Softwood vine scrub

Landform	Mid to upper slopes of rolling hills (3–30% slopes).
Woody vegetation	Largely cleared & fragmented dry rainforest and semi-evergreen vine thickets. Main upper canopy trees include crow's ash, leopard ash, alectryons, booyongs, red ash, red cedar, white cedar, white beech, silky oak, narrow-leaved bottletree with hoop pine emergent and diversity of shrubs & vines.
Expected pasture composition	*Minimal grassy understorey in intact scrub remnants.* ** Denotes non-native "Expected Pasture Composition" species.*
Preferred	Forest bluegrass, Queensland bluegrass, black speargrass, kangaroo grass, Rhodes grass*, panics*, kikuyu, native & sown legumes.
Intermediate	Pitted bluegrass, early spring grass, couch grass*, mat grass*, red Natal grass*.
Non-preferred	Wiregrasses, blady grass, slender chloris, slender bamboo grass, native rat's tail grass.
Legumes	Woolly glycine, glycine pea, clover*.
Annual grasses	Small burr grass.
Suitable sown pastures	Rhodes grass, panics, creeping bluegrass, digit grass, pangola, leucaena, desmanthus, stylos, glycine, siratro, white clover, vigna.
Introduced weeds	Lantana, African boxthorn, wild tobacco tree, tree pear, giant rat's tail grass, fireweed, climbing asparagus fern, cat's claw creeper, privet, Chinese celtis, coral berry.
Soil	A range of soils including friable, well drained loamy soils that are brown, yellowish brown or reddish-brown subsoils (chromosols, sodosols - brown earths); shallow dark, clay loams over weathered parent rock (dermosols - prairie soils); self-mulching and cracking grey and brown clays (vertosols) and loamy clay soils over yellow, brown or red clay subsoils (chromosols, kurosols, sodosols - red podzolics, solodics).
Description	***Surface*:** Firm to loose (brown earths & clays), to hard-setting (podzolics, solodics)*;* ***Surface texture:*** sandy loam to clay loam to medium clay; ***Subsoil texture:*** light to medium clays (brown earths, shallow clays) to medium-heavy clays.
Features	Bedrock 0.3–0.8 m in shallow clays, hard sodic clay subsoils in solodics. grey clays.
Water availability	Low (PAWC 50–100 mm in root zone) for brown earths, solodics, shallow clays, low-medium for red podzolics to medium-high for brown and grey clays.
Rooting depth	Effective rooting depth varies from 0.4 m (solodics) to <1 m (brown earths, shallow clays, grey clays) to > 1m for brown clays & red podzolics.
Fertility	Nitrogen low in brown earths, podzolics, variable in solodics, shallow clays, medium to high in brown & grey clays; Phosphorus low in podzolics, variable in solodics, shallow & brown clays, to high (brown earths, grey clays); Potassium medium to high (shallow clays,solodics, podzolics) to very high (brown earths, brown clays); medium levels of zinc and copper.

Salinity

Mostly very low to low (brown earths, shallow clays, brown clays, red podzolics); can be medium - high at depth in solodics, grey clays.

Sodicity

Mostly non-sodic (brown earths, shallow clays, red podzolics) but solodics, brown & grey clays are sodic to strongly sodic at depth.

pH

Soil surface slightly acid (6.5) to neutral (7.0) in brown earths, brown & grey clays, acid in red podzolics, neutral to mildly alkaline (7.4) in shallow clays, prairie soils; subsoils medium acid (6.0) to mildly alkaline (brown earths 7.5) to strongly alkaline (8.5).

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 744 – 1372 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	18 TBA 43 FPC		30%	
Sown pasture	18 TBA 43 FPC		30%	

Enterprise

Breeding and fattening.

Land use and management recommendations

- Suitable for grazing of improved pastures, and softwood plantations.
- Not suitable for irrigation; duplex soils are not suitable for agricultural development.
- On deeper, better-drained areas short-term forage crops may be grown with appropriate soil conservation practices in place to prevent erosion and soil loss.
- Adopt practices such as minimum tillage, stubble mulching, and weed control to maintain soil structure and reduce erosion. Include cover crops in crop rotations and retain crop residues to maintain soil structure & fertility.
- For pastures, maintain high levels (>90%) of surface cover at all times. Routinely spell pastures when flowering and seeding.
- Control weeds including lantana, boxthorn, tree pear, exotic vines and regrowth.

Land use limitations

- Moderate to high risk of erosion on all slopes without high levels of surface cover.
- Shallow and stony soils have low plant available water capacity.
- Susceptible to compaction, hard-setting and rapid decline in soil fertility if cultivated, and not maintaining nutrient balances and organic matter.
- Some areas may act as intake for groundwater recharge, thereby contributing to salinity problems in lower areas.

Conservation features and related management

- Significant areas of softwood scrub have been cleared for sown pastures and crops and Hoop pine plantations, with remaining remnant patches isolated and fragmented across the landscape. As a result, a number of dry rainforest and semi-evergreen vine thickets are classified as Endangered regional ecosystems.
- Softwood scrub communities are extremely diverse and provide habitat for rare and threatened flora and fauna, including the Black-breasted button quail.
- Remnants are threatened by weed invasion and fire on their margins, with fire intensity increased by the presence of sown pastures such as panics.
- The use of fire breaks and planned low intensity burns around remnant edges reduce the risk of damage to these scrubs from wildfires.
- Scrub remnants should be managed and restored through fencing and grazing management, strategic weed control to protect their unique biodiversity values, and connectivity with other areas of remnant vegetation.

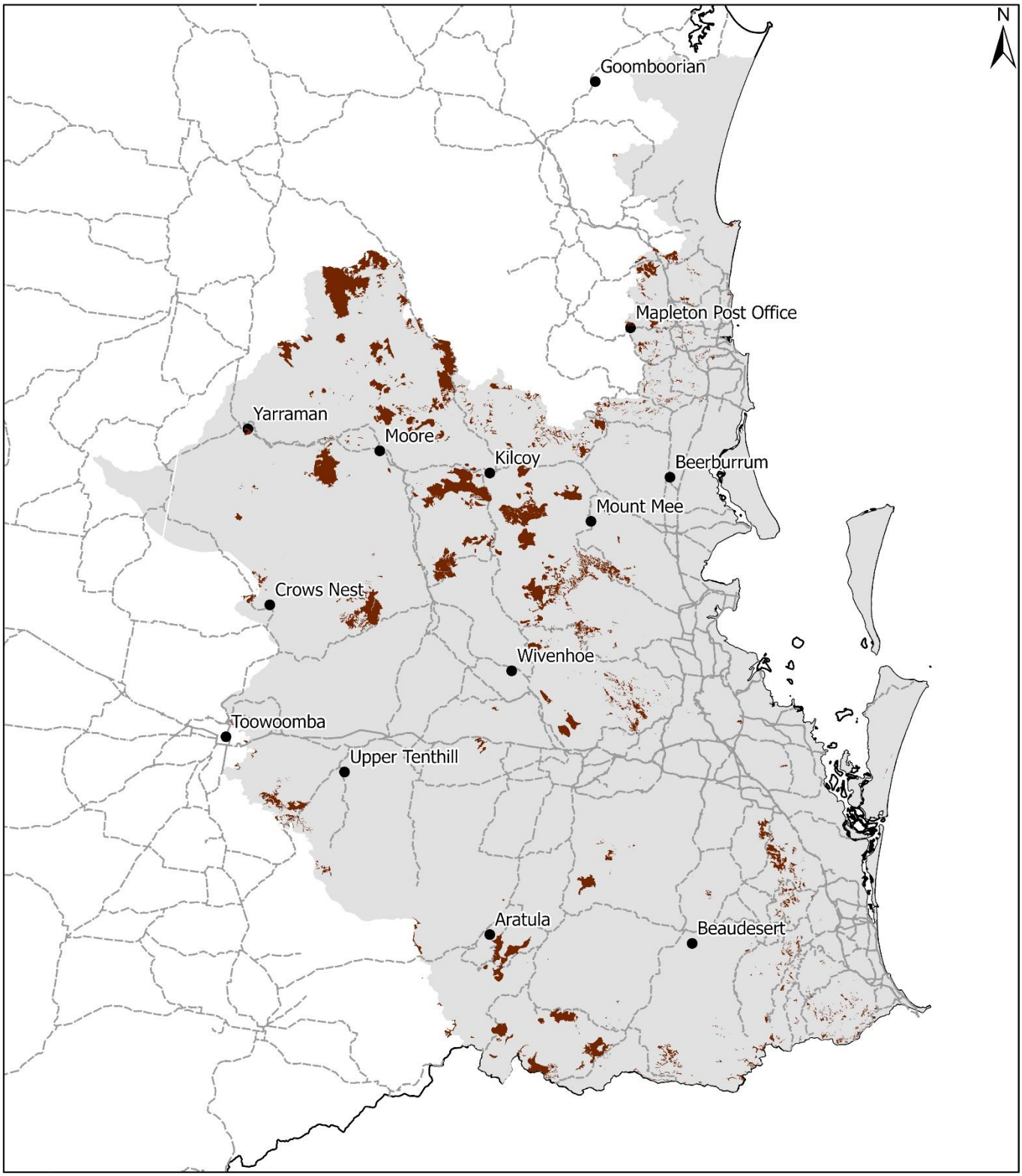
Regional Ecosystems

12.11.1, 12.11.10, 12.11.11, 12.12.1, 12.12.13, 12.12.16, 12.2.1, 12.8.18, 12.8.21, 12.8.6, 12.8.7, 12.9-10.15, 12.9-10.16, 12.9-10.19, 12.9-10.6.

Land resource area

Basaltic Uplands 2b, Northern Mixed Volcanics 3c, Metamorphic Hills 4, Scrub Walloons 6b, Marburg Scrub, 7c (Noble, 1996).

SEQ13 Softwood vine scrub



Area of land type in region: 4%
Median rainfall (region): 752–1672 mm
Average rainfall (region): 763–1766 mm
Area of land type with FPC: 32%
Median FPC: 49%
Median TBA: 21 m2/ha