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Gunns Lake

This land system covers an extensive area of land around the northern part of Arthurs Lake extending to the Great Lake in the west and the Great Western Tiers in the east. Access problems made thorough sampling of the higher mountainous components difficult. The land system consists of rocky ridges, rugged mountains and undulating plains. Although it is located on the eastern edge of the study area it can experience harsh weather conditions, due to the exposed nature of much of the higher country. Both the Great Western Tiers and Sandbank Tier are frequently snow-covered in winter.

Swamps have organic soils overlying yellow brown mineral horizons which are sometimes gravelly. These support a mosaic of tussock grassland, sedgeland, open heath and cushion plants which is often referred to as bolster moorland. Uniform alluvial profiles around watercourses support closed heaths which are dominated by Leptospermum or Orltes spp. Most other components have gradational yellowish brown loamy soils which support various forest types. On flats and lower slopes where cold air tends to collect, cold tolerant species such as Eucalyptus coccifera, E. pauciflora and E. gunnii occur. E. delegatensis is common on warmer mid slope situations while E. coccifera and E. pauciflora prevail on colder exposed crests and higher slopes. Throughout the land system open heath dominates the understorey. Species common in more exposed high altitude situations include Bellendenia montana, Grevillea australis, Drimys lanceolata, Coprosma nitida, Oxylobium ellipticum and Orites revoluta. Boulder slopes may have thickets of dwarf 'elfin' Nothofagus cunninghamii scrub which often co-dominates with Leptospermum lanigerum.

Hydro-electric power generation and recreation are the most important land uses. There is a low sheet erosion hazard on slope components.



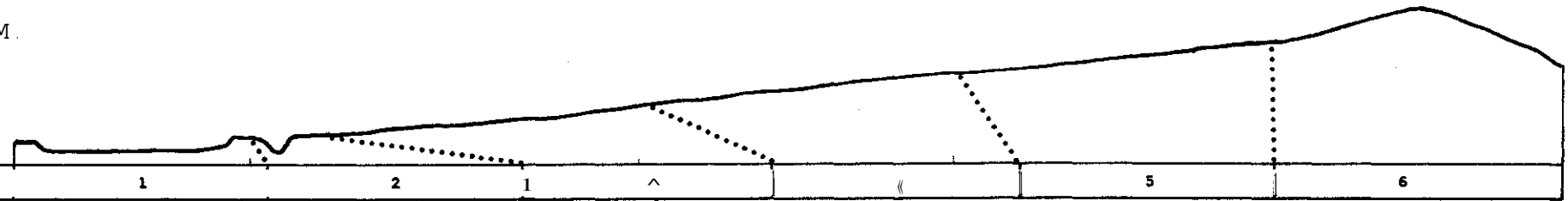
Recently burnt swampy area bordering a well drained slope, in the middle distance, with Eucalyptus delegatensis forest. The snow covered mountains (Sandbank Tiers) in the background have Eucalyptus coccifera and E. pauciflora low open woodland.

LAND-SYSEM

Gunns Lake

4 7 2 4 2 1

Area (ha) :
2 9 4 5 3



COMPONENT	1	2	1	^	«	5	6
PROPORTION(%)	15	5	1	20	20	20	20
RAINFALL (mm)	Approximate Annual Rainfall: 750-1000						
GEOLOGY	Alluvium		Jurassic dolerite			Outcrop and scree	
TOPOGRAPHY	Undulating plains/ rocky ridges; and mountains						
Position	swamps	Watercourses	Lower Slopes	Mid Slopes	Upper Slopes/Boulder Fields	Crests	
Typical Slope(°)	0-1	1	7-10	7-10	7-10	7-10	
NATIVE VEGETATION Structure	Tussock grassland/ Sedgeland/Open Heath	Open Heath	(Tall) Open Forest	Opsh Forest	(Tall) Open Forest	Low Woodland and Low Open Forest	
Floristic Association (See Appendix 1 for common names)	<u>Poa</u> sp <u>Restio australis</u> <u>Empodisma minus</u> <u>Boronia citriodora</u> <u>Epacris gunnii</u> <u>Sprengelia incarnata</u> <u>Acrotanella fraserioides</u> <u>Pterygoparis lawrensonii</u> <u>Asteria sp.</u> <u>Richea scoparia</u>	<u>Leptospermum lanigerum</u> <u>L. glaucescens</u> <u>Orites acicularis</u> <u>Boronia guooiana</u> <u>Boronia citriodora</u> <u>Pultenaea juniperina</u> <u>Bellendenkeria</u> <u>Pimelea nivea</u>	<u>Eucalyptus coccoloba</u> <u>E. pauciflora</u> <u>E. coccifera</u> <u>Hakea issosperma</u> <u>Coprosma nitida</u> <u>Pultenaea juniperina</u> <u>Pimelea nivea</u> <u>Cyatodes parvifolia</u> <u>Olearia viscosa</u> <u>Climys lanceolata</u>	<u>Eucalyptus delegatensis</u> <u>Hakea tinctoria</u> <u>Pultenaea juniperina</u> <u>Coprosma nitida</u> <u>Cyatodes parvifolia</u> <u>Lissanthe montana</u>	<u>Eucalyptus delegatensis</u> <u>E. coccifera</u> <u>Lomatia unctoria</u> <u>Olearia viscosa</u> <u>Cyatodes parvifolia</u> <u>Pultenaea juniperina</u> <u>Oxylobium ellipticum</u> <u>Nothofagus cummingsii</u> <u>Leptospermum lanigerum</u>	<u>Eucalyptus coccifera</u> <u>E. pauciflora</u> <u>E. delegatensis</u> <u>Hakea tinctoria</u> <u>H. epiglottis</u> <u>Cyatodes parvifolia</u> <u>Boronia citriodora</u> <u>Oxylobium ellipticum</u> <u>Richea acerosa</u> <u>Lissanthe montana</u> <u>Helichrysum coxii</u> <u>Grevillea australis</u> <u>Amorpha canescens</u> <u>Orites revoluta</u> <u>Epacris gunnii</u> <u>Lomatia unctoria</u> <u>weir protected gillies:</u> <u>Nothofagus cummingsii</u> <u>Lissanthe montana</u>	
SOIL Surface(A)Texture	Peat	Clayey Sand	Loam	Loam	Loam	Loam	Loam
B Horizon(subsoil) Colour (wet) Texture and primary profile form	Dark brown (7.5 YR 3/4) or dark yellowish brown (10 XR 3/6) mineral soil. Organic.	Dark brown (7.5 YR 3/4) sandy loam. Uniform.	Gravelly, stony, brown/dark brown (7.5 YR 4/4) clay loam. Gradational.	Gravelly, stony, strong brown (7.5 YR 4/6) to yellowish brown (10 YR 3/4) sandy clay loam. Gradational.	Gravelly, stony/ strong brown (7.5 XR 4/6) to yellowish brown (10 YR 3/4) sandy clay loam. Gradational.	Gravelly, stony, dark red (2.5 XR 3/6) to strong brown (7.5 YR 4/6) sandy clay loam. Gradational.	
Permeability		High	High	High	High	High	High
Typical depth(m)	0.30-0.50	>1.50	0.50	>0.30	X5.30	XJ.30	
Depth(A)Horizon(m)	0.20-0.30	0.05	0.05	0.05	0.10	0.10	
LAND USE	Hydro-electric power generation, recreation						
HAZARDS	Waterlogging		Moderate sheet erosion				