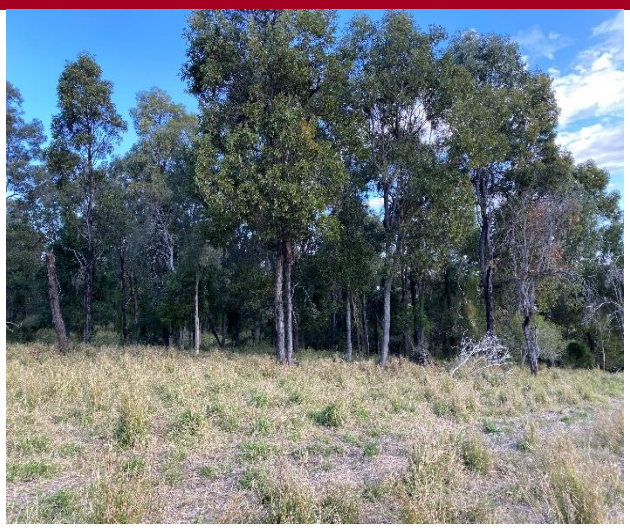
Brigalow softwood scrub



Landform	Undulating low hills and steep hills (3–10% slopes).
Woody vegetation	Mostly cleared; brigalow and softwood scrub species, occasionally with belah.
Expected pasture composition	Minimal grassy understorey in natural state. ** Denotes non-native "Expected Pasture Composition" species.*
Preferred	Forest bluegrass, Queensland bluegrass, Rhodes grass*, panic*.
Intermediate	Pitted bluegrass, early spring grass, hooky grass, couch grass*, red Natal grass*.
Non-preferred	Wiregrasses, slender chloris, slender bamboo grass, native rat's tail grass.
Legumes	Woolly glycine, glycine pea, rhyncosia.
Annual grasses	Small burr grass.
Suitable sown pastures	Rhodes grass, panic, creeping bluegrass, digit grass, paspalum, buffel grass, leucaena, desmanthus, stylo, lucerne, glycine, siratro, white clover, medics.
Introduced weeds	Lantana, African boxthorn, tree pear, climbing asparagus fern, cat's claw creeper, giant rat's tail grass, fireweed, mother-of-millions.
Soil	Grey and brown cracking clays with self-mulching surfaces (vertosols - grey and brown clays). Variable gilgai development often present.
Description	***Surface*:** medium to strongly self-mulching and cracking*; **Surface texture:*** Light to medium clay; ***Subsoil texture:*** medium to heavy clay.
Features	Brown clays often shallower than grey clays. Sometimes mottling of grey clay subsoils. Varying amounts of soft and concretionary lime below 30 cm, and occasional weathered rock fragments and iron/manganese.
Water availability	High; PAWC 150–200 mm in root zone.
Rooting depth	Effective rooting depth <0.8 m (grey clays) to >1 m (brown clays).
Fertility	Medium to high nitrogen; low-medium (brown clays) to high-very high (grey clays) phosphorus; medium to high (grey clays) to very high (brown clays) potassium; medium zinc and copper.
Salinity	Low to very low at surface; occasionally medium at depth (brown clays); medium to high at depths below 0.5 m (grey clays).
Sodicity	Non-sodic at surface; sodic (<0.3 m) in brown clays to strongly sodic (0.5 m) subsoils (grey clays).
pH	Surface slightly acid (6.1) to neutral (7.0); moderately alkaline (8.0) to very strongly alkaline (9.5) at depth > 60cm.

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 756 – 913 mm				
Pasture type	Median tree cover (TBA m2/ha) (FPC %)	Median annual pasture growth (DM kg/ha)	Safe annual utilisation pasture growth (%)	Long term carrying capacity (ha/AE)
Native species	19 TBA 45 FPC		30% (sown)	
Sown pasture	19 TBA 45 FPC		30% (sown)	

Enterprise

Fattening

Land use and management recommendations

- Suitable for grazing of native and improved pastures, dryland (brown clays) and irrigation (grey clays) cropping.
- For areas suitable for cropping adopt practices such as minimum tillage, crop rotations including cover crops, retaining stubble, mulching green manure & cover crops, and weed control to maintain soil structure and reduce erosion.
- Use broad based banks to reduce effect of cracking.
- Do not cultivate on slopes greater than 8%, maintain soil conservation structures and maximise cover to manage runoff and prevent erosion.
- For pastures, maintain high levels (>90%) of surface cover at all times.
- Routinely spell pastures when flowering and seeding.
- Control weeds (lantana, boxthorn, tree pear, exotic vines) and regrowth.

Land use limitations

- Soils may become hard-setting with cultivation.
- Workability difficult immediately after rain, irrigation or when soil is dry.
- Highly erodible if bare or cultivated on slopes >2%.
- Sodicity (below 0.5 m), salinity, poor drainage, depth to bedrock can limit effective rooting depth.
- Low phosphorus and slow drainage that may cause water logging in brown clay soils.
- High salinity in subsoils, particularly grey clays, can reduce plant available water capacity to 100–150 mm. Saline outbreaks may occur on lower slopes.

Conservation features and related management

- Brigalow softwood scrub communities have been extensively cleared for pasture and cropping, with only very small areas of the original vegetation remaining. These vegetation communities are listed as Endangered in both Australian (EPBC Act) & Queensland Government (Vegetation Management Act) legislation.
- These communities are the only habitat for threatened fauna including glossy black cockatoo, black-breasted button quail, little pied bat, and collared delma.
- Remnant areas are used by migratory birds such as yellow robins, grey fantails, varied trillers and rufous fantails.
- These scrubs provide habitat for a wide range of fauna including the woodland birds (e.g. bush stone-curlew, squatter pigeon, brown treecreeper, grey-crowned babbler, bush turkeys), black-striped wallabies, and a highly diverse reptile community of geckos, skinks and dragons that inhabit fallen timber, dead trees and exfoliating bark.
- Remaining patches of scrub are threatened by invasion by weeds including climbing asparagus fern, cat's claw creeper, exotic grasses and tree pear, overgrazing and fire.
- Brigalow patches should be fenced to manage grazing, along with strategic weed control and fire management to protect and restore their unique biodiversity values.
- The use of fire breaks and planned low intensity burns around remnant edges reduce the risk of damage to these scrubs from wildfires.

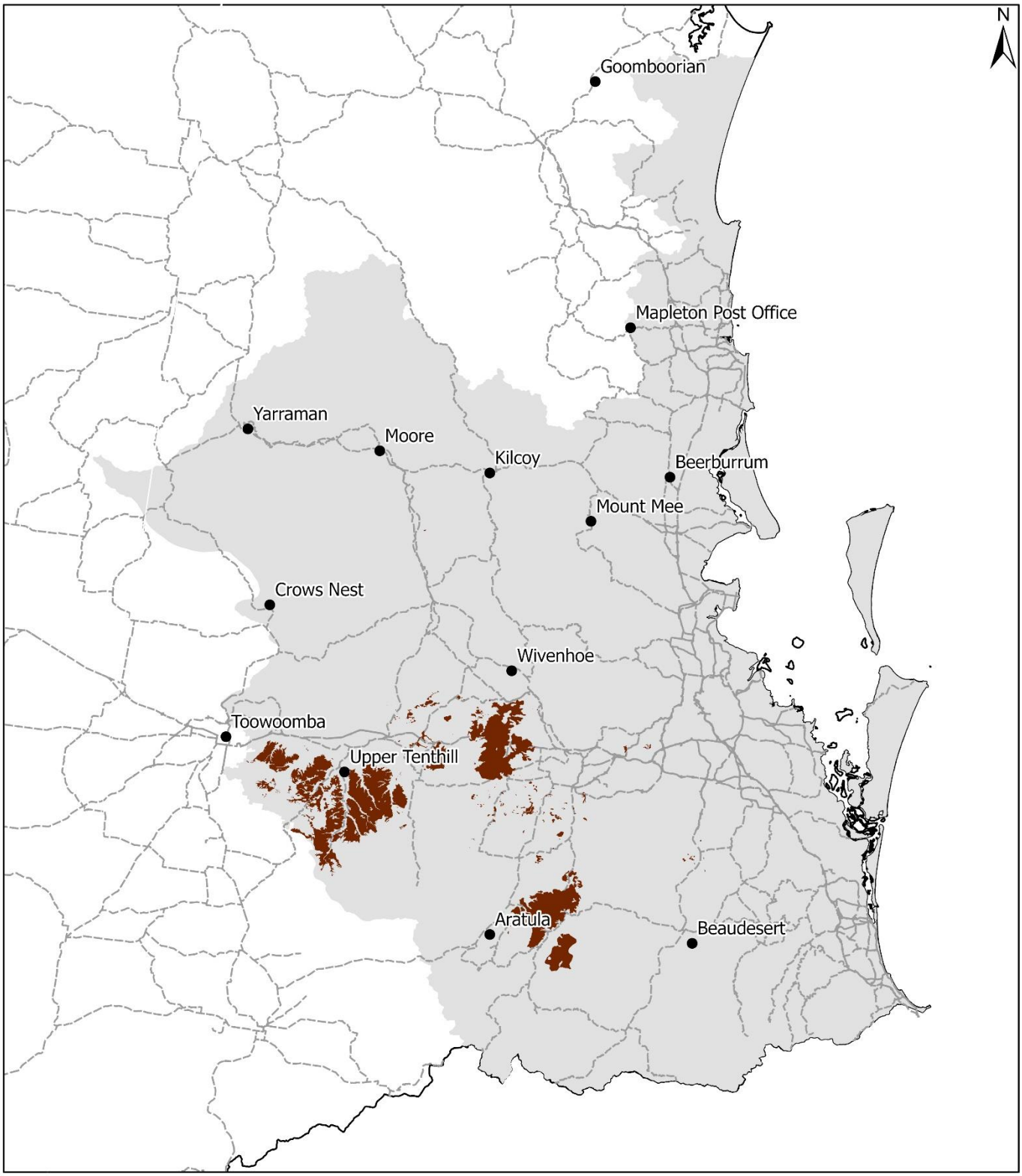
Regional Ecosystems

12.3.10a, 12.3.3a, 12.8.21, 12.8.23, 12.9-10.11, 12.9-10.15, 12.9-10.6.

Land resource area

Scrub Walloons, 6b (Noble, 1996).

SEQ02 Brigalow softwood scrub



Area of land type in region: 3%
Median rainfall (region): 752–1672 mm
Average rainfall (region): 763–1766 mm
Area of land type with FPC: 32%
Median FPC: 38%
Median TBA: 16 m2/ha