Land Information New Zealand
Toitū te whenua

Crown Pastoral Land Tenure Review

Lease name : SIMONS PASS

Lease number : PT 019

Public Submissions – Part 2

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.

May 18

Submission 11 - Continued

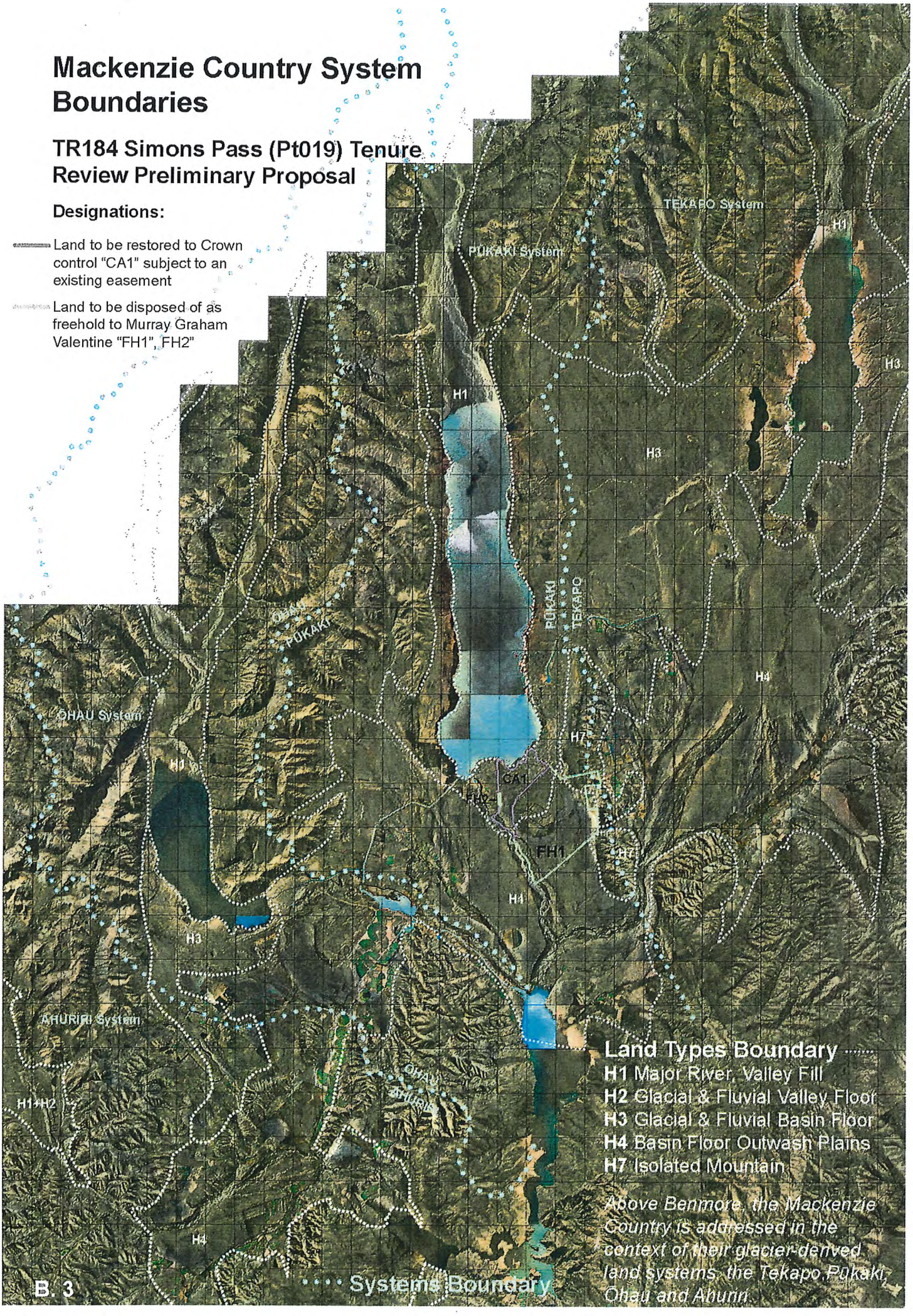
Mackenzie Country System Boundaries

TR184 Simons Pass (Pt019) Tenure Review Preliminary Proposal

Designations:

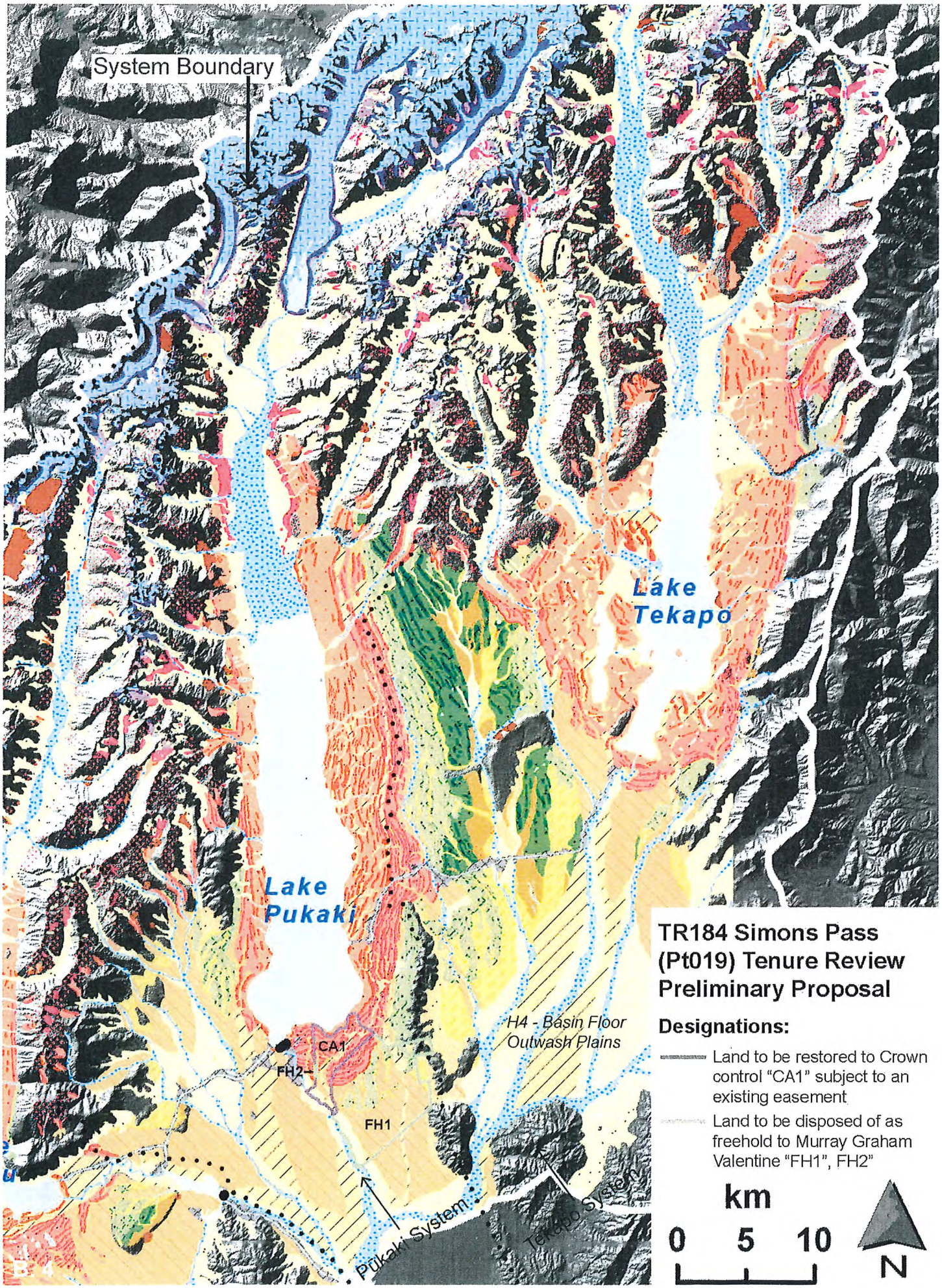
Land to be restored to Crown control "CA1" subject to an existing easement

Land to be disposed of as freehold to Murray Graham Valentine "FH1", FH2"



Appendix B

Geomorphology Map overlain with Tenure Review Preliminary Proposal



Legend

Upper Waitaki catchment perimeter
Hydro-electric dam

General morphologic units

Glacier
Human-modified landforms
Gully
Lake, pond or canal
Active river plain
Kettle hole
Landslide terrain
Ice-trimmed bedrock
Fluvial channel in bedrock

Geomorphic units (post-glacial)

Holocene alluvial fan
Holocene alluvial plain or terrace
Swamp or abandoned lake bed
Holocene beach ridge
Holocene rock glacier
Historic moraine (<150 yrs)
Historic moraine ridge (<150 yrs)
Holocene moraine
Holocene moraine ridge
Late-Glacial outwash surface (Birch Hill)
Late-glacial moraine (Birch Hill)
Late-glacial moraine ridge (Birch Hill)

Geomorphic units (Late Otira Glaciation)

Tekapo/Mt John alluvial plain or terrace
Tekapo/Mt John alluvial fan
post-Tekapo lake bed
post-Tekapo beach ridge
Tekapo outwash surface
Tekapo moraine
Tekapo moraine ridge
Mt John outwash surface
Mt John moraine
Mt John moraine ridge

Geomorphic units (Early Otira Glaciation and older)

Balmoral outwash
Balmoral moraine
Balmoral moraine ridge
Wolds outwash
Wolds moraine
Wolds moraine ridge

Bedrock terrain

(no colour)

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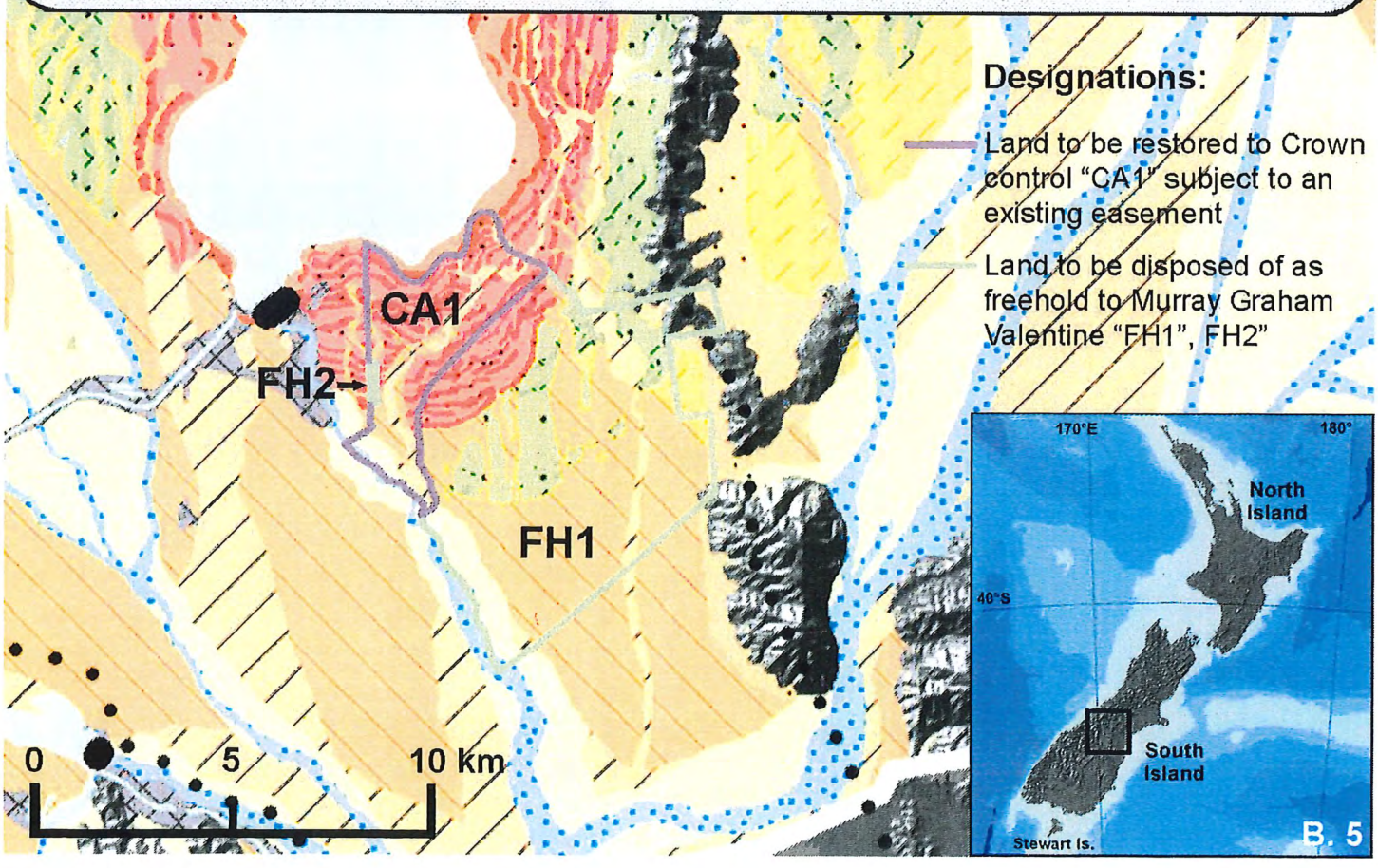
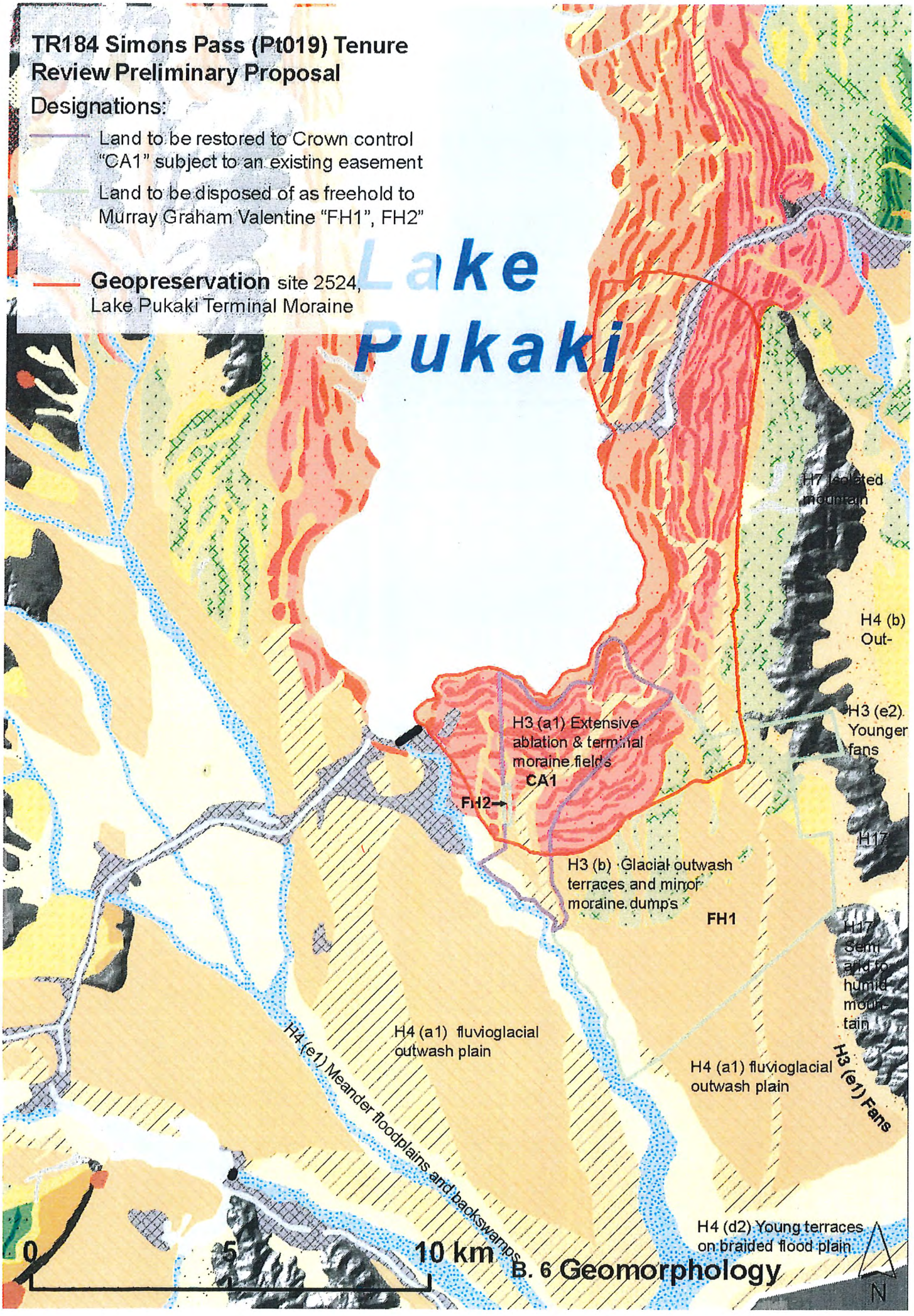
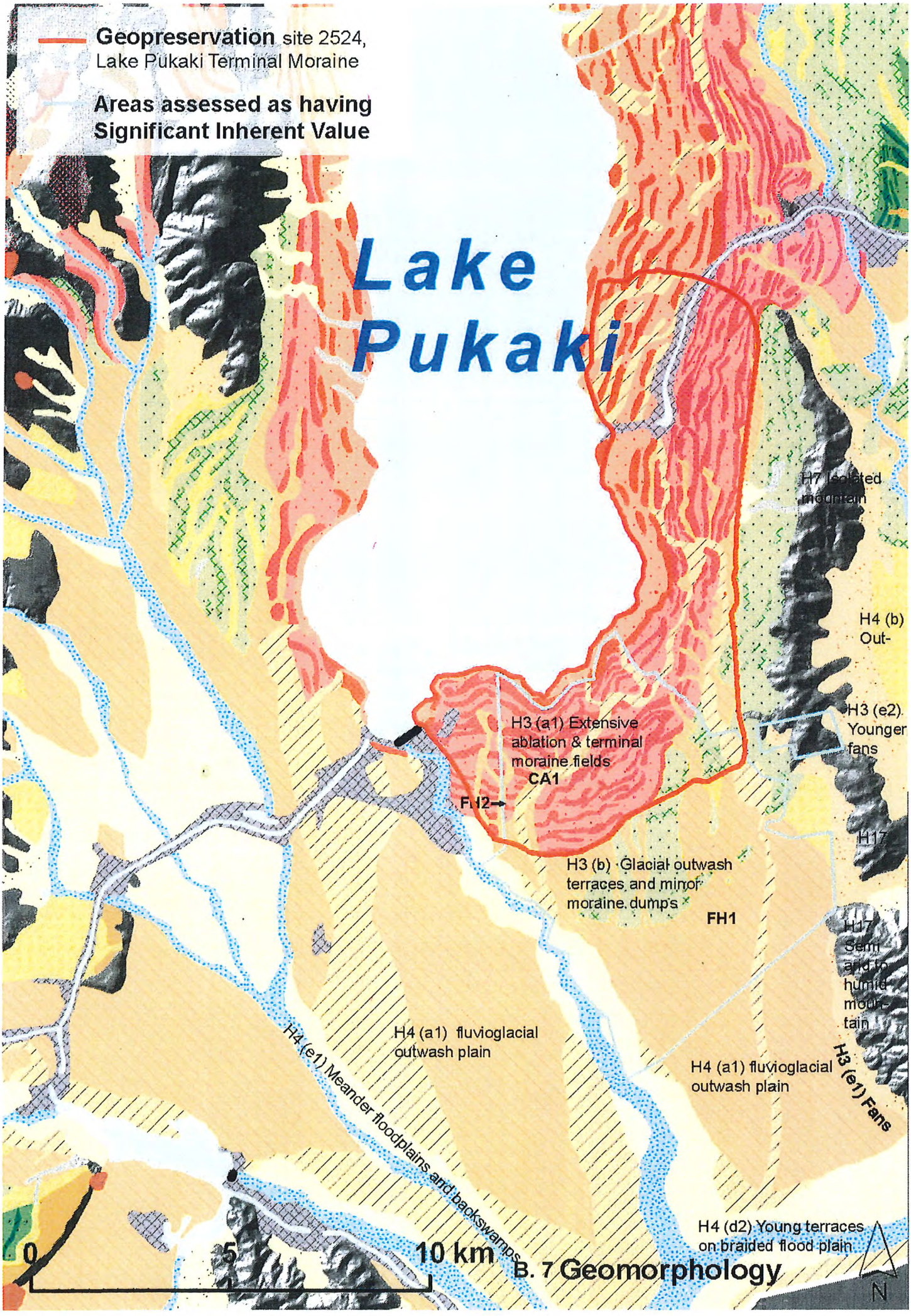


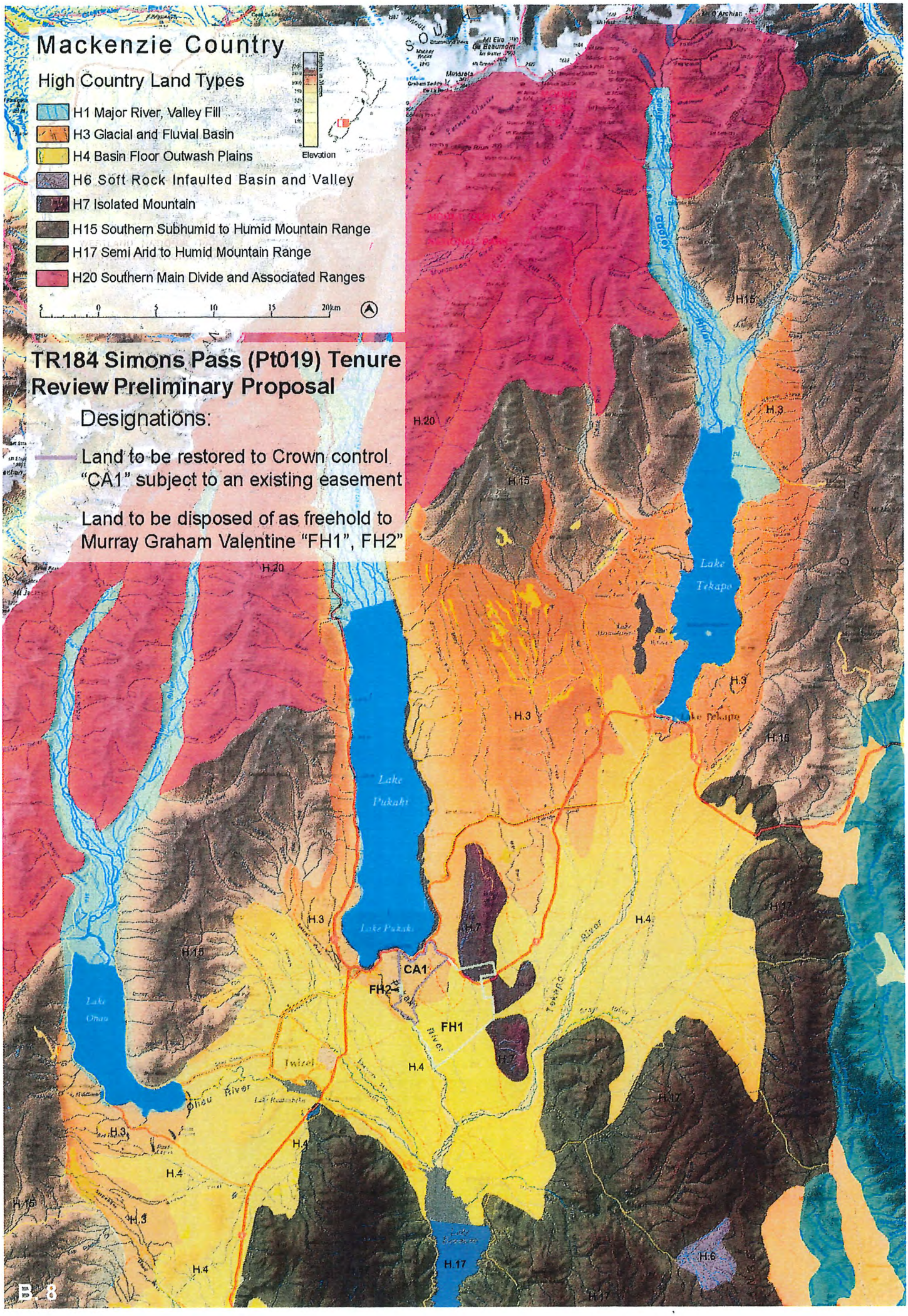
B. 5

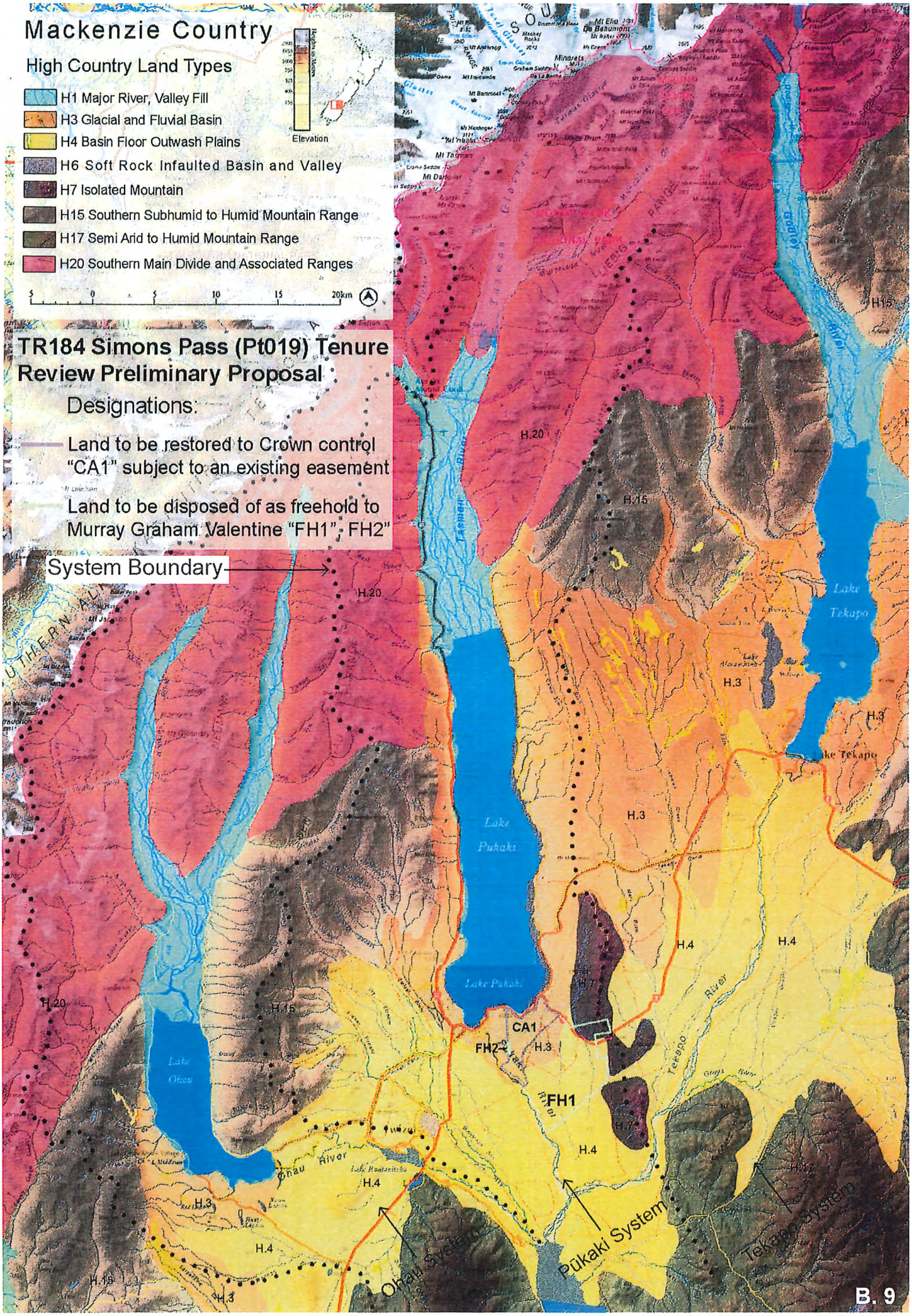


B. 6 Geomorphology



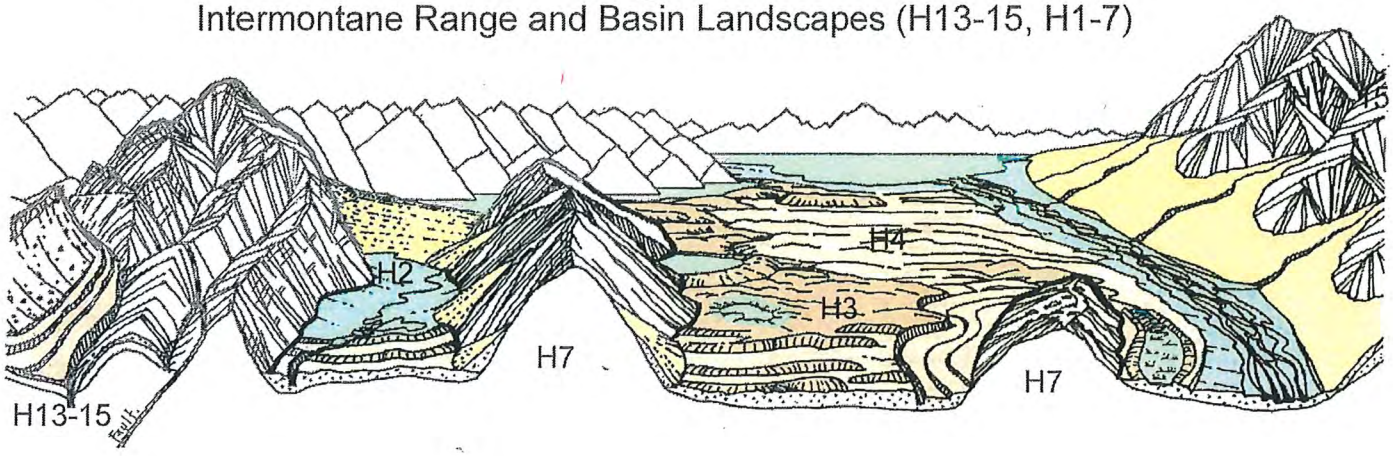
B. 7 Geomorphology

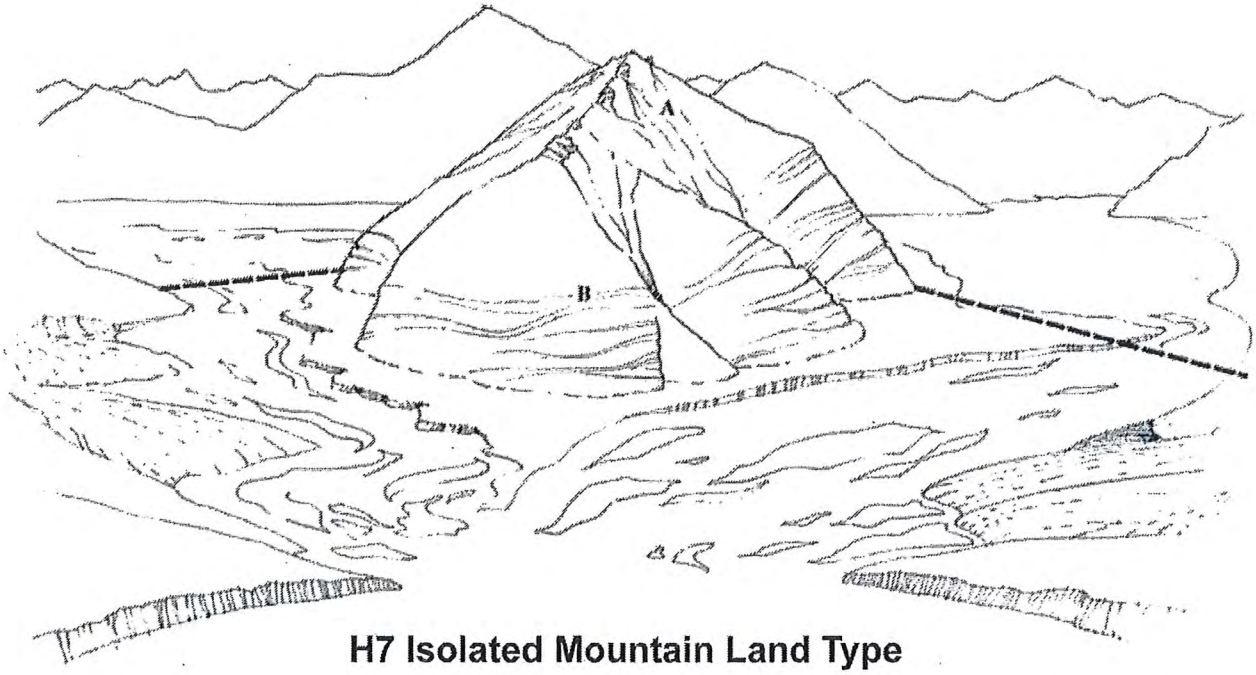




8 Intermontane Ranges & Basin

Intermontane Range and Basin Landscapes (H13-15, H1-7)



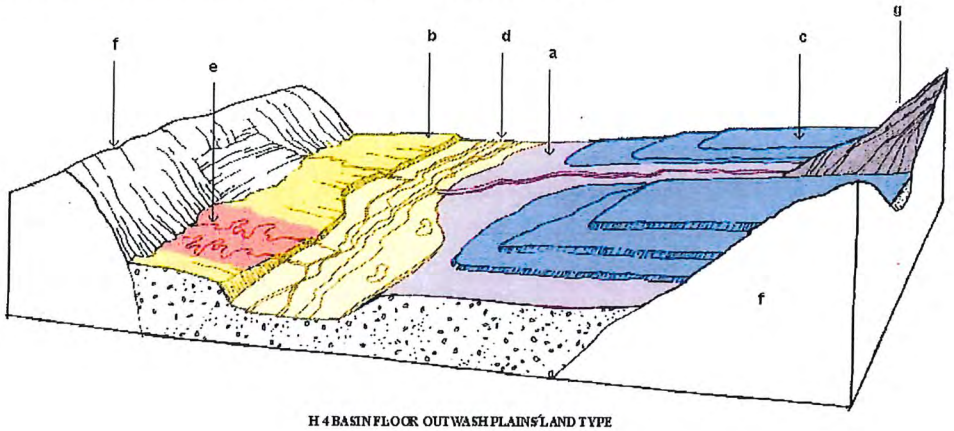


H7 Isolated Mountain Land Type

Steep to very steep, ice scoured, isolated mountain blocks, up to 1830 m, nested within the glacial and fluvial valley floor or basin land types; rock outcrop and scree are common at higher elevations, lower steep to very steep often rectilinear slopes have been scoured by past glacial activity, higher summits currently undergo moderate periglacial processes. Elevation ranges from 280 to 1830 m and rainfalls between 560 and 2600 mm pa. Vegetation ranges from short tussock with manuka - kanuka scrub, dense sweet brier, fernland, semi improved pasture on the drier more easterly examples, eg. Mt Iron, to beech forest and short tussock with dense fernland in the wetter west, giving way up slope to snow tussock grassland, alpine scrub, and fellfield vegetation on the higher summits. Example locations include Mt Alfred.

landform component	geological formation	elevation m	remnant native vegetation	present land use
A upper mountain slopes, and summits (> 1100 m)	Haast Schist Group schist of t.z. IIA to t.z. IV	1100 - 1830	snow and alpine tussock grassland; subalpine scrub; fellfield and scree vegetation	extensive grazing, conservation land
B lower mountain slopes (< 1100 m)	Haast Schist Group schist of t.z. IIA to t.z. IV, colluvium, and minor glacial till	280 - 1100	short tussock grassland with matagouri, manuka and broadleaved scrub and fern; beech and mixed hardwood forest	semi-intensive and extensive grazing, recreation, conservation land

H4 Basin Floor Outwash Plains Land Type (Outwash Plains)

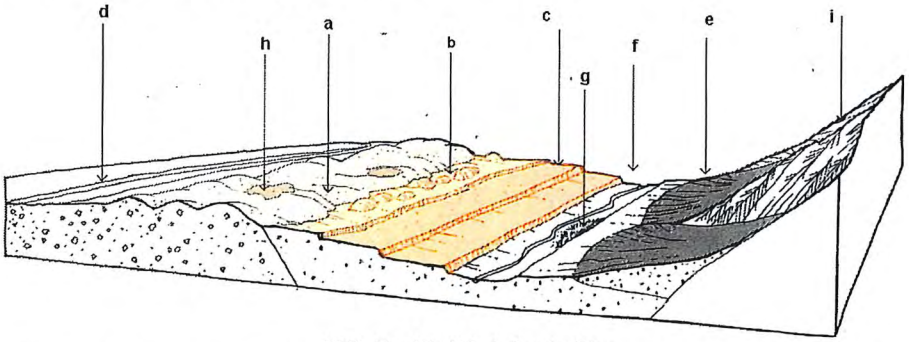


H 4 BASIN FLOOR OUTWASH PLAINS LAND TYPE

Basin floor fluvioglacial outwash plains, terraces, piedmont fans, braided and meandering floodplains, and backswamps etc, and associated low hard rock ranges, and minor soft rock hills. Elevation ranges from 350 to 1400 m, with the balance below 600 m, and rainfalls between 430 and 850 mm/A. The land type includes parts of the Waitaki basin.

landform component	geological formation	elevation m	remnant native vegetation	present land use	agronomic potential	potential land use	potential impacts
(a) fluvioglacial outwash plains	Pleistocene and late Pleistocene outwash gravels	360 - 700	short tussock and matagouri scrub	extensive grazing	low	understory grazing conservation forestry	management dependant decrease tussock cover, increase in hieracium and exotic grass
(b) outwash terraces	late Pleistocene outwash gravels some loess	350 - 900	short tussock and matagouri scrub	extensive grazing	low to medium	semi intensive grazing, exotic forestry	increase in exotic pasture and trees, forestry
(c) piedmont fans	Pleistocene and late Pleistocene fan alluvium, some loess	360 - 900	short tussock and matagouri scrub	extensive grazing	low to medium	semi intensive grazing, exotic forestry	increase in exotic pasture and trees, fencing
(d) braided floodplains	Holocene fluvial deposits	380 - 970	Raoulia cushion fields, moss tussock gravel fields	extensive opportunist grazing	low	extensive opportunist grazing	largely a habitat environment, exotic river bed plants and weed establishment
(e) meander floodplains and backswamps	Recent alluvium and swamp deposits	350 - 970	wetlands, sedge, reed, and rushlands, red tussock, raupo	extensive grazing	high	intensive grazing feed cropping	increase in exotic pasture, drainage, cultivation, fencing, decrease in wetland vegetation
(f) low hard rock ranges	Torlesse Group sandstones and siltstones	610 - 1400	short tussock, matagouri scrub and fern	extensive grazing	medium to low	semi intensive grazing, exotic forestry	increase in exotic pasture, fencing, tracking, exotic forest, decreased tussock and scrub
(g) minor soft rock hill slopes	tertiary non marine gravels	500 - 900	short tussock, matagouri scrub and fern, broadleaved scrub	extensive grazing	medium	semi intensive grazing, exotic forestry	increase in exotic pasture, fencing, tracking, exotic forest, decreased tussock and scrub

H3 Glacial and Fluvial Basin Floor Land Type (Moraine Lands)



H3 Glacial and Fluvial Basin Floor Land Type

Glacial and fluvial basin floor landforms, extensive ablation and terminal moraine, and associated meltwater channels, outwash terraces, minor lakes, fans, meandering floodplains, backswamps etc, and glacial moulded hills and mountains under 1300 m. Elevation ranges from 400 to 1300 m, with the balance below 1000 m, and rainfalls between 850 and 4800 mm/A. The land type includes parts of the Waitaki basin and the mid Ahuriri valleys.

landform component	geological formation	elevation m	remnant native vegetation	present land use	agronomic potential	potential land use	potential impacts
(a) extensive ablation & terminal moraine fields	late Pleistocene moraine deposits, with loess	500 - 1200	short, red and snow tussock, matagouri and manuka scrub	extensive grazing	medium	semi intensive grazing, exotic forestry	increase in exotic pasture, shelter trees, fencing, exotic forest
(b) glacial outwash terraces and minor moraine dumps	late Pleistocene outwash gravels and moraine deposits	480 - 900	short, red and snow tussock, matagouri and manuka scrub	extensive grazing, limited intensive grazing	high	intensive grazing, feed cropping, exotic forestry	increase in exotic pasture, cultivation, cropping, shelter trees, fencing, exotic forest
(c) fluvial valley terraces	late Pleistocene outwash gravels	400 - 1000	short and snow tussock, matagouri scrub	extensive grazing, limited intensive grazing and feed cropping	high	intensive grazing feed cropping, exotic forestry	increase in exotic pasture, cultivation, cropping, shelter trees, fencing, exotic forest
(d) lake shore benches and beaches	late Pleistocene outwash deposits	400 - 760	short tussock and matagouri scrub, moss tussock gravel fields	extensive grazing	high	intensive grazing, feed cropping, exotic forestry	increase in exotic pasture, cultivation, cropping, shelter trees, fencing, exotic forest
(e) fans	late Pleistocene and Holocene fan deposits	400 - 1000	short tussock and matagouri scrub, some red tussock	intensive and extensive grazing, feed cropping, shelter trees	high	intensive grazing, feed cropping, exotic forestry	increase in exotic pasture, cropping, shelter trees, cultivation, fencing
(f) meander floodplains	Recent alluvium and swamp deposits	500 - 800	wetlands, sedge, reed, and rushlands, red tussock, raupo	extensive grazing	high	intensive grazing, feed cropping	increase in exotic pasture, drainage, cultivation, fencing, decrease in scrub
(g) valley fill swamps	Recent alluvial and swamp deposits	400 - 860	wetlands, sedge, reed, and rushlands, red tussock, raupo	extensive grazing	very high	intensive grazing, feed cropping	drainage, cultivation, increase in exotic pasture, fencing
(h) terrace and moraine backswamps	late Pleistocene outwash and Recent swamp deposits	400 – 800	wetlands, sedge, reed, and rushlands, red tussock, raupo	extensive grazing	low	semi intensive grazing	decrease in wetland vegetation by grazing, drainage
(i) erosional 'hard' rock hill slopes	Torlesse Group sandstones and siltstones	610 - 1400	short tussock, matagouri scrub and fern, beech forest	extensive grazing	medium	semi intensive grazing, exotic forestry	increase in exotic pasture, fencing, tracking, , exotic forest, decreased tussock and scrub