

Brigalow melonhole plains



Landform	Flat to gently undulating plains.
Woody vegetation	Brigalow and belah scrub with black tea tree in low lying areas. Occasionally an understorey of wilga, false sandalwood or limebush. Higher proportions of belah indicate lighter clay surface soils and often larger, rolling melonholes. Brigalow/tea tree mix indicates heavier soil surface conditions.
Expected pasture composition	<i>* Denotes non-native "Expected Pasture Composition" species.</i>
Preferred	Queensland bluegrass, brigalow grass, forest bluegrass, shot grass, paspalum* and early spring grass.
Intermediate	Pitted bluegrass, fairy grass, Warrego summer grass, curly windmill grass, beetle grass and weeping panic. Umbrella canegrass in melonholes.
Non-preferred	White speargrass, green couch.
Common forbs and legumes	Mueller's saltbush, climbing saltbush, New Zealand spinach and Sesbania pea. Non-preferred species include dog and galvanised burrs, budda pea, sedges, stinkgrass* and soft roly poly.
Suitable sown pastures	Bambatsi and Angleton bluegrass (Floren) will stand some waterlogging. Creeping bluegrass, Gatton panic, Rhodes grass (Katambora types) and buffel grass on the western belah type clay/loams. Medics (barrel, button and spineless burr), Caatinga stylo, desmanthus and leucaena (soils >120 cm).
Introduced weeds	Lippia, mother-of-millions, prickly pear, tree pear, tiger pear and African boxthorn.
Soil	Deep to very deep self-mulching grey to brown cracking clays with gilgai (melonholes) on the brigalow claysheet (vertosol).
Description	Surface: angular blocky structure with self-mulching surface; Surface texture: dark greyish brown or grey clays; Subsoil texture: dark grey structured clays, becoming browner with depth.
Water availability	Moderate to high; plant available water capacity (PAWC) 200 – 250 mm shallow gilgai; PAWC 100 – 150 mm deep gilgai.

Rooting depth

Fertility

Salinity

Sodicity

pH

Moderately fertile. Responds to nitrogen, phosphorus, zinc and occasionally copper.

Strongly saline at depth.

Strongly sodic at depth.

Strongly to mildly alkaline (pH 9.0 – 7.8) at surface to strongly acid (pH 4.5 –5.5) at depth. Variable with gilgai.

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 582 – 666 mm				
Pasture type	Median tree cover (TBA m ² /ha) (FPC %)	Median annual pasture growth (DM kg/ha)	Safe annual utilisation pasture growth (%)	LTCC (ha/AE)
Native species	0 TBA/FPC	2740 - 3090	30%	3.2 - 3.6
	10 TBA 25 FPC	1520 - 1790	30%	5.4 – 6.4
Sown			35%	

Enterprise

Growing and finishing.

Land use and management recommendations

- Use improved pasture species capable of handling limited periods of waterlogging, particularly in the melonholes.
- Sulphur required to maintain sown pasture species.

Land use limitations

- Poor drainage and gilgais.
- PAWC is limited by depth to the sodic and highly saline subsoil.
- Occasional overland erosive flooding.
- Regrowth, particularly of limebush and brigalow, is a problem.
- Mechanical timber regrowth control is difficult due to the melonholes.
- Levelling will expose strongly sodic and highly saline subsoils which cause plant regrowth problems.
- While pasture growth can be good in shallow melonhole country, there tends to be little pasture growth in the bottom of deep melonholes. Water can sit in deep melonholes for a long time.

Conservation features and related management

- Conservation status of remnant vegetation is endangered.
- Specific habitat for threatened flora species including *Xerothamnella herbacea* (Endangered) and *Eucalyptus argophloia* (Vulnerable), and the pale imperial hairstreak butterfly (*Jalmenus eubulus*).
- Larger gilgai may provide ephemeral wetland habitat.
- This regional ecosystem has been almost completely cleared and exists primarily as regrowth or isolated paddock trees of *Eucalyptus argophloia*.

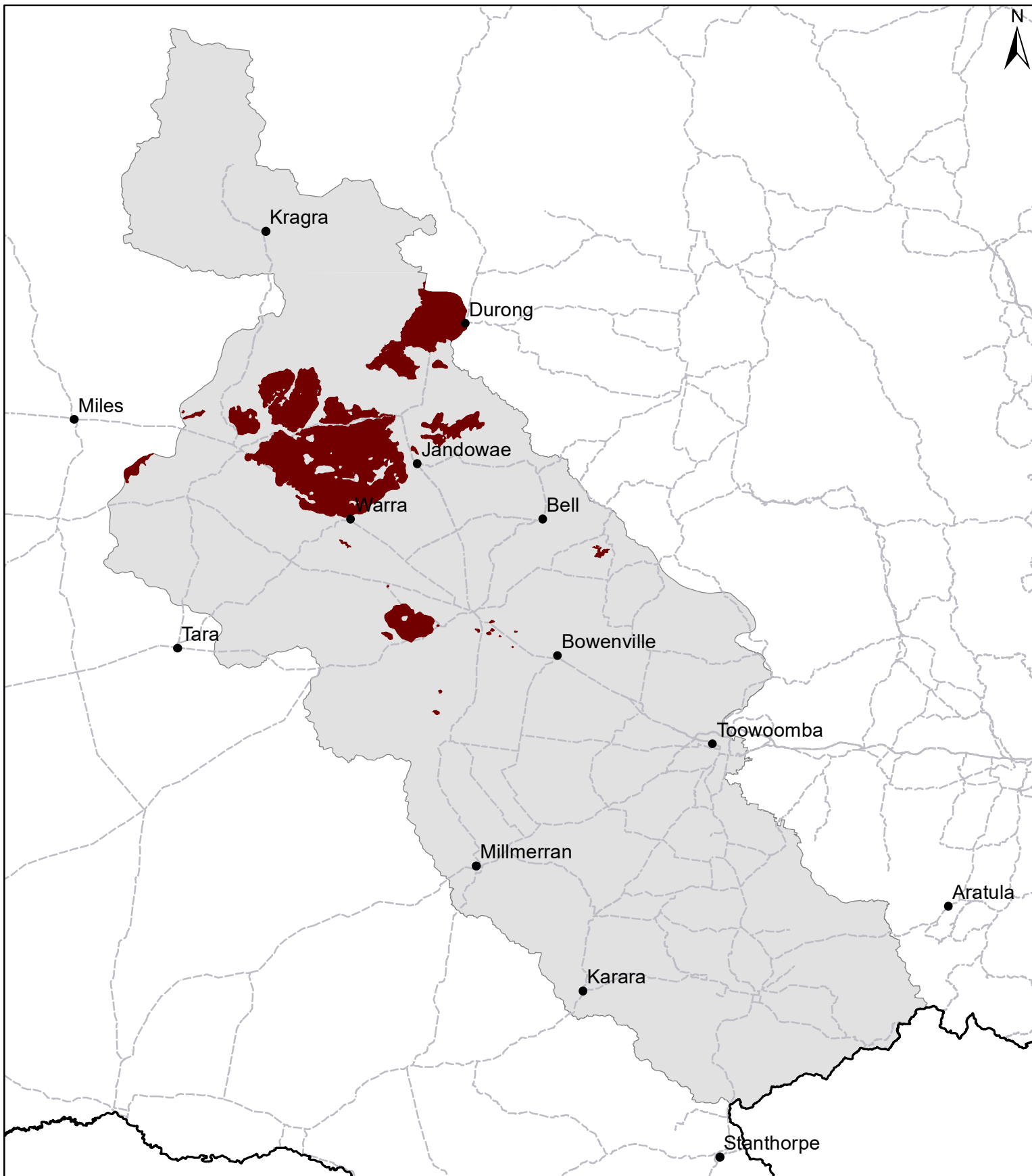
Regional Ecosystems

11.3.1, 11.4.3a

Land units; Agricultural management unit; Soil associations

Central Darling Downs Land Management Manual: 5a, 5b (*Belahville, Kupunn, Langlands, Tara*); Understanding and Managing Soils in the Murilla, Tara and Chinchilla Shires: 4a, 4b, (*Kupunn, Tara*).

DD05 Brigalow melonhole plains



Area of land type in region: 6%
Median rainfall (region): 580 – 909 mm
Average rainfall (region): 585 – 927 mm
Area of land type with FPC: 12%
Median FPC: 25%
Median TBA: 10 m²/ha



Queensland
Government