Flooded Mitchell grasslands

Photo: A1 (Jundah) Land System

General description

Flat plains adjacent to rivers and streams and higher areas between braided streams which are occasionally flooded. Open-tussock grassland, generally dominated by bull or hoop Mitchell. Generally drain internally and are adjacent to open alluvial plains and floodplains.

Landform

Flat plains adjacent to rivers and streams.

Woody vegetation

None.

Expected pasture composition

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

Preferred

Bull and hoop Mitchell grasses, Queensland bluegrass, Warrego summer grass.

Intermediate

Star grass/native millet, silky browntop.

Non-preferred

Annual grasses

Flinders grass, button grass.

Common forbs

Mint bush, cow vine, tarvine, fruit salad plant. Non-preferred species include roly poly, copperburrs, black roly poly, goathead burr.

Suitable sown pasture

None.

Introduced weeds

Parthenium, mesquite (hybrid), prickly acacia, Bathurst burr.

Soil

Deep to very deep moderately to strongly cracking brown, grey and red clays.

Description

Surface: Fine self-mulching, some crusting; ***Surface texture***: medium to heavy clay; ***Subsoil texture***: medium to heavy clay.

Features

Some seasonal scalding and weak gilgai formation. Calcium carbonate throughout profile with gypsum present at depth.

Water availability

Moderate to high.

Rooting depth

Deep >1 m.

Infiltration

High initially on a dry soil profile, slowing to moderate levels after 50 mm of rain as cracks close and to low levels after 75–100 mm of rain. Estimates based on low to moderate intensity storm rain. Good soaking rain or flooding required to wet up the soil profile.

Fertility

Moderate to high.

Salinity

Non-saline

Sodicity

Non-sodic at surface; sodic to strongly sodic at depth.

pH

Alkaline throughout profile.

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 391 – 473 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	940 - 1870	22%	7 - 14
	3 TBA 8 FPC	540 - 1100	22%	12 – 25

Enterprise

Breeding, wool production and opportunistic fattening after seasonal flooding.

Land use and management recommendations

- Good grazing capacity.
- Intermittent flooding provides the greatest pasture production.

Land use limitations

- Lack of shade and browse trees.
- Prone to some scalding.
- Heavier clay soils require 75–100 mm of rain, or flooding, for Mitchell grasses to grow.

Conservation features and related management

- Gilgai areas are potential breeding habitat for burrowing frogs.

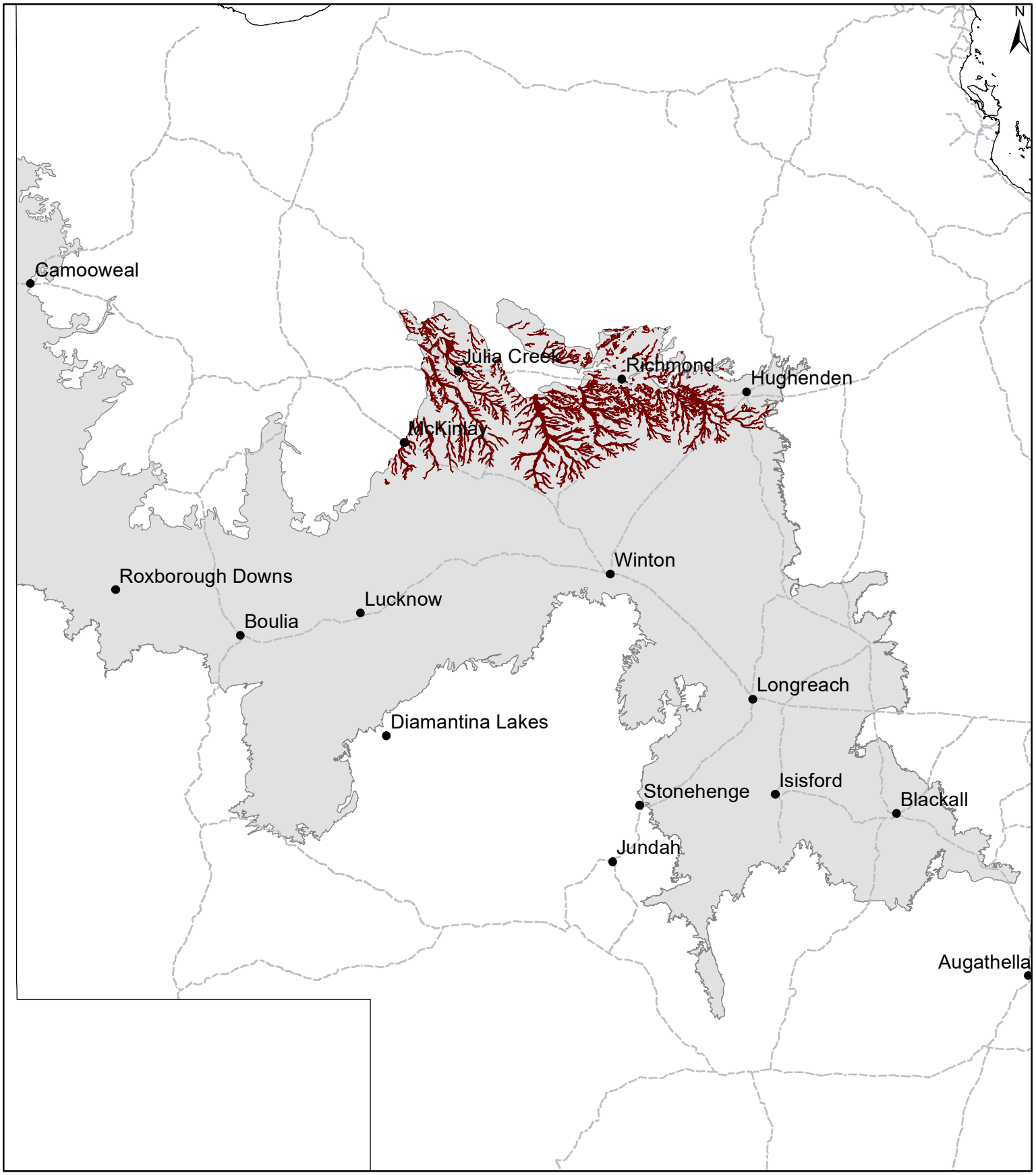
Regional Ecosystems

4.3.15.

WARLUS land systems

I	II	III	IV	V	VI
	A1, areas of A5		A1	areas within A1, A3, A4	areas within A1, A2

MGD04 Flooded Mitchell grasslands



Area of land type in region: 2%
Median rainfall (region): 233 – 494 mm
Average rainfall (region): 253 – 533 mm
Area of land type with FPC: 9%
Median FPC: 8%
Median TBA: 3 m2/ha

Queensland Government