Mixed open eucalypt forest on coastal plains

Landform	Undulating plains, low hills and ridges near the coast.
Woody vegetation	Mixed open eucalypt forest of bloodwoods, stringybarks, ironbarks, scribbly gum, spotted gum, smooth-barked apple and grass trees with scattered oaks, tea trees & shrubs present.
Expected pasture composition	** Denotes non-native "Expected Pasture Composition" species*
Preferred	Golden beard grass, kangaroo grass, black speargrass, Rhodes grass*, pangola*, paspalum*, native & sown legumes.
Intermediate	Queensland blue couch*, cockatoo grass, barbed wire grass, green couch*, mat grass*.
Non-preferred	Poverty grass, blady grass, native rat's tail grass.
Legumes	Native glycines, desmodium, rhynchosia.
Suitable sown pastures	Only limited areas of deep, stable soils suited to seedbed cultivation for sown pastures including Rhodes grass, creeping bluegrass, digit grass, brachiaria, Narok setaria. Suitable legumes for oversowing include seca stylo, siratro, vigna, lotus, wynn cassia, serradella.
Introduced weeds	Giant rat's tail grass, African lovegrass, lantana, groundsel bush.
Soil	A variety of texture contrast (chromosols, sodosols, kurosols - duplex) soils and shallow soils over rock (tenosols - lithosols). Texture contrast soils include red & yellow podzols-sandy loams over well-structured clays; solodics-sandy or loamy surface over hard, alkaline clay subsoils; soloths--sandy-loam or clay loam over coarse-structured, hard, acid clay subsoils.
Description	***Surface*:** Loose (lithosols, podzolics) to hard-setting (solodics, soloths); ***Surface texture*:** sandy loams or clay loams; ***Subsoil texture*:** medium to heavy clays (podzols, solodics, soloths; weathered bedrock (lithosols).
Features	
Water availability	Very low in lithosols, solodics, soloths; low (yellow podzolics) to low-medium (red podzolics).
Drainage	Internal drainage poor in solodics, soloths due to hard, impermeable subsoils which can result in waterlogging. Lithosols are permeable but limited depth to bedrock. Red podzolics are well-drained but yellow podzolics are poorly drained.
Fertility	Nitrogen – in podzolics, variable in lithosols, loamy solodics & soloths; Phosphorus - very low in podzolics, soloths, sandy solodic, variable in lithosols, loamy solodics; Potassium - variable from low to high; Zinc - low -medium; Copper - low to medium.
Salinity	Lithosols & podzolics are not saline, solodics and soloths may be saline at depth.

Sodicity

Lithosols & podzolics are non-sodic whereas solodics & soloths are sodic to strongly sodic.

pH

Soil surface strongly acid to slightly acid (5.2 - 6.5) for podzolics, solodics; very strongly acid to slightly acid for soloths (4.5 - 6.5) and very slightly acid to neutral for lithosols (6.0 - 6.6). Subsoils very strongly acid to medium acid (5.0-6.0) for soloths: slightly acid to neutral for podzolics, or moderately to 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	21 TBA 49 FPC		25%	
Sown pastures	21 TBA 49 FPC		25%	

Enterprise

Breeding and growing.

Land use and management recommendations

- Suitable for grazing of native and oversown pastures and managed native forests.
- Maintain maximum surface cover (> 90 %) at all times, in conjunction with lower utilisation rates, conservative stocking matched to seasonal forage availability and routine spelling, to minimise erosion and soil loss and maintain good land condition.
- Generally most areas are not suitable for cultivation & seedbed preparation to establish sown pastures. Pasture development only suitable on deep, stable soils, with over-sowing of legumes without disturbing soils recommended for steeper slopes or on erodible soils.
- Maintain as much timber cover as possible, especially on steeper slopes and ridges.
- Minimise earthworks or soil disturbance, with extreme care required for highly erodible solodics, soloths to ensure highly dispersive sodic subsoils are not disturbed or exposed.
- Sodic subsoils are inherently susceptible to tunnel erosion.
- Care needs to be taken during dam bank construction to ensure adequate compaction which reduces the risk of bank failure.
- Fire management guidelines recommend low to moderate intensity planned burns over 4 - 25-year interval. Only burn when there is adequate soil moisture with spot ignition to encourage mosaic of burnt/unburnt patches and spell new growth to prevent overgrazing.

Land use limitations

- Rooting depth can be limited by hard, acid and sodic or saline subsoils and shallow soils over bedrock.
- Hard clay subsoils impede drainage and are prone to water logging in wet periods.
- Very susceptible to sheet, tunnel and gully erosion.
- Generally very low nutrient status, particularly nitrogen and phosphorus.
- Serious regrowth potential following disturbance.

Conservation features and related management

- Habitat for rare and threatened flora including *Macrozamia* species and habitat for Koalas.
- This land type has not been extensively developed for grazing or cropping and contains many intact remnants. These remnants provide valuable corridors through the landscape for transitional and migratory birds and mammals. They support sugar gliders, arboreal marsupials, smaller macropods, hollow breeding birds, birds of prey and micro bats. Retention of ground litter provides important habitat for ground dwelling reptiles. They are best managed with careful grazing management and the strategic use of appropriate fire regimes.

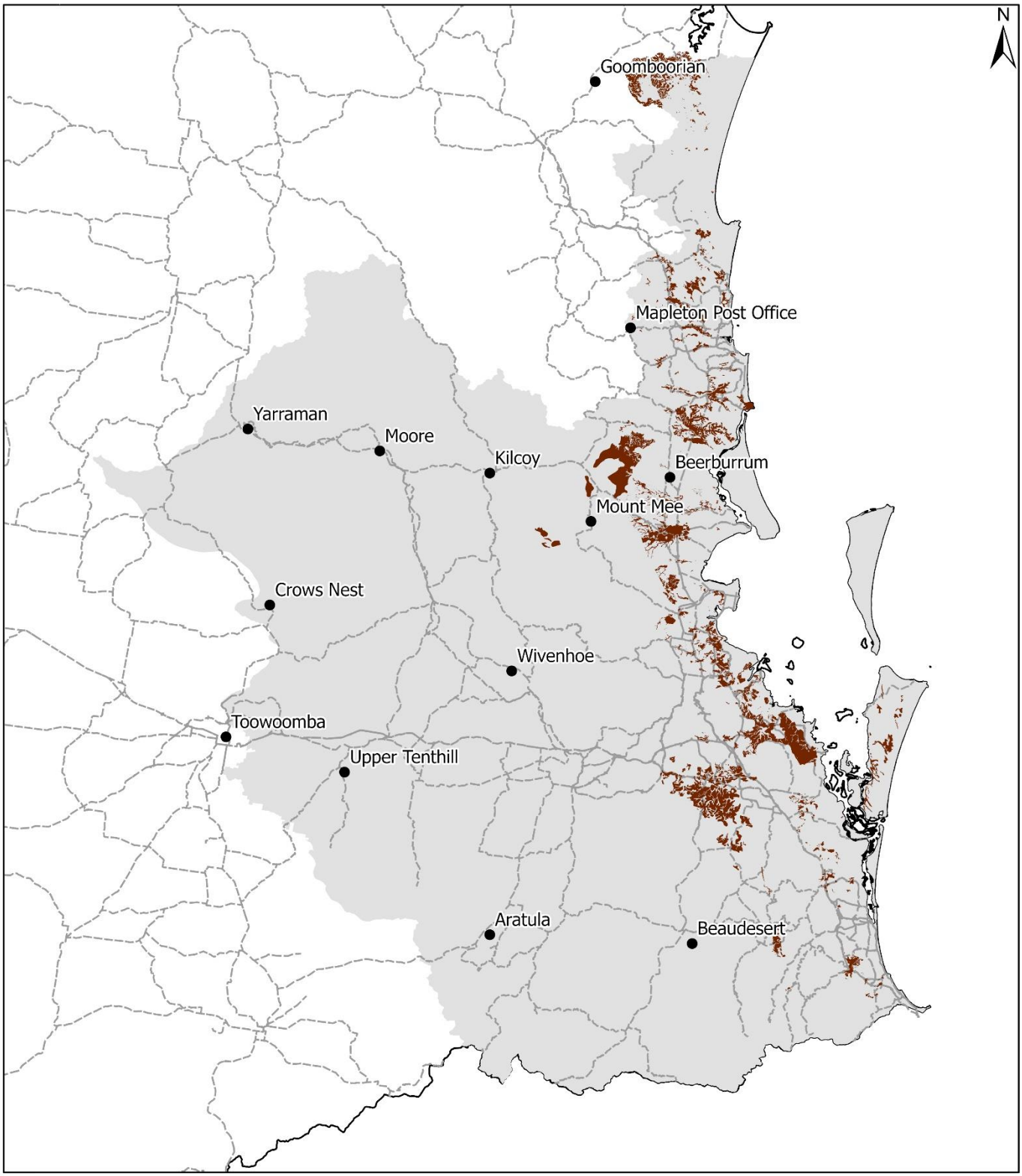
Regional ecosystems

12.12.14, 12.2.8, 12.3.11, 12.3.14, 12.3.14a, 12.5.10, 12.5.12, 12.5.4, 12.9-10.4, 12.9-10.4a, 12.9-10.9.

Land resource area

Coastal plains 1a and low hills & rises near coast on sediments.

SEQ09 Mixed open eucalypt forest on coastal plains



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: 49%
Median TBA: 21 m2/ha