[78] The *Mackenzie Agreement* includes[106] a Table 3 showing existing development in the Mackenzie Country. Mr Caldwell reproduced parts of that table as follows:

Mackenzie Country land types	H1 fluvial valley fill	H1 + H2 valley Moraine & outwash	H3 basin moraine	H4 basin outwash	Total (ha) of basin land	%
Development :						
A. Already developed	917	952	11,649	25,009	38,527	14%
B. Proposed irrigation	231	525	5,365	19,694	25,815	10%
Total development area (A + B)	1,148	1,477	17,014	44,703	**64,342**	**24%**

[79] The table shows that 38,527 hectares has already been developed and 25,815 hectares was "proposed irrigation" in the greater Mackenzie Basin in 2011. However, the *Mackenzie Agreement* then qualifies that by stating[107]:

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104 D Caldwell and J King: Memorandum 22 March 2017 at [4] [Environment Court document 52].
105 They acknowledged that Dr Susan Walker did address percentages of different causes of change for 2009-2016 in her evidence-in-chief at para 49, footnote 60 [Environment Court document 52].
106 *Mackenzie Agreement* p 21.
107 *Mackenzie Agreement* p 22.

> The 64,000 ha shown in Table 3 as the total development area includes about 26,000 ha of land which under our Vision and Strategy will be intensified either by irrigation or by intensified dryland farming practices.

[80] As Mr Caldwell and Ms King pointed out[108]:

> The Mackenzie Agreement therefore contains two development figures: 17,100 ha, being the total of "proposed" irrigation stated on page 5, and 26,000 ha, being the area that *will be intensified either by irrigation or intensified by dryland farming practices* stated on page 22. It is not readily apparent why the figures differ although an existing development map as at 2009 is noted as an input.[109] For the purposes of this memorandum, Council has compared the evidence of development and irrigation against both of those figures.

[81] Ms Forward, counsel for Mt Gerald and The Wolds, has taken instructions and her clients have advised her that topdressing and oversowing are not regarded as intensified dryland farming (even if they are regarded as "developed"[110]). We accept that was their view, and can see that may have been the general understanding of the *Mackenzie Agreement*. We have found that rates of topdressing and oversowing, combined with different stocking rates can mean that indigenous tussock grasslands can convert to exotic cover over time. This means there is a fundamental ambiguity over what is meant by "intensified ... dryland farming practices" in the *Mackenzie Agreement*.

[82] The *Mackenzie Agreement* approximately[111] covers land within the Tekapo, Pukaki and Omarama ecological districts – an area which we called "the Greater Mackenzie Basin" in the First Decision and the "Mackenzie Country" in this. The Mackenzie Basin subzone (being that part of the Greater Mackenzie Basin within the Mackenzie District) encompasses the Tekapo and Pukaki ecological districts only.

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108 MDC submissions 22 March 2017 at para 9 [Environment Court document 52].

109 *Mackenzie Agreement* p 21, bulletpoint at 7(c).

110 J B Murray evidence-in-chief at para 5: "When referring to "developed" areas I mean those areas that are either under irrigation, have been cultivated or that have been oversown and topdressed". [Environment Court document 5].

111 Compare: evidence-in-chief of Nicholas Head for DoC (Map 1), with the Mackenzie Agreement (map on p 3) and affidavit of Matthew McCallum-Clark sworn 17 February 2017 (map in Annexure B).

The quantitative evidence on the changes to ecosystems in the Mackenzie Basin

[83] We received three sets of evidence relevant to this issue.

Mr N Head for the Director-General of Conservation

[84] Table 3 in Mr Head's evidence in chief sets out the results of analysis[112] of the extent of ecosystem loss that has occurred between 2000 and 2016 on inland alluvial surfaces and moraines, and in each ecological district[113]. Mr Head's Table 3 is now set out[114] here:

Table 3: Indigenous vegetation remaining on naturally rare ecosystems in the Mackenzie Basin and extent of loss (Hectares)

Ecosystem per ED	Exotic Ha 2000	Exotic Ha 2016	Indig. Ha 2000	Indig. Ha 2016	Indig. Ha lost	% lost between 2000-2016
Moraines	**11,400**	**18,400**	**52,200**	**45,100**	**7,000**	**13%**
Omarama ED	2,000	4,700	7,200	4,500	2,700	**37%**
Pukaki ED	2,000	2,900	4,200	3,300	894	**22%**
Tekapo ED	7,300	10,800	40,800	37,400	3,400	**8%**
Alluvial outwash Gravels	**16,500**	**38,300**	**87,000**	**65,300**	**21,800**	**25%**
Omarama ED	5,700	14,200	18,000	9,500	8,500	**47%**
Pukaki ED	7,600	19,000	53,800	42,500	11,300	**21%**
Tekapo ED	3,100	5,100	15,200	13,200	2,000	**13%**

[85] The appropriate totals are in the sixth (penultimate) column (shown in blue). Adding the figures for the Pukaki and Tekapo Ecological Districts Table 3 shows that on Mr Head's analysis between 2000 and 2016 17,594 hectares of indigenous vegetation was lost on moraines and alluvial outwash gravel areas in the ecological districts.

112 N J Head's figures were drawn from a Landcare Research database, version dated 30 June 2015 (footnotes 58 and 59 of his evidence-in-chief) [Environment Court document 14].

113 N J Head, 9 September 2016, at para 16.1 [Environment Court document 14].

114 The underlined figure being a correction Mr Head made in evidence at the hearing - Transcript p 169, lines 5-6.

[86] When questioned[115] by the court Mr Head was unable to provide specific figures for the change that has occurred between 2011 and 2016. Regrettably no one thought to ask Mr Head what has replaced the indigenous vegetation. Consequently we do not know whether the replacement use is wilding pines, direct drilled pastures, or exotic grasses or other green crops.

Dr S Walker for the Mackenzie Guardians

[87] An ecologist called by the Mackenzie Guardians, Dr S Walker gave evidence of the area in the Basin that has converted to exotic cover[116] and that the majority of that conversion occurred through pastoral intensification[117].

[88] An apparent 14,000 hectare discrepancy[118] between Dr Walker's and Mr Head's figures for 2001-2016 was resolved. Dr Walker explained that the difference was found in areas of the Basin that were not on either alluvial outwash or moraine[119]. She confirmed that in terms of developed areas on outwash and moraines, her and Mr Head's figures were identical[120]. Mr Harding agreed[121] in his affidavit that *changes on land that is neither moraine or outwash could explain the apparent discrepancy* between the figures of Mr Head and Dr Walker[122].

[89] Matters were complicated slightly by the fact that Dr Walker later revised some of her figures[123]. Table 1 from her affidavit is reproduced here:

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115 Transcript of proceedings, p 173, lines 27-33:
Q. The question is, how much of the changes occurred in the smaller interval, 2011 to 2016?
A. Oh sorry. 2011, well, I haven't mapped that exactly but I can't answer that question in terms of specifically, but the loss has been, you know, accumulating annually. So it's – I can't exactly tell you how much there's been in that period but there's been a substantial loss since five, six years.

116 Dr S Walker evidence-in-chief, 9 September 2016, para 49 [Environment Court document 17]. Also Transcript, p 250, lines 21-27.

117 Dr S Walker evidence-in-chief, 9 September 2016, para 49 and footnote 60 [Environment Court document 17].

118 Some 14,000 ha – Transcript of proceedings, p 253, at lines 13-15.

119 Transcript of proceedings, p 254, lines 9-10 and lines 13-15, and Exhibits 17.8 and 17.9.

120 Transcript of proceedings, p 486, lines 1-3 and p 487, lines 3-7.

121 Affidavit of M A C Harding, sworn 24 February 2017, at para 10 [Environment Court document 37].

122 Mr M A C Harding gave examples of such areas, and noted some areas that had been developed without any apparent link to irrigation (Maryburn and Rhoborough Downs) – affidavit of Mike Harding, sworn 24 February 2017, at paras 11-12 [Environment Court document 37].

123 Affidavit of Dr Susan Walker, sworn 28 February 2017, at paras 6-8 [Environment Court document 17A].

Table 1. Land areas of change from indigenous to exotic cover across the Mackenzie Basin floor in four periods, in hectares. Number in parentheses show the percentage of total change to July 2016. Corrections to numbers provided in my evidence and cross examination answers are shown in bold.

	Before 1990	1990 to 2001	2001 to 2009	2009 to July 2016
All of Mackenzie Basin floor[a]	6,700 (9.0%)	14,800 (19.8%)	**19,300 (25.8%)**	**34,000 (45.4%)**
Mackenzie Basin floor in Mackenzie District only[b]	5,700 (11.7%)	11,400 (23.3%)	**7,700 (15.8%)**	**24,000 (49.2%)**

[a] Omarama, Pukaki and Tekapo Ecological Districts

[b] Pukaki and Tekapo Ecological Districts only

[90] Again there is, as Ms Forward pointed out, ambiguity over whether the "exotic cover" is irrigated grassland, wilding conifers, or something else.

[91] Mr Caldwell and Ms King write that[124]: "The above changes affected the allocation of development between the time periods of 2001-2009 and 2009-2016. There was no change to the overall total for 2001-2016[125] and therefore the resolved 'discrepancy' ... is unaffected".

[92] Dr Walker also said that in her opinion 65-85% of the conversion recorded between 2009-2016 had occurred in the last three years[126]. After reflection she obviously had no reason to resile from that because she repeated[127] her assessment in her affidavit explaining the discrepancy discussed above.

[93] Mr Caldwell and Ms King calculated from Dr Walker's evidence[128] that between 22,100 to 28,900 hectares[129] of change from indigenous to exotic cover has occurred in

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124 Memorandum of D C Caldwell and J R King 22 March 2017 [Environment Court document 52].

125 Affidavit of Dr Susan Walker, sworn 28 February 2017, para 8 [Environment Court document 17A].

126 Transcript, pp 243-244, beginning line 30.

127 Affidavit of Dr S Walker, sworn 28 February 2017 at para 10 [Environment Court document 17A].

128 Figures taken from Dr Walker's Table 1 in her affidavit and her percentage of change as stated in evidence and in her affidavit [Environment Court document 17A].

129 The arithmetic is as follows:
34,000 x 0.65 = 22,100 ha
34,000 x 0.85 = 28,900 ha

the Tekapo, Pukaki and Omarama ecological districts since 2011. Of that, between 15,600 to 20,400 hectares[130] of development occurred in the Tekapo and Pukaki ecological districts (i.e. within the Mackenzie Basin).

Matthew McCallum-Clark (for the Canterbury Regional Council)

[94] At the court's request[131] Mr M E A McCallum-Clark, a planner called by the CRC, provided further evidence by way of affidavit[132] relating to water permits granted for irrigation by the Canterbury Regional Council in the Mackenzie District. He deposed that[133] within the Mackenzie Basin area:

(a) 10,660 hectares of new consents were granted from 2012 onwards;
(b) 2,043 hectares of consents underwent a change of conditions from 2012 onwards (there were no transfers during that time for this area)[134]; and
(c) 784.5 hectares of consents were currently in process.

The total of (a) to (c) is 13,487.5 hectares.

[95] The relevant figures within the *Mackenzie Agreement* area but outside the Mackenzie Basin area are:

(a) 4,610.5 hectares of new consents were granted from 2012 onwards;
(b) 882.5 hectares of consents either underwent a change of conditions from 2012 onwards or were granted from 2012 and were later transferred in name only[135];
(c) 2,868 hectares of consents were currently in process.

There remains uncertainty[136] as to whether consents granted before 2012 that have undergone changes in conditions post-2012 have the effect of providing for new

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130 The arithmetic is as follows:
24,000 x 0.65 = 15,600 ha
24,000 x 0.85 = 20,400 ha
131 Transcript, pp 760-761, beginning line 28 and ending line 27.
132 Affidavit of Matthew McCallum-Clark, sworn 17 February 2017 [Environment Court document 35].
133 Ibid, at para 21 [Environment Court document 35].
134 Ibid, Annexure A, third table [Environment Court document 35].
135 Ibid, Annexure A, fourth table [Environment Court document 35].
136 Ibid, at para 17 [Environment Court document 35].

irrigable area. This uncertainty relates up to 2,618.5 hectares of the 18,196 hectares total identified by Mr McCallum-Clark (being the consents noted in paragraphs (a) and (b) above, however excluding those consents transferred in name only[137]). Mr McCallum-Clark also noted[138] the following exclusions and uncertainties regarding the consents transferred or which underwent a change of conditions from 2012 onwards[139]:

- resource consents that have been transferred since 2012 (name change only) but that were originally granted before 2012 have not been included in the tables;
- transfers of consents originally granted after 1 January 2012 have been included; and
- there are some consents where conditions changed since 1 January 2012 ...These resource consents have been included, but there is some uncertainty as to whether all the irrigable area represents new development since 2012.

[96] Mr McCallum-Clark's combined total is 18,196 hectares of irrigation within the *Mackenzie Agreement* area[140]. That figure may rise by up to 3,652.5 hectares if the consents in process are granted. That is of course speculative.

Comparison of the figures

[97] Table A below compiled by counsel compares the evidence of Dr Walker and Mr McCallum-Clark[141] to both the 17,100 hectares[142] and 26,000 hectares[143] in the *Mackenzie Agreement*.

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137 Ibid, Annexure A, fourth table (307 ha being the last two listed consents in that table) [Environment Court document 35].

138 Ibid, at para 17 [Environment Court document 35].

139 Mr McCallum-Clark's total also excludes one further consent for community supply (irrigation of green spaces and the Twizel golf course) which does not include an irrigated area – Affidavit of Matthew McCallum-Clark, sworn 17 February 2017, at para 20 [Environment Court document 35].

140 Ibid, at para 21 [Environment Court document 35].

141 Dr N J Head's evidence is not included in Table A, as he was unable to quantify the area he considered had been developed between 2012 to 2016.

142 Being the total of "proposed" irrigation stated on p 5 of the *Mackenzie Agreement*.

143 Being the area that will be *intensified either by irrigation or intensified dryland farming practices* on p 22 of the *Mackenzie Agreement*.

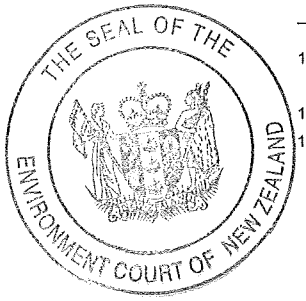
Table A. Summary of figures for 2012-2016

	Pukaki and Tekapo Ecological Districts (Mackenzie Basin)	Omarama Ecological District	Pukaki, Tekapo and Omarama Ecological Districts
Development			
Dr Walker (pastoral intensification)	15,600 – 20,400 ha	6,500 – 8,500 ha[144]	22,100 – 28,900 ha[145]
Mackenzie Agreement	–	–	17,100 - 26,000 ha
Irrigation consents			
Mr McCallum-Clark (irrigation only)	12,703 ha	5,493 ha	18,196 ha

[98] Table A shows that the figures identified in the *Mackenzie Agreement* may or may not be exceeded in terms of developed area. In relation to Dr Walker's figures, Mr Caldwell and Ms King observe that[146]:

> There may remain 3,900 ha of area able to be developed before the figures in the *Mackenzie Agreement* are achieved. Conversely, the amount of area developed may exceed that in the Mackenzie Agreement by 11,800 ha. The variance arises from using either the 17,100 or 26,000 figure from the Mackenzie Agreement, compared with either of the figures calculated from Dr Walker's evidence (22,100 – 28,900 ha).

[99] In relation to Mr McCallum-Clark's figures counsel observe that "As shown in the bottom half of Table A, consented irrigation may or may not exceed the figures in the *Mackenzie Agreement*". The consequence is there may still be 7,804 hectares of irrigation before the proposed development figures in the *Mackenzie Agreement* are achieved. Conversely, the area irrigated (or be en route to doing so) may exceed that in the *Mackenzie Agreement* by 1,096 hectares. The variance arises from using either the 17,100 or 26,000 figure from the *Mackenzie Agreement,* compared to Mr McCallum-Clark's figure (18,196 hectares).



144 This figure was not explicitly provided in evidence. Counsel calculated them from the evidence by subtracting the Tekapo and Pukaki districts figure from the Tekapo, Pukaki and Omarama figure.
145 As calculated above.
146 Memorandum of D C Caldwell and J R King 22 March 2016 at 29 and 30 [Environment Court document 52].

[100] There are two further uncertainties:

(1) Mr McCallum-Clark's irrigation figures could increase if consents currently being processed (up to 3,652.5 hectares) are granted. That is speculative at this stage;

(2) Mr McCallum-Clark's irrigation figures may also be overstated by up to 2,618.5 hectares, depending on whether some or all of the consents that underwent a change in conditions post-2012 had the effect of increasing the irrigable area authorised prior to 2012.

Conclusion

[101] How close to (or how far past) the outcomes in the *Mackenzie Agreement* development in the Mackenzie Basin has reached depends on whether the target was 17,100 hectares or 26,000 hectares.

[102] In their response to the Council's memorandum Mr Enright and Ms Wright advised that[147]:

> EDS does not agree there is lack of clarity as to how the 2 figures differ. The 17,000ha figure relates to development by irrigation. The 26,000ha figure relates to development by pastoral intensification more broadly. Page 22 Mackenzie Agreement confirms that the 26,000ha figure was the intended extent of future development consistent with achieving the Agreement's shared vision:
>
> > *The 64,000 ha shown in Table 3 as the total development area includes about 26,000 ha of land which under our Vision and Strategy will be intensified either by irrigation or by intensified dryland farming practices.*

In other words the 26,000 hectares was an irrigated area plus a dryland intensified area. That is quite plausible when it is recalled that towards the northern/higher end of the Basin there are "dryland" areas with much higher rainfall so they need less water from irrigation.

[103] We find on the balance of probabilities that the target in the *Mackenzie Agreement* for irrigated development was 17,100 hectares over the Mackenzie Country as a whole.

147 Memorandum of EDS 27 March 2017 at para 3 [Environment Court document 56].

[104] The EDS submits that the figures in Dr Walker's evidence should be preferred because:

a. Pastoral intensification across all land types and methods is captured[148].

b. Dr Walker is the only expert who has expressed a clear indication of the % change that has occurred from 2011-2017 (65-85%). This has allowed Council to calculate the approximate area of intensification in the Mackenzie Basin (capturing areas within its jurisdiction and the jurisdiction of Waitaki District Council) over that time: 22,100ha-28,000ha.[149]

c. Although Mr Head and Mr Harding did not provide specific figures of the extent of pastoral intensification in the Basin since 2011 both expressed a view that since that date pastoral intensification has accelerated and occurred on a larger scale[150]. Comments in cross-examination by Mr Murray support a similar conclusion[151].

Given the ambiguities over what Dr Walker was describing as exotic conversion, we cannot accept that completely.

[105] Mr Caldwell and Ms King conclude it is difficult to form any robust conclusions as to whether the figures in the *Mackenzie Agreement* have been achieved or potentially exceeded. We agree, in respect of what has happened in the recent past.

[106] So far we have only been concerned to try and establish what development has occurred between the signing of the *Mackenzie Agreement* in 2011 (and the First Decision of this court later in that year) and the section 293 confirmation hearing in early 2017. As for the future – which is the main thrust of PC13 – at the court's request the CRC lodged the affidavit for Mr M McCallum-Clark which also contained information about the number of irrigation consents granted in the year November 2015 to November 2016 (i.e. after notification of PC13(s293V). The answer was 12 water permits for a total proposed irrigation area of about 13,000 hectares[152].

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148 The figures in Mr Head's evidence are restricted to development on alluvial outwash and moraines. Mr Harding has agreed that development on areas outside these two land types is a reasonable explanation for the discrepancy between Dr Walker and Mr Harding's development figures and has provided specific examples of where development as occurred outside those land types: M A C Harding affidavit, sworn 24 February 2017 at [10]; Council memorandum 22 March 2017 at fns 15 and 16 [Environment Court document 52].

149 Council memorandum 22 March 2017 at para [19] [Environment Court document 52].

150 M A C Harding evidence-in-chief at para [74] [Environment Court document 12]; Transcript p 173 lines 27-33.

151 Transcript p 54, lines 26-33.

152 Affidavit of M McCallum-Clark 17 February 2017, Annexure A [Environment Court document 35].

[107] If that area were in fact to be irrigated, it appears to us that the *Mackenzie Agreement* would be meaningless.

2.6 Ecosystems and biodiversity

[108] The relevance of biodiversity is that landscapes are a cultural concept involving many factors and concepts as evidenced by the "assessment matters" in Policy 12.3.4 of the CRPS.

[109] We received quite extensive evidence of the ecosystems and biodiversity of the Mackenzie Basin which are summarised in the following part of this decision.

[110] Dr Walker described how[153]:

> 21. [The] landform sequence and parallel aridity gradient drive directional change in species composition and vegetation character, as species adapted to different environmental conditions replace one another in an overlapping sequence. However, complex topography and micro-topography also create strong, biologically important gradients in and patterning of physical habitats at smaller scales within the rare ecosystems. For example:
>
> 21.1. Moraine surfaces are undulating or lumpy, strewn with irregular piles of rocks, with kettleholes (depressions left by the melting of ice blocks deposited within the sediment) and other subsidences scattered across them. A disordered amalgam of soil particle sizes and depths has been worked on by wind following deposition, so that deep, fine deposits occur on south and east facing slopes and toes, and northern and western aspects are often stripped, shallow, and stony.
>
> 21.2. Outwash gravel surfaces are formed by the reworking and size-sorting of glacial deposits by meltwater. Their subtle surface micro-topographies of low channels and risers form intricate braided patterns. The patterns arise from alternation of sinuous channels and risers in the underlying gravels (formed when the outwash channels, fans and plains were active at the end of the relevant glaciations) and subsequent soil deposition and stripping (deflation) by prevailing winds and possibly occasional extreme wind events.

153 S Walker evidence-in-chief para 21 [Environment Court document 17].

21.3. Soil deposition and deflation interact with the orientations of the original outwash channels to form complex patters of stony phases (which may be ridges or channels) alternating with deeper accumulated soils (which may be ridges or leeward lenses).[154] Shallow soils intermediate between stony and deep-soil phases are often frost-heaved in winter and have a broken, 'fluffy' surface character.

21.4 Important sources of biological variation within and among outwash gravel surfaces in the Mackenzie Basin are the form of micro-topography ... and the prominence of its expression. These features determine spatial and temporal patterns of soil moisture, frost heave, and nutrient availability that are critical for plant survival.

[111] Dr Walker summarised[155] the broad-scale trends in the ecosystems of the Basin as including:

24.1. Transitions from tall and short tussock grasslands and shrublands and wetland on deeper soils of the north-western moraines to short tussock, cushion, mat and non-vascular (lichen and moss) vegetation on shallower, stonier soils on outwash and river gravels in the drier southeast.

24.2. A flora typical of moist tall tussock grasslands and shrublands in the higher west and northwest grades into a fescue tussock grassland flora with many drier floristic elements in lower moraines of the central basin floor. Outwash surfaces (especially those south and east of SH8) support a distinctive, endemic, often cryptic, slow-growing, diminutive, sparse, and exceptionally drought-tolerant flora.[156]

24.3. Higher moraines are feeding and breeding habitats for waterfowl, wetland and wading birds, and their shrublands support falcon (*Falco novaeseelandiae* "eastern") and forest species such as rifleman (*Acanthisitta chloris*), while drier short tussock grasslands of the central basin floor are favoured habitat for pipit (*Anthus novaeseelandiae*). Sparsely vegetated outwash plains (which occur mainly in the south and east) and alluvial surfaces have a simpler avifauna but are the principal breeding habitats of banded dotterel (*Charadrius bicinctus bicinctus*).

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154 On older outwash surfaces there are also areas of relatively deep, even loess deposits that completely obscure the underlying gravel channel and riser patterns (for example, on Balmoral outwash gravels on the former Maryburn pastoral Lease).

155 S Walker evidence-in-chief para 24 [Environment Court document 17].

156 Dr S Walker added in a footnote: "The invertebrate fauna is also distinctive and varies across the basin's major broad-scale gradients; ..."

[112] That summary oversimplifies drastically because it seems that there is remarkable complexity at a small scale. The local, within-ecosystem variation was described by Dr Walker as follows[157]:

> 25.1. Moraines support an array of different wetland types, including dense red tussock swamps, *Carex* swamps, seepages, string bogs, bogs, open water streams, riparian wetlands, tarns and ephemeral wetlands. Seasonally dry ephemeral wetlands in kettleholes are particularly biologically distinctive and unusual globally. Their finely intermixed, concentrically zoned short turfs include numerous obligate[158] turf plant species, including a number of threatened taxa.
>
> 25.2. Species habitats on moraines can vary within a few metres from lush and permanently moist (e.g. deep leeward soil lenses and seepages) to exceptionally harsh (e.g. dry wind-stripped rocky boulderfields and compacted platforms). This give rise to conspicuous local vegetation patterning and high local diversity of plant communities and indigenous plant and animal species.
>
> 25.3. On outwash plains, the tallest and grassiest vegetation ((including tussocks) occurs on deeper, finer textures soil lenses. Stony ridges ... or basins ... support low-growing cushions and mats of New Zealand's most drought tolerant endemic vascular plants, including subshrubs, dwarf grasses and cryptic dicotyledonous herb and ferns, as well as lichens and mosses. Shallow soils intermediate between the stoniest and deepest elements support the sparsest vegetation and fewest indigenous species.
>
> 25.4. Wind-deflated outwash terrace brows (a narrow zone of gentle slope at uppermost limit of the terrace scarp) are a key micro-habitat recognised by botanists for unusual densities of cryptic xerophytic (aridity-loving) endemic plant species.
>
> 25.5. Lichens and mosses can contribute high proportions of the ground cover in niches unsuitable for vascular plants on river terraces and stony outwash plain ridges and channels. These non-vascular assemblages are diverse and little-studied, and support distinctive endemic invertebrates such as the endemic robust grasshopper *Brachaspis robustus.*
>
> 26. Though relatively small in area, shrublands add considerably to the biodiversity of the basin floor as important habitats for grazing-and fire-sensitive biota (especially lizards and plants). They occur mainly in relatively fire-protected places such as moraine flanks and ridges, boulder fields, terrace risers, and moist fluvial channels of moraines and outwash plains.
>
> 27. Rock-strewn moraines, bouldery scarps, fans, and river terraces, as well as

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157 S Walker evidence-in-chief para 25 [Environment Court document 17].

158 Dr Walker added in a footnote: "In the sense of 'by necessity', i.e. not known to occur outside this type of habitat".

grasslands, are important habitats of the endemic lizard fauna.

28. A further source of biological diversity is the placement of rare ecosystems within the overall climate gradient, which alters the particular species and communities associated with their type and their fine-scale habitat-patterning. For example, the Ohau Downs outwash plain in Waitaki District (with 'only' a 400-500 mm annual moisture deficit) lacks some of the threatened xerophytic endemic plants of outwash plains found, for example, on the Tekapo-Greys Hills outwash and alluvial sequence in Mackenzie District (with 500-700 mm annual moisture deficit). Conversely, the Ohau Downs outwash is distinctive in supporting plant communities and species that are absent on outwash surfaces in drier zones.

[113] Dr Walker confirmed[159]:

> In my opinion it is likely that drier landforms and features[160] supported relatively sparse vegetation throughout the Holocene. The level of local endemism in their cryptic flora suggests that these habitats originated early in the Pleistocene and remained unforested during interglacials because of their dryness. These are not landforms that could have supported the continuous tussock grasslands which dominated in wetter parts of the basin following post-settlement fires. Therefore, although human settlement and use has brought considerable change,[161] an impression that vegetation cover has become disproportionately depleted in drier parts of the basin may not be fully warranted.

Significance of remaining basin floor ecosystems

[114] We received evidence on the "significance" of remaining ecosystems on the floor of the Mackenzie Basin. We approach this evidence with caution bearing in mind that these proceedings are not primarily about the section 6(c) values of the area, and that the Council will be reviewing these in its forthcoming review of the District Plan. In Mr Harding's opinion[162]:

> ... most undeveloped (i.e. uncultivated and un-irrigated) areas on glacially-derived landforms (moraines and outwash terraces) in the Mackenzie Basin are likely to meet the [CRPS] criteria for SONS[163], except where vegetation is substantially modified by over-sowing, top-dressing, grazing, or wilding conifer spread. Severely degraded sites will, in many cases, meet the RPS criteria for SONS as these sites provide habitat for threatened plant and animal species.

Dr Walker agreed. She also shared Mr Harding's opinion on the ecological significance

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159 S Walker evidence-in-chief at para 30 [Environment Court document 17].
160 Especially the stony channels and risers of outwash plains, and alluvial river terraces.
161 M A C Harding evidence-in-chief at paras 13 and 14 [Environment Court document 12].
162 M A C Harding evidence-in-chief at para 31 [Environment Court document 12].
163 SONS = Sites of Natural Significance – an identification of valuable areas under section 6(c) RMA.

of areas south and east of SH8 between Twizel and Tekapo where he wrote[164]:

> ... parts of the area south and east of SH8 which lie on naturally uncommon ecosystems (moraines, outwash gravels and ephemeral wetlands) and are uncultivated are most likely to meet the RPS criteria for SONS. Other uncultivated parts of the area (on river gravels) are also likely to meet the RPS criteria as they provide habitat for threatened plant and bird species. ... Areas with severe degradation and/or high rabbit numbers should not be excluded from survey, as such areas may still provide habitat for threatened plant and bird species.

[115] In Dr Walker's opinion the ecological and biodiversity values are nationally significant. Her reasons were[165]:

> 56. ...
>
> 56.1. There is no other place in New Zealand where historically rare ecosystems occur to such an extent and in natural connected sequences in a relatively low lying landscape. In all other lowland and montane areas most historically rare ecosystems have already lost to development, and remaining examples are typically isolated.
>
> 56.2. As a consequence of recent development, sequences of these particular rare ecosystems are now unreplicated nationally.
>
> 56.3. Most species' habitats still represented in the Mackenzie District have undergone extreme loss nationally, with especially high loss-rates in the last two decades. As noted in my paragraph 52, a number of endemic plants, invertebrates, lizards, freshwater fishes, and birds now depend for their persistence largely on the remaining areas of connected and relatively undeveloped habitats still found here.
>
> 56.4. It is well-recognised that connected biological sequences and gradients such as these, and sizeable areas, are needed for many species to persist in the face of climatic variability. For example, when a plant species inhabits a connected sequence, wetter parts provide refuge in protracted dry periods, and drier parts provide refuges in extreme wet periods (e.g. when drought-adapted species are overtopped by faster growing species in the wetter portion of their range). The refuge facility is lost when sequences and gradients are geographically and functionality truncated and fragmented by habitat loss, and thus fragments in fluctuating environments lose species directionally over time.[166]

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164 M A C Harding evidence-in-chief at para 43 [Environment Court document 12].
165 S Walker evidence-in-chief at paras 56 to 57 [Environment Court document 17].
166 Dr Walker's footnote reads: "Interannual climate variability is relatively high in the Upper Waitaki Basin and expected to increase as climate change advances (Mullan et al. 2008; Renwick et al. 2016)".

57. The area south and east of SH8 is the only place where extensive, little-fragmented areas of the critically endangered outwash gravel ecosystem type now remain. It is of the most exceptionally high ecological significance in my opinion. I understand that these areas can appear featureless and desertified, of little value for anything but rabbits and hawkweed. However, I regard outwash gravels as the most ecologically and biologically distinctive of the Basin's ecosystems. They and their endemic biota are found nowhere else, and are unquestionably under the greatest threat of imminent clearance and loss. In particular:

    57.1. they have special character, especially as last remaining examples of the evolutionary response of the native biota to protracted arid conditions in New Zealand;

    57.2. outwash gravels support a greater number of the basin's known threatened or declining plant taxa (29 taxa) than any other type of habitat (even more the highly distinctive ephemeral wetlands, with 20 taxa) and also more naturally uncommon or data deficient plan taxa (12 taxa) than any other. This is shown in Table 1 (below), which sums the number of plant taxa considered to be Extinct, Threatened, or At Risk that I know to occur on seven habitat types on the basin floor;

    57.3. undeveloped outwash gravels are a principal breeding habitat for endemic threatened (Nationally Vulnerable) banded dotterel (*Charadrius bicinctus bicinctus*) which is destroyed by pastoral intensification;

[116] In a footnote[167] Ms Walker added:

Based on the data mapped in Figure 4 in Appendix 4, more than twice the area of outwash ecosystems (35,600 ha, 35% of the area remaining in 1990) was converted as of moraine ecosystems (15,800 ha, 25% of the area remaining in 1990) between 1990 and 2016 across the Mackenzie Basin floor (Omarama, Pukaki, and Tekapo EDs). Outwash gravel lost more than three times the area that moraines did (21,800 v 7,000 ha) between 2001 and 2016.

167 S Walker evidence-in-chief at para 57 [Environment Court document 17].

[117] Dr Walker produced a Table 1 showing the number of plant taxa considered to be **Extinct**, **Threatened**, or **At Risk**[168] in the New Zealand Threat Classification System and known to occur today in different types of rare ecosystems and other habitats on the Mackenzie Basin floor, in two combined categories.

Table 1: ...

Historically rare ecosystem or type of habitat	**Extinct** (1 taxon) **Threatened** (31 taxa) or **At Risk: Declining** (25 taxa)	**At Risk: Naturally Uncommon** (23 taxa) or **Data Deficient** (1 taxon)
Moraines	15	10
Ephemeral wetlands	20	7
Outwash gravels	29	12
Lake margins	4	2
Braided riverbeds and terraces	5	1
Other wetlands	5	2
Shrublands	9	2
Exclusively in ephemeral wetlands	8	3
Exclusively in outwash	8	2

[118] We attach as Appendix "B" at the end of this Decision a list of the taxa identified in the Table. While most of these plants are small and some are tiny, they and geomorphological niches they occupy, and the connections between those niches, all represent important components of the ONL.

2.7 The causes of ecological deterioration in the Mackenzie Basin

[119] Fire, pests, weeds, application of herbicides, oversowing, topdressing, cultivation, direct drilling and irrigation have all contributed to modify the natural ecosystems. We received conflicting evidence on the relationships between those stressors.

[120] A number of very experienced and competent farmers gave evidence of the utility (in their opinions) of various farming practices to the retention of tussock grasslands and the suppression of weeds. Mr J B Murray, owner of The Wolds Stations, considers that the high landscape values associated with the proposed Scenic

168 These categories are described in Appendix 9 to Dr Walker's evidence. She noted "that a taxon can occur in more than one type of habitat, and hence the sum of values in the table is greater than 79 (the total number of taxa counted). An extant population of *Dysphania pusilla* (categorised as Extinct) was discovered on the Mackenzie Basin floor in 2015".

Grassland on The Wolds are a direct result of continued oversowing and topdressing[169]. He is of the opinion that oversowing and topdressing on his land has raised the phosphate levels resulting in healthier tussocks with greater ground cover and consequently lower soil losses from bare ground[170]. Mr Boyd of the Haldon Station is of a similar opinion[171]. Mr Murray and Mr Boyd consider that the ability to oversow and topdress must be retained as a tool to combat soil loss which is one of the greatest threats to the Basin[172].

[121] Mr Murray also considered that oversowing and topdressing should not be put in the same category as irrigation and cultivation which have greater adverse effects on landscape and biodiversity[173]. We accept that and will consider its implications later, although we bear in mind that as a signatory to the *Mackenzie Agreement* Mr Murray accepts that even "... with oversowing the inter-tussock species diversity is reduced"[174].

[122] Mr A Simpson of Balmoral Station, current chairman of FFM and a member of the High Country Committee of Federated Farmers of New Zealand, commented on oversowing and topdressing in the context of maintaining pasture free of wilding trees. In his opinion grazing is the only way to reduce the risk of pest spread[175] (wilding conifers and other woody weed species). To be able to graze these areas he considers that regular oversowing and topdressing is necessary so that the vegetation is not taken over by unpalatable species (such as browntop)[176]. Even with this approach there is still a lot of expense involved in reducing wilding tree infestations.

[123] Dr Walker and Mr Harding[177] do not share the commonly held view that hawkweed is an irreversible cause of ecological degradation in the basin's vegetation. An important conclusion from research by her and others at Lake Tekapo Scientific Reserve (LTSR)[178] is that "hawkweed invasion is unlikely to be an impediment to the

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169 J B Murray evidence at para 14 [Environment Court document 5].
170 J B Murray evidence at para 17 [Environment Court document 5].
171 P J Boyd evidence-in-chief at para 2.6 [Environment Court document 8].
172 J B Murray evidence at para 18 [Environment Court document 5].
173 Ibid at para 19.
174 *Mackenzie Agreement,* p 5.
175 A Simpson evidence for Federated Farmers, 9 September 2016 at paras 3.5 to 3.6 [Environment Court document 7].
176 Ibid at paras 3.5 to 3.6.
177 M A C Harding. evidence-in-chief at paras 48 and 49 [Environment Court document 12].
178 Citing a paper written by herself and others (including Mr Head) and appended to her evidence at Appendix 6B Walker S, Comrie J, Head N, Ladley K J, Clarke D, Monks A (2016). Hawkweed invasion does not prevent indigenous non-forest vegetation recovery following grazing removal *NZ Journal of Ecology* 40:137 to 149. This paper was also referred to by M A C Harding, evidence-in-chief at para 49 [Environment Court document 12].

recovery from grazing of highly depleted short-tussock grasslands and herbfields on the floor of the Upper Waitaki Basin. Indeed, hawkweed cover may facilitate recovery, or its effects may be merely neutral".

[124] In Dr Walker's opinion a simpler and more plausible explanation for depletion of indigenous cover (and associated changes) is grazing, especially by rabbits. Hawkweed largely completed its invasion of the basin floor between 1990 and 2000[179], and has stabilised at between about 20 and 50% cover depending on landform and environment. Data from the Mackenzie Basin Grazing Trial[180] show that reductions (not increases) in bare soil occurred simultaneously with the invasion of hawkweed into basin-floor short tussock grasslands between 1990 and 2000.

[125] Dr Walker wrote[181]:

> ... perceptions of the ecological value of outwash gravels, and their degree of modification, can be influenced by mistaken assumptions that they 'should' support continuous tussock grassland (similar to moister moraines:[182] native flora and fauna have been compromised by hawkweed invasion;[183] and/or their endemic plants and animals have alternative 'better-condition' habitats.
>
> It is important for species adaption and evolution to protect biota at environmental limits and extremes, such as those of climatic and edaphic aridity of the basin's south-eastern outwash plains and river terraces. Adaptations in populations near limits represent extremes within a species, enabling them to survive, adapt to and exploit new environmental conditions (e.g. more frequent and protracted droughts expected under climate change).

[126] Mr K W Briden, a Technical Officer for the Department of Conservation and the holder of a Bachelor of Forestry Science, gave evidence on wilding conifer issues, including the sums being spent by the Department on wilding conifer control. He

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179 Dr Walker noted: "Aridity appears to have constrained rates of hawkweed invasion, and its potential cover, so that the basin's outwash landforms and river terraces were invaded relatively late and hawkweed cover remains lower there. This was observed by Duncan et al. (1997), at Lake Tekapo Scientific Reserve, and in the Mackenzie Basin Grazing Trial, and is discussed in Walker et al. (2016)" (Appendix 6b of Dr Walker's evidence) [Environment Court document 17].

180 The results of that study are described by Meurk et al changes in vegetation states in grazed and ungrazed Mackenzie Basin grasslands, New Zealand, 1990-2000 *New Zealand Journal of Ecology* 26: 95 to 106 (2002).

181 S Walker, evidence-in-chief para 57.4 and 57.5 [Environment Court document 17].

182 In her opinion the opposite is the case: S Walker evidence-in-chief at para 30 [Environment Court document 17].

183 In her opinion the opposite is the case: S Walker evidence-in-chief at paras 34, 36, and 39 [Environment Court document 17].

wrote[184]:

> Treating wilding conifers early [by helicopter wand], in lightly infested areas, can cost around $1 per hectare. Treating dense stands can typically cost $2,000/ha for herbicide treatment and $10,000/ha for chainsaw felling.

[127] Dr W R Scott, a senior agronomist called by FFM quoted anecdotal evidence[185] from Glentanner Station which "... suggests that grazing one year old pine seedlings in their first winter at a striking rate of at least 2.2 ewes or wethers per hectare achieves [the] objective"[186] of cutting of pine seedlings below the first growth node. He also observed that although the dominant shoot of a two year old seedling may be removed "... regrowth still occurs from the lateral shoots"[187], and that "Three year old seedlings ... are beyond control by grazing"[188].

[128] He qualified his evidence above by writing "... adequate subdivision[al] fencing is required to produce the desired stocking rate with the available livestock"[189]. That means the stocking rate he referred to in his earlier paragraph of 2.2 ewes per hectare is an averaged figure over a year. By inference the actual figure is a considerably higher number for a shorter period[190].

[129] As to the effect of the stocking rates on indigenous vegetation, Dr Scott quite properly said he was not an expert on that[191].

[130] The ecologists' evidence doubts the utility of stock for controlling wilding. Dr Walker, after discussing the effect of rabbit control ("it certainly correlates"[192]: fewer rabbits more pines[193]) stated[194] "I think we've got even less evidence of how much difference conservatively-managed pastoral grazing affects wilding pines establishment". She also answered a question from the court as follows[195]:

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184 K W Briden, evidence-in-chief para 19 [Environment Court document 15].
185 W R Scott, evidence-in-chief para 7.11(a) [Environment Court document 16].
186 W R Scott, evidence-in-chief para 7.11(b) [Environment Court document 16].
187 W R Scott, evidence-in-chief para 7.11(b) [Environment Court document 16].
188 W R Scott, evidence-in-chief para 7.11(c) [Environment Court document 16].
189 W R Scott, evidence-in-chief para 7.11(d) [Environment Court document 16].
190 "In the middle of winter": Transcript p 223 at line 12.
191 Transcript p 223, line 32.
192 Transcript p 284 line 14.
193 S Walker, evidence-in-chief Appendix 8 [Environment Court document 17].
194 Transcript p 284, lines 23-25.
195 Transcript p 290, line 28 to p 291.

Commissioner Mills:	Where does [the] sheep intensive grazing regime sit on the scale of detriment to ecological values in your mind?
Dr Walker:	At the level required to really achieve control [of pines] very high.

[131] Cross-examined Mr Briden stated research from the 1990s by Ledgard and Crozier refers to the need to graze "fairly intensively" and[196]:

> You need to get seedlings before they're ... aged 1 to 2, very small. Once they go over that, they can't be controlled by stock. The grazing needs to be relatively intensive because you need to get that last green needle ... If you ... leave ... green needles, they'll come up several metres and they'll actually be much more expensive to control later.

[132] Further points made by Mr Briden were that "... the best way to control wilding conifers is to remove the seed sources"[197], then for young (usually windblown) seedings three cycles at $1 per hectare for each cycle will cost $3 over nine years[198] "... and then the costs will diminish"[199].

[133] One aspect of the ecological evidence which has been largely ignored by the farming interests is the need for ecosystems not be divided into pieces or isolated. Mr Head and Dr Walker both, at the court's request drew lines on Dr Walker's Figure 5(b)[200] of the areas they considered were important for ecological connectivity. These lines largely cover open areas that contribute to the scenic values of the ONL. Protection of both may be important for integrated management of the natural science components of the ONL in addition to is visual characteristics.

Oversowing and topdressing

[134] FFM and the farming witnesses emphasized that in their opinion that farming generally and topdressing in particular will benefit tussock growth, thus maintaining or even improving views from roads. Again that is true but in a very qualified way. First, topdressing and direct drilling have adverse effects on the less dominant but still important small endemic plants are already described; second, we heard evidence that

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196 Transcript p 213, lines 2-3.
197 Transcript p 216, lines 31-32.
198 Transcript p 218, lines 25-28.
199 Transcript p 218, line 28.
200 Exhibits 14.1 (Mr Head) and 14.3 (Dr Walker). Consistently this latter should be 17.3 but due to a mistake by the Judge it was given the wrong number.

topdressing and oversowing will, depending on conditions, affect tussock grasslands adversely over time.

[135] Even in closing, counsel for FFM[201] and Mt Gerald Station contended[202] that oversowing and topdressing can occur "without adverse effects on ONL values"[203], and that they maintain the values of the ONL. The evidence of the expert ecologists is strongly to the opposite effect. Asked by Ms Forward to confirm that "there's actually no evidence these activities [oversowing and topdressing] cause degradation?" Dr Harding replied[204]:

> "I mean, the purpose of oversowing and topdressing is to replace indigenous species with palatable exotic species so that's, that degrades the ecological values".

[136] In response to a similar question Dr Head answered[205]:

> Also in topdressing ... potentially, for want of a better word may be more insidious, it induces unwanted changes to the ecosystem, in particular the richness or diversity, you know, exotic grass, you know, and the change in composition ... Exotic grasses are one of the worst threats to a whole range of our threatened plant species, the (inaudible 12:19:28) [sward] forming exotic grasses smother the microhabitats and these, you know, a lot of these are Mackenzie's rarities and are only often mostly found in the Mackenzie.

[137] In relation to the effect of pastoral intensification on visual effects, the landscape architect called by EDS, Mr S K Brown, stated[206]:

> We're dealing with degrees of intensification but I still think they [oversowing and topdressing] result in modification that's significant.
>
> ...
>
> The one thing they [different methods of intensification] have in common though is that they do result in the greening of part of the landscape and therefore a change to its character.

[138] The affidavit of Nathan Hole[207] confirms that lack of regulatory oversight and particularly the exclusion of oversowing and topdressing from the operative district plan definition of pastoral intensification has resulted in adverse effects on indigenous

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201 Federated Farmers closing submissions at para [45] [Environment Court document 41].
202 Mt Gerald Station closing submissions at para [45] [Environment Court document 40].
203 Mt Gerald Station closing submissions at para [14] [Environment Court document 40].
204 Transcript p 141 lines 20-22.
205 Transcript p 180 lines 9-20.
206 Transcript p 464 lines 27-29; p 465 lines 1-3.
207 Affidavit of N H Hole, 18 July 2013 [Environment Court document 36].

vegetation and landscape values. Confirming the problems the planners Ms Harte, Mr Vivian, Ms Smith, and Mr Reaburn all noted the difficulty in defining "maintenance" oversowing and topdressing consistent with traditional pastoral farming.

Herbicide and insecticide use

[139] FFM's witness, the agronomist Dr Scott, explained that the "application of herbicide, particularly high rates of Roundup, in many ways, is similar to cultivation"[208]. He continued: "And if you're into indigenous vegetation, I mean that sort of thing just destroys it when you do a blanket application of those powerful herbicides"[209]. Dr Allan shared that view[210].

[140] Mr Enright submitted for EDS that[211]:

> If undertaken as part of direct drilling then application of herbicide and insecticide is arguably not applied by "*spraying*", the element of the operative district plan definition of vegetation clearance[212] intended to capture and control herbicide and insecticide application. A loophole is created. It is more efficient and effective for all pastoral intensification methods to be captured by the definition applying to the Mackenzie Basin Subzone than elsewhere in the district plan.

Conclusions

[141] It was an important part of FFM's case that if farmers could not carry out pastoral intensification and/or agricultural conversion there would be two environmental consequences: first, they would not be able to afford to carry out weed (mainly wilding conifers) and pest (mainly rabbits) control; second, the land would convert to bare ground making it susceptible to soil erosion and/or invasion by hawkweed[213] and wilding trees.

[142] It is likely that any restrictions on pastoral intensification or agricultural conversion would reduce profit margins in the short and medium term (even with the reduced price of wilding pine control). Whether that would mean that farmers cannot afford to carry out weed control probably relates to their financial gearing, which is an individual matter. That the costs of weed and pest control are manageable seems to be

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208 Transcript p 228, lines 1-2.
209 Transcript p 228, lines 5-7.
210 B E Allan evidence-in-chief at paras [35] to [37] [Environment Court document 18].
211 Closing submissions for EDS para 17 [Environment Court document 46].
212 Definition found in Chapter 3 [MDP p 3-12].
213 *Hieracium* spp.

borne out by the prices which recent sales in the Basin have reached (see Chapter 8 of this decision).

[143] The second point distorts both the current position and the likely future environment. In the First Decision[214] the court stated that the issue of "Intensive Farming Activities" was[215]:

> ... a complex issue, made more so by the lack of ecological evidence. We continued: "Subject to that important qualification two broad themes emerge from our findings of fact and, tentatively, predictions. The first is that further conversion of brown grasslands to green introduced grasses (whether irrigated or not) is generally inappropriate in the Mackenzie Basin. The second is that because there are extensive – usually lower altitude – areas which are highly (and possibly irreversibly) modified, these may be very suitable for higher intensity irrigated farming.

In light of the ecological evidence now received we need to qualify our conclusions in the First Decision.

[144] On the basis of the nearly unopposed new evidence from four scientists[216] we conclude:

(1) it is likely that land in the Basin will not revert permanently to bare ground and hawkweed if oversowing and topdressing did not continue on it[217];

(2) further, as Dr B E Allan wrote[218] "The long term effects of traditional oversowing and topdressing on indigenous vegetation will depend on the ongoing management and fertiliser input." Effects will be felt on a continuum and depend on method, intensity and scale of application[219];

(3) cultivation results[220] "... in major, irreversible effects on indigenous vegetation, including the complete displacement of native species".

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214 Above n 6 at [205].
215 Above n 6 at [207] and [208].
216 Dr N J Head, Mr M A C Harding, Dr S Walker, Dr B E Allan.
217 Transcript (first week) p 142 at 30 (cross-examination of M A C Harding).
218 B E Allan evidence-in-chief para [35] [Environment Court document 18].
219 B E Allan evidence-in-chief at para [29] [Environment Court document 18].
220 Transcript (second week) p 464, line 27-29, p 465 line 1-3.

2.8 Scenic Grasslands

[145] In the First Decision the court requested that Scenic Grasslands ("GA") be identified and mapped, for the reasons stated in that Decision[221] in response the Council's landscape architect Mr Densem produced the maps of 13 Scenic Grassland areas[222]. They are proposed to be included in the Planning Maps of the MDP.

[146] Mr Densem described the process for preparing the maps, and the descriptions of the values identified in his document *Scenic Grasslands*[223]. He summarised the main points of that document as follows[224]:

- The northern part of Haldon Road, and Mackenzie Pass Road, have been taken as tourist roads;
- 'Grasslands' are taken to include exotic-dominated dryland areas of brown high country character. Mr Harding's evidence describes these;
- Where the grassland vista may extend continuously for (sometimes) several kilometres, such as GA 2 and 4, and the SG boundary has been drawn at an arbitrary 500m from the road, which is taken to be the foreground of the view;
- In finalising the SG maps for this hearing, several areas proposed as SG in 2011 were found to have undergone pastoral intensification, and were deleted from the maps;
- The May 2016 paper contains descriptions of the values and particulars of each SG.

[147] Mr Densem described[225] how in 2012 he travelled the tourist roads and assessed them at a whole of Basin scale[226]. The relevant map (his Map 4.2) showed 15 Scenic Grasslands[227]. That number has now reduced to 13 and with boundaries defined in the map series within the section 293 package. Mr Densem stated[228] that:

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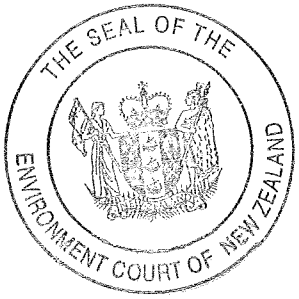
221 First (Interim) Decision, above n 6 at para [189].
222 Included as Attachment C of the PC13(pc) package.
223 G H Densem evidence-in-chief at para 41 [Environment Court document 19] (lodged with the court as an attachment to the Section 32 Report).
224 G H Densem evidence-in-chief at para 41 [Environment Court document 19].
225 G H Densem evidence-in-chief 15 July 2016 at para 43 [Environment Court document 19].
226 G H Densem evidence-in-chief 15 July 2016: "initially in my '*Extra Map – 2nd Series, Map 4.2 – Scenic Grasslands and Pukaki Tourism Zone*', dated 24 May 2012" [Environment Court document 19].
227 G H Densem evidence-in-chief – Graphic Attachment p 3 [Environment Court document 19].
228 G H Densem evidence-in-chief at para 44 [Environment Court document 19].



The chief difference between the May 2012 map and those filed with the PC13(pc), "... is the reduction in size of several areas. This was either to lessen the imposition on private land or because some areas have in the meantime been developed for farming. These are described in my May 2016 *Scenic Grasslands* paper". (The 13 areas also have been renumbered.)

...

Description of Scenic Grasslands

46. Each SG is mapped and described in detail in my s.293 paper. The following is a brief description:

- **GA's 1, 2 & 5, SH8 Burkes Pass and westwards (Sawdon, Dead Man's Creek)**[229]**:** This group of SG maintain the 'wow' factor of high country grasslands for tourists entering the Mackenzie, southbound. In SG1 and SG2 (south of SH8) the grassland views are close up, whereas in SG2 (north of SH8) and SG5 the reserved parts represent the foreground of long views to hillslopes to the north.
- **GA6, Whiskey Cutting:** South of SH8, opposite SG5 above, this SG is more about maintaining open views to the vast Tekapo River flats beyond (to the south) than the grassland quality per se.
- **GA3 Haldon Road (north)**[230]**:** This also is more about the maintaining open views to the Tekapo River flats to the west, than grassland quality, which contains a measure of shrub growth.
- **GA4 Haldon and Mackenzie Pass Roads:** The outwash fans of the Rollesby Range (west side) are widely visible throughout the Tekapo River Flats and comprise continuous low rainfall grasslands. The extension into the Mackenzie Pass Valley seeks to maintain the environment of the Mackenzie Monument as a grassland. Although seemingly a large area, a small proportion only is more than 500m from the Haldon or Mackenzie Pass Road boundaries. The grasslands spread well beyond the SG boundaries to north and south and the boundaries are arbitrary, to minimise the incorporation of too much private land into the SG.
- **GA7 Lilybank Road**[231]**:** This SG seeks to maintain the widely visible flanks of Lake Tekapo, inland from the Lakeside Protection Area. The boundary is set arbitrarily at the 800m contour and large portions have been deleted due

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229 Mapping errors also exist in GA2 and GA6. Mr Densem explained "The Scenic Viewing Areas in both are shown set back from the road whereas they should about the road boundary. In GA2 this has been covered by showing Scenic Grassland between the road and Scenic Viewing Area on the south side". G H Densem evidence-in-chief at para 49 [Environment Court document 19].

230 G H Densem identified: "There is a mapping error in GA3. The map "shows GA3 extending to the east side of Haldon Road whereas it is intended to be only on the west side of the road, but to extend 500m west of the road. No SG is intended for the east side of this northern part of Haldon Road" (evidence-in-chief at para 47 [Environment Court document 19]).

231 G H Densem: A gap occurs in GA7. This is because pastoral development occurred between 2012 and 2016 in the now excluded area. Similar exclusions have occurred for the same reason in GA7 (Haldon Road), GA8 (Godley Peaks Road), GA 11 and 12 (SH8 Wolds – Maryburn), and GA13 (SH8 Pukaki Moraines) evidence-in-chief at para 48 [Environment Court document 19].

to land intensification between 2010 and 2016.

- **GA8 Godley Peaks Road**: This seeks to maintain as grassland the highly visible moraine surfaces between Lakes Tekapo and Alexandrina, seen from the Mount John observatory.
- **GA9, 10 SH8 Balmoral to Irishman Creek:** Widely-seen, largely good quality grasslands, west and some east of SH8. GA9 incorporates a close skyline as envisaged by the Court. GA10 incorporates a large area east of Irishman Creek but is particularly visible from SH8 northbound, after crossing the Tekapo Canal.
- **GA 11, 12 SH8 west and east sides at The Wolds & Maryburn:** Seek to maintain grassland views of the Tekapo River flats to the east and grasslands beyond roadside hillocks to the west. The latter are visible in numerous gaps in the hillocks. Several areas have been deleted due to pastoral improvements removing the dry grasslands.
- **GA13 SH8 Pukaki Moraines:** Seeks to maintain highly variable grassland views into valleys within the unique moraine landforms. Landowner activity has recently removed wildings from the area.

2.9 Summary

[148] In summary our findings on five important aspects of the environment of the Mackenzie Basin have changed since the First Decision was issued by the court in 2011. First there is now quite full evidence of the biodiversity values of the Mackenzie Basin especially of the lower, dryer areas. The natural science value component of that landscape unit within the ONL needs to be upgraded in the overall assessment of the landscape. In the First Decision we[232]:

> ... accept[ed] the tentative indirect evidence in some scientific papers, which we have quoted, that the desertification of parts of the lower plains is irreversible. We are uneasy about that because we received no evidence on whether mitigation is possible at least in some areas where continuous "top of mountains to lakeside" protected areas can be maintained or recreated.

[149] First, it turns out, on the current evidence, that we seriously understated the floristic and faunal (for lizards and invertebrates) values of the lower Mackenzie Basin for themselves and for the ONL as a whole.

232 First Decision, above n 6 at [153].

[150] Second, the Mackenzie Basin contains about 83 threatened or at risk species of native plant in addition to the more common endemic plants such as the tussock species.

[151] Third, we now find that the encroachment by hawkweed is not likely to be irreversible.

[152] A fourth conclusion is that on the evidence before us oversowing and topdressing can have adverse effects on ONL characteristics and values. Magnitude of effect is determined by method, intensity, and scale of application[233]. Farmers have relied on their farming regimes as supporting the ONL but it turns out they may be insidiously[234] (but unconsciously until now) undermining it. In other words – and this is a conclusion that farming interests may struggle to accept – the current (admittedly limited) scientific consensus is that pastoral intensification is not necessarily or even usually benign (at least in the longer term) in its effects on native flora. Indeed, even simple more intensive grazing to manage pines has harmful effects.

[153] The fifth major difference is on the ground. The time taken up by the FFM appeals and latterly by the Council's consultation under section 293 has seen extensive areas of the Mackenzie Basin developed for pastoral intensification and/or agricultural conversion.

3. The exercise of section 293 powers and the legal issues arising

3.1 The Environment Court's duties and powers under section 293

[154] Section 293 of the RMA in its applicable form[235] states:

> **293 Environment Court may order change to proposed policy statements and plans**
>
> (1) After hearing an appeal against, or an inquiry into, the provisions of any policy statement or plan that is before the Environment Court, the Court may direct the local authority to—

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233 Mr Murray cross-examined by Mr Caldwell explained his view on the *"two ways of putting seed on"* (oversowing) Transcript p 53 lines 27-29: *"Aerially or, spreading it, just dropping it or direct drilling and I've done a combination of both"*; also Transcript p 241 lines 22-28.

234 Transcript, p 180 line 11 (quoted above).

235 Prior to the Resource Management (Simplifying and Streamlining) Amendment Act 2009 (2009 No. 31) enacted 1 October 2009.

(a) prepare changes to the policy statement or plan to address any matters identified by the Court:

(b) consult the parties and other persons that the Court directs about the changes:

(c) submit the changes to the Court for confirmation.

(2) The Court —

(a) must state its reasons for giving a direction under subsection (1); and

(b) may give directions under subsection (1) relating to a matter that it directs to be addressed.

(3) Subsection (4) applies if the Environment Court finds that a policy statement or plan that is before the Court departs from—

(a) a national policy statement:

(b) the New Zealand coastal policy statement:

(c) a relevant regional policy statement:

(d) a relevant regional plan:

(e) a water conservation order.

(4) The Environment Court may allow a departure to remain if it considers that it is of minor significance and does not affect the general intent and purpose of the proposed policy statement or plan.

(5) In subsections (3) and (4), **departs** and **departure** mean that a proposed policy statement or plan —

(a) does not give effect to a national policy statement, the New Zealand coastal policy statement, or a relevant regional policy statement; or

(b) is inconsistent with a relevant regional plan or water conservation order.

The words "proposed" was added in front of "policy statement or plan" at every place that phrase occurs by section 133 Resource Management (Simplifying and Streamlining) Amendment Act 2009 (2009 No. 31). However since the Environment Court has no role in respect of operative plans, the section has always been read as applying to proposed plan changes.

[155] For FFM Mr Gardner submitted that the court's role under section 293 is "either/or": to confirm the post consultation changes or not. Counsel relied on a passage in the Ninth Decision where the presiding Judge wrote[236]:

> I start with the assumption that the approval required of the Environment Court is more than nominal, and that the Court may approve the changes, or not, or send them back to the Council with directions as to the further matters to be attended to.

236 [2014] NZEnvC 246 at para [43].

The court continued:[237]

> ... the approval process would appear to require something along these lines:
>
> (1) To consider any further evidence which the Court may allow;
> (2) To hear submissions from the parties;
> (3) To give its approval or not.

While that assumption and approach reflected an attempt to understand what *Mackenzie (HC 2014)* had said, they are not correct for reasons we now explain.

[156] Outlining the requirements of section 293 Gendall J, wrote in *Mackenzie (HC 2014)*[238]:

> [128] On its face s 293 seems to establish a bipartite regime. The first aspect consists of subss (1) and (2) and permits the Environment Court, after hearing the appeal (or inquiry) into the provisions of the plan, to direct the local authority to prepare changes to the plan to address "any matters" identified by the Court, "to consult the parties and other persons that the court directs about the changes", and to require the local authority to "submit those changes back to the Court for confirmation". Reasons must be given for such a direction. However, there is no indication that the s 293 jurisdiction can only be invoked at the behest of a party to an appeal (or hearing), as opposed to the Court which happened here.
>
> [129] The second aspect of s 293 is comprised of subs (3) – (5). In essence, this regime permits minor departures from various national planning documents to remain if the minor departure does not affect the general intent and purpose of the plan.
>
> [130] Without more, the first aspect of s 293 appears to confer upon the Environment Court a power to assume a quite significant planning role.[239] The power to direct changes is qualified only by the fact that the matters directed must be "identified by the Court".

[157] We note that an alternative reading of section 293 is that it is to be read as a whole[240], rather than as two parts. On that reading section 293 is rather more restrictive than the High Court set out. The confirmed reading of section 293 directs the Environment Court not to interfere with the local authority's post-consultation version of

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237 Ibid at [45].

238 *Mackenzie (HC 2014)*, above n 10 at [128] to [130].

239 The footnote reads: "However, as noted above it has been previously stated that "the [Environment] Court is primarily a judicial body with appellate jurisdiction. It is not a planning authority with executive functions". *Mawhinney v Auckland City Council* (2011) 16 ELRNZ 608 (HC) at [12].

240 The High Court seems to be adopting this approach at para [148](iii) *Mackenzie (HC 2014),* above n 10.

its plan (change) unless its objectives and policies depart from relevant provisions in the higher order instruments in the statutory hierarchy. There is a pointed absence from section 293 of reference to Part 2 of the Act. In our view, Parliament was directing the Environment Court not to substitute its own general view under Part 2 for the more particularised objectives and policies in higher order instruments such as regional policy statements or plans. To that extent section 293 when amended in 2005 anticipated the decision of the Supreme Court in *Environmental Defence Society v The New Zealand King Salmon Co Ltd*[241] *("King Salmon").*

[158] In any event if we apply the approach to section 293 taken by the High Court in *Mackenzie (HC 2014)* the application of *King Salmon* means that we should only have resort to Part 2 of the RMA if the other (unamended) objectives of the district plan and/or the objectives and policies of any later, higher order instruments are incomplete, ambiguous or illegal[242].

[159] The principal matters to guide[243] a local authority when it prepares a plan change are set out in sections 74 and 75 of the RMA. Applying these in the light of the restrictions in section 293 RMA means that our tasks in this confirmation decision are[244] (relevantly):

- to ensure that the objectives, policies and methods of PC13 accord with the local authority's functions under section 31 RMA including the integrated management of the effects of development, use and protection of the resources of the district[245];
- to check that the plan (change) does not depart[246] from the relevant higher order statutory instruments; and to have regard to any management plans or strategies prepared under other Acts[247] and to take account of any relevant planning document recognised[248] by an iwi authority and lodged with the territorial authority;

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241 *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* [2014] NZSC 38; [2014] 1 NZLR 593; [2014] NZRMA 195.
242 Ibid at [88].
243 See *Mackenzie (HC 2014),* above n 10 at [148](ii).
244 This is a modified version of the statement by the Environment Court in *Appealing Wanaka Inc v Queenstown Lakes District Council* [2015] NZEnvC 139 at [35].
245 Section 74(1)(a) RMA.
246 Section 293(3) and (4) RMA.
247 Section 74(2)(b) RMA.
248 Section 74(2A) RMA.

- in our discretion[249], to assess PC13 under section 32 RMA[250].

We consider the details required by each of those tasks next.

Integrated management of the resources of the district

[160] Section 31 RMA sets out the functions of territorial authorities under the Act. It states:

> **31 Functions of territorial authorities under this Act**
>
> (1) Every territorial authority shall have the following functions for the purpose of giving effect to this Act in its district:
>
> (a) the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district:
>
> (b) the control of any actual or potential effects of the use, development, or protection of land, including for the purpose of—
>
> (i) the avoidance or mitigation of natural hazards; and
>
> (ii) the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances; and
>
> (iia) the prevention or mitigation of any adverse effects of the development, subdivision, or use of contaminated land:
>
> (iii) the maintenance of indigenous biological diversity:
>
> (c) *[Repealed]*
>
> (d) the control of the emission of noise and the mitigation of the effects of noise:
>
> (e) the control of any actual or potential effects of activities in relation to the surface of water in rivers and lakes:
>
> (f) any other functions specified in this Act.
>
> (2) The methods used to carry out any functions under subsection (1) may include the control of subdivision.

[161] There are two aspects of that which are particularly relevant. The first is that the functions expressly include the control of effects of the development and use of land for the maintenance of indigenous biological diversity. This is an issue – albeit indirectly – in these proceedings.

[162] Second, it is useful to recall that the phrase "... and associated natural and physical resources" while it expressly includes water[251] "... [this] does not include water

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249 Section 32A RMA.
250 Section 74(1)(d) and (e) RMA.
251 See the definition of "natural and physical resources" in section 2 RMA.

in any form while in any pipe, tank, or cistern"[252]. That is important because it entails that a territorial authority may consider the efficiency of use of water piped to irrigators especially if it has not been considered at all (or adequately) by a regional council. Further the control of the "use" of water in section 14(2) RMA is confined by Regional Councils to its use within the water body or at least its margins[253]. It is important to the scheme of the RMA in general, and section 7(b) of the Act, in particular that resources such as piped water are used efficiently.

[163] The integrated management[254] of the effects of the use, development and protection of the natural and physical resources of the Mackenzie Basin is also tied in with the effectiveness[255] of the proposed policies and methods of PC13(pc) and we now turn to that issue.

Section 32

[164] Section 32 was changed by the Resource Management Amendment Act 2013 (RMAA 2013). Section 70 of the RMAA 2013 replaced section 32 of the principal Act in its entirety and added section 32AA.

[165] The RMAA 2013 also distinguished between amendments which took effect immediately upon Royal assent[256], and those which took effect three months after Royal assent (i.e. on 3 December 2013). Section 70 of the RMAA 2013 was in Part 2 of that Act (comprising the amendments that commenced at the later date).

[166] The RMAA 2013 included transitional provisions specifically for amendments made on or after the commencement of the RMAA 2013. A new Schedule 12 was inserted into the RMA[257] providing as follows (relevantly):

> **2 Existing section 32 applies to some proposed policy statements and plans**
>
> If Part 2 of the Amendment Act comes into force on or after the date of the last day for making further submissions on a proposed policy statement or plan (as publicly notified in accordance with clause 7(1)(d) of Schedule 1), the further evaluation for

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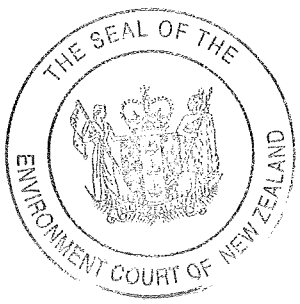
252 See the definition of "water" in section 2 RMA.
253 *P and E Limited v Canterbury Regional Council* [2015] NZEnvC 106 (Procedural Decision) at [26]. We discuss this further in Chapter 8 of this Decision.
254 Section 74(1)(a) and section 31 RMA.
255 Section 32(3)(b) RMA.
256 Royal assent was given on 3 September 2013.
257 By section 68 of the RMAA 2013.



that proposed policy statement or plan must be undertaken as if Part 2 had not come into force.

The section 293 package was prepared and notified on 14 December 2015. That is after the RMAA 2013 came into force. At first sight it appears that the current version of section 32 should apply to the section 293 package.

[167] However, Mr Winchester submitted that PC13(s293V) as notified by the Council was not of itself a "proposed plan" or a "change" for the purpose of the RMA, and therefore the post 2003 version of section 32 is not triggered. The section 293 package is subject to a process directed by the court, rather than a process directed by Schedule 1 of the RMA. We agree: the important point is that there is no provision in the section 293 process set out by the High Court in this case (in *Mackenzie (HC 2014)*) for submissions seeking changes that go beyond what the Council is proposing in its version of the plan (change) prepared under a section 293 direction, unless they are consequential changes (usually to policies or rules) under clause 10(2) of Schedule 1 which we discuss shortly. Accordingly the RMAA 2013 amended version of section 32 does not apply to the PC13.

[168] Section 32 in its pre-2009 form states (relevantly):

> **32 Consideration of alternatives, benefits, and costs**
>
> (1) In achieving the purpose of this Act, before a proposed plan, ..., change, ... is publicly notified, ... an evaluation must be carried out by —
>
> ...
>
> (c) the local authority ...
>
> (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
>
> ...
>
> (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 efficiency and effectiveness, the policies, rules or other methods are the most appropriate for achieving the objectives.
>
> ...
>
> (4) For the purposes of the examination referred to in subsections (3) and (3A), an evaluation must take into account:
>
> (a) the benefits and costs of policies, rules and 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.

On appeal we have a discretion[258] as to whether and how far to consider the matters in section 32 although that was not discussed in *Mackenzie (HC 2014).*

[169] While an evaluation under section 32 requires, on its face, an examination whether Objective 3B(3) is the most appropriate way of achieving the purpose of the Act that must, on a plan change, be read in the light of the principle in *King Salmon*[259] that the purpose of the Act is particularised in the objectives and policies of the relevant regional plan and regional policy statement and indeed in the settled higher order objectives of the Mackenzie District Plan. In these proceedings that is reinforced[260] by section 293 which suggests our task is to check that the objectives of PC13(pc) do not depart from the higher order statutory instruments.

[170] In our view there is little difference, if any, between the decision of a local authority (or the Environment Court on appeal) which must contain the reasons for its decision as to why any policy or method is the most appropriate in the circumstances and that part of section 32(3)(b) which directs that the local authority evaluate the effectiveness of policies and methods (including the risk of acting or not acting). Where the requirements of section 32 go beyond simply giving reasons is in the need to have regard to the efficiency of the policies and methods by taking into account their benefits and costs. The important point for present purposes is that a standard decision by the Environment Court is in effect half a section 32 evaluation even if it does not say so. (The other "half" is the efficiency analysis although that is usually only a few paragraphs due to the dearth of evidence commonly received on efficiency issues).

Scope and process

[171] In *Mackenzie (HC 2014)* the High Court listed the principles as to the correct approach to be taken to section 293. Gendall J did not distinguish between the factors that should be considered when the Environment Court is deciding whether it should

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258 Section 32A RMA.
259 *King Salmon,* above n 241.
260 *Mackenzie (HC 2014),* above n 10 at [248](iii).

exercise its discretion to start the section 293 process, and those which the court should have regard to when, later, it is asked to confirm a local authority's post consultation changes. While, strictly, the High Court was obiter in relation to the confirmation process we consider the following items in Gendall J's list seem as, or more, relevant to the later process[261]:

> ...
>
> (b) Where the use of s 293 would have substantial consequences on persons who would have a "vital interest",[262] resort ought not to be had to the section lightly. This issue is particularly acute where the invocation of s 293 would have impacts on geographical regions outside the original contemplation of the plan change[263] or on subject matters not within its original contemplation.[264] In the latter two situations, it is likely that granting such relief would be beyond its jurisdiction.[265]
>
> (c) Though the power conferred upon the Environment Court by s 293 is prima facie very broad, it does not confer a general discretion; it must be exercised judicially in accordance with the overall regime created by the RMA, and does not entitle the Environment Court to make planning decisions where it simply disagrees with decisions made by a planning authority.[266]
>
> (d) In the case of s 293 relief sought by a party to an appeal, that relief must relate to the subject matter of the appeal and the original relief sought "as a matter of discretion".[267] Though the jurisdiction "is not limited to the express words of the reference", the relief sought must be a foreseeable consequence of the changes proposed in the reference.[268] The overarching consideration is one of procedural fairness.[269]

In those items the High Court has identified some of the relevance and fairness factors that we must apply when exercising our discretion to confirm or not. We consider these in the next two parts.

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261 *Mackenzie (HC 2014),* above n 10 at [145].
262 *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 182 at [5-76].
263 *High Country Rosehip Orchards Ltd v Mackenzie District Council* [2011] NZEnvC 387 at para [468], citing *Hamilton City Council v New Zealand Historic Places Trust* [2005] NZRMA 145 (HC).
264 Ibid at [468]. See also *Friends of Nelson Haven and Tasman Bay (Inc) v Tasman District Council* (EnvC) W13/2008 at [25].
265 *Queenstown Airport Corporation Ltd v Queenstown Lakes District Council* [2013] NZEnvC 224 at [15], citing *General Distributors Ltd v Waipa District Council* (2008) 15 ELRNZ 59 (HC) at [32] and [65].
266 *Auckland Council v Byerley Park Ltd* [2013] NZHC 3402, [2014] NZRMA 124 at [21] (HC).
267 *Gardez Investments Ltd v Queenstown Lakes District Council* (EnvC) C95/05, 4 July 2005 at [56].
268 *Westfield (NZ) Ltd v Hamilton City Council* [2004] NZRMA 556 (HC) at [73].
269 *Westfield (NZ) Ltd* above at [74].

3.2 Can PC13 be amended further (e.g. in response to the section 274 parties)?

[172] Once it is established that the objectives proposed by the Council do not depart from the relevant higher order instruments than at first sight is still open to the appellants (and to a limited extent the section 274 parties) to argue in the normal way (under section 32) that the implementing policies and rules are not the most appropriate, or (under section 31 RMA) do not represent integrated management of the relevant resources.

[173] However, Ms Forward submitted that the court does not have the power to make further changes when considering whether or not to confirm PC13(s293V). She relied on the sentence in *Mackenzie (HC 2014)* where Gendall J wrote the Environment Court's jurisdiction is "... to direct that changes be made, not to make the changes and direct that they be implemented". We consider that sentence must be read in context. As we understand the High Court decision, it was referring to the Environment Court's powers under section 293(1)(a) RMA to direct the local authority to prepare changes. The High Court was not ruling on what the Environment Court should consider when deciding whether or not to confirm the section 293 changes prepared by the local authority.

[174] We hold that the proper approach to the confirmation decision under section 293(1)(c) RMA is basically the same as that of the court on any appeal under clause 14 Schedule 1 to the RMA including the discretion under clause 10(2)(b) Schedule 1 to include:

> ... (i) matters relating to any consequential alterations necessary to the proposed statement or plan arising from the submissions; and
>
> (ii) any other matter relevant to the proposed statement or plan arising from the submissions.

subject of course to the over-riding considerations:

- of fairness to both parties and to persons not before the court who might be affected by any consequential changes; and
- that any such changes must still be on the subject of the plan change.

[175] The question of consequential changes arose in the report of the Independent Hearings Panel ("IHP") on the Auckland Unitary Plan. The IHP wrote[270]:

> It is essential to the effectiveness of the Unitary Plan that it promotes the purpose of the Resource Management Act 1991 in an integrated way. As section 32 requires, the appropriateness of objectives must be evaluated in terms of achieving that purpose; then other provisions, being the policies, rules and other methods, must be evaluated in terms of achieving the objectives. This vertical relationship of the Unitary Plan with the Resource Management Act 1991 is repeated across all of the aspects of the environment in Auckland ... This context means that amendments to support integration and to align provisions where they are related could be in three dimensions[271]:
>
> (i) down through provisions to give effect to a policy change;
>
> (ii) **up from methods to fill the absence of a policy direction;** and
>
> (iii) across sections to achieve consistency of restrictions or assessments and the removal of duplicate controls.
>
> (Emphasis added)

[176] Various aspects of the IHP's report were appealed to the High Court. In *Albany North Landowners v Auckland Council*[272] Whata J found that the IHP considered numerous key elements including (relevantly):

> ...
>
> (e) Identifying four types of consequential change:[273]
>
> (i) Format/language changes;
>
> (ii) Structural changes;
>
> (iii) Changes to support vertical/horizontal integration and alignment, to give effect to policy change, to fill the absence of policy direction, and to achieve consistency of restrictions or assessments and the removal of duplicate controls; and
>
> (iv) Spatial changes, for example where a zone change for one property raises an issue of consistency of zoning for neighbouring properties and creates difficulty in identifying a rational boundary.
>
> (f) On changes supporting vertical integration, following a top down approach so that consequential amendments to the plan to achieve integration with overarching objectives and policies, which were drawn from higher level policy statements.

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270 Auckland Unitary Plan IHP Report to Auckland Council – Overview of recommendations on the proposed Auckland Unitary Plan, 22 July 2016, section 4.4.3.

271 In passing, we note that the dimensional metaphor is not as useful as first appears, since the IHP only describes two lines in two dimensions ("up" and "down" are in one dimension).

272 *Albany North Landowners v Auckland Council* [2017] NZHC 138 at [96].

273 Ibid at [29] and [30].

> Given the logical requirement for a plan to function in this way, these changes would normally be considered to be reasonably anticipated.
>
> ...
>
> (h) Assessing consequential changes in several dimensions, being:
>
> (i) Direct effects: whether the amendment would be one that directly affects an individual or organisation such that one would expect that person or organisation to want to submit on it.
>
> (ii) Plan context: how the submission of a point of relief within it could be anticipated to be implemented in a realistic workable fashion; and
>
> (iii) Wider understanding: whether the submission or points of relief as a whole provide a basis for others to understand how such an amendment would be implemented.
>
> ...

It will be seen that the phrase "absence of policy direction" is used at [96](e)(i) but the full phrase in the IHP report "... up from methods to fill the absence of a policy direction" is not used by Whata J.

[177] Whata J held that "[t]he IHP's integrated approach to scope noted at [96](a)(iv)(f) and (g) accords ... more broadly with the orthodox top down and integrated approach to resource management planning demanded by the RMA"[274]. We accept (and are bound by) that. However, we respectfully disagree with the IHP that methods can drive policies to fill a policy vacuum. In our view the policies and rules should be driven from the top down. Policies are to implement objectives and methods to give effect to policies. That is what the High Court described as the orthodox approach and we can see no justification for departing from it. Indeed it seems to be the only principled approach: anything else would leave the RMA – criticised for its open textured language as it already is – open to almost any application that people want to give for their convenience: think of a rule that suits a special interest or the Government and then write a policy to justify it.

[178] Later Whata J summarised the position as follows:

> In accordance with relevant statutory obligations, the IHP correctly adopted a multilayered approach to assessing scope, having regard to numerous considerations, including context and scale ... preceding statutory instruments ... the s 32 reportage, the [proposed plan], the full gamut of submissions, the participatory scheme of the RMA and Part 4, the

274 *Albany North Landowners v Auckland Council* [2017] NZHC 138 at [114].

> statutory requirement to achieve integrated management and case law as it relates to scope. This culminated in an approach to consequential changes premised on a reasonably foreseen logical consequence test which accords with the longstanding *Countdown* "reasonably and fairly raised" orthodoxy and adequately responds to the natural justice concerns raised by William Young J in *Clearwater*[275] and Kós J in *Motor Machinists*[276].

[179] We respectfully follow that approach with the further restrictions we have identified due to the section 293 process in general and the directions of the High Court in *Mackenzie (HC 2014)* in particular as discussed shortly.

[180] We note that the section 274 parties may be able to seek only limited (if any) relief because, of course, they are not appellants. Mr Schulte, counsel for several section 274 parties, carefully posed the questions as[277]:

> ... do the consultation submissions provide additional scope for further more restrictive changes to the package of objectives, policies and rules included in PC13 s293V? Or to adopt the change from assessing visible vulnerability to assessing landscape sensitivity[278]?

He continued[279]:

> The difficulty in treating the consultation submissions in the same way as submissions made under the First Schedule [of the RMA] is that they have not been subject to the formal testing process of being summarised and opened to further submissions.

[181] Some of the section 274 parties have suggested possible changes to policies and rules in their post-consultation submissions. It was in anticipation of that possibility that the court in its First Decision directed[280] notification after consultation. However, because – in compliance with the High Court's directions – PC13(s293V) was notified before consultation it is possible that some persons who might have wished to be heard on post-consultation changes have lost that opportunity. We will consider what to do about that if we assess any of the changes sought by section 274 parties as appropriate on the evidence before us.

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275 *Clearwater Resort Ltd v Christchurch City Council* HC Christchurch AP 34/02, 14 March 2003.
276 *Palmerston North City Council v Motor Machinists Ltd* [2013] NZHC 1290; [2014] NZRMA 519.
277 A J Schulte submissions 23 February 2017 para 16 [Environment Court document 39].
278 Which was proposed in Fountainblue's evidence as a consequence of the issues identified in its submission.
279 A J Schulte submissions 23 February 2017 para 17 [Environment Court document 39].
280 First Decision [2011] NZEnvC 387 at Order E(3).

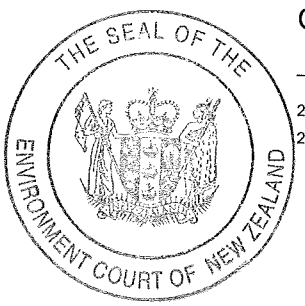
[182] In the particular circumstances of this case due to the procedure stipulated by the High Court in *Mackenzie (HC 2014)* there are further restrictions on our power to make change. We consider that we can readily make consequential changes if they are in the union of sets comprising PC13(N), the submissions on PC13(N), the decision on PC13(C), the court's First Decision and PC13(s293V) but that if they are in PC13(pc) or sought by a section 274 party we can only make minor procedural or minor consequential changes.

[183] If the proceeding had not taken so long to get to this point we might have adjourned the hearing for notification of PC13(pc) or of the submissions of section 274 parties. But at this point finality is the most important consideration. To that extent the process directed by the High Court in *Mackenzie (HC 2014)* has disadvantaged section 274 parties in that we are precluded – by jurisdictional considerations – from considering the full range of modifications suggested by them.

3.3 Has the process been fair to non-parties?

[184] Before the 2005 amendments to the RMA, section 293(3)(c) required the local authority concerned to give "public notice of any change ... proposed and of the opportunities being given to make submissions and be heard". That provision was replaced – with the rest of section 293 – by the current[281] version in 2005. Obviously there is no longer any statutory obligation for the local authority to give public notice of its proposed amendments and of the opportunities to make submissions and be heard on them because those requirements were expressly repealed in 2005. Parliament seems to have left the task of ensuring fairness to the Environment Court. In the First Decision the court dealt with the potential problem of changes being made by the MDC post-consultation by directing public notice after that.

[185] In the Seventh (Procedural) Decision[282] in these proceedings the court directed that the Council write and lodge policies to implement Objective 3B "... together with a memorandum from counsel, inter alia as to what directions as to notification ... are appropriate, so that the court can give further directions ...". The Seventh Decision (together with the Sixth and Eighth Decisions) was one of those appealed to the High Court.



281 Subsequent amendments have been very minor in effect.
282 [2013] NZEnvC 258; (2013) 17 ELRNZ 816 at Order 7A.

[186] As we have recorded, despite the history of section 293, Gendall J ordered that notification take place before consultation. A concern which arises out of the High Court's directions as to notification as carried out by the court and the MDC is whether persons who were satisfied with PC13(s293V) and thus did not make submissions on it were not given notice of the changes in PC13(pc). Ms Forward, counsel for The Wolds and Mt Gerald Station claimed that a number of landowners were not served with the PC13(pc). The Council conceded that, although as Mr Caldwell pointed out, Ms Forward did not claim that the landowners were unaware of the latest iterations.

[187] In the Ninth Decision the court complied with Gendall J's directions in *Mackenzie (HC 2014)* as already described. In its Minute of 17 May 2016 the court directed[283] that the timetable to be followed was (relevantly):

> **27 May 2016** — the respondent's updated [post-consultation] section 293 version of PC13 must be lodged and served;
>
> **3 June 2016** — the respondent must notify those parties who lodged submissions on the notified section 293 package but have not joined the PC13 proceedings as section 274 parties, that PC13 (section 293 version) is available for inspection at the Council's office or that electronic copies may be obtained from either the Council (georgina.hamilton@tp.co.nz) or the Registrar of the Environment Court (christine.mckee@justice.govt.nz);
>
> **1 July 2016** — Any submitter to the Council on its PC13 (section 293 version) or draft or other person who considers they may qualify under section 274, may:
>
> (a) lodge a section 274 notice which must, in addition to the information required by the Resource Management (Fees and Forms) Regulations also set out precisely which provision the person seeks to be changed and why (referring to the relevant objectives in PC13 or the plan); and
>
> (b) must serve a copy of its notice [on] existing parties (a copy of an address list may be obtained from the Registrar of this court).

It will be noted that there was no provision for notification of a summary[284] of submissions or any opportunity for any persons "... that has an interest in the ... plan

283 Paragraph 4 Minute 17 May 2016.
284 Compare the process in clause 7 Schedule 1 RMA.

[change] greater than the interest that the general public has"[285] to make a further submission.

[188] Consequently persons not before the court and not consulted will have no notice of the changes sought by submitters under the court's directions. In response to that concern, Mr Caldwell submitted for the MDC that:

> While not determinative of the scope issue, the parties who have elected to participate in this process fully represent the interests of the community. Environmental Defence Society ..., Mackenzie Guardians, and the Department of Conversation represent those with a conservation focus, while Federated Farmers provided representation and evidence from the land owners' perspective.

[189] Further, there was also very extensive consultation within the Basin[286]. Finally FFM was a party at all times, and it was served. FFM is a (sub) branch[287] of the Federated Farmers of New Zealand South Canterbury Provincial District Inc which is itself a branch of Federated Famers of New Zealand Inc. Halfway through the long history of these proceedings the court enquired as to the identity of FFM. Its then Chairperson, Mr J B Murray of The Wolds Station (also an appellant in these proceedings) listed the members of the unincorporated branch as at 13 November 2013, in Exhibit "C" his affidavit of 13 November 2013. They included[288] many representatives of the station owners in the Mackenzie Basin. There are only a few stations which do not appear to have been directly represented.

[190] We provisionally conclude that any changes in PC13(pc) are generally within jurisdiction because most of the rural landowners concerned are represented either directly or indirectly by FFM and all were given the opportunity to be consulted with. There are two possible exceptions to that. The first relates to farm base areas which we consider next.

[191] A Farm Base Area ("FBA") was conceived as the area around an existing homestead cluster or other potential areas for more intensive farming and buildings. The recommended policy in PC13(pc) reads (the words in red represent the changes from PC13(s293V)):

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285 To use the words of clause 8(1)(b) Schedule 1 RMA.
286 P Harte evidence-in-chief paras 13 and 14 [Environment Court document 25].
287 J B Murray affidavit 13 November 2013.
288 G D W Loxton affidavit 5 April 2017.

Policy 3B3 – Development in Farm Base Areas

~~(1)~~Within Farm Base Areas ~~in areas of high visual vulnerability~~ subdivision and development (other than farm buildings) shall maintain or enhance the ~~significant and~~ outstanding natural landscape and other natural values of the Mackenzie Basin where possible by:

(a) Confining development to areas where it is screened by topography or vegetation or otherwise visually inconspicuous, particularly from public viewpoints and from views of Lakes Tekapo, Pukaki and Benmore provided that there may be exceptions for development of existing farm bases at Braemar, Tasman Downs and for farm bases at the stations along Haldon Road.

(b) Integrating built form and earthworks so that it nestles within the landform and vegetation.

(c) Planting local native species and/or non-wilding exotic species and managing wilding tree spread.

~~(2) Subdivision and development (other than farm buildings) in Farm Base Areas which are in areas of low or medium vidual vulnerability to development shall:~~

~~(a) Restrict planting to local native species and/or non wilding exotic species~~

~~(b) Manage exotic wilding tree spread~~

~~(c) Maintain a sense of isolation from other development~~

~~(d) Mitigate the adverse effects of light spill on the night sky~~

~~(e) Avoid adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance~~

~~(f) Install sustainable systems for water supply, sewage treatment and disposal stormwater services and access.~~

[192] At the request of the Council the location and extent of FBAs were never to be the subject of this decision. If necessary they were to be the subject of a further hearing.

[193] A potential difficulty with confirming (or not) the FBA policy in PC13(pc) and its implementing at this stage is that some station owners may be negotiating with the MDC about the extent of their own FBA(s) separately from FFM. In those discussions they may be working on the basis of Policy 3B3 in PC13(s293V) and its implementing rules. In fact we do not consider there is any problem with the policy since the PC13(pc) version is less containing than that in PC13(s293V). Accordingly we consider issues over the policy can be resolved in this decision. Confirmation of the rules should not be. To that limited extent it might be unfair to confirm the rules to implement Policy 3B3 as stated in PC13(pc) at this stage, and we will adjourn that issue for further

individual notification, and then resolution at the same time as the location and extent of individual FBAs are resolved.

[194] The second issue of potential unfairness which concerns us relates to the rather more complex issue of how the ONL should be assessed in relation to its capacity to absorb development and more intensive use. It is the proposed introduction in PC13(pc) of a new method of evaluating the ONL by its "landscape sensitivity" rather than by its "visual vulnerability" which was the concept used in PC13(s293V) as evidenced by the struck-through passage in Policy 3B3 quoted above. While, as we have stated above, we consider that farmers and landowners throughout the Basin generally are adequately on notice by the presence of their representative FFM, the whole concept of "visual vulnerability" was such a core part of the policy structure PC13(s293V) that we are uneasy about substituting a new process without notification. We will consider this issue further in relation to Policy 3B1 below.

[195] Any changes to objective 3B will be considered separately in Chapter 6. We will consider the scope to make any changes to PC13(s293V)'s policies at each point we make a determination as to effectiveness in Chapter 6 even if we do not make an express determination on the issue.

3.4 Jurisdictional issues in the Te Rūnanga o Ngāi Tahu case

[196] TRoNT seeks to add to Objective 3B(1) by adding the emphasised words in the (part) statement of the objective below:

> (1) Subject to (2)(a), to protect and enhance the outstanding natural landscape of the MacKenzie Basin Subzone in particular the following characteristics and/or values:
>
> ...
>
> **(g) the relationship of Ngāi Tahu with their ancestral lands, waters wāhi tapu and taonga.**

[197] Counsel for TRoNT, Mr Winchester submitted that the amendment sought to Objective 3B(1) is within the court's jurisdiction either as a consequential change or under the court's power in section 292 RMA to remedy defects in plans. The first argument relied on the "... reasonably foreseen logical consequence test" recently stated by the authoritative decision of Whata J in *Albany North Landowners v Auckland*

Council[289]. It is unclear to us that TRoNT's amendments to Objective 3B(1) can be said to be a reasonably foreseeable logical consequence of anything else in PC13.

[198] Second, Mr Winchester relied on section 292 RMA. That provision is used to correct a mistake, defect or uncertainty in an operative plan. The short point is that this proceeding is about a proposed plan change. In any event there does not appear to be any mistake in these proceedings. Nor is Objective 3B(1) obviously defective because while the planners agreed that the suggested change to Objective 3B(1) was appropriate they did not give reasons why it was necessary given the contents of Chapter 4 of the MDP (discussed shortly). No one pointed to any uncertainty in the provisions relating to tangata whenua in the district plan.

[199] The other matter that concerns us about TRoNT's proposal is that Objectives 3B(1) and (2) were settled by the Eighth Decision. If we had jurisdiction and could exercise our discretion[290], we should do so against TRoNT: they should <u>not</u> be amended now. If we were going to make changes to the objectives there are other matters that arise out of our better understanding of the (changed) environment (see 2 below) that would lead us to make other changes at the same time as that sought by TRoNT).

[200] TRoNT also seeks amendments to some of the policies, and we will consider these later since there do not seem to be any jurisdictional impediments to those changes.

4. The statutory instruments

4.1 <u>What are the relevant statutory documents</u>

[201] The relevant statutory documents are:

- the Mackenzie District Plan (including Objectives 3B(1) and (2)):
- 15 January 2013 – the Canterbury Regional Policy Statement ("the CRPS") which must be given effect to[291];
- 1 February 2016 – the Canterbury Land and Water Regional Plan ("the CLWRP") with which PC13 should not be inconsistent[292]; and

289 *Albany North Landowners v Auckland Council* [2017] NZHC 138 at para [98].
290 Under section 292.
291 Section 75(3)(c) RMA.
292 Section 75(4)(b) RMA.

- the Iwi Management Plan of Kati Huirapa[293] for the area Rakaia to the Waitaki which must be taken into account[294].

The second and third documents – the CRPS and the CLWRP – have come into force since the district plan became operative and more relevantly since the First (Interim) Decision of the court on PC13 was issued. Because they post-date the First Decision, we need to give them particular attention.

4.2 The Operative District Plan and Objective 3B(1) and (2)

[202] PC13(pc) is designed to be part of the operative Mackenzie District Plan and needs to be integrated[295] with it. Since the provisions sought to be added by the Mackenzie District Council are to add one new subordinate Objective 3B(3) and policies and methods to implement settled Objectives 3B(1) and (2), as well as 3B(3), we set out the relevant objectives and policies of the whole plan to set the context for our consideration of the proposed provisions.

[203] The relevant chapters[296] of the Mackenzie District Plan are called:

1 – Introduction
2 – Policy and Legal Framework
3 – Definitions
4 – Takata Whenua
...
7 – Rural Objectives and Policies
...
11 – Heritage Protection
...
18 – Natural Hazards

The chapters often read as if they are self-contained but of course the MDP must be

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293 T J Stevens evidence-in-chief para 1.9(g) [Environment Court document 31].
294 Section 74(2A) RMA.
295 Section 74(1) and section 31 RMA.
296 Note:
(a) The chapters are called "sections" in the MDP, but we avoid this term so as not to cause confusion with sections of the RMA.
(b) three chapters dealing with special zones have been added since. They are irrelevant to these proceedings.

read as a whole: *Rattray and Sons v Christchurch City Council*[297] applied by the Court of Appeal in the RMA context in *Powell v Dunedin City Council*[298].

Chapter 3 – Definitions

[204] This chapter contains several definitions of relevance to this proceeding.

[205] "Farming activity" is defined[299] in the MDP as meaning:

> ... the use of land, buildings or water for the primary purpose of the production of vegetative matter and/or commercial livestock, and includes the on-site sale of produce grown or reared on the site. Farming activity does not include residential activity, home occupations, factory farming, forestry activity or the disposal of effluent beyond the level normally required to sustain the productive use of land.

[206] "Pastoral intensification" is already defined in the MDP as meaning "... subdivisional fencing, topdressing and oversowing".

[207] "Residential Activity" is defined[300] in the MDP as meaning:

> The use of land and buildings by people for the purpose of permanent living accommodation, including all associated accessory buildings, leisure activities and the keeping of domestic livestock. For the purpose of this definition, residential activity shall include residential community care homes for up to and including six people and management staff, and emergency and refuge accommodation.

[208] The term "farming activity" is broad and includes most types of farming. There is one exception: Chapter 3 contains a definition of "factory farming". We do not need to discuss that beyond recording that it is expressly excluded from "farming activity".

[209] One important subset of "farming activity" is the defined term "pastoral intensification" meaning to "subdivisional fencing, oversowing and topdressing". We infer from this that the MDP contemplates "pastoral farming" not as all forms of stock grazing (intensive or extensive) but as the more traditional and restricted sense of extensive dryland farming often under a pastoral lease as discussed earlier (in Chapter 2 of this decision).

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297 *J Rattray and Son Ltd v Christchurch City Council* (1984) 10 NZTPA 59 at 61.
298 *Powell v Dunedin City Council* (2005) 11 ELRNZ 144; [2004] 3 NZLR 721; [2005] NZRMA 174 at [35].
299 MDP p 3-4.
300 Mackenzie District Plan p 3-9.

Chapter 4 – Takata Whenua

[210] Chapter 4 (Takata Whenua Values) of the MDP identifies areas of concern[301] to tangata whenua, specifically by making[302] Statutory Acknowledgements of Areas which come under the Ngāi Tahu Claims Settlement Act 1998. Those within the Mackenzie Basin are Lakes Tekapo, Pukaki, Benmore and Ohau. It also recognises the need to protect koiwi takata and other wāhi tapu[303]. It contains the following objectives and policies[304]:

> **Objectives and Policies**
> **Objectives**
>
> 1 Recognition of the importance of the relationship of the takata whenua, their culture and traditions, with their ancestral lands, waters and sites, in the management of these resources within the District.
>
> 2 Recognition of the Treaty of Waitangi partnership between the takata whenua and the Crown which has devolved its policy and regulatory capacity in the management of natural resources to local government through the Resource Management Act 1991.

[211] To implement those objectives the following policies are identified as being "Specific to Takata Whenua Interests"[305]:

> 1 To include acknowledgement of Arowhenua Runaka in all future District Plans.
>
> 2 To develop a system of on-going consultation with the takata whenua by asking the takata whenua what form of consultation and participation in resource management they feel is appropriate for them.
>
> 3 To give recognition to traditional takata whenua place names within the District.
>
> 4 To promote, through education and information, public awareness of takata whenua obligations, interests and concerns within the District. Any promotion shall be done with the support of Runaka members.
>
> 5 To support the coming together of Runaka members and land managers (farmers, DoC, Council) to discuss the way that lands, waterways and mahika kai are

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301 MDP p 4-3.
302 Pursuant to section 215 Ngāi Tahu Claims Settlement Act 1998.
303 MDP pp 4-4.
304 MDP p 4-4 to 4-5.
305 MDP p 4-4 to 4-5.

presently being managed in the District. The purpose of coming together is to work towards finding ways to manage these resources which suit all parties.

6 To support the takata whenua in encouraging landowners to approach the Runaka if they believe there are special sites on their land and in achieving a mutually satisfying outcome.

[212] We also note that Chapter 11 contains an Objective 1 on conservation of the heritage resources of the district including "... wāhi tapu sites and areas"[306]. There is a specific Policy 1C relating to such sites and an implementing rule[307].

Chapter 7 – Rural Objectives and Policies

[213] The objectives and policies for the Rural Zone include these headings:

- Objective 1 Indigenous Ecosystems, Vegetation and Habitat
- Objective 2 Natural Character of Waterbodies and Their Margins
- Objective 3A Landscape Values
- Objective 3B Activities in the Mackenzie Basin Outstanding Natural Landscape
- Objective 4 High Country Land
- Objective 5 Downlands and Plains Soils
- Objective 6 Rural Amenity and Environmental Quality
- Objective 7 Natural Hazards

Objective 7 relating to Natural Hazards needs to be considered with Chapter 18 of the district plan.

[214] The first objective[308] is "To safeguard indigenous biodiversity and ecosystem functioning through the protection and enhancement of significant indigenous vegetation and habitats, riparian margins ...". The second objective is[309] to preserve the natural character and function of the District's lakes, rivers, wetlands and their margins, and to promote public access along these areas. The third objective in the Rural section actually contains several. Objective 3A relates to the landscape values of

306 MDP p 11-2.
307 Rule (11)5 MDP p 11-7.
308 Rural Objective 1 – Indigenous Ecosystems, Vegetation and Habitat [MDP p 7-17].
309 Rural Objective 2 – Natural Character of Waterbodies And Their Margins [MDP p 7-20].

the district's rural areas generally and states[310]:

> **Rural Objective 3A – Landscape Values**
> Protection of outstanding landscape values, the natural character of the margins of lakes, rivers and wetlands and of those natural processes and elements which contribute to the District's overall character and amenity.

[215] Objectives 3B(1) and (2) were added to PC13 by this court's Eighth Decision[311] and were not affected by the High Court's decision on appeal since the alleged error of law was "effectively abandoned"[312]. They state:

> **Objective 3B – Activities in the Mackenzie Basin's outstanding natural landscape**
> (1) Subject to (2)(a), to protect and enhance the outstanding natural landscape of the Mackenzie Basin subzone in particular the following characteristics and/or values:
> (a) the openness and vastness of the landscape;
> (b) the tussock grasslands;
> (c) the lack of houses and other structures;
> (d) residential development limited to small areas in clusters;
> (e) the form of the mountains, hills and moraines, encircling and/or located in, the Mackenzie Basin;
> (f) undeveloped lakesides and State Highway 8 roadside;
> (2) To maintain and develop structures and works for the Waitaki Power Scheme:
> (a) within the existing footprints of the Tekapo-Pukaki and Ohau Canal Corridor, the Tekapo, Pukaki and Ohau Rivers, along the existing transmission lines, and in the Crown-owned land containing Lake Tekapo, Pukaki, Ruataniwha and Ohau and subject only (in respect of landscape values) to the objectives, policies and methods of implementation within Chapter 15 (Utilities) except for management of exotic tree species in respect of which all of objective (1) and all implementing policies and methods in this section apply;
> (b) elsewhere within the Mackenzie Basin subzone so as to achieve objective (1) above.

[216] Objectives 3B(1) and (2) have been "incorporated"[313] into the MDP. However formal approval and notification under clauses 17 and 20 of the First Schedule to the Act have not been given or undertaken (respectively).

[217] As stated at the outset this decision is primarily about whether the court should confirm the subordinate Objective 3B(3) and policies in PC13(pc) put forward by the

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310 MDP p 7-22.
311 Eighth Decision: [2013] NZEnvC 304 Order 8C(2).
312 *Mackenzie (HC 2014)*, above n 10 at [165].
313 Memorandum from MDC 30 March 2017.

Council under section 293 RMA and that really depends on whether those provisions achieve Objective B(1) and (2) when read in the context of the remainder of the MDP, and on achieving the objectives and policies of the (later) CRPS to be discussed shortly.

[218] In *High Country Rosehip*[314] the court described the other relevant objectives and policies in chapter 7 of the MDP as follows:

> [121] Also highly relevant is[315] a "high country" objective to encourage land uses which sustain soil and water and ecosystems and "which protect the outstanding landscape values of the high country, its indigenous plant cover and those natural processes which contribute to its overall character and amenity". Relevant implementing policies for this objective[316] include one requiring that land use should maintain "a robust and intact vegetation cover". We have already described how that is not happening in the lower and drier parts of the basin. Another policy[317] aims to ensure ecosystems, natural character and open space values are maintained by retaining (as far as possible) indigenous vegetation and habitat, maintaining natural landforms, and by managing adverse effects on landscape and visual amenity.

[219] The court then paused to[318] repeat "that there was a disappointing lack of ecological evidence in these proceedings, so that our findings may insufficiently take into account 'indigenous plant cover', especially in respect of the smaller native plant species which live in the spaces between tussocks, or which are dry hill/scree specialists". That presentiment has turned out to be correct as we found in Chapter 2. Further it now appears that the concept of an "intact vegetation cover" is not the nature of some of the microhabitats referred to by the ecological witnesses.

Indigenous ecosystems, etc

[220] Rural Objective 1 (Indigenous Ecosystems, Vegetation and Habitat)[319] is:

> To safeguard indigenous biodiversity and ecosystem functioning through the protection and enhancement of significant indigenous vegetation and habitats, riparian margins and the maintenance of natural biological and physical processes.

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314 *High Country Rosehip,* above n 6 at [121].
315 Rural Objective 4 – High Country Land [MDP p 7-25]; note that "High Country" is "defined so that in fact all of the Mackenzie Basin subzone comes within the term " [MDP p 7-3].
316 Rural Policy 54A – Vegetation Cover [MDP p 7-26].
317 Rural Policy 4B – Ecosystem Functioning, Natural Character and Open Space Values [MDP p 7-26].
318 *High Country Rosehip,* above n 6 at [121].
319 MDP at p 7-17.

[221] We note here that "Indigenous vegetation" is defined in Chapter 3 of the MDP as meaning[320]:

> ... a plant community in which species indigenous to that part of New Zealand are important in terms of coverage, structure and/or species diversity. For these purposes coverage by indigenous species or number of indigenous species shall exceed 30% of the total area or total number of species present, where structural dominance is not attained. Where structural dominance occurs (that is indigenous species are in the tallest stratum and are visually conspicuous) coverage by indigenous species shall exceed 20% of the total area.

Extensive parts of each of the three ecological districts in the Mackenzie Basin may qualify as "indigenous vegetation" because the 83 indigenous threatened species (even if sparsely distributed) plus the more common species – the tussocks, matagouri, speargrass – are likely to be well over 30% of the total species present.

[222] Rural Policy 1A (Department of Conservation and Landholders) is:

> To promote the long-term protection of sites with significant conservation values by encouraging:
> - landholders and relevant agencies to pursue protection mechanisms and agreements;
> - tenure review processes under the Land Act and Crown Pastoral Land Act 1998;
> - Implementation of the Conservation Management Strategy and the Management Plan for the Aoraki/Mount Cook National Park.

[223] That policy describes the Implementation Methods as being to "identify sites of significance". The MDP then states[321] secondary criteria used to assist in identifying sites of natural significance:

> (i) Scientific Value - The area is a type of locality or other recognised scientific reference area.
> (ii) Connectivity - The extent to which the area has ecological value due to its location and functioning in relation to its surroundings. An area may be ecologically significant because of its connections to a neighbouring area, or as part of a network of areas of fauna habitat, or as a buffer.
> (iii) Size and shape - The degree to which the size and shape of an area is conducive to it being, or becoming, ecologically self sustaining.

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320 Mackenzie District Plan at p 3-6.
321 Mackenzie District Plan at p 7-19.

As we shall see that is not nearly as particularised as the later CRPS.

[224] In passing we note that Rules 12.1.1(g) and (h) relate to "Short Tussock Grasslands" and "Indigenous Cushion and Mat Vegetation ... Communities" respectively. They state[322]:

> 12.1.1.g **Short Tussock Grasslands**
>
> *An interim Rule that will be reviewed three years after the Plan becomes operative.*
>
> On each of the individual farm properties existing in the Mackenzie Basin Map as at 1 January 2002 in any continuous period of five years there shall be no clearance including cultivation above the following thresholds of short tussock grasslands, consisting of silver or blue (*Poa* species), or *Elymus solandri*, or fescue tussock where tussocks exceed 15% canopy cover:
>
> (i) 40 hectares or less – Permitted Activity
> (ii) Greater than 40 hectares – Discretionary Activity
>
> Performance Standards for Permitted Activity
>
> - The landholder shall notify the Mackenzie District Council of the proposed clearance 4 months prior to the clearance being undertaken and shall supply a map of the proposed site.
> - The clearance shall be more than 150m from the boundaries of any existing Sites of Natural Significance.
>
> **Exemptions**
>
> This rule shall not apply to:
>
> - Any removal of declared weed pests; or
> - Vegetation clearance for the purpose of track maintenance or fenceline maintenance within existing disturbed formations; or
> - Any vegetation clearance including burning which has been granted resource consent for a discretionary or non-complying activity from the Canterbury Regional Council/Environment Canterbury under the Resource Management Act 1991; or
> - Any short tussock grassland where the site has been oversown, and topdressed at least three times in the last 10 years prior to new

322 Mackenzie District Plan at pp 7-69 to 7-70. As a result of PC17 the exemptions do not apply from 24 December 2016 to 24 December 2017.

clearance so that the inter-tussock vegetation is dominated by clovers and/or exotic grasses.

12.1.1.h **Indigenous Cushion and Mat Vegetation and Associated Communities**
An interim Rule that will be revised three years after the Plan becomes operative.

On each of the individual farm properties existing in the Mackenzie Basin as at 1 January 2002 in any continuous period of five years there shall be no clearance including cultivation above the following thresholds of indigenous cushion, mat (*Raoulia* species) or herb and scabweed vegetation where at least 50% of the vegetation ground cover comprises vascular and non-vascular indigenous species, OR where the number of vascular indigenous species is greater than 20:

(i) 10 hectares or less – Permitted Activity
(ii) Greater than 10 hectares – Discretionary Activity
...

The performance standards and exemptions are similar to those for the Short Tussock rule.

[225] It will be noted that the exemption in the fourth bullet point has the effect that both rules can be avoided simply by oversowing once and topdressing at least three times in the ten years before clearance.

[226] The Implementation Methods includes a statement about a review[323] of Rules 12.1.1(g) and 12.1.1(h):

A review of Rules 12.1.1(g) and 12.1.1(h) will commence three years after the date at which the Plan became operative. These Rules will continue to apply until such time as the review is complete and a new Rule(s) is substituted. The agreed process for such a review is as follows:

(i) The Mackenzie District Council will review the extent and condition of short tussock grasslands and associated communities in the Mackenzie Basin, and the extent of cultivation and modification of these areas since the Plan became operative. Council will consult interested parties including landholders, Federated Farmers, Department of Conservation, Environment Canterbury, and environmental and community organisations. It will use relevant information such as the ortho-digital

323 Mackenzie District Plan at p 7-19.

technology of the RFT (Rural Futures Trust). It will consider matters such as the economic, ecological, landscape and other values of the short tussock grasslands and associated vegetation.

(ii) The review process may result in the Council amending the Plan and/or Rules 12.1.1 (g) Short Tussock Grasslands and 12.1.1 (h) Indigenous Cushion and Mat Vegetation and Associated Communities to identify areas where development and modification needs to be more strictly controlled and/or areas where the above Rules would no longer apply.

Environmental Results Anticipated

- Protection of the natural habitats of indigenous plants and animals from the adverse effects of human activities and a reduced overall rate of degradation of indigenous habitats and biodiversity.

The MDP became operative in 2004 so the review should have been completed by the end of 2007. Nothing happened. At the hearing the MDC advised the court that a review will be carried out this year (2017).

[227] Those facts make the first part of Mr Gardner's submission[324] that the provisions in the MDP "... should be assumed to provide all the protection of [biodiversity] values that is needed and that the value of landscape in protecting biodiversity is limited" rather inaccurate.

[228] Rural Objective 2 – Natural Character of Waterbodies and Their Margins[325]. This states:

> The preservation of the natural character and functioning of the District's lakes, rivers, and wetlands and their margins, and the promotion of public access along these areas.

4.3 The Canterbury Regional Policy Statement

[229] Since the First Decision a new regional policy statement ("the CRPS") has come into force (on 15 January 2015). There are three relevant chapters in the CRPS which must be given effect to. They are:

- Chapter 4 Provision for Ngāi Tahu and their relationship with resources

324 R Gardner closing submissions para 25 [Environment Court document 41].
325 Mackenzie District Plan at p 7-20.

- Chapter 9 Ecosystems and indigenous biodiversity
- Chapter 12 Landscape

Provision for Ngāi Tahu and their relationships and resources

[230] It is not clear that the CRPS does provide fully for Ngāi Tahu since Chapter 4 of the CRPS does not contain any objectives or policies on the issues of importance to tangata whenua.

[231] The only guidance it gives to territorial authorities such as the MDC, is to record, under the heading[326] 'Tools and Processes' that territorial authorities will:

> ... in order to give effect to their functions under the RMA[327]:
>
> **4.3.15**
> Include provisions for the relationship between Ngāi Tahu, their culture and traditions, and their ancestral lands, water, sites, wāhi tapu and other taonga within district plans.
>
> **4.3.16**
> Include methods for the protection of Ngāi Tahu ancestral lands, water, sites, wāhi tapu and other taonga within district plans.
>
> **4.3.17**
> Take into account iwi management plans during plan development.

The MDP uses the first two of those methods; the third can be taken into account in this decision. However, it cannot be said that PC13(pc) is departing from Chapter 4 of the CRPS when the plan change is read with the district plan as a whole.

Ecosystems and indigenous biodiversity (Chapter 9)

[232] Objective 9.2.1 in Chapter 9 (Ecosystems and indigenous biodiversity) is to halt the decline of Canterbury's ecosystems and indigenous biodiversity[328]. The second – Objective 9.2.2 – is to restore or enhance ecosystems and indigenous biodiversity; and the third objective[329] in Chapter 9 is to identify areas of significant indigenous vegetation and significant habitats of indigenous fauna and to protect their values and ecosystem functions.

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326 Para 4.3 [CRPS p 24].
327 Para 4.3.15 to 4.3.17 [CRPS p 26].
328 Objective 9.2.1 [CRPS p 105].
329 Objective 9.2.3 [CRPS p 106].

[233] Policy 9.3.1. (protecting significant natural areas) states[330] that:

> 1. Significance, with respect to ecosystems and indigenous biodiversity, will be determined by assessing areas and habitats against the following matters:
>
> (a) Representativeness
>
> (b) Rarity or distinctive features
>
> (c) Diversity and pattern
>
> (d) Ecological context
>
> The assessment of each matter will be made using the criteria listed in Appendix 3.
>
> 2. Areas or habitats are considered to be significant if they meet one or more of the criteria in Appendix 3.
>
> 3. Areas identified as significant will be protected to ensure no net loss of indigenous biodiversity or indigenous biodiversity values as a result of land use activities.
>
> ***This policy implements the following objectives:***
>
> Objective 9.2.1 and Objective 9.2.3

[234] The next relevant implementing policy is:

> **Policy 9.3.2 – Priorities for protection**
>
> To recognise the following national priorities for protection:
>
> ...
>
> 4. Habitats of threatened and at risk indigenous species.

"Threatened" is explained[331] as meaning "A species facing a very high risk of extinction in the wild and includes national critical, nationally endangered, and naturally vulnerable species as identified in the [NZ] Threat Classification Lists". A schedule of the plants on that list which occur in the Mackenzie Basin was produced[332] by Mr N Head, a botanist called by DoC. It contains 83 species and is attached to this decision as Appendix "B".

[235] Appendix 3 to the CRPS sets out the criteria[333] for determining significant habitat. The methods suggest[334] that an analysis of some of the criteria for determining significance needs to be carried out in the LWRP (but it has not yet been). Determinations will need to be made by the MDC on its plan review of Appendix 3 to the CRPS under other criteria including 6 to 10. We should not decide those issues

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330 Policy 9.3.1 [CRPS p 107].
331 Glossary and Definitions [CRPS p 199].
332 N J Head evidence-in-chief Appendix 1 [Environment Court document 14].
333 Appendix 3 criteria for determining significant indigenous vegetation and significant habitat of indigenous biodiversity [CRPS p 234].
334 Methods for Policy 9.3.1 [CRPS Statement p 107].

here since there are value (or policy) judgements involved in those criteria ("distinctive" – in Policy 6, "high diversity" in Policy 7, "importance" in Policies 8, 9 and 10) which should be left to the MDC on its review.

[236] Appendix 3 also contains the criterion:

> **Criteria for determining significant indigenous vegetation and significant habitat of indigenous biodiversity**
>
> ***Rarity/Distinctiveness***
>
> ...
>
> 4. Indigenous vegetation or habitat of indigenous fauna that supports an indigenous species that is threatened, at risk, or uncommon, nationally or within the relevant ecological district.
>
> ...

Criterion 4 is important because the question whether there is an area of indigenous vegetation that is threatened, "at-risk", or is uncommon is simply a question of fact to be resolved on a species-by-species basis. In large parts of the Mackenzie Basin there is not simply one species but 83 species of indigenous plants which qualify. Accordingly we find on the balance of probabilities that much of the ONL[335] meets the area of significant vegetation criterion, notwithstanding the presence of introduced plants or weeds. This is not a policy decision, simply a determination of fact. Then Policy 9.3.1(2) of the CRPS says that those (extensive) parts of the Mackenzie Basin are significant areas.

[237] Consequently the ONL is a significant natural area under Policy 9.3.1 of the CRPS.

Chapter 12 (Landscapes)

[238] Chapter 12 of the CRPS contains three objectives. The first[336] largely repeats section 6(b) RMA but adds that the values which make an ONL[337] should be "specifically recognised"[338]. The explanation is that:

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335 Obviously excluding cultivated pasture, wilding conifer forests with closed canopy, woodlots, or some areas of greater pastoral intensification.
336 Objective 12.2.1 [CRPS p 141].
337 Or outstanding natural feature.
338 Objective 12.2.1 [CRPS p 141].

> Landscape is an integral element of the environment and potential land-use effects on landscape values require an integrated management response. Changes in landscape can also affect the relationship of Ngāi Tahu with ancestral land, sites and wāhi tapu.
>
> Landscape is multi-dimensional and includes natural science, legibility, aesthetic, shared and recognised, transient, heritage and tāngata whenua values. These values can also overlap with the statutory considerations in Section 6(a) of the RMA, concerned with natural character, Section 6(c), significant areas of indigenous vegetation and significant habitats of indigenous fauna, Section 6(f), historic heritage and Section 8 in relation to the principles of the Treaty of Waitangi. Accordingly, it is important that there is some clarity as to which values within a landscape contribute to its status as outstanding.
>
> It is important to acknowledge that landscape-related management methods are not intended to be prohibitive with respect to all land-use change. As part of sustainable management, land-use, and thereby landscape change may occur. The focus should be on what is appropriate development in relation to the values that make a landscape outstanding. As such, there will be instances where certain types or scales of development, are inappropriate.

[239] The second and third objectives are not relevant to these proceedings as they deal with, respectively, other landscapes than those which qualify under section 6(b) and with consistency of assessment across the region.

[240] The first relevant implementing policy is[339]:

> **Policy 12.3.1 – Identification of outstanding natural features and landscapes**
> To identify the outstanding natural features and landscapes for the Canterbury region, while:
> 1. recognising that the values set out in Appendix 4 indicate the outstanding natural features and landscapes for Canterbury, at a regional scale; and
> 2. enabling the specific boundaries of outstanding natural features and landscapes, for inclusion in plans, to be determined through detailed assessments which address the assessment matters set out in Policy 12.3.4(1).

This policy has of course largely been accomplished by the MDC by the identification of the Mackenzie Basin as an ONL.

[241] Next, out of order, we refer to Policy 12.3.4[340] which seeks regional consistency in the identification of outstanding natural features and landscape areas and values by

339 Policy 12.3.1 [CRPS p 142].
340 Policy 12.3.4 [CRPS p 145].

(relevantly):

1. considering the following assessment matters which address biophysical, sensory and associative values when assessing landscapes in the Canterbury region:
   (a) Natural science values
   (b) Legibility values
   (c) Aesthetic values
   (d) Transient values
   (e) Tāngata whenua values
   (f) Shared and recognised values
   (g) Historic values

[242] The Appendix 4 referred to then identifies the key ONL values of the wider Mackenzie Basin under those headings as being[341]:

> **Natural Science:** The upper river valleys (such as the Godley and Tasman) are largely weed free and have a high degree of naturalness. These river valleys support an array of unique and threatened native birds. Kettleholes in the basin floors are an important habitat. Numerous Department of Conservation managed reserves, including scientific reserves are in the basin and valleys (linking with Aoraki/Mt Cook National Park). Elevation and the orographic effect of the main divide enable particularly clear views of the night sky, which has resulted in the location of the Mt John Observatory in the Mackenzie Basin.
>
> **Legibility:** Highly legible features such as moraines, roches moutonnees, hanging valleys, terraces and fans. 'Kame terraces' near Lake Pukaki are alluvial terraces formed by streams that flowed along the margins of large glaciers. Numerous geopreservation sites are located within the basin. The Clay Cliffs are one of New Zealand's best examples of 'badlands' erosion, where steep-sided canyons are cut into easily erodible sediments. The sediments have been uplifted and tilted by movements on the Ostler Fault.
>
> **Aesthetic:** The vast basin, large river valleys and enclosing mountain ranges form a dramatic and spectacular landscape. While some parts of the basin have been substantially modified by residential, hydro and agricultural development, the basin as a whole retains its openness and largely coherent character. Despite the landcover modifications induced by historic farming practices, the area maintains a high level of visual coherence. The Golden Tussock-laden slopes which surround the basin have high aesthetic values. Impressive views up the wide U-shaped valleys to the snow and ice covered peaks of the Alps are experienced from the basin. Pukaki and Tekapo reflect a striking milky-blue colour in sunlight. They form an integral part of one of the most memorable landscapes in the country.

[341] Appendix 4 pp 72-73 [CRPS 2013].

> **Transient:** Snow coats the ranges and basin floors during much of the winter months. The distinctive turquoise colour of the lakes in sunny conditions is spectacular. Nowhere else in the country can the effects of 'norwester' weather patterns and the rainfall gradient from west to east be as vividly experienced as in the Mackenzie Basin.
>
> **Tāngata Whenua:** The Mackenzie Basin lakes (Tekapo, Pukaki and Ohau) are all referred to in the legend of "Nga Puna Wai Karikari o Rakaihautu" which describes how the principal lakes of Te Wai Pounamu were dug by the rangatira (chief) Rakaihautu. Māori used the lakes in this area for mahinga kai. These lakes are part of a wider mahinga kai trail that ran from Lake Pukaki down the original path of Waitaki River to the coast.
>
> **Shared and Recognised:** Iconic South Island landscape. Inspiration for numerous artists and writers. The lakes and the basin are tourist icons. National importance for tourism and recreation. … Lake Ruataniwha near Twizel, which has been developed as part of the Waitaki Hydro Electric Power Scheme, has been developed as a national rowing venue.
>
> **Historic:** Historic features include homesteads, farm buildings, sheep yards, pack bullock & dray tracks, mustering huts, shelterbelts and fences. The Mackenzie Basin is named after the first European to discover the area, James Mackenzie. Mackenzie, convicted of sheep stealing, has a monument commemorating his capture.

[243] Those matters are very important because PC13 needs to give effect to them by recognising them and providing appropriately for them. The implementing Policy 12.3.2 is[342] to ensure management methods which "seek to achieve protection" of outstanding natural features and landscapes from inappropriate subdivision, use and development. We add that Appendix 4 is on the evidence before us as described in Chapter 2 of this decision, clearly incomplete in relation to the importance of the native flora of the Mackenzie Basin. It is not only "kettleholes" which are important habitat.

[244] The explanation acknowledges[343]:

> … that some activities, such as pastoral farming, have enabled landscape values, such as legibility of the underlying landform, to be maintained. Some landscape values also occur at a very large geographic scale, such as Banks Peninsula or the intermontane basins, and it is appropriate that working landscapes within these large-scale features are maintained to ensure that the community continues to provide for its economic and social well-being. …

342 Policy 12.3.2 [CRPS p 143].
343 Explanation to Policy 12.3.2 [CRPS p 145].

[245] Policy 12.3.3 relates to other landscapes and is not relevant.

4.4 The Canterbury Land and Water Regional Plan

[246] There is no obligation for a regional plan to say anything about an ONL so the CLWRP does not. We will not refer to it further.

4.5 The Kati Huirapa Iwi Management Plan 1992

[247] This plan focuses on mahinga kai and the protection of natural processes and waterways. It specifically refers to hills and mountains, " ... seeking that sources of life giving waters remain protected by natural vegetation" accordingly to Ms T J Stevens[344], the planning witness for TRoNT. That is too general to be of real assistance in these proceedings.

5. Is Objective 3B(3) in PC13(pc) the most appropriate objective?

5.1 The proposed Objective 3B(3)

[248] The MDC proposes to add a new subclause (3) addressing pastoral farming, pastoral intensification, agricultural conversion and subdivision and buildings within "Farm Base Areas". Objective 3B(3) in its PC13(pc) forms reads:

> (3) Subject to objective (1) above and to rural objectives 1, 2 and 4:
>
> (a) to enable pastoral farming;
>
> (b) to enable pastoral intensification including cultivation and/or direct drilling and high intensity (irrigated) farming, in Farm Base Areas and areas for which irrigation consent was granted prior to 14 November 2015 and the effects on the outstanding natural landscape have been addressed through the regional consenting process; and elsewhere, to manage pastoral intensification;
>
> (c) to enable rural residential subdivision, cluster housing and farm buildings within Farm Base Areas around existing homesteads (where they are outside hazard areas).

This does not differ from that notified in PC13(s293V).

344 T J Stevens evidence-in-chief para 4.12 [Environment Court document 31].

[249] Ms Harte explained that the purpose of objective subclause (3) is to manage activities that have the potential to adversely affect the outstanding natural landscape of the Basin, and in particular impact the values listed in Objective 3B(1), so that the activities enabled are subject to Rural Objectives; 1 (Indigenous Ecosystems, Vegetation and Habitat), 2 (Natural Character of Waterbodies and their margins), 3B(1) (ONL), and 4 (High Country land).

[250] Enabling pastoral farming and intensification "subject to" those other objectives means that the identified activities will be managed where this is required to:

- protect or enhance the outstanding natural landscape;
- safeguard indigenous biodiversity and ecosystem functioning through protection and enhancement of significant indigenous vegetation and habitats;
- sustain ecosystem functions, open space and natural values of the high country;
- preserve the natural character and functioning of the district's lakes, rivers and wetland and their margins.

5.2 Renaming extra pastoral intensification as "agricultural conversion"

[251] As we have explained a new specific definition of "pastoral intensification" (to apply only in the Mackenzie Basin) is proposed to be added in PC13(pc) as follows:

> Pastoral intensification within the Mackenzie Basin Subzone means subdivisional fencing, cultivation, irrigation, topdressing and oversowing and/or direct drilling.

It will be noted the term is now proposed to include cultivation, irrigation and direct drilling. In effect PC13(pc) expands on the concept of pastoral intensification already in the MDP and provides for a significant extension to the areas where it is to be controlled through consenting

[252] We consider that the two definitions of "pastoral intensification" will lead to confusion. The simple answer is for that term to have one meaning throughout the Mackenzie District, and to define the more intensive activities as something else.

[253] The more intensive activities not already included can conveniently be renamed as "agricultural conversion" in Chapter 3 of the MDP as follows:

> **"Agricultural conversion"** means direct drilling, cultivation (by ploughing, discing or otherwise) or irrigation.

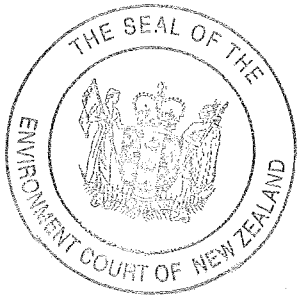
That is simple because it is simply a definitional change.

Inclusion of fencing in the definition

[254] The definition of pastoral intensification in PC13(pc) no longer contains a reference to "subdivisional fencing". After consultation the Council wishes to recognise that fencing can achieve good control of grazing and also enables fencing of waterways. It proposes, in PC13(pc) to remove fencing from the definition.

[255] However, the Council's ecological witness Mr Harding pointed out that while fencing of areas of ecological value is worthwhile, subdivisional fencing of larger blocks into small blocks accompanied by the intensive grazing that is designed to assist establishment of exotic grasses (and in the hope of suppressing pines) can significantly affect the indigenous vegetation. He acknowledged that this would usually occur in conjunction with other elements of pastoral intensification[345]. Dr Walker also referred to this issue[346]. In response Mr P D Reaburn, the planner called by EDS, proposed a compromise position of putting the reference to subdivisional fencing back into the definition of pastoral farming but with an exemption for fencing off streams and wetlands[347]. Ms Harte agreed with this approach[348].

[256] In fact those solutions will not work with the course we have decided is most apposite which is to retain the definitions of 'pastoral intensification' already in the plan. We consider the solution is to have the Council's planner draft a rule which specifically allows subdivisional fencing except in the special areas (SONS, SGAs, SVAs, etc.) and in areas of high visual vulnerability.



345 M A C Harding evidence-in-chief at para 87 [Environment Court document 12].
346 S Walker evidence-in-chief at para 43 [Environment Court document 17].
347 P D Reaburn evidence-in-chief at para 29 [Environment Court document 29].
348 P Harte rebuttal evidence, 7 October 2016 at para 44 [Environment Court document 25A].

5 3 Consideration of the objective

[257] The question we must answer is: "Is the proposed Objective 3B(3) the most appropriate way to achieve the purpose of the Act?" There is little if any dispute over the introduction to Objective 3B(3)(a). Mr C Vivian the planner called by Fountainblue and others suggested[349] that it is unnecessary to make Objective 3B(3) subject to "rural objectives 1, 2 and 4 "as they must all be read in conjunction with one another in any case"[350]. Ms V M Smith the planner called by the DGC disagreed pointing out that:

> "Subject to" means "conditionally upon"[351] indicating a different test to the objectives being read in conjunction with each other as equal in status.

The Council considers 3B(3) should be subservient to the other objectives and we consider that is appropriate.

[258] Policy 3B(3)(b) with the introduction of our proposed definition of agricultural conversion would read:

> (b) to enable pastoral intensification and/or agricultural conversion ... in Farm Base Areas, etc; and elsewhere to manage pastoral intensification and agricultural conversion.

[259] There were conflicting views for the planners on Objective 3B(3)(b). Ms Harte, for the Council, supported it as we have set out. She was largely supported by Mr Reaburn and Ms Smith.

[260] Ms L M W Murchison, FFM's planner, was critical of the level of detail about irrigation in Objective 3B(3)(b). In her opinion the detail is more appropriate in a policy or rule. She also observed that the detail can be provided in Policy 3B13(3) and Rule 15A.1.2.(b).

[261] FFM relied on that evidence and on the court's suggestion in the First (Interim) Decision[352] that it would be appropriate to have an objective recognising the role of pastoral farming and "(potentially) some areas of high intensity (irrigated) farming". PC13(s293V) amended the court's suggested wording for Objective 3B(3). FFM sought

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349 C Vivian evidence-in-chief at para 6.4 [Environment Court document 26].
350 V M Smith evidence-in-chief at 8.28 [Environment Court document 28].
351 Concise Oxford Dictionary.
352 *High Country Rosehip,* above n 6 at para [147].

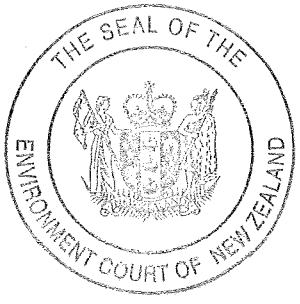
in its submission that the objective be reworded to reflect the words suggested by the court[353]. FFM considers that, as it now stands, Objective 3B(3)(b) is more restrictive than that suggested by the court in 2011 because the new version contains greater limitations on the areas in which pastoral intensification is appropriate.

[262] We consider that FFM has overlooked an important caveat in the court's First Decision where we expressly stated a reservation concerning the enabling of pastoral intensification and what we have since, to avoid confusion, called agricultural conversion. The court wrote that[354]:

> [left] the door open for extensive cultivation and (if water is available and water permits are granted) irrigation on the Tekapo and Pukaki plains, which would lead to greening of a large part of the lower basin. However, we stress that the ecological values of those areas have not been taken into account other than to accept the tentative indirect evidence in some scientific papers, which we have quoted, that the desertification of parts of the lower plains is irreversible. We are uneasy about that because we received no evidence on whether mitigation is possible at least in some areas where continuous "top of mountains to lakeside" protected areas can be maintained or recreated. If we decide to take the section 293 route we would request expert evidence on these issues.

[263] We have now received that evidence and in Chapter 2 of this decision the court found that pastoral intensification has adverse effects on the endemic flora at both the light and at the heavy end of the continuum of topdressing and oversowing; agricultural conversion effectively eliminates the endemic flora of the area converted. We hold that to enable the appropriate balance between pastoral intensification (and agricultural conversion) and protection of the ONL, and to give effect to Objective 3B(1) and (2) the objective should be along the lines in PC13(s293V).

[264] On the other hand we agree with Ms Murchison's criticism that some of Objective 3B(3) is over-elaborate in an objective and if appropriate should be in a policy or method.



353 Federated Farmers of New Zealand – Submission on the Mackenzie District Council Plan Change 13 (Mackenzie Basin) – section 293 Package, at p 7.

354 *High Country Rosehip,* above n 6 at para [153].

5.4 Result

[265] Accordingly we consider that the objective would be more appropriate for achieving the objectives and policies of CRPS and of the MDP and for integrating management of the resources of the Mackenzie Basin if it reads:

> (3) Subject to objective 3B(1) above and to rural objectives 1, 2 and 4:
>
> (a) to enable pastoral farming;
>
> (b) to manage pastoral intensification and agricultural conversion throughout the Mackenzie Basin and to identify areas where they may be enabled (such as Farm Base Areas);
>
> [(c) to enable rural residential subdivision, cluster housing and farm buildings within Farm Base Areas around existing homesteads (where they are outside hazard areas)].

[266] The four drafting improvements are:

- replacement of Objective 3(1) by 3B(1) in (a);
- paragraph (b) has simply been altered by using different definitions of the same activities, so that "pastoral intensification" can be used consistently throughout the MDP;
- to reverse the management and enabling objectives in (b) so that the objective which covers the greater[355] area goes first;
- the final change is that the existing use situation where pastoral intensification or agricultural conversion might be permitted are, as Ms Murchison suggested, moved to a policy/rule.

We have been careful to avoid making any substantive changes as beyond jurisdiction.

6. Effectiveness of the policies in PC13(s293V) and PC13(pc)

6.1 Introduction to the contentious policies

[267] We now turn to the policies notified in PC13(s293V) and proposed to be modified in PC13(pc). We need to be bear in mind that these policies are to implement more than objectives; Objective 3B(3). Our task at this point is to determine whether the policies:

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355 See Chapter 2 of this decision for the analysis of areas of "developable" versus "traditional pastoral and protection" land.

(1) Effectively implement Objectives 3B(1), 3B(2) and 3B(3) in an integrated way with the other objectives of the MDP;

(2) Depart from the objectives and policies of the CRPS and the CLWRP.

[268] It should be noted that there are a number of policies which are resolved by agreement. These largely relate to the Waitaki Electricity Power Scheme ("WEPS") and we will consider those no further. Their existence should be borne in mind because they explain the gaps in the sequence of policies discussed below.

6.2 Policy 3B1 – Recognition of the Mackenzie Basin's distinctive characteristics

[269] The post-consultation Policy 3B1 in its PC13(pc) form is:

> **3B1** Recognition of the Mackenzie Basin's distinctive characteristics to recognise that within the Mackenzie Basin's outstanding natural landscape there are:
>
> (a) Many areas where development beyond pastoral activities is either generally inappropriate or should be avoided;
>
> (b) Some areas with greater capacity to absorb different or more intensive use and development, including areas of lesser ~~visual vulnerability~~ landscape sensitivity and identified Farm Base Areas.
>
> (Underlining added)

That is not the same as the PC13(s293V) which referred to "visual vulnerability" (as shown by the struck-through words in red) rather than "landscape sensitivity" and was accompanied by maps showing different areas of low, medium and high visual vulnerability as a guide to landowners. We shortly consider the arguments raised by that change but first there were some changes proposed by the tangata whenua.

TRoNT's suggested change

[270] Ms Stevens, the planner called by TRoNT proposed the following emphasized amendments to Policy 3B1 (as we have held it should be confirmed):

> *To recognise that* ***Ngāi Tahu are manawhenua and kaitiaki of Te Manahuna/The Mackenzie Basin and have a relationship with Te Manahuna, and that within Te Manahuna****/the Mackenzie Basin's outstanding natural landscape there are:*
>
> *(a) Many areas where development beyond pastoral activities is either generally inappropriate or should be avoided;*
>
> *(b) Some areas with greater capacity to absorb different or more intensive use and development, including areas of lesser visual vulnerability and identified Farm Base*

Areas;

(c) ***Areas, places and features of particular significance to Ngāi Tahu.***

[271] We consider the first change is inappropriate as merely repeating the (admittedly very important) role of Ngāi Tahu as kaitiaki. It would be like adding to the policy a statement that the MDC is the local authority which is obviously not very helpful in this context. However, the policy is about recognising areas and so we consider proposed (c) would be effective in giving effect to the objectives of the MDP and PC13(pc). Accordingly that should be added as shown in the previous paragraph.

"Visual vulnerability" versus "landscape sensitivity"

[272] The MDC now proposes in PC13(pc) to use the term "landscape sensitivity" in Policies 3B1 and 3B2 to acknowledge the varying capacity of the ONL to absorb change. Ms Harte explained that this change primarily recognises that "visual vulnerability" represents only a part of the value of the landscape, which is the part that is appreciated for aesthetic and visual amenity when viewed. Another important element is what could be called landscape character which is based on inherent characteristics of the landscape which include natural science factors.

[273] Ms Harte also explained that a further reason for not using the visual vulnerability categories in policies and rules is the scale at which these categories were identified. At the large scale 1:3000 2 A3, it was difficult to determine from the visual vulnerability map where the boundaries of the different categories fell which created uncertainty for landowners.

[274] All the landscape architects and planning experts, save two, endorsed this approach, some in strong terms. Mr S K Brown wrote[356]:

> I strongly support this approach. ONLs are identified and exist with or without connection to public viewpoints. They have intrinsic value. Effects on unseen or little seen landscapes (or parts thereof) remain effects on the character and intrinsic values of that landscape.

356 S K Brown evidence-in-chief at para 36 [Environment Court document 23].

[275] On the other hand Ms Murchison for Federated Farms suggested that the visual vulnerability classifications in PC13 be retained[357]. She referred to some evidence[358] of Mr C Glasson as the reason for this preference. It is difficult to see those passages supporting "visual vulnerability" as the primary landscape classification tool. As Ms Harte observed Mr Glasson "is simply referring to the provisions and making comments on the ability to place development within discrete parts of the Basin"[359].

[276] Ms Murchison was of the opinion[360] that the changed approach to landscape description in PC13(pc) has:

> Moved from ... assessing the landscape's characteristics and ability to absorb land use change, to one of managing the landscape by trying to maintain current land use patterns, confining any land use change to existing Farm Base areas.

We consider that Ms Murchison's opinion is not an accurate description of the policy since Policy 3B1 is simply about describing the Mackenzie Basin's characteristics. Those characteristics are identified in general terms in Appendix 4 of the CRPS (quoted above) which shows that much more than the scenic qualities of the Mackenzie Basin are to be protected from inappropriate development.

[277] One of those characteristics is traditional pastoral farming, and we have accepted from the beginning that should be recognised in the district plan. However, we have found that traditional pastoral farming does not include either pastoral intensification or agricultural conversion.

[278] Those characteristics are recognised in the proposed explanations and reasons for Policy 3B1 which read (in PC13(s293V)):

- A distinctive 'Mackenzie Country' character has developed, based on the visual and physical qualities of the Basin, combined with the land use practice and the social pattern of run holders, workers and extensive stations. Despite its modified and managed land surface as a working landscape, the entire Basin remains 'outstanding' in terms of landscape values. This is because of the uniqueness, natural and visual qualities of the high mountain basin environment, lakes, land

357 L M W Murchison evidence–in-chief at para 5.16 [Environment Court document 33].
358 C R Glasson evidence-in-chief at paras 16 to 19 [Environment Court document 22].
359 P Harte rebuttal evidence at para 11 [Environment Court document 25A].
360 L M W Murchison evidence-in-chief at para 5.11 [Environment Court document 33].

forms, land use, community and Mackenzie identity.

- The Basin has a diversity of conditions with a north to south altitude gradient and west to east rainfall gradient. To this can be added the topographic and soil variability of outwash, moraine, valley, lake, hillside and mountain environments and the variability of closeness to or remoteness from the state highways and other roads.
- The 2007 report "The Mackenzie Basin Landscape; character and capacity" by Graham Densem assesses the Mackenzie Basin landscape, identifying its various character areas and describes their characteristics and values.

[279] Consequently we hold that a version of Policy 3B1 is needed to give effect to the CRPS and to the Rural Objectives in the MDP and PC13(pc). The question is which version – PC13(s293V) or PC13(pc)?

Should landscape sensitivity be assessed more fully or in another way?

[280] Ms Harte recommended a fourth bullet point to the explanation to read[361]:

- The sensitivity of the landscape to change is a key matter in determining the ability of an area to absorb that change without adversely impacting the outstanding natural landscape of the Basin. This sensitivity comprises visual sensitivity (incorporating general visual exposure of an area, number and types of viewers and potential to mitigate visual effects of proposed changes) and landscape character (incorporating natural patterns such as geomorphology, hydrology, vegetation patterns and processes, cultural patterns, landscape condition and aesthetic factors such as naturalness and remoteness).

[281] Fountainblue's planner, Mr C Vivian, also suggested[362] adding a note to the explanations and reasons elaborating on how landscape sensitivity would be assessed using a recognised methodology. The planning witness for the DGC, Ms V M Smith, agreed that the District Plan should clearly state how landscape sensitivity is to be assessed. To achieve this Policy 3B1 should include a new subsection about methodology specifying who should undertake an assessment and the components to be considered in a landscape sensitivity assessment[363]. Ms Smith endorsed Mr Vivian's opinion in proposing an amendment referring to a landscape sensitivity

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361 P Harte evidence-in-chief on behalf of Mackenzie District Council, para [139] [Environment Court document 25].

362 C Vivian evidence-in-chief [Environment Court document 26]. He referred to the methodology set out in the document *'Landscape Character Assessment: Guidance for England and Scotland. Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity'*, the Countryside Commission and Scottish Natural Heritage, 2004.

363 V M Smith evidence for Department of Conservation at para 9.7 [Environment Court document 28].

assessment needing to be undertaken using a "recognised methodology"[364]. She elaborated on the elements within landscape sensitivity and specifically mentioned the importance of ecology and vegetation patterns. Ms Harte considered the proposed amendment worthwhile because it acknowledges at a policy level the need for a detailed assessment of impacts on the sensitivity of the landscape. However, Ms Harte did not include reference to who should undertake this assessment as she did not consider that level of detail is appropriate in a policy.

[282] For EDS Mr Brown suggested another option[365]:

> Given the need for focus and flexibility, a better alternative may in fact be to focus on the key characteristics and values of the Basin's constituent landscapes.

It is difficult to understand whether an activity achieves, or at least is consistent with, the protection of the ONL if the evaluation does not require account to be taken of the identified characteristics and values of the landscape being protected[366]. In Mr Brown's opinion an "environmental bottom line" is appropriate so that development which does not protect listed characteristics and values should not be approved[367]. As an example of this approach Mr Brown identified the characteristics and values of two of the six catchments he has identified within the Basin.

[283] To implement Mr Brown's suggestion, Mr Reaburn proposed amendments to Objective 3B(3)(c) and (d), Policies 3B1, 3B3, 3B6, 3B13 and 3B14 which require identification and recognition of the characteristics and values that make up the Mackenzie Basin's outstanding natural landscape. Ms Harte considered[368] the proposed approach had merit. She conceded that at present the characteristics and values for the various parts of the Mackenzie Basin are contained in external documents and so are not readily accessible.

[284] Ms Smith was also of the view[369] that a specific mechanism for assessment of indigenous biodiversity is needed when land use change or development is proposed. She proposed an addition to Policy 3B1 referring to the need for an assessment of tussock grasslands and other indigenous vegetation using criteria in the CRPS. That

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364 Ibid at para 9.10.
365 S K Brown evidence-in-chief at para 39 [Environment Court document 23].
366 Ibid at para 48.
367 Ibid at para 49.
368 P Harte rebuttal evidence at para 16 [Environment Court document 25A].
369 V M Smith evidence-in-chief at para 9.12 [Environment Court document 28].

would enable adverse effects on additional sites of natural significance to be avoided[370]. Ms Harte agreed:[371]

> As pastoral intensification and buildings have potential to impact significant indigenous vegetation as well as ONL values of an area, I consider it is appropriate for the Council to require assessment of the biodiversity values when resource consent is required for breach of a landscape-based control. I therefore support this suggested change.

[285] Ms Smith, observed[372] that PC13(s293V) contains a number of overlays: Sites of National Significance ("SONS"), and Lakeside Protection Areas ("LPAs"), Scenic Viewing Areas ("SVAs"), Scenic Grassland Areas ("SGAs"), and land above 900 metres. She wrote[373] that:

> The purpose of these overlays (and where descriptions and maps of them are to be found) is unclear or not specifically included in the policies. These are important overlays in relation to protection of the outstanding natural landscape of the Mackenzie Basin and will be key considerations when applications for resource consents are considered.

Conclusions

[286] We have found this a difficult issue.

[287] A large majority of experts favour the PC13(pc) version over the PC13(s293V) version of Policy 3B1, and on what seem to be good grounds. However, the PC13(pc) version is incomplete: all the experts agree that the "landscape sensitivity" version of the policy needs much more working out and the landscape experts put forward options for how that might be done. Further, there are jurisdictional difficulties in that this important change was introduced (as a result of the High Court's directions in *Mackenzie (HC 2014)*) after notification of PC13(s293V). Some individual station owners notably at the southern end of the Basin (Grays Hill, Streamlands, Black Forest) may be surprised to lose their "low visual vulnerability areas" to the (as yet) inchoate and undefined landscape sensitivity areas.

[288] In contrast, for all its faults Mr Densem's visual vulnerability analysis exists and has been mapped. There was acknowledgement by Ms Harte that the "boundaries" are

370 Ibid at para 9.13.
371 P Harte rebuttal evidence 7 October 2016 at para 20 [Environment Court document 25A].
372 V M Smith evidence-in-chief at para 9.15 [Environment Court document 28].
373 V M Smith evidence-in-chief at para 9.15 [Environment Court document 28].

unclear and criticism by FFM in closing that the mapping had not been ground-truthed. We are not too concerned by those difficulties since the areas are not zones but guides to areas where development may be more (or less) appropriate. So in the interests of finality, and to avoid being unfair to persons not before the court, we consider the second-best policy solution represented by the visual vulnerability analysis is the more effective policy at this stage.

[289] We have come to that decision reluctantly. The court does not usually like to endorse visual vulnerability analyses for ONLs because they omit so much that is valuable in these nationally important landscapes. However, in this case we face the jurisdictional difficulties identified above, and the fact that the alternative is incomplete. We can reconcile ourselves to the alternative more readily in this case because the Mackenzie Basin's landscape is so expansive (by New Zealand's non-continental standards). That means there is some merit in Mr Densem's concept because it will enable the court to provide for some building development in areas of low visual vulnerability with relative ease. There is of course a considerable difference between building development and pastoral intensification because the former will have relatively little impact on other ONL values such as geomorphology or flora whereas the latter may have larger impacts as we discuss in relation to Policy 13B1(3) later.

[290] We also emphasise that the reintroduction of the visual vulnerability analysis does not make other aspects of landscape sensitivity irrelevant. Instead they will have to be considered on a case by case.

[291] There are some procedural or informational changes to Policy 3B1 in PC13(s293V) which we can make in accordance with Ms Smith and Ms Harte's evidence. There is also a clumsy repetition of "recognise" in the introductory words to the policy which can be resolved early since the policy does not refer further to the Basin's "distinctive characteristics".

[292] Accordingly we consider the most effective version of Policy 3B(1) would read:

> **3B1** (1) To recognise that within the Mackenzie Basin's outstanding natural landscape there are:
>
> (a) Many areas where development beyond pastoral activities is either generally inappropriate or should be avoided;
>
> (b) Some areas with greater capacity to absorb different or more intensive use and development, including areas of low or

medium visual vulnerability and identified Farm Base Areas;

(c) Areas, places and features of particular significance to Ngāi Tahu.

(2) To identify, describe and map as overlays, specific areas within the Mackenzie Basin that assist in the protection and enhancement of the characteristics and/or values of the outstanding natural landscape contained in Objective 3B(1) being:

(a) Lakeside Protection Areas, in schedule XX and shown on planning map YY;

(b) Scenic Viewing Areas, in schedule XX and shown on planning map YY;

(c) Scenic Grassland Areas, in schedule XX and shown on planning map YY;

(d) Sites of Natural Significance, in schedule XX and shown on planning map YY, and

(e) Land above 900m in altitude, in schedule XX and shown on planning map YY.

(3) As part of an assessment of the suitability of an area for a change in use for development:

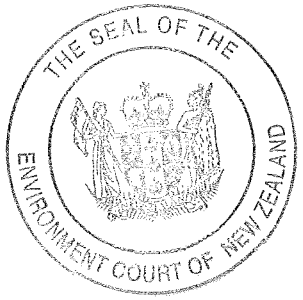
(a) To identify whether the proposed site has high, medium or low ability to absorb development according to Appendix V (Areas of Landscape Management);

(b) To require an assessment of landscape character sensitivity (incorporating natural factors including geomorphology, hydrology, ecology, vegetation cover, cultural patterns, landscape condition and aesthetic factors such as naturalness and remoteness).

We understand that the proposed Appendix V (Areas of Landscape Management) is the map attached to this Decision as Appendix "A".

[293] We consider the fuller explanation in PC13(pc) should be included provided that the third bullet point is deleted (but reintroduced below the fourth), the fourth bullet placed as the third, and a new fourth bullet point is added explaining that.

> The visual sensitivity is approximately shown in the Visual Vulnerability Areas on the planning maps and is explained further in the 2007 report "The Mackenzie Basin Landscape; character and capacity" by Graham Densem [which] assesses the Mackenzie Basin landscape, identifying its various character areas and describes their characteristics and values.



[294] Further the deleted summary of visual vulnerability categories in the *Explanation and Reasons* should be reintroduced as in PC13(s293V) with three consequential minor changes:

- as sought by the DGC, in the "High Visual Vulnerability" category the word "pristine" should be deleted[374] since there are few if any such areas and their identification can be problematic;
- also in that category, before "particularly" add: "extensive areas and intact sequences of native plant communities";
- in the "Low Visual Vulnerability" category the word "would" should be replaced by "may" to recognise that other important landscape qualities may after all – under other objectives and policies – preclude development.

[295] The summary would then read:

High Visual Vulnerability:

Areas of high visual vulnerability can be summarised as:

- the wide basins;
- lakes and lakesides, including shorelines and lakeside hill and mountain flanks;
- raised mountain ranges, hills and isolated mountains;
- river corridors;
- extensive areas and intact sequences of native plant communities particularly areas of continuous natural grassland, low development levels and visual vividness.

Medium Visual Vulnerability:

These are areas which remain vulnerable to change but are not highly vulnerable by being less prominent to view or having more existing development such as tree growth or land surface disturbance. These are areas where modest or light developments may be considered but should not be extensive and should be configured to fit into the landscape with a high degree of conformity:

Low Visual Vulnerabilty:

These areas have a low visual vulnerability to change, meaning that it may be possible to provide for development in these areas while still maintaining the main landscape values. Areas of low visual vulnerability include:

- recessed valleys at the meeting point between plains and surrounding hills;
- valleys and gullies incised below the generally seen surfaces;

374 DGC submission (2009) attached to section 274 notice of 1 July 2016.

- recessed gullies and indentations back from lake shorelines;
- areas of tree shelter and buildings in existing Farm Base Areas;
- areas of existing subdivision and rural residential development.

6.3 Policy 3B2 – Subdivision and building development

[296] As a consequence of our judgment as to what is a more effective Policy 3B1 – with its re-introduction of the visual vulnerability assessment – Policy 3B2 will need to revert in part to its notified form. The notified policy in PC13(s293V) with proposed changes in PC13(pc) in red reads:

> **Policy 3B2 – Subdivision and Building Development**
>
> To ensure adverse effects, including cumulative effects, on the environment of sporadic development and subdivision are avoided or mitigated by:
>
> (1) Managing residential and rural residential subdivision and housing development within defined Farm Base Areas (refer to Policy 3B3);
>
> (2) Enabling farming buildings in Farm Base Areas and areas of low visual vulnerability subject to bulk and location standards and protection of environmental values and elsewhere managing them in respect of location and external appearance size, separation and avoidance of sensitive environments;
>
> (3) Ensuring new residential or rural residential zones in areas of low or medium visual vulnerability achieve Objectives 1, 2, 4, 7, 8 and 11 of the Rural chapter and satisfy Policy 3B4 below;
>
> (4) Strongly discouraging non-farm buildings ~~residential units~~ elsewhere in the Mackenzie Basin outside of Farm Base Areas.

[297] The justification for Policy 3B2 was explained by the Council's landscape architect Mr Densem. He considered that the fragmentation or visual division of the empty, open landscape of the Mackenzie is a significant threat to its character and the visual amenity that it provides. Consequently, subdivision for rural living purposes and building activities should be carefully regulated.

[298] In Ms Harte's opinion[375] it would be appropriate to acknowledge the greater sensitivity of particular overlay areas (Lakeside Protection, Scenic Viewing Areas, Scenic Grasslands, Sites of Natural Significance and lands over 900 metres) to built development and subdivision as compared to other areas in the Mackenzie Basin Subzone outside Farm Based Areas. Mr Vivian[376] and Ms Smith[377] agreed Policy 3B2

375 P Harte rebuttal evidence 7 October 2016 para 58 [Environment Court document 25A].
376 C Vivian evidence-in-chief at para 6.20 [Environment Court document 26].
377 V M Smith evidence–in-chief at para 9.41 [Environment Court document 28].

might be amended to recognise and provide for these two different situations (within overlay areas and outside them). We consider that is unnecessary given that there are specific policies covering those overlays.

Policy 3B2(2)

[299] As for subpolicy (2) in view of our decision to revert (largely) to the Visual Vulnerability classification in Policy 3B1 we consider that should be reflected by enabling farm buildings in areas of low visual vulnerability. Further the reference to farm buildings in FBAs and low visual vulnerability areas "... subject to ... protection of environmental values" is too broad.

Policy 3B2(3)

[300] Mr Vivian considered that subpolicy Policy 3B(3) belongs with Policy 3B4. We agree and will move it to that policy when we consider it.

Policy 3B2(4)

[301] We should add that PC13(s293V) and PC13(pc) propose to add a new definition to the MDP as follows:

> **Farm building** means a building the use of which is incidental to the use of a site for a farming activity, dairy and factory farming (refer definitions) and does not include dwellings or other buildings used for residential activity.

This effectively returns the definition to PC13(N) as it was notified in 2009. We note that the proposed definition dovetails with the definition of "Farming Activity" (quoted above) since the latter expressly excludes "residential activity" (another defined term). A non-farm building is presumably any building which is not a farm building.

[302] The proposed definition of a farm building is opposed by FFM and some individual farmers as it no longer includes farm dwellings and farm workers accommodation. They prefer the definition of "farm buildings" in the PC13(C) which included "residential units and accommodation used for people predominantly involved in farming activities and their families".

[303] Mr Murray[378] of The Wolds and his landscape architect Mr A W Craig[379] consider that farm residences should fall within the definition of farm building as they are closely associated with the operation of a farm. Residences would then be a considered as a restricted discretionary activity outside of Farm Base Areas ensuring they would be assessed against policy covering a range of relevant considerations. Mr Craig said he had been involved in applications for dwellings within the Basin but outside Farm Base Areas, all of which have been granted. He infers that it is possible to locate dwellings in a manner to achieve desired landscape outcomes[380].

[304] Mr Craig was cross-examined[381] asked about difficulties in distinguishing between, or limiting residential buildings to those associated with farming[382]. Asked whether it could "create difficulties from a landscape perspective in terms of limiting it to that use and creating expectations or creating part of the existing environment or similar which could essentially lead to a disconnect between the two", he responded "affirmatively"[383]. Despite that acknowledgement he maintained that the effects of a residential building can be managed as part of the consent process[384].

[305] We consider the Council's distinction should remain, primarily because it is so difficult to impose tests that depend on intentions. Most districts in the South Island have seen cases where landowners apply to subdivide because a residential building is no longer needed for a farming purpose.

Addition sought by TRoNT

[306] Ms Stevens, the planning witness for TRoNT proposed[385] to add a qualifying clause (after 3B2(4)) to read:

> While recognising and providing for the historic and contemporary relationship and values of Ngāi Tahu with Te Manahuna/the Mackenzie Basin.

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378 J B Murray evidence-in-chief, 19 August 2016 at para 34 [Environment Court document 5].
379 A W Craig evidence for The Wolds Station, 19 August 2016 at para 77 [Environment Court document 21].
380 A W Craig evidence for The Wolds Station, 19 August 2016 at para 78 [Environment Court document 21].
381 Transcript, pp 388-391.
382 Transcript, p 390 lines 1-4.
383 Transcript, p 390 lines 5-10: "Aamm yeah".
384 Transcript, p 391 at lines 19-22.
385 T J Stevens evidence-in-chief at para 5.29 [Environment Court document 31].

[307] She explained that the change, while acknowledging that the Council has a duty to protect the ONL (through the use of word 'while'), should recognise and provide for the relationship of Ngāi Tahu with Te Manahuna[386] in particular by providing guidance to plan users that this includes considering the Ngāi Tahu values and relationship with Te Manahuna.

[308] The "contemporary relationships" are not explained nor how they differ from the historic values. The contemporary relationships identified by Ms Waaka-Home were quite limited[387] – although that should not be taken as undermining their importance. The elemental things are important for human wellbeing. Consequently we do not accept Ms Steven's proposed additions because they appear to be much broader and vaguer than what Ms Waaka-Home was contemplating. On the evidence we find no need to allow tangata whenua an easier path to subdivision and development than farmers or anyone else (there is a potential partial exception to this we discuss in relation to Policy 3B5 below).

Conclusion

[309] Accordingly Policy 3B2 should be amended to read:

> **Policy 3B2 – Subdivision and Building Development**
>
> To ensure adverse effects, including cumulative effects, on the environment of sporadic development and subdivision are avoided or mitigated by:
>
> (1) Managing residential and rural residential subdivision and housing development within defined Farm Base Areas *(refer to Policy 3B3)*;
>
> (2) Enabling farm buildings Farm Base Areas and in areas of low visual vulnerability subject to bulk and location standards and elsewhere managing them in respect of location and external appearance size, separation and avoidance of sensitive environments;
>
> (3) Strongly discouraging non-farm buildings elsewhere in the Mackenzie Basin outside of Farm Base areas.

We are reluctant to change anything else in Policy 3B2 because none of the other proposed changes are merely formal.

386 Consistently with section 6(e) RMA.
387 See Chapter 2.2 of this Decision.

6.4 Policy 3B3 – Development in Farm Base Areas

[310] A 'Farm Base Area' is to be defined in Chapter 3 of the district plan as an area identified in "Appendix R" of the MDP. The idea is that each existing homestead and principal farm building area will be identified on a map as an FBA. The questions of the location and extent of FBAs was never intended by the Council to be the subject of this hearing. As we recorded earlier individual farmers have been negotiating with the Council about those.

[311] The recommended policy in PC13(s293V) reads:

Policy 3B3 - Development in Farm Base Areas

(1) Within Farm Base Areas in areas of high visual vulnerability subdivision and development (other than farm buildings) shall maintain or enhance the [significant and] outstanding natural landscape and other natural values of the Mackenzie Basin by:

(a) Confining development to areas where it is screened by topography or vegetation or otherwise visually inconspicuous, particularly from public viewpoints and from views of Lakes Tekapo, Pukaki and Benmore provided that there may be exceptions for development of existing farm bases at Braemar, Tasman Downs and for farm bases at the stations along Haldon Road.

(b) Integrating built form and earthworks so that it nestles within the landform and vegetation.

(c) Planting local native species and/or non-wilding exotic species and managing wilding tree spread.

(d) Maintaining a sense of isolation from other development.

(e) Built development, earthworks and access having a low key rural character in terms of location, layout and development, with particular regard to construction style, materials and detailing.

(f) Mitigating the adverse effects of light spill on the night sky.

(g) Avoiding adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance.

(h) Installing sustainable systems for water supply, sewage treatment and disposal, stormwater services and access.

(2) Subdivision and development (other than farm buildings) in Farm Base Areas which are in areas of low or medium visual vulnerability to development shall:

(a) Restrict planting to local native species and/or non wilding exotic species

(b) Manage exotic wilding tree spread

(c) Maintain a sense of isolation from other development

(d) Mitigate the adverse effects of light spill on the night sky

(e) Avoid adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance

(f) Install sustainable systems for water supply, sewage treatment and disposal stormwater services and access.

[312] We consider the PC13(s293V) version of this policy is prima facie more effective since it links to the visual vulnerability categories which we have confirmed in Policy 3B1. There is one minor deletion – the words "significant and"[388] in front of "outstanding natural landscape".

[313] Fountainblue seeks to have sub-clause (1)(a) of Policy 3B3 deleted. In the opinion[389] of Mr Espie the test of 'visual inconspicuousness' is unnecessary in relation to a FBA. He saw no need for any embarrassment over the visibility of the development in a FBA subject to it being appropriate in appearance. The other landscape architects were of the same mind: Mr Densem for the Council agreed[390], as did Mr Brown. Ms Lucas initially expressed a concern that deleting Policy 3B3(a) might lead to "visual obtrusiveness" of development. In cross-examination she agreed[391] that her concern was answered with reference to Policy 3B3(1)(e).

[314] Two planners, Ms Harte and Ms Smith, for the Council and Minister of Conservation respectively, expressed concerns about deleting 3B3(a). Ms Harte[392] saw some residual benefit in keeping the sub-clause, though she did not oppose modifying it. Ms Smith was not convinced that the issue of visual impacts has been assessed in identifying the FBAs and Mr Raeburn agreed.

[315] Some of those difficulties have arisen out of the fact that this policy may have been intended both to guide development within existing FBAS (usually homestead or woolshed blocks) and within new FBAs. Ms Smith's point raises the question whether the policy is needed to assist with FBA identification. Mr Raeburn considered[393] that providing further policy basis for FBAs was not required, because on his understanding the process of identifying the Basin's FBAs was largely complete (subject to final approval and, in light of Mr Harding's comments for the Council, refinements to some of the mapping).

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388 Place in square brackets in Policy 3B3 as notified.
389 B Espie, evidence-in-chief at para 3.20 [Environment Court document 20].
390 G H Densem, rebuttal paras 64 to 65 [Environment Court document 19A)
391 Transcript p 521.
392 Transcript pp 586-587.
393 P D Reaburn, cross-examined at p 701 of Transcript.

[316] As Mr Schulte observed Policy 3B3 commences with the words "Within farm base areas ..." so it clearly aimed at areas already selected to fulfil the purpose of FBAs. He submitted[394]:

> ... that purpose is explained in Mr Vivian's proposed additional explanation to Objective 3B3, which is essentially Mr Vivian's proposed definition of FBAs written (in response to Mr Raeburn's suggestion) as an explanation.
>
> While neither Mr Vivian nor Mr Raeburn were of the opinion that converting the explanation to a policy is necessary, Fountainblue abides the Court's decision in that respect. Meanwhile, a possible addition to Policy 3B4 is suggested below (and in **Attachment A**) if it is considered that further policy support for FBA identification is necessary.

[317] Fountainblue seeks to remove "avoids" at 3B3(3), and replace it with "strongly discourages" on the grounds that[395]:

- The opening words of policy refer to ensuring the adverse effects of sporadic development are "... *avoided, remedied or mitigated by*:". This wording sits awkwardly with a subclause that commences "avoid";
- Conversely, "Strongly discouraging" sits well with non-complying activity status; and
- In addition, as noted in the opening submissions for [T]he Wolds and Mt Gerald, and by Mr Reaburn, the combination "avoids" and non-complying creates a *de facto* prohibition.

Conclusions

[318] Since FBAs are defined simply as areas on maps identified in an Appendix R (not yet finalised) to the MDP, any potential FBA that does not get onto that list will need a plan change. Accordingly we consider the better view of the policy is that it is to guide management of the FBAs to be identified in Appendix R. Accordingly we agree with Messrs Espie, Densem and Brown that sub policy 3B3(1)(a) is an unnecessary restriction on landowners and should be deleted.

394 A Schulte closing submissions paras [31] and [32] [Environment Court document 39].
395 A Schulte closing submissions at [42] [Environment Court document 39].

[319] As for "avoids" in 3B3(1)(g) we consider that is simpler and more effective than the alternatives. We see no difficulty with using the word "avoids" for a specific class of effects in a policy which generally seeks to "avoid, remedy, or mitigate". Nor do we accept that there is a de facto prohibition on an activity. What is attempted to be prevented is a set of adverse effects. It is any effects which are to be avoided, not the proposed subdivision and/or development.

[320] Accordingly Policy 3B3 is more effective at implementing the Rural Objective if it reads (largely as in PC13(s293V)) as:

Policy 3B3 - Development in Farm Base Areas

(1) Within Farm Base Areas in areas of high visual vulnerability subdivision and development (other than farm buildings) shall maintain or enhance the [significant and] outstanding natural landscape and other natural values of the Mackenzie Basin by:

(a) Integrating built form and earthworks so that it nestles within the landform and vegetation.

(b) Planting local native species and/or non-wilding exotic species and managing wilding tree spread.

(c) Maintaining a sense of isolation from other development.

(d) Built development, earthworks and access having a low key rural character in terms of location, layout and development, with particular regard to construction style, materials and detailing.

(e) Mitigating the adverse effects of light spill on the night sky.

(f) Avoiding adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance.

(g) Installing sustainable systems for water supply, sewage treatment and disposal, stormwater services and access.

(2) Subdivision and development (other than farm buildings) in Farm Base Areas which are in areas of low or medium visual vulnerability to development shall:

(a) Restrict planting to local native species and/or non wilding exotic species

(b) Manage exotic wilding tree spread

(c) Maintain a sense of isolation from other development

(d) Mitigate the adverse effects of light spill on the night sky

(e) Avoid adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance

(f) Install sustainable systems for water supply, sewage treatment and disposal stormwater services and access.

6.5 Policy 3B4 – Potential residential, rural residential and visitor accommodation activity zones and environmental enhancement

[321] With an amended heading as shown above and returning to the visual vulnerability assessment in PC13(s293V), Proposal Policy 3B4 reads:

> (1) To mitigate the effects of past subdivision on landscape and visual amenity values in the Mackenzie Basin by identifying, where appropriate, alternative specialist zoning options such as Rural-residential where there are demonstrable advantages for the environment.
> (2) to consider and encourage appropriate residential and rural residential activities in areas of low or medium visual vulnerability of the Mackenzie Basin by identifying where appropriate, alternative specialist zoning options which incorporate enhancement of landscape and ecological values, including wilding pine control;
> (3) Any development within such zones shall maintain or enhance the ~~significant and~~ outstanding natural landscape and other natural values of the Mackenzie Basin by:
> (a) Confining developments to areas where it is visually inconspicuous, particularly from public viewpoints and from views up Lakes Tekapo and Pukaki, provided that there may be exceptions for development of existing Farm Base Areas at Braemar, Tasman Downs and for farm bases at the stations along Haldon Arm Road.
> (b) Integrating built form and earthworks so that it nestles within the landform and vegetation.
> (c) Planting local native species and/or non-wilding exotic species and managing wilding tree spread.
> (d) Maintaining a sense of isolation from other development.
> (e) Built development, earthworks and access having a low key rural character in terms of location, layout and development, with particular regard to construction style, materials and detailing.
> (f) Mitigating the adverse effects of light spill on the night sky.
> (g) Avoiding adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance.
> (h) Installing sustainable systems for water supply, sewage treatment and disposal, stormwater services and access.

[322] Ms Stevens considered that the policy needs to provide[396] for consideration as to whether proposed development will allow Ngāi Tahu to express their relationship with Te Manahuna. In addition she sought inclusion of a specific note requiring notification of private plan changes under this policy to Te Rūnanga o Arowhenua is sought in

396 Suggested wording was given in T J Stevens evidence-in-chief Appendix 2 [Environment Court document 31].

order to enable manawhenua to exercise kaitiakitanga through consultation and to ensure that development is appropriate.

[323] In cross-examination Ms Stevens answered in effect "no" in response to a question whether Ngāi Tahu developments "should be confined" to where they're visually inconspicuous"[397]. The MDC opposed the change, and we accept that position. The ONL is as vulnerable to the adverse effects of special zones promoted by TRoNT as it is to those promoted by Tauiwi.

[324] Mr Vivian criticised subpolicy 3(a) for the same reasons as he did the equivalent paragraph(s) in Policy 3B3 and on reflection we agree, especially since the references to FBAs in ;this policy seems redundant. We also accept his evidence that subpolicy(1) is also now redundant as a result of the creation of several subzones as a result of the PC13 process.

[325] Accordingly Policy 3B4 should read as stated above with the following changes:

- deletion of 3B34(1) and (3)(a);
- no party opposed the addition of "rural residential" activities so we confirm that change and the deletion of the phrase "significant and …".;
- the phrase "lesser landscape sensitivity" should be replaced by "low or medium visual vulnerability" to be consistent with Policy 3B1;
- the addition of the word "large-scale"[398] before "residential' in 3B4(2);
- add a new subpolicy (3) – being the subpolicy 3B2(3) moved as recommended by Mr Vivian[399].

[326] The amended policy is therefore:

> (1) to consider and encourage appropriate large scale residential and rural residential activities in areas of low or medium visual vulnerability of the Mackenzie Basin by identifying where appropriate, alternative specialist zoning options which incorporate enhancement of landscape and ecological values, including wilding pine control;
>
> (2) Any development within such zones shall maintain or enhance the outstanding natural landscape and other natural values of the Mackenzie Basin by:

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397 Transcript, p 744 at lines 17-32.
398 C Vivian evidence-in-chief at para 6.36 [Environment Court document 26].
399 C Vivian evidence-in-chief at para 6.39 [Environment Court document 26].

(a) Integrating built form and earthworks so that it nestles within the landform and vegetation.

(b) Planting local native species and/or non-wilding exotic species and managing wilding tree spread.

(c) Maintaining a sense of isolation from other development.

(d) Built development, earthworks and access having a low key rural character in terms of location, layout and development, with particular regard to construction style, materials and detailing.

(e) Mitigating the adverse effects of light spill on the night sky.

(f) Avoiding adverse effects on the natural character and environmental values of waterbodies, groundwater and sites of natural significance.

(g) Installing sustainable systems for water supply, sewage treatment and disposal, stormwater services and access.

(3) Ensuring new residential or rural residential zones in areas of low lesser landscape sensitivity or medium visual vulnerability achieve Objectives 1, 2, 4, 7, 8 and 11 of the Rural chapter;

6.6 Policy 3B5 – Landscape aspects of subdivision

[327] This policy in PC13(s293V) as modified (in red) by PC13(pc) reads:

(1) In order to minimise its adverse effects, subdivision in the Mackenzie Basin Subzone will not be encouraged except in Farm Base Areas:

~~(2) There should be a minimum lot size of 200 hectares (except in Farm Base Areas);~~

(2) Further subdivision of Lakeside Protection Areas, ~~(except for existing Farm Base Areas),~~ Scenic Viewing Areas and Scenic Grasslands will not be allowed;

(3) All subdivision shall address the need to remove exotic wildings from the land being subdivided;

(4) All subdivision should have regard to topographical and ecological constraints. …

The words in red are added to, and strike-throughs are deleted from PC13(s293V).

Subpolicy 3B5(1)

[328] Ms Stevens wrote[400] that the proposed policy does not provide for subdivision where it will enable the recognition and protection of the Ngāi Tahu relationship with Te Manahuna, e.g. for protection a wāhi tapu site[401]. She proposed amendments to the policy by adding:

400 T J Stevens evidence-in-chief at para 5.34 [Environment Court document 31].
401 T J Stevens evidence-in-chief at para 5.36 [Environment Court document 31].

(1) In order to minimise its adverse effects, subdivision in Te Manahuna/the Mackenzie Basin Subzone will not be encouraged, except:

(i) in Farm Base Areas; or

(ii) where subdivision is for the purposes of enabling the recognition of and provision for the Ngāi Tahu relationship with Te Manahuna/the Mackenzie Basin;

...

Ms Harte agreed with that change. We accept it is more effective (and appropriate) than its absence. It is easy to see how a subdivision of land would assist Ngāi Tahu in that a subsequent purchase would allow Ngāi Tahu to take legal possession of a part of Te Manahuna. That is rather different from the unfocused change requested for Policy 3B4 which we rejected.

[329] As for subpolicy 3B5(2) relating to the special areas, we consider first that a preferable form of words to the phrase "will not be allowed" is "should be avoided". Second, we accept Ms Smith's evidence endorsed by Ms Harte that all the special areas should be listed here including SONS and land above 900 masl.

[330] Therefore Policy 3B5 should read:

Policy 3B5 – Landscape aspects of subdivision

(1) In order to minimise its adverse effects, subdivision in the Mackenzie Basin Subzone will not be encouraged except:

(i) in Farm Base Areas:

(ii) where subdivision is for the purposes of enabling the recognition of and provision for the Ngāi Tahu relationship with Te Manahuna/the Mackenzie Basin;

...

(3) Further subdivision of Lakeside Protection Areas, ~~(except for existing Farm Base Areas)~~, Scenic Viewing Areas and Scenic Grasslands, SONS and areas above 900 masl should be avoided;

(4) All subdivision shall address the need to remove exotic wildings from the land being subdivided;

(5) All subdivision should have regard to topographical and ecological constraints. ...

6.7 Policy 3B6 - Lakeside Protection Areas

[331] This policy is unchanged in PC13(pc) from PC13(s293V). We accept TRoNT's

proposed change because it would achieve protection in part[402] of the values set out in the Statutory Acknowledgements and gives effect to Chapter 4 and Appendix 4 of the CRPS. With the addition of a new phrase (in bold below) at the beginning of the policy, suggested by TRoNT's planner Ms Stevens and not opposed it reads:

> **Policy 3B6 – Lakeside Protection Areas**
>
> **(a)** To recognise **the significance of the lakes of Te Manahuna/the Mackenzie Basin, their margins and settings to Ngāi Tahu and** to recognise the special importance of the Mackenzie Basin's lakes, their margins, and their settings in achieving Objective 3B;
>
> (b) Subject to (c), to avoid adverse impacts of buildings, structures and uses on the landscape values and character of the Mackenzie Basin lakes and their margins;
>
> (c) To provide for the upgrading maintenance and enhancement of the existing elements of the Waitaki Power Scheme;
>
> (d) To avoid, remedy or mitigate the adverse impacts of further buildings and structures required for the Waitaki Power Scheme on the landscape values and character of the Basin's lakes and their margins.

We consider that is an effective change.

6.8 Policy 3B7 – Views from State Highways and Tourist Roads

[332] This reads in PC13(s293V) with the modifications proposed in PC13(pc) in red:

> (a) To avoid all buildings, ~~other structures, large~~ irrigators and exotic trees in the Scenic Grasslands and the Scenic Viewing Areas;
>
> (b) To require buildings to be set back from roads, particularly state highways, and to manage the sensitive location of ~~structures and large~~ irrigators to avoid or limit screening of views of the outstanding natural landscape of the Mackenzie Basin;
>
> (c) To avoid clearance, cultivation or oversowing of Scenic Viewing Areas and Scenic Grasslands, including tussock grasslands, adjacent to and within the foreground of views from State Highways and the tourist roads;
>
> (d) subject to Policy 3B13, to minimise the adverse visual effects of irrigation of pasture adjacent to the state highways or tourist roads.

The use of "avoid" in this policy is reflected in the non-complying status of all buildings, including farm buildings, irrigators and pastoral intensification in the relevant areas.

402 The protection of all values set out in the Statutory Acknowledgements is outside of the scope of this Plan Change.

[333] Anticipating, we note that proposed Policy 3B12(2) provides:

> (2) To avoid pastoral intensification [and agricultural conversion] in Sites of Natural Significance, Scenic Viewing Areas and Scenic Grasslands (including tussock grasslands) adjacent to and within the foregrounds of views from State Highways and the tourist roads.

Obviously there is some repetition there which should be eliminated.

Scenic grasslands

[334] The concept of scenic grasslands to protect foreground views from roads was suggested by the court in the First Decision[403]. The MDC had adopted the idea and has identified areas which it says require special controls to retain their natural values (primarily landscape values). As described earlier (in Chapter 2.8) 13 scenic grasslands have now been identified by Mr G Densem on aerial photos that can be incorporated into the Council's GIS system and planning maps as an overlay. These areas are proposed to have relatively strict controls which are either the same or very similar to those applying to Sites of National Significance ("SONS"), Scenic Viewing Areas ("SVAs") and Lakeside Protection Area ("LPAs"). Most activities and building are non-complying in these areas.

[335] The farming interests were concerned about the very concept of Scenic Grasslands, their extent as shown in Appendix "A", and on the apparent inclusion of SVAs and SGAs in the wider area comprised by the area "... adjacent to and within the foreground of views from state highways and the tourist roads". In addition policies 3B7(a) and (c) seeking "avoidance" of activities are considered by FFM and the farming parties to be too onerous for landowners. FFM is supported by Braemar, Mt Gerald and Glenmore in requesting removal of the word "avoid" from these policies. In contrast, EDS and the Mackenzie Guardians want "avoid" to be retained.

403 [2011] NZEnvC 387 at [189].

[336] The questions asked by FFM are:

- whether there is good landscape basis for these areas and their boundaries, given that some include improved grasslands and other development?
- whether the economic impact of the restrictions in these areas has been understood and acknowledged?
- whether controls over buildings and pastoral intensification should be reduced?

(1) Is there a good landscape basis for the SGAs?

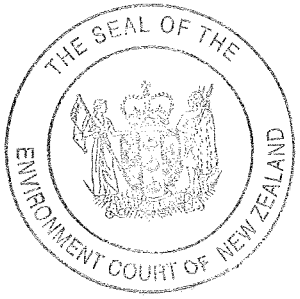
[337] We described the process by which Mr Densem identified the SGAs in Chapter 2 of this decision. He wrote[404]:

> I support the strong controls on the [SGA] as a method for identifying and maintaining areas of significant open grassland character seen from the road. I see the controls as assisting the minimising of tree planting, pasture development and the erection of structures in these priority areas. Also as signalling their values to landowners when planning property improvements. Mr Harding has referred to the botanical state of each area. From a landscape perspective, it is desirable that the combined SG, Scenic Viewing Area and Lakeside Protection Areas ensure the character of these priority areas be maintained.

The witness was not cross-examined on that. His SGAs were supported by other landscape architects being Mr S K Brown and Ms D J Lucas. Most criticisms are site specific and we consider those later. We find that the SGAs are an effective mechanism for implementing Objectives 3A and 3B of the MDP.

(2) Economic Impact

[338] As is often the case the question "whether the economic impact of the restrictions has been understood?" is not quite what FFM means – it is referring, so far as we can tell, to the financial impact on farmers, not to the much more relevant issue of the total social economic costs and benefits of the proposed policies and rules. We discuss that in Chapter 8 later but record for now that the producers' costs and surpluses are only part of the costs and benefits which need to be taken account of.



404 G H Densem evidence-in-chief at para 50 [Environment Court document 19].

(3) Whether controls over buildings and pastoral intensification should be reduced?

[339] Questions of control over pastoral intensification are best left to the Pastoral Intensification and Agricultural Conversion Policy 3B13 so we will consider this point there. However, we accept the evidence of Mr Reaburn and Ms Harte that a policy of avoidance is appropriate in SGAs (and in SVAs).

[340] However there is some strength in one aspect of FFM and the other farming interests case. Where we struggle with the avoidance policy in respect of buildings is in relation to its proposed application to all areas adjacent to the state highways or tourist roads. Being an area of tussock grassland adjacent to such a road is a pre-requisite for being in a SGA but is not a sufficient condition. Further as Ms Harte observed[405] the policy potentially captures a significant area of land, depending on the interpretation of the term "tussock grasslands". Her first concern was that it is not clear what constitutes "tussock grasslands"; second, she questions in what way the values of these "tussock grasslands" are not addressed through existing and proposed controls relating to identified Scenic Viewing Areas and Scenic Grasslands. She wrote[406]:

> ... there will be issues with where such tussock grasslands begin and end. In my opinion the uncertainty created by this provision means that this status is not the most appropriate option for managing this 1 km area. Rather pastoral intensification [and agricultural conversion] should be treated the same as the remainder of the Basin, that is, as a discretionary activity. This status will enable full consideration of any adverse effects on the outstanding natural landscape values.

We accept that evidence, so the 1 kilometre protection zone should be deleted.

Conclusions

[341] Accordingly the most effective version of Policy 3B7 is when it is rewritten as follows:

> (a) To avoid all buildings and the adverse effects of irrigators in the Scenic Grasslands and the Scenic Viewing Areas;
>
> (b) To require buildings to be set back from roads, particularly state highways, and to manage the sensitive location of irrigators to avoid or limit screening of views of the outstanding natural landscape of the Mackenzie Basin;
>
> (c) To avoid clearance, pastoral intensification on agricultural conversion of Scenic Viewing

405 P Harte rebuttal evidence 7 October 2016 at para 63 [Environment Court document 25A].
406 P Harte rebuttal evidence at para 65 [Environment Court document 25A].

Areas and Scenic Grasslands;

(d) Subject to Policy 3B13, to otherwise minimise the adverse visual effects of irrigation of pasture adjacent to the state highways or tourist roads.

6.9 Policy 3B12 – Pastoral Farming

[342] In PC13(s293V) this proposed policy reads:

> **Policy 3B12 – Pastoral Farming**
> Traditional pastoral farming is encouraged so as to maintain tussock grasslands, subject to achievement of the other Rural objectives and to Policy 3B7.

No changes are sought to this policy, although Ms Murchison considered the word "traditional" was not helpful.

[343] The explanations and reasons state:

- A distinctive character has developed from the land use practices and social pattern of run-holders, workers and extensive stations in the Mackenzie Basin.
- Traditional dry-lands farming on brown grasslands (including browntop) should continue to be enabled. The golden-brown landscape enjoyed by tourists and other visitors to, and residents of, the Mackenzie Basin are in considerable part maintained by the ever-day farming operations on the stations scattered around the Basin.

The definition of "tussock grasslands"

[344] This policy and Objective 3B1 refer to "tussock grasslands" as one of the particular characteristics or values of the ONL. There seemed to be general agreement this term should be defined.

[345] The landscape architect, Ms Lucas suggested a very simple definition "low stature dryland communities"[407]. That seems a little too uninformative and would include whole fields of cultivated exotic grasses. Mr Head, the ecologist called by the DGC proposed a definition as follows[408]:

> Areas generally supporting native tussock grasses but typically comprising a mosaic of vegetation types that could include considerable areas of bare/stoney ground, mixed exotic/native herbfield, native shrubs and exotic species such as browntop and hawkweed.

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407 D J Lucas evidence-in-chief at para 27 [Environment Court document 24].
408 N J Head evidence-in-chief at para 18.11 [Environment Court document 14].

This was endorsed[409] by the DGC's planning witness Ms V M Smith.

[346] Ms Murchison, the planner for FFM criticised Mr Head's definition because[410] "... appears to include bare, stoney ground, unimproved grazing land, and areas of predominantly exotic vegetation species such as browntop, which are common across the Mackenzie Basin; along with all indigenous vegetation". She observed that in her opinion that is not appropriate because the CRPS[411] directs only the identification and protection of significant areas of indigenous vegetation, not all tussock grassland and all indigenous vegetation as proposed in Ms Smith's amendments.

[347] It was FFM's case that the recognition of significant areas of indigenous vegetation is a matter for the district plan review and is not the subject of this appeal. That is correct to a point. However, we have also found that as a matter of fact much of the ONL is a significant area of indigenous vegetation under the CRPS[412] because of the 83 indigenous plants which are threatened or at-risk in the Basin.

[348] In any event the real issue is how can the important natural science components (and here particularly the flora) of the ONL be adequately identified in a way that goes beyond recognition of their mere scenic qualities and includes their intrinsic values.

[349] Accordingly, we consider that term should be defined as suggested by Mr Head with the addition after a "herbfield" of the phrase "cushion and mat vegetation" to be consistent with the MDP. Further identification of the core landscape values of the Basin would, in Ms Murchison's words, "... better ... implement Objective 3B1 ...". The definition assists with the identification of a core attribute of the ONL – its indigenous vegetation – as required by the policy CRPS Policy 12.3.1.

6.10 Policy 3B13 – Pastoral Intensification and Agricultural Conversion

[350] The PC13(pc) version – unchanged from PC13(s293V) apart from the addition of subpolicy (5) – proposes this policy:

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409 V M Smith evidence-in-chief at para 6.20 [Environment Court document 28].
410 L M W Murchison evidence-in-chief rebuttal evidence at para 30 [Environment Court document 33A].
411 Referring to Policy 9.3.1 [CRPS p 91].
412 But possibly not under the MDP where "indigenous vegetation" is a defined term [MDP p 3-6].

(1) To ensure areas in the Mackenzie Basin which are proposed for pastoral intensification [and/or agricultural conversion] maintain the outstanding natural landscape of the Mackenzie Basin and meet all the other relevant objectives and policies for the Mackenzie Basin Subzone (including Rural Objectives 1, 2 and 4 and implementing policies);

(2) To avoid pastoral intensification [and/or agricultural conversion] in Sites of Natural Significance, Scenic Viewing Areas, and Scenic Grasslands (including tussock grasslands) adjacent to and within the foreground of views from State Highways and the tourist roads;

(3) To enable pastoral intensification [and/or agricultural conversion] in Farm Base Areas and of land for which irrigation consent was granted prior to 14 November 2015 and the effects on the outstanding natural landscape have been addressed through the regional consenting process;

(4) To manage pastoral intensification [and/or agricultural conversion] elsewhere in order to retain the valued characteristics of the Mackenzie Basin Subzone:

(5) To take into account any agreement between the Mackenzie Country [Charitable] Trust and landowners which secures protection of landscape and biodiversity values [as compensation for intensification of production].

[351] There are some preliminary matters:

- as a result of our redefinitions the policy should now be read by substituting for the phrase: "pastoral intensification" in the Mackenzie Basin, the phrase: "pastoral intensification and/or agricultural conversion" – which is why we have placed those words in square brackets in the appropriate places;
- the last part of subpolicy (2) is obviously no longer necessary since the 1 kilometre policy has been ruled out as ineffective. Nor are the references to SVAs and SGAs are necessary because that duplicates Policy 3B7;
- in subpolicy (5) the correct name for the Mackenzie Country Charitable Trust has been included (and the concluding words excluded[413].

Subpolicies (1), (2) and (4)

[352] This is obviously a key policy for the implementation of Objective 3B and the MDP in general.

[353] The case for the farming interests was that topdressing and oversowing

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413 D Caldwell closing submissions at para 132 [Environment Court document 48].

develops a thick sward of tussocks and introduced grasses through which wilding conifer seeds and hieracium are unlikely to grow through. Thus in their view weed control and landscape values coincided. Ms Murchison – relying on the evidence of an agronomist Dr W R Scott[414] quoted earlier and the landscape architect Mr Glasson[415] – considered that all topdressing and oversowing should be excluded[416] from the provisions for pastoral intensification.

[354] Mr Glasson's evidence in chief for FFM states[417]:

> In my opinion, while the Council has virtually "locked up" the Basin for non-complying activities in the objectives and policies, through the ONL and by applying broad Scenic Grassland (SG), Tussock Grassland (TG) and Lakeside Protection Area (LPA) statuses to the landscape, there is a lack of understanding around the specific landscape values for each farm.

Consequently he considers that individual analysis for each farm should be undertaken. It is really far too late to make such a suggestion. Mr Glasson then described one of the characteristics of the basin is that there are many types of landforms making for discrete locations of development[418].

[355] Mr Glasson was critical of the generality of the various categories of area on Attachment "A". We find his own opinions too general and unhelpful (except for his specific evidence[419] on Mt Gerald Station), particularly since it shows minimal recognition of any important part of the ecological component of the landscape: its threatened plants and fauna.

[356] What is of concern here and elsewhere about FFM's case is the near total absence of reference to some valuable components of the ONL and of the adverse effects on those of pastoral intensification. It is as if the expert witnesses for FFM have not read the evidence of the ecologists.

[357] As for the other aspects – cultivation and direct drilling – of what we have described as agricultural conversion, FFM considers that they should be provided for in

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414 W R Scott evidence-in-chief at paras 8.3 and 8.4 [Environment Court document 16].
415 C R Glasson evidence-in-chief at para 36 [Environment Court document 22A].
416 L M W Murchison evidence-in-chief at para 6.22 [Environment Court document 33].
417 C R Glasson evidence-in-chief for FFM at para 25 [Environment Court document 22A].
418 C R Glasson evidence-in-chief for FFM at para 27 [Environment Court document 27].
419 C R Glasson evidence-in-chief for Mt Gerald [Environment Court document 22].

the Mackenzie Basin outside of the Farm Base Areas under the same conditions as in the remainder of the District. Referring to the concern of the court, in the First (Interim) Decision, that "... further conversion of brown grasslands to green introduced grasses (whether irrigated or not) is generally inappropriate in the Mackenzie Basin[420]. FFM relied on the evidence of Ms Murchison that[421]:

> ... I readily accept cultivation may affect the colour of the landscape in areas where it occurs. In this instance I believe that effect must be considered alongside the need to grow improved pastures and fodder crops for animal health and to enable runholders to make reasonable use of their interest in their land.

[358] As we have recorded, the existing definition of "Pastoral Intensification" in the MDP includes topdressing and oversowing.

[359] As we have recorded, the other landscape architects agreed that oversowing and topdressing can have both adverse and positive effects on landscape values[422]. We prefer the evidence of the other landscape architects who gave evidence on this issue notably that of Mr Brown and Ms Lucas who supported the policy.

[360] Evidence supporting management of "oversowing and topdressing" and their retention in the definition of pastoral intensification was provided by several of the ecologists[423]. This evidence sets out the positive and adverse impacts it; can have on indigenous inter-tussock species, many of which are "at-risk" species. In the opinion of the ecologists Dr Walker and Mr Harding pastoral intensification can involve modes of subdivision fencing and changes in stock type with adverse effects on ecological components of natural landscape character[424] and that failure to manage these practices (for example by omitting the practices from the PC13 definition[425]) could reduce the security of ecological values. Dr Walker considered the same applies to herbicide-spraying and earthworks (used to re-contour the land, infill depressions, and install utilities), which have become common modern pastoral intensification practices with adverse ecological effects, in her experience.

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420 *High Country Rosehip,* above n 6, at [205].
421 L M W Murchison evidence-in-chief at para 6.32 [Environment Court document 33].
422 Transcript p 326, lines 17-22 (G H Densem): p 448 lines 16-22 (C R Glasson): p 505, lines 4-15 (D J Lucas).
423 Summarised in the rebuttal evidence of M A C Harding at paras 7 to 14 [Environment Court document 12A].
424 M A C Harding evidence-in-chief 15 July 2016 at para 88 [Environment Court document 12].
425 The proposed definition was *'Pastoral intensification within the Mackenzie Basin Subzone means cultivation, irrigation, topdressing and oversowing and/or direct drilling'.*

[361] More subtle points that emerged from the ecological evidence were that where both those adverse effects are minor there exists the potential for ongoing practice to result in a gradual degradation[426] and that oversowing and topdressing effects are very location specific.

[362] The PC13(pc) policy was supported by most of the planners – Ms P Harte, Ms V M Smith for DoC[427], and Mr P D Reaburn (rather indirectly)[428] for EDS.

[363] We conclude that based on our amended findings as to the qualities of the ONL in Chapter 2, and of the threats posed to it by pastoral intensification and agricultural conversion, the most effective method of managing those activities in a way that achieves Objective 12.2.1 of the CRPS and Objective 3B of the MDP is Policy 3B12(1), (2) and (4) as stated in PC13(s293V).

The cut-off policy: 3B13(3)

[364] The MDC wished to prevent a "gold rush" of applications to avoid the rules which had legal effect for notification. Ben Ohau submitted the "gold rush" period has passed due to the 'threat' of using the notification date[429]. However we accept Mr Caldwell's submission that the effects of the last 18 months of consent activity require appropriate control. As recorded in Chapter 12 water permits for irrigation were granted by the Canterbury Regional Council between November 2015 and November 2016[430] and the total area authorised to be irrigated under those consents is about 13,000 hectares[431]. Council wishes to manage the proposed land use in an appropriate consenting framework guided by this and other policies in PC13.

[365] Mr Caldwell submitted[432]:

> 112 The reality is that the Basin has undergone significant change as a result of irrigation consents, and other factors. Various expert evidence addressed the degree of change, with reference to the concept of a "tipping point". Mr Densem and Ms Lucas consider the Basin is at or at least approaching its tipping point in

426 Transcript, pp 180-181, lines 24-5.
427 V M Smith evidence-in-chief at para 9.83 [Environment Court document 28].
428 P D Reaburn evidence-in-chief at para 77 [Environment Court document 29].
429 A J Schulte submissions Ben Ohau 23 February 2017, para 6.2 [Environment Court document 39].
430 Affidavit of Matthew McCallum-Clark, sworn 17 February 2017 [Environment Court document 35].
431 Ibid, above n 139 Affidavit M McCallum-Clark [Environment Court document 35].
432 D Caldwell closing submissions at para 112 [Environment Court document 48].

> terms of landscape effects[433]. Mr Brown opined the Basin was almost beyond it[434]. Using the operative date will only increase the area in the Basin that is subject to less stringent control, and will further threaten the Basin breaching its tipping point. It is therefore submitted restricting the exemption for water permits to those granted prior to 14 November 2015, and reserving control over matters that relate to landscape protection, is most appropriate.

We accept that submission and consider a policy along general lines of 3B13(3) would be the most effective way of addressing the issues.

[366] However, we accept Ms Smith's criticisms[435] for the DGC that the policy is neither well-worded nor takes into account the greater depths and importance of the ONL's natural scenic components.

Tangata Whenua concerns

[367] Ms Stevens, for TRoNT sought[436] that a policy be added after 3B13(5) to read:

> (6) To provide for the relationship of Ngāi Tahu with Te Manahuna/Mackenzie Basin.

She justified[437] this on the basis that "... pastoral intensification may be one way for Ngāi Tahu to express their contemporary relationship with Te Manahuna".

[368] The MDC opposed that change on the grounds that "providing" was essentially enabling as Ms Stevens accepted[438] and that was not the thrust of the policy. We find it difficult to see why a "contemporary relationship" for TRONT should enable it or its members to cut corners. If tangata whenua want to undertake contemporary activities such as pastoral intensification or agricultural conversion (which in many ways do not appear to be tikanga maori) then they must follow the same policies and rules.

Conclusions

[369] We conclude that the most effective form of Policy 3B13 is:

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433 Transcript pp 325-326, lines 24 to 5 (Graham Densem); p 496, lines 14-18 (Diane Lucas).
434 Transcript p 456, lines 17-19.
435 V M Smith evidence-in-chief at paras 8.17 to 8.31 and 9.87 [Environment Court document 28].
436 T J Stevens evidence-in-chief at para 5.40 [Environment Court document 31].
437 T J Stevens evidence-in-chief at para 5.41 [Environment Court document 31].
438 Transcript, p 746, lines 5-6.

(1) To ensure areas in the Mackenzie Basin which are proposed for pastoral intensification [and/or agricultural conversion] maintain the outstanding natural landscape of the Mackenzie Basin and meet all the other relevant objectives and policies for the Mackenzie Basin Subzone (including Rural Objectives 1, 2 and 4 and implementing policies);

(2) To avoid pastoral intensification [and/or agricultural conversion] in Sites of Natural Significance, ...

(3) Enabling pastoral intensification (subject to any further conditions necessary to avoid, remedy or mitigate adverse effects on the characteristics and/or values in Objective 3B(1)(a) to (f)) in specific areas where water permits for irrigation activities have been approved before 14 November 2015;

(4) To manage pastoral intensification and/or agricultural conversion elsewhere in order to retain the valued characteristics of the Mackenzie Basin Subzone:

(5) To take into account any agreement between the Mackenzie Country [Charitable] Trust and landowners which secures protection of landscape and biodiversity values [as compensation for intensification of production].

6.11 Wildings (Policy 3B14)

[370] The court declared in the Sixth Decision[439] that the subject of "Wildings is not 'on' PC13". The Council did not, at that time, argue otherwise.

[371] Despite that in PC13(s293V) the Council notified a Policy 3B14 as follows:

> To manage wilding trees and their spread by prohibiting the planting of wilding prone trees and, where possible, by requiring their removal:
> (a) at the time of subdivision;
> (b) when consent is required for housing or development;
> (c) when new zones are proposed.

Further the DGC and EDS both requested that provisions be added or amended to better manage and reduce the impact of wilding trees within the Basin and to avoid tree planting in sensitive areas.

[372] Mr Caldwell submitted[440], somewhat ambiguously, that "The Public Notice identified Wilding Trees as a matter to be addressed". If the public notice he referred to is the November 2015 notification of PC13(s293V) that is far too late: wildings were never 'on' PC13 and so could not be introduced in 2015. We agree with Mr Maassen's submission that proposed Policy 3B14 is beyond our jurisdiction. It should be struck

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439 [2013] NZEnvC 257 at [76] (and see Order 6C(2)).
440 D Caldwell closing submissions at para 126 [Environment Court document 48].

out. We add that we still see considerable merit in policies dealing with wilding trees. Indeed the MDP is deficient in policy direction on this very important issue.

6.12 Proposed Policy 3B15

[373] Ms Murchison proposed the use of "Integrated Farm Management Plans" to manage development and in particular farm related development. She suggested[441] a new Policy 3B15 seeking to ensure that all integrated farm management plans achieve all the rural objectives and policies of the District Plan including those which recognise and protect the outstanding natural landscape values of the Basin. The process for developing and finalising an "Integrated Farm Management Plan" was not identified.

[374] Ms Murchison's proposed new Policy 3B15[442] reads:

> (1) To provide for an integrated approach to managing land in the Mackenzie Basin for its farming, ecological, landscape, cultural, recreational and economic values through the development and implementation of integrated farm management plans for farming properties; and
>
> (2) To ensure an integrated farm management plan achieves the Rural objectives and policies of this plan, including but not limited to the objectives and policies to recognise and protect outstanding landscape values of the Mackenzie Basin as set out in Objectives 3B(1) to (3) and policies 3B1 to 3B14, taking into account the areas of Visual Vulnerability shown on Appendix V (Areas of Landscape Management) and Densem 2007 *The 'Mackenzie Basin Landscape: character and capacity'*.[443]

Ms Murchison's general idea appears to be that the status of an activity should be more relaxed if it is provided for in an Integrated Farm Management Plan or that "approval of the Integrated Farm Management Plan" is matter of Council's discretion. Other witnesses also proposed a "farm plan" approach to dealing with whole properties[444]. None provide any specific policies or rules to implement this concept. The term was also used by Mr Harding in reference to a possible approach to be adopted in the forthcoming District Plan review relating to addressing biodiversity matters[445].

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441 L M W Murchison evidence-in-chief at paras 9.1 to 9.6 [Environment Court document 33].
442 L M W Murchison evidence for Federated Farmers, 9 September 2016 at paras 9.1 to 9.6.
443 L M W Murchison evidence for Federated Farmers, 9 September 2016, Attachment 1, at p 10.
444 C Glasson evidence for Federated Farmers, 9 September 2-016 at paras 45 to 49; and B E Allan evidence for Mackenzie Guardians, 9 September 2016 at para 33.
445 Mackenzie Country Trust Deed of Trust 19 February 2016 at 3.1(b) and (c), 3.2(b) and Schedule 1 clause 1(j).

[375] We accept that there may be merit in the concept of a "whole of property approach" to address resource management matters, preferably dealing with both regional and district matters. However, we foresee formidable difficulties in dealing with section 6 matters of national importance because they almost inevitably cross property boundaries. We agree with Ms Harte[446] that it is not clear from Ms Murchison's suggested amendments what exactly an "Integrated Farm Management Plan" is and how or whether it is to be approved or consented. We accept Ms Harte's opinion that: "this approach needs to be very carefully crafted both conceptually and legally". Ms Murchison's proposed amendments do not satisfy those requirements[447] particularly since no rule is proposed directly requiring consent for such a plan. In any event it is too late to propose an entirely new policy and rule in PC13. They are beyond our jurisdiction since it was not addressed in either PC13(s293V) or PC13(pc).

6.13 Mapping issues

The visual vulnerability map

[376] An A3 copy of the visual vulnerability map is attached to this decision as Appendix "A". FFM claims with some justification, first, that the map is too small in scale: that is, it shows too large an area of land on too small a map so the topographic detail cannot be ascertained. The map does not adequately assist farmers when they are trying to locate a boundary between (say) a LVV area and a MVV area. They say that the map has not been checked on the ground and contains inaccuracies.

[377] We are sympathetic to those complaints but considerate sufficiently accurate transfers on to larger maps should be possible in cases of doubt as to the boundaries. Otherwise we consider the map is sufficiently effective to be added to the MDP.

The Wolds

[378] The Scenic Grasslands Areas ("SGAs") are mapped at a larger scale as we described earlier. Mr Murray gave evidence, supported by the landscape architect Mr Craig that the SGA on The Wolds – GA11 – is inappropriate because it takes in too great an area of productive land compared with its value in protecting views. Mr Craig pointed out the parallax effect whereby the SGA removes a considerable area from

446 P Harte rebuttal evidence 7 October 2016 at para 76 [Environment Court document 25A].
447 P Harte rebuttal evidence 7 October 2016 at para 76 [Environment Court document 25A].

(say) pastoral intensification while achieving little more than the existing SVA already protects. Further, much of the SGA is behind a row of morainic mounds which run approximately parallel to SH8, and is not necessary.

[379] Mr Densem's evidence was that[448] GA11 encompasses an area that has important landscape values, including both natural science aspects and scenic values. When cross-examined by Ms Forward on whether GA11 is in the foreground or distance he was initially unclear[449] (because he was asked two questions at once) but a little later explained of GA11:

> "I regarded it as an extension of the foreground view and I believe that the closest parts at least are quite significant in the foreground view where possible"[450].

He did accept that GA11 is "distant in the furthest parts of it"[451].

[380] In relation to the criticism that much of GA11 could not be seen behind the mounds we described earlier, he said enough of the area behind was visible to make it important because any intensification would be very obvious through gaps in the mounds[452].

[381] One aspect of all this that The Wolds case has ignored is the importance of connectivity in the ONL. The vast expanses of non-green space to the southeast of GA11 and SH8 are important not only visually but because of their natural science values and especially because they are still (just) connected to the SVA and GA11 itself.

[382] Our site inspection from SH8 suggested that towards the southern boundary of The Wolds (and for at least half the distance north towards its northern boundary) the mounds are high enough (and close to SH8) that the SVA would be sufficient to protect the visual values, and perhaps the area beyond their marginally less important for natural science values in connectivity terms than the area further north on The Wolds. The morainic mounds rather disappear (west of SH8) on The Wolds as one travels north, so the extension that GA11 gives to the SVA becomes increasingly important

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448 G H Densem rebuttal evidence at paras 35 to 39 [Environment Court document 19A].
449 Transcript, p 335, lines 3-7.
450 Transcript, pp 335-336, lines 30 to 16.
451 Transcript, p 336, line25.
452 G H Densem rebuttal evidence at paras 79 and 80 [Environment Court document 19A].

both in visual and (potentially) in natural science connectivity terms. We consider the GA11 map should be redrawn so that it is wedge-shaped: narrow at the southern end (so that it includes the far side of the mounds but no further) and widens as it goes north so that in effect it runs right through to the (out of sight from SH8) wetland that is at the northern end of The Wolds.

Mt Gerald Station

[383] Mt Gerald Stations seeks[453] changes to the Scenic Grassland overlay on its land (GA7). The court needs more time to consider that issue and, possibly, a further site inspection to resolve whether there should be a GA7 and if so where its limits should be. This question will be adjourned.

Blue Lake Investment (NZ) Limited ("Blue Lake")

[384] Blue Lake seeks an alternative FBA footprint and changes to the LPA relating to Guide Hill Station[454]. As explained earlier the extent and locations of FBAs are not the subject of this decision: the Council is still hoping to resolve these with landowners on a site by site basis.

[385] As for the LPA at Guide Hill, Mr Espie[455] was concerned about the area that could be caught by a lake's "setting", but agreed the LPAs do not include vast tracts of land included in the view of the lake[456]. We prefer Mr Densem's evidence that the LPAs in this area effectively protect the Basin's lakes, margins and settings[457]. We consider the evidence before us does not support any changes to the LPA boundary on Guide Hill Station even if we had jurisdiction to do so (which is doubtful). However, the Council did not consult on the LPA mapping and no changes were proposed in PC13(s293V). Mr Caldwell submitted that any request to amend the boundaries of an LPA is outside of the scope of the section 293 process. We accept that.

Summary as to the maps

[386] Subject to the changes addressed above and the reservation of the Mt Gerald

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453 Ms Forward closing submissions for Mt Gerald and The Wolds, dated 23 February 2017, at para 90.3 [Environment court document 40].
454 C Vivian evidence-in-chief, dated 9 September 2016, at paras 81-87.
455 B Espie evidence-in-chief for Blue Lake, dated 19 August 2016 at paras 5.1-5.17 [Environment Court document 20A].
456 Transcript, pp 356-357, line 29-2.
457 Referring to Policy 3B6 and associated rules.

questions we approve both Appendix 1 and the SGA maps for addition to PC13.

Tourist roads

[387] Mr Densem's map included much of Haldon Road which runs from Dog Kennel Corner on SH8 near Burkes Pass southwest to close to Lake Benmore as a "tourist road". He accepted that was a mistake, and the road should only be a tourist road to the intersection with Mackenzie Pass Road.

7. Are the proposed rules effective in achieving the policies?

7.1 Status of farm buildings

Farm buildings generally

[388] It seems to be generally accepted that there should be a distinction between farm buildings (a defined term) and non-farm buildings which are all other buildings. There is an issue we need to resolve about whether a farmer's residence (or retirement home) should be regarded as a farm building or not, but first we consider the more general issues about whether farm buildings should be managed and if so, how.

[389] The proposed status of farm buildings under PC13(s293V) is:

- controlled[458] if outside a FBA but in an area of low visual vulnerability; and
- discretionary[459] in areas of medium and high visual vulnerability.

At first sight those rules are effective at implementing the policies confirmed (as to effectiveness) in Chapter 6 of this Decision. That is because we have not accepted the appropriateness of using the broader concept of landscape vulnerability, and consequently have made policy changes to PC13(pc) – basically reverting to a modified PC13(s293V) with its use of the visual vulnerability classification[460]. We now have to consider whether any amendment to the rules about the status of farm buildings would make them more effective.

[390] Farmers are concerned about the controlled activity status of farm buildings outside FBAs. Mr Murray was concerned that if he wished to build a new woolshed on

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458 Rule 3.2.1 PC13(s293V).

459 Rule 3.3.3 PC13(s293V).

460 We will use the following abbreviations:
LVV = Low Visual Vulnerability
MVV = Medium Visual Vulnerability
HVV = High Visual Vulnerability

The Wolds it would require consent. FFM's planning expert Ms Murchison, proposed that farm buildings outside FBAs be permitted activities[461]. She pointed out[462] that accessory buildings such as hay barns, pump sheds, stockyards, and mustering huts would be located away from the Farm Base Areas and close to the blocks they are servicing. She also considered it would be appropriate to distinguish between those farm accessory buildings and larger farm buildings (with a footprint greater than 600m^2) such as woolsheds and milking sheds. Due to their function and the need for power, water, effluent disposal, and other infrastructure, those larger buildings tend to be located close to the homestead and within the FBAs. Ms Harte remained of the opinion that all buildings – including farm buildings – outside Farm Base Areas should be subject to scrutiny as to their design and how they sit within the landscape. However, her opinion was based on the proposed change in landscape analysis which we have not accepted. Accordingly on this issue we prefer Ms Murchison's evidence at least in relation to farm buildings in areas of low visual vulnerability.

Farm buildings in LVV areas

[391] We consider that within the LVV areas the controlled activity status is appropriate for larger buildings (with a less than 10m x 10m and with a maximum height of 8m) but smaller farm buildings in LVV or MVV areas should be permitted subject to the Standards and Terms in rule 3.2.1 PC13(s293V) with any necessary modifications.

Larger Farm buildings in MVV and all farm buildings in HVV areas: restricted discretionary

[392] Based on the evidence we consider rule 3.3.3 PC13(s293V) is the most effective alternative open to us, with one exception (discussed next) and, of course with an alteration to reflect the reversion to a visual vulnerability analysis.

[393] PC13(pc) contains a rule (3.3.3e) which specifies that all farm buildings outside a FBA must be at least one kilometre apart. This rule was suggested by the court in the First (Interim) Decision. Mr Vivian and Mr Espie's suggestion was that the standard for farm buildings outside Farm Base Areas be amended to require the farm buildings to be either within 50m or more than 1 kilometre from an existing farm building. Ms Harte

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461 L M W Murchison evidence–in-chief, 9 September 2016, Attachment 1 at p 12 [Environment Court document 33].

462 L M W Murchison evidence-in-chief at para 7.11 [Environment Court document 33].

agreed[463] because that provides for farm buildings to be clustered where this works for the farming operation but avoids them being scattered more broadly.

Farm buildings in the special areas

[394] We accept that farm buildings which are proposed to be located in any one of the overlays of SONs, LPAs, SVAs, SGAs and above 900 masl and/or Hazard Areas should have more stringent controls[464] to implement policies 3B6 and 3B7.

Farm buildings within FBAs

[395] Ms Harte reported that the status of buildings is changed slightly as a result of issues raised in consultation. As an incentive to establish within farm base areas rather than outside, their status has been changed (rule 3.2.2) from a restricted discretionary to a controlled activity. To ensure certain adverse effects are avoided, there are an increased number of standards for these buildings to meet, specifically:

- minimum building height of 8m;
- minimum setback from state highways of 100m and 20m from other roads;
- minimum setback from internal boundaries of 20m;
- minimum setback of 20m from rivers and 50m from wetlands;
- maximum gross floor area of a single building of 550m^2;
- farm buildings greater than 100m^2 to be setback 3.6 metres from other buildings.

[396] Ms Smith, for the DGC considered that there should be a maximum size limit for farming buildings within Farm Base Areas and this could be the same 550 m^2 limit that applies to non-farm buildings[465]. We accept Ms Harte's criticism of this approach. The point of the Farm Base Areas is to provide for and encourage farm related buildings to locate in these areas. A large woolshed is completely appropriate within a Farm Base Area. Most FBAs are sufficiently extensive that farm buildings housing a large number of animals and/or involving many heavy vehicle movements could establish some distance from the homestead[466].

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463 P Harte rebuttal evidence at para 60 [Environment Court document 25A].
464 Rules 3.2.1(vii), (viii), (ix), (x), (xi) PC13(s293V) and rule 3.3.3a and 3.3.3j PC13(s293V).
465 V M Smith evidence for DoC, 9 September 2016 at paras 11.14 to 11.21 [Environment Court document 28].
466 P Harte evidence for the Council, 15 July 2016 at para 97 [Environment Court document 25].

7.2 Non-farm buildings

[397] The status of non-farm buildings, such as residences, homesteads and visitor accommodation, outside farm base areas is controversial (they are currently discretionary). A number of submitters were concerned that with non-complying status the test for obtaining consent is as onerous as if it was in a more sensitive area such as a Lakeside Protection Area, and that this did not seem reasonable.

[398] Mr Vivian for Fountainblue questioned the blanket non-complying status of non-farm buildings in the Mackenzie Basin (outside FBAs). He opined[467] that with strong objectives and policies and assessment matters (which he proposed) there is no reason why consideration of non-farm buildings could not be processed as a discretionary activity (as this would provide the Council with the ability to decline consent) in situations where there is no subdivision and the building is not located within a Scenic Grassland, Scenic Viewing Area or Lakeside Protection Area. Here as elsewhere we are faced with the difficulty that no consideration was given to the Visual Vulnerability analysis (it seems to have been assumed that would be replaced).

[399] Mr Espie, the landscape architect called for Fountainblue, supported that approach. He noted[468] that it is not uncommon for large stations in the Basin to have a number of dwellings and other non-farm buildings. He observed that stations have often been run by several generations of a family. They may also accommodate the families of farm managers[469] and these residences are not always clustered in one area. He considered that the fact buildings are separated from the main farm base does not necessarily mean they will adversely impact on landscape values and so discretionary activity status is appropriate[470].

[400] Ms Harte accepted[471] that if non-farm buildings the Council would retain a broad discretion to reject an application. Ms Smith[472] and Mr Reaburn[473] continued to maintain that non-complying status was more appropriate.

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467 C Vivian evidence for Fountainblue Limited, 19 August 2016 at paras 4.3 and 8.1 to 8.15.
468 B Espie evidence for Fountainblue Limited, 19 August 2016 at paras 3.15 to 3.16.
469 Ibid at para 3.17.
470 Ibid at para 3.17.
471 Transcript p 590, lines 9-11.
472 Transcript p 656-657.
473 Transcript p 702, line 22 to p 703, line 9.

[401] Consideration of this issue is complicated by the facts that the witnesses were contemplating the status of the activity under the looser, incompletely defined landscape sensitivity concept. An advantage of the second-best approach the court has adopted is that the areas of low and medium visual vulnerability can be used to distinguish discretionary activities from non-complying.

[402] We consider non-farm buildings should be discretionary in both the low and medium visual vulnerability areas, but non-complying elsewhere. New rules will need to be drafted to give effect to that using the suggestions in Mr Vivian's evidence-in-chief[474] but adding an extra precondition for discretionary status: that the building is within an area of low or medium visual vulnerability.

Retirement dwellings and subdivisions for retirement dwellings

[403] PC13(s293V) reintroduced retirement dwellings as a recognised exception to the general controls on buildings and subdivision outside farm base areas. PC13(pc) then removed that special provision for farm retirement dwellings and the 50 hectare subdivision standard to accommodate these dwellings. A number of submitters requested their reinstatement to provide for the handing down of the responsibility for stations from one generation to the other without forcing the older generation off the land.

[404] While there are social and possible economic benefits of enabling retiring owners to remain living on a station, it is difficult in Ms Harte's view[475] to make these provisions sufficiently robust to avoid misuse of this provision. We accept that. Further, the FBAs are likely – some of them are proposed to be 20 hectares or more as we recall – to be more than large enough to cater for retirement dwellings.

7.3 Tree planting

[405] PC13(pc) proposes that tree planting (which would include shelterbelts) be managed[476] as a discretionary activity in Scenic Grasslands in addition to Scenic Viewing Areas ("SVAs"). Ms Murchison was concerned about the effect of this rule on shelterbelt planting. In her opinion[477]:

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474 C Vivian evidence-in-chief for Fountainblue Ltd at para 8.14 [Environment Court document 26].
475 P Harte evidence-in-chief dated 15 July 2016 at para 85 [Environment Court document 25].
476 Proposed amendment to rule 6.4.2 [PC13(pc) p 30].
477 L M W Murchison evidence-in-chief at paras 6.56 and 6.57 [Environment Court document 33].

> ... shelter planting is a basic element of pastoral farming. Any effects on landscapes in Scenic Grasslands should be considered alongside the need to provide stock with shelter and make reasonable use of farm land.

In that context she pointed out that rule 6.1.4 of the MDP[478] contains conditions for the planting of shelter belts in the Mackenzie Basin as a permitted activity subject to standards requiring them to be set back 300m from the road or planted at 90° to the road. If planted at 90° to the road, a separation distance of at least 1000m between shelter belts is also required. In her view that was sufficient.

[406] We recall that Ms Murchison uniformly used a broad concept of pastoral farming so that it includes almost any regimen for growing grass and crops, and for raising and feeding stock of any kind. Traditional pastoral farming in the Mackenzie Basin was at different scales and intensity and some activities were limited as she recognised[479]. Her concept differs from the concept of pastoral farming implicitly used in the MDP. Given the importance of openness to the values of the ONL we consider the restrictions in rule 6.4.2 in PC13(s293V) to manage shelterbelts in Scenic Grasslands is more effective for achieving Objective 3B and the rural policies.

[407] Other changes proposed by EDS[480] as to the list of prohibited tree species are beyond jurisdiction. These should be looked at in the district plan review.

7.4 Proposed rule 15A (pastoral intensification)

[408] PC13(pc) proposed to renumber the old rule 15.1.1.a which dealt with pastoral intensification (as defined) generally, as rule 15A.1.1 and apply it to rural zones outside the Mackenzie Basin. Then it proposed to add rules 15A.1.2, 15A.2.1, and 15A.3.2 within the Basin. Modified (in red) to re-accommodate the visual vulnerability analysis and our redefining of some farming activities as "Agricultural Conversion" new rules read (provisionally) as follows:

478 Rule 6.1.4 [MDP p 7-58].
479 L M W Murchison evidence-in-chief at para 58 [Environment Court document 33].
480 P D Reaburn evidence-in-chief at para 98 [Environment Court document 29].

15A PASTORAL INTENSIFICATION

15A.1 Permitted Activities

...

15A.1.2 Pastoral Intensification and Agricultural Conversion (refer definitions) within the Mackenzie Basin Subzone which is:

(a) within a defined Farm Base Area (refer Appendix R) and is setback at least 20m from the bank of a river and 50m from a wetland; or

(b) within an area for which ~~resource consent~~ a water permit to take and use water for the purpose of irrigation has been granted by ~~Environment~~ the Canterbury Regional Council prior to 14 November 2015 ~~authorising irrigation~~, the consent has not lapsed and effects on the outstanding natural landscape have been addressed through the regional consenting process.

15A.2 Discretionary Activities

15A.2.1 Pastoral Intensification and Agricultural Conversion (refer definitions) in the Mackenzie Basin Subzone other than as provided for as a Permitted Activity or Non-complying Activity.

15A.3. Non-Complying Activities

...

15A.3.2 Pastoral Intensification and Agricultural Conversion (refer definitions) in the Mackenzie Basin Subzone within a Site of Natural Significance identified on the Planning Maps and schedule in Appendix I, Scenic Viewing Areas, Scenic Grasslands or Lakeside Protection Areas identified on the Planning Maps or in Appendix V (Areas of Landscape Management) or tussock grasslands within 1km of State Highway 8, Haldon Road, Godley Peaks Road or Lilybank Road.

[409] The scheme of the rule is that pastoral intensification and agricultural conversion within the Mackenzie Basin subzone are proposed to be:

- generally discretionary;
- non-complying in special areas[481];
- permitted in certain specific situations, e.g. within a FBA, or where a water permit has been issued by the CRC.

481 Including SONS, Scenic Grasslands, Lakeside Protection Areas, and Tussock Grasslands within one kilometre of some roads.

[410] There are three sets of issues:

(1) is the general discretionary rule effective?
(2) is the non-complying rule for special areas effective?
(3) are the permitted activity exceptions effective?

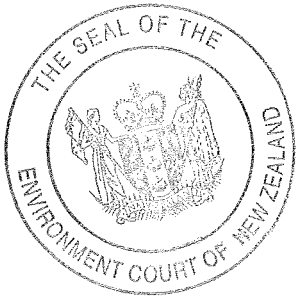
We consider each in turn.

(1) Is the general discretionary rule 15A.2.1 effective?

[411] The application of the pastoral intensification definition (in particular because of its reference to oversowing and topdressing) to the Mackenzie Basin has been challenged as it involves requiring consent for everyday farming operations.

[412] Mr Murray of The Wolds gave us his opinion that oversowing and topdressing on his land has raised the phosphate levels resulting in healthier tussocks with greater ground cover and consequently lower soil losses from bare ground. He considered that the ability to oversow and topdress must be retained as a tool to combat soil loss which is one of the greatest threats to the Basin. He stated that oversowing and topdressing should not be put in the same category as irrigation and cultivation which have far more effect on landscape and biodiversity. He believes that the high landscape values associated with the identified Scenic Grassland on The Wolds are a direct result of continued oversowing and topdressing[482].

[413] We have recorded that Mr Simpson of Balmoral Station expressed his opinion that oversowing and topdressing have an important role in maintaining pasture free of wilding trees. He stated[483] that tussock grasslands are highly vulnerable to infestation from wilding conifers and other woody weed species and that grazing these is the "only way" to reduce the risk of pest spread. If animals are to graze these areas then regular oversowing and topdressing is necessary[484] so that the vegetation is not taken over by unpalatable species. He qualified that by saying even with this approach there is still a lot of expense involved in reducing wilding tree infestations. To show how complex all this is in reality, on our site inspection we were shown an area on Braemar (higher and



482 J B Murray evidence-in-chief at para 14 [Environment Court document 5].
483 A Simpson evidence-in-chief at paras 3.5 to 3.6 [Environment Court document 7].
484 Ibid at paras 3.5 to 3.6 [Environment Court document 7].

with greater rainfall) where oversowing, and topdressing and grazing are apparently all that are required to keep wilding pines down.

[414] In contrast we have summarised the evidence of the ecologists[485]. That evidence described both the positive and the adverse impacts topdressing, oversowing and subdivisional fencing can have on indigenous inter-tussock species, many of which are "at-risk" species. We consider on balance that we generally prefer the scientific evidence over the anecdotal evidence, and thus there is evidence supporting the wider management of pastoral intensification (including oversowing and topdressing).

[415] As an extra complication Ms Harte reminded us of the (existing) rules[486] in Chapter 7 of the MDP which set limits on clearance of short tussock grasslands and cushion and mat vegetation (set out in Chapter 3 of this decision). She explained that[487]:

> These rules contain an exemption where there has been oversowing and topdressing at least three times in the last 10 years. If the definition of pastoral intensification includes oversowing and topdressing this will support the operation of the vegetation clearance rules in the sense that it will require consent. If, on the other hand, there is no limit on oversowing and topdressing through the pastoral intensification control then it is easier for landowners to fall within the exemption contained in the vegetation clearance rules and therefore easier to clear this vegetation without the need for consent. This is an issue I was very aware of when assisting with the preparation of the PC13 (s293V) package. ...
>
> The proposed pastoral intensification rule is so that an assessment ((assessment) of the natural science values, including whether the indigenous vegetation present has significant value) may occur as part of a resource consent process.

[416] Because of the differing frequencies and intensities of oversowing and topdressing with different impacts Ms Harte considered that the proposed pastoral intensification (including agricultural conversion) rule is appropriate as it allows an assessment of the effects to occur on a case by case basis[488]. Mr Reaburn the planner for EDS generally supported[489] the changes to rule 15A as proposed by the Council (but excluding an exception – which we come to shortly). Ms Smith took approximately the same approach as Mr Reaburn. Mr Gimblett for Meridian expressed no view, nor

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485 Summarised M A C Harding rebuttal evidence, 7 October 2016, at paras 7 to 14 [Environment Court document 12A].
486 Rules 12.1.1.g and h [MDP pp 7-69 and 7-70].
487 P Harte rebuttal evidence, 7 October 2016 at para 40 [Environment Court document 25A].
488 P Harte rebuttal evidence at para 41 [Environment Court document 25A].
489 P D Reaburn evidence-in-chief at para 99 [Environment Court document 29].

did Ms Stevens for TRoNT. Mr Vivian for Fountainblue Ltd and others supported the intent of these rules[490]. Mr Glasson, the landscape architect called for Mt Gerald Station and The Wolds, and for FFM also considered that each application should be considered on a case by case basis.

[417] Ms Murchison for FFM took a different view but we find much of her evidence too broad to be useful. In particular she regarded pastoral farming as covering many forms of farming with little consideration of the scale, intensity and character with which each has traditionally been undertaken in the Mackenzie Basin.

[418] We consider that the proposed discretionary rule is the most effective way of implementing the policies. We bear in mind that because most of the Mackenzie Basin was, at least until recently, held in pastoral leases (and a considerable area still is) consent to topdress and oversow was needed under section 16 CPLA 1998, so the need for some sort of consent should not require too much of a change in practice.

[419] We acknowledge that, as Mr Murray pointed out in his rebuttal evidence, most tenure reviews have been accompanied by increasingly thorough landscape and ecological reports. However, the outcomes of tenure reviews have been both legalistic and binary rather than landscape and ecosystem oriented. They are legalistic in the sense they seem to relate largely to the property in question and give little obvious consideration to concepts of landscape or related ecological connectivity. They are binary in the sense that much of the land is either retained in Crown ownership, or is freehold free of broad covenants. The difficulty is that so many of the small native plants are, as we have described, sparsely spread through in areas which are on the evidence before us, very important to the survival of (many) species but have been given no protection in large areas of freehold land.

(2) Is the non-complying activity rule 15A.3.2 effective?

[420] PC13(pc) also proposes that the activities we have described as either pastoral intensification or agricultural conversion (other than subdivisional fencing) should be non-complying in special areas.

[421] FFM criticised the rule on the basis that it does not "enable" pastoral intensification or agricultural conversion. That argument assumes we have found in

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490 C Vivian evidence-in-chief at para 9.11 [Environment Court document 26].

FFM's favour that pastoral intensification should be enabled. We have judged when settling Policy 3B13 that to achieve Objective 3B(3), pastoral intensification should be managed rather than enabled, so FFM's general position on non-complying status cannot stand. Lumping all pastoral intensification and agricultural conversion in together as a discretionary activity would be poor practice.

[422] Mr Craig, the landscape architect called for The Wolds, stated that oversowing, topdressing, weed control and grazing results in maintenance of the grassland in its present form which is a quality that the proposed Scenic Grassland overlay seeks to achieve[491]. He recorded that opinion related to achievement of the desired landscape outcomes for the scenic grassland, rather than to protection of ecosystems[492]. However, that rather ignores that ecosystems are an important part of ONLs, and that there are very subtle ecosystems within the Mackenzie Basin ONL.

[423] Several parties have questioned another aspect of rule 15A.3.2 which specifies that pastoral intensification is non-complying, not only in lakeside protection areas, scenic grasslands, scenic viewing areas and sites of natural significance, but also "within tussock grasslands within 1 kilometre of State Highway 8, Haldon, Road, Godley Peaks Road or Lilybank Road". This of course must be deleted in view of our discussion of this issue in relation to the policies.

(3) The permitted activity rule (15A.1.2)

[424] A number of parties were concerned about pastoral intensification rule 15A.1.2 which sets out when pastoral intensification is a permitted activity. This rule exempts pastoral intensification from the general discretionary activity if:

> Within an area for which a water permit to take and use water for the purpose of irrigation has been granted by the Canterbury Regional Council prior to 14 November 2015, the consent has not lapsed and the effects on the outstanding natural landscape have been addressed through the regional consenting process.

[425] The proposed permitted activity status for land with "irrigation" consent (i.e. consent to use water from the CRC) applies to consents granted prior to 14 November 2015. That date was chosen as the date on which the section 293 package was notified.

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491 A W Craig evidence-in-chief at para 34 [Environment Court document 21].
492 Ibid at para 34 [Environment Court document 21].

[426] A number of parties/landowners (including Ben Ohau, Mt Gerald, Classic Properties, Federated Farmers, Kidd Partnership and Aoraki Downs) who have been in the consent process for many years with the CRC (and the Environment Court) want that date extended to cover consents which are at an advanced stage but which have not been granted or are in the appeal process.

[427] Ms Murchison (for Federated Farmers) proposed an amended rule which simply removes reference to the irrigation consent having to address landscape values, so that all that is needed to be permitted pastoral intensification is to have irrigation consent[493]. Ms Harte did not support such an approach as in her opinion it would enable pastoral intensification to occur in a situation where no consideration has been given to landscape effects.

[428] Ben Ohau Station challenged the rule due to its arbitrary cut-off date for irrigation consents that qualify as an exemption for the new pastoral intensification rule[494]. Its owner/manager Mr S Cameron described how Ben Ohau has recently obtained an irrigation consent after nearly seven years from the start of the consenting process. It wishes to have the benefit of the proposed permitted activity rule. Mr Cameron's request is for the cut-off date for irrigation consents to be extended out to the date of the Court's final decision on Plan Change 13[495].

[429] Witnesses for EDS (Mr Reaburn), FFM (Ms Murchison) and the Department of Conservation (Ms Smith) all considered that PC13(pc)'s proposed rule 15A1.2(b) is either inappropriate or not sufficiently certain[496].

[430] The lack of certainty comes from the reference to consents having to address the effects on the outstanding natural landscape. Ms Harte described[497] how she assessed (most of) the irrigation consents granted by Environment Canterbury for the Mackenzie Basin in recent times:

> Some of these consents clearly have been subject to a landscape assessment which indicated that some modification to the proposed irrigation was required. This usually took

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493 L M W Murchison evidence-in-chief at para 6.50 [Environment Court document 33].
494 S Cameron evidence-in-chief, 9 September 2016 at para 2 [Environment Court document 6].
495 S Cameron evidence-in-chief 9 September 2016 at para 32 [Environment Court document 6].
496 P D Reaburn evidence-in-chief at para 29 [Environment Court document 29].
497 P Harte rebuttal evidence at para 46 [Environment Court document 25A].

> the form of a reduced area and/or increased setback from roads for irrigators or the area to be irrigated. Other consents did not appear to have been subject to this scrutiny. It was on the basis of this research that the rule was developed.

[431] Ms Harte went on to say[498]:

> That there may be some situations where it is not clear whether landscape considerations have been taken into account in granting the irrigation permit. The intention is that in such a situation consent would be required under the District Plan as a discretionary activity (rule 15A.2.1). The reason for this approach was to avoid landowners effectively having to go through two processes involved to date had taken a very long time and were very costly for all parties.

[432] Mr Reaburn[499] and Ms Smith[500] both proposed that the current permitted activity rule relating to land for which irrigation consent has been granted be deleted and replaced with a controlled activity rule enabling the Council to look at a variety of different aspects of the proposed pastoral intensification.

[433] Ms Harte's concern was that[501]:

> ... the landowner could end up with two consents for the same activity which are inconsistent. The Environment Canterbury consents are quite detailed in relation to the technical aspects of irrigating as well specifying the area involved. The District Council land use consent could potentially require irrigation in a different form and in different areas. It also of course involves the landowners in getting two consents for the same activity, although the primary environmental effects of concern for each of the consents are different. I also note there can be issues associated with controlled activities regarding the extent to which conditions can be applied to effectively alter the activity applied for.

[434] Ms Harte advised us that any cut-off date is necessarily arbitrary, and that she did not have information on how many additional consents are likely to be granted if this date is extended.

[435] During cross-examination Ms Harte[502] and Mr McCallum-Clark[503] both acknowledged that:

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498 P Harte rebuttal evidence at para 47 [Environment Court document 25A].
499 P D Reaburn evidence-in-chief at para 28 [Environment Court document 29].
500 V M Smith evidence-in-chief paras 8.23 to 8.25 [Environment Court document 28].
501 P Harte rebuttal evidence at para 48 [Environment Court document 25A].
502 Transcript p 555 line 6 – p 556 line 13.
503 Transcript p 757 lines 10-30.

- the permitted activity exception for pastoral intensification – "on land for which irrigation consent was granted prior to 14 November 2015"[504] – is ambiguous and unsatisfactory[505];
- the regional planning provisions do not specifically address ONL protection[506];
- parallel consenting regimes are not unusual[507];
- controlled activity status would overcome issues of ambiguity and fairness to existing consent holders[508].

[436] The proposed matters of control are set out in Mr Reaburn's proposed rule 16XX[509]. Conditions may only be imposed in respect of those matters over which control is reserved[510]. We doubt that simply controlling the extent of area to be irrigated is adequate; we consider that there should be an assessment matter:

> (vii) whether any threatened or at risk plants are present.

[437] We find that with the amendments to the proposed rule which we have accepted – including Mr Reaburn's proposed assessment initiative – it is an effective way of implementing Policy 3B7 and of giving effect to the CRPS.

[438] One point we should emphasise is that pastoral intensification and agricultural conversion are fully discretionary. All relevant objectives and policies in Chapter (Section) 7 Rural Zone of the MDP will be important to any application including those that protect the natural science values of the ONL. So the test for determining whether farming intensification should occur will go beyond looking at the visual vulnerability of the site. All aspects of the sensitivity of a site will need to be looked at in terms of the relevant objectives and policies of both the MDP and the CRPS.

7.5 Irrigators and fences

[439] PC13(s293V) adds these rules (with the PC13(pc) proposed changes in red):

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504 Policy 3B14 and corresponding rules.
505 Transcript p 555 line 6 – p 556 line 13.
506 P Harte at Transcript p 536 lines 12-15; Mr McCullum-Clark at Transcript p 760 lines 15-19.
507 P Harte at Transcript p 535 lines 19-29; Mr McCullum-Clark at Transcript p 760 lines 8-9.
508 P Harte at Transcript p 555 lines 25-31; Mr McCullum-Clark at Transcript p 757 lines 10-30.
509 P D Reaburn Exhibit 29.1 (at pp 20-21).
510 Section 104A RMA.

15.1.1.a Irrigators ~~and fences~~

i there shall be no ~~large~~ irrigators (including centre pivot and linear move irrigation systems) ~~or fences (other than replacement fences)~~ within Scenic Viewing Areas, Scenic Grasslands, Sites of Natural Significance or Lakeside Protection Areas identified on the Planning Maps within the Mackenzie Basin Subzone ~~or in Appendix V (Areas of Landscape Management)~~.

ii In all other areas of the Mackenzie Basin Subzone ~~large~~ irrigators (including centre pivot or linear move irrigation systems) shall be setback at least 250m from State Highway 8, the Haldon Road, Godley Peaks Road and Lilybank Road.

Note: Controls on Pastoral Intensification in the Mackenzie Basin Subzone are contained in Clause 15A of the Rural Zone.

Irrigators

[440] The MDC accepted that the reference to the length of Haldon Road is a mistake and the rule should refer to "Haldon Road from Dog Kennel Corner to the intersection with Mackenzie Pass Road".

[441] It also proposed to amend the Rural Zone "Other Activities" rules 15.2.1 list of Discretionary Activities as follows:

15.2.1 Any Activity, other than those specified in Clauses 3 to 14 of the Rural Zone, which do not comply with one or more of the following standards for Permitted Other Activities:

15.1.1.a.ii Irrigators ~~and Fences~~
15.1.1.b Noxious and Unpleasant Activities
...

[442] Finally, PC13(s293V) proposed to add the following new rule to Rural Zone rule 15.3 Other Activities – Non-complying activities:

15.3.1 All ~~large~~ irrigators (including centre pivot and linear move irrigation systems) ~~or fences (other than replacement fences)~~ within Scenic Viewing Areas, Scenic Grasslands, Sites of Natural Significance or Lakeside Protection Areas identified on the Planning Maps within the Mackenzie Basin Subzone ~~or in Appendix V (Areas of Landscape Management)~~ shall be a Non-complying activity.

[443] FFM and supporting parties generally accepted[511] that irrigation should be a discretionary activity, so we generally confirm the rules in that respect (subject to minor amendments recorded below).

Fences

[444] We observed earlier that the existing definition of "Pastoral intensification" includes "subdivisional fencing". One disadvantage of using the MDC's definition – despite its other advantages of consistency and simplicity – is that prima facie fencing within the Mackenzie Basin would require resource consent. We accept the impracticality of that and will direct that the rules referring to pastoral intensification in the ONL generally should contain an exception for fencing (subject to the next paragraph).

[445] However, we have accepted the evidence of the ecologists that subdivisional fencing can (in conjunction with oversowing and topdressing) have adverse ecological effects. We find that controlling fencing in the special areas is an effective method of managing those effects. We consider no change is needed to the rules for these areas since pastoral intensification includes subdivisional fencing.

Conclusions

[446] The prima facie appropriate form of:

- Rule 15.1.1.a is therefore as in PC13(s293V), i.e. without most of the changes proposed by PC13(pc), except that "large" should be deleted and "Haldon Road" qualified as explained above;
- Rule 15.2.1 should refer to "Irrigators and Fences";
- Rule 15.3.1 is as above but omitting "large"

— provided in each case the words "in Appendix V (Areas of Landscape Management)" are preceded by "areas of high visual vulnerability".

511 R Gardner opening submissions at para 23 [Environment Court document 2.2].

7.6 Other rules and methods

Subdivision

[447] Mr Vivian identified an oversight in Subdivision rule 3a which specifies controlled activity subdivisions[512]. This rule still contains reference to subdivision with Farm Base Areas, whereas these subdivisions are proposed to be restricted discretionary activities in PC13(s293V). Ms Harte agreed[513] with his suggested amendment.

[448] Mr Vivian also identified a matter that should be resolved in relation to subdivision within the Mackenzie Basin Subzone which do not comply with the listed "Primary and Secondary Subdivision Standards"[514]. Ms Harte agreed[515] that his proposed amendment makes the status of these activities as non-complying activities clear. We accept that change is appropriate.

Mining

[449] We accept the changes suggested by Ms Smith for the DCG.

Assessment matters – resource consents

[450] Rule 16 (assessment matters) is proposed to be amended by adding:

> 16.2 Buildings
> 16.2.k Farm buildings
> ...
> i. Whether the farm building(s) would be located away from main surfaces, ridgelines and skylines of landforms. (Refer to the report "The Mackenzie Basin Landscape: character and capacity" Graham Densem Landscape Architects November 2007, and "Intensification and Outstanding Natural Landscape: Landscape Management of the Mackenzie Basin in the Light of Court Decisions" Graham Densem Architects November 2015 for descriptions of areas to be avoided in terms of their vulnerability to change).

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512 C Vivian evidence-in-chief for Fountainblue Limited at para 9.14 [Environment Court document 26].
513 P Harte rebuttal evidence at para 73 [Environment Court document 25A].
514 Ibid at para 9.18 [Environment Court document 25A].
515 P Harte rebuttal evidence 7 October 2016 at para 74 [Environment Court document 25A].

[451] We accept that there should be some changes, as sought by the tangata whenua to the assessment matters in PC13(s293V)'s proposed rule 16.2k to ascertain[516]:

(xii) whether wāhi toanga sites are affected.

[452] In addition, to assist assessment of the precise location of buildings, a matter should be added as follows:

(xiii) whether there are threatened or "at-risk" plants (including those in the Plant List in the Mackenzie District Plan) on the building site or within 30 metres of it.

[453] Similar matters should be added to the list for non-farm buildings and to the discretionary lists for restricted discretionary activities.

Appendices

[454] We consider it would be useful if two lists were added as Appendices to the MDP:

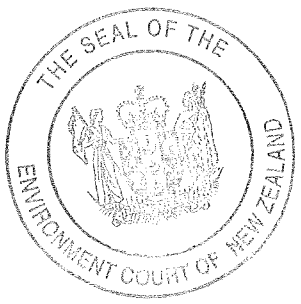
- the list of threatened and "at-risk" plants[517] produced by Dr Head; and
- the list of geomorphological features[518] produced by Dr Walker.

[455] Then there should be a reference in the rural assessment matters to those lists so that they would be referred to in any future Assessment of Environmental Effects.

8. The efficient use of resources and the section 32 analysis

8.1 What does section 32 require in respect of efficiency?

[456] We have considered the effectiveness of the proposed policies and rules in parts 6 and 7 respectively. We now consider their efficiency under section 32 RMA (in its relevant form). When discussing efficiency in section 32 (and under section 7(b)) the most useful concept to apply is the economic concept – as the only objective and



516 T J Stevens evidence-in-chief at paras 5.42 to 5.45 [Environment Court document 31].
517 N J Head evidence-in-chief Appendix 1 [Environment Court document 14].
518 S Walker evidence-in-chief Appendix 12 [Environment Court document 17].

independent measure under the RMA of efficiency[519] in production (for example[520]) as meaning[521]:

> ... allocating the available resources between industries so that it would not be possible to produce more of some goods without producing less of any others.

There are various refinements of that test but we do not need to go into Pareto efficiencies of Kaldor-Hicks improvements here.

[457] Section 32 approaches the question of efficiency by requiring analysis of three components of efficiency:

(a) the benefits and costs of the proposed provisions[522];
(b) the benefits and costs of the alternative[523] (in this case the status quo);
(c) the risks of acting or not acting[524].

[458] As for the second bullet point we should explain why alternatives are still relevant since in its pre-2009 version express reference to alternatives has now been largely omitted from section 32. The exception is the heading which still refers[525] to *Consideration of benefits, alternatives and costs.* In addition to that we hold that consideration of alternatives is implicit for three reasons. First, section 32 RMA requires the local authority to assess whether each objective, policy or method provision is the most appropriate. "Most" is a comparative term: it requires that the provision in contention be evaluated against at least one alternative. Second, section 32(4)(b) requires the local authority to take into account the risk of acting (i.e. introducing PC13(pc)) or not acting (e.g. reverting to the status quo). That requires comparing (at least) those alternatives. Third, section 32 is a procedural provision. It must be applied in accordance with the purpose and principles of Part 2 of the RMA. The principles include the requirement in section 7(b) RMA to have particular regard to the efficient use of the relevant natural and physical resources. We will discuss the efficient use of the resources of the Mackenzie Basin next. It is sufficient to record at this point that economic efficiency involves a comparison of the net social benefits of

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519 This is the only objective measure of efficiency we know of: see the *Lammermoor* Decision: *Maniototo Environmental Society Inc v Central Otago District Council* (EnvC) C103/2009 at [745].
520 Efficiency in consumption has a similar meaning.
521 *Oxford Dictionary of Economics* p 139 (OUP, 1997).
522 Section 32(4)(a).
523 Section7(b) RMA.
524 Section 32(4)(b) RMA.
525 Note that in the current (2017) version of section 32 it has a different heading.

the objective in question with the social benefits of the best alternative (often but by no means necessarily, the status quo).

[459] Independent expert confirmation of those points can be gained from an excerpt from the New Zealand Treasury's *Guide to Social Cost Benefit Analysis*[526] ("*The Treasury Guide*") which was referred to by Dr Fairgray[527]. A relevant excerpt was produced[528] by Mr Gimblett, the planning consultant called for Meridian. That document – "Step 1: Define policy and counterfactual" – states[529] that:

> ... Having established the potential need for a policy, the next thing to do is to clearly define the policy, alternative solutions and the counterfactual. The counterfactual is the situation that would exist if the decision is not made, if the policy does not go ahead. It is sometimes described as the "do nothing" or as the "do minimum" scenario. It is important to charactise the counterfactual accurately and to use it consistently, as the benefits and costs of the policy alternatives are measured against the counterfactual. This is often not straightforward, in particular where the "do nothing" or the "do minimum" scenarios are likely to evolve over the evaluation period. In those situations it will be necessary to forecast the evolution of behaviours and technologies.

[460] *The Treasury Guide* then gives a very interesting example which, in our view, needs to be understood by everyone responsible for a section 32 assessment:

> **Example: Bridge over river**
>
> Suppose that the bridge costs $20 million, and that it will save travellers $25 million worth of travel time and vehicle operating costs, in present value terms. The bridge would appear to have benefits that exceed the costs. The net present value (NPV) of the bridge is $5 million.
>
> But suppose that in the absence of a bridge being built, there is every expectation that a private ferry operator will start business. The cost is $10 million in present value terms, and the social benefits are $20 million in present value terms. The ferry operation has an NPV of $10 million.
>
> Compared with the ferry operation, a bridge would cost $10 million more, and would produce $5 million more benefits. Against this counterfactual, the bridge has an NPV of -$5 million.

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526 http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/... sourced 3/02/2017.

527 J D M Fairgray supplementary evidence 22 December 2016 [Environment Court document 9B].

528 Exhibit 30.1.

529 http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/... sourced 3/02/2017.

> Against the "no bridge, no ferry" counterfactual, the bridge would seem worthwhile. But against the "ferry" counterfactual, the bridge is not.
>
> Equivalently, the ferry could be presented to decision-makers as an alternative to the bridge. This would still show the ferry to be the better option, despite the fact that the bridge has greater total benefits.

The analogy in this case is the consideration of:

- no PC13, allowing unfettered irrigation; up to the limit of available water, of land in the Mackenzie Basin (this is the 'bridge'); and
- PC13(s293V) with consequent use of the water foregone to run through the WEPS to generate electricity and then to use it for irrigation (this is the 'ferry' in the analogy).

We consider the quantified evidence on these alternatives in 8.3 below.

[461] *The Treasury Guide* continues[530]:

> 10. As the example above suggests, it is good practice to consider several alternative options for solving a problem or achieving an objective. Each of these should be treated as a separate policy to be evaluated against the counterfactual.
>
> 11. Finding the best alternatives is an art rather than a science. It relies on creativity and innovative thinking, and should include the best from an economic perspective even if they are not consistent with decision-makers' objectives. It is important for decision-makers to know what alternative policies or solutions they are rejecting.
>
> 12. Whether a policy is a good one is often not known until the CBA has been carried out. In such cases, and where an apparently good option is found to be not good, it may be necessary to go back to the first step and define and analyse additional alternatives. (Underlining added)

The underlined words are important because they confirm that the policies of the district and regional plans are irrelevant to the assessment of the proposed plan (change) and the alternatives if the true social benefits and cost of each are to be ascertained. We return to that point shortly.

530 http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/... sourced 3/02/2017.

8.2 The benefits and costs of using the land and the landscape

The debate between Dr Fairgray and Mr Copeland

[462] The Council called economic evidence from Dr J D M Fairgray, a geographer with special expertise in economics and a very experienced witness on the economics of the RMA. Dr Fairgray gave careful and nuanced evidence on how "location is never neutral" when matters of non-monetarised values like landscapes are concerned. His initial analysis compared the efficiency of the status quo with pastoral intensification and agricultural conversion of land under PC13. He concluded that there was efficiency of process[531] and scale[532]: "... PC13 is supported by efficient processes and good information; especially in terms of where change may not occur, and where [it] can potentially occur; and the provisions against which it will be assessed" [533].

[463] Mr M C Copeland another very experienced economist agave evidence for Mt Gerald Station. In his opinion PC13(s293V) would impose large costs on the district economy. In particular he wrote that PC13(s293V) limits on pastoral intensification "will lower the 'critical' mass of the of the District economy"[534] and lead to a raft of negative economic effects. Further, "consents for pastoral intensification will be onerous to achieve"[535].

[464] Dr Fairgray's disagreed[536] with Mr Copeland, on both the extent and the likelihood of the potential loss. In his opinion Mr Copeland had not considered several matters fully[537]:

> The agricultural industry in Mackenzie District has been decreasing in relative importance. Even in the absence of PC13, over the last decade and a half the employment in agricultural industries has decreased by over -20% ... Mr Copeland has not recognised this steady decline in the industry nor how it affects the 'critical mass' that he highlights as an issue.
>
> Second, as can be observed most agricultural land in the Mackenzie Basin has not been intensified to date. This indicates that even in that absence of PC13 (s293V), it has not been viable (profitable) for farmers to use the land more intensively. The implication of this

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531 J D M Fairgray evidence-in-chief at paras 6.15 to 6.20 [Environment Court document 9].
532 J D M Fairgray evidence-in-chief at para 6.21 [Environment Court document 9].
533 J D M Fairgray evidence-in-chief at para 7.3 [Environment Court document 9].
534 M C Copeland evidence-in-chief, 19 August 2016 at para 33 [Environment Court document 10].
535 Ibid at para 35 [Environment Court document 10].
536 J D M Fairgray rebuttal evidence at para 11 [Environment Court document 9A].
537 Evidence of Doug Fairgray (J D M Fairgray) for the Council, 15 July 2016 at para12 [Environment Court document 9A].

> rational decision by farmers is that the restrictions set out in PC13 (s293V) on intensification may not be what has determined the decision to not intensify - specifically it is not profitable to use the land for intensive uses. In those circumstances, PC13 (s293V) will have limited impact. I consider that Mr Copeland has not recognised the prospect that large areas of agricultural land covered by PC13 (s293V) that would not be viable for more intensive uses. The introduction of PC13 (s293V) will not by itself change this. Nevertheless, the combined effect of greater availability of water from Meridian and the freeholding of land has enabled significant intensification within the District.
>
> Third, farmers are not precluded from applying for consent to intensify. There will be locations within the Basin which have little or low ONL on which intensification is feasible. In these situations consent to intensify should be enabled. In aggregate, the foregone agricultural production will be minimised, though not avoided. Mr Copeland appears to not recognise this likely result.
>
> Fourth, the nature of PC13 (s293V) is that it applies on a case by case basis, such that where intensification is viable without degrading the ONL values then it can be expected to occur. This will mean intensification outcomes which are specific to the conditions and opportunities within each farm. Unless or until such assessment is undertaken, it is not possible to provide an estimate of the cumulative or aggregate effects on farming. Mr Copeland has not offered an overall assessment, from the aggregate opportunity costs across all farms subject to PC13 (s293V).

We find that evidence on the costs of PC13(s293V) more convincing.

[465] Mr Copeland was of the opinion that the economic benefits of PC13(s293V) would be minor. In particular it is unlikely there will be negative effects on tourism if the status quo continues because pastoral intensification and agricultural conversion "... have not previously deterred tourists visiting the District"[538].

[466] Dr Fairgray disagreed[539]. In his opinion Mr Copeland failed to adequately consider:

- the rapid growth in tourism activity in the Mackenzie District so that it is now "the most important contributor to the District's economy"[540];
- forecasts that tourism is likely to grow by over 7% per annum in the near future[541];

538 M C Copeland evidence-in-chief 19 August 2016 at para 38.4 [Environment Court document 10].
539 J D M Fairgray rebuttal evidence 7 October 2016 at 16 [Environment Court document 9A].
540 J D M Fairgray rebuttal evidence 7 October 2016 at 16.1 [Environment Court document 9A].
541 J D M Fairgray rebuttal evidence 7 October 2016 at 16.2 [Environment Court document 9A].

- that "a major influence on international visitors' decisions to come to New Zealand is the country's natural beauty. The most recent data from the International Visitor survey shows that 51% of respondents list "Its spectacular landscapes and natural scenery" as a reason for being interested in visiting New Zealand"[542];
- the importance of the Mackenzie Basin as an important component of the natural features of New Zealand[543].

[467] Ultimately we find that we have far too little evidence to assess the benefits and costs of either PC13(s293V) on the status quo in relation to the tourism industry.

[468] Further neither Mr Copeland nor Dr Fairgray has valued the externality represented by adverse effects on the non-market (i.e. not tourism related) values of the ONL. Dr Fairgray quoted from a text by D Moran on *The Economic Valuation of Landscapes*[544]:

> the production of landscape falls under the rubric of market failure[545]. In essence the public cannot easily transact to satisfy a demand for landscape as a good. In the absence of a demand backed by a willingness to pay, land owners, predominantly but not exclusively farmers, may not be motivated to provide the features that might match demand. This is because landscape is a public good and they cannot capture benefits from all forms of users. Accordingly, and provided landscape is valuable to the public, there is a rationale for government intervention to stimulate the supply of features that are deemed to be in the public interest.

[469] Dr Fairgray's summary was that[546]:

> Mr Copeland's focus on the "farming vs tourism" comparison is not appropriate in my view. Both industries are important to the community, but the overall value of the ONL and other aspects of the natural environment is not limited to the economic role of tourism. The rationale for PC13 (s293V) is not some simple weighing up of the relative contributions of farming and tourism to the Mackenzie economy.

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542 J D M Fairgray rebuttal evidence 7 October 2016 at 16.3 [Environment Court document 9A].
543 J D M Fairgray rebuttal evidence 7 October 2016 at 16.1 [Environment Court document 9A].
544 *The Economic Valuation of Rural Landscapes*, D Moran, Scottish Agricultural College, 2005.
545 If landscape value was perfectly capitalised in land prices then the market could be relied on to deliver an optimal allocation of landscape but markets do fail.
546 J D M Fairgray rebuttal evidence 7 October 2016 at para 19 [Environment Court document 9A].

[470] We trust we are not being unfair to these witnesses if we say that we consider Dr Fairgray and Mr Copeland have rather talked past each other (and over our heads) on the important issue of externalities. If we understand Dr Fairgray he says that Mr Copeland has not put values on the costs of the externalities (with no PC13) and so his evaluation is insufficient. Mr Copeland replies in effect that Dr Fairgray has not priced the benefits of PC13 either. Further he says the assessment of those matters "... should be left to appropriately qualified experts and not considered within an economic assessment framework"[547].

[471] We respectfully disagree with Mr Copeland's confusion of what he says ought to be the case ("should") with what is the case. His normative judgment that the values are inherent and cannot be priced may or may not be correct. We consider the attempt would be useful if made.

[472] However, we do accept that in these proceedings no attempt whatsoever has been made to quantify the cost (or probability) of the potential loss of one or more native species of plant or animal, or of the "inherent value"[548] of the landscape. Consequently Mr Copeland is correct that ultimately this case comes down (subject to Chapter 8.3) to the court having to weigh:

- no PC13 – the financial benefits to farmers minus the environmental costs to the landscape; against
- PC13(s293V) – the financial costs to farmers minus the environmental costs for the landscape.

The debate between Dr Fairgray and Mr Cooper

[473] FFM called evidence from Mr D J Cooper, a policy advisor for Federated Farmers of New Zealand and a more junior economist. He quite properly acknowledged his advocacy role but put forward what we accept is an honest professional opinion.

547 M C Copeland rebuttal evidence at para 15 [Environment Court document 10A].

548 "Inherent value" is in quotes for two reasons: first, many economists do not accept there are any such things – only values to one or more people; second, they are recognised expressly by section 7(d) RMA in least in the context of ecosystems.

[474] Mr Cooper stated that he agreed with much of Dr Fairgray's evidence. However, he was concerned[549] with "unnecessary restrictions"[550] on economic growth and with the costs imposed by regulation.

[475] Some of Mr Cooper's evidence was rather theoretical. In a section headed *IV Economic Theory and RMA* Mr Cooper described how there can be a tension between the overall need to regulate to provide for optimal net outcomes, and the shape of the regulatory approach adopted because the distribution of cost is not the same as the distribution of benefits. We accept that but as Dr Fairgray observed[551] the issue for the local authority (and this court) under section 32 is "the efficiency and effectiveness of the mechanism(s) applied to achieve the desired social outcomes".

[476] Dr Fairgray agreed[552] with Mr Cooper, that the costs associated with any regulation "... are relevant considerations ...". Dr Fairgray wrote:

> It is not uncommon that ownership of land or other asset which has a significant public good component (including landscape, heritage and environmental protection values) will incur private costs associated with maintaining or enhancing that value, often in proportion to the size or value of the asset ... while PC13 (s293V) may highlight the issues, in my view it is not appropriate to expect that PC13 (s293V) itself would include any mechanism to resolve such issues.

In any event the costs associated with securing a consent for a discretionary activity[553], are similar[554] to the types of cost which any business would face when investigating and evaluating options for expanding production. Dr Fairgray wrote[555] that "While these costs are real, I do not see that PC13(s293V) would mean that such costs would be out of kilter with the same types of costs in a different setting".

[477] On balance we prefer the evidence of Dr Fairgray that PC13(s293V) is a more efficient use of the land and landscape of the Mackenzie Basin than the status quo. That is particularly so since Mr Cooper did not even attempt to identify, let alone to quantify, the costs of the status quo, i.e. of the externalities which are the adverse

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549 D J Cooper evidence-in-chief at para 20 [Environment Court document 11].
550 D J Cooper evidence-in-chief at para 22b [Environment Court document 11].
551 J D M Fairgray rebuttal evidence at para 25 [Environment Court document 9A].
552 J D M Fairgray rebuttal evidence at para 26 [Environment Court document 9A].
553 D J Cooper evidence-in-chief for Federated Farmers, 9 September 2017 [sic] 2016 [Environment Court document 11].
554 J D M Fairgray rebuttal evidence at para 30 [Environment Court document 9A].
555 J D M Fairgray rebuttal evidence at para 30 [Environment Court document 9A].

effects of pastoral intensification and agricultural conversion on the scenic qualities of the ONL or on its natural science values. What price should be placed on the extinction of a small plant species?

8.3 Use of land and water

[478] In fact the land and the landscape are not the only resources which are to be considered in relation to the efficiency of PC13(pc). Another essential resource is the (piped) water which is to be used for irrigation. The use of that water for irrigation raises the question of the two further opportunities foregone which we identified earlier:

- to generate electricity through the WEPS; and
- to use the water downstream of the Waitaki Dam.

[479] The simple point about using water in the Mackenzie Basin is that at first sight it appears inefficient. The options are simple. When the water is taken for irrigation from the Waitaki catchment above any of the power stations in the HEPS it is then lost for power generation. Alternatively that water resource could be left in the river and canals to generate power. After the water flows out of the penstocks at Waitaki Dam it could then be used for irrigation in the lower Waitaki to produce the same or more grass or other crops than in the Mackenzie Basin. Clearly the first option is suboptimal because less "goods" are produced. We elaborate on both the reasons why that is relevant and on the evidence of the market value of the difference in what follows.

The reasons for considering the efficiency of using water for irrigation

[480] Before we address the (limited) evidence on benefits and costs we must clear up some misconceptions by the two local authorities involved in the proceedings. For the MDC Mr Caldwell submitted:

> The costs and benefits of the take and use of water and the allocation of water to different activities is the mandate of the Regional Council and is outside the scope of this hearing. This process is not an opportunity to readdress the appropriateness of regional consents, or allocation plans.

For the CRC Ms Wyss submitted similarly "that a district plan, including Plan Change 13, cannot contain provisions to effectively "reallocate" water that is properly the subject

of regional planning provisions"[556]. We record immediately that this court is not attempting to "readdress the appropriateness of regional consents or allocation plans". We accept that would be completely inappropriate (and beyond our jurisdiction in these proceedings).

[481] Our reason for raising of the allocation of water is not to question the legality of what has been done or to try and change it but simply to look at the efficiency of use of all of the natural resources being affected by farming development in the Mackenzie Basin especially if that has not been done before. There are three, possibly four, independent reasons for doing that in this case.

(1) Efficiency under section 32 should be established regardless of policy

[482] The principal point is that the two Councils have misunderstood what section 32 requires which is an analysis of the efficient use of all relevant resources regardless of policy considerations, as *The Treasury Guide* pointed out. That important point is a complete answer to attempts to say the question of the efficient use of water is not before the court, so in a sense the next three points do not need to be made.

(2) Is use of water on land a territorial function?

[483] The previous paragraph contains the general principle for assessing efficiency, but as it happens there may be another general (and independent) reason why the efficiency of the use of the water for irrigation should be taken account of. It is that the 'use' of water taken from a river or water body may, as a matter of law, not be managed by the CRC. We raised this[557] with counsel but did not receive full submissions on the issue. The MDC took the position that the issue was irrelevant based, as we shall see, on a misconception as to why the court was concerned about this issue.

[484] There are two aspects to the argument. First, the reference to the 'use' of water in section 14 RMA may not be to the general use of water but to its 'use' within a waterbody. This issue was discussed in *P & E Limited v Canterbury Regional Council*[558] ("*P & E*") where the Environment Court wrote:

> [26] We consider, without deciding, that "use" in section 14 is confined to "use in the river" for several reasons:

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556 K J Wyss closing submissions at para 38 [Environment Court document 47].
557 Transcript p 660.
558 *P and E Limited,* above n 253 at [26].

- "use" is defined quite generally in section 2 where the word is used in a number of identified sections but section 14 is not one of them. That suggests that the word "use" in section 14 has its own specialised meaning;
- "use" in section 14 means to employ the properties of water in its natural state (or other state authorised by a consent to dam or take). Examples are the use of the potential energy of water to generate electricity or to use the heat absorption capacity or for subsurface recreation;
- once taken from the river, water can no longer be used in a section 14 sense; ...

The third bullet looks circular to us, but the first two seem valid.

[485] The Environment Court also observed[559] that in fact the CRC does (sometimes) understand section 14 in the narrower sense. For example the definition of [water] "use" in the Waimakariri River Regional Plan ("WRRP") is[560]:

> "Use" means the utilisation of water in a water body for a purpose of exclusive value to the user which cannot be described as a take, a dam, a divert, or a discharge; including the use of the flow in a water body to operate a turbine, a waterwheel, sluicing equipment or other mechanical devices; but not including a use in relation to the surface of the water body, such as swimming, fishing or boating.

[486] The more recent CLWRP does not define "use" or "water use", and nor does the WCWARP. The CRC seems to have now changed its general approach and now reads 'use' in section 14 in a wider (and more problematic) and undefined way. For example, the CLWRP appears[561] to use the word 'use' for irrigation.

[487] The second aspect is that water in a pipe (and all water to large modern irrigators is piped) is not "water"[562]. Consequently it is no longer subject to section 14 RMA: *Wheeler Forrest Associates Ltd v Farquhar*[563]. Conversely the use of piped water on land appears to be a territorial function since there is no restriction on uses which may be managed by a territorial authority under section 31. We did not receive argument on this but it appears to us that piped water is an "associated natural ... resource" in section 31(1)(a) RMA.

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559 *P and E Limited,* above n 253 at [27].
560 Footnote 15 [WRRP p 35].
561 Rule 5.123 pLWRP.
562 According to the definition (c) of "water" in section 2 RMA. This point was also made in *P and E Limited,* above n 253 at [26] fourth bullet.
563 *Wheeler Forrest Associates Ltd v Farquhar* [2001] 2 NZLR 417 (HC) at 424.

[488] We do not, in the absence of submissions on those points, put any weight on this argument by itself. However, there are important issues here which need to be considered by the Senior Courts at some stage.

(3) Efficient allocation of water under the Waitaki Catchment Regional Plan

[489] This and the next point are specific to the Waitaki catchment and concern the efficiency of use of the water of the upper Waitaki River. The efficient use of water in the upper Waitaki catchment (including the Mackenzie Basin) could have been considered at two stages: in the formulation of the Waitaki Catchment Water Allocation Regional Plan ("the WCWARP") by a Special Board in 2006, or on the granting of water permits to take and/or use water in the Mackenzie Basin. We consider each in turn. We raised these points with counsel at the hearing and they responded in their final submissions.

[490] The WCWARP also sets out an allocation regime for different activities in the catchment[564] 275 m^3/s of water was allocated to irrigation above the Waitaki Dam by Table 5 of the WCWARP (as a discretionary activity). Ms Wyss submitted[565] that "the costs and benefits of the allocation of water has occurred in formulation of the WCWARP. The WCWARP was heard by a Board of Inquiry with extensive evidence and analysis on competing uses of water". The section 32 Report attached to the Special Board's Report on the proposed WCWARP contains two relevant references to efficiency of water.

[491] The first concludes[566]:

> **5.5.5 Efficiency**
>
> Following the consideration of the benefits and costs of the provisions, it is the Board's judgement that the provisions relevant to the division of the annual allocation of water between activities:
>
> - upstream of the outlets of Lakes Tekapo, Pūkaki and Ōhau, and including Lakes Tekapo, Pūkaki and Ōhau are of moderate efficiency

564 K Gimblett Supplementary Statement of Evidence dated 7 February 2017 [Environment Court document 30A].
565 K J Wyss closing submissions at paras 36 and 37 [Environment Court document 47].
566 Waitaki Catchment Water Allocation Regional Plan – Section 32 Report at p 37.

- upstream of Waitaki Dam but downstream of the outlets of Lakes Tekapo, Pūkaki and Ōhau are of moderate efficiency
- downstream of Waitaki Dam but upstream of Black Point are of high efficiency
- downstream of Waitaki Dam but downstream of Black Point are of high efficiency.

That analysis suggests that if only[567] economic efficiency was being considered water for the Upper Waitaki would have been allocated to the Lower Waitaki. In other words, the Upper Waitaki allocations were relatively (and all considerations of efficiency are relative) inefficient.

[492] The second relevant point is the discussion of Benefits and Costs in the section 32 Report on the WCWARP. It assesses the "economic" benefits and costs as follows[568] (relevantly):

Economic [Benefits]	Economic (Costs)
Enables an increased number of economic enterprises to access the allocated water, potentially achieving higher overall economic gains.	High levels of technical efficiency in the use of water may not result in an economically efficient use of resources. However, the resource consent process allows consideration of this.
Achieves greater economic returns from the allocated water by reducing waste.	Individual water users and communities may face capital expenditure requirements to upgrade existing water management (irrigation, stock water, community water and water race) systems. However, the resource consent process allows consideration of this.
	...
	(Underlining added)

We note that the Section 32 Report expressly relies on the resource consent process to consider efficient use of the resources. That makes it important to check that was done (since the Councils are relying on that).

[493] There is an additional reason we consider that the WCWARP was inconclusive about the efficiency of water use and that is because the Plan was primarily concerned with quantity allocation of volumes of water, not with water quality and not with

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567 Of course under the RMA efficiency considerations are never the only considerations. They are only one of many matters to be had regard to under section 7, and in turn that is subservient to sections 5 and 6 RMA.

568 Waitaki Catchment Water Allocation Regional Plan – Section 32 Report at p 49.

intervening land use. Thus in several ways – as discussed recently in *Infinity Investment Group Holdings Limited v Canterbury Regional Council* (Final)[569] – the WCWARP was necessarily incomplete and that reflects in the discretionary activity status of specific consents to take and use water from the Waitaki catchment (including from within the Mackenzie Basin).

[494] Those considerations are reinforced by the fact that since the WCWARP commenced operation in 2006, the NPS for Renewable Electricity Generation 2011 ("NPSREG") has come into force. Its policy B(a) makes " ... continued availability of the renewable energy resource" (i.e. water) a matter to have particular regard to[570] by decision makers.

[495] We conclude that the efficient use of water from the Waitaki catchment was only provisionally determined by the Special Board setting the WCWARP. To the extent it did determine efficiency issues it found that the allocation of water for irrigation in the Upper Waitaki was inefficient (i.e. of medium not high efficiency). It dealt with that by providing that all takes (except for stockwater, etc.) are discretionary activities.

[496] In relation to that discretionary status of water use, Ms Forward cited *Swindley v The Waipa District Council*[571] for the proposition that:

> ... the fact that a particular class of activity is recognised by a district plan as a permitted, controlled, or discretionary activity implies that in general that class of activity is an efficient use and development of the resources for the purposes of Part [2 RMA].

That may be correct of discretionary status of land use activities under a district plan given the assumed efficiency of existing property law conferred by section 9 RMA – see the Procedural Decision in *Infinity Investment Group Holdings Limited v Canterbury Regional Council*[572].

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569 *Infinity Investment Group Holdings Limited v Canterbury Regional Council* [2017] NZEnvC 36 at [216].

570 NPSREG Policy B(a).

571 *Swindley v The Waipa District Council* (PT) Decision A75/94 at p 23.

572 *Infinity Investment Group Holdings Limited v Canterbury Regional Council* (No. 1) [2017] NZEnvC 35 at paras [32] and [35].

[497] We doubt that the *Swindley* principle applies to section 14(2) RMA water permits. There are no real markets with pricing of water under the RMA. Consequently there are no market prices which can be used to assess the benefits and costs of alternative uses of the resources. We infer it is for those reasons that the question of the efficient use of water was left open in the WCWARP.

(4) Was efficient use of the water considered when water permits to use were granted?

[498] Finally the question of the efficient use of the water resource could have been determined when individual water permits to take and/or use were granted in the Mackenzie Basin. Ms Wyss submitted that[573]:

> The efficiency of the take and use of water is also a relevant matter for the consent authority to consider under WCWARP when assessing an application for resource consent to take and use water.[574]

In fact they have not been considered for many of the resource consents in the Mackenzie Basin.

[499] The Environment Court recorded in *Glentanner Station Ltd v Canterbury Regional Council*[575] ("Glentanner") that many water permits to "use" water for irrigation in the Mackenzie Basin were granted in a tranche of 104 applications for water permits to take water from the Upper Waitaki catchment[576] considered in 2009/10 by Commissioners appointed by the CRC. The CRC's Commissioners issued one generic Part A decision and a series of farm-specific Part B decisions thereafter. There were 50 appeals to the Environment Court. In neither did they consider the efficiency of use of the water. Paradoxically they did consider the efficient use of land. For example in another appeal the Environment Court observed[577] in that 'Part B' decision that "the CRC's Commissioners appeared to go off-track in their section 7(b) analysis by comparing (irrelevantly) the value of Lone Star's land for dryland farming versus its value for irrigated farming. The proper comparison for the purposes of the water take applications would appear to be of the different uses for the water"[578]. In fact, there is

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573 K J Wyss Closing submissions at para [37].
574 WCWARP, Policies 15-20.
575 *Glentanner Station Ltd v Canterbury Regional Council* [2014] NZEnvC 147 at para [9].
576 Above the Waitaki Dam.
577 *Lone Star Farms Ltd v Canterbury Regional Council* [2014] NZEnvC 247 at para [4].
578 The second sentence in this passage is on reflection incorrect. That analysis was relevant, simply incomplete, as we discuss next.

nothing wrong with considering the land use options: that should be part of the assessment of benefits and cost. However, it is axiomatic that all benefits and costs must be taken into account. The more obvious costs to take into account on a water take application were the opportunity costs of the water, and those were not factored in.

[500] The court stated in *Glentanner* (relevantly)[579]:

> [14] The court has expressed concerns in its minute of 29 January 2014 about [an] apparent error ... of law in the Commissioners' Part A and part B decisions:
>
> - when considering section 7(b) of the RMA the decisions did not consider more appropriate uses of the water which was to be taken[580];
>
> ...

The court then required evidence[581] and submissions on that issue. Rather than supply those the appeal was withdrawn on 25 November 2014. The same issue had earlier been raised in *Meridian Energy Ltd v Canterbury Regional Council*[582] and again (subsequently) in *Lone Star Farms Ltd v Canterbury Regional Council*[583]. Again resolution of the efficiency issue was avoided as described by the court.

Opportunity cost of hydroelectricity not generated

[501] A supplementary brief of evidence[584] from Dr Fairgray lodged at the request of the court[585] assisted us. Dr Fairgray referred to a study[586] undertaken by Opus in 2014 of what was called the "Tekapo Transfer Scheme". The proposal there was to transfer water out of the Waitaki catchment through Burkes Pass and into the Opihi catchment to irrigate land there. Dr Fairgray described the results of the study's comparison of farm production for irrigated land compared with existing dryland farming as follows[587]:

> On the basis that irrigation would mean the intensified land is used primarily (70%) for dairy farming (with arable, sheep and beef and dairy support each 10%), the study estimated a net difference of +$2,600 to +$2,800 per hectare in annual profit[588]. On a Net

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579 *Glentanner Station Ltd v Canterbury Regional Council* [2014] NZEnvC 147 at para [14].
580 Commissioners' Decision on *Glentanner* Part B paras 16.10 and 17.4.
581 *Glentanner Station Ltd v Canterbury Regional Council* [2014] NZEnvC 147 at para [27] Order [A].
582 *Meridian Energy Ltd v Canterbury Regional Council* [2013] NZEnvC 70 at para [15].
583 *Lone Star Farms Ltd v Canterbury Regional Council* [2014] NZEnvC 135.
584 J D M Fairgray Supplementary Brief 22 December 2016 [Environment Court document 9B].
585 Minute 3 November 2016 at [8].
586 The Opus Study (2014).
587 J D M Fairgray Supplementary Statement 22 December 2016 at 4.8 [Environment Court document 9B].
588 The Opus Study (2014) at 9.5.2 Cost Benefit Analysis, p 41.

Present Value (NPV)[589] basis (applying the Opus base case 25 year horizon at 8%) this equates to $21,500 to $22,500.

[502] Then on the "key issue"[590] of the opportunity cost of using the water for irrigation instead of hydroelectricity he wrote[591]:

> The Opus Study identified an annual opportunity cost of $2.6 million per m^3/s of water used for irrigation. This was on the basis of a long run marginal cost (LRMC) of $122.40 per MWh. It also allowed for water to be abstracted from Lake Tekapo, which means that it would otherwise be available for hyrdo-generation at all 8 of the dams on the Waitaki system (Tekapo A and B, Ohau A B and C, Benmore, Aviemore, Waitaki). Accordingly the $2.6 million cost represents a high estimate of the opportunity cost. Water which was abstracted from below Lake Pukaki, for example, would reduce hydro-generation from only the 6 dams downstream from that point.

[503] Opus' conclusions, based on a calculation[592] that each cubic metre of water is sufficient to irrigate in excess of 5,000 hectares, were[593] as summarised by Dr Fairgray:

> 4.14 The foregone electricity production due to irrigation equated to a cost of $485 per hectare per year[594]. In NPV terms, this cost is $3,800 to $3,900 per ha.
>
> 4.15 This indicates that the net outcome from irrigation (additional farm profit less opportunity cost of foregone/more expensive electricity) is in the order of +$2,100 to +$2,300 per hectare per year. On an NPV basis this equates to $17,500-$18,500 per irrigated ha, after allowing the opportunity of $3,800-$3,900 per ha.

[504] Mr Copeland agreed[595] that there is a positive net return from irrigation even when the opportunity cost of electricity production foregone is taken into account.

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589 Dr Fairgray's footnote reads: Net Present Value (NPV): is an applied method used in economics to assess projects which result in benefits and cost over many time periods. The term 'net' in the NPV refers to the summing of costs and benefits over the entire life of the project to produce a net position. The team 'present' in NPV refers to fact that there is a time preference or time value of money, in the NPV the future costs are 'discounted' to a comparable present value. Intuitively people generally prefer receiving a dollar today over receiving a dollar in a year's time. To account for this time preference the future values associated with a project are 'discounted'. The application of NPV is a standard method applied when assessing policies and projects. The Treasury of New Zealand provides an extensive outline of the method in – *Guide to Social Cost Benefit Analysis* (2015).

590 J D M Fairgray Supplementary Brief 22 December 2016 at 4.9 [Environment Court document 9B].

591 J D M Fairgray Supplementary Brief 22 December 2016 at 4.13 [Environment Court document 9B].

592 J D M Fairgray Supplementary Brief 22 December 2016 at 4.16 [Environment Court document 9B].

593 J D M Fairgray Supplementary Brief 22 December 2016 at 4.14 and 4.15 [Environment Court document 9B].

594 The Opus Study at p 31 Table 7-3.

595 M C Copeland rebuttal evidence at para 16 [Environment Court document 10A].

Opportunity cost of not using the water for irrigation below Waitaki Dam

[505] However, Dr Fairgray did not consider before the hearing – and in fairness he was not asked to – whether there was another opportunity foregone by using water for irrigation in the Mackenzie Basin. That opportunity is to use the water in the WEPS to generate electricity and then to take it out of the Waitaki River for irrigation below the bottom power station at the Waitaki Dam. For example, a recent decision of the court has found that there is demand for more water for irrigation on the Hakataramea catchment that that tributary of the Waitaki can provide: *Infinity Investments Group Holding Limited v Canterbury Regional Council*[596].

[506] We put to the economists Dr Fairgray, and Mt Gerald's economist Mr M C Copeland that there was a further opportunity lost by using water to irrigate in the Mackenzie Basin rather than downstream of the Waitaki Dam (after using it to generate hydroelectricity).

[507] First, the court had this exchange with Dr Fairgray[597]:

> Q. ... [A]ssume there is insufficient water downstream in the Waitaki and indeed what has been allocated already is over-allocated and it has to be pulled back, so they'd love some water from somewhere, then when you're talking about the net benefits of irrigation in the Mackenzie Country, that has to take into account, well if you like you have to subtract not only the benefits foregone of extra water flowing through the turbines all the way down the Waitaki but the benefits foregone in the Lower Waitaki.
>
> A. Yes.
>
> Q. Which is likely, would you say, to be equal or greater the benefits in the Upper Waitaki of irrigation.
>
> A. I have to say I haven't look specifically at the Lower Waitaki but the work I have, the studies I have looked at in terms of irrigation values generally, more or less you'd expect them to be about the same.

[508] A similar exchange occurred with Mr M C Copeland the economist called by Mt Gerald Station. The court asked:

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596 *Infinity Investments Group Holdings Limited v Canterbury Regional Council* [2017] NZEnvC 36 at [80].

597 Transcript p 102 line 30, p 104 line 9.

Q. ... Now, I think you agree with me here that in national benefit terms as opposed to district ... benefit terms, you could achieve the same benefits, more or less, by irrigating downstream, below the Waitaki dam?

A. Yep, yep.

...

Q. ... I'm just concerned about the national benefit under section 7(b) the efficient use of resources. So in effect the benefit of this proposal cancels, out because there's ... cost foregone, all right?

A. Accepted so far, yes.

Q. So there is no other benefit is there?

A. Not that I can recall right now.

Q. And then if you can look at paragraph 4.14 of Dr Fairgray's first supplementary [evidence].

A. Yes.

Q. There's a cost of irrigating farmland in the Mackenzie of around $3,800 to $3.900 per hectare ... isn't there?

A. Correct.

Q. So on a national basis there is no benefit to the economy from irrigating land in the Mackenzie. There is, in fact, a not insignificant cost of nearly $4,000 per hectare?

A. Correct, I mean, I accept – I haven't done the sum, I mean, this figure here was only a fraction, as I recall something like one-sixth of the additional farm benefit, so I'm having to accept your assumption that downstream and upstream are about the same but it could well be that upstream was better than downstream.

Q. It could be the other way around?

A. It could be, yeah, well, you know, it can – hypothetically, accepting your assumptions.

...

Q. ... So ... if we're dealing with the economics of it under section 7(b) as far as we can quantify, the net benefit is actually a net cost and it's nearly $4,000 per hectare?

A. Because of foregone electricity generation, yes.

Q. And because you could substitute the water by using it downstream?

A. Yeah, I accept that, that's so far so good.

[509] As those passages show that, while the economists were understandably cautious about endorsing the proposition that the benefits from conversion of dryland to irrigated farming would be the same in the lower Waitaki as in the Mackenzie Basin, they did not dissent from the proposition. Further, two independent studies suggest that the benefits (if not the costs) of conversion to irrigated farming are approximately comparable throughout Canterbury. First the Opus study showed, accordingly to Dr

Fairgray[598] that the benefits of irrigating land in the lower Waitaki would likely be $20,000 + per hectare since Dr Fairgray wrote "the figures are generally comparable"[599] when comparing the Mackenzie Basin with the Opihi Catchment. Secondly, a report by NZIER referred to by Dr Fairgray in his evidence-in-chief shows that NZIER considered it was meaningful to analyse and report on Canterbury as a whole, reporting[600] in Dr Fairgray's words:

> NZIER[601] (2014) estimated gross revenue from irrigated dairy farming in Canterbury of $11,593 per ha, assuming a pay-out of $6.59 per kg. At the current dairy pay-out of around $4 per kg, this would equate to around $7,400 per ha. While the additional revenue per ha from irrigation will vary from location to location, and between different farming type (for example, dairying vs dairy support vs irrigated cropping and finishing) it is clear that irrigation and pastoral intensification does generate considerable additional farm income.
>
> Irrigation is also associated with considerable additional operating costs.

[510] Dr Fairgray did not overlook transaction costs since, as Mr Copeland pointed out[602] and Mr D J Cooper elaborated[603], they are important. They are taken into account as part of the producer's costs when establishing the producer's surplus as part of the NPV calculation.

[511] Mr Gimblett usefully commented on *The Treasury Guide* in some notes he wrote overnight after hearing the economists' evidence. He produced the notes[604] which include the statement:

> ... when doing the overall evaluation under S32 (1) (b) (ii) and more broadly under S32 (1), if one was to assume there is credible evidence of an alternative that:
>
> a. would serve to deliver, say, benefits of the protection of landscape and biodiversity values in the upper catchment, and
> b. as well as benefits under, say, s 7(j), and
> c. whilst also enabling economic benefits of pastoral intensification to occur in the lower catchment through land use change,

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598 J D M Fairgray Supplementary Statement 22 December 2016 at 4.8 [Environment Court document 9B].
599 J D M Fairgray Supplementary Statement 22 December 2016 at 4.8 [Environment Court document 9B].
600 J D M Fairgray evidence-in-chief at para 5.21 [Environment Court document 9].
601 Value of irrigation in New Zealand: an economy wide assessment. NZIER and AgFirst Consultants November 2014.
602 Transcript p 130 line 5.
603 D J Cooper evidence-in-chief [Environment Court document 11].
604 Exhibit 30.2 at para 5.

> then one would properly assess efficiency and effectiveness of the provisions under s 32 (1) (b) in a manner that recognises that those benefits identified under s 32(2) as being lost by restricting provisions are simply local benefits lost. The same economic benefits may be achieved regionally or nationally by that credible alternative without the same environmental costs. That is because the identified costs under s32(2) that are focused on the effect of the provisions locally should not lead to the invalid evaluative premise that benefits lost locally mean benefits are lost nationally or regionally. In such a case the national or regional focus may be appropriate in the evaluation under s 32 (1) (b) where taking this wider perspective better serves Part 2 including s 7(b).

That is not entirely clear, but we give credit to Mr Gimblett (a planner) for attempting to understand and explain to us what section 32 RMA and section 7 require. It seems to us that the important point in Mr Gimblett's analysis is his last sentence with the effect that the benefits and costs should not be assessed simply on a district basis.

[512] Based on the evidence of the economists and Mr Gimblett we hold that the alternatives we have to compare the net benefits of are:

(1) irrigation of one extra hectare in the Mackenzie Basin; and
(2) PC 13 and the potential for irrigation of one extra hectare below Waitaki Dam.

[513] On the evidence the NPVs are:

(1) $17,500 to $18,500 per irrigated hectare in the Mackenzie Basin
(2) $21,500 to $22,500 per irrigated hectare below Waitaki Dam.

This per hectare comparison is particularly useful since we do not have complete figures for the extent of potentially irrigable land[605]. However, we found in Chapter 2 of this decision that there are over 10,000 hectares of as yet ungranted applications before the CRC. Assuming that the same area could be irrigated below the Waitaki Dam then the difference in NPVs is ($3,000 x 10,000 =) $35 million which is not an insignificant figure.

[514] Accordingly we find that PC13 is likely to be more efficient than the status quo because it would enable the more efficient use of the land and water and other component resources to be considered on a case by case basis. We note that analysis

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605 D J Cooper evidence-in-chief at para 40 [Environment Court document 11].

disregards – because they are unquantified – the cost of any externalities which are likely to be higher in the Mackenzie Basin with its ONL and tourism industry, (quite apart from any cost benefit advantages in pushing nutrient loadings (much) further down catchment).

[515] Finally we note that in closing submissions for FFM Mr Gardner suggested that the *Mackenzie Agreement* would be a better course of action than PC13. There is no economic evidence on which we can assess that in a quantitative way. Qualitatively it is possible that may have been correct in 2011 when less of the Mackenzie Basin had been affected by pastoral and agricultural intensification, although it appears there are ambiguities in that document which may undermine its utility. In any event if complete reliance on the *Mackenzie Agreement* was a possibility then, it is no longer so. The accumulative actions of farmers throughout the Basin have as several of the witnesses said, brought the Mackenzie Basin to a point where its landscape values have been modified and its values (and status) as an ONL is being threatened. We consider management by the Council is overdue.

[516] In any event there is no evidence about the net benefits and costs of this alternative, so there is completely inadequate information on which to assess it.

8.4 The risk of acting or not acting

The risks to farming viability

[517] On the risk to farmers Mr Gardner submitted[606]:

> ... that the risks to the New Zealand community of the Council getting planning in the Mackenzie District wrong are much higher than they are in many, if not most other parts of the country. There seems little doubt that the Council is able to regulate farmers out of business, if doing so best promotes the purpose of the RMA.

[518] We accept, on the evidence of Mr Murray, that earnings from farming are low[607]. Little has changed: we found – again on Mr Murray's evidence – in the First Decision[608] that "... high country farming is generally an unprofitable activity at present". As a matter of fact the "viability" of a farm depends on, for example, the payment of interest on large (speculative) borrowings. That is particularly likely at present with New

606 R Gardner Opening Submissions at para 16 [Environment Court document 2.2].
607 J B Murray evidence-in-chief at para 8 [Environment Court document 5].
608 [2011] NZEnvC 387 at para 42.

Zealand's dairy farming bubble. The position taken by Ms Murchison appeared to be that[609] if the viability of a farm is at risk then protection of the ONL was inappropriate. That approach is incorrect for a number of reasons.

[519] The difficulties of assessing viability[610] are compounded in the Mackenzie Basin where large prices are paid for stations which may have little to do with price earning ratios and much more to do with lifestyle choices. Mr Caldwell produced[611] a memorandum listing recent sales prices in the Mackenzie Basin. It advised of three recent sales within the Basin.

- *Rhoborough Downs*

  Rhoborough Downs Station which was at the time of sale (substantially covered in wilding conifers) has sold twice since 2011, and is now operating in two separate ownerships:

  (a) sold in 2011 for $3,200,000 to the Wigley family; and
  (b) re-sold in 2014 for $8,000,000, comprising $7,260,000 the bulk of the farm and $740,000 for a transfer of ownership of a smaller parcel (approximately 800 hectares) within the Wigley family.

- *Guide Hill*

  The MDC advised that Guide Hill Station sold in 2015 for $14,500,000. Guide Hill is a relatively small station.

- *Mount Cook*

  The High Court has recently declared it could be sold[612]. Mr Caldwell advised that the media has previously reported an offer of $4,700,000-$4,800,000 was accepted prior to the hearing[613].

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609 Transcript p 779, lines 23-26 and p 780, lines 30-33.

610 To the extent that is relevant: the real calculation should be of the farmers' producer surpluses (after taking proper costs into account). As usual we received no specific evidence on these but assume they are taken into account in the Opus and other reports referred to in Chapter 8.

611 [Environment Court document 1D].

612 *Re Burnett Mount Cook Station Charitable Trust* [2016] NZHC 2669 at [139].

613 http://www.stuff.co.nz/ article *Mt Cook Station can be sold, Court rules* 21 November 2016, Charlie Mitchell; http://www.stuff.co.nz/ article *Tourism could be an option at Mt Cook station, buyers may sue* 5 October 2016, Charlie Mitchell.

[520] The viability of a farm should be assessed objectively rather than on a landowner's subjective view. We find that the dire results predicted by Mr Gardner for FFM are unlikely to occur on a basin-wide basis if a farmer cannot afford to apply for resource consent for pastoral intensification or agricultural conversion or cannot afford to comply with conditions of consent. It is more likely than not that a "lifestyle" or northern hemisphere "bolthole" purchaser will come in and pay the sort prices that have been achieved in the recent sales.

[521] Just as there can be no blanket approach requiring that all use and development be prohibited, there can be no doctrinaire approach that says if a farm is made financially non-viable then there must be no protection of the ONL. Clearly, a local authority (and the court) will do all it can to avoid that consequence, but it may be a possibility in some situations. The Environment Court considered a comparable situation in *Day v Manawatu-Wanganui Regional Council*[614]. There the court discussed the possible outcome of a situation where nitrogen loss limits are put in place and a farmer was not able to meet them. The Environment Court asked:

> - 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?

Its answers were:

> ... If the latter, the farmer will have a decision 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.

The risks to tourism

[522] On balance we prefer the evidence of Mr Copeland on the risks of the two options to tourism in the Mackenzie Basin. We consider the probability of a serious fall

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614 *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 182 at 5-176.

in producers' surpluses (producers being all operators in the tourism and supporting industries) if PC13(s293V) is low. This factor suggests there is no need to confirm PC13 in any form.

The risks to weed and pest control

[523] Mr Gardner also submitted:

> Mr Simpson's and Dr Scott's evidence make it plain what is likely to happen if that scenario was to arise in the Mackenzie District[615], that wilding pines, rabbits and hieracium would overcome the land quickly, which raises the question, would the outstanding natural landscape that the Mackenzie Basin now is still be outstanding natural landscape if that was to happen? It is Federated Farmers submission that the scenario is far less likely to arise if the changes proposed to PC13 in the attachment to Ms Murchison's evidence are to be adopted, than if the Council's proposals are confirmed by the Court.

[524] Mr Gardner put that to Dr Walker and she answered that "that's a value judgement, which way you want to lose your biodiversity"[616]?

[525] We find it hard to believe that there is a high probability of many farmers in the Mackenzie Basin simply abandoning their weed and pest programmes. There is now a Regional Pest Strategy and various other initiatives set out by Mr Briden. We consider the risks of serious extra costs being imposed on society if PC13(s293V) is confirmed, are low.

The risks to the living natural science components of the ONL

[526] Third, there are often some components of an ONL which are matters of national importance in their own right – the natural science values may include areas of significant indigenous vegetation or habitats of significant fauna which should be protected under section 6(c) RMA. In fact both those provisions are relevant in this case.

[527] Much of the flat and easy country within the Basin is the set of ecosystems which is the home of the suite of endemic plants listed earlier. For the MDC Mr Harding considered that the natural science values especially the ecological values of the

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615 A W Simpson Statement of Evidence on behalf of Federated Farmers of New Zealand Inc at 3.5; P J Boyd Statement of Evidence on behalf of Federated Farmers of New Zealand Inc at 3.10; W R Scott Statement of Evidence on behalf of Federated Farmers of New Zealand Inc at 7.11.

616 Transcript p 285, line 12.

Mackenzie Basin would be "substantially provided for" in PC13(pc). On the other hand FFM said PC13 would be going too far. However, the Guardians witness Dr Walker did not[617] agree with Mr Harding[618] that PC13 will substantially provide for the protection of the ecological components of the natural landscape character of the Mackenzie Basin, for reasons set out below:

59.1. Objective 3B inadequately describes these ecological components (it refers only to 'tussock grasslands")[619];

59.2. PC13 proposes to make pastoral intensification a non-complying activity in Site of Natural Significance (SONS), Scenic Viewing Areas (SVAs), Lakeside Protection Areas and Scenic Grasslands (SGs). [They] together cover an insignificant fraction of the ecological components of the Basin's natural landscape character, including areas likely to be significant indigenous vegetation or insignificant habitats of indigenous fauna. They plainly fail to provide for the diversity, connectivity, and scale that sustain these values in the landscape, being principally focussed on localised, non-representative features adjacent to roads and lakes.[620]

59.3. As determined by Mr Harding,[621] the District's identified SONS are out of date and very seriously inadequate.[622] Most uncultivated and unirrigated areas on glacially and alluvially derived depositional landforms (moraines, outwash gravels, and river terraces) in the Mackenzie District, including severely degraded areas, are likely to be significant indigenous vegetation or significant habitats of indigenous fauna, and are not recognised.

59.4. Many District Plans in eastern South Island have inadequate schedules of SONS, and this has abetted recent widespread loss of significant indigenous vegetation or significant habitats of indigenous fauna, in my experience. Because of the extent, distinctiveness, and increasing rarity of ecological values, and current development pressures, I consider this situation in Mackenzie District to be exceptionally acute.

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617 Dr S Walker evidence-in-chief at para 59 [Environment Court document 17].

618 M A C Harding evidence-in-chief at para 90 [Environment Court document 12].

619 A list of subzone-wide ecological features that Dr Walker considers to be ecological components of the natural landscape character is appended to her evidence at Appendix 12. In her opinion, the special geomorphological and landform components that underpin the ecological components are also inadequately described in Objective 3B.

620 Dr Walker mapped these areas in Figure 5 of Appendix 4 to her evidence. SVAs, LPAs, and SGs together cover 18,900 ha, which is 10.5% of the district's land area. They cover 13.3% of moraines and 8.5% of outwash gravels.

621 M A C Harding evidence-in-chief 15 July 2016 at para 22 [Environment Court document 12].

622 Dr Walker mapped these areas in Figure 5 of Appendix 4 to her evidence. Mapped SONs add 13,600 hectares of land to the area covered by SVAs, LPAs, and SGs together, which is a further 7.5% of the district's land area. They cover a further 2.9% of the district's moraines and a further 6.1% of the district's outwash gravels.

59.5. Mr Harding identifies four practical barriers to undertaking survey to identify and map SONS.[623] I consider that these barriers are insurmountable, at least within a timeframe that would realistically protect the District's significant areas. Survey and listing is a protracted process: those in Waitaki and Queenstown Lakes Districts are incomplete after >9 and 15 years respectively.[624] Furthermore, assessment context is changing rapidly with the increasing loss and rarity of these ecosystems and species. SONS survey and mapping would therefore become outdated before it was complete.[625]

59.6. I have had experience of the Council's capacity and preparedness to intervene and apply District Plan provisions to protect ecological values over the last six years. This experience does not make me confident that PC13's proposed discretionary activity status for pastoral intensification across most of the district's unrecognised significant sites[626] will be applied in a way that will provide for their protection in practice and is commensurate with their national importance.

[528] We have found that pastoral intensification and agricultural conversion have already adversely affected those ecosystems, and predicted that further pastoral intensification and agricultural conversion may lead to the extirpation of some of those species from the Mackenzie Basin. The risks of this are quite high on the unopposed evidence of the ecologists. Indeed on Dr Walker's evidence each discretionary application would need to be carefully considered.

Risks to tangata whenua

[529] For completeness we find in this case the values to tangata whenua are either very specific and protected by the Statutory Acknowledgements or very broad and require no particular restrictions on how the land (outside the specific sites) is developed and used.

[530] Overall we consider the risks of acting or not acting, push us to confirm PC13(s293V) subject to the changes we have directed.

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623 M A C Harding evidence-in-chief 15 July 2016 at para 83 [Environment Court document 12].

624 No new SONS have been scheduled in Waitaki District. Queenstown Lakes District notified a new Significant Natural Area (SNA) schedule in late 2015 but some SNAs are being appealed.

625 This changing context is described in paragraphs 50 to 52 of Dr S Walker's evidence. Her footnote added: "For the same reason, identification of Significant Inherent Values (SIVs) in tenure review rapidly become outdated, as noted in Appendix 10 to that evidence.

626 Those sites outside mapped SONS, SVAs, LPAs, SGs and *'tussock grasslands' within 1 km of the highway, Haldon Road, Godley Peaks Road and Lilybank Road.*

9. Overview and results

9.1 Introduction

[531] We have evaluated the effectiveness of the proposed policies and rules in Chapters 6 and 7, and their efficiency compared with the status quo in Chapter 8 above. It remains to assess whether each provision is, overall, the more appropriate policy or method.

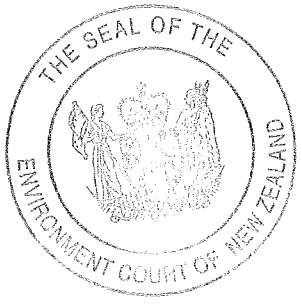
9.2 Do the policies and rules achieve the objectives of Chapter 7 MDP and of the CRPS?

[532] One of the difficulties we have in these proceedings is to work out the extent to which the policies to implement Objective 3B should also reflect other relevant objectives in the MDP. We have already referred to that issue in relation to the tangata whenua's issues. It also arises in relation to biodiversity.

[533] Earlier[627] we quoted Mr Gardner's submission that Rural Policy 1A of the MDP and its methods must be taken as working. On the evidence given to us, and from which we have quoted at length, Mr Gardner's submission is quite wrong.

[534] We accept that many landowners in the Basin have or are proposing (often as part of tenure review under the CPLA) to protect specific areas of their land from any further use and development. We read and heard evidence from Mr Murray (The Wolds), Mr Simpson (Balmoral) and Mr Boyd (Haldon) about the admirable projects on the land they own or manage, and Mr Simpson showed us his 'Red Tussock' reserve on our site inspection.

[535] However, simply because some land is protected, does not mean that the natural science components of the ONL are sufficiently protected. Pastoral farming may be generally appropriate to protect those values, but we judge that pastoral intensification is often inappropriate, and that agricultural conversion is usually unsustainable in the Mackenzie Basin when sustainability is properly understood to include all components of the ONL's character. That comprehends both the threatened endemic flora, and the traditional pastoral farming practices embodied (or caricatured) in the "Mackenzie Country" image projected in advertisements.



627 In Chapter 4.2 of these Reasons.

[536] Mr Gardner submitted in opening, and repeated in closing[628] that:

> ... landowners are proactive resource managers who rely on their properties' natural and physical resources in undertaking their farming business, and that it is in their best interest to manage their land sustainably, in particular by recognizing that the best defence against invasion by wilding pines (and other weeds and pests) is profitable farming, which involves a degree of intensification of land use.

We accept that it is in farmers' best interests to manage their land sustainably. What "sustainably" means varies from place to place. Sustainable management is made more difficult when the land is within an ONL, because then, under the question arises as to "what in terms of section 6(b) of the RMA is inappropriate development?"

[537] But there is a more fundamental objection to FFM's case on this issue. In *Man O'War Station Ltd v Auckland Council*[629] the Court of Appeal held that it "would be illogical or contrary" to the intent to section 6(b) if an area is only classified as outstanding if unsuitable for other activities such as farming[630]. It also accepted that "The result of this approach may mean that, in some cases, restrictions of an onerous nature are imposed on the owners of the land affected"[631].

[538] We have found that there is a further nationally important aspect of sustainable management of the ONL of the Mackenzie Basin which FFM has nearly turned a blind eye to and that is the maintenance of the lowland and easy country habitats of threatened indigenous flora and fauna (outside specific protected areas). We accept that there is a risk that we might put too much emphasis on that issue, and we have carefully balanced our decision in relation to it.

9.3 Integrated management

[539] FFM and its planning witness looked at PC13 as an aesthetic issue (protection of the attractiveness of the scenery) versus the values of the farmers who are largely responsible for maintaining the tussock grasslands. We have accepted the evidence that the ONL is much more than simply its visual attributes, and PC13 needs to protect

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628 R Gardner closing submissions at para 5 [Environment Court document 41].
629 *Man O'War Station Ltd v Auckland Council* [2017] NZCA 24.
630 The factual context of the proceedings was a mixed landscape comprising significant vegetation, pastoral land, buildings, vineyard and olive grove activities. *Man O'War,* above n 629 at [66].
631 *Man O'War,* above n 629 at [63].

those values as well as the scenic qualities against inappropriate development and use.

[540] In deciding what is inappropriate we must achieve integrated management[632] of the effects of the use and development (and protection) of the land of the Mackenzie Basin. That integrated management requires that we consider not only the protection of the visual qualities of the landscape but also the natural science values[633] including the areas containing the long list of threatened and "at-risk" indigenous plants. As the witnesses pointed out, the latter values can only be managed suitably on a case by case basis which supports the general discretionary regime in PC13(s293V).

[541] As Mr Head wrote[634]:

> Ecological connectivity is an important feature of the Mackenzie Basin (though in some parts I acknowledge that it is significantly reduced). This means that retaining the remaining linkages is an imperative. It is well documented in both national and international research that larger interconnected ecosystems are necessary for the maintenance (and evolution) of indigenous biodiversity[635]. Among other things, large interconnected ecosystems typically have higher species diversity with more viable populations. This is because of the greater range of environmental gradients and associated habitats present that have greater resilience owing to improved ecological functioning. Aspects of ecological functioning include natural plant succession, the existence of corridors for species movement and the ability of ecosystems to absorb and recover from disturbance. (Underlining added)

[542] The need for "large interconnected ecosystems" to achieve CRPS Objectives 9.2.1, 9.2.1., 9.2.3 complements the recognition in Objective 3B(1) of the values of "the openness and vastness of the landscape" and "the tussock grasslands". PC(s293V) as modified by this Decision will assist to integrate the management of the landscape and ecosystems resources. This may be particularly important to allow the threatened and at risk species move up-contour as a reach to climate change (as Dr Walker mentioned in her evidence).

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632 Section 31(1) RMA and Policy 9.3.3 CRPS.
633 CRPS Policy.
634 N H Head evidence-in-chief at para 10.8 [Environment Court document 14].
635 Citing O'Connor, K. K.; Overmars, F. B.; Ralston, M. M. 1990. Land Evaluation for nature conservation. A scientific review compiled for application in New Zealand. *Conservation Sciences Publication Number 3*. Department of Conservation, Wellington.

9.4 Result

[543] Weighing all the factors we have identified in this decision we conclude that Objective 3B(3), the policies in Chapter 6, and the rules and other methods in Chapter – all as reworded in these reasons – are each the most appropriate provision under section 32 RMA. Accordingly, PC13(s293V) can be confirmed subject to the modifications we have made which are to ensure that the CRPS is not departed from in more than a minor way, and the objectives of the MDP are given effect to in an integrated way.

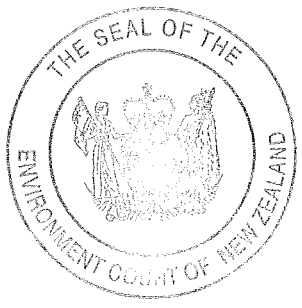
[544] In making those changes to PC13 we have been guided by the general principles stated in *Mackenzie (HC 2014)* and by two other practical principles: the first is that no specific changes should be made to any of the lines drawn on Appendix "A" (attached to this decision) which might adversely affect landowners not before the court; and second that more generally the wider farmers' and landowners' concerns have been fully represented and comprehensively addressed by FFM and the groups of landowners represented by Ms Forward and Mr Schulte.

[545] We consider we should confirm PC13 in the form identified in this decision and we will make orders accordingly.

Washup provisions

[546] Mr McCallum-Clark suggested[636] that to avoid confusion and ensure consistency the "Mackenzie Basin Subzone Boundary" should be specifically identified on the planning maps as an "Outstanding Natural Landscape". Ms Harte agrees[637] and we accept this should occur.

[547] In case there are any other consequential changes sought by any party, or if there is any incompleteness or inconsistency in the proposed rules and methods we will reserve leave for any party to apply to remedy or correct those if the MDC does not accept them when they are served with notice of them.



636 M E A McCallum-Clark evidence-in-chief at para 21 [Environment Court document 32].
637 P Harte rebuttal evidence 7 October 2016 para 83 [Environment Court document 25A].

9.5 Afterword

[548] Finally there are three aspects of tenure review in the Mackenzie Basin under the CPLA it may be useful to comment on. First, it is apparent that an unintended consequence of the CRC's method of managing discharges of (especially) cattle excreta gives a strong incentive to a pastoral lessee to freehold as much land as they can even if it is subject to covenants (e.g. under section 80 CPLA), because the CRC's method of calculating the nutrient balance is based on the total area of the farm. (We commented on the prima facie illogicality of that in relation to Mt Gerald Station above). That means there appears to be a strong financial incentive for a pastoral farmer to frustrate section 24(b)(ii) CPLA which seeks to enable the protection of the significant inherent values of land held in pastoral leases by maximising the freehold areas of their farm. A further consequence is that it appears likely to lead to potentially greater discharge of nitrogen and phosphorus (products of cattle excreta) to the Waitaki catchment over the next decade.

[549] Our second comment is in relation to the "significant inherent values" of the Mackenzie Basin. The term "inherent values" is defined in section 2 CPLA as meaning:

> " ... a value arising from —
>
> (a) a cultural, ecological, historical, recreational, or scientific attribute or characteristic of a natural resource in, on, forming part of, or existing by virtue of the conformation of, the land; or
>
> (b) a cultural, historical, recreational, or scientific attribute or characteristic of a historic place on or forming part of the land

"Significant inherent value" is defined as:

> ... in relation to any land, means inherent value of such importance, nature, quality, or rarity that the land deserves the protection of management under the Reserves Act 1977 or the Conservation Act 1987

[550] Clearly the geomorphological and ecological characteristics we described in Chapter 2 of this decision are inherent values. It is not for us to say whether or not they are "significant" for the purposes of the CPLA. However, on the evidence before us – including that from the DGC – large areas with those inherent values are being lost

quickly. In particular any of the stations with pastoral leases contained "outwash gravels"[638] need to be looked at very carefully. In our view there is quite a strong ecological (and economic) case for an immediate moratorium (by the CCL on further freeholding of any land in the Mackenzie Basin containing such gravels while a comprehensive "all-station" review is carried out and plan formulated including of course the MDC's review of Rural Policy 1A and its implementing methods.

[551] Third, it seems counterproductive for the Crown to freehold land without imposing a continuing obligation (as a covenant under the CPLA) to remove wilding pines from the freehold land. That would reduce the rather unfortunate catch 22 facing the community at present, in which farmers argue they need to change the ONL and in particular some of its inherent values (under the CPLA[639]) or intrinsic values (under the RMA[640]) in order to control wildings (and rabbits). Without such a covenant it is difficult to see how the CCL can justify freeholding as consistent with the purpose of tenure review under the CPLA.

For the court:

J R Jackson
Environment Judge

Appendices:

A: Areas of Landscape Management
(G H Densem evidence-in-chief Maps p 4 [Environment Court document 19])

B: List of Threatened and At Risk Plants
(N J Head, Attachment 1 [Environment Court document 14])

C: Appendix 12
(S Walker evidence-in-chief Appendix 12 [Environment Court document 17])

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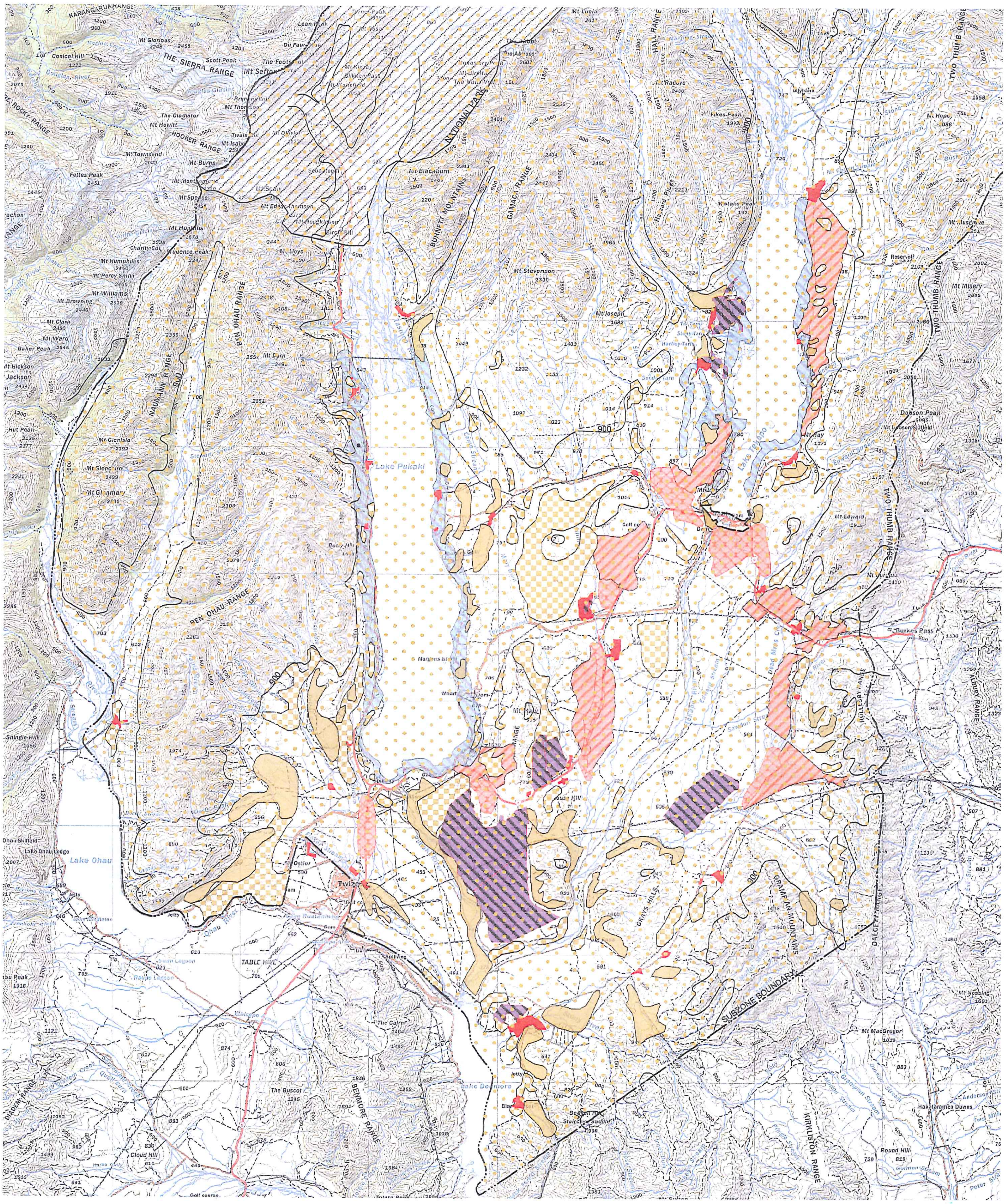
638 A critically endangered habitat (M A C Harding evidence-in-chief at para 17 [Environment Court document 12] discussed in Chapter 2 of this Decision.
639 Under section 24 CPLA.
640 Under section 7(d) RMA.



KEY

- High Visual Vulnerability Areas
- Medium Visual Vulnerability Areas
- Low Visual Vulnerability Areas
- Scenic Grassland Areas
- Scenic Viewing Areas
- Lakeside Protection Area
- Farm Base Areas
- Consented Irrigation Sites
- 900m Contour

Scale: 1:30,000 @ A3
Date: 26 Aug 2015
Map No: 201501 V4

N

Mackenzie District Plan Change 13

2015 SERIES, **MAP 1**

AREAS OF LANDSCAPE MANAGEMENT

GRAHAM DENSEM LANDSCAPE ARCHITECTS

APPENDIX "B"

LIST OF THREATENED AND AT RISK PLANTS IN HABITATS THAT OCCUR IN BASIN FLOOR MORAINE AND OUTWASH HABITATS.

Extinct

Dysphania pusillum (refound 2015)

Nationally Critical

Carmichaelia curta
Ceratocephala pungens
Chaerophyllum colensoi var. delicatulum
Chenopodium detestans
Crassula peduncularis
Leptinella conjuncta
Pseudognaphalium ephemerum
Triglochin palustris

Nationally Endangered

Cardamine (a) (CHR 312947; "tarn")
Centipeda minima subsp minima
Crassula multicaulis
Wurmbea novae-zelandiae
Lagenifera montana
Leonohebe cupressoides
Lepidium sisymbrioides
Lepidium solandri
Myosurus minimus subsp. novae-zelandiae
Ranunculus brevis

Nationally Vulnerable

Carex cirrhosa
Carex rubicunda
Carmichaelia kirkii
Hypericum rubicundulum
Isolepis basilaris
Sonchus novae-zelandiae f. novae-zelandiae
Lachnagrostis tenuis
Myosotis brevis
Olearia fimbriata
Rytidosperma merum
Senecio dunedinensis

Declining

Aceana buchananii
Aciphylla subflabellata
Amphibromus fluitans
Carex albula
Carex tenuiculmis
Carmichaelia corrugata
Carmichaelia crassicaulis subsp crassicaulis

Carmichaelia nana
Carmichaelia uniflora
Carmichaelia vexillata
Convolvulus verecundus
Coprosma acerosa
Coprosma intertexta
Coprosma virescens
Deschampsia cespitosa
Hypericum involutum
Lobelia ionantha
Luzula celata
Muehlenbeckia ephedroides
Olearia lineata
Parahebe canescens
Pimelea sericeo-villosa subsp pulvinaris
Pterostylis tanypoda
Pterostylis tristis
Raoulia monroi
Rytidosperma telmaticum

Data Deficient

Carex decurtata

Naturally Uncommon

Achnatherum petriei
Agrostis imbecilla
Anthosachne falcis
Botrychium australe
Carex berggrenii
Celmisia graminifolia
Centrolepis minima
Colobanthus brevisepalus
Convolvulus fracto-saxosa
Einadia allanii
Epilobium angustum
Euchiton paludosus
Hebe pimeleoides subsp faucicola
Korthalsella clavata
Leonohebe tetrasticha
Leptinella serrulata
Leucopogon nanum
Montia angustifolia
Montia erythrophylla
Myosotis uniflora
Pimelea prostrata
Pimelea sericeo-villosa subsp alta
Plantago obconica
Pleurosorus rutifolius
Ranunculus maculatus
Raoulia beauverdii

Appendix 12. Ecological components of the natural landscape character of the Mackenzie Basin subzone

The purpose of this appendix is to provide a list of ecological features which contribute to the biological diversity of the basin floor and its natural landscape character across the whole subzone.

'Ecosystems' including historically rare ecosystems based on geomorphological features
NOTE: Parentheses indicate the land types of Lynn (1993) and Environment Canterbury (2010) within which these ecosystems are mainly (bold type) or more occasionally found.
Lake margins and deltas (**H3**)
Connected sequences of moraines of different ages (**H3**)
Striated moraines framing lakes (**H3**)
Terminal moraines (**H3**)
Rugged and hummocky young moraines (**H3**, H4)
Subdued older rolling moraine surfaces (usually further from lakes) (**H3**, H4)
Erratic boulders and boulderfields (**H3, H4**)
Kettlehole tarns and ephemeral wetlands (**H3**, H4)
Seepages and flushes (**H3, H4**)
Ephemeral streams (**H3, H4**)
Other wetland types and systems on and within depositional surfaces (**H3, H4**)
Outwash gravel terraces and fans (H3, **H4**)
Braided dry meltwater outwash channels (H3, **H4**)
Inland sand dunes (**H1**)
Terraces separating different depositional surfaces (**H3, H4**)
Series of terraces (H3, **H4**)
Braided rivers and associated alluvial surfaces (**H3, H4**)
Rivers, streams and associated alluvium issuing from surrounding ranges (**H3, H4, H17**)
Ice-sculpted hills within basin (**H7**)
Footslopes of ranges and hills (**H3, H4, H7**)
Alluvial and colluvial fans (**H3, H4, H7**)

Gradients, sequences, patterns, ecotones and transitions
Wet north-west to drier south-east aridity gradient
Sequences of different soils across the aridity gradient
Sequences of moraines of different ages
Moist western moraines with tall and short tussock grassland
Drier moraines with short tussock grassland and herbfields
Moraines cut by outwash and meltwater channels of different ages
Extensive, continuous, undeveloped moraine-outwash-alluvium sequences
Complexes of outwash and alluvial gravel surfaces of different ages
Transitions or ecotones between different depositional (glacial and alluvial) landforms
Series and flights of terraces (high and/or low, and different ages)
Terrace brows, scarps, and toes
Micro-habitat and soil variation (including aspect-related) within moraines

Ridge and hollow micro-topography on outwash gravels

Vegetation and flora
Extensive and little-fragmented sequences of vegetation
Tall and short tussock grasslands and their native inter-tussock flora
Matagouri shubland and wild spaniard
Ephemeral wetlands and their turfs
Lakeshore and delta plant communities
Wetlands, wetland complexes, and their vegetation
Alternation of sparse and better-vegetated surfaces on outwash gravels and alluvium
Braided vegetation patterns on outwash and alluvium
Grey and mixed shrublands and their native flora
Mat and cushion vegetation, including hawkweed-dominated
Mossfields, lichenfields, and non-vascular crusts
Exposed stonefields
Prostrate or low-growing native flora
Spring annual and seasonal geophytes (orchids, ferns) and their habitats
Non-vascular species (including lichens, mosses, and fungi) in all habitats
Xerophytic (drought-adapted) endemic flora
At risk and threatened flora

Fauna (including habitats)
Native and endemic wading birds, terns and gulls of braided rivers, outwash surfaces and moraine wetlands
Extensive seasonal breeding habitats of banded dotterel and pied oystercatcher, especially sparsely-vegetated outwash and alluvial surfaces
Native wetland bird fauna
Grey shrubland native bird fauna
New Zealand pipit and their mixed grassland habitats (especially moraine)
Endemic lizards and their habitats including mixed grasslands, erratics and bouldery surfaces
Endemic insect species characteristic of different habitats
Endemic freshwater fish fauna of clear unpolluted streams
Xerophytic (drought-adapted) endemic fauna
At risk and threatened fauna

REFERENCES

Environment Canterbury 2010. Canterbury Regional Landscape Study Review – Final Report – July 2010. http://ecan.govt.nz/publications/Plans/canterbury-regional-landscape-study-review-2010.pdf

Lynn IH 1993. Land types of the Canterbury Region. Landcare Research New Zealand and Lucas Associates.