

**IN THE ENVIRONMENT COURT  
AT CHRISTCHURCH**

**UNDER** The Resource Management Act 1991

**IN THE MATTER OF** appeals under clause 14(1) of the First Schedule to the Act

**BETWEEN**

**FEDERATED FARMERS OF NEW ZEALAND  
(INCORPORATED) MACKENZIE BRANCH**  
ENV-CHC-2009-000193

**HIGH COUNTY ROSEHIP ORCHARDS LIMITED AND  
MACKENZIE LIFESTYLE LIMITED**  
ENV-CHC-2009-000175

**MOUNT GERALD STATION LIMITED**  
ENV-CHC-2009-000181

**MACKENZIE PROPERTIES LIMITED**  
ENV-CHC-2009-000183

**MERIDIAN ENERGY LIMITED AND GENESIS ENERGY  
LIMITED**  
ENV-CHC-2009-000184

**THE WOLDS STATION LIMITED**  
ENV-CHC-2009-000187

**FOUNTAINBLUE LIMITED & OTHERS**  
ENV-CHC-2009-000190

**R, R AND S PRESTON AND RHOBOROUGH DOWNS  
LIMITED**  
ENV-CHC-2009-000191

**HALDON STATION**  
ENV-2009-CHC-000192  
**Appellants**

**AND**

**MACKENZIE DISTRICT COUNCIL**  
**Respondent**

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**STATEMENT OF EVIDENCE IN CHIEF OF GRAHAM HUGH DENSEM ON  
BEHALF OF MACKENZIE DISTRICT COUNCIL (LANDSCAPE)**

**DATED 15 JULY 2016**

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**STATEMENT OF EVIDENCE IN CHIEF OF GRAHAM HUGH DENSEM****Introduction**

1. My name is Graham Hugh Densem. I am a landscape architect and practise under my own name.
2. I have the qualifications of a Bachelor of Arts degree in Geography from Canterbury University (1971) and a Post Graduate Diploma in Landscape Architecture from Lincoln College (1974). I am an Associate and a Non-Registered member of the New Zealand Institute of Landscape Architects.
3. I have 42 years professional experience with the Ministry of Works and Development in Wellington from 1973, the Hong Kong Government from 1981, with Lincoln University as a Senior Lecturer in Landscape Architecture from 1986, with Davie Lovell-Smith Limited, Christchurch from 1996, and under my own name since 1999.
4. I have been engaged by Mackenzie District Council (**Council**) to provide evidence in relation to its post-consultation version of Plan Change 13 to the Mackenzie District Plan (**PC13 (s 293V)**).
5. I have provided evidence as a Reporting Officer with the Council at the PC13 hearings and provided a brief of Evidence in Chief (dated 13 May 2010) and a Statement of Evidence in Rebuttal (dated 10 July 2010) hearings. I have also provided specific expert evidence on behalf of the Council in relation to the Pukaki Downs Tourist Zone.<sup>1</sup>
6. I have been involved in assisting the Council through the consultation on Plan Change 13 and am the author of the landscape management document entitled *Intensification and Outstanding Natural Landscape; Landscape Management of the Mackenzie Basin in light of Court Decisions*, November 2015 (updated).

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<sup>1</sup> Fountainblue Limited & Ors v Mackenzie District Council [2015] NZ EnvC 446

7. I have read the code of conduct for expert witnesses contained in the Environment Court Practise Note 2014. I have complied with it in preparing this evidence and I agree to comply with it in presenting evidence at this hearing. The evidence I give is within my area of expertise except where I state that my evidence is given in reliance on another person's evidence. I have considered all material facts that are known to me that might alter or detract from the opinions that I express in this evidence.
8. In preparing my evidence I have reviewed:
- The Environment Court and High Court Decisions on Plan Change 13;
  - The Maps in the Graphic Attachment to this evidence;
  - The Draft Policies contained within the s.293 package now before the Court; and
  - I have also reviewed and considered the various documents which formed part of my evidence to the 2010 hearings.

### **Scope of Evidence**

9. In my evidence I will address:
- Characteristics of the Mackenzie Basin Landscape
  - Activities Affecting Landscape Values
  - Scenic Grasslands
  - Landscape Effects of Intensification
  - Capacity to absorb Development
  - Effectiveness of the Landscape Approach now adopted under PC13
  - Submissions received
10. Accompanying my evidence is a **Graphic Attachment** of maps referred to in my evidence.

### **Characteristics of the Mackenzie Basin Landscape**

11. The characteristics and values of the Mackenzie Basin are summarised in Objective 3B(1) as:
- (a) *The openness and vastness of the landscape;*
  - (b) *The tussock grasslands;*
  - (c) *The lack of houses and 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.*
12. I consider it important that the Plan should contain a statement of the ONL characteristics and values, as an indication of those requiring protection. In my opinion, Objective 3B(1) provides a reasonable distillation of the values identified by the Court in its First Interim Decision, and in my 2010 evidence-in-chief.<sup>2</sup>

### **Activities Affecting Landscape Values**

13. In this part of my evidence I address the activities which impact on landscape values by reference, where appropriate, to the Objectives and Policies.
14. The characteristics of the Mackenzie Basin, as identified in my earlier evidence, and as summarised in Rural Objective 3B, developed over 150 years of traditional pastoral leasehold and extensive grazing management. Modern activities now are steadily eroding some of those values. I now outline a number of activities which I consider have particular effects on the traditional characteristics.

### **Subdivision, Freeholding, Buildings and Lifestyle Developments**

15. The traditional cultural pattern of the Mackenzie Basin, comprising open landscape and periodic homestead nodes (Farm Base Areas) was referred to in my 2010 evidence to this Court<sup>3</sup> and also in my

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<sup>2</sup> Graham Densem Evidence in Chief 13 May 2010, at paragraph 3.22.

<sup>3</sup> Graham Densem Evidence in Chief 13 May 2010, paragraphs 2.21-2.23 and 3.22.

2007 study 'The Mackenzie Basin Landscape'<sup>4</sup>. This, in my opinion, gave a distinctive 'high country' cultural pattern to the Basin that is significantly different to the subdivision and dispersed patterns of rural settlement in lowland Canterbury.

16. Recent freeholding of former leasehold runs, pastoral intensification and dispersal of buildings for lifestyle or worker use diminish this pattern. In my opinion, as far as possible, such activities should be concentrated in existing or new 'nodes', to maintain traditional cultural patterns.
17. The activities affecting landscape values otherwise result in a dispersal of the formerly distinct cultural patterns, a lessening of naturalness outside Farm Base Areas, and creation of a visually divided landscape in what was formerly a unified landscape outside Farm Base Areas. The visually divided landscape results from greater diversity of management patterns between different owners.
18. Night-time darkness, a feature of the traditional low settlement levels, also is diminished as settlement densities increase throughout the Basin.
19. Policy 3B2, as currently proposed, seeks to manage the effects of sporadic subdivision and development by:
  - (1) managing residential and rural residential subdivision and housing developments as far as possible within defined Farm Base Areas;
  - (2) managing the location, appearance, size and separation of buildings outside Farm Base Areas;
  - (3) ensuring new residential and rural-residential developments occur in areas of lesser landscape sensitivity; and
  - (4) strongly discouraging non-farm buildings in other areas of the Basin, outside Farm Base Areas.

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<sup>4</sup> Graham Densem *The Mackenzie Basin Landscape - Character and Capacities* November 2007, para 2.25, p.13

20. In my view this policy provides good guidance for maintaining a degree of the traditional cultural pattern of the Basin, under diversified modern usage.

**Recreation, Tourism, Access, Traffic, Aviation**

21. Tourist and recreational usage of the Basin results in dispersal and diversification of traditional cultural and natural patterns. Where users follow farm tracks, impacts fit traditional patterns, but the wide access to 4WD vehicles allows impacts across land generally, including lakesides and riverbeds, by a diverse range of users. Vehicle and aviation noise lessen the natural sound environment of wind, rivers and birdsong.
22. Tourism is an important component of the Mackenzie Basin economy, but ideally should occur in numbers and patterns that maintain landscape values.
23. Policy 3B4 seeks to manage the effects of visitor accommodation and rural-residential activities by:
- (1) Locating them in special zones where they would benefit the environment;
  - (2) Locating such zones in areas of lesser landscape sensitivity and incorporating conditions for landscape and ecological enhancement and wilding control;
  - (3) Requiring any developments to maintain or enhance the outstanding natural landscape and other natural values of the Basin. Eight measures are listed to achieve this.
24. I support the thrust of this policy as a reasonable means of seeking to avoid impacts on the ONL while enabling suitable developments.

**Pastoral Intensification**

25. This involves the development of pastures through cultivation, grassing and perhaps irrigation. Areas of pastoral intensification are dispersed though the landscape rather than being confined to traditional Farm Base Areas. The effects on the landscape arise from greening and division of the traditional extensive brown high country

landscape, loss of natural diversity, different livestock impacts, and the dispersal of sheds and houses, lights, tracks, fences, locations, water supply, shelterbelts and traffic. There are positive effects in terms of soil loss. These issues are discussed further in paragraphs 51 – 61 below.

### **Earthworks**

26. Earthworks for roads, tracks, buildings or other developments permanently alter natural landforms, lessen their sense of naturalness, and can destroy sites of natural value. In many cases the effects on ONL values can be mitigated by suitable location, design and reinstatement. Much of the Mackenzie Basin, outside the drier east, has good capacity for vegetation growth, in reinstating earthworks.
27. Rural Policy 3A1 seeks to manage this issue by limiting earthworks in high altitude areas, steeper slopes and geopreservation sites, so landforms and landscape character are maintained. While I understand that policy is not before the Court, in my view it should apply to all land, not just steeper slopes, to maintain natural values of the Basin generally, not solely visual values.
28. Rural Policy 3A5 encourages attention to the siting of developments, including roads and tracks, to be in harmony with the landscape. This is supported as it often is possible to site or otherwise form earthworks for lesser visual impacts or so they will blend into the natural landform shapes.

### **Wildings**

29. Wildings alter the grassland character of the Mackenzie Basin. Where they exist they are not so much an activity as an inactivity. My 2010 evidence to this Court<sup>5</sup> concluded that Wilding spread has effects on:
  - Natural Values, by changing or suppressing existing vegetation, wildlife and water regimes;

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<sup>5</sup> Graham Densem *Evidence in Chief* 13 May 2010, paragraphs 3.22 – 3.38.

- Natural Character, by converting open grasslands to enclosed forests; and
  - Aesthetic Environment, by obscuring views, lessening landscape coherence and legibility, and changing the colours, textures and objects seen in the landscape.
30. Policy 3B14 addresses Wilding trees. The Plan also contains provisions for avoiding Wilding-prone species from now on. Farming practise can clear new infestations year on year by grazing, as illustrated by the Braemar submission on the s293 consultation (submission 5). Others such as LINZ have cleared large areas in their ownership along SH89. Local action groups also are effective in management plans for Wilding control.
31. I support the Plan provisions but they cannot on their own solve the problem, except in combination with local and property owner activities.

#### **Power Generation**

32. Policy 3B8 [recognises and provides] '*... for the use and development of renewable energy generation and transmission infrastructure and operations within the footprint of current operations or on land owned by infrastructure operators as at 1<sup>st</sup> October 2011 while, as far as possible, avoiding, remedying or mitigating significant adverse effects on the outstanding natural landscapes and features of the Mackenzie Basin.*' I support this policy.
33. Objective 3B (2) provides limitations on 3B (1) (characteristics and values of the Mackenzie Basin) concerning the structures and works of the Waitaki Power Scheme. These allow for the maintenance and development of structures and works, within the existing footprints, canal corridors, downstream rivers (Tekapo, Pukaki, Ohau), existing transmission line corridors, and within Crown-owned land surrounding Lakes Tekapo, Pukaki, Ruataniwha and Ohau.

34. Regarding the limitations on the generators, from a landscape perspective it is noted the existing facilities were developed with integral landscape design input at the engineering design stage, and significant landform and grassland reinstatement in the construction phase, within the Ministry of Works and Development, under the late George Malcolm's design team. These resulted in the high degree of landscape integration now seen.

### **Cumulative Effects**

35. Some activities discussed above individually may have a small effect on ONL values but collectively may significantly erode them by a process of 'death of a thousand cuts'. For this reason, my opinion is that the Plan should anticipate and cater for the capacity to accommodate such cumulative effects while maintaining ONL values, as well as managing effects on a site-by-site basis.
36. The map 'Capacity for New Nodes' in my 2007 Mackenzie Basin Landscape study was an attempt, under PC13 as it stood at that time, to indicate the level of development which I considered would maintain ONL values<sup>6</sup>. However, its emphasis was on new residential buildings or nodes and did not foresee the impacts of pastoral intensification, freeholding and rural subdivision that since has occurred.

### **Permanent Effects**

37. Activities that can be reinstated and mitigated, such as earthworks and the building of a house outside a farm base area have effects that do not necessarily lessen ONL values in the longer term. Wetter areas of the Basin in particular have good capacity for regrowth if proper top-soiling and planting is provided. However, such activities also can have permanent effects, particularly freeholding, subdivision, the filling of an empty landscape with houses, roads and tracks on steep land, and cultivation. The latter permanently removes the natural soil profiles and diversity.

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<sup>6</sup> Graham Densem *The Mackenzie Basin Landscape - Character and Capacities*, Mackenzie District Council 2007, Map 8, facing page 55.

38. My view is that, to maintain the outstanding natural landscape values, some activities need to be managed as to their locations, design and reinstatement, but others should be minimised and as far as possible located outside the ONL. For this reason, I strongly support the inclusion of management provisions in the District Plan, and take up the matter in paragraphs 62 – 68 below.
39. My view now is that these matters can best be addressed under Plan Change 13 through a greater emphasis on their effects on landscape character than has been the case to date. Until now, the concentration has been on effects on the visual environment and natural values, which do not properly cater for the effects of subdivision and intensification.

#### **Scenic Grasslands**

40. In its Interim Decision the Court requested that ‘Scenic Grasslands’ (SG) be identified and mapped, for the reasons stated in that Decision<sup>7</sup>. This has resulted in the maps of 13 Scenic Grassland areas included as Attachment C of the s.293 package filed for this hearing, and intended for inclusion in the Planning Maps of the District Plan. The process for preparing the maps, and descriptions of the values identified, are contained in my document ‘*Scenic Grasslands*’, prepared in May 2016. This document was filed with the Court as an attachment to the Section 32 Report.
41. The following is a summary of the main points in that May 2016 paper:
- 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, the SG

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<sup>7</sup> Interim Decision, paragraph 189

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.

42. The SG are supported by Policy 3B7 'Views from State Highways and Tourist Roads', which identifies the value of views over private land for tourist and recreation travellers.
43. As requested in 2011, the stated tourist roads were travelled and assessed by me and shown at a whole of Basin scale, initially in my 'Extra Map – 2<sup>nd</sup> Series, Map 4.2 – Scenic Grasslands and Pukaki Tourism Zone', dated 24<sup>th</sup> May 2012. This was prepared in anticipation of an interim Court direction being confirmed. Map 4.2 is included on page 3 of the Graphic Attachment to this evidence. Map 4.2 showed 15 Scenic Grasslands. This has now reduced to 13 and with boundaries defined in the map series within the s.293 package.
44. The chief differences between the SG in the May 2012 map and those filed with the s.293 package, 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.
45. Where Scenic Grasslands adjoin a Scenic Viewing Area or Lakeside Protection Area, the intention is that the controls should be continuous between them, and should include road verges. If the maps filed show a gap, that is a mapping error.

### **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):** 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.
- **GA 3 Haldon Road (north):** 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:** 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 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.

### Map Errors

47. There is a mapping error in GA3 in that it 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.
48. It also will be noticed that a gap occurs in GA3. This is because pastoral development occurred between 2012 and 2016 in the now excluded area. Other exclusions have occurred for the same reason in GA 7 (Lilybank Road), GA8 (Godley Peaks Road), GA 11 and 12 (SH8 Wolds – Maryburn), and GA13 (SH8 Pukaki Moraines).
49. Mapping errors also exist in GA2 and GA6. The Scenic Viewing Areas in both are shown set back from the road whereas they should be 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.

### **Conclusions, Scenic Grasslands**

50. I support the strong controls on the SG 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.

### **Landscape Effects of Intensification**

51. This section draws on my paper 'Intensification and Outstanding Natural Landscape (2015)', filed with the s.32 papers for this hearing.<sup>8</sup>
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.<sup>9</sup>
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:

#### 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;

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<sup>8</sup> Graham Densem 'Intensification and Outstanding Natural Landscape: Landscape - Management of the Mackenzie Basin in Light of Court Decisions' 8 September 2015, filed with the Court as an Attachment to the s.32 Report.

<sup>9</sup> Graham Densem *The Mackenzie Basin Landscape* November 2007, 2.8-2.10 (p.11), 3.2-3.2 (p.17)

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.
54. The above regimes represent a progression between unmodified brown areas of the Basin and the modified green areas. The ONL values 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.
55. The effects of intensification on natural values are addressed in Mr Harding's evidence.
56. 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).

57. This process has lessened or removed ONL values from several localities, some of which, although a small proportion of the Basin in total, create widely experienced effects within those localities. The Interim Decision of this Court accepted the important point that the changes to local areas were not sufficient throughout the Basin to erase the ONL status overall. I am confident that, despite further changes since 2011, this conclusion remains justified.
58. The positive landscape effects of intensification also are acknowledged. It enables degraded soils and weeds such as hieracium to be combatted, lessening soil loss from wind erosion. It may also be economically necessary for the smaller post-tenure-review properties, although the capital-intensive nature is far removed from the virtually subsistence maintenance grazing that was traditional high country run holding.

### **Managing Intensification & Development**

59. Given the essential extensive dry grassland character of the Mackenzie Basin ONL, I have since 2010 sought to assist the Council by as far as possible having development proposals located out of public view, largely behind topography or distant from state highways and tourist roads.
60. However, change can be out of sight yet still impact on the landscape character, for example the empty, silent character; of a place or the unbroken sweeps of grassland. A change is a change, even if unseen. For this reason, I now prefer the concept of 'landscape character' as a better indicator for assessing change in ONL values, rather than the narrower visual vulnerability. It is better suited to assessing change resulting from pastoral intensification.
61. I understand the rules now proposed as part of the s293 proposal require Discretionary activity consent for all pastoral intensification

outside Farm Base Areas and areas with a granted irrigation consent from ECan. I also understand that consent for buildings, structures and pastoral intensification in Scenic Grasslands, Scenic Viewing Areas and Lakeside Protection Areas is a Non-complying activity. I consider this level of control, supported by strong objectives and policies seeking to maintain the values of the Mackenzie Basin ONL, is a useful means of ensuring thorough assessment of any development.<sup>10</sup>

### **Capacity to Absorb Development**

62. **Policy 3B1 – Recognition of the Mackenzie Basin’s distinctive characteristics** in the s293 Package was amended after consultation and now states:

*To recognise that within the Mackenzie Basins 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 landscape sensitivity and identified Farm Base Areas.*

63. The main change in this policy has been to replace the term “lesser visual vulnerability” with the term “lesser landscape sensitivity”. As I have stated earlier my opinion now is that assessment of the effects of various activities and built development can best be addressed under Plan Change 13 through a greater emphasis on their effects on landscape character than has been the case to date. Until now, the concentration has been on effects on the visual environment and natural values, which do not properly cater for the effects of subdivision and intensification.

### **Landscape Character**

64. A paper by the UK Landscape Institute and others, setting out guidelines for landscape and visual impact assessment, emphasises the contribution of landscape character to sense of place and quality

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<sup>10</sup> Objective 3B and Policies 3B1 - 3B7 and 3B13

of life<sup>11</sup>. It moves beyond the idea that landscape is a matter largely of aesthetic and visual amenity and encourages an equal focus on the landscape as a resource in its own right. In landscape assessment it terms this 'Landscape Effects Assessment' and the visual as 'Visual Effects Assessment'<sup>12</sup>. This is relevant to paragraph 63 above and I am indebted to my colleague Mr Espie for his paper on the matter<sup>13</sup>. The paper is attached for the Court as Appendix 1.

65. The relevance for PC13 as it now stands, in my view, is that attention to change of landscape character as well as visual effects, is a more comprehensive way of assessing and managing the cumulative effects of change, such as subdivision, residential building and pastoral intensification, than the previous tool of 'visual vulnerability'.

### **Landscape Sensitivity**

66. Policy 3B1 uses the term 'lesser landscape sensitivity', which has not until now been defined. In my view, 'lesser landscape sensitivity' is akin to the term 'low visual vulnerability', but provides for the wider range of values covered by the concept of landscape character, compared to the visual environment. 'Landscape Sensitivity' refers to the capacity of an area or landscape to accommodate change without altering its inherent character. 'Visual Vulnerability' was the same except it referred only to the alteration of visual character. The essential change is that the inherent qualities of the landscape resource such as vegetation cover, soil and water capacities, flora and fauna and the sense of landform are accounted for, not solely their visual qualities. I acknowledge that some of these qualities would be captured within the "visual vulnerability" criteria but in my view, express recognition of landscape sensitivity better.
67. My view is that in the Mackenzie Basin, an assessment of landscape sensitivity would result in essentially similar high, medium and low

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<sup>11</sup> (believed) Landscape Institute (UK) and Institute of Environmental Management and Assessment (UK): *Guidelines for Landscape and Visual Impact Assessment, Third Edition (Consultation Draft)* c. 2012

<sup>12</sup> *Ibid*, paras 2.4 & 2.10.

<sup>13</sup> Ben Espie *Pukaki Downs Station – Landscape Mapping in relation to the Mackenzie Basin Subzone Provisions* 25 January 2016 [attached to this evidence as Appendix 1]

sensitivity areas to my previous visual vulnerability assessments. My assessments were set out in Appendix 1 of Attachment 2 to my evidence-in-chief to this Court (May 2010) and further in Appendix 5 of the Attachments to my rebuttal evidence (July 2010). These considered the range of modified 'Pigeon Bay' criteria, including inherent qualities of the landscape resource and character. Although subsequently encapsulated in 'visual vulnerability' categories they also, in my view, substantially take account of landscape character

68. In my opinion the District Plan should retain some reference to a spatial indication of landscape priorities at a Basin-wide scale, (that is, a map), as a public statement of more and less important areas. Given my opinion above that a landscape sensitivity map would essentially be similar to the map showing the low, medium and high visual vulnerability classifications I consider it would be worthwhile referring to the visual vulnerability map within the District Plan. This could be done by reinserting the last bullet point in the Explanation to Policy 3B1. Then, within the general status indicated, any future application would need to present its own site-specific assessment, to demonstrate proposed compliance and mitigation for that particular site. The Council for its part would give greater scrutiny to applications areas of higher sensitivity.

#### **Effectiveness of Proposed Approach to PC13 now Adopted**

69. In my opinion PC13 as now amended through the s293 process now has broader and better control on activities that have real potential to reduce the values of the Mackenzie Basin's ONL. In particular, I note that it:

- has confirmed the role of Farm Base Areas as the place for built development, with both farm and non-farm buildings being able to establish with relative ease.
- All non-farm buildings outside Farm Base Areas to be non-complying activities which sets a suitably high bar.
- Pastoral intensification is now to be controlled throughout the Basin except within Farm Base Areas and areas that already

have an irrigation consent from ECan that provides for ONL values.

- All pastoral intensification, buildings, earthworks and structures within the new Scenic Grasslands are to be tightly controlled ensuring that important landscapes close to the State Highways and tourist roads are maintained.

### **Submissions**

70. In this section, I address a number of issues which were identified by submitters insofar as they relate to landscape issues. The number of submissions raising the issue is identified by use of the words 'multiple', 'a few' or 'single' respectively.

70.1. Issue - Landscape Map inaccurate or fails to identify consented irrigation, forestry, rock extraction and subdivision sites (multiple)

Comment: There were difficulties in obtaining precise maps of irrigation consents granted. Existing consents will override any new landscape provisions. 'Landscape Map' taken to refer to 'Areas of Landscape Management' 2015, Map 4 in Graphic Attachment.

70.2. Issue - Landscape Map fails to identify all medium and low vulnerability areas (multiple):

Comment: Map 1, and indeed all maps, are at all-of-Basin scale and indicative only at site-specific levels. Inaccuracies would be resolved by a site-specific assessment accompanying any future application, where that may arise. Visual vulnerability maps are not part of the Council's current PC13 package.

70.3. Issue - High visual vulnerability area excessive in extent and preclude farm development (a few):

Comment: Visual vulnerability is a record of fact, but at a broad-brush Basin-wide level. It would not preclude the building of, say, a farm shed, but would require an applicant's

assessment of its effects, demonstrating ONL values are not compromised. Most properties contain areas of medium and low v.v. where a shed would be better located, or in the Farm Base Area.

- 70.4. Issue - PC13 provisions overly restrict property rights and threaten economic viability of farming (multiple). Comment: Restrictions are based on the Court's having defined the Mackenzie Basin as an ONL. The provisions do not preclude farm or tourist development but seek to encourage it in ways and places that maintain ONL values. The resource consent process has worked successfully in recent applications, by negotiating the mitigation of impacts of the project (e.g. a farm shed or tourist lodge) on ONL values.
- 70.5. Issue - Unique status of farming in the Mackenzie Country as basis of economic wellbeing (single). Comment: As well as economic wellbeing, the Mackenzie Basin also is unique in the extent and particulars of its outstanding natural landscape values.
- 70.6. Issue - Scenic Grassland boundaries are poorly defined (single). Comment: 1:50,000 scale maps of each SG boundary are included in the Council's PC13 package, and will be added to the Planning Maps.
- 70.7. Issue - Amend Scenic Grassland, Scenic Viewing Area and Lakeside Protection Area boundaries on my property (a few) Comment: Scenic Viewing and Lakeside Protection Areas are not part of the PC13 package and no changes of boundary are proposed. Scenic Grassland boundaries will be ratified or amended by the Court following this hearing.
- 70.8. Issue - Scenic Grasslands include developed land (a few): Comment: The scenic 'grasslands' includes modified but

uncultivated dryland pastures of brown or potentially seasonally green character. Some clearly intensified areas have been excluded.

70.9. Issue - PC13 precludes my ability to establish houses and farm or tourist accommodation on my land (a few);

Comment: There is provision to apply for such developments outside Farm Base Areas where ONL values would need to be assessed.

70.10. Issue - Subdivided property has no Farm Base Area (single).

Comment: PC13 allows for applications for new Farm Base Areas which would allow for tourist and/or farm buildings. Tourism and woofers accommodation could be used to support farming or a wilding clearance programme, financially or on a labour-for-board basis.

70.11. Issue - Farm Development requires housing outside the existing Farm Base Area (a few).

Comment: If housing is required elsewhere, for instance with conversion to dairying, applications can be made. In my opinion, to maintain cultural patterns, future housing should be grouped and not be spread at random around the property.

70.12. Issue - Some species on the wilding-restricted list are successful forestry trees, where properly managed (single).

Comment: The general species restrictions are supported to minimise spread from poorly controlled woodlots in the future.

70.13. Issue - The landscape assessments lack natural science assessments (a few).

Comment: The lack of a general assessment is acknowledged. Natural values were included in my evidence to the 2010 hearings where known. Mr Harding's evidence provides further guidance in terms of areas within his expertise. However, it is acknowledge the assessments to

date have largely covered landscape character and visual values.

70.14. Issue - Inadequate analysis has been undertaken to support the PC13 package (multiple).

Comment: In landscape terms, the analysis for PC13 is adequate for its purpose. This landscape has been through an extensive process in terms of the Environment Court, and Council hearings. It is intended that assessments at a site-specific scale should accompany any future development application.

70.15. Issue - What is the relationship between the s.6(b) (ONL) assessments and s.6(e) (Tangata Whenua) values (single).

Comment: Assessments leading to the ONL status were undertaken under s6(b) provisions and are found in Appendix 1 of Attachment 2 to my 2010 evidence-in-chief. These included tangata whenua values as far as known. These were taken from the Te Runanga o Ngai Tahu 'Cultural Impact Assessment of the Mackenzie Basin', dated 2008. As the Runanga were not represented at the hearing, I included that assessment, with telephone agreement, as Appendix 2 of Attachment 2 to my evidence, immediately following my assessment. The Ngai Tahu assessment therefore was available to the Court. My s.6(b) assessments provided for all Te Runanga values expressed in the 2008 document, and contributed significantly to the ONL assessments. These are acknowledged as my interpretation of Maori values.

71. This completes my consideration of submissions.

## **Conclusions**

72. In this evidence I have:

- Restated the characteristics of the Mackenzie Basin landscape, which require protection under the Outstanding Natural Landscape status;

- Identified subdivision, building and pastoral intensification outside Farm Base Areas as activities likely to erode landscape values;
  - Set out Scenic Grassland proposals for the Court;
  - Concluded that farming that involves cultivation, significant pasture improvements and irrigation, outside of Farm Base Areas, is likely to green the landscape and erode ONL values, whereas dryland farming without cultivation is likely to maintain ONL values, even when significant amounts of exotic long grasses are present.
  - Noted that intensification often has associated buildings, roads and infrastructure that add to the erosion of ONL values;
  - Expressed support for the strong controls proposed in Lakeside Protection Areas, Scenic Viewing Areas and Scenic Grasslands, as a means of maintaining grassland character in those areas;
  - Noted the strong opposition in submissions to such controls by landowners, for the restrictions on their livelihoods;
  - Endorsed a greater emphasis on landscape character and landscape sensitivity in the future, rather than on visual vulnerability, as a measure of the relative capacity of any area to absorb development;
  - Sought to define landscape sensitivity and its relationship to visual vulnerability;
  - Endorsed the emphasis in PC13 as now proposed, for locating developments within Farm Base Areas as far as possible; and
  - Endorsed controls on developments outside Farm Base Areas, as a means of maintaining ONL values.
73. Overall, it is my opinion that the PC13(s293V) now provides for broader and better controls on activities that have real potential to reduce the values of the Mackenzie Basin's ONL.

**Graham Densem**

**15 July 2016**

## APPENDICES

### APPENDIX 1:

#### B. Espie – Landscape Mapping in Relation to the Mackenzie Basin Subzone Provisions

#### PUKAKI DOWNS STATION LANDSCAPE MAPPING IN RELATION TO THE MACKENZIE BASIN SUB-ZONE PROVISIONS

BEN ESPIE (LANDSCAPE ARCHITECT)

25/01/2016

#### INTRODUCTION

- 1 This report relates to consultation being undertaken by the Mackenzie District Council (MDC) and other parties regarding the provisions of the Mackenzie Basin Sub-Zone of the Mackenzie District Plan. Proposed provisions circulated by the MDC in November 2015 are currently subject to consultation. Parts of the proposed provisions involve landscape maps of the Mackenzie Basin Sub-Zone. This report gives comments in relation to those landscape maps. Attached to this report are two maps entitled “*Land Description Units and Visibility Plan – Pukaki Downs Station*” and “*Landscape Sensitivity Plan – Pukaki Downs Station*” and also a *Landscape Sensitivity Table*.
- 2 A report very similar to this one has been prepared in relation to Guide Hill Station. There is considerable repetition between the two reports.

#### EXPLANATION OF LANDSCAPE SENSITIVITY MAPPING AND METHODOLOGY

- 3 In relation to the Mackenzie Basin and Plan Change 13 to the Mackenzie District Plan, Graham Densem has given advice to the Mackenzie District Council regarding landscape matters. In relation to mapping areas of the basin that may be able to accommodate change and areas that may not, Mr Densem introduced some maps as part of his Character and Capacities Report of November 2007<sup>1</sup>. Firstly, he introduced a map of “visual vulnerability” sourced from a 1992 report by Boffa Miskell that primarily related to forestry activity<sup>2</sup>. In his Character and Capacities Report, Mr Densem then introduced a map entitled “capacity to absorb development” on which

<sup>1</sup> G Densem, *The Mackenzie Basin Landscape: Character and Capacities*, prepared for Mackenzie District Council, November 2007.

<sup>2</sup> Boffa Miskell Partners Ltd, *Landscape Values of the Mackenzie Basin*, prepared for the Department of Conservation Steering Group, September 1992.

he mapped “vulnerability to development”<sup>3</sup>. At the request of the Environment Court, Mr Densem produced a number of amended versions of this map culminating in a map dated 12 November 2015 entitled “areas of landscape management” that showed areas of high, medium and low “visual vulnerability”. In the document that accompanies this latest map, Mr Densem notes that the “*boundaries of High/Medium/Low Visual Vulnerability Areas were drawn at a Basin-wide scale. Where they may come to form the boundary between differing rules regimes in the District Plan, they will require remapping at 1:50,000 scale, in order to be definable at site-specific levels*”<sup>4</sup>.

- 4 As is discussed in Mr Densem’s various reports and briefs of evidence, Plan Change 13 was initiated primarily to deal with the threat that ongoing ad-hoc rural living subdivisions and buildings may have on the landscape character and visual amenity of the Mackenzie Basin. Through the course of the various Court proceedings, it is now clear that the threat of pastoral intensification, particularly where it involves irrigation, is also a relevant factor.
  
- 5 Vivian+Espie have been engaged to examine Mr Densem’s mapping as it relates to Pukaki Downs Station. In doing this work we have been guided by the interim decisions of the Environment Court, particularly the first decision<sup>5</sup>. We have also been guided by the body of work done by the British Countryside Agency and Scottish National Heritage in relation to judging and mapping landscape capacity and sensitivity, and by broad scale landscape capacity/sensitivity studies done in New Zealand in recent years<sup>6</sup>. In terms of methodology, *Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity* produced by the British Countryside Agency and Scottish National Heritage<sup>7</sup> is of particular relevance. This paper has been very influential in finalising methodology for landscape sensitivity and capacity mapping in the United Kingdom and has also strongly influenced methodologies used in New Zealand for this sort of work in recent years. With reference to that paper, we consider that the most appropriate term for the mapping of the Mackenzie Basin that is to be done following the Court’s decisions is “landscape sensitivity” mapping, rather than “capacity to absorb

<sup>3</sup>G Densem, *The Mackenzie Basin Landscape: Character and Capacities*, prepared for Mackenzie District Council, November 2007, Map 7.

<sup>4</sup>G Densem, *Mackenzie District Plan Change 13, Intensification and Outstanding Landscape: Landscape Management of the Mackenzie Basin in Light of Court Decisions*, prepared for the Mackenzie District Council, November 2015, page 1.

<sup>5</sup>Decision of the Environment Court [2011] NZEnvC.387, High Country Rosehip Orchards Ltd and others vs. Mackenzie District Council, 14 December 2011.

<sup>6</sup>All references are listed at the end of this document.

<sup>7</sup>The Countryside Commission and Scottish Natural Heritage, *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. This document is available free online at <http://publications.naturalengland.org.uk/publication/5601625141936128>

development”, “vulnerability to development” or the other terms for the mapping that have been used by Mr Densem and others. In the current exercise, when mapping the sensitivity of different areas of the Mackenzie Basin, the specific type of change to the landscape that we are considering is not known exactly, although as Mr Densem and others have observed, the changes to the landscape that are likely to be most relevant are those brought by rural living subdivision and buildings or by pastoral intensification.

- 6 In relation to methodology, we have been consistent with the documents discussed above. To summarise our methodology, Pukaki Downs Station has been divided into small “land description units” being areas over which there is a recognisable and consistent landscape character and degree of exposure to views. These units are numbered and can be seen on the maps and table attached to this document. Each unit has then been assessed for visual sensitivity (being high, medium or low) and for landscape character sensitivity (again, high, medium or low). The ratings for visual sensitivity and landscape character sensitivity are then combined to give a rating of landscape sensitivity. Landscape sensitivity is therefore an overall rating that takes account of both visual issues and landscape character issues. When considering the visual or landscape character sensitivity of any given unit, it has been borne in mind that it is the entire Mackenzie Basin that is being assessed and mapped and it is in that context that each unit must be considered (despite the fact that for this particular exercise we are only looking at the units that make up Pukaki Downs Station). It has also been borne in mind that, while the exact type of change to the landscape we are considering is not known, the most relevant changes to be considered are likely to be those brought by rural living subdivision and buildings or pastoral intensification.
  
- 7 When considering visual sensitivity, account is taken of the general visual exposure of the relevant land description unit, the numbers and types of viewers that the unit is exposed to, and the potential to effectively mitigate the visual effects of changes to the landscape within the unit. General visual exposure is a function of landform and aspect. Digital view-shed mapping was used at a rough scale using 20 metre contour interval data. Also, many observations were made in the field in addition to the examination of photographs. In relation to the numbers and types of viewers of any given unit, broadly speaking, viewers are either on neighbouring private land, elevated private land on the eastern side of Lake Pukaki, the surface of Lake Pukaki, State Highway 80 (Mount Cook Road; SH80), State Highway 8 (SH8), Tekapo Canal Road, Pukaki Canal Road and Rhoboro Downs Road. More weight was given to closer views compared to very distant views and more weight was given to views from the State Highways since they are

by far the most frequented viewing locations and users of these roads are often particularly involved in the scenic appreciation of landscapes. Regarding the potential to mitigate the visual effects of changes to a particular landscape description unit, this is generally a function of the complexity of visual patterns within that unit. A unit that is visually complex, perhaps with varying colours and textures of vegetation, offers more potential to mitigate the visual effects of a new element being added when compared to a unit that is very visually simple such as an area of open tussock land. All of these factors are taken account of when arriving at a visual sensitivity rating.

- 8 When considering landscape character sensitivity, account is taken of natural patterns (geomorphology, hydrology, vegetation patterns and processes), cultural patterns (land use, settlement/paddock patterns, roads and tracks, buildings and structures), landscape condition (the intactness and representativeness of the identified patterns), aesthetic factors (scale, openness, diversity, complexity, texture, colours, line/form, movement) and perceptual or associative factors (historical importance/associations, naturalness, wildness, remoteness, tranquillity, memorability). All of these factors are considered together to arrive at a picture of the landscape character of any given unit.
- 9 The overall landscape character of the Mackenzie Basin is described in the work of Mr Densem and summarised by the first interim Court decision<sup>8</sup>. The Court found that the District Plan should protect and enhance the following attributes of the Mackenzie Basin:
- its unspoiled openness and vastness;
  - the sense of naturalness given by the golden-brown vegetation;
  - the sense of landscape continuity;
  - relative lack of trees, especially windbreaks and plantations;
  - lack of structures with unobtrusive development and isolated contained settlement;
  - the high apparent naturalness and spectacular nature of the views from State Highway 8<sup>9</sup>.
- 10 Given that these attributes of the Mackenzie Basin are what must be protected in terms of landscape character, the relevant questions to be considered when arriving at a rating for the

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<sup>8</sup>Decision of the Environment Court [2011]NZEnvC 387, High Country Rosehip Orchards Ltd and others vs. Mackenzie District Council, 14 December 2011, paragraphs 33, 34 and 146.

<sup>9</sup>Ibid, paragraph 146.

landscape character sensitivity of any land description unit are; would introducing change to the unit adversely alter its character? Is the existing character of the unit robust in relation to potential change? Are significant elements of character within the unit liable to loss or irreversible damage? Would the overall landscape character of the Mackenzie Basin be adversely impacted if change was introduced to the unit? All of these factors and questions regarding landscape character sensitivity that are set out in the preceding paragraphs are considered when arriving at a landscape character sensitivity rating for any given unit.

- 11 In terms of the value that the community place on any landscape unit or units, it is acknowledged that the entire Mackenzie Basin is an outstanding natural landscape and is therefore valued as a whole.
- 12 When combining the visual sensitivity rating and the landscape character sensitivity rating for a unit to arrive at a rating for landscape sensitivity there is room for some judgement. The table below illustrates this.

TABLE: COMBINING LANDSCAPE CHARACTER SENSITIVITY AND VISUAL SENSITIVITY RATINGS TO ARRIVE AT A RATING FOR LANDSCAPE SENSITIVITY:

LANDSCAPE CHARACTER SENSITIVITY	High	Medium	Medium or high – judgement made	High
	Medium	Medium or Low – judgement made	Medium	Medium or high – judgement made
	Low	Low	Medium or low – judgement made	Medium
		Low	Medium	High
		VISUAL SENSITIVITY		

- 13 In the instances when a judgement must be made, the relative importance of visual sensitivity compared to landscape character sensitivity is considered in regard to the particular unit being assessed and an overall rating for landscape sensitivity is arrived at. Again, when arriving at any

rating, it has been borne in mind that it is the entire Mackenzie Basin that is being assessed and mapped and it is in that context that each unit must be considered.

- 14 Once landscape sensitivity ratings were arrived at for each land description unit within Pukaki Downs Station, these were then mapped as can be seen on the plans attached to this document. The plan entitled *Land Description Units and Visibility Plan – Pukaki Downs Station* shows each land description unit and identifies which ones are exposed to views from the surrounding landscape. The plan entitled and *Landscape Sensitivity Plan – Pukaki Downs Station* shows the areas that are rated high, medium or low in relation to landscape sensitivity. Effectively, the *Landscape Sensitivity Plan – Pukaki Downs Station* could be slotted into an overall map for the Mackenzie Basin if one was produced using the same methodology.

vivian+espie

January 2016.

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References:

- G Densem, *The Mackenzie Basin Landscape: Character and Capacities*, prepared for Mackenzie District Council, November 2007.
- G Densem, *Mackenzie District Plan Change 13, Intensification and Outstanding Landscape: Landscape Management of the Mackenzie Basin in Light of Court Decisions*, prepared for the Mackenzie District Council, November 2015.
- Decision of the Environment Court [2011] NZEnvC 387, High Country Rosehip Orchards Ltd and others vs. Mackenzie District Council, 14 December 2011.
- The Countryside Commission and Scottish Natural Heritage, *Landscape Character Assessment: Guidance for England and Scotland*, the Countryside Commission and Scottish Natural Heritage, 2002. This document is available free online at <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=295>
- The Countryside Commission and Scottish Natural Heritage, *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. This document is available free online at <http://publications.naturalengland.org.uk/publication/5601625141936128>
- C Tudor, *An Approach to Landscape Character Assessment*, Natural England, October 2014. This document is available free online at <https://www.gov.uk/government/publications/landscape-character-assessments-identify-and-describe-landscape-types>
- A Grant in association with P Clarke and S Lynch, *Landscape Capacity Studies in Scotland – A Review and Guide to Good Practice*, Scottish National Heritage Commissioned Report No 385, 2010. This document is available free online at <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1689>
- Boffa Miskell Partners Ltd, *The Anau Basin Growth Planning – Landscape Capacity Study*, a report prepared for Environment Southland, April 2006.

## PUKAKI DOWNS STATION

### LANDSCAPE SENSITIVITY TABLE

This table should be read in conjunction with the report “*Pukaki Downs Station - landscape mapping in relation to the Mackenzie basin sub-zone provisions*” and two maps entitled “*Land Description Units and Visibility Plan – Pukaki Downs Station*” and “*Landscape Sensitivity Plan – Pukaki Downs Station*”.

Land Description Unit Number	Description	Landscape Character Sensitivity	Visual Sensitivity	Overall Landscape Sensitivity
1	Lakeside escarpment covered in exotic conifer forest. Exposed to views from the north, east and south.	Medium	High	High
2	Escarpment and terrace area on which farm buildings/dwellings and farm storage/infrastructure exist. Exposed to views from the east.	Low	High	Medium
3	Rolling flats landform covered in exotic pasture and yards with some farm buildings/storage. Generally hidden from external views.	Low	Low	Low
4	Rounded escarpment slopes covered in rough exotic pasture with some tussock content. Exposed to views from SH80.	High	High	High
5	Rolling flats landform covered in rough exotic pasture with scattered matagouri. Generally hidden from external views.	High	Low	Medium
6	Steep rough escarpment slope covered in wilding exotic conifer forest. Exposed to views from the east including SH80 and Lake Pukaki.	Medium	High	High
7	Broad shallow valley landform covered in exotic wilding conifer forest and hidden from external views.	Low	Low	Low
8	Steep glacial escarpment that rises to the west and is covered in exotic wilding conifer forest and broadly exposed to views from the east.	Medium	High	High
9	Broad valley floor landform covered in improved pasture and used for grazing. Generally hidden from external views.	Low	Low	Low

10	Eastern half of a rounded hummocky hill landform. Vegetative cover is rough pasture with scattered tussock and matagouri content. Broadly exposed to views from the east.	High	High	High
11	Western half of a rounded hummocky hill landform. Vegetative cover is rough pasture with scattered tussock and matagouri content. Generally hidden from external view.	High	Low	Medium
12	Southern and western faces of a rounded spur landform that is covered in rough pasture with considerable tussock and matagouri content. Generally hidden from external views.	High	Low	Medium
13	Eastern faces of a long rounded spur landform that is covered in rough pasture with considerable tussock and matagouri content. Generally exposed to views from the east.	High	High	High
14	Hummocky foothills landforms covered in dense exotic wilding conifer forest. Generally hidden from external views.	Medium	Low	Medium
15	Incised rounded gully landform covered in dense exotic wilding conifer forest and hidden from external views.	Low	Low	Low
16	Incised rounded gully landform covered in dense exotic wilding conifer forest and hidden from external views.	Low	Low	Low
17	Incised rounded gully landform covered in dense exotic wilding conifer forest and hidden from external views.	Low	Low	Low
18	Incised rounded gully landform covered in dense exotic wilding conifer forest and hidden from external views.	Low	Low	Low
19	Hummocky foothills landform. Vegetative cover takes the form of rough pasture with considerable tussock content but relatively densely infested with juvenile wilding conifers. Generally hidden from external views.	Medium	Low	Medium
20	Large, open, evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with scattered tussock, matagouri and manuka but also a considerable presence of juvenile wilding conifers. Generally hidden from external views.	Medium	Low	Low

21	Open waterway course with scattering of exotic wilding species. Native riparian vegetation increases with altitude. Public access walking route roughly follows the river to DOC land to the west and allows visibility. Generally hidden from other external views.	High	Medium	High
22	Large, open, evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with scattered tussock and matagouri but also a considerable presence of juvenile wilding conifers, particularly in the south. Generally hidden from external views.	Medium	Low	Low
23	Large, open, evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Generally hidden from external views.	High	Low	Medium
24	Large, open, evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Generally hidden from external views.	High	Low	Medium
25	Evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Generally hidden from external views.	High	Low	Medium
26	Evenly graded outwash plan landform. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Generally hidden from external views.	High	Low	Medium
27	East facing foothills escarpment. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Exposed to some distant views from the south and southeast.	High	Low	Medium
28	East facing foothills escarpment. Vegetative cover takes the form of rough pasture with considerable tussock and	High	Low	Medium

	matagouri content. Exposed to some distant views from the south and southeast.			
<b>29</b>	East facing foothills escarpment. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Exposed to some distant views from the south and southeast.	High	Low	Medium
<b>30</b>	East facing foothills escarpment. Vegetative cover takes the form of rough pasture with considerable tussock and matagouri content. Exposed to some distant views from the south and southeast.	High	Low	Medium

## **GRAPHIC ATTACHMENT**

Page 1: The Court's Requested Extra Maps, Map 2 , 8 September 2010

Page 2: The Court's Requested Extra Maps, Map 3, 8 September 2010

Page 3: The Court's requested Extra Maps, 2<sup>nd</sup> Series, Map 4.2, 24May2012

Page4: Map, Areas of Landscape Management, 26 August 2015