

Crown Pastoral Land Tenure Review

Lease name: SIMONS PASS

Lease number: PT 019

Public Submissions – Part 1

These submissions were received as a result of the public advertising of the Preliminary Proposal for Tenure Review.

These submissions are released under the Official Information Act 1982.

RELEASED UNDER THE OFFICIAL INFORMATION ACT

From: <u>Craig Cornelius</u>

To: pastoral & tenure review

Subject: Crown Pastoral Land Act 1998. Simons Pass Tenure Review

Date: Tuesday, 23 May 2017 4:07:02 p.m.

To whom it may concern,

I am in agreement with this proposal.

Kind Regards, Craig Cornelius

RELEASED UNDER THE OFFICIAL INFORMATION ACT

From: Christine Goodman

To: pastoral & tenure review

Subject: Crown pastoral Land Act 1998. Simons Pass Tenure Review

Date: Tuesday, 23 May 2017 4:03:51 p.m.

To whom it may concern,

I am in agreement with this proposal.

Kind Regards, Christine Goodman

3 July 2017

Commissioner of Crown Lands Land Information New Zealand Crown Property and Investment Private Bag 4721 CHRISTCHURCH



Preliminary Proposal for Tenure Review of Simons Pass Pastoral Lease Submission from the Walking Access Commission

Thank you for the opportunity to comment on the Preliminary Proposal for the tenure review of the Simons Pass pastoral lease.

The Commission's public access statutory role is described below, under section **A. Introduction**, and the detailed submission is presented in section **B. Submission**.

In summary, the Commission;

- 1. Supports the creation of "CA1" as it will enable public access, and
- 2. **Recommends** that public access (walking, mountain biking, with horses as a minimum) is secured alongside the Pukaki River.

A. Introduction

Purpose, Objective and Functions of the NZ Walking Access Commission

The Walking Access Act 2008 (WA Act) (sections 3, 9 and 10) sets out the purpose, objective and functions of the NZ Walking Access Commission.

The Commission is the Crown agency with statutory responsibility¹ for leading and supporting the negotiation, establishment, maintenance, and improvement of –

- walking access (including walkways, which are one form of walking access) over public and private land; and
- types of access that may be associated with walking access, such as access with firearms, dogs, bicycles, and motor vehicles.

Central to its role is the negotiation and provision of free, certain, enduring and practical access to the outdoors for New Zealanders and visitors.

Focus of Submission is Public Access

The Commission's submission on the Preliminary Proposal for Simons Pass is designed, as envisaged by the WA Act, to achieve free, certain, enduring and future-focused public access in this area of New Zealand.

Section 3(b) Walking Access Act 2008 New Zealand Walking Access Commission Ara Hikoi Aotearoa

The Commission's submission reinforces the objectives of the Crown Pastoral Land Act 1998 (CPL Act), in particular section 24(c)(i) which is to make easier the securing of public access to and enjoyment of reviewable land. Specifically, our submission addresses the public access and public enjoyment matters specified in subsection (2) (c) and (d) of section 40 of the CPL Act (Protective mechanisms).

This submission is aligned with Land Information New Zealand's (LINZ) Statement of Intent 2015-2019 and will help achieve the outcomes relating to:

- location information unlocking the potential of 'where' (pages A5 and B3), and
- Crown Property ensuring that the best economic, environmental and recreational uses are being made of Crown-owned and Crown-used land (pages A5 and B15).

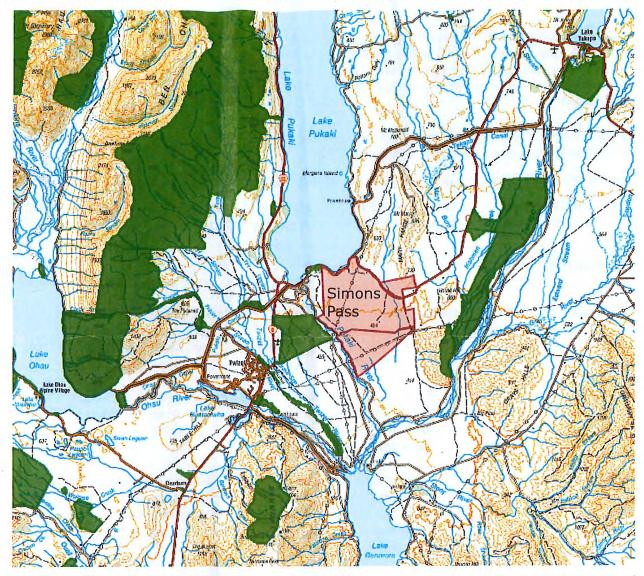
B. Submission

Context

The Simons Pass pastoral lease is at the southern end of Lake Pukaki, in the Mackenzie basin (see Map 1, below). State Highway 8 intersects and adjoins the property in the north and northwest, and the property boundaries are some 14km north east from Twizel, and some 31 km south west from Lake Tekapo, on State Highway 8.

The property borders the Pukaki River in the south west, and is otherwise principally surrounded by freehold properties. The Lake Pukaki Terminal Moraine Conservation Area does adjoins at the extreme north west corner of the property, and the Pukaki Flats Conservation Area lies on the south side of the Pukaki River to the west (see Map 2, below).

The southern 80% of the property consists of flat outwash plains, while the balance northern part of the property consists of terminal moraines. The moraines are a significant feature at the end of Lake Pukaki and afford good views of the Mackenzie basin, surrounding ranges and Lake Pukaki. The Mackenzie basin is increasingly a recreation destination, with an increasing number of people seeking and undertaking recreation in the area.

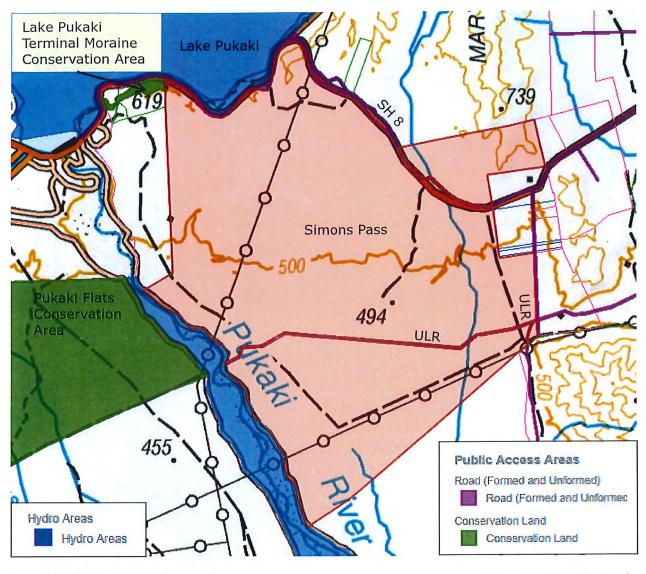


Map 1: Simons Pass pastoral lease (pink) location.

(source www.wams.org.nz).

Existing public access

State Highway 8 adjoins the property to the north, and intersects the north eastern corner of the property. An unformed legal road (ULR) adjoins the south eastern boundary of the property and ULRs intersect the south eastern corner of the property and east-to-west across the outwash plain. The Pukaki River adjoins and provides legal public access to the south western boundary of the property. The Lake Pukaki Terminal Moraine Conservation Area provides public access along a part of the north western boundary (see Map 2, below).



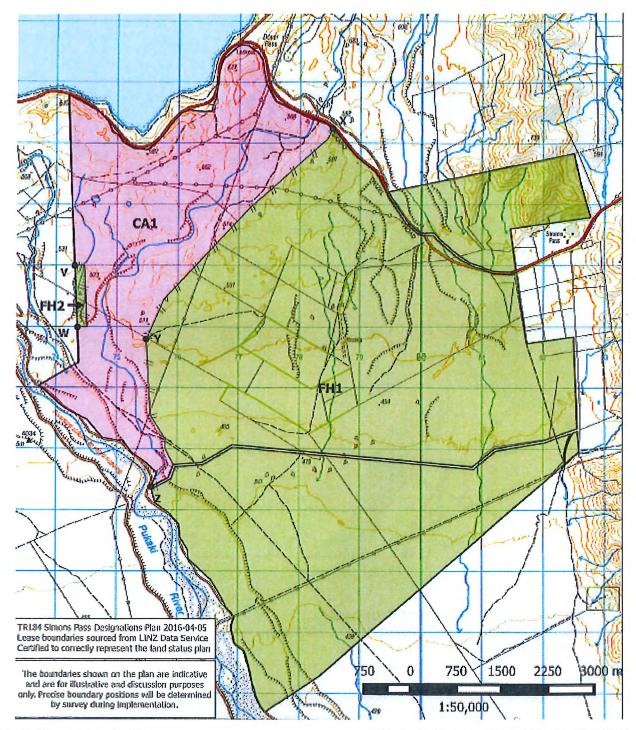
Map 2: Existing public access.

(source www.wams.org.nz)

Public access in the Preliminary Proposal

There is no specific public access provided for in the Preliminary Proposal. However the creation of the 1,265ha CA1 over the north western section of the property should enable public access to that area, which includes the terminal moraines (see Map 3, below).

No information has been provided regarding the creation of marginal strips as a result of the proposed disposition of the Crown land. The Pukaki River is likely to meet the criteria for the creation of marginal strips.



Map 3: Proposed designations.

(source Preliminary Proposal Designation Plan)

Proposed public access

There should be guaranteed and unfettered public access on the property alongside the Pukaki River. The bed of the Pukaki River is Hydro land, not subject to specific title and walking access to such land is generally not opposed by the Crown. Specific public access needs to be secured on the property to ensure that the public have access to and alongside the river.

If a marginal strip (Section 24(1) Conservation Act 1987) enabling public access is not created automatically on disposition, public access alongside the river should be secured by another mechanism. This could be by the creation of a conservation area strip, an easement or an esplanade strip (Section 232 Resource Management Act 1991).

Conclusion

The Commission;

1. supports the creation of "CA1", as it will enable public access,

and recommends;

2. that public access (walking, mountain biking, with horses as a minimum) is secured alongside the Pukaki River.

Thank you again for the opportunity to make a submission on the Preliminary Proposal for tenure review of the Simons Pass pastoral lease.

Yours sincerely

Eric Pyle

Chief Executive

SUBMISSION ON THE PRELIMINARY PROPOSAL FOR SIMONS PASS (PASTORAL LEASE NUMBER PT 019) TENURE REVIEW

To: Land Information New Zealand

155 The Terrace P O Box 5501

WELLINGTON 6021

Email: tenurereview@linz.govt.nz

Name: Meridian Energy Limited

P O Box 10840 WELLINGTON 6143

Attention: Roseanne Hohepa

Phone: 021 756 306

Email: Roseanne.hohepa@meridianenergy.co.nz

Meridian Energy Limited ("Meridian") makes the following submission on the Preliminary Proposal for Simons Pass Tenure Review which affects Pastoral Lease PT019. The land affected by this proposal is legally described as Part Run 86 being all the land contained in Instrument of Title CB 529/5 (Canterbury Land Registry). The property consists of approximately 5575.2867 hectares of land ("Property").

Meridian would like the following matter to be taken into account and be given effect to prior to or as part of the substantive proposal to be made to the run holder under the provisions of section 46 of Crown Pastoral Land Act 1998.

Meridian is prepared to provide any additional information and discuss the issues raised in this submission further if required with representatives of the Commissioner of Crown Lands.

For and behalf of Meridian Energy Limited

Dated this // L day of July 2017

OUTLINE OF SUBMISSION

This submission has been structured under the following headings:

Part A: Overview of Meridian:

· Part B: Primary Submission Points

PART A: OVERVIEW OF MERIDIAN

- Meridian is a mixed model ownership company pursuant to section 45P of the Public Finance Act 1989. Meridian is owned 51% by the Crown and 49% by various other shareholders. It is one of three companies formed from the split of the Electricity Corporation of New Zealand (ECNZ) on 1 April 1999.
- 2. Meridian's core business is the generation, marketing, trading and retailing of electricity and the management of associated assets and ancillary structures in New Zealand.
- 3. Meridian is the single largest generator of electricity in New Zealand. Meridian's hydro generation accounts for approximately 30% of New Zealand's electricity generating capacity. Meridian is the largest wind farm developer in New Zealand. The company's asset base includes the:
 - Waitaki Hydro Scheme in the Waitaki Catchment,
 - Manapouri Power Scheme in Fiordland;
 - Te Apiti Wind Farm in the Manawatu;
 - Brooklyn Wind Turbine in Wellington;
 - White Hill Wind Farm in Southland;
 - West Wind Wind Farm near Wellington;
 - Mill Creek Wind Farm near Wellington; and
 - Te Uku Wind Farm near Raglan;
- 4. It is in its operations and assets in the Waitaki Basin that Meridian has a direct interest in the preliminary proposal for tenure review for the Simons Pass Creek Pastoral Lease.
- 5. Meridian owns and operates six hydro stations in the Waitaki Hydro Power Scheme ("WHPS") which form and operate as a linked chain of generation stations. Genesis Energy's Tekapo A and B power stations are at the head of the chain and are followed by Meridian's Ohau A, B and C, Benmore, Aviemore and Waitaki power stations.
- 6. The WPHS has two primary storage lakes Lake Tekapo and Lake Pukaki. Genesis Energy manages Lake Tekapo and the water released from this lake for hydro generation flows through Tekapo A and B power stations via the Tekapo Canal into Lake Pukaki, providing approximately 45% of the inflows into Lake Pukaki. Meridian manages Lake Pukaki, New Zealand's largest hydro storage lake, which provides approximately 37% of New Zealand's total hydro electricity storage. Meridian's operation of Lake Pukaki as the largest single hydro storage reservoir in the country is critical to how Meridian, and the overall electricity sector, manages the risk of adverse hydrological conditions resulting from dry periods or drought conditions.

- 7. Meridian is not opposed to the disposal by free holding to the current lessee. Meridian as a Crown-controlled company and as a key stakeholder in the electricity generation sector however needs to ensure that the WHPS as a strategic national asset is not compromised by the outcome of the Simons Pass Tenure Review, that access to the Property is provided and protected to enable the operation, maintenance and repair of the WHPS and associated infrastructure, and to enable Meridian to meet its other obligations. It is submitted that this protection can only be achieved through the registration of appropriate interests on the title as canvassed below.
- 8. Section 25 of the Crown Pastoral Land Act 1998 provides an opportunity for the Commissioner to achieve such outcomes. This section states: "In acting under this Part, the Commissioner must to the extent those matters are applicable) take into account ...(c) if acting in relation to land used or intended to be used by the Crown for any particular purpose, that purpose." As Meridian is controlled by the Crown section 25 is applicable. The issues Meridian submit need to be taken into account are set out below.

PART B: PRIMARY SUBMISSION POINT

Stock water supplies

9. Meridian provides stock water to other land from one of two pipelines and associated water supply infrastructure located on the property. Meridian seeks to protect its ability to operate, maintain and repair the pipelines and associated water supply infrastructure for the benefit of those using this supply by a memorandum of encumbrance or easement in favour of Meridian.

A map showing the location of the pipelines and associated water supply infrastructure is attached to this submission as Appendix 1. Maps as part of the same appendix show the as built location of the water supply assets inclusive of troughs, gate valves and intake.

Maps

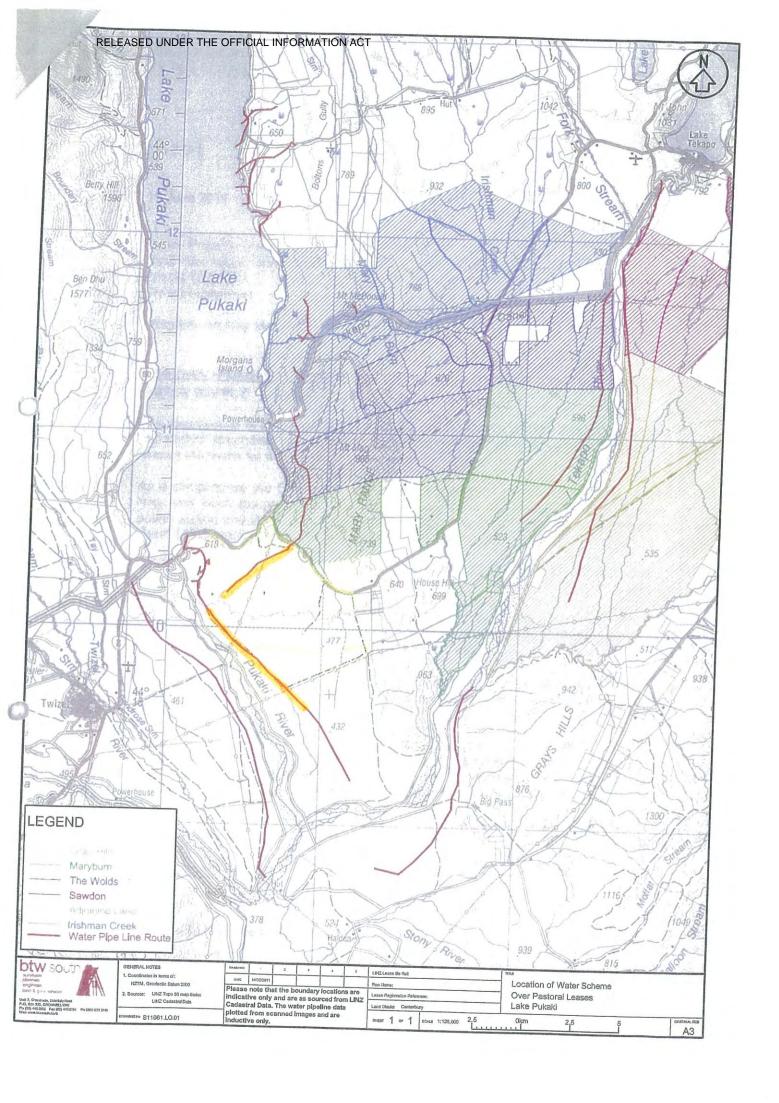
A map showing the location of the two pipelines and associated water supply infrastructure, is attached to this submission as Appendix 1 highlighted in orange.

Conclusion

10. Meridian trusts the above submission will be given effect to and as previously indicated is happy to meet to discuss the type of instruments that might be used to achieve the outcome discussed above.

Appendix 1

Map of stockwater lines



Saturday, July 8, 2017
Commissioner of Crown Lands
Crown Property & Investment
CBRE House, 112 Tuam Street
Private Bag 4721 CHRISTCHURCH 8140
To Whom it may concern

Chris Pearson 18 Rewa St Dunedin

I would like to make the following submission for Preliminary Proposal for the Tenure review of Simoss Pass and Ferintosh pastoral leases which is undergoing tenure review under the Crown Pastoral Land Act 1998. I believe that both of these tenure review would led to a valuable addition to the conservation estate and provide a important protection of areas with high biodiversity values in the MacKenzie Basin.

while these tenure reviews are concerned with lowland areas with limited outdoor recreation potential I am pleased that they do contain some some provision for public access which will allow for public access to view the area.

Sincerely yours

Christopher Pearson

16 July 2017

Commissioner of Crown Lands Land Information New Zealand Crown Property & Investment CBRE House, 112 Tuam Street Private Bag 4721 CHRISTCHURCH 8140

To Whom It May Concern:

Simons Pass Tenure Review Submission

Thank you for the opportunity to lodge a submission on Simons Pass Preliminary Proposal for tenure review. I support most of the Preliminary Proposal (PP) in its current form; however I have a single proposed amendments that will be discussed in this submission.

24	Objects of Part 2				
	The objects of this Part are—				
	(a)	to—			
		 promote the management of reviewable land in a way that is ecologically sustainable: 			
		(ii) subject to subparagraph (i), enable reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under reviewable instru- ment; and			
	(b)	to enable the protection of the significant inherent values of reviewable land—			
		 by the creation of protective mechanisms; or (preferably) 			
		 (ii) by the restoration of the land concerned to full Crown ownership and control; and 			
	(c)	subject to paragraphs (a) and (b), to make easier-			
		 the securing of public access to and enjoyment of reviewable land; and 			
		(ii) the freehold disposal of reviewable land.			

Section 24 CPLA 1998

Point 1:

Land to be freeholded & land to be retained in Crown Control

I support the proposed areas of freehold (FH1 & FH2) and retention of CA1 by the Crown. It appears that the proposed freeholding of Crown Land has been very generous in this proposal, considering the low fertility of the soils on the property. The proposed boundaries are acceptable and should remain unchanged.

Point 2:

Protection of freehold land below terraces adjoining the Pukaki River

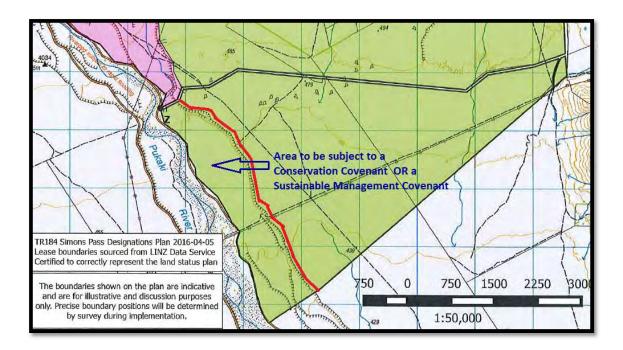


Diagram 2

In its current form, the PP proposes to freehold approximately 300 hectares of Crown land between the Pukaki River and the old river terraces located approximately 800m northwest of the river bank (see Diagram 2 above). I am happy to support this land being freeholded, however there needs to be some level of protection given. The current proprietor may have good intentions, however, there is potential for any future owner to farm this land intensively. Water quality and nutrient runoff has become a matter of national concern in recent years, and LINZ has the primary obligation under the CPLA1998 to *promote the management of reviewable land in a way that is ecologically sustainable.* LINZ should no longer allow disposal of Crown land by claiming that it will be able to be managed sustainably under the local regional plan provisions implemented under the RMA1991. Without getting into depth of the science involved, it is clearly not ecologically sustainable to allow unencumbered freehold of free-draining soils so close to an upland alpine river. Future use of this land could include dairy farming, which, based on current farming practices would lead to nutrient leaching (Nitrogen & Phosphorus) via subsurface flow, into the nearby Pukaki River.

To ensure protection of the water and river for future generations, the freehold land on the lower terraces as indicated in Diagram 2, should be subject to a protective mechanism. This could be by way of Conservation Covenant (CC) which is utilised in many other tenure reviews. The other alternative is a Sustainable Management Covenant (SMC), similar to that proposed to be implemented in the Grampians tenure review. This protective mechanism could then be used to either restrict land use, or the restrict the effects of land use.

Conclusion:

For almost all of the land concerned, this PP is acceptable. However, it is substantially let down with regard to the lack of protection given to the flats adjoining the Pukaki River..

LINZ has the ability to influence the direction of this, and future tenure reviews by giving greater protection to lands adjoining major water bodies. Hence, I ask that the area shown in Diagram 2 be given greater environmental protection as part of the substantive proposal. If it cannot be agreed to place protection over the whole of this area, then it may be suitable to protect half these flats between the Pukaki River and the terraces so that the area is only 400m wide rather than 800m.

Thank you for considering this submission, and I trust it will be given thoughtful consideration
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Yours sincerely

Jeremy Christchurch 16/07/2017

Conservation Board Commits Stuties of Crown Land Information New Zon

Canterbury Aoraki Conservation Board Te Rūnanga Papa Atawhai o Waitaha me Aoraki

Land Information New Ze Private Bag 4715, Christchurch Mail Centre, CHRISTCHURCH 8140

Tel: 027-5416663

Email: mgrandiek@doc.govt.nz

SUBMISSION:

Private Bag 4721

CHRISTCHURCH, 8140

Canterbury Aorak

From Canterbury Aoraki Conservation Board Te Runanga Te Papa Atawhai o Waitaha me Aoraki on Simons Pass Tenure Review

Thank you for this opportunity to comment on the tenure review preliminary proposal for crown pastoral land at Simons Pass.

Canterbury Aoraki Conservation Board Te Runanga Te Papa Atawhai o Waitaha me Aoraki

(the Board) is an independent body established by the Conservation Act 1987. Made up of 12 government-appointed members, the Board represents the community of interest not only in the work of the Department of Conservation (the Department) but also in conservation in general throughout Canterbury, including the Mackenzie Basin and the Waitaki catchments.

The Board's main responsibility is to work with the Department to develop a conservation management strategy (CMS) for our area and to oversee its implementation. The CMS is developed in partnership with Ngai Tahu and follows a statutory process involving consultation with the whole community. It sets out objectives and policies for the work of the Department in Canterbury over its tenyear life. The new CMS became operative this year on 1 September.

The vision articulated in the CMS describes a Canterbury Waitaha 2066 where "The high-country basins retain their natural, open, unspoiled character." and where "...waterways and their margins are thriving, clean and healthy ecosystems highly valued by the community and recognised internationally as habitats for a diverse range of native plants and animals. Canterbury is widely known for its clean rivers and lakes." (page 17). The Board welcomes any change or action which contributes to achieving this vision.

Collectively, tenure review processes have potential to have a significant impact on whether outcomes sought for Canterbury will be achieved. Concern has been expressed by Board members that in using a case by case approach for high country tenure review opportunities for connectivity and landscape-scale conservation of significant inherent values are not being turned to good account, or even recognised. There is concern that the ultimate outcome of tenure review will be a fragmented patchwork of conservation lands and uncertainty about whether assumed ecological benefits are sustainable long term.

CACB - SUBMISSION ON TENURE REVIEW - SIMONS PASS DOC-3113083

Because of this uncertainty the Board takes the view that a precautionary approach is advisable for each individual property review.

Much of Simons Pass is visible from one of our iconic scenic highways. Given the significant and irreversible landscape change which is likely to follow free-holding the Board considers it short-sighted to include any land visible from State Highway 8, including any land in the designated Scenic View 16 in the Mackenzie District Plan. For the same reason, the Board is also opposed to free-holding of any land on the north side of the highway, toward the Mary Range landform.

The Board supports retention in crown ownership of the moraines complex identified as CA1. Retention by the crown will encourage investment in management to enhance natural values and develop infrastructure to support public use and enjoyment.

Consideration should also be given to the experience of future recreational users exploring the high natural character moraines in CA1. At present Simons Pass contains landscapes which are relatively unmodified. On the area proposed to be freeholded this is almost certain to rapidly change to a starkly contrasting modified landscape. Such change will detract from the significant inherent values CA1 is being retained for, and does not "enable the protection of significant inherent values" on the Simons Pass property as a whole.

Only by limiting the freeholded area to parts of the property which cannot be seen from existing or future public places will the Mackenzie high country basin retain its natural, open, unspoiled character as articulated in our vision.

The Board considers there is uncertainty about whether intensified farming on the 4310 hectares of freeholded land proposed will safeguard the life-supporting capacity of ecosystems outside the reviewable land, particularly as it may contribute to cumulative effects on downstream freshwater ecosystems. In the absence of evidence providing assurance the proposal is unlikely to contribute to a reduction in the life-supporting capacity of those ecosystems, the board considers a precautionary approach is needed.

While freehold disposal may encourage investment, whether that investment promotes management of the land in a manner which is more ecologically sustainable than the status quo is unclear. Retention by the Crown is also likely to result in investment in weed and pest control and management of the land in a manner which is more ecologically sustainable. The Board is not convinced the proposal, as it stands, will promote ecologically sustainable management of the reviewable land itself, and is particularly concerned the proposal will not help to safeguard the life-supporting capacity of downstream ecosystems, or contribute positively to our vision for Canterbury.

Yours sincerely

Mick Mobilt.

Dr Mick Abbott CHAIRPERSON, CANTERBURY AORAKI CONSERVATION BOARD



Submission on the Preliminary Proposal for Pastoral Lease Tenure Review, Crown Land Disposal Advice

Pastoral lease name: Simons Pass 17 July 2017

Lease Number: PT 019

Legal description: Part Run 86

Our Reference: File No. 22015-001, CLDA2017-008

Submission of Heritage New Zealand Pouhere Taonga on the preliminary proposal for Simons Pass pastoral lease tenure review

- 1. Heritage New Zealand Pouhere Taonga (the submitter), formerly the New Zealand Historic Places Trust, is an autonomous Crown Entity with responsibilities under the Heritage New Zealand Pouhere Taonga Act 2014 and the Crown Land Disposal process¹ to promote the identification, protection, preservation and conservation of the historical and cultural heritage of New Zealand.
- 2. The submitter **supports in principle** the Simons Pass preliminary proposal (the proposal) publically notified on 19 May 2017.
- 3. This submission relates to historic resources within the land under proposal.
- 4. The proposal relates to part of the New Zealand pastoral lease landscape encompassed by Simons Pass high country station in the Mackenzie Country. Simons Pass was taken up for grazing in 1856 and has historical, cultural and archaeological values relating to Maori history, early European settlement and agricultural practices, and historical travel through the Mackenzie Country.
- 5. The Conservation Resources Report for Simons Pass prepared by the Department of Conservation in October 2007 identified a number of historic features within the area of the lease. ² These sites are listed below (Table 1).

² Department of Conservation, 'Simons Pass Conservation Resources Report', October 2007, p.63

¹ see Cabinet requirements: CAB min (07) 31/1a, DOM (11) 28, CAB Min (09) 35/4

NZAA site	Site description	Date	Preliminary Proposal
record no.			Designation
Western	Part of the South Canterbury	1888	Conservation Land
end	Rabbit Fence		CA1/Freehold FH1 ³
recorded,			
H38/13			
Not	Bullock Track	Pre-1900	Freehold FH1 ⁴
recorded			
H38/9	Pukaki Inn site	1860s-	Conservation Land
		1920s	CA1

Table 1 Historic sites identified on the Simons Pass Pastoral Lease

- 6. Heritage New Zealand notes that not all the above sites are currently recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme. To ensure the continued identification of these places we recommend that Site Record Forms be prepared by a suitably qualified person and submitted to the NZAA Site Recording Scheme.
- 7. Heritage New Zealand agrees with DOC's significance assessment of these sites and applicable heritage protection measures. Archaeological sites that pre-date 1900 are protected under the Heritage New Zealand Pouhere Taonga Act 2014.
- 8. To ensure appropriate protection of recorded and unrecorded archaeological sites within the land under proposal, we recommend that a condition be added to the Final Plan to ensure that current and future owners are made aware of recorded and potential archaeological sites on this land and their responsibilities under the Heritage New Zealand Pouhere Taonga Act 2014. Heritage New Zealand is available to discuss the appropriate placement of such as condition and can provide advice on the wording of conditions relating to historic resources. ⁶
- 9. If possible, the identified historic sites should also be marked on the designations plan for the tenure review proposal.
- 10. Heritage New Zealand supports the tenure review process and welcomes the opportunity to provide expert heritage advice prior to the preliminary proposal stage so as not to delay land disposal, especially where significant heritage values are identified and protection measures recommended.
- 11. Heritage New Zealand strongly supports your ongoing practice to undertake consultation with Te Runanga o Ngai Tahu to identify Maori cultural and heritage values within pastoral leases subject to tenure review.

³ Land to be restored to Crown control as Conservation area CA1 (Land Information New Zealand, 'Simons Pass PT019 Preliminary Proposal Designations Plan', April 2017)

⁴ Land to be disposed of as freehold to Murray Graham Valentine, FH1 (Land Information New Zealand, 'Simons Pass PT019 Preliminary Proposal Designations Plan', April 2017)

⁵ Department of Conservation, 'Simons Pass Conservation Resources Report', October 2007, p.63

⁶ Please refer to the advisory note regarding archaeological sites which forms part of this submission, p.3

12. Thank you for the opportunity to comment on Simons Pass pastoral lease preliminary proposal for tenure review.

Muatson

Sheila Watson General Manager Southern Heritage New Zealand Pouhere Taonga, PO Box 4403, Christchurch 8140

Advisory Note:

Archaeological Sites and the Heritage New Zealand Pouhere Taonga Act 2014

The Heritage New Zealand Pouhere Taonga Act 2014 makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. If you wish to do any work that may affect an archaeological site you must obtain an authority from Heritage New Zealand before you begin.

This is the case regardless of whether the land on which the site is located is designated, or the activity is permitted under the District or Regional Plan or a resource or building consent has been granted. The Act provides for substantial penalties for unauthorised destruction or modification.

An archaeological site is defined in the *Heritage New Zealand Pouhere Taonga Act* 2014 as any place in New Zealand (including buildings, structures or shipwrecks) that was associated with pre-1900 human activity, where there is evidence relating to the history of New Zealand that can be investigated using archaeological methods.

As mentioned above, before undertaking any work that may affect an archaeological you must obtain an authority from Heritage New Zealand.

If an owner or potential owner requires further information about their obligations under the *Heritage New Zealand Pouhere Taonga Act* contact: Regional Archaeologist (Canterbury/West Coast), Heritage New Zealand, (03) 363 1880 or email archaeologistcw@heritage.org.nz

17/7/17. COMPRELEASED UNDER THE OFFICIAL INFORMATION ACT hand Into New Zealand Crown Property CBRE House, 112 Tuam Street. P. Bag 4221 Christichurch - 8140. To the Commissioner re: Simons Pass Tenure Review.

I would like to support the Simons Pass Tenure Review outcome. My major concern is that too much hard area is going back to the coun under DOC management of 1265 hactores.

The 1.1 easement to convey water & right of way for irrigation purposes has to happen as it of will have a large effect on our property as well. As this over at 4310 hoctores recommended for free hold disposal is depleted and ending state with how kneed inversion the best thing to hoppen would be certe pivot irrigation over I most of the above land.

your fathely Martin & Penny Murray Maryborn std. email motion a moryboin. co.nz.

RELEASED UNDER THE OFFICIAL INFORMATION ACT



18 July 2017.

Acting Commissioner of Crown Lands Land Information New Zealand Christchurch.

Dear Mr Harris,

Tenure review of Simons Pass Crown pastoral lease

Federated Mountain Clubs was founded in 1931 and advocates for New Zealand's backcountry and outdoor recreation on behalf of 21,000 members. This fundamental function gives the organisation a strong interest in Crown pastoral tenure review as, through the process, land can be redesignated for new purposes including conservation and recreation.

Of particular interest to FMC due to its interest in biological, landscape, and historic values and recreation access are the prioritised objects of the statute enabling tenure review, Part 2 of the Crown Pastoral Land Act 1998:

Section 24

- (a) to-
- (i) promote the management of reviewable land in a way that is ecologically sustainable
- (b) to enable the protection of the significant inherent values of reviewable land-
- (i) by the creation of protective mechanisms; or (preferably)
- (ii) by the restoration of the land concerned to full Crown ownership and control,

and the following object:

- (c) subject to paragraphs (a) and (b), to make easier-
- (i) the securing of public access to and enjoyment of reviewable land.

Additional objects, to enable reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under reviewable instrument,

and the freehold disposal of reviewable land, must also be considered, though their priority is not as high as those of (a)(i), (b)(i), and (b)(ii).

The primacy of the promotion of the management of reviewable land in a way that is ecologically sustainable and the protection of significant inherent values is affirmed by the Parliamentary Commissioner for the Environment in her 2009 Change in the high country: Environmental stewardship and tenure review. Barton (Legal Aspects of High Country Pastoral Leases and the Tenure Review Process - A Background Paper, 2006) takes the same position and underlines their equivalence: section 24(a)(i), which states the object of tenure review to promote the management of reviewable land in a way that is ecologically sustainable, has a primacy of place in the objects of tenure review that is equalled only by the protection of significant inherent values.

FMC notes the introduction in the preliminary proposal summary of a notion of "ecological sustainability in the context of tenure review". We assume it has been picked up from wording used by Hewitt and Hunter in their non-peer-reviewed 2004 Draft Guidelines for Understanding the Promotion of Ecological Sustainability in Tenure Review; as an uninterrogated concept, it has no place in this process. In any case, the Act calls for promotion of the management of reviewable land in a way that is ecologically sustainable, with no qualifications. Ecological sustainability is not a bureaucratic construct; it is a scientific concept concerning a wide range of fauna and flora in an array of habitats and time frames, limiting and supporting one another in complex webs. Land cover and land use sustainability are not the same as ecological sustainability; it is important that, when discussing matters concerning ecological sustainability in this tenure review process, it is in fact ecological sustainability and not land cover or land use sustainability that is being discussed. A further point to make here is that "promotion" concerns positive action (as Barton notes, "an active and not a passive approach"), which can readily be applied to the recovery of degraded indigenous ecosystems, as in the example of Tekapo Scientific Reserve, which, with active management, is recovering from its induced depletion well. Lastly, in the recent Environment Court decision on Mackenzie District Plan Change 13, Judge Jackson recognised "that there is a further nationally important aspect of sustainable management of the ONL of the Mackenzie Basin which FFM has nearly turned a blind eye to and that is the maintenance of the lowland and easy country habitats of threatened indigenous flora and fauna (outside specific protected areas)." The judgement supports protection of the complex suite of Mackenzie Basin biota that, with some management, is able to sustain itself; the indigenous biota and systems of Simons Pass are part of that.

FMC also notes that the objects of Part 2 of the Crown Pastoral Land Act 1998 must be given effect to and that though information flow is vital to an optimal outcome, tenure review is not a bargaining process.

An additional, vital, point is that neither fairness nor perception of fairness are considerations to be taken into account in this process.

Simons Pass

At the southern end of Lake Pukaki and bounded to the west by the Pukaki River, Simons Pass straddles the Pukaki moraine and outwash areas; a small part of the property lies on the southern end of the Mary Range. Across its 5,575 hectares, the property has around 255 metres altitudinal range. It rises gently from Lake Pukaki and falls again to the south, with Lake Benmore clearly visible from its higher points. The property appears clean and well-cared-for.

There are several means of ready access: by State Highway 8 which runs along the northern boundary; a formed legal road on the true left bank of the Pukaki River on the property's western boundary; and an unformed legal road that crosses the property west to east in its southern parts. A further unformed legal road runs south from this latter road near the southeastern corner of the property.

The following submission views Simons Pass' preliminary proposal through the lens of the objects of Part 2 of the Crown Pastoral Land Act 1998 and their hierarchy.

Proposed CA1

Geomorphology

This approximately 1,265 hectare block contains part of the Pukaki Moraine geopreservation site, which has national significance.

Beryllium-10 dating indicates an age of around 65,000 years and confirms deposition during the early Otira Glaciation. The moraines and outwash plains here are proposed as a new reference area for this glacial period.

In combination with proposed FH2 and much of proposed FH1, there is a complete sequence of sedimentary and outwash features, along with their associated and relatively intact ecological components; this is the only property in the Mackenzie Basin to contain these elements as a full suite.

Landscape

Landscape values of the highest significance exist in this proposed block, in the natural character of the hills that enfold the southern part of the lake and in the natural character of the terminal moraine; also in the highly natural character of the part of the proposed block that is in the Pukaki riverbed.

There is high significance in the extent of pre-European and even pre-Maori natural landscape character present, in the general recognisability of the landscape as having the character of the Mackenzie Basin, and in its strong potential for restoration.

It has moderately high to high significance in its coherence and intactness. There is significance in the block's discrete landscape features, for example, those in the meltwater channel, and in the linkages the channel enables between those features.

Botanical values

Inland outwash plains such as those in this proposed block are naturally uncommon ecosystems and critically endangered as defined by the New Zealand Threat Classification System, and a National Priority Three for Protection (for protection of indigenous vegetation associated with originally rare terrestrial ecosystem types not already covered by Priorities One and Two).

Botanically, the area's ecosystems are of highest significance. This qualification includes the area's shrubland dominated by small-leaved coprosmas, tree daisy, matagouri, native broom, prostrate kowhai, *Rubus*, and *Muehlenbeckia*; also, shrublands of steep bouldery moraine ridge slopes that represent remnants of pre-human vegetation cover. It also applies to the part this proposed block plays in a whole sequence of highly significant ecosystems that include lowland hill country shrubland, alluvial terrace shrubland, dryland shrubland, stony fans and terraces associated with the fluvio-glacial outwash plain, kettleholes, and turf communities of ephemeral tarns. Additionally, it applies specifically to dryland shrublands, kettleholes, and ephemeral wetlands as rare ecosystems. The area also provides habitat for species of the highest significance: *Carmichaelia vexillata*, *Luzula celata* (both Chronically Threatened), *Leptinella serrulata*, and *Aceana buchananii*, (both in Gradual Decline).

The area contains highly significant At Risk Land Environments of New Zealand that support indigenous shrubland and fescue tussockland and a highly significant Critically Underprotected ecosystem. There is habitat for plant species of high significance: *Elymus falcis* (Range Restricted), *Neopaxia erythrophylla*, *Raoulia beauverdii*, *Coprosma intertexta*, *Hymenochilus tristus*, *Carex muelleri*, and *Aciphylla subflabellata* (all Sparse).

The eastern half of the Recommended Area for Protection (Southern Lake Pukaki Scrub - RAP 6) falls within the proposed block, and is recommended for protection under the Protected Natural Areas Programme. This is significant.

There is botanical significance: in the proposed block's species diversity and landform and associated habitat contiguousness; also, in the ability of the ecosystem to self-restore because of on site or nearby seed sources; and its ability to, if protected, increase effectiveness of management in the vicinity. It is significant that there is adjacent habitat for the Nationally Critical *Ceratocephala pungens*. Significant species are *Coprosma virescens*, *Corokia cotoneaster*, prostrate kowhai (all Locally Uncommon), *Neopaxia erythrophylla*, (at its western distributional limit), *Sophora prostrata* (near its southern limit), and *Pimelea pulvinaris* and *Raoulia parkii*

Birds, lizards, and freshwater fauna

The Nationally Critical black stilt has feeding habitat within the proposed block, as do the black-fronted tern and the grey duck, both Nationally Endangered. Other birds highly likely to use this

area are the Nationally Vulnerable Wrybill, the black-billed gull (Serious Decline), the banded dotterel, and the New Zealand falcon (both in gradual decline). There is also feeding and breeding habitat for the spotted skink (Gradual Decline). All the above animals and their habitats are of highest significance. Also in the proposed block is the threatened tadpole shrimp (Sparse).

There are invertebrate species of highest significance here: the threatened *Sigaus minutus* (Gradual Decline) and the *Lepidus apus viridis* (Sparse). Species of significance are *Holcaspis bidentella*, *Metaglymma tersatum*, and the *Taieria erebus* (Data Deficient).

Recreation

For walkers, historians, naturalists, and other recreationists, this proposed block has a great deal to offer.

There is high recreational significance in the geopreservation site which exists over part of the block, and in the part of the historic rabbit fence that runs through the block.

A trail that includes part of the old bullock trail connecting with the old Pukaki Inn chimney could provide an alternative for Te Araroa users.

The block includes legible terminal moraine, the meltwater channel, Lake Pukaki views, the wider landscape setting, and an array of other natural features including botanical, faunal, and geomorphological values of strong interest to a wide range of potential visitors.

Its rain shadow position, which has to a large extent shaped its ecosystems, also makes it a favourable place for recreating when weather in other places is adverse.

Summary

FMC believes that the significant inherent values within the proposed block are best protected by full Crown ownership and control. It is worth noting that not only are the identified values within the proposed area numerous and high, but that the Act 'prefers' restoration of the land concerned to full Crown ownership and control for those values' protection.

FMC supports the proposed continuation of an easement for conveyance of water over proposed CA1.

Recommendations:

- * that proposed CA1 be adopted.
- * that proposed continuation of an existing easement for conveyance of water over proposed CA1 be adopted.

Proposed FH1

Geomorphology

The Pukaki Moraine geopreservation site, which extends into this more than 4,000 hectare proposed block, has national significance.

Beryllium-10 dating indicates an age of around 65,000 years and confirms deposition during the early Otira Glaciation. The moraines and outwash plains here are proposed as a new reference area for this glacial period.

With proposed CA1 and FH2, there is a complete sequence of sedimentary and outwash features, along with their associated relatively intact ecological components; this is the only property in the Mackenzie Basin to contain these elements as a full suite.

Landscape

High landscape significance exists in the Pukaki outwash plain: in terms of landform and landscape character, it is likely as it was prior to European settlement; it has recognisability as having the character of the Mackenzie Basin; and its natural character is restorable. There is significance in the legibility of the moraine dumps within the area and in the linkage the area provides between the Simons Pass moraine area and the Pukaki River; also in the high level of coherence, distinctiveness and intactness present.

There are landscape values of highest significance in the Pukaki riverbed part of the property, including highly natural character; this includes the crest of the adjacent outwash surface. High significance exists in the scarp and moss gravel plains surfaces' natural character, as it is likely similar to its pre-European character; also in its recognisability as having the character of the Mackenzie Basin; and in its natural character's ability to be increased. There is significance in the area's provision of linkage between the outwash plain surfaces; and in its moderately high intactness and coherence.

Parts of the Pukaki moraine not proposed as CA1 contain landscape values that have high significance. The Pukaki Moraine geopreservation site has national significance. There is high significance in the extent of natural landscape character present, in the general recognisability of the landscape as having the character of the Mackenzie Basin, in its present character's likely similarity to its pre-European character, and in its strong potential for restoration. It has moderately high to high significance in its coherence and intactness. There is significance in the block's discrete landscape features - for example, the meltwater channel - and in the linkages it enables between the larger environment's landscape features.

Parts of the eastern section of the proposed block - from the Mary Range extending south of the state highway - have high landscape significance in their contribution to the generally recognised 'iconic' Mackenzie Basin landscape. There is significance in the identified high degree of legibility and the moderately high coherence of the Mary Range's summit, faces, and terrace and fan areas.

The moraine dumps, in their chain, are significant as striking features; their context, which sustains them in landscape terms, is significant also.

The Balmoral moraine area at the centre of proposed FH1 has landscape attributes of high significance: in the moraine dump necklace; in the area's representativeness of pre-European character; and in the moraine areas' centrality to the landscape character of the Mackenzie Basin. There is significance in the restorability of the moraine, which is integral to connecting identified areas of significance on the property. Significance exists also in moderately high landform coherence and intactness; distinctiveness and legibility are high in the moraine necklace.

Botanical values

Inland outwash plains such as those in this proposed block are naturally uncommon ecosystems and critically endangered as defined by the New Zealand Threat Classification System and a National Priority Three for Protection (for protection of indigenous vegetation associated with originally rare terrestrial ecosystem types not already covered by Priorities One and Two).

The southeastern part of the proposed block - about a guarter of it, known as the 'desert' - contains shrublands of steep bouldery moraine ridge slopes, remnants of woody indigenous vegetation approximately in their pre-human positions; these are of the highest significance. Also of the highest significance are the dryland shrubland and kettleholes and ephemeral wetland ecosystems found here. Again, of the highest significance, is this land's provision of part of a sequence of highly significant ecosystems that include lowland hill country shrubland, alluvial terrace shrubland, dryland shrubland, stony fans and terraces associated with the fluvio-glacal outwash plain, kettleholes, and turf communities of ephemeral tarns. There is high significance associated with its containing At Risk, Chronically Threatened, and Critically Under-protected Land Environments of New Zealand. There is significance with potential to increase attached to the diversity that comes from contiguousness; there is also significance in the area's self-restorability; and in the area's ability to, if protected, increase the effectiveness of protection and management of conservation areas in the vicinity. There is habitat for the following species (of the highest significance): Lepidium sysimbrioides subs. sysimbioides, Leptinella serrulata, and Raoulia monroi (all in Gradual Decline). There is also habitat for the following species of high significance: Convolvulus verecundus, Coprosma intertexta, Hymenochilus tristus, and Raoulia beauverdii (all Sparse). Pimelea pulvinaris and Raoulia parkii, which face the threat of habitat destruction, exist here.

Within the area discussed above is a moraine remnant that has highest significance because it is part of a sequence of highly significant ecosystems. As an At Risk Land Environment of New Zealand, it is highly significant. There is significance with potential to increase attached to the species and community diversity that comes from contiguousness. There is also significance in the area's ability, if protected, to increase the effectiveness of protection and management of conservation areas in the vicinity. The Nationally Critical *Ceratocephala pungens*, of highest significance, exists here. There is habitat for the highly significant *Aceana buchananii* (Gradual Decline), *Elymus falcis* (Range Restricted and near its northern distributional limit), and the Sparse *Raoulia beauverdii*.

Near the south of proposed FH1, on the southeastern boundary, southwest of the northwest-southeast track, there is an approximately one kilometre by 500 metre area contributing to a wider sequence of botanical systems of highest significance, including shrublands present on steep bouldery moraine ridge slopes, representative of pre-human vegetation cover; also dryland shrubland, kettleholes, and ephemeral wetlands, which are rare ecosystems. As a Critically Underprotected Land Environment of New Zealand, this area is highly significant. It is highly significant also because of its restorability. It is significant in its ability to restore itself with seed available on site or nearby. There is habitat for plant species of the highest sigificance: *Raoulia monroi, Leptinella serrulata*, and *Lepidium sysimbriodes subsp. sysimbrioides* (all in Gradual Decline). There is habitat for highly significant plant species *Convolvulus verecundus*, *Hymenochilus tristus*, *Coprosma intertexta*, and *Raoulia beauverdii* (all Sparse). Significant species *Pimelea pulvinaris* and *Raoulia parkii* are present. There is also significance in the area's ability to, if protected, increase effectiveness of conservation management in the vicinity.

In the part of the proposed block between the Pukaki River and the top of the river terrace, botanical systems contribute to a sequence that is of highest significance. These include woody shrubland, a sequence of highly significant ecosystems, and rare ecosystems including dryland shrubland, kettleholes and ephemeral wetlands. There is significance: in the area's contiguousness, which means that species and community diversity is higher than it would be without that contiguousness; in the presence of on-site or nearby seed sources to enable self-restoration; and in the area's ability to, if protected, increase effectiveness of conservation management in the vicinity. There is habitat for highly significant species *Aciphylla subflabellata* and *Coprosma intertexta* (both Sparse). Significant plants present include *Pimelea pulvinaris* and *Raoulia parkii*.

Straddling the western part of the legal road in the southern half of the property, there is highest botanical significance in the land's part in the sequence of highly significant ecosystems in the vicinity (these include dryland shrubland, stony fans and terraces associated with the fluvio-glacial outwash plain, kettleholes, and turf communities of ephemeral tarns, alluvial terrace shrubland, and lowland hill country shrubland). As a Critically Underprotected Land Environment of New Zealand, this area has high significance. There is also high significance in the area's restorability. There is significance with potential to increase in the contiguousness that exists and gives species and communities greater diversity than they would have without the contiguousness. There is significance, also, in that on-site or nearby seed sources allow the area to self-restore; and in the area's ability, if protected, to increase effectiveness of protection of conservation areas in the vicinity. There is habitat for plant species of highest significance *Aceana buchananii* (Gradual Decline). There is also habitat for species of high significance *Carex Muelleri* (Sparse). Of significance is adjacent habitat suitable for the Nationally Critical *Ceratocephala pungens*.

An area to the west of the farm block, also bordered by proposed CA1 and the river terrace's crest and north of the land discussed in the previous paragraph, has highest significance in contributing to a whole sequence of highly significant ecosystems in the vicinity (these include lowland hill

country shrubland, stony fans and terraces associated with the fluvio-glacial outwash plain, kettleholes, turf communities of ephemeral tarns, dryland shrubland, and alluvial terrace shrubland). There is high significance in this part of the property's provision of habitat for the Sparse *Coprosma intertexta*. As a Critically Underprotected Land Environment of New Zealand, this area has high significance. There is significance with potential to increase in contiguousness that allows species and community diversity to be greater than they would be without that contiguousness. There is also significance in the area's ability to, if protected, increase effectiveness of protection and management of conservation areas in the vicinity.

Between the farm block and proposed CA1 to the northwest is an area that has highest significance in its contribution to a whole sequence of highly significant ecosystems (these include dryland shrubland, alluvial terrace shrubland, stony fans and terraces associated with the fluvioglacial outwash plain, kettleholes, turf communities of ephemeral tarns, and lowland hill country shrubland). Containing Critically Underprotected and At Risk Land Environments of New Zealand, this part of the proposed block has high significance. There is significance that may increase as contiguousness allows and encourages species and community diversity that would not occur without the contiguousness. It has highest significance in its provision of habitat for the species Aceana buchananii (Gradual Decline), and high significance in its provision of habitat for Carex muelleri and Raoulia beauverdii (both Sparse). There is significance in adjacent provision of habitat for Ceratocephala pungens (Nationally Critical). There is also significance in the area's ability to, if protected, increase the effectiveness of protection and management given to conservation areas in the vicinity.

On the south side of the state highway to the north of the farm block, the land hosts a contribution to a whole sequence of highly significant ecosystems including lowland hill country shrubland, alluvial terrace shrubland, dryland shrubland, stony fans and terraces associated with fluvio-glacial outwash plain, kettleholes, and turf communities of ephemeral tarns: this is of highest significance. There is high significance in its containing Critically Underprotected and At Risk Land Environments of New Zealand. There is significance that may increase as contiguousness allows and encourages species and community diversity that would not occur without the contiguousness. There is significance in seed sources' availability on site or nearby for species' self-restoration. There is also significance in the area's ability to, if protected, increase the effectiveness of protection and management given to conservation areas in the vicinity. Habitat of highest significance is provided for the *Aceana buchananii* (Gradual Decline). Of high significance is provision of habitat for the Sparse *Carex muelleri*, *Coprosma intertexta*, and *Raoulia beauverdii*. Of significance is adjacent habitat suitable for *Ceratophala pungens* (Nationally Critical).

To the northeast of the state highway (but excepting roughly the easternmost square kilometre adjacent to the homestead and farm buildings) is a part of the proposed block that contains remnants of woody indigenous vegetation in approximately the positions they were in prior to human habitation: this includes shrubland dominated by small-leaved coprosmas, tree daisy, matagouri, native broom, and possibly prostrate kowhai; also, species which would have been components of the pre-human totara-celery pine low woodland community of hillslopes. This part

of the block has highest significance in its contribution to a whole sequence of highly significant ecosystems including lowland hill country shrubland, alluvial terrace shrubland, dryland shrubland, stony fans and terraces associated with the fluvio-glacal outwash plain, kettleholes and turf communities of ephemeral tarns. Containing Critically Underproteced and At Risk Land Environments of New Zealand, it is of high significance. There is significance that may increase as contiguousness promotes species and community diversity that would not occur without the contiguousness. There is significance in seed sources' availability on site or nearby for species' self-restoration. There is also significance in the area's ability to, if protected, increase the effectiveness of protection and management given to conservation areas in the vicinity. Of highest significance is the presence of the *Myosurus minimus subsp. minimus* (Nationally Endangered) and the *Myosotis pygmaea var. minutiflora* (Nationally Vulnerable). Also of highest significance is habitat for the *Carmichaelia vexillata* (Serious Decline) and the *Aceana buchananii* (Gradual Decline). Of high significance is this part of the proposed block's provision of habitat for the Sparse *Carex muelleri, Coprosma intertexta*, and *Raoulia beauverdii*. Of significance is adjacent habitat suitable for the Nationally Critical *Ceratocephala pungens*.

South of the moraine necklace, east of the Pukaki River terrace, southwest of the 'desert', and excepting the one kilometre by 500 metre area of strong natural values, native species are sparse and exotic species dominate. * See recommendations.

The farm block at the centre of this proposed block is significantly altered.

Birds

There is highest significance in a strip approximately 2.5 kilometres wide running the length of the property's southeastern boundary up to the crest of the Pukaki River terrace; it contains feeding habitat for the Nationally Endangered black-fronted tern, and feeding and breeding habitat for the banded dotterel (Gradual Decline). Of significance is the area's adjacency to river seepage feeding and breeding habitat for these two species and for the Nationally Critical black stilt, the Nationally Endangered grey duck, the Nationally Vulnerable wrybill, and the black-billed gull (Serious Decline). Also of significance is the area's adjacency to feeding habitat for the Nationally Vulnerable Caspian tern and the New Zealand falcon (Gradual Decline).

Lizards

Highest significance exists in an area approximately .5 kilometres square rising from the western property boundary to above the Pukaki River terrace crest on the north side of the legal road; it contains feeding and breeding habitat for the spotted skink (Gradual Decline). There is also significance in: the area's provision of feeding and breeding habitat for the common skink, McCann's skink, and the Southern Alps gecko; and in the potential for species and community diversity to increase.

Invertebrates

An area described by the proposed block's southwestern and southeastern boundaries and the fence running from proposed fencing point 'Y' in a southeasterly direction to the property boundary

contains the species of highest significance *Sigaus minutus* (Gradual Decline), and the significant *Taieria erebus* (Data Deficient), *Holcaspis bidentalla* and *Metaglymma tersatum*.

Recreation

There is recreational significance in the block's potential provision of an alternative to the present local section of the Te Araroa Trail, which runs close to State Highway 8; as well as giving trail users the opportunity to move away from the highway, the route would allow appreciation of all the values outlined earlier and later in this submission.

A feature of recreational high significance is the grand-scale (Lake Pukaki to the Hakataramea Valley) rabbit-proof fence; its scale gives it rarity, it tells the story of rabbits' rapid spread through the area, and despite its age, it remains in working order.

Another single feature of recreational significance includes the old bullock trail which intersects the property and is part of the original cross-Mackenzie road. Its western end is particularly visible as it cuts down through the gully that runs out above the old Pukaki Inn chimney.

It is, however, the integrated fullness of the values touched on above - landscape, geomorphological, botanical, faunal, and historic - that is of interest to recreationists, from naturalists to historians to walkers and cyclists and others of all ages and capabilities.

Its rain shadow position, which has to a large extent shaped its ecosystems, also makes it a favourable place for recreating when weather in other places is adverse.

Summary

Significant inherent values within proposed FH1 are high, numerous, and diverse, across much of the block.

The Act calls for these values' protection; this should be by restoration to full Crown ownership and control.

The farm block, at the centre of proposed FH1, has fewer, lower, natural values and should be redesignated as land to be disposed of as freehold.

Two areas - the roughly kilometre square at the east of the property on the Mary Range, and the land described and marked with an asterisk above - have seen some values reduced while others have remained strong. These should be redesignated as land to be disposed of as freehold with a covenant and monitoring regime to be designed by Department of Conservation specialists.

Fencing should not take place as proposed and should, rather, be constructed around the blocks as described.

Recommendations:

- * that FH1 not be adopted as proposed.
- * that the area known as the farm block be redesignated as land to be disposed of as unencumbered freehold.
- * that the approximately square kilometre at the property's easternmost point near the farm buildings, and the area described and marked with an asterisk (*) above be redesignated as land to be disposed of as freehold with covenants and monitoring regimes to be designed by Department of Conservation specialists.
- * that the remainder of the proposed block be restored to full Crown ownership and control.
- * that proposed fencing not be adopted.
- * that fencing should be constructed around the blocks as described.

Proposed FH2

Geomorphology

This block contains part of the Pukaki Moraine geopreservation site, which has national significance.

Beryllium-10 dating indicates an age of around 65,000 years and confirms deposition during the early Otira Glaciation. The moraines and outwash plains here are proposed as a new reference area for this glacial period.

In combination with proposed CA1 and much of proposed FH1, there is a complete sequence of sedimentary and outwash features, along with their relatively intact associated ecological components; this is the only property in the Mackenzie Basin to contain these elements as a full suite.

Landscape

Landscape values of the highest significance exist in this proposed block, in terms of the part it plays in the natural character of the hills that enfold the southern part of the lake, and in terms of its role in the natural character of the terminal moraine.

There is high significance in the extent of pre-European and even pre-Maori natural landscape character present, in the general recognisability of the landscape as having the character of the Mackenzie Basin, and in its strong potential for restoration.

It has moderately high to high significance in its coherence and intactness.

Botanical values

Inland outwash plains areas such as that in this proposed block are naturally uncommon ecosystems and critically endangered as defined by the New Zealand Threat Classification System

and a National Priority Three for Protection (for protection of indigenous vegetation associated with originally rare terrestrial ecosystem types not already covered by Priorities One and Two).

There is highest significance in the proposed block's provision of part of a sequence of highly significant ecosystems that include lowland hill country shrubland, alluvial terrace shrubland, dryland shrubland, stony fans and terraces associated with the fluvio-glacial outwash plain, kettleholes, and turf communities of ephemeral tarns. Also of highest significance, habitat for *Aceana buchananii* (Gradual Decline) is provided here.

Highly significant At Risk and Critically Underprotected Land Environments of New Zealand exist here. Also highly significant, habitat for *Carex muelleri* and *Raoulia beauverdii* (Sparse) is provided here.

There is significance: that may increase as contiguousness allows and encourages species and community diversity that would not occur without the contiguousness; in the area's ability to, if protected, increase overall effectiveness of protection and management of conservation areas in the vicinity; and in this block's adjacency to habitat for the Nationally Critical *Ceratocephala pungens*.

Recreation

There is high recreational significance in the geopreservation site.

The block includes legible terminal moraine, the wider landscape setting, and a full suite of other natural features including botanical, faunal, and geomorphological values of strong interest to a wide range of potential visitors including walkers, naturalists, historians and others of all capabilities and ages.

Its rain shadow position, which has to a large extent shaped its ecosystems, also makes it a favourable place for recreating when weather in other places is adverse.

Summary

Values in proposed FH2 are numerous and very high. The statute calls for such values' protection by restoration to full Crown ownership and control. That is therefore the most appropriate outcome for this proposed block.

Proposed fencing 'V'-'W' will not be needed.

Recommendations:

- * that proposed FH2 not be adopted.
- * that the proposed block be restored to full Crown ownership and control.
- * that proposed fencing 'V'-'W' not be adopted.

Land classification

This review of Crown pastoral lease tenure should 'enable the protection of the significant inherent values'. As part of the review, all property to become public conservation land should have its final classification - based on the expert data that have informed the review - prepared so as to become active as soon as possible.

The stewardship classification that proposed CA1 and any other public conservation land created will initially receive does not ensure protection through appropriate management and does not provide protection from exchange. Section 16A(1) of the Conservation Act 1987 says: Subject to subsections (2) and (3), the Minister may, by notice in the Gazette, authorise the exchange of any stewardship area or any part of any stewardship area for any other land); the expedition of precise classification will help address the Act's requirement that the review 'enable the protection'.

Conclusion

Simons Pass' preliminary proposal, if realised, would not be in accordance with the Crown Pastoral Land Act 1998's demands of promoting ecologically sustainable management and enabling the protection of significant inherent values.

Clearly identified values of highest and national and other significance are present and require appropriate protection as indicated by the Act.

As stated at the outset, the objects of the statute must be given effect to; negotiation is not a part of this process except in the final details, and nor are fairness or the perception of fairness considerations in it. If the Act's objects are unable to be met, the tenure review should be discontinued (Section 33 of the Crown Pastoral Land Act 1998 says: *The Commissioner may discontinue a review at any time; and must discontinue a review if asked in writing by the holder, or one of the holders, concerned.*).

Yours sincerely,

Jan Finlayson,

FMC vice-president and tenure review convenor.

Submission 11

SUBMISSION ON PRELIMINARY PROPOSAL FOR TENURE REVIEW OF SIMONS PASS PASTORAL LEASE, MACKENZIE BASIN

SUBMITTER DETAILS

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DATE: 18 July 2017

INTRODUCTION

- This is a submission on the Commissioner of Crown Land's (**Commissioner**) preliminary proposal for tenure review of the Simons Pass pastoral lease (**Preliminary Proposal**) publicly notified under s43 Crown Pastoral Land Act 1998 (**CPLA**).
- The Environmental Defence Society Incorporated (EDS) is a not-for-profit, non-government national environmental organisation. It was established in 1971 with the objective of bringing together the disciplines of law, science, and planning in order to promote better environmental outcomes in resource management. EDS has been active in assessing the effectiveness of statutory processes in addressing key environmental issues including landscape, natural character, and biodiversity. It has previous involvement in processes relating to the South Island Intermontane Basin environment, in particular in the Mackenzie Basin.
- 3 Attached to and informing this submission are expert statements by:
 - Diane Jean Lucas landscape.
 - Dr Susan Walker ecology.
- 4 EDS opposes the Preliminary Proposal because it:
 - Reflects unlawful application of the decision-making framework and statutory objects applying to tenure review under Part 2 CPLA.
 - Reflects incorrect interpretation of key terms and definitions underpinning decision-making on tenure review.
 - Reflects and relies on material that is inconsistent with the objects of tenure review in s24 CPLA.
 - Is based on inadequate and insufficient information.
 - Fails to provide sufficient reasons for the decision reached and designations proposed.

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- Fails to consider alternatives to the proposed designations.
- Does not promote land management that is ecologically sustainable.
- Does not enable protection of the significant inherent values (SIVs) of the property or the Mackenzie Basin.
- 5 The following issues are discussed:
 - Summary of Preliminary Proposal
 - Tenure review: summary of outcomes
 - Tenure review: Mackenzie Basin
 - Summary of legal framework
 - Consultation
 - Preliminary Proposal: Reasons
 - Preliminary Proposal: EDS position
 - Relief

SUMMARY OF PRELIMINARY PROPOSAL

- The Simons Pass lease covers¹ an area of approximately 5,575.2867 hectares within the part of the Mackenzie Basin subject to Mackenzie District Council jurisdiction. The land is owned by the Crown but subject to pastoral lease no. PT019 established under s66 Land Act 1948.
- 7 Under the Preliminary Proposal:²
 - Approximately 1,265 hectares are proposed to be designated to Crown ownership and control as
 conservation area pursuant to s35(2)(b)(i) CPLA. That area is proposed to be subject to an
 easement to convey water and right of way for irrigation purposes. It is marked CA1 on the
 accompanying maps.
 - Approximately 4,310 hectares are proposed to be designated as land to be disposed of by freehold to the leaseholder subject to Part 4A Conservation Act 1987 and s11 Crown Minerals Act 1991. Those areas are marked FH1 and FH2 on the accompanying maps.
 - The Crown is required to construct and pay for a rabbit proof fence between areas CA1 and FH1. Specific construction details apply.

TENURE REVIEW: SUMMARY OF OUTCOMES

The outcomes of tenure review to date have been subject to extensive academic scrutiny³. Key points include:

¹ File reference 12680 (Pt019), Land Registry Folio Ref CB529/5, Legal Description Part Run 86.

² See: Notice of Preliminary Proposal; Summary of Preliminary Proposal; Preliminary Proposal Schedule 2.

³ By the PCE: April 2009 Report: Changes to the High Country: Environmental Stewardship and Tenure Review. June 2011 Follow up report. By various academics e.g.: South Island High Country Land Reform 1995-2015, Ann Brower: http://igps.victoria.ac.nz/publications/PQ/2016/PQ12-1-Brower.pdf, Land reform in the Godzone: Case Studies in the Environment, A EDS Submission on Preliminary Proposal on tenure review of Simons Pass pastoral lease

- Rapid loss of threatened, endemic high country ecosystems demand a moratorium on tenure review for a comprehensive process review.
- Areas being retained in Crown ownership and control are not the areas which contain the most significant, rare, or threatened ecosystems. In other words, the more threatened the ecosystem, the more likely it is to be freeholded under tenure review.
- A black and white approach is being taken with Crown ownership or fee simple being the only management options pursued. This is resulting in suboptimal outcomes. A more nuanced⁴ and innovative approach is available if consistent with s24 CPLA.
- The quantum paid by the Crown to the leaseholder for the lease is significantly more than that
 paid by the leaseholder to the Crown for the land. This is despite evidence that on average new
 freehold land sells for 493 times the Crown's selling price.
- The entire Mackenzie Basin is a significant natural area for the purposes of s6(c) RMA. Those significant values are being lost quickly. There is a strong ecological and economic case for immediate moratorium.
- Any freehold land should be subject to a wilding pine removal covenant.

Relief: An independent economist(s) be commissioned to undertaken a review (and update if required) of the valuation approach applied in tenure review to land value and lease value.

TENURE REVIEW IN THE MACKENZIE BASIN

- 9 Tenure review is one of a number of land management processes at play in the Mackenzie Basin. The others are:
 - Regional consents for water take and discharges
 - District consents for land use
 - Establishment of the Mackenzie Country Trust
- 10 Failure by administrators to take a joined up and strategic approach between processes has resulted in deterioration of the natural environment with resultant loss of internationally, nationally, and regionally unique, rare, and threatened ecological, landscape and natural character values⁵. This failure was tackled head on by the Environment Court in its recent decision⁶ on Plan Change 13 to the Mackenzie District Plan the purpose of which was to protect the Mackenzie Basin outstanding natural landscape⁷. In summary the Court considered that:⁸
 - The regional council's method of managing stock discharges "gives a strong incentive to a pastoral lessee to freehold as much land as they can even if it is subject to covenants...because the CRC's method of calculating the nutrient balance is based on the total area of the farm. That means there appears to be a strong financial incentive for a

Brower 2017, Legal Aspects of High Country Pastoral Leases and the Tenure Review Process: A background paper, Barry Barton, July 2006 (Report for the PCE) By the Courts: Federated Farmers v Mackenzie District Council [2017] NZEnvC53.

⁴ For example a more nuanced approach might include freeholder land around a farm based area which does not exhibit ecological SIVs subject to a covenant for landscape purposes. Some land revert to Crown ownership and direct control and some reverting to Crown ownership and concession granted for low density grazing by DOC.

⁵ See Statements of Dr Susan Walker and Diane Lucas for discussion on loss of ecological and landscape values.

⁶ Federated Farmers of New Zealand v Mackenzie District Council [2017] NZEnvC 53 (11th Decision). Attachment C.

⁷ As per s6(b) RMA.

⁸ At [548]-[551].

pastoral farm to frustrate section 24(b)(ii) CPLA which seeks to enable the protection of significant inherent values of land held in pastoral leases by maximising the freehold areas of their farm."

- The geomorphological and ecological characteristics described at length in the decision (chapter 2) are "inherent values". Although the Court did not comment on whether those inherent values were significant for CPLA purposes it found that "large areas of those inherent values are being lost quickly". Pastoral lease areas containing outwash gravels (like Simons Pass) "needed to be looked at very carefully".
- It is "counterproductive for the Crown to freehold land without imposing a continuing obligation (as a covenant under the CPLA) to remove wilding pines from freehold land...Without such a covenant it is difficult to see how the CCL can justify freeholding as consistent with the purpose of tenure review under the CPLA.
- The Court concluded that there is "a strong ecological (and economic) case for an immediate moratorium (by the CCL) on further freeholding of any land in the Mackenzie Basin containing such gravels while a comprehensive "all-station" review is carried out and plan formulated..."
- EDS agrees with the Environment Court's conclusion. It understands that a cross agency review of the processes listed above is being undertaken. Tenure review must stop while that review is undertaken. Otherwise the precise values that review is seeking to protect and manage will already be lost.

Relief: An immediate moratorium be placed on tenure review until a comprehensive all-station review is carried out and plan formulated, and uncertainty/disagreement as to correct legal process clarified via declaratory proceedings (discussed below)

SUMMARY OF LEGAL FRAMEWORK

- Tenure review is the process under which the tenure (ownership) of land currently owned by the Crown but subject to a pastoral lease established under s66 LA is reviewed and, potentially, changed.
- The process is set out in Part 2 CPLA. It comprises 3 steps:
 - Initial review (ss27-33 CPLA).
 - Release of a preliminary proposal (ss34-45 CPLA).
 - Release of substantive proposal (ss46-82 CPLA).
- 15 SS24-26 CPLA set out the underlying decision-making framework that applies to all 3 stages.
- 16 S24 CPLA sets out the objects of tenure review:

24 Objects of Part 2

(a) to—

The objects of this Part are—

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

- (ii) subject to subparagraph (i), enable reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under reviewable instrument; and
- (b) to enable the protection of the significant inherent values of reviewable land—
 - (i) by the creation of protective mechanisms; or (preferably)
 - (ii) by the restoration of the land concerned to full Crown ownership and control; and
- (c) subject to paragraphs (a) and (b), to make easier—
 - (i) the securing of public access to and enjoyment of reviewable land; and
 - (ii) the freehold disposal of reviewable land.
- 17 S24 "is not about balancing competing values; it has an internal structure that avoids that". It contains a hierarchy. The importance of the hierarchy in s24 to decision-making is discussed below.
- S25 CPLA sets out the matters that must be taken into account by the Commissioner in acting under Part 2 CPLA. It sets out the framework for decision-making on tenure review: what is to be considered and how:

25 Matters to be taken into account by Commissioner

- (1) In acting under this Part, the Commissioner must (to the extent that those matters are applicable) take into account—
 - (a) the objects of this Part; and
 - (b) the principles of the Treaty of Waitangi; and
 - (c) if acting in relation to land used or intended to be used by the Crown for any particular purpose, that purpose.
- (2) In acting under this Part in relation to any part of the land held under a reviewable instrument or reviewable instruments, the Commissioner must take the objects of this Part into account in the light of—
 - (a) their application to all the land held under the instrument or instruments; rather than
 - (b) their application to that part of the land alone.
- S26 sets out consultation requirements that must be fulfilled before undertaking each of the 3 process steps:

26 Consultation

- (1) Before taking any action specified in subsection (3), the Commissioner must consult the Director-General of Conservation.
- (2) At any time, the Commissioner may consult any person or body the Commissioner thinks fit (including the Director-General of Conservation) about taking any action specified in subsection (3).
- (3) The actions are—

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⁹ Legal Aspects of High Country Pastoral Leases and the Tenure Review Process: A background paper, Barry Barton, July 2006 (Report for the PCE) at pg 29.

- (a) undertaking a review under section 27:
- (b) putting a preliminary proposal to a person under section 34(1):
- (c) putting a substantive proposal to a person under section 46.

CONSULTATION

- 20 Consultation is required at all 3 stages of the tenure review process. Consultation with DOC is mandatory. Consultation with "any person or body the Commissioner thinks fit" is optional.
- There is no requirement to consult with the lease-holder. There is no prohibition on consultation at any stage with other interested groups, for example, the Mackenzie Trust and EDS.
- 22 Consultation involves the statement of a proposal not yet finally decided upon, and that the party obliged to consult must keep an open mind and be ready to change and even start afresh¹⁰. It does not require neutrality.
- Requirement to consult does not prevent the Crown from pursuing its own interests. In tenure review those interests are set out in s24 CPLA. The Crown cannot approach or participate in consultation in a way that secures outcomes contrary to s24 CPLA. To do so would be undertaking process mandated by the CPLA in a way that is unlawful under the CPLA¹¹.

Relief:

make it change its mind.

- 1. That the Commissioner and LINZ approach and participate in consultation advocating for achievement of the objects of tenure review. Failure to do so is unlawful.
- 2. That EDS be included in consultation on the Substantive Proposal as available under s26(2) and (3)(c).

¹⁰ See: Wellington International Airport Limited & Ors v Air New Zealand Ltd & Ors HC Wellington CP403/91, 6 January 1992, McGechan. Referenced in CPLA context in Kyeburn Downs Ltd & Ors v Commissioner of Crown Lands CIV-2008-412-000197 (HC). ¹¹ This issue has been succinctly addressed by Professor Barton in analysis commissioned by the PCE in Legal Aspects of High Country Pastoral Leases and the Tenure Review Process: A background paper, Barry Barton, July 2006 (Report for the PCE) at pg 30: "(i) consultation does not require neutrality. It requires openness to what the consulted party has to say, and it requires fairness in making sure that the consulted party can provide its input effectively. But it does not prevent the consulting party from having policies of its own. While it would be wrong to consult on a proposal that it had no intention of changing, it can certainly consult on the basis of a proposal that is consistent with its usual policies, and which it intends to put into effect if nothing in the consultation is enough to

⁽ii) A party that must consult can also pursue its own interests. Consultation need not deter a party from making a decision consistent with its own interests. Wellington International Airport Ltd v Air New Zealand Ltd [1993] 1 NZLR 671 (CA) is a good example – a commercial enterprise with profit as its motive was obliged by statute to consult the main users of its facilities as a restraint on its behaviour as the owner of an effective monopolist; but it was not obliged to obtain their consent to its prices. The veto power of the Commissioner – the power to withdraw from a tenure review at any time before the substantive proposal – is not compromised or watered down by reference to his or her duty to consult certain parties at certain points in the tenure review process.

⁽iii) A party who must consult can also negotiate. It is often said, rightly, that consultation is not negotiation. But the existence of a duty to consult does not prevent a party from negotiating as well if it thinks fit to do so and is not legally prevented from doing so. It can negotiate with the parties to be consulted, or with other parties.

⁽iv) A party who must consult can also advocate. It is commonplace in administrative law to find a decision-maker who is pursuing a definite policy, and is entirely at liberty to do so even while exercising statutory powers of decision. A usual case is a minister of the Crown who has been elected and appointed on a party policy platform. The cases generally hold that the decision-maker must exercise the power as Parliament had intended, and that usually requires him or her to be openminded, and willing to change or adapt the policy, or even abandon it. But the decision-maker is not wrong to have a policy and to advocate for it. Indeed, in government and administration we would often expect nothing less from conscientious officials.

⁽v) **The decisions that result after consultation can certainly favour one interest over another**. Indeed, a decision of any kind will inevitably do so. And the presence of a duty to consult in the procedures leading to the decision makes no difference to the range of decisions that can lawfully be made. (emphasis added).

DECISION-MAKING

24 EDS is concerned that an incorrect and so unlawful approach to decision-making has been applied to tenure review to date. Set out below is its understanding of correct legal process.

S25 CPLA: decision-making framework

- 25 S25 sets out the framework for decision-making on tenure review. In undertaking any action as part of the tenure review process the Commissioner must "take into account":
 - The objects of Part 2 CPLA. These are set out in s24 CPLA.
 - The principles of the Treaty of Waitangi.
 - In relation to land used or intended to be used by the Crown that purpose of that use.
- 26 Central to the application of s25 CPLA is interpretation of "must take into account". EDS considers that the following interpretation applies:
 - The obligation on decision-makers to "take into account" the listed considerations is mandatory it "must" be done¹². Failure to do so is unlawful¹³.
 - Although the weight to be given to each of the listed mandatory considerations is a matter of discretion for the decision-maker¹⁴ the Commissioner cannot reject a mandatory consideration under s25 CPLA or give it no weight. Actual provision must be made for each consideration¹⁵.
 - In reaching and recording a decision mandatory considerations must be weighed on a "fine grained basis", "openly and transparently", or risk a finding of "no weight". Decision-makers should specifically refer to mandatory considerations and evaluate each consideration in turn. Failure to do so is a strong indication of a failure to engage in genuine evaluation¹⁶.

¹⁴ Constitutional and Administrative Law in New Zealand, 4th Edition, P A Joseph, Ch23.2.3(4) pg 953-955: However the weight to be given to mandatory considerations is a matter for the decision-maker: (*Valuer-General v Wellington Rugby Football Union Inc* [1982] 1 NZLR 678 (CA). Most recently applied in *Minister of Immigration v Al Hosan* [2008] NZCA 462, [2009] NZAR 259 at [66].)

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¹² Constitutional and Administrative Law in New Zealand, 4th Edition, P A Joseph, Ch23.2.3(4) pg 953-955: Mandatory considerations may not be "rebuffed ... by a closed mind so as to make the statutory process some idle exercise" (NZ Fishing Association Inc v Minister of Agriculture & Fisheries [1988] 1 NZLR 544 (CA) at 551, quoted with approval in A-G v Refugee Council of New Zealand [2003] 2 NZLR 577 (CA) at 608).

¹³ Failure to consider a relevant matter.

The Court has been clear that ultimately which meaning applies depends on context. It is a matter of statutory interpretation: **Bleakley v Environmental Risk Management Authority** [2001] 3 NZLR 213 (HC) at [72]. In some situations, for example, where there is a deliberate legislation contrast between directions in different purpose sections e.g. take into account v recognise and provide for (as per RMA) a consideration subject to a take into account directive can be given no weight. In other situations the phrase has been held to require actual provision be made for the factor concerned. Interpretation of "take into account" that requires actual provision to be made for each factor must apply to the CPLA. It does not contain a second or alternate decision-making provision requiring that certain factors be considered in a more directive way (e.g. recognised and provided for). The only decision-making provision that applies to all stages of the tenure review process is s25 CPLA and it states the Commissioner "must take into account" the factors listed (emphasis added). The first factor is "the objects of" tenure review. The objects are multifaceted. They address the public interest in environmental protection and leaseholder interests. They are arranged in a hierarchy and environmental protection is given precedence. Where the factor that must be taken into account is the underlying object(s) of a statutory process it cannot be Parliament's intention that it can be cast aside in preference for other, unlisted, objects. Particularly when that object along with other listed decision-making factors cover multiple interests: public, private, Maori, Crown. For the Commissioner of Crown Lands to be able to take the objects of tenure review into account and ignore them would render the tenure review process farcical: the objects in s24 CPLA may as well be deleted.

¹⁶ Constitutional and Administrative Law in New Zealand, 4th Edition, P A Joseph, Ch23.2.3(4) pg 953-955 quoting relevant case law at footnotes 134-138.

- Considerations that are not listed in s25 CPLA cannot be taken into account. The
 considerations listed are comprehensive and detailed by virtue of reference to s24 CPLA¹⁷.
 Ability to consider extraneous material is limited to information necessary to inform
 assessment of the listed considerations. Any material must be consistent with the hierarchy
 of objects of tenure review¹⁸.
- The requirement to "take into account" in s25 CPLA does not apply to s24 CPLA. It applies only to what is to be looked at in decision-making under Part 2 generally. The "take into account" balancing exercise cannot be transposed into s24. There is no ability to consider the different elements of s24 and give some greater weight over others. The hierarchy in s24 CPLA bites. S24 CPLA prescribes that ecological sustainability and protection of SIVs are the primary goals of tenure review. Those objects cannot be compromised.

Relief: The Commissioner applies the s25 decision-making framework as set out above. If there is uncertainty/disagreement as to correct legal process this should clarified via declaratory proceedings in the High Court. EDS would be prepared to be a joint applicant.

S24: Objects of tenure review

- 27 Under s25(1)(a) and (2) the Commissioner must "take into account" the objects of Part 2 CPLA.
- 28 EDS is concerned that the objects in s24 CPLA have been misinterpreted and so unlawfully applied. It considers:
 - <u>S24 contains a hierarchy which must be applied</u>. S24 "is not about balancing competing values; it has an internal structure that avoids that"¹⁹. Promotion of managing reviewable land in a way that is ecologically sustainable and protection of SIVs sit at the top of the hierarchy. Sitting underneath (or "subject to") is the subordinate object of enabling reviewable land capable of economic use to be freed from the management constraints (direct and indirect) resulting from its tenure under a reviewable instrument. That objective does not necessitate freeholding. Multiple management techniques are available²⁰. Sitting under that are the third tier objects of making easier public access and freehold disposal of reviewable land. There is also a hierarchy in respect of how protection of SIVs should be achieved. Return of pastoral lease land to Crown ownership and control is preferred over other protective mechanisms.
 - Promotion of ecological sustainability requires affirmative action^{21 22}.

²¹ Legal Aspects of High Country Pastoral Leases and the Tenure Review Process: A background paper, Barry Barton, July 2006 (Report for the PCE) at pg 25.

[21] Part 2 of the RMA is headed "Purpose and principles" and contains four sections, beginning with s 5. Section 5(1) identifies the RMA's purpose as being to promote sustainable management of natural and physical resources. The use of the word "promote" reflects the RMA's forward looking and management focus. While the use of "promote" may indicate that the RMA seeks to foster or further the implementation of sustainable management of natural and physical resources rather than requiring its achievement in EDS Submission on Preliminary Proposal on tenure review of Simons Pass pastoral lease

¹⁷ Constitutional and Administrative Law in New Zealand, 4th Edition, P A Joseph, Ch23.2.3(4) pg 953-955 quoting relevant case law at footnotes 134-138.

¹⁸ The Commissioner's discretion to consider other factors or information is fettered. Statutory powers are given for an object/purpose and their exercise must always promote that object/purpose: *Constitutional and Administrative Law in New Zealand*, 4th Edition, P A Joseph, Ch23.2.3 pg 941; *Constitutional and Administrative Law in New Zealand*, 4th Edition, P A Joseph, Ch22.7 pg 895 referencing *Unison Networks Ltd v Commerce Commission* [2007] NZSC 74, [2008] 1 NZLR 42 at [53].

¹⁹ Legal Aspects of High Country Pastoral Leases and the Tenure Review Process: A background paper, Barry Barton, July 2006 (Report for the PCE) at pg 29.

²⁰ S40 CPLA.

²² In the RMA context the meaning and strength of the requirement to promote sustainable management under s5 RMA was recently considered by the Supreme Court in *EDS v NZ King Salmon Co* [2014] NZSC 38. Its commentary is useful for interpretation under the CPLA:

• An accurate, clear, and scientifically derived definition of "ecological sustainability" is imperative if tenure review is to avoid perverse outcomes and the s24 objects are to be achieved. EDS understands the definition of ecological sustainability being applied by the Commissioner and LINZ is "making decisions that safeguard the life supporting capacity of the land's ecosystems, including the ability of those ecosystems to support life outside the reviewable land" 15. The evidence of Dr Walker is that this definition is incorrect because 16.

"ecological sustainability cannot be reduced to safeguarding the life-supporting capacity of the land's ecosystems as in the definition above (at paragraph 18). The flaw is that the term 'life supporting capacity' does not reveal what life is to be supported. If it is any life that is to be supported, then almost most ecological change, short of sterilisation, would achieve ecological sustainability."

EDS considers Dr Walker's alternative definition (incorporating advise to LINZ from Landcare²⁷) should be applied:

"Management that is ecologically sustainable is management that sustains, and avoids depletion of, the attributes and processes of the system of interacting living organisms and their environment, and of connected ecological systems and processes beyond land under consideration."

- The relevant ecosystem is that at the time tenure review is occurring. There is no express reference that ecosystems are indigenous. But indigeneity is strongly implicit. The relevant ecosystem is that at the time tenure review is occurring. It is the ecosystem naturally occurring in the particular area. For example, in the Mackenzie Basin the mosaic of cushion mat, shrub and tussock grassland vegetation and associated fauna in its different manifestations is determined by the Basins ecotone gradient. That ecosystem may thrive in conditions that are not conducive to productive use e.g. shallow, dry soils are a natural part of the Basin. The relevant ecosystem is not the ecosystem that would exist subsequent to human manipulation to facilitate intensified farming that is to be sustained.
- Enabling protection means to make something possible. 28 It requires positive action.

 Meaning of protection should be assessed by reference to the Conservation and Reserves Act 29.
- Protection of SIVs by restoration to full Crown ownership and control must be preferred.³⁰

every instance, the obligation of those who perform functions under the RMA to comply with the statutory objective is clear. At issue in the present case is the nature of that obligation.

The CPLA is similarly forward looking in its focus on future management and use of New Zealand's high country landscapes currently held under pastoral lease.

Not defined by the CPLA. Ecosystem is defined in s2 CPLA: a system of interacting living organisms and their environments.

²⁴ Summary Preliminary Proposal at [3.1].

²⁶ Statement of Dr Walker at [14]-[26].

²⁶ Statement of Dr Walker at [14]-[26].

²⁷ Draft Guidelines for Understanding the Promotion of Ecological Sustainability in Tenure Review, Allan Hewitt & Grant Hunter, Landcare Research, Contract Report: LC0304/145, June 2004. The definition proposed by Landcare Research is: "the maintenance and enhancement, in the longer term, of ecosystem attributes, for a defined tract of land, while avoiding effects that compromise offsite ecosystems

²⁸ Oxford Online Dictionary.

This is considered to be the correct approach given qualification for protection under the CPLA is determined by reference to qualification for protection under the Conservation and Reserves Acts: s2 and s24 CPLA.

that appears that an alternative approach may be being applied: The Cabinet Paper supporting the current Strategic Direction for Tenure Review Minute 0927C mandates an approach inconsistent with s24's preference for Crown ownership and control stating: "Whether the lessee or the Crown is the most appropriate party to protect those values should be considered on a case by case basis, EDS Submission on Preliminary Proposal on tenure review of Simons Pass pastoral lease

Relief: The Commissioner applies the correct interpretation of the s24 objects and relevant definitions as set out. If there is uncertainty/disagreement as to correct legal process this should clarified via declaratory proceedings in the High Court. EDS would be prepared to be a joint applicant.

PRELIMINARY PROPOSAL REASONS

- The Preliminary Proposal is summarised at paragraphs 6 and 7 above.
- Reasons for the proposed designations are set out in the Summary of Preliminary Proposal³¹. The reasons are:
 - Area CA1 contains significant inherent values of the "highest" and "high" significance³².
 - Area CA1 has "attributes which sustain the special natural quality and integrity of the high country landscape and its ecological diversity. It is well covered with largely intact native vegetation and is considered ecologically sustainable."³³
 - The operation of the easement over CA1 "will not adversely affect the significant inherent values of public enjoyment of the conservation area"³⁴
 - Restoration of CA1 to Crown ownership and control "provides for protection of significant inherent values on the reviewable land."³⁵
 - The soils in the FH1 and FH2 areas range from Class IV to VII which are suitable for "pastoral use with moderate restrictions." 36
 - Part of the FH1 and FH2 areas is already developed: "32 hectares are in cultivated paddocks, 1535 hectares have been direct drilled and 189 hectares have been oversown and topdressed."³⁷
 - FH2 is "a small area on the western boundary that falls in the orbit of an irrigation pivot. No SIVs were identified in this area"³⁸
 - "Ecological sustainability needs to be considered in the context of previous land development and use of the property...All ecosystems within the pastoral lease have been subject to the influence of pastoral farming to some degree...by grazing management and physical development." ³⁹
 - Of the 4,310 hectares recommended for freehold disposal (FH1 and FH2) "the majority is for a Land Use Classification suited to pastoral use with moderate restrictions. This land has been used for such purposes for many years and has a good vegetative cover that is not prone to erosion. It is capable of ecological sustainable management under a pastoral regime in its present state." 40

rather than an objective stating a clear preference." (Cabinet Economic Growth and Infrastructure Committee Paper, A676415 Appendix C Row 2 Discussion Column). That may be the author's or Cabinet's view but it is not the law. Decision-making applying that approach is open to legal challenge.

³¹ The Preliminary Proposal document itself sets out the specific terms of the proposal. It provides no analysis, explanation or reasons.

³² Summary of Preliminary Proposal, April 2017, Section 2.1 pg. 3-4.

³³ Ibid at section 3.1 pg. 7.

³⁴ Ibid at section 2.1.1 pg. 5.

³⁵ Ibid at section 3.3 pg. 8.

³⁶ Ibid at section 2.2 pg. 6

³⁷ Ibid at section 2.2 pg. 6.

³⁸ Ibid at section 2.2 pg. 6.

³⁹ Ibid at section 3.1 pg. 7.

 $^{^{\}rm 40}$ lbid at section 3.1 pg. 7.

- The balance of the 4,310 hectares is also suited to pastoral use. It is in a "depleted and eroding state" and freehold disposal "will encourage investment in this area thus promoting the management of the land in a manner that is ecologically sustainable". 41
- The land is capable of economic use supporting release from management constraints because the property can "sustain a pastoral operation and is capable of further development which would lead to greater productivity." 42
- Development to improve depleted land "will require significant investment, which is proposed with existing consents in place." 43

PRELIMINARY PROPOSAL EDS POSITION

Evidence

- 31 EDS has received expert advice on the Preliminary Proposal from:
 - Dr Susan Walker on ecological SIVs and ecological sustainability.
 - Diane Lucas on landscape SIVs.
- 32 That evidence:
 - Confirms designation of CA1 to crown ownership and control as a conservation area.
 - Supports Conservation Resources Reports' and underlying expert reports'⁴⁴ recommendations regarding further areas that should be designated to Crown ownership and control or Crown ownership subject to protective mechanisms.
 - Considers that the majority of land designated by the Preliminary Proposal as freehold should be
 designated to Crown ownership and control, or Crown ownership subject to a protective
 mechanism if expert assessment shows such an approach is consistent protection of SIVs and
 ecological sustainability.
 - Considers that updated assessments of SIVs, ecological sustainability, andappropriate
 management consistent with achieving those outcomes at a property and Basin scale are
 required.

Law

On review of the Preliminary Proposal EDS holds the following concerns:

Information

- It does not appear from the documents provided online or in response to EDS's requests to LINZ and DOC that adequate information has been considered:
 - There is no assessment of the ecological sustainability of the proposed designations⁴⁵ at the property or Mackenzie Basin scale. Despite its being identified as "Ecological Sustainability Advice"⁴⁶, The Scion Report⁴⁷ does not address the ecosystem⁴⁸ sustainability of the inner-

⁴¹ Ibid at section 3.1 pg. 7.

⁴² Ibid at section 3.2 pg. 9.

 $^{^{43}}$ Ibid at section 3.2 pg. 9.

⁴⁴ See Statement Dr Walker fn 2.

⁴⁵⁴⁵ See Statement of Dr Walker for explanation of best practise approach

⁴⁶ LINZ title for Scion Report.

montane, dryland ecosystem. It assesses "the role of trees in restoring degraded soils"⁴⁹. It promotes the planting of exotic conifers in parts of the Mackenzie Basin with Fork and Mackenzie soils, including specifically on Simons Pass⁵⁰. This is ironic given conifers are considered one of New Zealand's biggest pest threats, particularly in the Basin. It also ignores the fact that Fork and Mackenzie soils, and the cushion, mat and tussock vegetation they support are a natural component of the Basin ecosystem. Conifers are not. As a result, the Scion Report in fact promotes ecological degradation and loss not sustainability.

- The Conservation Resources Report and Scion Report are from 2008 and 2009 and are outdated. Significant change has occurred in the Mackenzie Basin in the intervening years. That change fundamentally alters assessment and protection of significance of inherent values and what land management is ecologically sustainable⁵¹. No updated assessment of significant inherent values or ecological sustainability in the 2017 context appears to have been undertaken. It does not appear assessment undertaken as part of other recent processes have been considered for example, or relevant decisions of the Environment Court.
- 35 As a result, the Preliminary Proposal has:
 - Been put forward on misinformation as to established and material facts⁵².
 - Failed to address all relevant considerations in making a decision under s25 CPLA.
 - Considered information inconsistent with the hierarchy in s24 CPLA.
 - Reached a conclusion as to appropriate designations and protective mechanisms that is unreasonable.

Definitions

The definition of "ecologically sustainable" land management applied in deciding on the Simons Pass designations is that set out at paragraph 28 above. As stated, EDS considers application of and reliance on this definition as resulted in designations decisions that are contrary to s24 CPLA. The Preliminary Proposal's designations are a case in point.

Reasons: inadequate

- The Preliminary Proposal supporting documents do not give adequate reasons for the designation decision reached.
- 38 Reasons must be more than a statement of conclusion⁵³ or of the test to be applied. They may be abbreviated⁵⁴, but should be "sufficient to show to what they were directing their mind"⁵⁵ thereby

⁴⁷ Scion Report: Can trees restore degraded soils and promote ecological sustainable management in tenure review of dryland Mackenzie Basin properties?, June 2009, Nick Ledgard.

⁴⁸ Inner-montane dry inland ecosystem as described by Dr Walker in her statement and in the DOC Reports underpinning the Conservation Resources Report.

⁴⁹ Scion Report, Objective pg (ii).

⁵⁰ Scion Report, Executive Summary, Conclusions at (iii) and Section 5 Conclusions at (i) Fork/Mackenzie Soils and Afforestation location summary, Simons Pass.

⁵¹ See Statement of Dr Susan Walker at xx.

⁵² CREEDNZ Inc v Governor – General [1981] 1 NZLR 172 (CA) Richardson J at pg 200.

In the RMA context the Court has confirmed that 'reasons' must be more than a statement of conclusion: *Environmental Defence Society Inc v Manawater-Wanganui Regional Council*; *Friends of Houghton Valley Inc v Wellington City Council* [2015] NZHC 234, (2016) 19 ELRNZ 62, [2016] NZAR; *Marche Ltd v Auckland Council* [2016] NZHC 145, (2016) ELRNZ 55, [2016] NZRMA 139, [2016] NZAR 542.. At the level of principle are transferrable to CPLA decision-making.

54 *Lewis* fn8 at [81].

⁵⁵ Lewis fn8 at [81] quoting Lord Donaldson MR in **R v Civil Service Appeal Board, ex parte Cunningham** [1991[4 ER 310, 319. EDS Submission on Preliminary Proposal on tenure review of Simons Pass pastoral lease

showing whether the decision was lawful. The three underlying grounds for the importance of giving adequate reasons for decisions are⁵⁶:

- To uphold the principle of openness in the administration of justice⁵⁷. Openness is critical to maintenance of public confidence in the justice system. Without reasons it may not be possible to understand how a decision was reached, excluding public from decision-making. Accountability is undermined⁵⁸.
- To provide a basis on which the lawfulness of decisions can be assessed on appeal or review⁵⁹.
- To provide protection against wrong or arbitrary decisions⁶⁰.
- 39 Failure to give adequate reasons leaves decisions vulnerable to challenge⁶¹.
- 40 The reasons given for the Preliminary Proposal are inadequate because they do not:
 - Explain how and to what extent the hierarchy in s24 CPLA has been taken into account.
 - Explain how and to what extent the Treaty of Waitangi has been taken into account.
 - Address why DOC's recommendation to designate the majority of FH1 to Crown ownership and control has been ignored, or the progressive reduction in area designated to Crown ownership and control.
 - Explain why the proposed designations are the best way to achieve the objects of tenure review and what other alternative designation options (including use of protective mechanisms) have been considered;
 - Set out what if any additional information has been considered in reaching a decision on the Preliminary Proposal.
 - Acknowledge or address the significant inherent values experts have identified on FH1.
 - Identify how freehold ownership will enable protection of SIVs in FH1⁶².
 - Give supporting evidence and rationale for the conclusion that the land is capable of ecological sustainable management under a pastoral regime in its present state (in particular when that

⁵⁶ Lewis v Wilson Horton Ltd [2000] 3 NZLR 546 (CA) at [70]. Unsuccessful appeal by Lewis of a decision of the High Court quashing an order made in the District Court prohibiting the publication of his identify in any report of the court proceedings. Both appellate courts found that it was impossible to know what factors the District Court had considered relevant from the decision. The High Court had been correct to find this an error of law.]. Note that this collapsed the 6 grounds previously identified by the Court of Appeal in Sing v Chief Executive, Department of Labour [1999] NZAR 258 (CA) at 262-263:

[&]quot;(1) Formulating reasons imposes discipline on decision-makers as the cognitive process involved can cause preliminary views to be revisited;

[&]quot;(2) Reasons assure parties that their evidence and arguments have been carefully assessed in accordance with law;

[&]quot;(3) Reasons identify the chain of logic that supports a decision and assists parties to decide whether to challenge it by appeal, review or other complaints mechanism;

[&]quot;(4) Reasons ensure parties of an effective right of appeal or review and assist counsel and the court in marshalling the challenge and assessing its merit;s

[&]quot;(5) A practice of providing reasons establishes a body of precedence or guidance affecting the exercise of powers; and

[&]quot;(6) Reasoned decisions assure the legitimacy and openness of the exercise of power and promote public accountability." ⁵⁷ **Lewis** fn8 at [76].

⁵⁸ *Lewis* fn8 at [79].

⁵⁹ *Lewis* fn8 at [80].

⁶⁰ *Lewis* fn8 at [82].

⁶¹ *Marche* fn9 at [23]-[24].

⁶² Instead the Preliminary Proposal Summary focuses on the ability for those areas to absorb pastoral development; the small area of the total of F1 and F2 that has been subject to modification.

EDS Submission on Preliminary Proposal on tenure review of Simons Pass pastoral lease

conclusion is contrary to DOC's recommendations and no ecological sustainability report provided).

- Address how the conclusion that encouraging investment in the area proposed for freehold will
 promote management that is ecologically sustainable was reached (in particular when that
 conclusion is contrary to DOC's recommendations).
- Explain how freeholding land to enable further development is consistent with promoting ecological sustainability and enabling protection of significant inherent values. This failure is particularly stark when that conclusion is contrary to DOC's recommendations.
- The inadequacy of the Preliminary Proposal is also apparent in its proposal to freehold land because it is degraded due to pest and weed infestations⁶³. Control of pests and weeds are required of the lease-holder by law under s23 LA. Failure to control should not be used as justification for allocation to freehold. This risks rewarding leaseholders for behaviour that violated the terms of the lease contract itself. The obligations a lease-holder takes on under a pastoral lease were a key reason the High Court concluded a pastoral lease confers exclusive right of possession⁶⁴. Leaseholders cannot seek confirmation of the strength of their rights and ignore their statutory responsibilities.
- 42 As a result EDS considers that:
 - The Preliminary Proposal is invalid due to failure to give adequate reasons for the decision reached thereby failing to ensure openness of administration and compromising ability to assess lawfulness.
 - Based on the reasons given the Commissioner has failed to take into account relevant considerations.
 - Based on the reasons give the Commissioner has taken into account irrelevant considerations.
 - On the reasons given (including the lack thereof) the decision-maker has failed to lawfully apply s24 CPLA.

Other material

- EDS understands that LINZ's approach to decision-making on tenure review is to apply Cabinet Minute (09) 267C (**Minute**)⁶⁵. EDS accepts that application of the Minute is not recorded in the Preliminary Proposal documents.
- The Minute sets an "end outcome" for Crown pastoral land (and so tenure review) that "Crown pastoral land is put to the best use of New Zealand"⁶⁶. That outcome is stipulated to mean "that Crown pastoral land is put to the best use for economic, environmental, and cultural purposes"⁶⁷.
- The Minute also records the "government's objectives for Crown pastoral land"⁶⁸. Objectives different and additional to those in s24 CPLA are set, relevantly:
 - Ensure that "pastoral" values are maintained and protected.

 $^{^{63}}$ It appears in terms of quality and values and in terms of financial support.

⁶⁴ New Zealand Fish and Game Council v Commissioner of Crown Lands at [74] & [83].

⁶⁵ Email from Janet Harris 6/7/17 to Gary Taylor in response to request for information on LINZ process link to Minute and supporting Cabinet paper included.

⁶⁶ Minute at paragraphs 7 and 8.

⁶⁷ Minute at paragraph 9.

⁶⁸ Minute at paragraph 10.

- Promote "the contribution of Crown pastoral land to New Zealand's economy".
- Value the "iconic nature of high country farming and its contribution to New Zealand culture".
- Value "viable rural high country communities".
- 46 EDS considers the Minute is *ultra vires* the CPLA and should not be applied because:
 - It is inconsistent with s24 CPLA. Extraneous material can only be considered if consistent with the stated objects of tenure review. That is set in s24. It contains a number of objectives which sit within a hierarchy and which are the intended end outcome of tenure review. At the top of the hierarchy are promoting land management that is ecologically sustainable and enabling protection of significant inherent values. Freeing from management restraint and freeholding and subordinate.

The Minute effectively replaces and redrafts s24 CPLA. No hierarchy is stipulated. New economically focused objectives are included. A balanced exercise between economics, environment, and cultural factors is applied⁶⁹.

• Cabinet cannot override legislation and purport to fetter the Commissioner's ability to consider tenure review proposals under the decision-making framework in ss24-26 CPLA⁷⁰.

RELIEF

47 EDS seeks:

- 1 The relief as set out in the body of this submission.
- 2 With respect to tenure review generally:
 - A moratorium be placed on tenure review until completion of an overall analysis of ecological state and necessary protection and sustainability interventions across the South Island high country, and until completion of the cross-institution review of the different land management processes in the Mackenzie Basin.
 - Decision-making process for tenure review be applied as set out by EDS. If LINZ disagrees
 with that process then High Court declarations should be sought to clarify correct
 decision-making approach including the extent of information required and the extent of
 reasons required. EDS would be prepared to seek declarations jointly.
 - Independent economic review of the valuation approach applied in tenure review.
- 3 With respect to tenure review of Simons Pass:
 - That no Substantive Proposal be put to the leaseholder and the property remains in pastoral lease. The process can be started afresh subsequent to moratorium and review.
 - LINZ commission up to date expert assessment of:
 - Ecological and landscape significance of the Mackenzie Basin as a whole, current state, pressures, and rate and scale of ecosystem degradation and loss.

⁶⁹ Cabinet Paper A676415 pg 4, [49] bullet 1: explanation of interpretation and application of strategic direction requiring balancing approach.

⁷⁰ For a recent analogous situation where fettering of decision-making power by governing body resolution was found to be unlawful see: *Wellington Fish & Game Council & Environmental Defence Society Inc v Manawatu-Wanganui Regional Council* [2017] NZEnvC 37 at [37]-[48] and [186].

RELEASED UNDER THE OFFICIAL INFORMATION ACT

- Review of existing material addressing the above points including but not limited to the PCE's Reports, the Environment Court's 11th Decision on PC13, the Environment Court's declaration decision.
- SIVs on the property.
- Role and importance of each part of the property in terms of ecological sustainability on property and within the context of the entire Mackenzie Basin.
- Best combination of designations and protective mechanisms to apply to the property to achieve protection of significant inherent values and ecological sustainably, and providing for economic use where and in a way consistent with those outcomes.
- That EDS be included in any negotiation/consultation on development of the Substantive Proposal as available under s26 CPLA.

TENURE REVIEW PRELIMINARY PROPOSAL: SIMONS PASS MACKENZIE BASIN UNDER PART 2 CROWN PASTORAL LAND ACT 1998
STATEMENT BY DR SUSAN WALKER FOR ENVIRONMENTAL DEFENCE SOCIETY INCORPORATED IN RESPECT OF SUBMISSION ON TENURE REVIEW PRELIMINARY PROPOSAL: SIMONS PASS MACKENZIE BASIN (ECOLOGY)
18 JULY 2017

INTRODUCTION

- 1. My name is Susan Walker. I am an ecologist, researcher, and research programme leader at the Crown Research Institute Landcare Research, based in Dunedin.
- I have been engaged by the Environmental Defence Society Inc (EDS) to analyse the Preliminary Tenure Review Proposal for Simons Pass Station (Preliminary Proposal) to determine whether it:
 - a. enables protection of significant inherent terrestrial ecological values¹ (SIVs) present on the property; and
 - b. promotes management of the land in a way that is ecologically sustainable.
- 3. In summary, I consider that:
 - a. the ecological values assessed as SIVs by experts in 2006² remain highly significant;
 - the rarity and importance of those SIVs has greatly increased regionally,
 nationally and internationally since they were documented in 2006. Recognition
 of their importance has also increased greatly;
 - since the property was surveyed by ecological experts in 2006 there has been a
 progressive reduction in the areas recommended for protective mechanisms by
 the responsible agencies. I can see no justification for these reductions on
 ecological grounds; and
 - d. the proposed designations fail to protect the property's SIVs and fail to promote the management of reviewable land in a way that is ecologically sustainable.

Crown Pastoral Land Act 1998

¹ Meaning the inherent value of such importance, nature, quality, or rarity that the land deserves the protection of management under the Reserves Act 1977 or the Conservation Act 1987 (Section 2 Crown Pastoral Land Act 1998) (CPLA).

² Simons Pass Botanical Survey, October 2006, Kate Wardle; Simons Pass Pastoral Lease Tenure Review Invertebrate Survey, November 2006, Warren Chinn; Assessment of the fauna values (bird and lizards) of Simons Pass Pastoral Lease (DOCDM-52676), undated, Simon Elkington.

EXPERIENCE

Professional

- 4. I have an MSc (1994) and PhD (1997) from the University of Otago. I have published more than 60 peer-reviewed scientific journal papers and book chapters in international and national literature, and produced more than 40 internally peer-reviewed contract reports.
- 5. My primary fields of expertise are:
 - a. the botany, ecology, and conservation management of modified indigenous ecosystems of the dry eastern rainshadow zone of South Island New Zealand (being dry inland South Island);
 - b. biodiversity assessment, including measurement and reporting of the biodiversity and conservation outcomes and achievements of policies (including tenure review under the CPLA), approaches (for example, biodiversity 'offsets') and incentives (including economic or market-based instruments);
 - c. quantitative field sampling and measurement of biodiversity components and assessment of ecological significance³ and/or significant inherent values⁴; and
 - d. national and regional long-term changes in New Zealand's land cover and indigenous bird fauna.
- 6. I have particular expertise and field experience in the ecology of dryland ecosystems on the floor of the Upper Waitaki basin (hereafter Mackenzie Basin) and the basin floors of Central Otago and Queenstown Lakes districts.

Simons Pass

7. I have specific knowledge and experience of the ecology of Simons Pass. I have:

3

³ Under s6(c) Resource Management Act 1991 (**RMA**).

⁴ Under s24 CPLA.

- a. reviewed a number of analyses of its ecological values for different legal processes; and
- b. visited the land.
- 8. For a more comprehensive description see **Attachment A.**

SCOPE OF STATEMENT

- 9. This statement is structured as follows:
 - a. Approach to ecological assessment
 - b. Mackenzie Basin
 - c. Preliminary proposal
 - d. Conclusion & recommendations
- 10. In preparing this statement I have read and viewed:
 - a. Summary of Preliminary Proposal, May 2017 (Proposal Summary 2017);
 - b. Preliminary Proposal Designations Plans, April 2017 (Preliminary Plans 2017);
 - Department of Conservation (DOC) Conservation Resources Report including maps, October 2007⁵ (CRR 2007);
 - d. Scion Ecological Sustainability Advice including maps, July 2009 (Scion Report);
 - e. A map prepared by DOC entitled 'Simons Pass Recommendations', dated 1
 October 2009 (DOC Recommendations Map 2009);
 - f. DOC map 'Simons Pass Recommendations', dated 11 October 2007 (DOC Recommendations Map 2007);

⁵ I note that the LINZ title page is dated 'May 08' but this was not when the report was written.

- g. Simons Pass Pastoral Lease Department of Conservation Recommendations
 Report, dated October 2007 (DOC Recommendations Report 2007);
- h. Map 5.1: Recommendations Simons Pass Pastoral Lease prepared for DOC by K
 Wardle in December 2006 (Expert Recommendations Map 2006), which is reproduced and attached in Attachment B;
- Simons Pass Botanical Survey Report by K Wardle, including maps, October 2006 (Wardle Botanical Report 2006);
- j. Legal aspects of high country pastoral leases and the tenure review process: a background paper prepared for the Parliamentary Commissioner for the Environment, July 2006 (Barton Report); and
- k. Draft guidelines for understanding the promotion of ecological sustainability in tenure review, Landcare Research Contract Report: LC0304/145 prepared by A Hewitt and G Hunter for Land Information New Zealand, June 2004 (Landcare Research ES report).

APPROACH TO ECOLOGICAL ASSESSMENT

- 11. In my opinion, ecological analysis for the purpose of tenure review should include two different assessments:
 - a. of the property's SIVs ⁶; and
 - b. of the property's ecosystems and effects of current and potential land use and management on them, to determine what management approach(es) are required on the site to achieve ecological sustainability both on the site and offsite (that is, across the wider ecological district and region)⁷.

⁶ Pursuant to s24(b) CPLA 'to enable the protection of the significant inherent values of reviewable land ', and as defined in footnote 1.

 $^{^{7}}$ Pursuant to s24(a)(i) CPLA 'promote the management of reviewable land in a way that is ecologically sustainable'.

Significant inherent values

- 12. Detailed methods and criteria exist for and are used in the assessment of SIVs, including specific guidance developed by the Department of Conservation for tenure review. I am familiar with these methods and criteria, their evolution over time, and their application.
- 13. Expertise and experience is critical in applying significance criteria. Assessors must be very familiar with the particular ecosystems and species that exist on a property, and be capable of assessing contextual matters such as their rarity and representativeness within New Zealand and internationally. They must have a sound understanding of the relevant ecological processes and of principles of conservation and reserve design in order to determine the spatial and management requirements of enabling protection. To make an adequate assessment, they must also be given sufficient time to inspect a property thoroughly; this varies with the nature and areal extent of the ecological values on a property and the terrain.

Ecological sustainability

- 14. I am not aware that any formal methods or criteria are used in tenure review for assessment of ecological sustainability.
- 15. The CPLA does not define 'ecological sustainability' or 'sustainability'.
- 16. An ecosystem is defined as a 'system of interacting living organisms and their environment' (s2 CPLA).
- 17. The common meaning of sustainability (from the Oxford Online Dictionary) is 'the ability to be maintained at a certain rate or level'.... and 'avoidance of the depletion of natural resources in order to maintain an ecological balance.'
- 18. I understand that the definition of ecological sustainability being applied in tenure review is 'making decisions that safeguard the life supporting capacity of the land's ecosystems,

including the ability of those ecosystems to support life outside the reviewable land'⁸. I also understand that in applying that definition⁹:

- a. the land's ecosystem is considered to include indigenous and exotic components and life forms; and
- b. ecosystem sustainability is to be considered in context of previous land development and use.
- 19. I consider that ecological sustainability cannot be reduced to safeguarding the life-supporting capacity of the land's ecosystems as in the definition above (at paragraph 18). The flaw is that the term 'life supporting capacity' does not reveal what life is to be supported. If it is any life that is to be supported, then almost most ecological change, short of sterilisation, would achieve ecological sustainability.
- 20. The root 'sustain' in sustainability entails avoidance of depletion. Ecological means of a 'system of interacting living organisms and their environment'. I consider therefore that management of reviewable land in a way that is ecologically sustainable means management that avoids depletion of the system of interacting living organisms and their environment on that land.
- 21. All high country ecosystems are composed of mixtures of indigenous and exotic plant and animal species. However, many different land uses and land management practices and systems can have effects such that, over time, the indigenous components, processes, and/or interactions of the ecosystem are depleted and/or their environment is altered. This process is called ecological degradation¹⁰, and not ecological sustainability.

⁸ Summary Preliminary Proposal at [3.1].

⁹ Summary Preliminary Proposal at [3.1].

¹⁰ For example, this was set out by M A C Harding, ecologist for the Mackenzie District Council, before the Environment Court (in the matter of appeals under clause 14(1) of the First Schedule to the Act in relation to decisions on Plan Change 13 to the Mackenzie District Plan).

He stated that 'Activities that may cause degradation are grazing, burning, browsing/predation by introduced animals, invasion by exotic plant species, over-sowing and top-dressing...

22. Some land uses and practices transform and/or completely remove the native ecosystems and species habitats of a site because they take ecological conditions outside the capacity of the ecosystem's plants and animals to survive at all¹¹. In ecological terms, this process is ecological transformation, not ecological sustainability.

...Grazing animals selectively remove palatable plant species, reduce the stature of taller vegetation, expose shade-adapted low-growing plants to direct sunlight, trample ground-cover species, remove nutrients from the plant community and redeposit nutrients elsewhere at the site (e.g. at stock camps). Heavier animals, such as cattle, break woody vegetation and damage the ground. The effect of grazing, especially when accompanied by burning, is the conversion of shrubland and tall tussockland plant communities to short tussockland, herbfield and bare ground. This degraded vegetation provides favourable habitat for rabbits and invasive naturalised plants such as mouse-ear hawkweed (Pilosella officinarum), sheep's sorrel (Rumex acetosella) and exotic grasses. The extent and rate of degradation at any site will depend on a range of factors.' (M A C Harding, evidence-inchief 15 July 2016 paragraphs 44 and 45). I concur with this description.

In my evidence before that hearing (S Walker, evidence-in-chief 9 September 2016) I noted that grazing, especially by rabbits, has caused widespread depletion of indigenous cover and ecological processes and interactions in the Mackenzie Basin When stock and rabbits were removed in 1992, the amount of bare soil approximately halved in the subsequent 18 years (Walker et al. 2015). About a quarter of the bare soil reduction was accounted for by increases in litter and dead plant material on the soil surface, suggesting that formerly most litter was consumed by herbivores or blown away. Furthermore, striking increases in lichen cover on arid surfaces suggest that biological soil crusts had been suppressed by pastoral management, with potentially profound implications for soil moisture retention and temperature, and ecological processes such as succession, nutrient storage and cycling, and erosion. Land management practices can have other major effects. For example, rabbits are the primary mainstay of populations of important predators (especially cats and ferrets) on indigenous fauna (including lizards, birds and invertebrates). Predation on native fauna can increase markedly when rabbit abundance suddenly declines, because their predators remain abundant but switch to feeding primarily on native prey. Repeated cycles of rabbit control and recovery can therefore have detrimental effects on populations of native fauna.

As noted by Mr Harding (cited above in this footnote), oversowing and topdressing (OSTD) also causes ecological degradation by depleting and modifying habitats and biota, and the extent and rate of degradation at any site will depend on a range of factors. For example, infrequent (e.g. once per decade) broadcast OSTD on drier landforms can allow a subset of existing indigenous species to persist, although some modification occurs. Taller native species (e.g. tussocks, shrubs, 'spaniards') can persist with broadcast OSTD on moraines if stocking rates remain low, but the native intertussock flora and fauna (which account for most of the ecosystem's biological diversity) is depleted or lost. If stocking rates are increased, degradation and loss of tussocks will occur too.

¹¹ Two examples of ecologically transforming land management practices relevant to this submission are exotic conifer invasion (or plantings), and modern pastoral intensification practices.

- 23. In my opinion, considering only the capacity of the land's ecosystems to support 'life' leads to it being logically possible to consider ecological degradation and ecological transformation to be consistent with ecological sustainability. This appears to be the approach taken in the Scion Report. That report suggests conifer planting into inland outwash gravels (which they refer to only as "Mackenzie and Fork soils") would promote ecological sustainability, apparently without considering the living ecosystem that would be transformed by this (which is a critically threatened rare ecosystem and a national priority for protection, as noted in paragraph 44 below), nor that the ecological attributes, interactions, and processes inherent to that ecosystem (including of the soils) would be wholly and irreversibly replaced.
- 24. I suggest that a more accurate definition of ecological sustainability, consistent with its plain meaning (set out at paragraph 20 above) would be:
 - 'Management that is ecologically sustainable is management that sustains, and avoids depletion of, the attributes and processes of the system of interacting living organisms and their environment, and of connected ecological systems and processes beyond land under consideration.'
- 25. This suggested definition is consistent with the legal opinion provided in the Barton Report that 'the idea is plainly one of environmental protection; the adverb 'ecologically' emphasizes that', and that '[w]hat is to be sustained is the relations of organisms to one

Exotic conifers are northern hemisphere fireweeds that have evolved to succeed in ecosystems with frequent fire. The low frequency of fire through New Zealand's evolutionary history is unparalleled internationally. The exotic-conifer life form and ecological strategy has never been present in New Zealand's evolutionary past. When they are planted, or invade, into New Zealand ecosystems, exotic conifers not only directly exclude indigenous species, but also create fire-driven ecosystems unparalleled in New Zealand's evolutionary past, and have profound effects on groundwater.

Many modern pastoral intensification practices create conditions (involving for example, nutrient and disturbance regimes, and competition) that are outside the capacity of indigenous plants and animals to survive at all. These practices include (independently or in various combinations) earthworks, irrigation, herbicide-spraying, soil cultivation (including direct drilling), associated application of fertiliser and sowing of exotic seed, cattle or deer grazing, subdivision fencing and/or elevation of stocking rates.

another and their physical surroundings, and the environment generally' ¹². That is, ecological sustainability entails maintenance of ecological systems ('ecosystems'), and not just some selected soil attributes or pasture.

26. I also agree with the Barton Report about what would be expected in an assessment of ecological sustainability¹³. I add that such an assessment would need to be made by expert ecologists with thorough and specific¹⁴ understanding of the ecology of the site, and of how different potential land uses and land management practices would affect the ecosystem attributes and/or properties, and the associated ecological processes and functioning, both on-site and off-site in the short, medium and long term.

MACKENZIE BASIN

Ecology

- 27. The abiotic environment of the Mackenzie Basin floor is one of New Zealand's most distinctive. It is almost wholly derived from glacial landforms, and its relatively high-elevation and inland position, confers a seasonally dry, continental climate characterised by short warm summers and some of New Zealand's coldest winters. The climatic extremes of drought, frost, cold, heat, and wind, often combined with shallow, stony and infertile soils, create a highly stressful environment that has given rise to a stress-tolerant terrestrial indigenous plant and animal biota.
- 28. This environment, and the Basin's history of relative isolation through the Pleistocene glaciations, led to the evolution of many indigenous species and subspecies that are

¹² Barton Report p. 29.

¹³ The Barton Report states (on p. 29): "[t]hus, in tenure review, in relation to the promotion of ecologically sustainable management, one would expect that there would be an assessment of the ecological sustainability of different land uses (extensive pastoral, intensive pastoral including dairying, horticulture, viticulture, tourism, conservation, protection, etc). Equally there would be consideration and analysis of the likelihood of one or another of those land uses after freeholding and the effects of freeholding on ecologically sustainable management. The consideration would need to address the requirement of ecological sustainability, and not, for example, general land use potential. It would need to be specific to the particular lands under review."

¹⁴ By 'specific', I mean of the particular ecosystems and species that occur a property and of the relevant ecological processes that have shaped and sustain the present ecosystem attributes there.

endemic to it, especially in the least mobile groups (particularly invertebrates and freshwater fishes). Consequently, the indigenous biological diversity ('biodiversity') of the Basin floor is also highly distinctive in a national and international context.

- 29. The Basin floor retains New Zealand's most continuous, most extensive, and least-fragmented sequences of indigenous vegetation across originally rare ecosystems¹⁵. There is no other place in New Zealand where historically rare ecosystems occur to such an extent and in natural connected sequences in a relatively low lying landscape. As a consequence of recent development, sequences of these particular rare ecosystems are now unreplicated nationally. Simons Pass itself is the only property in the Basin to encompass the Basin's complete geomorphological and corresponding ecological sequence.
- 30. This interconnected complex or mosaic of naturally rare ecosystems and vegetation, and associated wetlands and freshwater habitats, together support populations of regionally endemic and threatened invertebrates and freshwater fish, and internationally important populations of migratory wading birds, gulls and terns, in addition to many endemic, threatened, and at risk plant species. The Mackenzie Basin's ecosystem is made up of these different elements.
- 31. It is well recognised that connected biological sequences and gradients such as these, and sizeable areas, are needed for many species to persist in the face of climatic variability. For example, when a plant species inhabits a connected sequence, wetter parts provide refuge in protracted dry periods, and drier parts provide refuges in extreme wet periods (e.g. when drought-adapted species are overtopped by faster-growing species in the wetter portion of their range). The refuge facility is lost when sequences and gradients are geographically and functionally truncated and fragmented by habitat loss, and thus fragments in fluctuating environments result in species loss over time.

¹⁵ Principally glacially derived moraines (within which are ephemeral wetlands and tarns formed in kettleholes) and inland outwash gravel surfaces (outwash plains and terraces, meltwater channels and fans) which are cut by braided rivers. Seepages and flushes issue from moraine and outwash slopes and scarps, and there are some inland sand dunes.

32. The ecosystems and species habitats still represented on the Basin floor have undergone extreme loss nationally, with especially high loss-rates in the last two decades. A number of endemic plants, invertebrates, lizards, freshwater fishes, and birds now depend for their persistence largely on the remaining areas of connected and relatively undeveloped habitats still found here.

Pressures on ecosystems

- 33. I recognise three categories of pressures on the ecosystems of the Mackenzie Basin floor that affect ecological sustainability: chronic, transformational, and exacerbating.
- 34. Management of land in a way that is ecologically sustainable is management that relieves or prevents these pressures.
- 35. Chronic pressures have relatively slow and persistent adverse effects from which there can be some recovery. The main ones on the ecosystems of the Mackenzie Basin are
 - a. predation, which continues to deplete populations of native invertebrates,
 lizards and birds; and
 - b. removal of plant biomass through burning of vegetation and grazing by stock and feral animals such as rabbits and hares, which led to progressive depletion of native cover, especially shrubland and tussock, and to the dominance of hawkweed.
- 36. I do not regard erosion as a pressure on the Mackenzie Basin's ecosystems¹⁶.
- 37. I do not regard hawkweed¹⁷ as a pressure on the ecosystems of the Mackenzie Basin floor.

 Research indicates that grazing (by stock and rabbits), and not hawkweed, results in bare soil and associated ecosystem changes. For example:

¹⁶ Soils erode from lightly vegetated surfaces and deposit on better-vegetated surfaces, often nearby, respectively favouring native species that are more and less tolerant of moisture stress and nutrient depletion. This process occurred naturally throughout the Holocene, increased with the advent of pastoral grazing and rabbits, and has probably slowed since the early 1990s with generally lower rabbit numbers, and with hawkweed invasion.

¹⁷ The plant mouse-ear hawkweed, *Pilosella officinarum*, formerly *Hieracium pilosella*.

- a. reductions (not increases) in bare soil occurred simultaneously with the invasion of hawkweed into Basin-floor short tussock grasslands between 1990 and 2000¹⁸;
 and
- b. at Lake Tekapo Scientific Reserve, the amount of bare soil approximately halved across moraine and outwash landforms in 18 years following stock and rabbit removal. These landforms had both high (>40%) and moderate (11 to 23%) initial levels of hawkweed cover¹⁹.
- 38. Transformational pressures act more rapidly and are less reversible (or irreversible) because they take ecological conditions outside the capacity of the indigenous plants and animals to survive at all. Those most relevant for ecological sustainability in the Mackenzie Basin are exotic conifers and modern pastoral intensification practices (see footnote 11).
- 39. Exacerbating pressures worsen effects of chronic and transformational pressures. Climate change is the most prominent of these for Mackenzie Basin ecosystems²⁰.

Meurk CD, Walker S, Gibson RS, Espie P 2002. Changes in vegetation states in grazed and ungrazed Mackenzie Basin grasslands, New Zealand, 1990–2000. New Zealand Journal of Ecology 26: 95–106.

Walker S, Comrie J, Head N, Ladley KJ, Clarke D, Monks A 2016. Hawkweed invasion does not prevent indigenous non-forest vegetation recovery following grazing removal. NZ Journal of Ecology 40: 137–149.

¹⁸ Based on data collected in the Mackenzie Basin Grazing Trial, described by Meurk et al. (2002). I participated in the field work, undertook the data analyses, co-authored the journal paper, and hold the dataset.

¹⁹ Based on data published by Walker et al. (2016). About a quarter of the bare soil reduction was accounted for by increases in litter and dead plant material on the soil surface, suggesting that formerly most litter was consumed by herbivores or blown away. Furthermore, striking increases in lichen cover on arid surfaces (especially river terrace plots) suggest that biological soil crusts were suppressed by pastoral management.

²⁰ Climate change is predicted to strengthen prevailing westerly winds across New Zealand, delivering more water into the lake headwaters but intensifying rain-shadow effects such as desiccating winds and evaporative demand. Inter-annual climate variability is expected to increase (e.g. more extreme rainfall and wind events, more extreme variation in river flows, more frequent droughts, and more extremely hot days). I would expect these changes to exacerbate adverse effects of most chronic and transformational pressures on the basin's biota.

What has changed since 2006

- 40. Since 1990, active changes in land use have been responsible for widespread and rapid loss and modification of indigenous vegetation and habitats of indigenous fauna in the Mackenzie Basin, and elsewhere in the South Island where comparable vegetation and ecosystems occur (or previously occurred).
- 41. I estimate that across the Mackenzie Basin floor the area of indigenous vegetation and ecosystems directly lost between 1990 and the present exceeds 68,000 hectares. That is 22.5% of the total Mackenzie Basin floor area of some 301,000 hectares²¹. However, 22.5% greatly understates the percentage of the Basin that has experienced adverse ecological effects from that change. These effects are many²² and extend far beyond the sites where the ecosystems were directly lost.
- 42. About half of the direct ecosystem loss occurred recently: between 2009 and the present. By far the most important cause of that ecosystem loss (>90%) has been pastoral intensification. A secondary cause of loss has been the spread of wilding conifers, and infrastructure and urban development is a third.

²¹ This is the area of the LENZ (Leathwick et al. 2003) Level I Environments E, N, J and K that occur within or immediately adjacent to the Mackenzie Ecological Region (McEwen 1987), as shown in the table below.

Environment (LENZ Level I)	Land area in Mackenzie Basin (ha)	Median elevation (m)
E (Central Dry Foothills)	134,900	700
J (Central Well Drained Recent Soils)	4,600	600
K (Central Upland Recent Soils)	18,600	600
N (Eastern South Island Plains)	142,800	500

Leathwick JR, Wilson G, Rutledge D, Wardle P, Morgan F, Johnston K, McLeod M, Kirkpatrick R 2003. Land environments of New Zealand. Auckland, David Bateman. 184 p.

McEwen WM ed. 1987. Ecological regions and districts of New Zealand. Third revised edition. New Zealand Biological Resources Centre Publication No. 5 (in four parts). Wellington, Department of Conservation.

²² I have not attempted to fully document those knock-on effects, such as on fresh water.

- 43. One of the cumulative consequences of these changes is that the threat status of many indigenous species and many originally rare terrestrial native ecosystems, including those that occur on Simons Pass, has been greatly exacerbated, especially in the last decade.

 The significance of those remaining has become much greater as a result.
- 44. National guidance recognised the originally rare terrestrial native ecosystems of the Mackenzie Basin as national priorities for protection in 2007²³, and they were given IUCN red list categories in 2012²⁴.
- 45. The reports upon which the CRR 2007 was based (listed in footnote 2) were written before this period of rapid land use change. In my view this means that the reports are based on a fundamentally different starting point in terms of assessing both ecological significance and ecological sustainability than if those assessments were undertaken now.

Significance and ecological sustainability

46. In my opinion, and for reasons stated at paragraphs 27 to 32 above, it is likely now that most of the remaining undeveloped areas on glacially- and alluvially-derived landforms in the Mackenzie Basin will have SIVs^{25, 26}. By 'undeveloped' I mean not repeatedly cultivated

Holdaway RJ, Wiser SK, Williams PA 2012. Status assessment of New Zealand's naturally uncommon ecosystems. Conservation Biology 26: 619–629.

Mr Harding's opinion (paragraph 31 of his evidence-in-chief 15 July 2016) was that 'most undeveloped (i.e. uncultivated and un-irrigated) areas on glacially-derived landforms (moraines and outwash

²³ Ministry for the Environment 2007. Protecting our places: introducing the national priorities for protecting rare and threatened native biodiversity on private land. Wellington, Ministry for the Environment.

²⁴ The three IUCN Red List categories for threatened ecosystems are critically endangered, endangered, and vulnerable (in order of descending threat). Of the ecosystems that occur on Simons Pass, Holdaway et al. (2012) categorised dry moraines, ephemeral wetlands, and outwash gravels as critically endangered, and braided rivers and seepages and flushes endangered, and tarns as not threatened.

²⁵ And also qualify as significant under s6(c) RMA, noting the tests for significance under the RMA and CPLA have sometimes been approached differently.

²⁶ I share this view with other independent ecologists who are experienced and reputable. For example, similar opinions were stated in evidence by M. A. C. Harding, ecologist for the Mackenzie District Council, before the Environment Court (in the matter of appeals under clause 14(1) of the First Schedule to the Act in relation to decisions on Plan Change 13 to the Mackenzie District Plan).

or irrigated. There will be some undeveloped areas in the Basin that are no longer significant because they have been substantially modified by over-sowing, top-dressing, grazing, or wilding conifer or other weed spread, but their total extent will be small (i.e. probably <10% of remaining undeveloped areas).

- 47. Considering the ecological pressures it faces and the degree of loss to date, management that promotes ecological sustainability at a property and Basin scale will entail:
 - a. relieving chronic pressures by controlling predators and grazing and browsing animals;
 - b. preventing transformational pressures (especially conifer planting and invasion, and pastoral intensification of remaining indigenous vegetation and ecosystems);
 and
 - c. mitigating the exacerbating effects of climate change on ecosystems (especially through ensuring remaining areas of indigenous cover are maintained, along with their connections, and preventing and rolling back conifer invasion).

PRELIMINARY PROPOSAL

Areas recommended for Crown ownership

48. The area proposed for restoration to full Crown ownership and control is 1,265 hectares ²⁷.

terraces) in the Mackenzie Basin are likely to meet [criteria for significance] except where vegetation is substantially modified by over-sowing, top-dressing, grazing, or wilding conifer spread. Severely degraded sites will, in many cases, meet [criteria for significance] as these sites provide habitat for threatened plant and animal species'.

Mr Harding also stated (paragraph 43 of his evidence-in-chief 15 July 2016) of areas south and east of SH8 that '... parts of the area south and east of SH8 which lie on naturally uncommon ecosystems (moraines, outwash gravels and ephemeral wetlands) and are uncultivated are most likely to meet [criteria for significance]. Other uncultivated parts of the area (on river gravels) are also likely to meet [criteria for significance] as they provide habitat for threatened plant and bird species. ... Areas with severe degradation and/or high rabbit numbers should not be excluded from survey, as such areas may still provide habitat for threatened plant and bird species'.

²⁷ Proposal Summary 2017.

- 49. These 1,265 hectares cover the highest and youngest moraine landforms in the north and west of the property south of the State Highway. They also cover a meltwater channel that cuts through these moraines; and small parts of a high river-cut escarpment and the low terrace of the Pukaki River below that escarpment.
- 50. The ecological features of these areas are described in the CRR 2007, the DOC Recommendations Report 2007, and the Wardle Botanical Report 2006, and on those assessments are clearly ecologically significant and deserve designation to Crown ownership and control as a conservation area²⁸. I consider that these areas are clearly significant as per the definitions and methodologies referred to in paragraph 12-13 above.

Areas recommended for freehold disposal

- 51. Approximately 3,645 hectares identified as having significant inherent values in the expert reports (listed in footnote 2) are recommended for freehold disposal subject to no protection²⁹. This is despite their identification as SIVs by experts in 2006, being recognised in national guidance as national priorities for protection in 2007³⁰ and given IUCN red list categories in 2012 (see footnote 24).
- 52. On review of the CRR 2017 and the Scion Report I cannot see any assessment of what would be required to promote the management of those areas in a way that is ecologically sustainable, as defined in paragraph 24 and described in paragraph 47. The Proposal Summary 2017 (including its paragraph 3.1) does not provide any such assessment.

Inadequate coverage of areas identified for Crown ownership

53. The 1,265 hectares proposed for restoration to full Crown ownership and control covers 26% of approximately 4,910 hectares of land identified by DOC has having SIVs for lizard,

²⁸ Or alternative protective mechanism so long as that could be shown that alternative would achieve protection.

²⁹ Therefore 85% of the total area proposed for freeholding (4,310 hectares) has been identified as having significant inherent values and there are no provisions proposed to protect them.

³⁰ Ministry for the Environment 2007. Protecting our places: introducing the national priorities for protecting rare and threatened native biodiversity on private land. Wellington, Ministry for the Environment.

- bird, invertebrate, aquatic and/or botanical values. They are not representative of the range and diversity of SIVs present across those 4,910 hectares.
- 54. Most of the most significant, rarest, and most vulnerable ecological values on the property

 those that most deserve protection are found only on the 3,645 hectares (74%) of
 identified SIVs for which no protection is proposed, for example:
 - a. the connected sequence of increasingly older moraines that lie south of the proposed conservation area with their tussock grasslands, shrublands and interstitial wetlands;
 - the major system of dry meltwater channels that cut through 'Balmoral' moraines and cross the State Highway between the homestead and Lake Pukaki, and emerge onto the outwash plain;
 - c. the unique 'necklace' of Balmoral terminal moraine lumps on the outwash plain that demarcate the furthest extent of ice; and
 - d. the Pukaki outwash plain itself.
- 55. The conclusions of the experts (in reports listed at footnote 2) were that these areas deserve protection. The area proposed for protection via designation as a Conservation Area provides no protection for these values. No alternative protective mechanisms are currently proposed.
- 56. These areas represent nationally significant and exceptional landform and indigenous ecological attributes that are connected to each other, as well as to other ecosystems on Simons Pass and the wider landscape. Their maintenance is required to sustain ecological functioning and therefore ecological sustainability.

Adequacy of DOC assessments

- 57. On those 3,645 hectares of identified SIVs for which no protection is proposed, I support the conclusions reached by the expert assessors for DOC. I confirm that the reasons given for identifying those areas they found to be ecologically significant are sound.
- 58. I consider that those assessments are incomplete, however:

- a. an area of outwash plain in the south-west of the property ('southwestern outwash') was identified in the CRR as significant for bird fauna and invertebrate fauna but not for its botanical values. This area is also likely to be significant for its botanical and other ecological values because:
 - I understand that the botanical experts were unable to survey this area in any detail in 2006 because their time was limited;
 - even if no botanical values remain (which I doubt based on experience elsewhere in the Basin and my visit in May 2012) I cannot see why this area was not considered significant for the ecological connectivity it provides; and
 - iii. expert survey and assessment for the CRR came before full recognition of the special character and critically endangered status of outwash gravel landforms themselves (see paragraphs 62 e-g below) and prior to the rapid land use change that has occurred across similar ecosystems in the Mackenzie Basin and beyond in recent years.
- b. The 'farm block' was not assessed to have SIVs by the original assessors (reports at footnote 2). In my view reassessment is required due to the length of time passed since those reports were completed. As I have said, the 2017 ecological context is fundamentally different to that in 2006. The block likely retains indigenous ecological features and great potential for ecological recovery because it is a compact area completely surrounded by extensive connected sequences of indigenous vegetation. I understand, the prominent shelterbelts have now been removed. In my opinion the area is likely to also deserve protection by a mechanism that will sustain its values and enable their recovery.
- 59. A map identifying these areas is attached at **Attachment C**.
- 60. I have also marked three areas (A, B and C) on **Attachment C** which I consider are unlikely to support significant inherent ecological values, in agreement with the expert assessors.

Updated assessment of areas not identified for Crown ownership

- 61. In my opinion, the areas recommended for protection as "Simons Pass Drylands CA" by Ms Wardle in her recommendations map for DOC in 2006 (Expert Recommendations Map 2006, attached here at Attachment B) warrant Crown ownership and control in their entirety³¹. These areas cover approximately 3,650 hectares of identified and described SIVs for which no protective mechanism or mechanisms are currently proposed.
- 62. Although the significance of these areas was appreciated in 2006 and 2007, both the context of those values (the degree of loss and consequently their rarity, see paragraphs 40 to 44 above) and the appreciation of their ecological significance has greatly increased in the last decade. For example:
 - a. Simons Pass is almost entirely made up of 'originally rare' indigenous ecosystem types (inland outwash gravels, moraines and ephemeral wetlands) that since the assessments were named national priorities for protection and have now been assessed as critically endangered using the IUCN's ecosystem red-list criteria;
 - b. significant ecological areas on Simons Pass cover the majority of a full glacial landform sequence of connected 'originally rare' ecosystems, indigenous vegetation and species habitats, and a striking environmental and biological gradient. This is now one of only two such sequences of indigenous vegetation remaining in the Basin and nationally, and the driest of all. These features make it exceptionally important for the long term ecological persistence of the indigenous flora and fauna;

³¹ I understand that mechanisms to allow some pastoral use could still be applied to land designated

monitoring designed with a robust enough methodology and appropriate statistical power to detect adverse effects and adjust management treatments accordingly.

for full Crown ownership and control. I consider that this would be acceptable so long as this use was consistent with protection of significant ecological values and ecological sustainability. Determining this would require consideration of the proposed use next to the values present, that is evidence-based. Given uncertainty, a proper adaptive management process would need to be allowed for. This would require an experimental design (with a proper control and preferably, replication) and

- together with the connected lower part of the outwash plain on Simons Hill, the
 property represents one of New Zealand's environmental extremes or limits, of
 importance for the future evolution of the biota;
- d. the indigenous flora of the site is a nationally outstanding, assemblage of threatened and at risk plant species adapted to New Zealand's driest habitats. It is not replicated anywhere else to my knowledge;
- e. outwash gravels underlie a considerable fraction of the SIVs not identified for crown ownership. They may be considered the most ecologically and biologically distinctive of the Basin's ecosystems. They and their endemic biota:
 - i. are found nowhere else, and are unquestionably under the greatest threat of imminent clearance and loss; and
 - ii. have special character, especially as last remaining examples of the evolutionary response of the native biota to protracted arid conditions in New Zealand;

f. the undeveloped outwash gravels are:

- i. now recognised to support a greater number of the Mackenzie Basin's known threatened or declining plant species (29) than any other type of habitat (even more the highly distinctive ephemeral wetlands, with 20) and also more naturally uncommon or data deficient plant species (12) than any other. A number of these species were identified on the Simons Pass outwash in the botanical survey and are listed in the Wardle Botanical Report 2006 and the CRR 2007;
- ii. also a principal breeding habitat for endemic threatened (Nationally Vulnerable) banded dotterel (*Charadrius bicinctus bicinctus*). Those on Simons Pass represent a significant and growing fraction of the remaining breeding habitat for these species nationally because of massive conversion and modification of these breeding habitats within the Basin and elsewhere nationally; and

g. The indigenous invertebrates of undeveloped outwash gravels are also highly endemic and little studied.

Progressive reduction of areas identified for protection through the tenure review

- 63. In **Attachment D** I provide maps that show a time series of changes to the recommendations for protection and freeholding on Simons Pass through the tenure review process. The maps clearly show that there has been progressive disregard for the recommendations of experts for protection over the time since they were made.
- 64. This trend is in direct opposition to the growing significance of those values and scientific appreciation of their importance over that time, and I can see no ecological basis for it. I have not seen any ecological report supporting those changes.
- The values identified for protection in 2006 remain little changed at the site. I understand that a ryecorn crop was sown on parts of the outwash plain in 2013 or 2014 but this activity was not continued. Based on my ecological site inspections elsewhere on the Pukaki outwash plain, I consider that this activity will have had only minor and reversible adverse effects on the ecological features. I have viewed Ms Lucas' reports and photographs from her recent site visit for EDS, which confirm that the effects of the ryecorn sowing are barely visible now.

Management of the land in a way that is ecological sustainable

- Apart from on the land proposed for Crown ownership, I consider that the Preliminary Proposal completely fails to give effect to the object of promoting management of the land in a way that is ecologically sustainable. I consider that the advice in the Scion Report is defective and simply fails to take into account the relevant factors³², and so too is the interpretation and inference in the Proposal Summary 2017.
- 67. In reviewing the Preliminary Proposal and associated documents I cannot see where relevant scientific evidence has been considered, or ecological expertise consulted, in determining whether the ecological sustainability object will be achieved. For example,

 $^{^{\}rm 32}$ as set out in the Landcare Research ES Report and Barton Report

- research showing the ability of indigenous vegetation on similar landforms to recover given relief from grazing (see paragraph 37, above) is not referred to.
- 68. In my opinion, management in a way that is ecological sustainable would not be promoted by enabling freeholding. For example:
 - a. from my experience it is likely that conversion of areas of freehold land to irrigated pasture or crops will occur. Although consent for any further pastoral intensification or subdivision may now be required under the District Plan, in my experience RMA provisions can and do change, and cannot be relied to promote ecological sustainability³³; and
 - b. if management that is ecologically sustainable is to be promoted, provisions are needed to give effect to the requirements I set out at paragraph 47 above. Based on my experience, freeholding is less likely to be compatible with those requirements than other possible designations (such as management as Crown land by DOC or continuation as a Crown Pastoral Lease).

CONCLUSION & RECOMMENDATIONS

69. I consider that:

a. the areas marked "Simons Pass Drylands CA" in **Attachment B** have significant inherent ecological values deserving of protection;

 management of the areas marked "Simons Pass Drylands CA" in Attachment B in such a way that their SIVs are sustained is critical to achieving ecological sustainability of the Mackenzie Basin's international, nationally and regionally unique ecosystem; and

³³ The Barton Report (p. 25) sets out the difference between sustainable management under the RMA and ecological sustainability in the CPLA. I also note that there are (or have been) exemptions for land freeholded in tenure review from some provisions of some District Plans, for example in Central Otago District, and previously in Waitaki District.

c. that the Preliminary Proposal's designations would be unlikely to achieve protection of significant inherent ecological values or ecological sustainability.

Dr Susan Walker 18 July 2017 and Mr Chinn of DOC.

Attachment A: Detail of experience and knowledge of Simons Pass

I have specific experience and knowledge of the ecology of Simons Pass. In preparing evidence before a RMA hearings committee in December 2009³⁴ I was provided with, and used, GIS shapefiles of the significant inherent values (Botanical, Invertebrate, Lizard, Bird, and Landscape³⁵) and GPS locations of the threatened and notable plant and animal species identified on Simons Pass in inspections for tenure review. I was provided with original botanical report (October 2006) and combined recommendations map (December 2006) prepared by Ms Wardle for the Department of Conservation (DOC). I met and discussed the ecological values of

the site with three of the experienced ecologists involved in those surveys: Ms Comrie, Mr Head

Between 2009 and 2012 I reviewed a number of different ecological assessments and provided court affidavits on the question of whether the vegetation of the property met criteria in the Mackenzie District Plan indigenous vegetation clearance rules³⁶. I undertook this work at the request of the Royal Forest and Bird Protection Society Inc (Forest & Bird). I met and discussed the ecological values of the site with other experienced ecologists involved in these proceedings (Mr Lloyd of Wildland Consultants and Dr Grove of Environment Canterbury).

On 25 May 2012 I undertook a site visit on Simons Pass with the lessee Mr Valentine, his wife Mrs Valentine, some of their contractors and staff, and Forest & Bird staff. On that visit I traversed much of the area, spent time on the ground, and had extensive discussion with the lessee's ecological consultant at that time (Dr Norton) who was at that time more familiar than I with the ecological values. I then provided a letter of advice to Mr Anderson (Forest & Bird's solicitor) on

 34 in the matter of resource consent applications by various parties to take and use water in the Upper Waitaki Catchment

³⁵ As identified as part of the reports referenced at footnote 2 above.

³⁶ Rule 12.1.1.g: Shrublands: the rule prohibits clearance of more than 2000sqm of specific shrubland complexes. Rule 12.1.1g Short Tussock Grasslands: the rule applies and clearance subject to regulatory oversight where tussocks exceeds 15% canopy cover. Rule 12.1.1h Indigenous Cushion and Mat Vegetation and Associated Communities: this rule applies and clearance subject to regulatory oversight where at least 50% of the vegetation ground cover comprises vascular and non-vascular indigenous species or where the number of vascular indigenous species is greater than 20.

12 June 2012 which summarised the ecological values of the property their significance. I am not aware of any constraint on my use of the information that I gained on that visit.

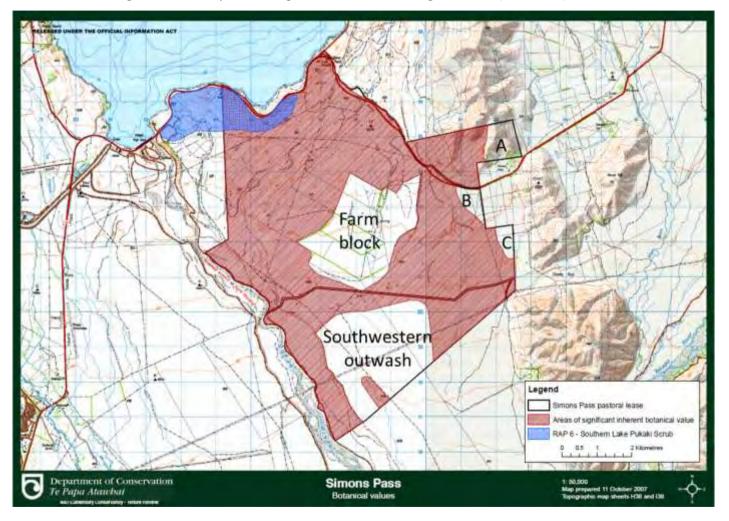
I was engaged by Forest & Bird to undertake an inspection of areas proposed for irrigation on Simons Pass and Simons Hill in January 2013. This I carried out on seven days (10–12 and 14–17 January 2013) assisted by the qualified botanist Ms Hayman and two university student interns. Following that visit I prepared a Landcare Research contract report (April 2013) and a High Court affidavit (June 2013) for Forest & Bird. I understand that I am prevented by an access agreement from using any information gained on my January 2013 inspection for purposes other than the associated RMA appeal by Forest & Bird. I have not relied on or referred to that information in this statement.

Attachment B. Expert Recommendations Map 2006. This map shows the areas recommended for protection by Ms Wardle in her advice to **DOC** in 2006. I consider areas marked "Simons Pass Drylands CA" still have significant inherent ecological values.

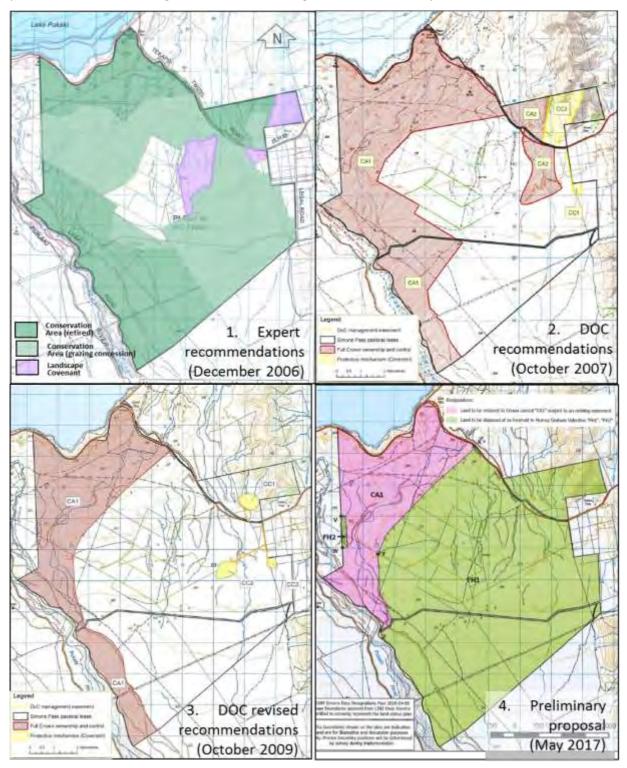
Lake Pukaki 2.1.1 2.1.1 Area (ii) Azea (iii) 22.1 EXCLUDES ALL LEGAL ROADS Canterbury Land District Sheet 1 of 1 AND MARGINAL STRIPS (IF ANY) NZMS 260 H38 & I38 Date 05/11/2001 SIMONS PASS (Pt Run 86) 5cmin 1:50000 1500 1500 2000 2500 2000 2500 4000 4000 8000 8500 8000m Key Simons Pass Drylands CA Existing fencing (proposal 2.1.1; destocked) New fencing Simons Pass Drylands CA (proposal 2.2.1; grazing concession) New fencing in sensitive landscape will require careful choice of line Simons Pass Landscape Covenant (proposal 2.5.1- Areas (i)-(iii))

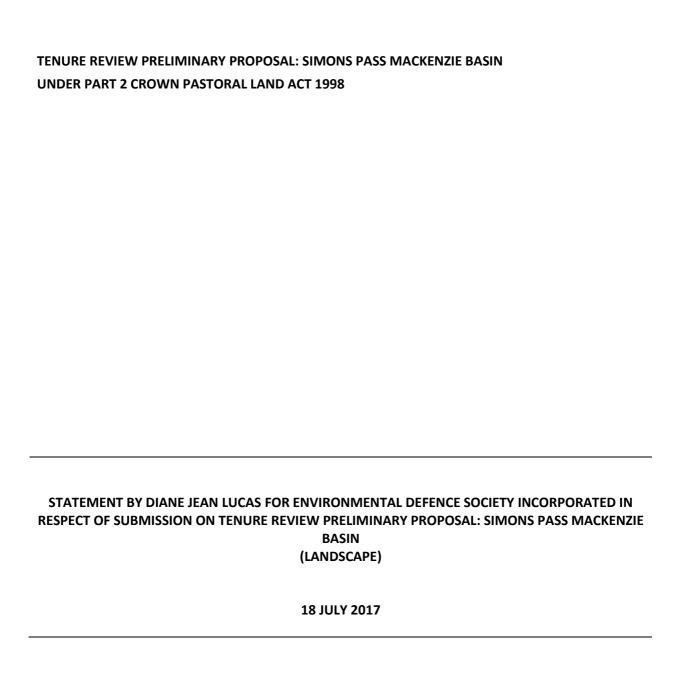
Map 5.1: Recommendations - Simons Pass Pastoral Lease

Attachment C. This map shows areas referred to at paragraph 58 and 59 that I consider warrant reassessment for their ecological value, and identifies those areas that I agree are unlikely to have significant inherent ecological values (A, B and C).



Attachment D. Time series showing the progressive changes to the recommendations for protection and freeholding on Simons Pass through the tenure review process.





INTRODUCTION

- My name is Diane Jean Lucas. I am a landscape architect and director of Lucas Associates Limited, a landscape planning, design and management practice based in Canterbury.
- I have been engaged by the Environmental Defence Society Inc (EDS) to analyse the Preliminary Tenure Review Proposal for Simons Pass Station (Preliminary Proposal) to determine whether it enables protection of all areas with "significant inherent values"¹ with respect to the landscape and natural character values.

3. In summary:

- a. The Preliminary Proposal does not enable protection of all significant landscape and natural character values inherent to the Simons Pass landscape and the wider Mackenzie Basin landscape. It is inadequate in addressing the core landscape of Te Wahipounamu. The Simons Pass lease lands involve substantial terminal moraine and outwash plain that together are an essential contributor to the Aoraki–Pūkaki land system. Landscape integrity and connectivity is imperative to protection of the significant inherent values;
- The landscape culmination of the glacial system from Aoraki, the moraine and outwash on Simons Pass are assessed as having very significant landscape and natural character values;
- c. Protecting only part of the younger moraine, the Preliminary Proposal is not adequate to protect or sustain the significant inherent landscape or natural character values on Simons Pass;
- d. The significant inherent landscape values identified by the landscape architect in 2006² largely remain intact and highly significant, warranting Crown administered conservation management;

¹ Meaning the inherent value of such importance, nature, quality, or rarity that the land deserves the protection of management under the Reserves Act 1977 or the Conservation Act 1987: s2 Crown Pastoral Land Act 1998.

² Report by Ann Steven 2006 informing Department of Conservation Resources Report. Other reports were also undertaken addressing botanical, avian, and invertebrate values. These are addressed by Dr Walker in her statement for EDS.

- e. With reduced naturalness elsewhere on the Mackenzie Basin moraine and outwash in the past decade, the Simons Pass landscape has become increasingly significant; and
- f. Subsequent to the Department of Conservation surveys in 2006, the areas proposed by Land Information New Zealand (LINZ) for protection on Simons Pass have been very substantially diminished and now fail to address the highly significant landscape values.

EXPERIENCE

Professional

- 4. I hold a BSc in natural sciences (Otago), a post-graduate Dip LA, and, a Master of Landscape Architecture in landscape planning (Lincoln University). My thesis involved: Identifying acceptable vegetation change in high country landscapes. I am a registered NZILA landscape architect and was made a fellow of NZILA in 1987. I have received several NZILA premier awards for landscape assessment.
- 5. I have worked extensively in New Zealand's high country environments and in the Mackenzie Basin:
 - a. As a member of the government advisory body³ on environmental policy that authored the publication *Tussock Grasslands: Landscape Values and Vulnerability*⁴;
 - As a member of the Land Settlement Committee administering pastoral leases in South Canterbury, including in the Mackenzie Basin;
 - c. As chair of the Nature Heritage Fund (**NHF**) 1990 2017 which assists landowners in the protection of biodiversity on private land. The NHF has published regional strategies and protected several inter-montane basin areas. The Canterbury Protection Strategy specifically identified the importance for the Pūkaki Ecological District and the short tussockland, wetlands, and shrublands;

⁴ Michael Ashdown & Diane Lucas. 1987, NZ Environmental Council, Wellington. 119pp.

³ NZ Environmental Council: 1982-1988.

- d. As part of a joint assessment project with Boffa Miskell in 1993 to identify outstanding natural features and landscapes (ONL) of the Canterbury region, my team developed the land typing for the region. The Mackenzie Basin floor was assessed in that study to comprise an ONL. I peer reviewed the later Boffa Miskell 2010 regional study which again assessed the Mackenzie Basin to comprise an ONL; and
- e. I have undertaken landscape assessments for Resource Management Act 1991 purposes in the Mackenzie Basin. I have undertaken landscapes assessments for Crown Pastoral Land Act 1998 purposes in other areas of Canterbury.

Of Simons Pass

- In 2009 I provided independent evidence to Environment Canterbury for Mackenzie
 Guardians regarding the 110 resource consent applications for irrigation in the Mackenzie
 Basin, including at Simons Pass.
- 7. In 2012 I was requested by Mackenzie Guardians to attend a site visit to Simons Pass to review the irrigation proposal that had been appealed by several parties. However I declined to attend as the conditions imposed by the applicant (leaseholder) on the sharing of any information I recorded on the visit were in my opinion inappropriate.
- 8. Following attendance at formal mediation, I was invited by Mackenzie Guardians to attend an informal mediation session with the applicant regarding the Simons Pass irrigation consent appeal. There I requested and undertook a site visit on 3 September 2015 with Mackenzie Guardians representatives, as their independent landscape expert, accompanied by the applicant. I subsequently attended further mediation. I respect the confidentiality of that process.

SCOPE OF STATEMENT

- 9. I have been asked by EDS to provide a statement regarding the adequacy of the Preliminary Proposal for protecting significant inherent landscape values. Last month I undertook a site visit arranged by LINZ agents for this purpose, which the leaseholder also attended. My assessment below is based on this recent visit alone and on review of the Preliminary Proposal and supporting documents.
- 10. The following issues are addressed:

- Approach to landscape assessment
- Landscape assessment
- Significance assessment
- Conclusion and recommendations

APPROACH TO LANDSCAPE ASSESSMENT

Background

- 11. Underlying land is an important basis for determining landscape character. Bedrock mountains and hills, and deposition country below, form the basis of this basin landscape. The landforms, impounding water and overlain with land cover and land use activity, are the physical landscape. Landscape also involves perceptual and associative attributes.
- 12. Landscape is the distinctive character of an area. The distinctive character is a result of both the physical and the perceptual landscape the land, what is on it, and how people relate to it; through their experience, their knowledge, the meanings and the associations. With different knowledge, experience, roles and expectations, people experience the landscape somewhat differently. With vastly different knowledge, experience and roles, those who associate with the Mackenzie Basin demonstrate it is a landscape which exemplifies such differences.

Land system typing

- 13. As developed for my masters study, land systems provide a useful and timeless basis to landscape analysis. Land system typing is a nested hierarchy approach, enabling refining or grouping at different scales of interest.
- 14. Applied in the Canterbury Regional Landscape Study⁵, land system typing analysis demonstrated the Mackenzie Basin as the largest Intermontane Basin. The regional land types identified in the Mackenzie Basin include:
 - H 1 Major River, Valley Fill
 - H3 Glacial and Fluvial Basin Floor
 - H4 Basin Floor Outwash Plains

⁵ Boffa Miskell & Lucas Associates. 1993. *Canterbury Regional Landscape Study.*

- H7 Isolated Mountain (or roche moutonnée)
- 15. All are present in the Simons Pass landscape.

LANDSCAPE ASSESSMENT

- 16. Most of the Basin floor is classified as **H1**, **H3** or **H4**. The natural characteristics of these very extensive floor lands are essential to the natural landscape value of the whole Basin. The naturalness of the floor is essential in providing the association with the surrounding ranges, and the integrity of the Basin for a natural landscape experience.
- 17. The floor lands include major areas of depleted short tussock grassland. Minimal tall tussockland remains. Indigenous shrubs, cushion and mat vegetation are variously interspersed with short tussock. This mosaic of vegetation underpins the scene-setter lands of the upper Waitaki Basin. Without the landscape integrity of these floor lands, the value of the Basin landscape overall is reduced, as is the value of the Mackenzie country character in total. Aridness, semi-desert character, tussocks, naturalness, and openness are important. The natural landforms with the subtle natural formative patterning evident, through varying substrate deposition and drainage patterns across the outwash, are crucial to the Basin's significant landscape values. The unique floor character of the moraine and outwash needs careful landscape protection.
- 18. H7 Isolated Mountain Land Type (or roche moutonnée) comprises the over-ridden bedrock features that protrude through the moraine fields and outwash. For example the Mary Range that would have been overridden at the peak of glaciation and now forms the division between the Tekapo and Pūkaki systems.
- 19. The naturalness of the Basin floor lands is very highly valued. Whilst the mountain slopes may be more visually prominent, the broad, open, uncluttered, arid grassland landscape of the Basin floor is the scene-setter. It is the floor that is passed through, that is overviewed, and that is widely recognised as an exemplary experience of a distinctive landscape. The naturalness of the floor lands, their broad natural patterns and their detail, are enjoyed in association with the mountain lands beyond. The floor and wall lands together form a basin that is experienced as highly natural. With the highly natural land surfaces and vegetation patterning, the mountain lands draining to the lakes and to the outwash below are clearly legible as the pathways of former glaciers.

20. Within the Basin, the degree of naturalness of areas varies in response to management and season - the invasion and removal of wilding trees; the seasonal and periodic flush of new pastures, of crops and of lucerne. Responding to seasons and time, localised incursions into the grassland landscape that are of limited scale and intensity, and that read as supporting the surrounding extensive natural landscape, can form legible activity nodes that do not detract from the Basin's naturalness and tell of a layer of heritage to the Basin.

Simons Pass

- 21. Simons Pass plays an important role within the wider Basin landscape. The shore of Lake Pūkaki and the terraces to the Pūkaki River, the terminal moraine sequence of the Pūkaki Glacier and the great outwash exhibit unique landscape connectivity. The moraine tells a glacial advance and retreat story that traverses millennia. The young moraine toward the lake, the oldest (some 70,000 years old) furthest in, protruding through the outwash plain. The landscape unit which extends alongside the Pūkaki i lake, from below the Mary Range, demonstrates the key landscape values of openness, aridness, and legibility of a series of moraine advances; of trough excavation and lake infilling, of waters channelling, of outwash deposition, and of river terracing.
- 22. The proposed protection addresses only part of the moraine sequence and not the older moraine, not the associated outwash channel or outwash plain, nor the length of river terracing. The Preliminary Proposal addresses only a component of the extensive important remnant landscape. Only the front edge.
- 23. Simons Pass lease extends from close to the lake of Pūkaki southwards. The State Highway snakes through the moraine complex, crossing outwash channels. The Preliminary Proposal does not address the important outwash complex that lies north of the highway.
- 24. Protection of the road corridor experience along SH8 is important fornatural science, particularly geodiversity, as the highway enables the enclosure of moraine, the outwash channels, and the outwash plain to all be experienced to some degree. The proposed protection addresses only part of this road corridor.

SIGNIFICANCE ASSESSMENT

Background

- 25. The purpose of tenure review is to freehold land whilst retaining significant inherent values. This includes retaining significant inherent landscape values.
- 26. Expected methods of retention involve identification, retention as Crown-owned land subject to Crown control, or freeholding with conservation covenants in perpetuity with conservation management required.

Mackenzie Basin & Simons Pass: Aoraki-Pūkaki Land System

- 27. The geological history of the Mackenzie Basin tells⁶ of the uplift of the Alps to the west and the ranges to the east, and, the depression of the Basin floor as three separate troughs which were covered in sheets of gravel. Several cycles of glaciation followed, cutting deeply into the mountains and depositing glacial debris to create the moraines and wide, low-angle outwash fans present today. The glaciers then wasted away to tiny remnants in the Alps. The former glaciers had enlarged troughs which filled to form major lakes (Tekapo, Pūkaki and Ohau) and the rivers draining the lakes subsequently cut down into the glacial outwash floodplains.
- 28. At the height of the last glaciation (40,000 to 30,000 years ago), the Tasman Glacier extended several kilometres beyond the southern shore of Lake Pukaki. At this time, the ice was so deep that Mt Cook Village would have been buried under a 700m depth of ice. That major glacial stage ceased 14,000 years ago, and the Tasman Glacier has retreated from its terminus located on Simons Pass more than 60 km toward Aoraki. Pūkaki is a lake of meltwaters.
- 29. The Aoraki to Waitaki River is a story through millennia, a story that is highly legible and written down the long valley landscape.
- 30. From the moraine and outwash of the glacial terminus, the full landscape of this system back to Aoraki is highly legible.

⁶ J. Soons & M. Selby. 1992. *Landforms of New Zealand*.

⁷ L. Homer and L. Molloy. 1988. *The Fold of the Land*.

- 31. That story is written in this landscape. From the moist mountains above with the remnant wet glaciers, down to the gentle semi-arid flats of the outwash plain, is a grand and dramatic story at the heart of Te Waipounamu. At the heart of the South Island, at the heart of the Mackenzie Basin, and of Aotearoa. The Aoraki- Pūkaki land system includes a text-book sequence of events that remain highly natural, highly legible and highly significant as an iconic New Zealand landscape.
- 32. The landscape is huge, grand, dramatic and its raw youth and dynamism contribute importantly to the international importance of this place.
- 33. The history of the Pūkaki River carving through the outwash is evident as a terrace sequence within Simons Pass.
- 34. Experienced from the terminus and outwash, the origins of these lands from the highly visible source at Aoraki, can be viewed and are much enjoyed. The Pūkaki Aoraki relationship, from mountain summit down to the lake, terminal moraine, outwash plain and river, are enjoyed as a grand landscape.
- 35. With the moraine and outwash plain being within a semi-arid environs, erosion of the topographic nuances is minimal. Whilst gentle terrain, there is a steep rainfall gradient from the Tasman Glacier terminus (approx. 10,000 mm/year) to the Pukaki outwash plain (around 400 mm/year). With such low rainfall, the outwash landforms retain high legibility at both the grand scale and at the micro-topographic scale. As is demonstrated in the geomorphological research⁸ for landforms less than a few hundred years old, the size of the lichens growing on surface boulders is a key informer. For landforms up to several thousand years old, the thickness of weathered crusts on surface stones is an indicator of landform age. The amount and stratigraphy of soil developed on a landform provides further cues.
- 36. "The excellent preservation of Late Otiran landforms around the Pukaki glacial trough results from the favourable geomorphologic setting: the glacier terminated in a broad

⁸ D. Barrell, B. Anderson, G. Denton. 2011. *Glacial Geomorphology of the central South Island, New Zealand*. GNS Science Monograph 27

intermontane basin, remote from sources or erosion or sedimentation by marginal tributaries."

- 37. The Tasman Glacier is retreating rapidly back to Aoraki. To stand on the natural outwash plain, or on the older Pukaki Glacier moraine that protrudes through it, and view up to the source, to Aoraki, is a profound experience. The story of this land system is clearly written in the land from our highest point in the land down to the plain below. Whilst some 70 kilometres distant, through the naturalness of the context from which it is viewed, the landscape is read in its totality. Viewing different parts from different places, the mind assembles the whole. The connectivity and interplay of the system's components, the importance and drama of the heartland locale, the quality and rarity of such a natural experience, are in my opinion of very high significance.
- 38. The naturalness of the outwash plain lands, the naturalness of the sequence of moraine complexes, the naturalness of the outwash channels and the river sequence, these together provide the context for the immediate significance of the Pūkaki Flat landscape, of the landscape of the Simons Pass lease lands, and of the complex of the grand lake and its source and enclosing landforms.
- 39. The Aoraki- Pūkaki land system traverses the Simons Pass lease. The landscapes of Aoraki Mt Cook National Park were carved by glacial ice. They are young landscapes less than 20,000 years old¹⁰. The Tasman River drains the remnant glaciers into Pūkaki.
- 40. Down the lake to the older complex, as recognised in the geopreservation inventory¹¹, the Lake Pūkaki Terminal Moraine is "A classic example because of the scale of the moraine.

 Classified as an extremely well-defined landform of scientific/educational value."

 Scientists have variously proposed that the hilly Pūkaki moraines be set aside as scientific reserves for landscape interpretation and education on climate history. 12

⁹ D. Barrell, B. Anderson, G. Denton. 2011. *Glacial Geomorphology of the central South Island, New Zealand*. GNS Science Monograph 27

¹⁰ L. Homer and L. Molloy. 1988. *The Fold of the Land*.

¹¹ J. Kenny, B. Hayward. 1998. *Inventory and Maps of Important Geological Sites and Landforms in the Canterbury Region, including the Chatham Islands*. Geol. Soc. NZ Misc. Pub. 98.

¹² Alice Doughty, Brian Anderson, and Andrew Mackintosh, Victoria University

- 41. The scientific value of the Pūkaki moraine to glaciologists is important for dating the glacial history, in paleoclimate research. Scientists from various parts of the world are working on this resource and the interpretation is being used in climate change predictions. The form of the land surfaces is important in reading the history. In terms of management, boulders should not be moved, as their character, positioning, and the fine material trapped beneath them assists in reconstructing the history. The moraine landforms are a sensitive and internationally important resource that should be protected. The geoscience value contributes importantly to landscape and natural character value. The proposal however proposes they be protected only in part.
- 42. Landforms tell the story of the Aoraki-Pūkaki land system; of the Mackenzie Basin. They display natural processes. Their legibility is greatly assisted by the diminutive vegetation that belongs on the extensive gravel and thin-soiled landforms. New Zealand is a global attraction for the naturalness and legibility of its dynamic landscapes. The Mackenzie Basin landscape is internationally unique due to its geomorphic, ecological and heritage attributes. Because of its connectivity and sequencing Simons Pass plays a critical role in retaining the Basin's overall landscape value.
- 43. The great trough that provides for the Pūkaki lake is up to 1000 m deep. Whilst Lake Pūkaki was dammed and raised (9m in 1952, 37m in 1976) the terminal moraine remains the terminus to the lake. The lake is enclosed by the natural moraine above newly formed beaches. The Simons Pass lease involves most of this terminus. The lease has a 4 km long frontage to the highway that runs along above the Pūkaki shore.

Methodology

- 44. A geomorphic approach is an appropriate basis for assessing landscape and natural character in the high country. The naturalness of the landcover and landuse can then be considered, in terms of the significance of natural patterns, natural processes and natural elements.
- 45. Each moraine marks the past position of the terminal edge to the Pūkaki Glacier.
- 46. The Necklace is a special chapter in this glacial landscape history. The Necklace very legibly marks the extent of the oldest glacier.

- 47. The protection proposed addresses only the young areas of the terminal moraine, and not the older land patterning. The glacial history is a very important contributor to this landscape and the natural character. The natural glacial processes, which continue today, need to be accommodated in the protection proposal. The chapters in this glacial history book deserve to remain legible to those who experience this landscape recreationally and for its natural science.
- 48. Having recently observed the natural science legibility on the ground, the proposal cutting through the middle of the moraine sequence is inadequate. The pages in this text book landscape are laid bare. The natural patterns, processes and elements are highly evident. They require protection from land use disruption by any overlay of contrasting patterns, processes or elements that would detract and distract from the natural character. These natural attributes exhibit highly significant inherent landscape values.
- 49. The oldest glacially derived landforms project through the outwash plain, forming the Necklace feature. In clear contrast with the glacial deposits, the plain demonstrates alluvial outwash patterns, processes and elements. It exhibits very significant inherent landscape values for the full width of the unit, from near the base of the Mary Range across to the Pūkaki River terrace.
- 50. The Pūkaki terraces are evident cutting down through the outwash plain to the River.

 Below the dramatic scarp, the broad lower terrace contributes a different and more confined landscape experience. The river corridor contributes importantly to the overall Pūkaki system experienced.

Summary of significance

- 51. The CPLA requires that significant inherent landscape values be protected. That is, it is not about landscape features, it is about the landscape. The Preliminary Proposal instead proposes protecting only part of the younger moraine feature and river terrace. This does not address the highly significant landscape values that extend fully across the moraine and across the outwash plain and along the length of the river corridor.
- 52. The geodiversity of the Simons Pass lease landscape exhibits high natural character, and contributes importantly as an appropriately scaled example of the geological processes at the core of New Zealand. It is real world, visible, and tangible evidence of ice ages, of

natural climate change and of mountain building and eroding forces well demonstrated. It complex straddles the state highway and extends to near Lake Pūkaki i and along the Pūkaki River. The dramatic and exceptional demonstration of natural character and natural landscape within the deposition lands of the Simons Pass lease is such that the area identified in the Conservation Resources Report as having significant inherent landscape values I also assess as appropriate to be protected. However, I consider the central area that was excluded (within LU3) should instead be included. The central enclave has very important landscape and natural character value in demonstrating the sequence to older moraine. The enclave is an essential part of the greater Aoraki–Pūkaki land system. I understand that a menu of protective mechanisms is available. Although crown ownership and control must still be given preference. It may be that because the central area is where farming has concentrated, an alternative protective mechanism is appropriate to address the landscape values. This would need to be carefully assessed.

Whether visiting via the highway, a commercial flight, a glider, a cycle, a fishers' 4WD, walking Te Awaroa Trail or the Bullock Trail, or visiting a nearby reserve, the Simons Pass lease lands are a significant area of the Aoraki-Pūkaki landscape sequence. The moraine and outwash formations contribute high natural landscape value. The simplicity of the outwash plain at the grand scale, with the alluvial patterning variously evident, contributes importantly to landscape experience. The moraine formations are dramatic features within the grand landscape.

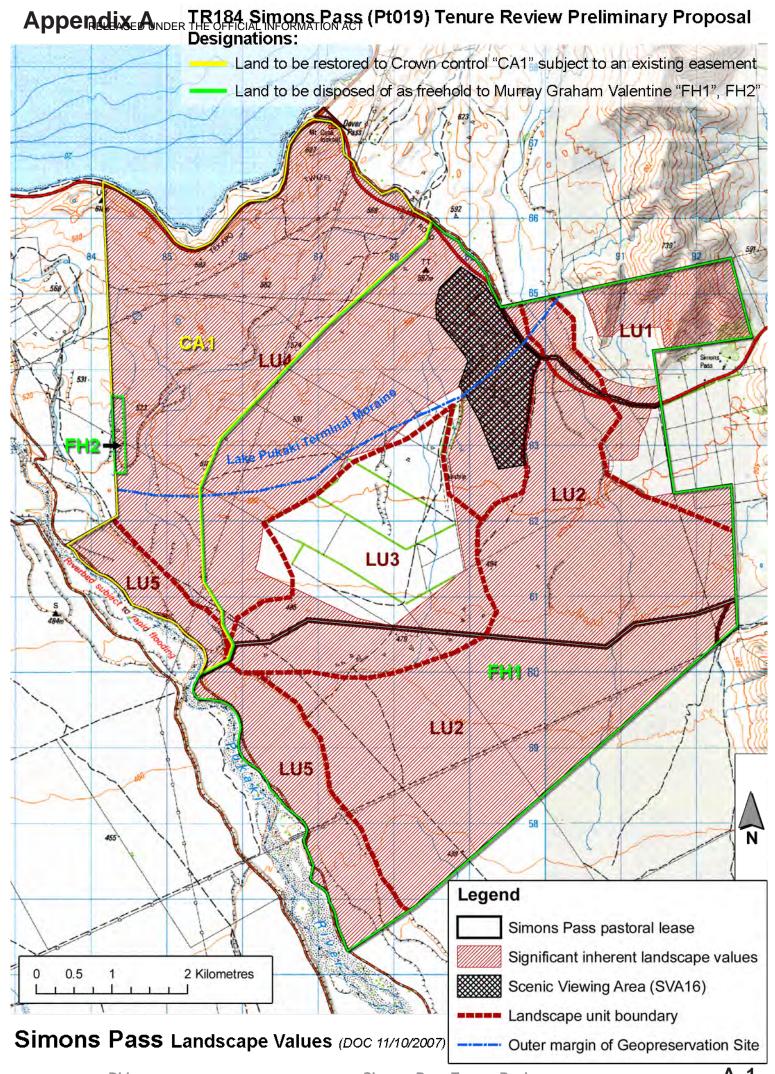
DOC significance assessment

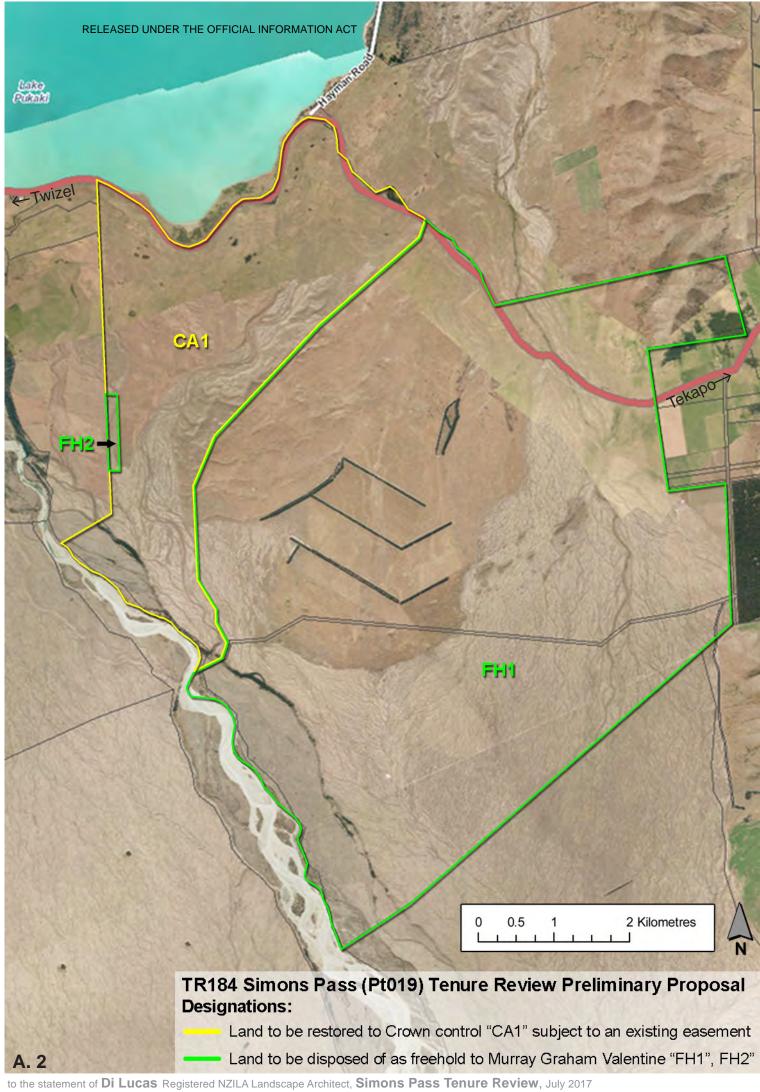
54. Considering the 2006 assessment by Ms Steven and the lands as visited last month, there appears to be little change in the areas she identified as having significant inherent landscape values deserving of protection. However, in my view, there is considerable naturalness and important landscape continuity and character in the enclave she excluded. There was evidence that shelter belts had recently been removed. This removal has assisted the natural landscape legibility.

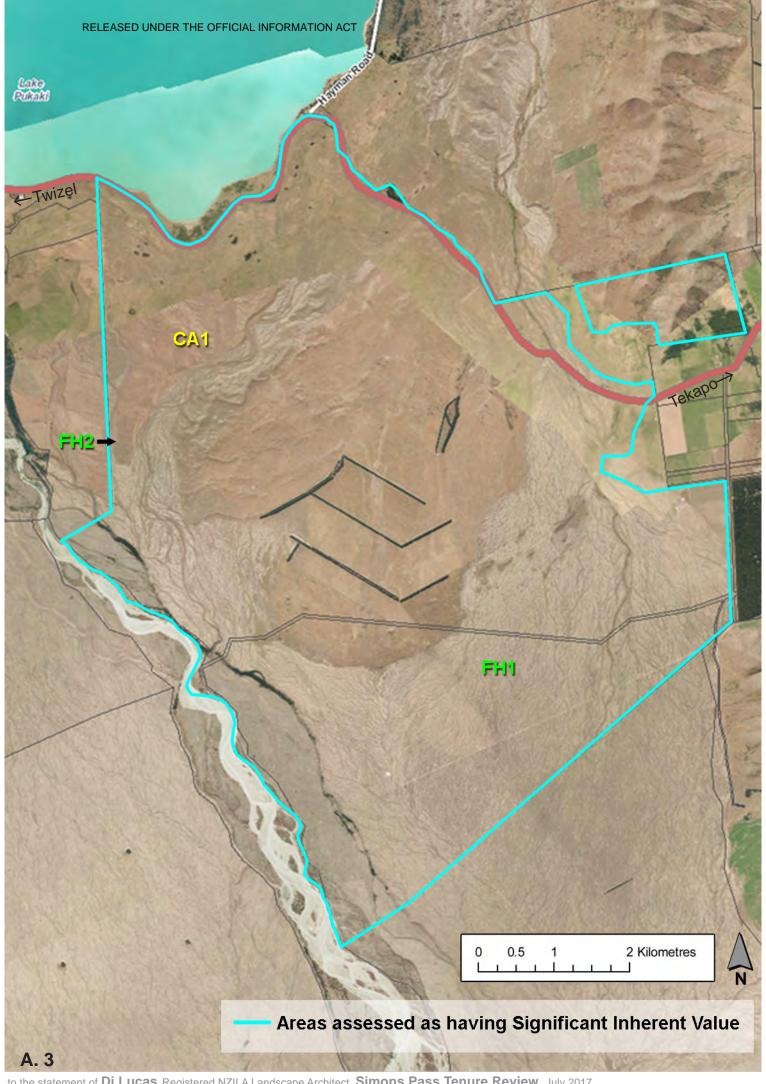
CONCLUSION & RECOMMENDATIONS

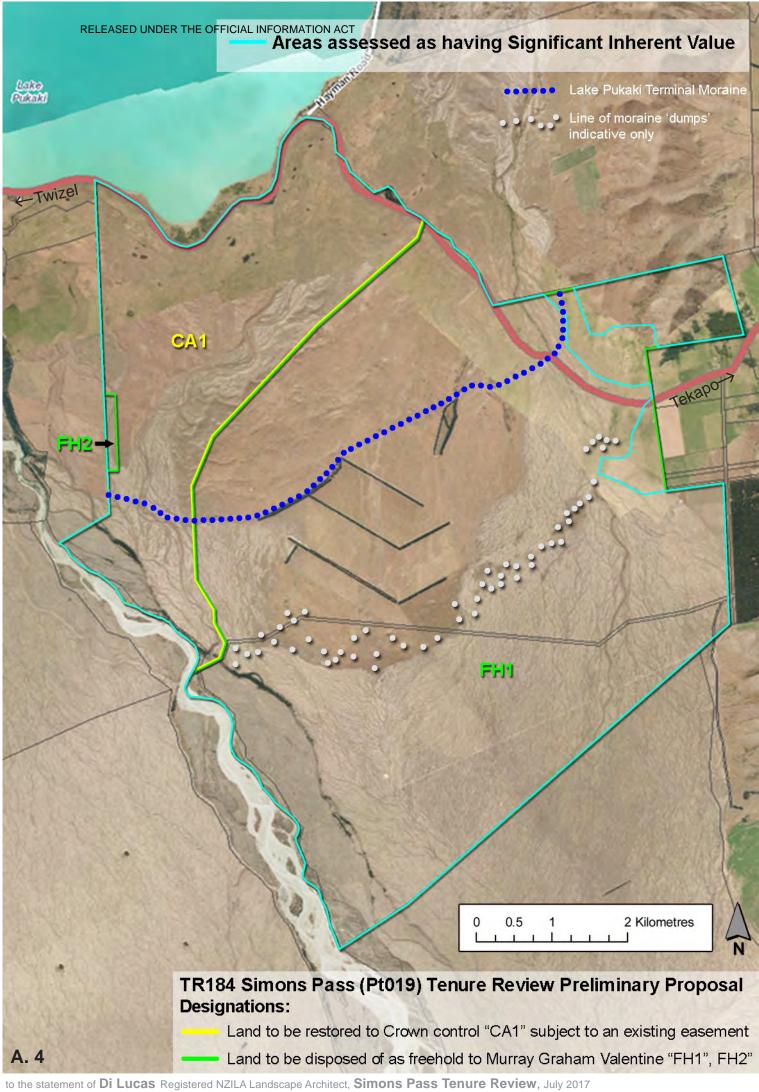
55. In my opinion, the landscape values are of such importance, nature, quality or rarity that the land deserves protection management under the Reserves Act or the Conservation Act.

Diane Lucas 18 July 2017







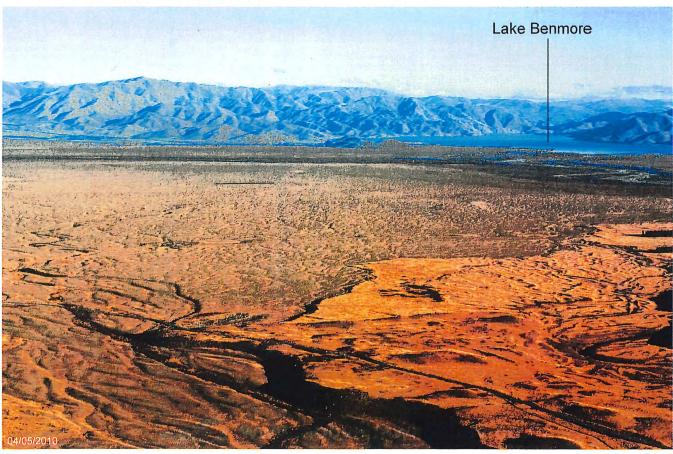


Appendix B



F. B. Schell. 1887. http://www.rootsweb.ancestry.com/~nzlscant/Schell.htm

LAKE PUKAKI.



to the statement of Di Lucas Registered NZILA Landscape Architect, Simons Pass Tenure Review, July 2017