

Ashy downs



Photo: F1 (Allaru) Land System

General description

Gently undulating very open Mitchell grass plains on heavily cracking clay, ashy soils often with mimosa bush conspicuous along drainage lines. Can be dominated by sparse forbland or annual grassland. Generally drain into open alluvial plains and adjoin open downs, wooded downs or gidgee woodlands.

Landform

Gently undulating plains.

Woody vegetation

Mimosa bushes in minor drainage lines and occasionally gundabluie.

Expected pasture composition

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

Preferred

Mitchell grass, Queensland bluegrass, finger panic.

Intermediate

Star grass/native millet.

Non-preferred

Hairy ribbon grass, feathertop.

Annual grasses

Flinders grass, button grass, downs couch, pepper grass.

Common forbs

Native legumes (e.g. glycine, rhynchosia, peabush), lamb's tongue, daisy burr, wild carrot, sida, annual verbine, tarvine, cow vine, pigweed, speedy weed, paper rose, spurge. Non-preferred species include black roly poly, goathead burr, copperburrs, roly poly.

Suitable sown pasture

Mitchell grass.

Introduced weeds

Parthenium, mesquite (hybrid), prickly acacia, Bathurst burr, florestina, spiked malvastrum, parkinsonia along drainage lines.

Soil

Deep grey and brown, strongly self-mulching cracking clays with ashy surface. Derived from predominantly salt water mudstone sediments.

Description

Surface: Strongly self-mulching; **Surface texture:** heavy clay; **Subsoil texture:** heavy clay.

Features

Large cracks are prevalent during dry periods. Calcium carbonate nodules and or gypsum occur at depth. Soils are weakly gilgaied with occasional scattered stone.

Water availability	Moderate to high.
Rooting depth	Deep
Infiltration	High initially on a dry soil profile, slowing to low levels after 25–30 mm of rain as the surface seals. High runoff following 30 mm of rain. Good soaking rain required to wet the soil profile. Estimates based on low to moderate intensity storm rain.
Fertility	Moderate
Salinity	Non-saline at surface, increasing to high to very high values with depth.
Sodicity	Non-sodic at surface; subsoils often sodic.
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 291 – 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	380 - 1970	22%	7 - 35
	3 TBA 8 FPC	270 - 1490	22%	9 - 49

Enterprise

- Breeding, fattening and wool production.

Land use and management recommendations

- Suitable for grazing of native pastures.
- Rotational wet season spelling to maintain perennial pasture composition.
- Maintain adequate ground cover to minimise soil erosion.

Land use limitations

- Lack of shade and browse trees.
- Soils are highly dispersive with a high risk of erosion on steeper slopes (>3%).
- Heavier clay soils require 75–100 mm of rain for Mitchell grasses to grow.
- Seasonal scalds may occur at the base of slopes and adjacent to the alluvial soils of watercourses.

Conservation features and related management

- Maintaining groundcover and tussock structure is important for crack-dwelling marsupials and reptiles e.g. dunnarts, planigales and Collett's snake.

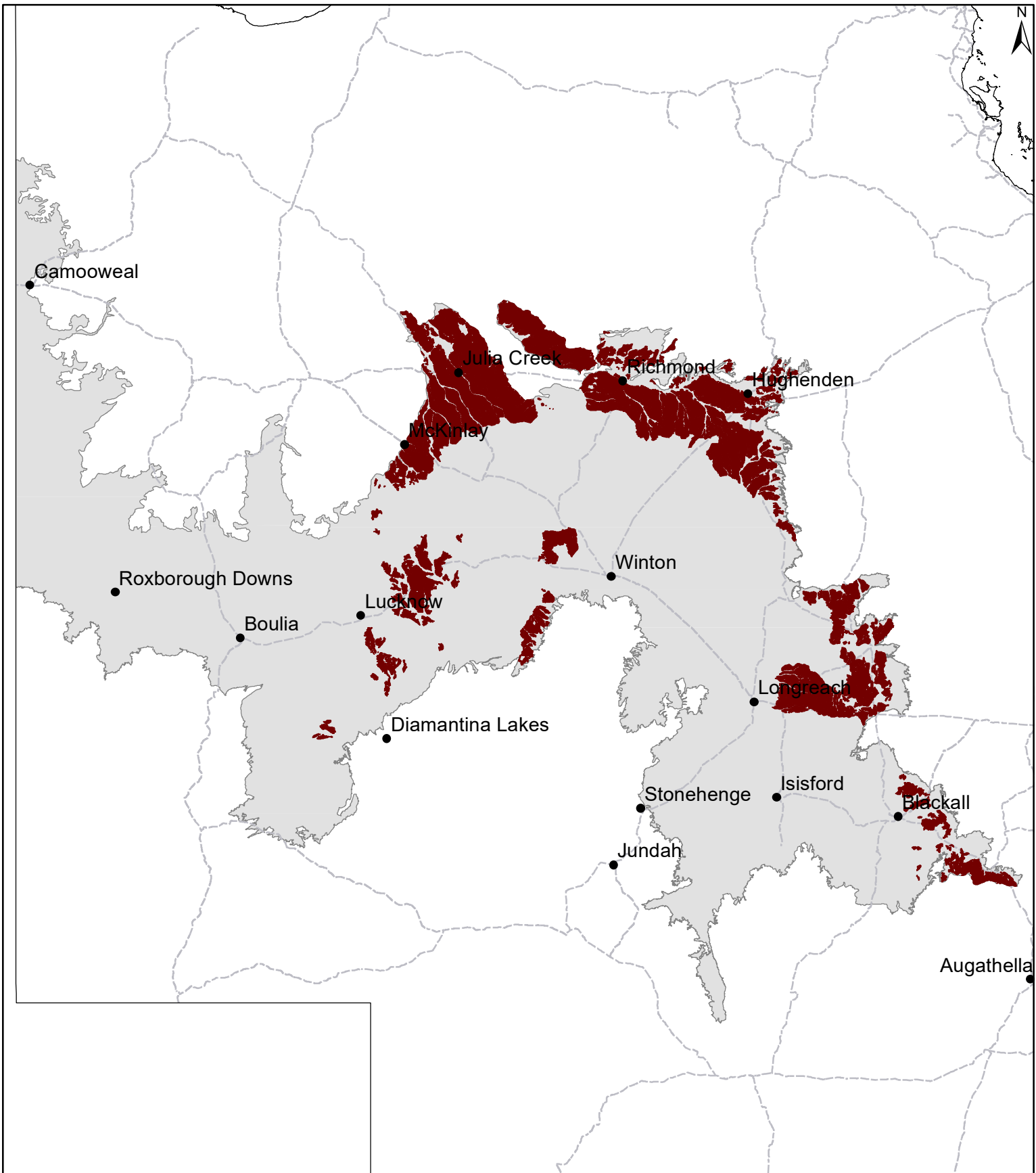
Regional Ecosystems

4.9.1c, 4.9.20.

WARLUS land systems

I	II	III	IV	V	VI
			F1, F2	F1, F2, F6	F1

MGD02 Ashy downs



Area of land type in region: 12%
Median rainfall (region): 233 – 494 mm
Average rainfall (region): 253 – 533 mm
Area of land type with FPC: 3%
Median FPC: 8%
Median TBA: 3 m²/ha



**Queensland
Government**