Gum-topped box open forest

Landform	Undulating rises, colluvium, hillslopes and ridge crests.
Woody vegetation	Open forest to woodland of predominantly gum-topped box, with narrow-leaved ironbark and poplar box, with scattered rusty gum and Queensland blue gum and occasional shrubby understorey in absence of fire.
Expected pasture composition	** Denotes non-native "Expected Pasture Composition" species.*
Preferred	Black speargrass, forest bluegrass, barbed wire grass, kangaroo grass, tambookie grass.
Intermediate	Pitted bluegrass, spider grass (native couch), couch grass*, native panic, umbrella grass.
Non-preferred	Wiregrasses (e.g. dark), slender chloris, small burrgrass, blady grass, windmill grass, native rat's tail grass.
Legumes	Woolly glycine, emu foot, creeping tick trefoil.
Annual grasses	
Suitable sown pastures	Generally not suitable due to soils being very susceptible to erosion. Rhodes grass, creeping bluegrass, digit grass, Seca stylo & Wynn cassia may be considered on stable sites with only using minimal disturbance techniques.
Introduced weeds	Lantana, creeping lantana, African lovegrass, giant rat's tail grass
Soil	Moderately deep (to 120 cm) yellow, grey or brown texture contrast soils (sodosols, kurosols - solodics, soloths) and occasionally lithosols (rudosols).
Description	***Surface:*** Hard-setting*;* ***Surface texture:*** sandy, loamy or sandy loam to clay loam; ***Subsoil texture:*** hard medium to heavy clay.
Features	Hard sodic subsoils which may also be saline at depth.
Water availability	Very low PAWC.
Drainage	Poorly drained subsoils.
Rooting depth	Effective rooting depth < 0.4 m.
Fertility	Nitrogen low (soloths, sandy solodics) to variable (loamy solodics, lithosols); Phosphorus very low (soloths, sandy solodics) to moderate (loamy solodics); Potassium varies from low-medium (sandy solodics), medium to high

(soloths, loamy solodics, lithosols); Zinc low to medium; Copper low to medium.

Salinity Moderate to high salinity below 20 cm.

Sodicity Sodic to strongly sodic subsoils.

pH Surface – strongly to slightly acid (5.4 - 6.5) for soloths, solodics, neutral in lithosols. Subsoil - strongly to slightly acid for soloths, slightly acid to neutral in lithosols and strongly alkaline (8.0 - 9.0) for solodics.

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 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	20 TBA 48 FPC		25%	
Sown pasture	20 TBA 48 FPC		25%	

Utilisation

25%

Enterprise

Breeding

Land use and management recommendations

- Suitable for grazing of native and managed native forest.
- Maintenance of effective ground cover >90% at all times and conservative stocking practices (spelling pastures, flexible stocking rates) are important to retain organic matter, maintain soil structure, reduce runoff and minimise risk of erosion.
- Retain timber in drainage lines and on slopes to avoid soil disturbance and prevent erosion.
- Minimise earthworks and where required ensure topsoil is conserved and the dispersive sodic subsoils are not disturbed or exposed.
- Planned low to moderate intensity burns are recommended intervals of 4-8 years to maintain grassy understorey with longer interval for shrubby open forest communities. Only burn with good soil moisture, with spot ignition to create mosaic and spell new growth to avoid overgrazing. .

Land use limitations

- Plant growth is limited by shallow rooting depth due to hard clay subsoils and salinity at depth. Hard clay subsoils impede drainage & these areas can be prone to waterlogging in wet periods. Soil salinity and or sodicity may affect plant growth.
- High erosion hazard, particularly prone to scalding, gully & tunnel erosion.

Conservation features and related management

- Remnant woodlands are important habitat for a range of mammals including gliders, possums, koalas, birds, reptiles and invertebrates.
- In conjunction with other native vegetation communities, these forest woodlands provide important corridors through the landscape for both resident and dispersing fauna.
- Provides habitat for threatened plant species including *Callitris baileyi*, *Sophora fraseri, Marsdenia longiloba* and koalas. Conservation efforts should aim to manage existing remnants and where areas have been selectively thinned retain mature trees across the landscape for their habitat values and landscape stability.

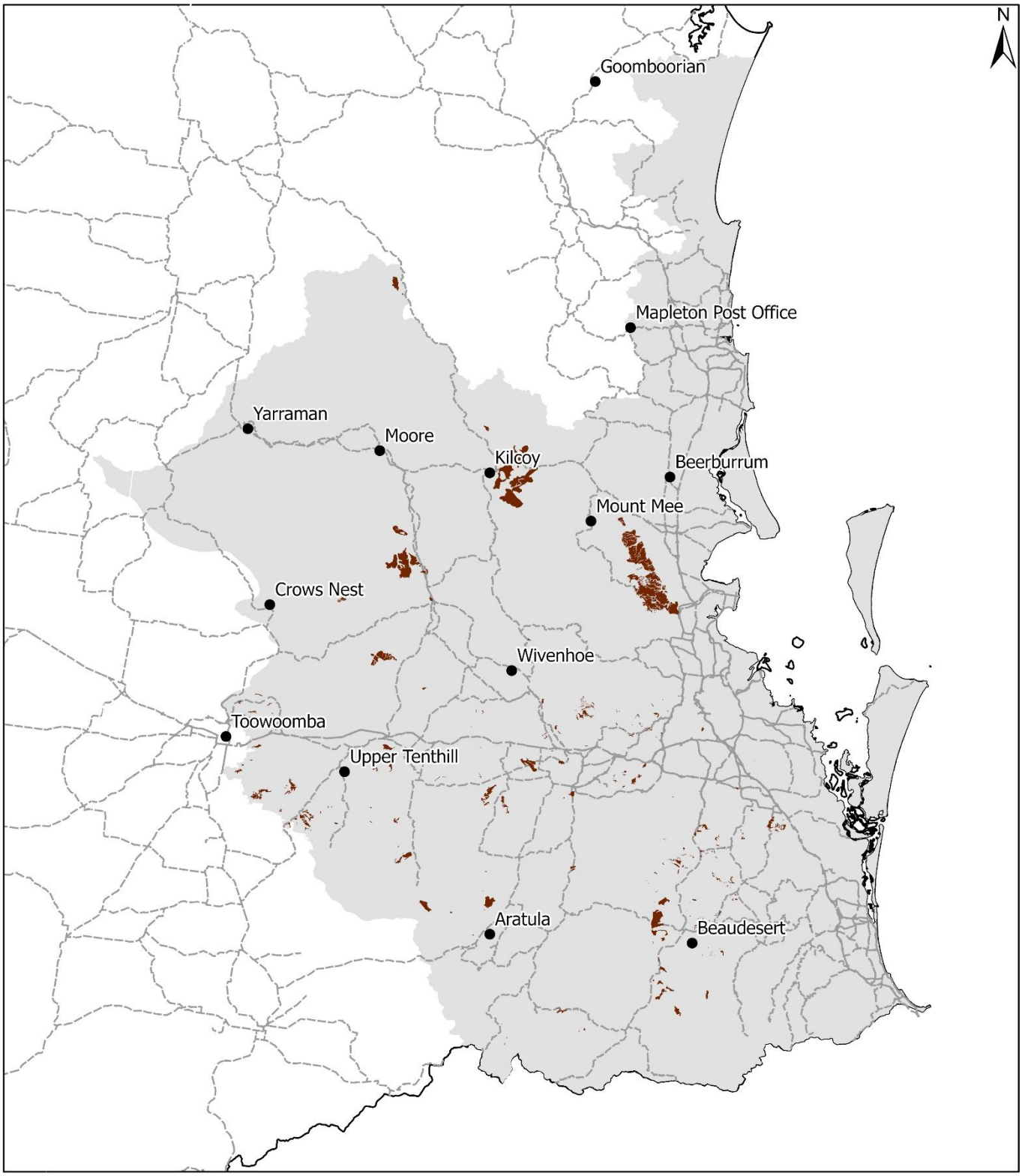
Regional Ecosystems

12.11.18, 12.11.18a, 12.12.28, 12.8.14a, 12.9-10.3.

Land resource area

Marburg Forest 7a, Metamorphic Hills 4, Granite Hills 5.

SEQ04 Gum-topped box open forest



Area of land type in region: 1%
Median rainfall (region): 752–1672 mm
Average rainfall (region): 763–1766 mm
Area of land type with FPC: 49%
Median FPC: 48%
Median TBA: 20 m2/ha