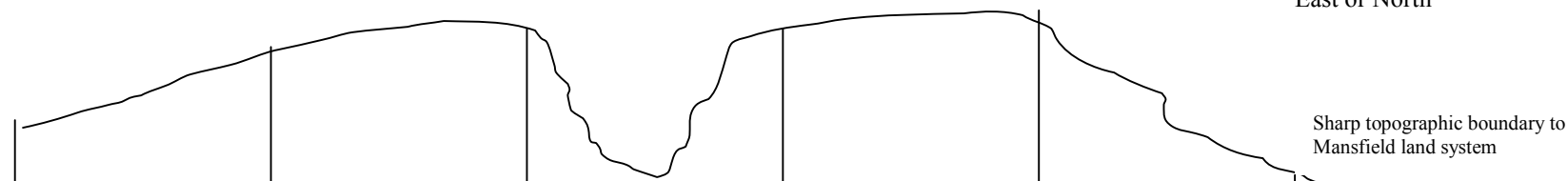


TABLE TOP LAND SYSTEM (Figure 23)

Area: 90 square kilometres
4 percent of catchment

West or South

East or North



Topography	Gentle lower slopes	Long slopes rising to table top, or plateaux of <i>Tolmie</i> land system at about 600 m elevation	Steep gully head	Table top	Steep scarp or valley side	Plain or valley bottom at about 370 m elevation.
Climate	Average annual rainfall from 760 mm to 900 mm. Growing season: March-May and September-November. Estimated average temperatures: Jan 2°C; July 6°C; Year 13°C. Estimated evapotranspiration: Jan 115 mm; July 18 mm; Year 660 mm.					
Parent Materials	Carboniferous age sedimentary rocks and materials derived from them.					
	Rock and redeposited soil material	Rock and redeposited soil material as a slope mantle	Rock	Rock some redeposited soil material.	Rock	Rock and redeposited soil material.
Soils	Yellowish duplex and weakly bleached gradational soils.	Yellowish duplex soils, usually with deep, pale A horizon	Stony loams or weakly bleached gradational soils; some yellowish duplex soils on benches	Yellow duplex soils	Stony loams or weakly bleached gradational soils, some yellowish duplex soils on benches	Gilgaid yellowish duplex soils; pale gradational soils
Vegetation	Woodland of red gum	Woodland to short open forest of long-leaf box with some red box	Long-leaf box and broad-leaf peppermint	Short open forest of long-leaf box, broad-leaf peppermint, yellow box, red box and red stringybark.	Long-leaf box.	Woodland of red gum and yellow box.
Land Use	Partly cleared, sheep grazing.	Partly cleared, largely undeveloped; sheep grazing on native pastures.	Ringbarked; or partly cleared; sheep grazing	Mostly cleared; little improvement; sheep grazing	Ringbarked or burnt, partly cleared; sheep grazing	Mostly cleared, sheep and cattle grazing.
Erosion Hazard		Generally high because of long slopes and erodible soils.	High	High	High	Moderate to low
Erosion Status	Generally sound.	Generally sound, some gully erosion.	Sheet erosion; some tunnel erosion.	Generally sound	Sheet erosion, tunnel erosion.	Generally sound
Potential Land Use	Grazing on improved pastures	Grazing on improved pastures.	Protection. Rabbit control; careful management to maintain ground cover.	Grazing on improved pastures.	Protection. Rabbit control; careful management to maintain ground cover.	Grazing on improved pastures.

TABLE-TOP LAND SYSTEM

(See Fig. 23)

Slopes and flat-topped ridges of Carboniferous Age sedimentary rocks, generally between the Tolmie and Mansfield land systems, have been named the Table-Top land system. The area within the catchment is 90 square kilometres (4 per cent) of which most is in the area around Table-Top township.

Although the rock is the same as that of the Mansfield land system, the Table-Top system differs from it in that it has a more dissected topography, is higher, and because of this has a moister, cooler climate, and different vegetation and soils. The rugged topography results from the deep incision of streams into the gently-dipping, massively-bedded Carboniferous sediments. The lower slopes adjoining the Mansfield land system are gentle, and in this area the land system boundary is based on climate. Longer and steeper slopes rise to the table-tops and ridges of the Tolmie area at about 600 m elevation. The gully sides and heads between the table-tops are very steep and are often stepped with much outcropping rock.

The average annual rainfall is about 750 mm to 900 mm with winter the wettest season. The growing season may be expected to extend from the autumn break in March through to May, when low temperatures restrict plant growth, and from September to November, when soil moisture becomes a limiting factor. Winters are usually cold, and frosts may be severe. Average temperatures are estimated for January at 20^oC and for July at 6^oC.

The vegetation is a woodland of long-leaf box with a few red box, yellow box, red stringybark and, in the wetter gullyheads, broad-leaf peppermint. The higher end of the table-tops give way to the Tolmie Plateau via a belt of narrow-leaf peppermint with candlebark gum. Overall however, long-leaf box is the characteristic tree of the land system.

The flatter areas, including the long slopes, tabletops and benches on steep gully-heads, all have yellowish duplex soils. The steeper areas have undifferentiated stony loams or reddish weakly-bleached gradational soils developed on the red rocks. The duplex soils are seldom gilgaied, and have very deep, pale A-horizons. They are very susceptible to slumping and gully erosion. At higher elevations the soils grade into the reddish and yellowish duplex soils of the Tolmie land system.

At present the land system is only partially cleared and is largely undeveloped. It is mainly used for sheep grazing on unimproved native pastures. There is a fairly large proportion of ringbarked or partly cleared country and the steep slopes, although seldom cleared, are heavily grazed and in fairly poor condition. The less grazed areas of the land system have a reasonably high potential for permanent pasture. They possess a more favourable climate than adjacent, more developed areas, and there seems to be no reason why they should not be more highly developed. The steep side slopes are largely unused and probably cannot be used economically. The erosion hazard is fairly high throughout the land system, even on the more gentle slopes, because of the nature of the soils.

The land system is not very significant as a water source area because the rainfall is only moderate and the evaporation is fairly high. However, it does contribute a good deal of sediment to the Broken River, and is also the source of a large portion of the flash runoff to the tributaries in this area. Both these detrimental features can be ascribed largely to the present poor condition of the land within the area.

Although this is a difficult area with a high erosion hazard, rugged terrain and economic problems, much of it could be safely developed-preferably on permanent pastures for grazing. It has a more reliable climate than the lower country, and the soils should be suitable for useful pasture production. The present low standard of development can be attributed to its remoteness and lack of access. Control of rabbits would be of prime importance but may be difficult because of the rugged topography.

Many of the steeper areas should not be grazed by sheep. Such areas represent a very small proportion of the total grazing area. They are grazed at present, mainly because of lack of suitable subdivisional fencing. Many of the problems of the area will be reduced as property development and management improve.

To improve the catchment efficiency the erosion in the area should be controlled. The incidence of storm runoff could be reduced by keeping a long grass cover on the steeper slopes. This can only be achieved by controlling grazing on slopes, which is in turn dependent on adequate fencing. Runoff from the table-tops and long slopes should not cause problems, provided the area is maintained under good improved pastures. The poor catchment conditions in this area are clearly responsible for the poor channel conditions in the tributary streams draining to the upper Broken River. This is one of the few areas which is an undoubted flood source in the Broken River catchment. It's total area is small and consequently its effect on the stream system as a whole must be limited, however erosion of the stream bed, initiated in these tributaries, may well spread into sound reaches of the main drainage system.