

BEFORE THE MACKENZIE DISTRICT COUNCIL

IN THE MATTER OF THE RESOURCE MANAGEMENT ACT 1991

AND

IN THE MATTER OF PLAN CHANGE 13 TO THE OPERATIVE
MACKENZIE DISTRICT PLAN TO ESTABLISH A
NEW MACKENZIE BASIN SUBZONE WITHIN THE
EXISTING RURAL ZONE.

**EVIDENCE OF DR MICHAEL LAWRENCE STEVEN (LANDSCAPE PLANNER) PART A
FOR:
FEDERATED FARMERS (MACKENZIE BRANCH); RHOBOROUGH DOWNS LTD; FOUNTAINBLUE
LIMITED, SOUTHERN SERENITY LIMITED
AND PUKAKI TOURISM HOLDINGS PARTNERSHIP.**

INTRODUCTION

- 1 My name is Michael Lawrence Steven. I am a practising landscape architect and landscape planner employed in the Queenstown office of Vivian and Espie Ltd.

Qualifications as an Expert

- 2 I hold a Doctor of Philosophy in Architecture (Environment-Behaviour Studies) from the Faculty of Architecture, University of Sydney (Australia), a Master of Landscape Architecture by research from the Faculty of the Built Environment, UNSW (Sydney, Australia), a postgraduate Diploma in Landscape Architecture from Lincoln College (University of Canterbury), and a Diploma in Horticulture (Distinction) from Lincoln College. I am an Honorary Associate of the Faculty of Architecture, University of Sydney, and an Associate of the New Zealand Institute of Landscape Architects. My expertise is in the trans-disciplinary field of environment-behaviour studies, particularly landscape perception, and human factors in landscape design, planning and management.
- 3 From January 2006 until March 2008 I was employed as a landscape architect in the Wellington office of MWH New Zealand Ltd. Prior to December 2004 I was employed as an academic by the University of Western Sydney, Australia, where I taught in the field of landscape studies. I have some 25 years of experience in the landscape architecture profession, both in New Zealand and Australia. My professional practice experience includes a period spent with the (then) Ministry of Works and Development in the Auckland office, and in the Christchurch and Hamilton offices of the (then) Department of Lands and Survey. My work with MWH and more recently Vivian and Espie Ltd has involved landscapes assessments and the preparation of expert evidence on landscape issues for a wide range of sites and projects around New Zealand.

Ambit of my Evidence and Conclusions

- 4 My evidence is presented in two parts:
 - 4.1 Part A is general evidence on the validity and reliability of the landscape assessment that forms the basis for Proposed Plan Change 13. This evidence is presented on behalf of the Mackenzie Branch of Federated Farmers; Fountainblue Limited, Southern Serenity Limited and Pukaki Tourism Holdings

Partnership; and Rhoborough Downs Ltd. Part A evidence is the subject of this brief.

4.2 Part B of my evidence relates to property-specific relief sought by Fountainblue Limited, Southern Serenity Limited and Pukaki Tourism Holdings Partnership; and Rhoborough Downs Ltd. Part B evidence is the subject of a separate brief of evidence and will be presented subsequent to this brief in relation to the respective submitters.

5 My evidence addresses:

5.1 The methodological and theoretical robustness, validity and reliability of the landscape assessment of the Mackenzie Basin undertaken for Mackenzie District Council (MDC) by Mr Graeme Densem (2007¹), and used by MDC as the basis for its proposed Plan Change 13, including:

- a. The failure of the assessment to recognise degrees of naturalness within the Mackenzie Basin landscape,
- b. The failure to undertake an independent assessment of landscape significance using a recognised methodology,
- c. The appropriate geographic and planning context for the assessment of outstandingness,
- d. The implications for the sustainable management of natural and physical resources of resource management according to a visual landscape aesthetic that fails to take ecological factors and farm management planning and practice into account.
- e. Issues relating to the proposed nodal development concept.

5.2 Site specific issues associated with particular properties on behalf of which I am giving evidence

6 I conclude:

¹ Densem, G. (2007). Landscape values of the Mackenzie Basin. Mackenzie District Council February 2007)

- 6.1 The perception of the Mackenzie Basin as a natural landscape is based upon a fiction that denies the extent of modification and degradation to the basin landscapes through historic farming and land management practices, and broad scale infrastructure development.
 - 6.2 As an assessment of landscape significance in terms of Section 6(b) of the Resource Management Act (RMA), Mr Densem's landscape assessment is flawed in failing to apply principles, theory and practice that characterise rigorous and technically defensible landscape assessments undertaken in the context of New Zealand resource management.
 - 6.3 The conclusion that the Mackenzie Basin is an outstanding natural landscape (ONL) appears based upon the findings of a regional assessment - the Canterbury Regional Landscape Study (1993)² - and not upon the findings of an independent, technically defensible district-wide assessment undertaken by Mr Densem.
 - 6.4 As the accepted basis for the identification of ONLs is the local authority district, the MDC should commission an up-to-date landscape assessment of the Mackenzie District in its entirety. This should be based upon methodologies that accord with professional best practice in landscape assessment.
 - 6.5 Aspects of the proposed Plan Change 13 that are premised upon the findings of Mr Densem's study that the entire Mackenzie Basin is ONL are flawed.
 - 6.6 The procedure for the identification of nodes is not made explicit. Node boundaries are arbitrary and in many areas inappropriate, while other areas with potential for nodal development have been overlooked. The rules governing the development of nodes are unnecessarily restrictive and difficult to interpret.
- 7 My evidence commences with a discussion of several matters that relate to the evaluation of landscape assessments. My evidence on the assessment of the Mackenzie Basin conducted by Mr Densem will refer to these matters.

² Boffa Miskell Limited & Lucas Associates; October 1993. *Canterbury Regional Landscape Study Volumes 1 & 2*

SECTION 1: GENERAL EVIDENCE

ASSESSING OUTSTANDING NATURAL LANDSCAPES

8 I commence my evidence with brief discussions and definitions of key terms and concepts.

Naturalness

9 Professional landscape planning practice, evolving theory, and Environment Court case law collectively contribute towards various principles and practices that guide landscape assessments in terms of the RMA, particularly with respect to matters of national importance identified in Part 2 of the Act.

10 To be considered an outstanding natural landscape, a landscape must not only be outstanding, but it must be 'natural'. (C180/99, para.87). A sound definition of natural character developed by a consultative group with the Ministry for the Environment³ and that has been accepted in the Environment Court is:

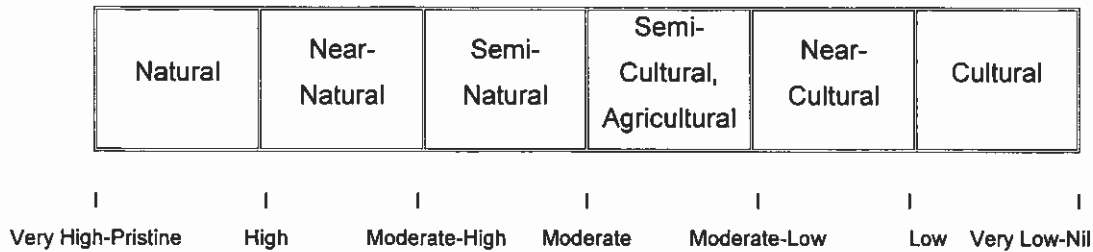
Natural Character is the term used to describe the natural elements of all coastal environments. The degree or level [of natural character] within an environment depends on:

- 1 The extent to which the natural elements, patterns and processes occur;
- 2 The nature and extent of modification to the ecosystems and landscape/seascape;
- 3 The highest degree of natural character (greatest naturalness) occurs where there is least modification;

11 The degree of natural character attributable to any landscape (not just the coastal environment) can be determined with regard to natural elements natural patterns and natural processes and the extent to which they are modified by human interventions.

12 Natural character is not an absolute quality that either exists or doesn't, but rather occurs across a scale in matters of degree. Human interventions may diminish natural character, but do not necessarily eliminate it altogether. In assessing natural character the scale that is being used should be made explicit, e.g.;

³ Ministry for the Environment, Environmental Performance Indicators, Landscape Aspect of Natural Character, Stage 1 – Initial Findings – A report prepared by Boffa Miskell Ltd for the MIE, February 2002. [the approach to natural character set out in this document is a sound one and should be adopted by the profession for use in natural character assessments]



The assessment of outstanding natural landscapes

- 13 Outstanding is a relative term referring to a landscape that is “conspicuous, eminent, especially because of excellence” (Concise Oxford Dictionary). A landscape may be magnificent, beautiful or inspiring without being outstanding. It is (or at least should be) an adjective of considerable strength when applied to landscapes.
- 14 The proper basis for comparison depends on the landscapes a consent authority has within its own district or region. A regional council considers what is outstanding within its own region, while a district council considers what is outstanding within a district. Landscapes considered outstanding at a regional level are not necessarily outstanding at a district level, as was demonstrated recently in *Briggs v Christchurch City Council* (C45/2008).
- 15 To determine the significance of a landscape or landscape feature, a widely adopted approach (although by no means widely accepted within the landscape architectural profession) is to use the factors listed in *Wakatipu Environmental Society Inc & Ors v QLDC* [2000] NZRMA 59 (generally referred to as the modified Pigeon Bay factors). These are:
 - (a) The natural science factors — geological, topographical, ecological, and dynamic components of the landscape;
 - (b) Its aesthetic values, including memorability and naturalness;
 - (c) Its expressiveness (legibility) — how obviously the landscape demonstrates the formative processes leading to it;
 - (d) Transient values — occasional presence of wildlife or its values at certain times of the day or year;
 - (e) Whether the values are shared and recognised;
 - (f) Its value to tangata whenua;

- (g) Its historical associations.
- 16 Not all of these factors are equally valid; transient values and expressiveness are spurious or invalid as values, in my opinion and are accommodated within other value domains (natural science and aesthetic). Tangata whenua values are appropriately dealt with in section 6(e)⁴, while historical associations are appropriately dealt with under section 6(f)⁵. However the Pigeon Bay factors resolve into three broad value domains that in my opinion are clearly relevant to the assessment of landscape significance in the Mackenzie Basin:
- (a) Natural science (or natural heritage) values,
 - (b) Aesthetic values
 - (d) Community held values
- 17 The first two values domains (natural science and aesthetic) are generally subject to expert evaluation but assessments of these factors may also admit to lay evaluations through the assessment of community-held values. For the purpose of expert assessments, natural science values require more specific definition and assessment criteria. A suggested range of natural science factors is included in Appendix A.
- 18 Community-held values are, by definition, assessed within the community. The range of values that may be identified within the community is potentially much broader than natural science and aesthetic. A typology of landscape values for community assessments is included within Appendix A to this evidence (see also the discussion on landscape values, below).
- 19 The criteria listed in paragraph 15 are commonly applied to establish a tripartite division of landscapes, according to significance:
- (1) Outstanding Natural Features and Landscapes (ONFL) under section 6(b) of the Resource Management Act (RMA);
 - (2) Together with a broader assessment of amenity values, Visual Amenity Landscapes (VAL) under s 7(c); and
 - (3) Landscapes in respect of which there are no significant resource management issues.
- 20 In assessing landscape significance for s6(b) purposes, an important distinction must be made between views to outstanding landscapes, and outstanding landscapes per se. Section 6(b) of the RMA protects the outstanding natural features and landscapes themselves, and not simply views of them (C104/2002, para. 38). This is a significant

⁴ (e) The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

⁵ (f) The protection of historic heritage from inappropriate subdivision, use, and development.

distinction to be aware of in considering the identification of ONFL within the Mackenzie Basin, where views to ONFLs need to be differentiated from the identification of the ONFLs themselves.

- 21 The relatively flat, basin-like character of the Mackenzie, and the scale of the enclosing mountains creates a situation in which the mountains are pervasive elements in views and vistas throughout the Mackenzie Basin. However, a view or a vista is not a landscape. Views and vistas can incorporate multiple landscapes. Within the Mackenzie Basin, views to the outstanding natural landscapes of Aoraki-Mt Cook National Park and the Ben Ohau Range are likely to be strongly influential in the environmental experience of many residents and visitors to the basin. In many areas of the basin, one's experience of outstanding natural landscapes at some considerable distance (views extending to 50-75km are not uncommon) is mediated by intervening landscapes of lesser significance. Figure 2 illustrates this point, as does the cover photograph on Mr Densem's report, *The Mackenzie Basin: Character and Capacities*. The relationship between the outstanding natural landscapes of the distant mountain ranges and the foreground landscape in Figure 2 (and in Mr Densem's cover photograph) is similar to the relationship between the Southern Alps and Canterbury Plains. There is no suggestion that the Canterbury Plains are an ONL on the basis of their visual juxtaposition with the Southern Alps.

Landscape values

- 22 Expert evidence on landscape matters generally makes reference to values – landscape values, natural values, and natural character values. The Densem reports on the Mackenzie basin make frequent reference to values without defining specifically what is being referred to. What is meant by 'values' in the landscape context is rarely made explicit. 'Values' is a term that is used freely, uncritically, and with an assumption that everyone knows what is being spoken about. As an understanding of values is fundamental to the matter of the proposed plan change it is important that the term be defined. 'Values' is an abstract concept, so the investigation of values requires a clear understanding of what is being sought, and a clearly articulated technique for recognising them when they occur.
- 23 The implications of this for landscape assessment is that assessors must understand that what is being assessed as values are not attributes or properties of the environment

itself, but rather how these attributes or properties are valued by individuals and communities. To establish shared community values, the relevant communities must be consulted. Where values are based upon expert opinion, this should be made explicit. Values held by experts should not be assumed by those experts to necessarily accord with wider community held values.

- 24 In the interests of assisting the Commissioners in understanding the concept of landscape values it may be helpful to refer to a typology of community-held landscape values developed by Reed & Brown⁶, and reproduced in an updated form as Appendix A to this evidence. This typology of landscape values has been used in landscape assessments in Australia and North America, and has potential for use in New Zealand as well. In my opinion, unless the term 'landscape values' is understood in terms of a specific typology, it is meaningless and unhelpful when used in the context of resource management.
- 25 Natural character per se is not a value – it is a descriptive attribute of the landscape – an aspect of the broader concept of landscape character - independent of whether or not it is valued by communities or society. As such, the degree of natural character can be assessed objectively and methodically with reference to natural processes, natural elements, and natural patterns, and the extent to which these aspects have been modified by human intervention. Perceptions of naturalness can influence the aesthetic appreciation of the landscape, however the 'naturalness' that influences aesthetic values is not necessarily the same objectively-defined naturalness I refer to above in my discussion on natural character.
- 26 It is a matter of fundamental importance to resource management that the process of landscape assessment for the purpose of identifying landscape significance identifies values in specific terms, and locates them spatially within the landscape. It is not sufficient to acknowledge that a landscape is valued for say, natural science reasons. The specific nature of these values must be stated, and the location of the landscape to which these values are attributed must be mapped.

⁶ Reed P, and Brown G. 2003. Values suitability analysis: a methodology for identifying and integrating public perceptions of forest ecosystem values in national forest planning. *Journal of Environmental Planning and Management* 46(5): 643–658.

Evaluating landscape assessments: the tests of validity, reliability and objectivity

- 27 That the preservation and protection of natural character and outstanding natural features and landscapes are identified as matters of national importance has significant implications for landowners. It is an equally important matter for the community generally. It is critical, then, that the frameworks, methods and analytical techniques applied to the assessment task, and the findings that emerge from the process, can be trusted.
- 28 The trustworthiness of landscape assessments depends upon two key tests: reliability and validity:
- 28.1 Reliability is a test of consistency, and is concerned with whether methods will produce the same findings when measuring the same phenomena in different contexts, or when used by different assessors.
- 28.2 Validity is a test of whether a method measures the quality or attribute it claims to measure. Validity can be understood in terms of the constructs or concepts used, and of the resulting assessment. In terms of assessments of naturalness and landscape values, validity refers to whether the methods applied actually measure the phenomenon they purport to measure, i.e., has the Densem landscape assessment actually assessed outstandingness in terms of the factors by which it is generally understood?
- 29 Swaffield and Foster (2000)⁷ also discuss the use of sensitivity as an evaluation criterion. Sensitivity tests whether a method enables recognition of changes in the phenomena being investigated. A sensitive method is capable of recognising subtle variations, while a method that is insensitive will only identify major shifts in the phenomenon. Swaffield and Foster identify expert evaluations of overall 'naturalness' as an example of insensitive methods applied to landscape assessment.

THE DENSEM LANDSCAPE ASSESSMENT OF THE MACKENZIE BASIN

- 30 Proposed Plan Change 13 seeks to provide greater protection of the landscape values of the Mackenzie Basin from inappropriate subdivision, use and development by

⁷ Swaffield and Foster (2000) Community perceptions of landscape values in the South Island High Country: A literature review of current knowledge and evaluation of survey methods. Science for Conservation 159. Department of Conservation. Wellington

recognising the entire Mackenzie Basin as an outstanding natural landscape (ONL) in terms of s6(b) of the RMA. The plan change seeks to create the Mackenzie Basin Sub-Zone and impose increased levels of control over subdivision and building within that sub-zone.

- 31 There is no doubt that the Mackenzie Basin contains outstanding natural landscapes. Indeed it may be fairly stated that the Basin contains the 'gold standard' for outstanding natural landscapes in New Zealand. Most of this land is already protected within the conservation estate (e.g., Aoraki-Mt Cook National Park, Ruataniwha Conservation Park⁶) and needs no further protection through the Mackenzie District Plan.
- 32 It is relevant to note that those properties within the Mackenzie Basin that have completed tenure review process have already had extensive areas of landscape returned to the Crown to become part of the conservation estate (including the Ruataniwha Conservation Park) on the basis of the identification of landscape values.
- 33 It is also likely that the Mackenzie District contains landscapes beyond the limits of the Mackenzie Basin that should be identified as ONL. The proposed plan change does nothing to protect these landscapes. By removing areas outside the basin from the frame of reference, the proper, district-wide basis for comparison is overlooked.
- 34 Whether the frame of reference is the district as a whole or the basin, there are substantial areas of the Mackenzie Basin that cannot, with any credibility, be regarded as outstanding, particularly when considered in comparison to the landscapes of the basin as a whole, including those that are already part of the conservation estate.

Is the Mackenzie Basin a natural landscape?

- 35 In the Banks Peninsula decision (C45/2008, paragraphs 84-86), Judge Smith referred to the view that Banks Peninsula is a natural landscape as a "conceit of the mind":

For the general population there appears to be a conceit of the mind which occurs when it views pleasant landscapes. This appears to subtract from the view the incongruent elements such as large scale forestry blocks up to and including ridges, prominent buildings situated on high points, roads, telephone poles and trees, and other clear indications of extensive modification with the result that the individual

⁶ See Appendix B for an excerpt from the official Government press release, describing the Ruataniwha Forest Park landscape as "some of the most spectacular scenery in South Canterbury".

reads the environment as natural.”...”Most of Banks Peninsula is a modified pastoral environment...to make barns, forestry dwellings and tracks non-complying activities over most of the peninsula would lead to an immediate and serious impediment to existing farming activities and would inevitably create arguments as to existing use rights.

- 36 The view that the Mackenzie Basin is a natural landscape is the product of a similar conceit of the mind that conveniently overlooks the modifications wrought through massive engineering interventions for infrastructure development, and more than 100 years of landscape changes through development for pastoral farming.
- 37 Pastoral farming development has brought with it many changes that have impacted negatively upon the landscape, such as changes to tussock grassland ecology through burning and grazing, soil erosion, the invasion of weed species, noxious animals, wilding pines, and significant soil erosion. These landscape management issues and the implications for the sustainable management of the high country are widely acknowledged and are referred to in Section 7 of the Mackenzie District Plan.
- 38 There is a significant conflict inherent in the conceit of the mind that the Mackenzie Basin is an outstanding “natural” landscape that should be preserved and protected in its current state, and the reality that the Mackenzie Basin contains highly degraded and unsustainable landscapes. The proposed plan change creates a situation in which a particular landscape aesthetic based upon uninformed notions of naturalness and “values” will ignore and over-ride very significant issues relating to the sustainable management of natural and physical resources, as referred to in s.5 of the RMA.
- 39 The emphasis upon the maintenance of a particular visual aesthetic is carried through from the Densem assessment to the proposed addition to *Rural Issue 7 – Landscape Values*, where it is stated:

Particular landscape values which could be degraded by inappropriate development include visual openness, a sense of naturalness, sense of landform continuity, small well-separated towns and spectacular views such as the iconic views up the lakes, particularly Tekapo and Pukaki...Another issue associated with retaining values of the basin is the extent to which additional irrigation will “green” the basin and change land use patterns.

- 40 Such statements, particularly the reference to the 'greening' of the basin, show a surprising lack of awareness of the degraded nature of the landscapes and unsustainable farming practices that underpin the landscape aesthetic the plan change seeks to protect. In my opinion this does not serve the purposes of the Act as stated in section 5. This statement also fails to acknowledge the imperative for farming practices to change to reflect changed economic, financial, technological and social circumstances. The proposition that sustainable farming practices should be subordinate to the maintenance of a particular landscape aesthetic is unsupportable. The fact that the preferred landscape aesthetic is itself the product of over 150 years of farming practices appears to be overlooked.
- 41 The conceit of the mind that the Mackenzie Basin is a highly natural landscape is a fiction sustained through oversight of, or a failure to acknowledge a range of modifications to the natural landscape associated with hydroelectric development.
- 42 Lakes Tekapo and Pukaki exist in their current extent solely as a result of impoundment by engineered dams (Figure 3). It is not natural that the design level of Lake Pukaki is over 50 metres above its original natural level as a consequence of two separate dam projects. This is particularly evident if the historical extent of Lake Pukaki is contrasted with its current extent.
- 43 Figure 1 illustrates the extent of the lake prior to the construction of the first dam. The map (c. 1911) shows the original level of the lake as extending to a line just north of the peak Ben Dhu, in the Rhoborough Hills. Today, the lake extends as far north as Twin Stream at Glentanner Station. It would be reasonable to state that raising the lake has doubled its surface area. The current northern extent of the lake is indicated by the dashed blue line on Figure 1. The artificial raising of Pukaki has drowned an island that would today be described as "iconic", having appeared on the New Zealand five pound note. The damming has also inundated natural lake margins, an extensive area of braided riverbed, glacial moraines and natural ecosystems and habitat. Today, all of this drowned landscape may have been regarded as having a very high degree of natural science significance, and would have been a genuinely outstanding natural landscape. Also lost through inundation were productive farmland, farm homesteads and other cultural landscape elements of historical heritage significance.

- 44 It is not natural that the waters of Lake Pukaki are diverted through an engineered canal of substantial proportions (Figure 4), leaving the Pukaki River a dry and barren riverbed (Figure 5).
- 45 It is not natural that Lake Ruataniwha exists at all.
- 46 The document *Landscape values of the Mackenzie Basin* (Densem, 2007) is identified in the section 32 report (para. 5.5, p. 6) as providing much of the impetus for the proposed plan change. According to the s.32 report, "The [Densem] report outlined the characteristics and landscape values of the Mackenzie Basin landscape..." and goes on to quote the following section of the Densem report:

LANDSCAPE VALUES AND ISSUES

The Mackenzie Basin is a special part of New Zealand. The combinations of physical environment and human traditions, while in many respects typical of the South Island high country generally, also have qualities of setting, location and tradition which are singular to this basin, and identifiably 'Mackenzie' in character. The Mackenzie Basin is among the group of landscapes most qualified for 'outstanding' status in New Zealand. The Council therefore needs to ensure its Plan guards strongly against inappropriate housing development and subdivision, while continuing to encourage appropriate developments.

The current 'outstanding' landscape values of the Basin culminate from over 100 years of past and present land uses and stewardship. What appears to outsiders as an attractive 'wild' landscape is actually a quite modified high country working environment, in which management by land- and runowners is integral to the landscape values. Therefore planning for future values cannot exist in isolation from the economic and practical realities facing present and future rural land owners and users. [emphasis added]

- 47 Significantly, the s.32 report stops short of quoting the two paragraphs (2.3-2.4) that immediately follow on from the text quoted above:

For this discussion the term '*Outstanding Working Landscape*' has therefore been coined. It encapsulates the need to ensure 'development' and 'preservation' are both kept in mind in planning for the Mackenzie Basin. While the Resource Management Act (s.6b) refers to national importance, this has generally been approached in a 'preservationist' way. That is, outstanding landscapes have generally been 'protected' by discouraging further change.

This approach however poses problems for the Mackenzie Basin where the total landscape is outstanding, but also is a modified environment and one depended on for peoples livelihoods. Thus the concept of an outstanding *working* landscape, as opposed to an outstanding *natural* one, is suggested, to balance the duties of stewardship with those of high country farming. It is untested to date, but seems to offer an approach for the Council to fulfill its obligations for the Basin under the RMA while also accommodating the reasonable needs of residents and other land users. [emphasis in original]

48 It is significant that Mr Densem differentiates between an outstanding natural landscape, as understood in terms of s6(b) of the Resource Management Act, and his own concept of an outstanding working landscape. Important differences include:

48.1 S6(b) requires "The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development", whereas Mr Densem acknowledged the "need to ensure 'development' and 'preservation' are both kept in mind in planning for the Mackenzie Basin."

48.2 The RMA affords no statutory protection to outstanding working landscapes - the term is not even recognised.

48.3 To be regarded as an ONL, a landscape must first pass the test of being 'natural'.

49 It appears likely that Mr Densem's work has been misrepresented as a consequence of the manner in a critical aspect of his report has been represented by others after the release of his February 2007 report. I refer to an article in the Timaru Herald, dated Wednesday 12 December under the heading "Development rules change in the Mackenzie":

Mr O'Neill wished to emphasise the basin was an outstanding working landscape that could not remain stuck in time.

However, planning consultant Patricia Harte said this may antagonise some parties who perceived it as a natural landscape.

"Talk of a working landscape and you are buying a fight," she said.

50 If Ms Harte has been quoted accurately (and I have no reason to believe she has not) then one must conclude that the term outstanding natural landscape has been substituted for outstanding working landscapes for political purposes – to appease those whom perceive it as a natural landscape - rather than to reflect the outcome of an objective, rigorous and technically defensible landscape assessment that responds to s6(b) of the RMA. There is an accepted meaning attached to the words outstanding and natural and an accepted framework for determining outstanding natural landscapes - they are not to be determined as a matter of political expediency, to avoid "buying a fight".

- 51 I accept that there are areas of the Mackenzie Basin that exhibit higher levels of objective naturalness than others. Many of these landscapes are already protected within the national conservation estate. However, in terms of the scale I have presented above, significant areas of the basin would likely rate only Moderate—Moderate-Low in naturalness.
- 52 Accordingly, a technically defensible assessment of the outstanding natural landscapes of the Mackenzie Basin should have been based upon a basin-wide assessment of naturalness. Such an assessment of naturalness should be:
- 52.1 *valid*, in that an accepted definition of naturalness is applied, with naturalness being assessed in terms of natural elements, natural patterns and natural processes, and the extent to which these are modified by human intervention,
 - 52.2 *reliable*, in that the assessment should be undertaken according to a clearly articulated and repeatable methodology,
 - 52.3 *sensitive*, in that the assessment should permit discrimination between varying levels of naturalness within the landscape.

The Densem assessment of landscape values

- 53 The range of values that should be assessed in determining landscape significance (in terms of s6(b)) have been identified elsewhere in my evidence. The assessment of these values should be undertaken in the context of an explicit, defensible methodological framework. In the absence of a clearly stated methodology, an assessment cannot be valid, reliable, or sensitive.
- 54 In his report *Landscape values of the Mackenzie Basin*, Mr Densem, in section 2, appears to base his work on the assumption that the entire basin is outstanding—as if it really doesn't require further assessment⁹. In the absence of a methodology, data, and analysis to guide his own assessment, Mr Densem appears to have accepted uncritically the conclusion of the 1993 Canterbury Regional Landscape Study, that the Mackenzie Basin as a whole is an outstanding natural landscape.

⁹ A similar statement is made at paragraph 3.2 of the report *The Mackenzie Basin: Character and Capacities*, where it is stated: "Despite its modified and managed land surface, virtually the entire basin is 'outstanding' in terms of landscape values." This statement is not supported by any data or analysis, but appears to be a basic assumption of the study.

55 The Canterbury Regional Landscape Study was conducted some 15 years ago at a time at which landscape assessment methods for the purpose of resource management under the RMA (1991) were at an early stage of development. While the study has been influential in providing the genesis of what are now termed the Pigeon Bay factors, the work is notable for the superficial level of data collection and analysis that supported its conclusions, compared with say, the Banks Peninsula Landscape Study. The analysis of the Mackenzie Basin landscape (Vol.1, p.61) is particularly scant, amounting to just half a page:

The Mackenzie Basin is one of the most extensive outstanding landscapes in the region. It is also one of the most investigated, painted, written about, visited, eulogised and argued over landscapes in New Zealand. Over the years there have been several landscape studies and the most recent [but not cited¹⁰] identified a range of key quality attributes that supported its outstanding status.

- The area contains numerous geological and biological sites of importance
- There are key features such as Aoraki, Tasman, Sefton etc on the divide
- The lakes of Ohau, Pukaki, Tekapo and Benmore are all different but add to the vastness of the landscape
- The formation of the land is expressed in many ways – moraines, roche moutonnee, hanging valleys, terraces and fans etc
- The history of the area is of significance to many
- The openness and naturalness of the area
- The character of the tussock grassland
- The very visible details of the landforms
- The coherence of the landcover and underlying landform
- The Basin's importance to tangata whenua.

56 This half page of brief, unreferenced analysis from another report appears to be the total basis upon which the Canterbury Regional Study identified the Mackenzie Basin as an

¹⁰ While not cited, the study the text refers to is likely to be the Boffa Miskell Partners Ltd (1992) study, *Landscape Change in the Mackenzie / Waitaki Basins*. A discussion on this study in Vol. 2 (pp9-10) of the Canterbury Regional Landscape Study (CRLS) documentation notes that in the Boffa Miskell Partners Ltd (1992) study "Landscape values are assessed under 'vividness', 'intactness' and 'coherence'". In terms of current best practice in landscape assessment methodologies, there are grossly inadequate criteria for the assessment of landscape values. The CRLS discussion notes (p.10) that the Boffa Miskell Partners (1992) study was "not intended as a comparative study".

ONL. The provenance of the findings of the Densem study that the Mackenzie Basin is an ONL can therefore be traced as follows:

56.1 The findings of the Densem (2007) study appear to be based upon an uncritical adoption of the findings of the Canterbury Regional Landscape Study (1993)

56.2 The Canterbury Regional Landscape Study (1993) refers to "key quality attributes" taken from "the most recent" landscape study of the Mackenzie Basin area. This study, although not referenced specifically, appears to be the 1992 study "Landscape Change in the Mackenzie/Waitaki Basins" (Boffa Miskell Partners Ltd (1992).

56.3 The Boffa Miskell Partners Ltd (1992) was not a comparative study, in that no judgements were made as to comparative landscape quality. Rather, the study looked at the visual implications of land use change in the basins. "Values" were assessed according the very inadequate criteria of "'vividness', 'intactness' and 'coherence'". The study did not include land over 1100m in altitude, which is clearly some of the most outstanding land within the basins.

57 The cumulative process by which Mr Densem's conclusions were reached is almost in the nature of a Chinese whisper. It might be regarded not unreasonably then, that the Densem study has somewhat dubious parentage in terms of relevance, technical rigour, data collection and critical analysis. However, Mr Densem goes even further than the Canterbury Regional Landscape Study and identifies as 'outstanding', mountain landscapes that the Canterbury study found to be regionally significant, rather than outstanding (the Ben Ohau and Neumann ranges). This conclusion was also reached without any supporting data or analysis.

58 The landscape values of the Mackenzie basin identified by Mr Densem are listed in paragraph 2.6 of his report, and are repeated below:

- i) visual openness and general infrequency of trees in the most-seen places, particularly the Basin floor;
- ii) sense of naturalness due to the extensive land use practices;
- iii) sense of landform continuity due to lack of visual 'dividing up' of the landscape;
- iv) backdrop of mountains and peaks, and the long views to them;
- v) brown landscape colour;
- vi) naturalness of lakes and rivers, including their shorelines and settings;
- vii) treed homestead nodes;

- viii) sense of different-ness from lowland New Zealand;
- ix) small, well-separated towns;
- x) simple road pattern and road margins.

- 59 It is questionable whether any of these aspects are actually values, as understood in the context of the Pigeon Bay factors or the typology of landscape values included as Appendix A. They are more appropriately regarded as descriptive aspects of landscape character. To the extent that these can be regarded as values, they are predominantly, even exclusively, related to aesthetic, or the visual appreciation of the Mackenzie Basin landscape.
- 60 None of the so-called values listed above are validated or supported with reference to other sources of data. They appear to be a reflection of Mr Densem's own personal perceptions of the Mackenzie Basin landscape.
- 61 Mr Densem has not applied the commonly accepted framework of the Pigeon Bay factors to his assessment of landscape significance::
- 61.1 Nowhere does Mr Densem address the critically important matter of the natural science values of the Mackenzie Basin – the geological, topographical, ecological and dynamic components of the landscape, and the extent to which these are valued.
- 61.2 Nowhere does Mr Densem address the value of the Mackenzie Basin to tangata whenua,
- 61.3 Nowhere does Mr Densem address historical values.
- 62 Mr Densem's focus upon the visual in his assessment of the Mackenzie Basin landscape is contrary to accepted understandings of 'landscape' as commonly applied within the context of the RMA, that recognises the concept of 'landscape' as rich and complex, and embodying far more than the merely visual.
- 63 Mr Densem's assessment of the landscape values of the Mackenzie Basin (*Landscape Values of the Mackenzie Basin, section 2, Landscape Values and Issues*) amounts to no more than 2 pages of text - largely bullet points – containing no supporting evidential material or critical analysis of values. In my opinion it falls well short of what might be

regarded as a rigorous assessment of landscape significance. Most significantly, it fails the tests of validity, reliability and sensitivity referred to earlier in this evidence.

64 In fairness to Mr Densem, it may be that his brief was not to determine landscape significance in terms of section 6(b) of the Act. It is pertinent to consider the landscape assessment Mr Densem undertook for the Waitaki District in 2004 (conducted some 3 years before the Mackenzie Basin landscape values report). In the Waitaki landscape study Mr Densem:

64.1 at paragraph 2.14, acknowledges that “In assessing an area for “outstandingness’ the Environment Court has come to consider the following constituent landscape values as relevant...” [Mr Densem then lists the full Pigeon Bay factors],

64.2 at paragraph 2.19 (in discussing visual amenity, or ‘significant’ landscapes), acknowledges that many districts possess areas that do not achieve the threshold for an outstanding rating but nonetheless are out of the ordinary and worthy of some level of recognition within the district plan [landscapes commonly referred to as *visual amenity landscapes*].

64.3 At paragraph 2.21 acknowledges; “It is therefore accepted practice that a district may chose to delineate what might be termed ‘second-tier’ landscapes, for protection or management under its plan.”

65 Few, if any of the characteristics that mark the Waitaki Landscape Study as a professional work of landscape assessment are evident in the Mackenzie Basin landscape values study. This is not a criticism of Mr Densem’s professional competence but rather suggests that Mr Densem was compromised in the brief given to him by the Mackenzie District Council, and was not provided with the necessary scope and resources to do a proper, professional assessment.

What is outstanding, and the basis for comparison

66 In determining what is, or is not outstanding, a number of guiding principles have emerged through Environment Court decisions:

- The test as to what is outstanding should be reasonably rigorous

- In *Arrigato* the Concise Oxford Dictionary definition of outstanding was given; "Conspicuous, eminent, especially because of excellence", and it was noted by the Court that outstanding is an adjective of considerable strength.
- In *WESI v Queenstown Lakes District Council* (C18099) it was observed that a landscape can be magnificent, or beautiful, or picturesque without being outstanding.

67 The basis for comparison for a consent authority is its own region, or district. A district council must consider what is outstanding in its district. It has been demonstrated conclusively through the Banks Peninsula decision (*Briggs and ors v Christchurch City Council*, C45/2008) that what might be outstanding at a regional level is not necessarily outstanding at a District level.

DELINEATING OUTSTANDING NATURAL LANDSCAPES

68 The probability that communities value different parts of the Basin to different degrees does not appear to have been considered in the assumption that the entire Basin is outstanding. The fact that specific values have not been identified and spatially mapped has obscured the reality that landscape values are not attributed uniformly throughout the Basin.

69 The possibility that the Basin may contain landscapes of lesser significant appears to be avoided through the assumption that the delineation of discrete landscape within the Basin is too difficult a task anyway:

Outstanding Natural Landscape or Landscapes

Some submissions query the fact that the whole of the Mackenzie Basin has been described as an outstanding natural landscape whereas in other districts numerous landscapes have been identified along with a more generic approach to development involving development being controlled under a discretionary regime with no minimum lot size. The approach of identifying specific outstanding natural landscape and features within a large landscape was considered, however *the large-scale landform(s) of the Mackenzie Basin do not lend themselves to easy identification and separation into discrete landscapes*. Even if this were done the areas covered would be so substantial as to be little different than determining that the Basin is an outstanding landscape in its own right as well as containing outstanding landscapes within it. (Planning Officer Report, pp 3-4, and elsewhere, italics added)

70 The claim that "identifying specific outstanding natural landscape and features within a large landscape was considered" does not appear to be supported by Mr Densem's landscape assessment which appears to have been undertaken on the assumption (based upon the findings of the CRLS) that the entire basin is outstanding.

- 71 The statement “the large-scale landform(s) of the Mackenzie Basin do not lend themselves to easy identification and separation into discrete landscapes” appears to be contradicted elsewhere in the Planning Officer’s report , where at page 9 the planner cites Mr Densem’s Technical Report (para. 201) in acknowledging

It is agreed that the Basin comprises a series of areas and sub-areas which at various scales also can also be considered “landscapes” in their own right.

- 72 The statement at p.62 of the Planning Officer’s Report; “Even if this were done the areas covered would be so substantial as to be little different than determining that the Basin is an outstanding landscape in its own right”, is an unjustified assumption with no foundation in the data or analysis contained in Mr Demsen’s landscape assessment.
- 73 Whether the failure to identify landscapes and landscape values at varying scales was based upon perceived technical difficulties, or simply contrary to the assumptions that underpinned Mr Densem’s assessment, the outcome is not technically defensible, and does not serve the best interests of resource management in the Mackenzie Basin.
- 74 The failure to identify, evaluate and map landscape values across the basin is a significant failing of the landscape assessment. That this was not done appears to be based on either (1) the uncritical adoption of the findings of the CRLS), or (2) the failure to adopt a technically rigorous methodology for the assessment process. The application of technically defensible methods has been demonstrated in the identification of ONLs in the Banks Peninsula Landscape Study (2007).

THE BANKS PENINSULA LANDSCAPE ASSESSMENT AND CONSEQUENT ENVIRONMENT COURT DECISION C45/2008

- 75 The 1993 Canterbury Regional Landscape Study recognised Banks Peninsula as an ONL at a regional level. Some 96,000 ha of Banks Peninsula is rural land. The Banks Peninsula landscape study undertaken by Boffa Miskell Ltd (2007) identified some 23,000 ha as either ONL or CNCL (Coastal Natural Character Landscape). The Canterbury Regional Council sought the identification of some 75,000 ha (of 96,000 ha) as ONL/CNCL (C45/2008, para 22).
- 76 In its decision, the Court stated at paragraph 87:

In broad terms we have conclude that 70,000 hectares of land subject to the ONL/CNCL rules would constitute...a significant imposition on the conduct of farming activities...

...when considered in the context of Banks Peninsula's Rural Zone overview, which recognises pastoral farming as the dominant land use.

77 Section 7 Rural, of the operative MDC Plan states the area of the Mackenzie District as including:

- 132,000ha of lakes, riverbeds and mountain tops and the remainder is divided into four main farming systems, including;
- System 2 Gorge and Moraine Runs: Area 190,000ha,
- System 3 Semi Arid Plains and Lower Hills: Area 210,000ha. This can be taken to mean the Mackenzie Basin

78 This does not include System 1, Unfarmed: Area 132,000ha, much of which I assume to be within National Park, and can reasonably be regarded as ONL.

79 Although not defined in spatial terms, it is reasonable to draw the conclusion that the 3 areas identified in the bullet points above are what is generally referred to as the Mackenzie Basin – an area of some 400,000 ha, more than 4 times the size of Banks Peninsula. Even if the area of the lakes is excluded, the proposed plan change seeks to identify an area of pastoral farmland at least twice the size of Banks Peninsula as ONL. Consistent with the Banks Peninsula decision, I cannot accept that a highly modified agricultural landscape the size of the Mackenzie Basin can be deemed to be outstanding in its entirety.

80 At paragraph 125 of the Banks Peninsula decision (C45/2008), the Environment Court distinguished between the regional and district scales for assessment of landscape significance:

For our part we agree that the Banks Peninsula landscape represents an outstanding landscape at a regional scale given the geomorphology of the area. The test is whether it constitutes an *outstanding natural landscape* [italics in original decision] at a district level, involving elements beyond geomorphology.

- 81 The Court's decision determined that Banks Peninsula did not pass the test for outstandingness at a District scale, and endorsed the assessment of landscape significance in the Boffa Miskell Banks Peninsula landscape study.
- 82 With regard to the quality of assessment in the Boffa Miskell study, the Environment Court (C45/2008 paragraph 122,) described the Boffa Miskell Banks Peninsula landscape assessment as;
- ...broad and robust. We have further concluded that it is the most comprehensive approach to a district landscape undertaken in New Zealand to date, a point not disputed by other witnesses.
- 83 And again at paragraph 130 the Court further endorsed the Boffa Miskell approach;
- We cannot leave this issue without stating our conclusion that this is the most comprehensive analysis of issues this Court has been faced with to date. It uses innovative tools, including the K2Vi overlay mapping system. Furthermore it provides a consistent and repeatable approach to the various value layers identified. In doing so it seeks to maximise the objective information which can be provided into the layers before reaching a value judgement and integrating those layers into the various categories of ONL, CNCL [coastal natural character landscape], and RAL [rural amenity landscape].
- 84 In my opinion, given the scale of the Mackenzie Basin and the unquestioned existence of significant values in respect of the Mackenzie Basin landscape, the assessment of landscape values and landscape significance within the Mackenzie Basin requires a study at least equivalent in rigour to that of the Boffa Miskell Banks Peninsula landscape assessment.
- 85 The resolution of landscape protection matters for Banks Peninsula took some 10 years to resolve through a protracted process involving consultation, local authority hearings, mediation and Environment Court appeals. A brief history of the matter is presented in paragraphs 9—17 of the *Briggs v Christchurch City Council* decision (C452008). It is common knowledge that the key reason behind the protracted nature of that particular Plan was the failure to undertake a defensible landscape analysis until required to as a result of numerous appeals.

THE NODAL DEVELOPMENT CONCEPT

- 86 My criticisms of the landscape assessment basis of the proposed plan change notwithstanding, I regard the proposed policy on 'nodal' (or cluster) development as having some merit. However, I consider the identification of Landscape Sub-Areas (the orange areas identified for nodal development in Map 8 of Mr Densem's *The Mackenzie Basin: Character and Capacities* (November 2007)), the recommendations on the maximum number of nodes per sub-area, and rules governing nodal development to be flawed and unworkable. The areas on Map 8 marked 'X', where no new nodes are suitable, have not been subject to adequate assessment in my opinion. As a guide to the implementation of the nodal development policy, I consider Map 8 (drawn at a scale I assume to be 1:250,000) to be unreliable and of little value. If the landscape sub-zone and node approach is to be adopted, a more rigorous, technically defensible assessment should be undertaken to determine visual absorption capability. Landscape sub-areas should be identified with regard to visual absorption capability and the location of valued areas of landscape. All of this should be done at a much finer grain of analysis than 1:250,000.
- 87 Some of the more significant deficiencies in the identification of sub-areas and node capacity include:
- 87.1 The invalid assumption that all sub-areas and nodes are located within an ONL,
 - 87.2 A lack of transparency in the method for identifying landscape sub-areas and the maximum numbers of new nodes. There is no evidence that sub-areas and nodal carrying capacities have been identified according to clearly articulated and defensible criteria.
 - 87.3 The scale at which the information is presented does not permit the accurate identification of landscape sub-areas. As such there is a lack of certainty for landowners and run-holders regarding exactly which parts of their properties have been identified for nodal development.
 - 87.4 A lack of accuracy – at least one landscape sub-area (west of Pukaki Downs Station) appears to have been drawn substantially over Department of Conservation land.

- 87.5 A lack of rigorous analysis of hazards and constraints – the length of the Pukaki riverbed and flood plain appear to have been identified as a sub-area capable of accommodating 4 nodes.
- 87.6 The invalid assumption that the visibility of nodes is necessarily a negative effect. There is no evidence that I am aware of to support the view that existing station homestead areas and farm infrastructure (yards, woolsheds, barns and ancillary structures) are regarded by the public as negative elements in the landscape. The contrary is more likely the case.
- 88 Policy 3G-Approved Building Nodes makes explicit reference to Map 8, and so to the extent that Map 8 is imprecise and unreliable, many of the policies in 3G are unworkable
- 89 Aside from the problems associated with Map 8, some policies for the development of nodes are unworkable, unduly restrictive or unnecessary. Examples include:
- 89.1 Policy 3G(1) requires that a node is separated from any existing or approved building node by several kilometres both within properties and between neighbouring properties to retain a sense of isolation. This is potentially unworkable, and has no regard for the practicalities of farm management, farm layout, or the local subtleties of landscape and landform. Given that Policy 3G(1) requires buildings to be visually inconspicuous, there is no basis for policies to also require a sense of isolation. It is not the role of the District Plan to ensure that nodal dwellers, visitors or workers feel 'a sense of isolation'.
- 89.2 Policy 3G(15) and Rule 15.1.1 require that a node identifies and provides for a minimum of 5 building platforms. Rule 15.1.1 also requires that the node should have substantial perimeter planting around them. The requirement to identify and establish perimeter planting around a node sufficient for 5 building platforms is unreasonable and unworkable for situations where a node is required to provide for the construction of a single farm utility building.

SOME ISSUES ARISING FROM THE SECTION 32 REPORT

- 90 The section 32 assessment, in discussing the proposed Objective 3B, confuses the assessment of landscape significance with the assessment of natural character, and in so doing highlights the lack of precision and rigour that characterises the landscape

assessment and the objectives, policies and rules that derive from it. On page 10 of the s.32 report, Objective 3B is introduced as follows:

Objective 3B

Protection of the natural character of the landscape and the margins of lakes, rivers, wetlands and natural processes and elements in particular that contribute to the district's overall character and amenity.

This objective is dealing with landscape values at a more general level and while it could be considered to cover outstanding natural landscapes it also covers landscapes of lesser value such as those that deserve some form of recognition and protection under section 7(c).

- 91 While the report claims that Objective 3B addresses "landscape values at a more general level" it does nothing of the sort. The objective makes no reference to landscape values, but rather addresses the matter of landscape character, and in particular natural character, or naturalness. The protection of naturalness is a distinctly different matter to the protection of landscape values, and also to the maintenance and enhancement of amenity values (s7(c)). The reference to "landscapes of lesser value such as those that deserve some form of recognition and protection under section 7(c) is redundant in the context of the Mackenzie Basin given that the Densem report identifies no such landscapes (nor, to the best of my knowledge, have they been identified anywhere within the district). However, herein lies one of the basic problems with the landscape assessment, in that the entire basin has been assumed to be outstanding, and the inevitability that some landscapes are of lesser value has not been entertained or acknowledged. Objective 3B does not serve the purposes of the Act other than with respect to the protection of natural character - a section 6(a) matter.
- 92 The section 32 discussion on Policy 3A - Recognition of the Mackenzie Basin, refers to the need for the recognition of the Basin as outstanding and the need to protect its special values. Nowhere in the documentation associated with the proposed plan change, and in particular in the reports prepared by Mr Densem, are these special values adequately identified, documented and mapped. If, as seems to be the case, it is considered that blanket ONL recognition for the entire basin will protect the special values, then this is inconsistent with the decision in *Briggs and ors v Christchurch City*

Council, which found that the identification of most of the peninsula as ONL would be “a significant imposition on the conduct of farming activities”. As Mr Densem has noted:

What appears to outsiders as an attractive ‘wild’ landscape is actually a quite modified high country working environment, in which management by land- and runowners is integral to the landscape values.

- 93 The section 32 discussion on Policy 3F – Landscape Carrying Capacity, refers to the landscape assessment of the Mackenzie Basin and its assessment of the “carrying capacity” of areas or individual stations. The carrying capacity is represented in Map 8 of the *Mackenzie Basin Landscape: Character and Capacities* report. The technical basis for the identification of these areas and the calculation of node capacities has not been adequately explained. The proposed sub-areas and carrying capacities, as presented in Map 8, include areas that are impractical, inaccurately mapped, and extremely difficult to interpret at the scale at which they are mapped. As such, to the extent that the Policy 3F of the Proposed Plan Change relies upon Map 8, it does not represent an effective and efficient means of meeting the purpose of the Act.

SUMMARY AND CONCLUSIONS

- 94 Proposed Plan Change 13 is premised on the findings of a landscape assessment that is fundamentally flawed and deficient in the following respects:
- 94.1 It accepts uncritically the findings of the 1993 Canterbury Regional Landscape Study (CRLS) that the Mackenzie Basin as a whole is an outstanding natural landscape. The CRLS in turn draws upon an earlier 1992 study that did not seek to identify ONFLs, but rather explored the visual effects of land use change.
 - 94.2 The Densem assessment’s finding that the Basin is an outstanding *working* landscape has been misrepresented to read outstanding *natural* landscape.
 - 94.3 The Densem assessment undertook no assessment of naturalness within the basin to identify variations in levels of naturalness, and thus fails the test of sensitivity.

- 94.4 The Densem assessment, in apparently assuming the findings of the CRLS to be relevant at the District level, failed to independently assess the landscapes of the Basin according to widely accepted criteria, or in a manner that meets standard tests of reliability, validity and sensitivity.
- 94.5 In failing to independently assess the landscapes of the Basin, Mr Demsen's study has failed to identify, evaluate and map valued landscapes within the basin at a scale appropriate to District-wide resource management
- 94.6 The Proposed Plan Change 13 is inconsistent with the manner in which landscape values are recognised and managed within a district characterised by pastoral farming, as was demonstrated through the Banks Peninsula Landscape Study and subsequent Environment Court decision (C045/2008)
- 95 The Proposed Plan Change prioritises the protection of a particular landscape aesthetic at the expense of considerations of ecosystem health and farm management. As such the plan change fails to provide adequately for the sustainable management of natural and physical resources, but rather preserves a status quo that is characterised by unsustainable resource management attended by rampant colonisation of wilding pines, noxious weed and pest infestations, and soil erosion. In my opinion it is both naïve and irresponsible to place a visual landscape aesthetic above the more substantial and far-reaching issues of sustainable management in the Mackenzie Basin.
- 96 Accordingly, it is my opinion that the Proposed Plan Change should be withdrawn and a comprehensive District-wide landscape assessment be undertaken in accordance with best professional practice. I recommend that the assessment framework outlined in Appendix A be applied.
- 97 Given the likelihood that an unsatisfactory outcome of this hearing will be appealed to the Environment Court, it may be expected that the technical robustness and objectivity of the landscape assessment that informed the Proposed Plan Change will come under particular scrutiny. The protracted process involved in resolving the matter of landscape protection on Banks Peninsula, and the fact that the issues were not finally resolved until a comprehensive and rigorous district-wide assessment was undertaken, should be a signal of the path that lies ahead if the plan change is not withdrawn.

- 98 On the matter of nodes, I consider the idea of cluster type development to be appropriate for rural land within the Mackenzie Basin irrespective of landscape significance (i.e., whether outstanding, or of some lesser level of significance). However:
- 98.1 I do not regard nodal (or cluster) development as the only appropriate model for the basin.
- 98.2 I question whether the identification of landscape sub-zones and nodal carrying capacities is warranted except within ONLs defined according to the most robust and technically defensible criteria, and in terms of the study I recommend in paragraph 88 above.
- 98.3 Within ONLs, the identification of areas suitable for cluster development should be based on a transparent and technically robust methodology that responds to landscape characteristics and values at a finer grain of analysis than is evidence in Map 8 of Mr Densem's report.
- 98.4 Whether within or outside of ONLs, policies for approved building nodes should permit greater flexibility in the identification and planning of nodes, according to the characteristics of the landscape and the values associated with particular areas.
- 99 Policies and rules governing the location, planning and development of nodes should not constrain legitimate farm management systems and practices, particularly where these systems and practices respond to wider imperatives relating to the economic, social and ecological sustainability of farming in the Mackenzie Basin.

Michael L Steven

Landscape planner

1 September 2008

APPENDIX A: A FRAMEWORK FOR THE ASSESSMENT OF LANDSCAPE SIGNIFICANCE**The natural science, or natural heritage values¹¹**

- 1 **Geo-evolution**
 - 1.1 Geological features – outstanding or representative
 - 1.2 Geomorphological and landform features – outstanding or representative
- 2 **Geodiversity**
 - 2.1 Geological and geomorphological features or processes – outstanding or representative examples
 - 2.2 Geological or geomorphological features or processes – rare or threatened
- 3 **Bio-evolution**
 - 3.1 Paleobotanical and paleozoological (fossil records) – outstanding or representative
 - 3.2 Plant and animal species or communities which are evidence of earth's biological evolutionary history – outstanding or representative
- 4 **Biodiversity**
 - 4.1 Species, populations or ecosystems – representative examples
 - 4.2 Species, populations or ecosystems – rare, threatened or endangered
 - 4.3 Species, populations or ecosystems - endemic
 - 4.4 Species, populations or ecosystems – other outstanding scientific or conservation value
- 5 **Natural integrity** (ecosystems and landscapes relatively unperturbed by modern technological society)

¹¹ These factors are taken from: Mackey, Nix and Hitchcock (2001). *The natural heritage significance of Cape York Peninsula*. A report commissioned by the Queensland Environmental protection Agency, published by ANUTech Ltd Canberra, ACT

- 5.1 Terrestrial ecosystems – high degree of natural integrity
- 5.2 River corridor ecosystems – high degree of natural integrity
- 5.3 Wetland ecosystems – high degree of natural integrity

6 On-going natural processes

- 6.1 Areas of sufficient size, natural integrity and other essential elements to allow or maintain significant on-going ecological, life support and evolutionary processes
- 6.2 Areas of sufficient size, natural integrity and other essential elements to allow or maintain significant on-going geophysical evolutionary processes

7 Contributing to knowledge

- 7.1 Geomorphic or physiographic features, ecosystems, plant and animal communities or natural processes or phenomena – significant contribution to understanding of natural history.
- 7.2 Geomorphic or physiographic features, ecosystems, plant and animal communities or natural processes or phenomena – significant contribution to direct educational value

Aesthetic Quality

Aesthetic quality can be assessed according to a range of theoretical frameworks and methods. A set of factors that may be applied for the purposes of a professional assessment include:

- 1 **Complexity**
- 2 **Coherence**
- 3 **Legibility**
- 4 **Mystery**

Assessments of community-held aesthetic values may be undertaken by techniques such as Q-sort.

Community-held values¹²

- 1 **Aesthetic:** Areas valued for the scenery—mountains, glaciers, forests, beaches, tidelands, bays and islands
- 2 **Biological:** Areas valued because they provide places for a variety of plants, animals and wildlife
- 3 **Cultural:** Areas valued because people can continue to pass down wisdom, traditions, and a way of life
- 4 **Economic:** Areas valued because they provide economic opportunities such as fisheries, tourism, or processing
- 5 **Future:** Areas valued because they allow future generations to know and experience the areas as they are now
- 6 **Historic:** Areas valued because they are places and things of natural and human history
- 7 **Intrinsic:** Areas valued just because they exist, no matter what humans think about them or how we use them
- 8 **Learning:** Areas valued because we can learn about the environment
- 9 **Life sustaining:** Areas valued because they are places that produce, preserve, clean, and renew air, soil, and water
- 10 **Recreation:** Areas valued because they provide places for outdoor, recreation activities and experiences
- 11 **Spiritual:** Areas valued because they are sacred, religious, spiritually important
- 12 **Subsistence:** Areas valued because they provide necessary food and materials to sustain people's lives
- 13 **Therapeutic:** Areas valued because they make people feel better, physically and/or mentally
- 14 **Wilderness:** Areas valued because they are wild

¹² Alessa, Kliskey & Brown (2008). Social-ecological hotspots mapping: A spatial approach for identifying coupled social-ecological space. *Landscape and Urban Planning* 85, 27-39

APPENDIX B**Government Press Release, Ruataniwha Conservation Park****Mahara Okeroa****12 JULY, 2006****Ruataniwha Conservation Park**

A new conservation park that protects some of the most spectacular scenery in South Canterbury was officially opened today by Associate Minister of Conservation, Mahara Okeroa. The Ruataniwha Conservation Park includes over 37,000 hectares of rugged mountain country, tussocklands, beech forest and sparkling clear rivers, in the ranges and valleys bordering lakes Ohau and Pukaki.

"The scenery here is like something off the cover of a box of chocolates. It's absolutely stunning," said Mr Okeroa.

"This new park brings together existing conservation areas and new lands that have come out of tenure review and gives them stronger, more marketable, identity," he said.

"The park will give these lands a higher status and a higher level of protection. A park is a term that's universally known and valued; it means so much more to people.

"We already know this area is well-loved and visited by locals - as a park we expect it to attract more visitors from further afield," he said.

APPENDIX C: Photography

- Figure 1:** Map of Lake Pukaki from *Plan of Mackenzie County* (Department of Lands and Survey, c. 1911)
- Figure 2:** View north-west towards the Ben Ohau Range taken from the lower Pukaki River Road
- Figure 3:** View of Pukaki Dam and spillway from the lookout above the dam
- Figure 4:** View south-west along Pukaki–Ohau Canal, from Pukaki Dam
- Figure 5:** The Pukaki River

ADDENDUM

The possibility of identifying new nodes per station rather than per landscape sub-area

- 1 In his *Technical Report L1, Landscape Assessment of Issues Arising from Public Submissions & Further Submissions*, dated August 2008, Mr Densem's position on the identification on Nodes and Landscape Sub-Zones appears to have changed significantly in light of his response to Submission 60/2 by Lone Star Farms:

60 Lone Star Farms Ltd

121. This submission 60/2 concerns Godley Peaks Station. The part considered in this section seeks, '*should .. an analysis deem a set number of nodes to be an appropriate land management method, then map 8 be amended to show the maximum number of new nodes per station rather than per landscape sub-area*'.

122. I support this submission as it would give a clearer definition of options for each property.

123. *I recommend that this part of Submission 60 be accepted.*

- 2 This recommendation, apparently intended to have general application across all of the area covered by Map 8 (the Basin as a whole), clearly endorses the abandonment of the Landscape Sub-Zone concept as the basis for identifying nodes, and the assessment of node capacity on a property-by-property basis instead.
- 3 As the identification of nodal capacity according to landscape sub-zone is a key aspect of Mr Densem's study, and similarly one of the foundations of the Proposed Plan Change, Mr Densem's recommendation on the Lone Star Farms Ltd submission 60/2 would, if accepted, render a very significant aspect of the Proposed Plan Change redundant. It would also appear to render discussion on many of the matters regarding nodes before this hearing redundant. Mr Densem's new position on the identification of nodes will require a major property-by-property assessment of visual absorption capability and node carrying capacity.
- 4 A failure to adopt Mr Densem's recommendation will place the Council at odds with its landscape consultant on the Proposed Plan Change and further weaken the landscape foundations and integrity of PC13.

- 5 Mr Densem's changed position on the identification of nodes renders a significant aspect of the Proposed Plan Change redundant, and provides further grounds for the withdrawal of the Plan Change and the commissioning of a new study.