

12. LAND SYSTEM DESCRIPTIONS AND DIAGRAMS

372321

The Steppes

The Steppes Land System occurs in a localised area around the southern shore of the Lagoon of islands. It is composed of gentle terraced slopes with large swamp and lake components.

Country rock is Jurassic dolerite, soils vary from stony, gradational yellow brown loams on slopes to uniform mottled or gley clays on flats and swamps. There is a report of aeolian material (Tyler 1976) on the eastern shore of the lake. The deposit is probably similar to the wind blown sequences in the Interlaken Land System which are uniform sands.

Vegetation on the well drained components consists of tall open forests dominated by Eucalyptus pauciflora and E. coccifera, which probably reflects the effects of cold air drainage into the area from the lower plateau surface. Flats and swampy areas probably supported tussock grassland and open heath prior to clearing. Introduced pasture species are now established in these areas.

Cattle and sheep grazing are important. Stony slope components have been exploited for timber. The Lagoon of islands is an important trout fishing lake. Prior to damming it was also of great ecological significance (Tyler 1976), with its islands of floating vegetation. The stability of these islands has been deleteriously affected by the Lagoon of Islands impoundment.

Hazards include sheet erosion of a low order on the slopes, and a possibility of waterlogging in swamps and on poorly drained flats.

LAND SYSTEM

The steppes

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Area (ha):
2527

COMPONENT	1	2	3	4	5
PROPORTION (%)	30	15	20	15	20
RAINFALL (mm)	Approximate Annual Rainfall: 625-750				
GEOLOGY	Jurassic dolerite				
TOPOGRAPHY	Undulating plains with terraced slopes				
Position	Swamps	Lower Slopes	Poorly Drained Flats	Upper Slopes	Flats/Crests
Typical Slope (°)	0-1	3	1-3	3	1-3
NATIVE VEGETATION Structure	Tussock Grassland	(Tall) Open Forest	Open Heath	(Tall) Open Forest	(Tall) Open Forest
Floristic Association (See Appendix 1 for common names)	<u>Poa sp.</u> <u>Juncus pallidus</u> <u>Eucalyptus gunnii</u>	<u>Eucalyptus coccolifera</u> <u>E. pauciflora</u> <u>Banksia marginata</u> <u>Hakea epiglottis</u> <u>Lissanthe montana</u> <u>Pultenaea juniperina</u> <u>Poa sp.</u>	<u>Hakea epiglottis</u> <u>Lissanthe montana</u> <u>Acaena novae-zelandiae</u> <u>Poa sp.</u>	<u>Eucalyptus coccolifera</u> <u>E. pauciflora</u> <u>E. delegatensis</u> <u>Hakea epiglottis</u> <u>Cyathodes parvifolia</u> <u>Poa sp.</u>	<u>Eucalyptus dalrympleana</u> <u>E. amygdalina/coccolifera</u> <u>E. delegatensis</u> <u>E. pauciflora</u> <u>Banksia marginata</u> <u>Cyathodes parvifolia</u> <u>Hakea epiglottis</u> <u>Juncus pallidus</u> <u>Acaena novae-zelandiae</u> <u>Poa sp.</u>
SOIL Surface(A)Texture	Light clay	Light Sandy Clay Loam	Clay Loam	Loam	Light Clay
B Horizon (subsoil) Colour (wet) Texture and primary profile form	Mottled, black (2.5 YR N2.5/), strong brown (7.5 YR 5/6) (B1) Medium clay and (B2) Heavy clay Uniform.	Stony, yellowish brown (10YR 5/6) light clay. Duplex.	Stony, gravelly, brown (10 YR 5/3) light clay. Gradational.	Stony, gravelly, yellowish brown (10 YR 5/6) clay loam. Gradational.	Stony, dark grey (5 Y 4/1 Gley) light clay. Uniform.
Permeability	Low	Moderate-low	Moderate-low	High	Low
Typical depth(m)	>1.50	>0.40	>0.50	>0.50	>0.30
Depth(A)Horizon(m)	0.10	0.20	0.10	0.10	0.15
LAND USE	Shack development, forestry, grazing, recreation, hydro-electric power generation				
HAZARDS	Waterlogging	Low sheet erosion			Low sheet erosion