

# Frontal dunes



## Landform

Dunes and lunettes on lake fringes, plains.

## Woody vegetation

Low open woodland of sally wattle, ironwood and beefwood on lake-fringing dunes. Other species that may occur in the mostly sparse tree layer include gidgee, ghost gum, Reid river box, gundabluie, woodland paperbark, currant bush, blackwood, false sandalwood and bauhinia. Often sparse ground layer.

## Expected pasture composition

\* Denotes non-native "Expected Pasture Composition" species.

### Preferred

Marine couch, buffel grass\*.

### Intermediate

Purpletop chloris\*, lovegrasses (e.g. purple), five-minute grass.

### Non-preferred

Wiregrasses (e.g. dark, many-headed, Jericho).

### Common forbs

Sedges.

## Suitable sown pastures

Buffel grass; Shrubby stylo on lighter, sandier soils.

## Introduced weeds

Parkinsonia.

## Soil

Deep sandy soils or sandy topsoil over saline grey clays.

### Description

**Surface:** Loose; **Surface texture:** sandy; **Subsoil texture:** sandy or light to moderate grey clays.

### Water availability

Low

### Rooting depth

Shallow

### Fertility

Low; low nutrient status.

### Salinity

High when nearer the lakebeds.

### Sodicity

Variable

### pH

Neutral, moderately acid or alkaline.

**Long-term carrying capacity information (A condition)**

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 464 – 489 mm				
Pasture type	Median tree cover  (TBA m <sup>2</sup> /ha) (FPC %)	Median annual pasture growth  (DM kg/ha)	Safe annual utilisation pasture growth  (%)	LTCC  (ha/AE)
Native species	0 TBA/FPC	810 - 840	15%	23 - 24
	4 TBA 10FPC	440 - 510	15%	38 – 44

**Enterprise**

**Land use and management recommendations**

**Land use limitations**

**Conservation features and related management**

Breeding

- Suitable for grazing of native pastures. Capable of low pasture growth.
- Any cover of trees, shrubs, grass or annual forbs is beneficial to the stability of the fragile pockets within this land type.
- While some of the sandy soils can grow buffel, there are also areas of sandy topsoils over saline heavy clays which have little production and are fragile.
- High erosion hazard. Prone to wind erosion, limited sheet and rill erosion due to high soil permeability.
- The beach-ridge and dune formation of Lake Buchanan is a most unusual and unique geomorphological feature that occurs in the semi-arid tropical zone of Australia. Its sequence of parallel beach ridges and silty lakebed layers has the potential to help unravel the wet and arid climates of the past. The delta formations along the lake margin and the diverse range of insect, rotiferal and crustacean species in the mud and briny waters of the lake are also unique.
- *Lawrenzia buchanensis* (Lake Buchanan bluebush), a small shrub listed as vulnerable, is restricted to sandy areas adjacent to Lake Buchanan. Herbfields and low shrublands of fringe rushes, samphire, lovegrasses and other salt tolerant species occur on low sand plains adjacent to Lake Buchanan. The shallow sand surfaces overlay sodic clays and a calcrete hardpan.
- Wildlife populations are sparse, but those species that occur have unusual or restricted distributions (e.g. short-tailed mouse, centralian blue-tongued lizard). Some wetland bird species use these areas for nesting.
- The prime objective for the sandy dunes around Lake Buchanan, Lake Dunne and Lake Galilee is to stabilise the dune formations by maintaining ground cover. These ecosystems are 'endangered' because of their limited extent and the adverse impacts of high total grazing pressure.
- Additional fencing and watering points may be needed to control stock numbers and the length of time spent grazing these sensitive areas. Overgrazing can reduce or remove the low bushes and shrubs that would otherwise provide protection for small ground fauna and nesting birds.
- In previously cleared areas, a little gidgee regeneration could be encouraged to provide some wind protection and habitat for wildlife around the lakes.

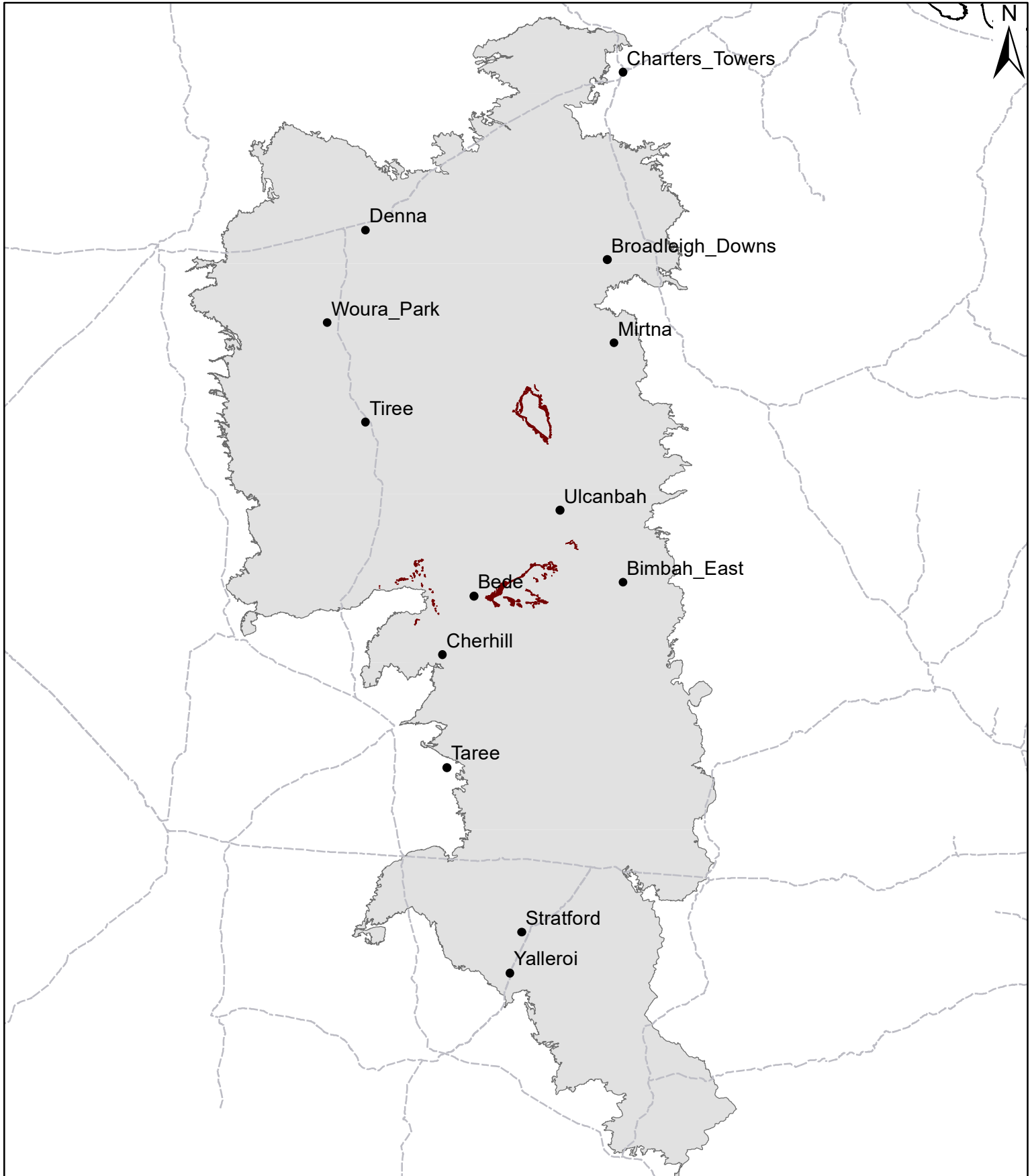
**Regional Ecosystems**

10.3.17a-b, 10.3.19, 10.3.20, 10.3.21, 10.3.22e-f, 10.3.29a.

**DUSLR project land units**

LB1, LB2, LB4, LG6, LH1, LH2.

# DU06 Frontal dunes



Area of land type in region: 0.2%  
Median rainfall (region): 400 – 608 mm  
Average rainfall (region): 440 – 679 mm  
Area of land type with FPC: 62%  
Median FPC: 10%  
Median TBA: 4 m<sup>2</sup>/ha



**Queensland  
Government**