Ironbark and blue gum on clay

Landform	Ridge crests and mid to upper slopes in undulating rises to rolling low hills.
Woody vegetation	Dry woodlands to open forest of narrow-leaved ironbark, silver-leaved ironbark and Queensland blue gum. Can contain Moreton Bay ash, pink bloodwood, yellow box, Clarkson's bloodwood and broad-leaved apple.
Expected pasture composition	** Denotes non-native "Expected Pasture Composition" species.*
Preferred	Forest bluegrass, Queensland bluegrass, black speargrass, kangaroo grass, tambookie grass, Rhodes grass*, creeping bluegrass*.
Intermediate	Pitted bluegrass, umbrella/blowaway grass, couch grass*, spring grass, native panic, barbed wire grass, liverseed grass.
Non-preferred	Wiregrasses, blady grass, slender chloris, slender bamboo grass, windmill grass, native rat's tail grass.
Legumes	Glycine pea, woolly glycine, rhynchosia, creeping tick trefoil.
Annual grasses	Small burr grass.
Suitable sown pastures	Rhodes grass, creeping bluegrass, bambatsi panic, Swann bluegrass, paspalum, Narok setaria, brachiaria, seca stylo, siratro, glycine, leucaena, desmanthus, Wynn cassia, white clover.
Introduced weeds	Lantana, fireweed, giant rat's tail grass. African lovegrass.
Soil	Shallow to moderately deep, dark clay loams and clays (dermosols - rendzinas & prairie soils) and brown clays, black earths (vertosols) over weathering rock.
Description	***Surface*:** Loose to self-mulching, occasionally hard-setting; ***Surface texture:*** loam or clay loam (rendzinas & prairie soils) to light-medium clays (brown clays, black earths); ***Subsoil texture:*** light to medium clays (rendzinas, prairie soils), medium to heavy clays (brown clays, black earths).
Features	Shallower clays & clay loams have bedrock at < 0.3–0.8 m, with varying amounts of limestone, and parent rock (mainly basalt & andesite) throughout profile. Fragmented and weathering bedrock usually highly permeable.
Water availability	Low to medium for rendzinas & prairie soils; medium to high for brown clays, black earths.
Rooting depth	Effective rooting depth varies from <0.8 m (rendzinas, prairie soils) to > 1 m for brown

clays, black earths.

Fertility

High medium to high nitrogen; low – medium (shallow clay loams, brown clays) to high (clays & black earths) phosphorus; medium to high potassium; medium zinc and copper.

Salinity

Very low to low.

Sodicity

Non-sodic

pH

Mainly neutral (6.5) to slightly alkaline (7.5) at surface; Slightly alkaline (shallow clay loams) to strongly alkaline (8.5) at depth (brown clays, black earths).

Long-term carrying capacity information (A condition)

Based on fully watered area for 1AE = 450 kg animal consuming 8kg DM/day				
Median annual rainfall 854 – 909 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 non-irrigated improved pastures.
- Areas with deeper soils (>0.5 m) and low slopes (<10%) are suitable for dryland cropping - grain, fodder and small crops.
- Very shallow soils are not suited for development and should be left as undisturbed native pastures with maximum surface cover (> 90 %) maintained at all times.
- Maintain maximum surface cover to maintain soil structure and reduce erosion in cropping lands, including minimal tillage, stubble retention.
- Implement appropriate soil conservation measures including contour banks, grassed waterways safe disposal areas for runoff and crop management strategies to control erosion.
- Timber and other woody vegetation should be retained on ridges and steep slopes.
- Burn every 3 - 6 years to maintain ecological health of these woodlands and help control weeds and regrowth (silver-leaved ironbark, wattles).

Land use limitations

- Effective rooting depth limited by depth to bedrock.
- Lower plant available water capacity in shallow soils.
- Often occur on steeper upper slopes and ridges which can be prone to erosion if permanent perennial pasture cover is not maintained.

Conservation features and related management

- Some very small areas along the Main Range, where yellow box is the dominant eucalypt along with ironbark & gum, has been identified as box gum grassy woodland, which is a critically endangered ecological community (EPBC Act). These areas should be protected & managed to maximise their biodiversity values.
- Habitat for rare & threatened flora species including *Callitris baileyi* & *Stemmacantha australis* and the vulnerable Koala.
- These basalt ridges are associated with several significant eucalypts, and the vegetation communities have outstanding fauna value, especially for arboreal hollow dwellers.
- Uplands areas are important in a biogeographic sense with many species limited to these areas.

Regional Ecosystems

12.8.16, 12.8.17, 12.8.27.

Land resource area

Basaltic Uplands 2b, Forest Walloons, 6a (Noble, 1996).

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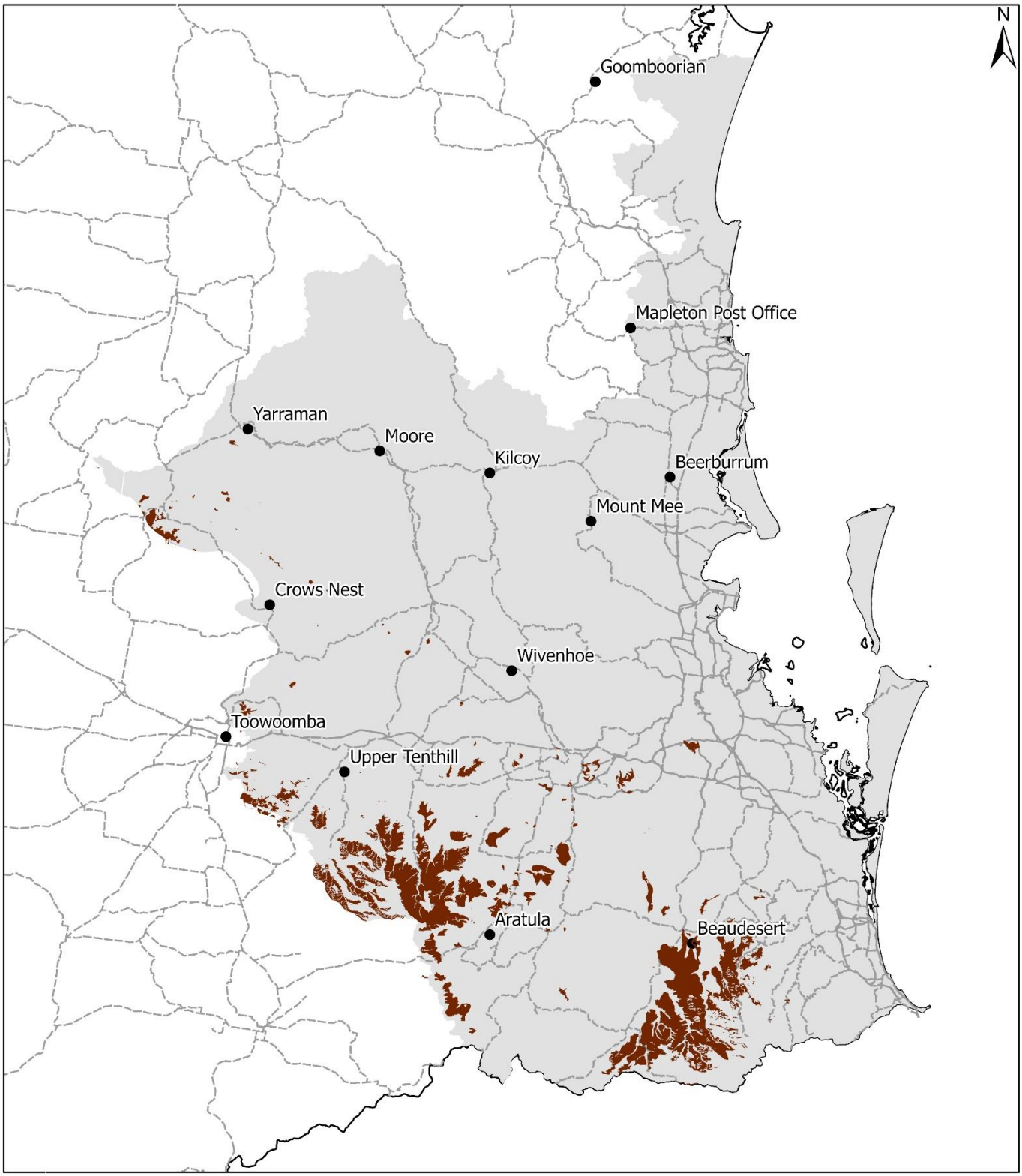

Area of land type in region: 5%
Median rainfall (region): 752–1672 mm
Average rainfall (region): 763–1766 mm
Area of land type with FPC: 32%
Median FPC: 49%
Median TBA: 21 m2/ha