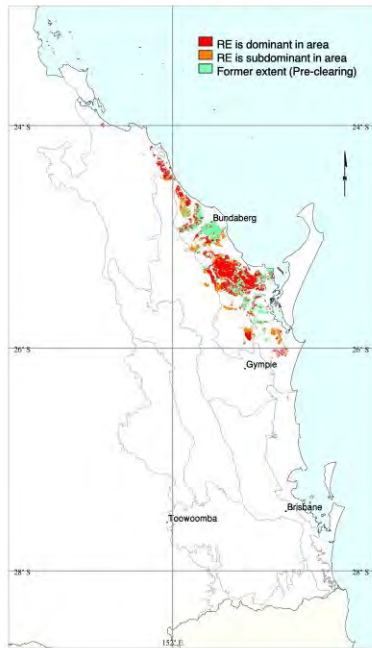


APPENDIX 2: REGIONAL ECOSYSTEM TECHNICAL DESCRIPTIONS

IMPACT SITE - RE 12.5.4

Eucalyptus spp., Corymbia spp., Melaleuca spp. woodland on complex of remnant Tertiary surfaces and Cainozoic and Mesozoic sediments



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 193,464 93,543 48%

Species recorded: Total: 155; woody: 48; ground: 123; Avg. spp./site: 27.2; std dev.: 5.5, 22 site(s)

Basal area: Avg./site: 13.9 m²/ha, range: 6.0 - 20 m²/ha, std. deviation: 3 m²/ha, 22 site(s)

Structural formation: Woodland: 64%; open-woodland: 23%; open-forest: 9%; low woodland: 5%, 22 site(s)

Representative sites: 13875, 13876, 13877, 13883, 13884, 13909, 14021, 14022, 14027, 14028, 14031, 14032, 14038, 14052, 14056, 14058, 14080, 14085, 14106, 15367, 31307, 31464.

Stratum: T1

Height avg. = 16.1m, range 9-22m, 22 sites
 Crown cover avg. = 32.6%, range 11.0-60.0%, 22 sites
 Stem density/ha avg. = 242, range 40-620, 12 sites

Dominant species (relative cover, frequency): Corymbia trachyphloia subsp. trachyphloia (48, 23%), Eucalyptus latisinensis (42, 77%), Eucalyptus exserta (40, 45%), Corymbia intermedia (26, 86%), Angophora leiocarpa (26, 50%)

Frequent species (cover, frequency): Corymbia intermedia (8, 86%), Eucalyptus latisinensis (13, 77%), Angophora leiocarpa (7, 50%), Eucalyptus exserta (9, 45%), Corymbia trachyphloia subsp. trachyphloia (22, 23%), Lophostemon suaveolens (2, 9%), Allocasuarina torulosa (2, 5%), Eucalyptus crebra (3, 5%), Eucalyptus siderophloia (5, 5%), Eucalyptus tereticornis (1, 5%), Lophostemon confertus (3, 5%)

Stratum: T2

Height avg. = 7.9m, range 4-15m, 13 sites
 Crown cover avg. = 9.4%, range 2.0-40.0%, 13 sites
 Stem density/ha avg. = 313, range 60-800, 6 sites

Dominant species (relative cover, frequency): Melaleuca viridiflora var. viridiflora (48, 36%)

Frequent species (cover, frequency): Melaleuca viridiflora var. viridiflora (8, 36%), Lophostemon suaveolens (3, 18%), Eucalyptus latisinensis (3, 14%), Angophora leiocarpa (2, 9%), Corymbia intermedia (1, 9%), Eucalyptus exserta (1, 9%), Grevillea banksii (9%), Lophostemon confertus (3, 9%), Melaleuca cheelii (3, 9%), Acacia disparrima subsp. disparrima (1, 5%), Acacia flavescens (1, 5%), Acacia leiocalyx (3, 5%), Allocasuarina littoralis (2, 5%), Allocasuarina torulosa (3, 5%), Alphitonia excelsa (5%), Banksia integrifolia (5%), Casuarina glauca (7, 5%), Jacksonia scoparia (5%), Melaleuca nodosa (3, 5%), Melaleuca quinquenervia (2, 5%), Petalostigma pubescens (5%), Xylomelum salicinum (2, 5%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum.

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

Stratum: S1

Height avg. = 3.0m, range 2-4m, 19 sites

Crown cover avg. = 6.1%, range 1.0-20.0%, 20 sites

Stem density/ha avg. = 182, range 20-680, 10 sites

Dominant species (relative cover, frequency): *Acacia leiocalyx* (35, 55%), *Allocasuarina littoralis* (20, 41%), *Acacia flavescens* (18, 23%), *Grevillea banksii* (10, 36%), *Acacia disparrima subsp. disparrima* (8, 27%)

Frequent species (cover, frequency): *Acacia leiocalyx* (2, 55%), *Allocasuarina littoralis* (1, 41%), *Grevillea banksii* (1, 36%), *Acacia disparrima subsp. disparrima* (27%), *Alphitonia excelsa* (27%), *Jacksonia scoparia* (27%), *Acacia flavescens* (1, 23%), *Acacia leptocarpa* (18%), *Corymbia intermedia* (1, 14%), *Lophostemon confertus* (3, 14%), *Melaleuca viridiflora var. viridiflora* (1, 14%), *Angophora leiocarpa* (9%), *Banksia integrifolia* (1, 9%), *Cyclophyllum coprosmoides* (9%), *Lantana camara** (1, 9%), *Leptospermum trinervium* (2, 9%), *Lophostemon suaveolens* (1, 9%), *Melaleuca cheelii* (4, 9%), *Melaleuca quinquenervia* (9%), *Parsonia straminea* (9%), *Persoonia virgata* (9%), *Petalostigma pubescens* (9%), *Xylomelum benthamii* (2, 9%), *Xylomelum salicinum* (1, 9%), *Acacia attenuata* (6, 5%), *Acacia complanata* (5%), *Banksia oblongifolia* (5%), *Banksia robur* (5%), *Casuarina glauca* (7, 5%), *Cupaniopsis anacardioides* (5%), *Dodonaea viscosa subsp. burmanniana* (5%), *Endiandra sieberi* (1, 5%), *Eucalyptus exserta* (5%), *Eucalyptus latisinensis* (1, 5%), *Glochidion ferdinandi* (5%), *Ricinocarpos pinifolius* (5%)

Stratum: S2

Height avg. = 1.9m, range 1.5-2m, 5 sites

Crown cover avg. = 14.8%, range 2.0-55.0%, 5 sites

Stem density/ha avg. = 165, range 20-400, 4 sites

Frequent species (cover, frequency): *Acacia leiocalyx* (1, 14%), *Acacia disparrima subsp. disparrima* (9%), *Banksia oblongifolia* (5, 9%), *Jacksonia scoparia* (9%), *Acacia attenuata* (1, 5%), *Acacia flavescens* (1, 5%), *Acacia quadrilateralis* (5%), *Acacia ulicifolia* (5%), *Allocasuarina littoralis* (5%), *Alphitonia excelsa* (5%), *Angophora leiocarpa* (5%), *Cassytha pubescens* (5%), *Grevillea banksii* (5%), *Leptospermum polygalifolium* (15, 5%), *Leucopogon leptospermoides* (30, 5%), *Melaleuca cheelii* (1, 5%), *Petalostigma pubescens* (5%), *Phyllota phyllicoides* (5%), *Xylomelum benthamii* (1, 5%), *Xylomelum salicinum* (5%)

Stratum: G

Height avg. = 0.5m, range 0.3-1m, 22 sites

PFC avg. = 53.0%, range 15-75%, 22 sites

Stem density/ha avg. = 6550, range 2900-10200, 2 sites

Dominant species (relative cover, frequency): *Eremochloa bimaculata* (39, 68%), *Themeda triandra* (38, 82%), *Eriachne pallescens* (23, 32%), *Xanthorrhoea johnsonii* (14, 55%), *Alloteropsis semialata* (13, 32%)

Frequent species (cover, frequency): **GRAMINOIDS:** *Themeda triandra* (21, 82%), *Eremochloa bimaculata* (20, 68%), *Entolasia stricta* (3, 50%), *Digitaria parviflora* (1, 36%), *Panicum effusum* (4, 36%), *Alloteropsis semialata* (6, 32%), *Aristida queenslandica* (2, 32%), *Eriachne pallescens* (6, 32%), *Eragrostis brownii* (1, 23%), *Fimbristylis cinnamometorum* (18%), *Imperata cylindrica* (18%), *Cymbopogon refractus* (14%), *Fimbristylis dichotoma* (9%), *Paspalidium distans* (9%)
FORBS: *Xanthorrhoea johnsonii* (7, 55%), *Dianella longifolia* (41%), *Goodenia rotundifolia* (41%), *Gompholobium pinnatum* (36%), *Desmodium rhytidophyllum* (32%), *Velleia spathulata* (32%), *Cyanthillium cinereum* (27%), *Xanthorrhoea latifolia* (2, 27%), *Lomandra multiflora* (23%), *Patersonia sericea* (23%), *Brunoniella australis* (18%), *Chorizema parviflorum* (18%), *Hibbertia vestita* (18%), *Phyllanthus virgatus* (18%), *Banksia oblongifolia* (12, 14%), *Caladenia carnea* (14%), *Emilia sonchifolia** (14%), *Glycine clandestina* (14%), *Goodenia delicata* (14%), *Hibbertia stricta* (14%), *Leucopogon leptospermoides* (14%), *Platysace linearifolia* (1, 14%), *Acrotriche aggregata* (9%), *Alphitonia excelsa* (9%), *Arthropodium milleflorum* (9%), *Breynia oblongifolia* (9%), *Caesia parviflora* (9%), *Crotalaria montana* (9%), *Daviesia umbellulata* (2, 9%), *Dianella caerulea* (9%), *Dianella rara* (9%), *Drosera peltata* (9%), *Flemingia parviflora* (9%), *Grevillea banksii* (9%), *Hardenbergia violacea* (9%), *Jacksonia scoparia* (9%), *Laxmannia gracilis* (9%), *Leptospermum polygalifolium* (17, 9%), *Leptospermum trinervium* (9%), *Lomandra filiformis* (9%), *Lomandra longifolia* (9%), *Lophostemon suaveolens* (9%), *Melaleuca nodosa* (1, 9%), *Monotoca scoparia* (9%), *Persoonia tenuifolia* (9%), *Pimelea linifolia* (9%), *Polygala japonica* (9%), *Pultenaea paleacea var. pauciflora* (1, 9%), *Strangea linearis* (2, 9%), *Zornia dyctiocarpa* (9%)

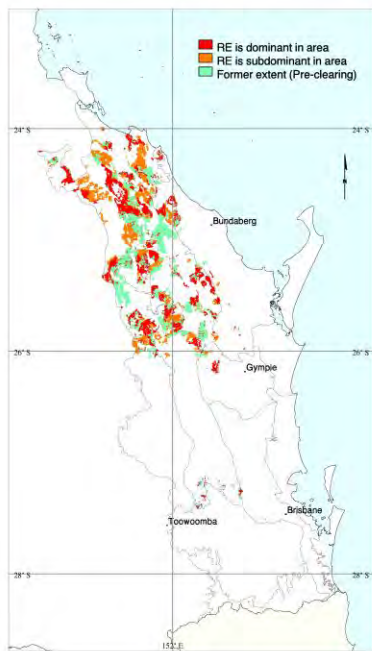
Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum.

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species are listed as either graminoid or forb.

Naturalised species have an asterisk (*) after the name. indet. after listed name = indeterminate species or genus

OFFSET SITE - RE 12.12.5

Corymbia citriodora subsp. variegata, Eucalyptus crebra open-forest on Mesozoic to Proterozoic igneous rocks



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 345,230 194,846 56%

Species recorded: Total: 76; woody: 18; ground: 58; Avg. spp./site: 35.0; std dev.: 9.0, 3 site(s)

Basal area: Avg./site: 14.7 m²/ha, range: 14.0 - 15 m²/ha, std. deviation: 0 m²/ha, 3 site(s)

Structural formation: Open-forest: 67%; woodland: 33%, 3 site(s)

Representative sites: 14284, 15757, 40449.

Stratum: T1

Height avg. = 21.7m, range 17-30m, 3 sites

Crown cover avg. = 55.7%, range 45.0-70.0%, 3 sites

Stem density/ha avg. = 280, 1 site

Dominant species (relative cover, frequency): Corymbia citriodora subsp. variegata (69, 100%), Eucalyptus crebra (27, 100%), Eucalyptus tereticornis (11, 33%)

Frequent species (cover, frequency): Corymbia citriodora subsp. variegata (45, 100%), Eucalyptus crebra (16, 100%), Eucalyptus tereticornis (9, 33%)

Stratum: T2

Height avg. = 10.8m, range 9-13.5m, 3 sites

Crown cover avg. = 9.0%, range 5.0-12.0%, 3 sites

Stem density/ha avg. = 400, 1 site

Dominant species (relative cover, frequency): Eucalyptus crebra (59, 67%), Corymbia citriodora subsp. variegata (50, 100%), Eucalyptus exserta (17, 33%), Ficus fraseri (10, 33%), Cymbidium canaliculatum (2, 33%)

Frequent species (cover, frequency): Corymbia citriodora subsp. variegata (5, 100%), Eucalyptus crebra (5, 67%), Alphitonia excelsa (33%), Cymbidium canaliculatum (33%), Eucalyptus exserta (2, 33%), Ficus fraseri (1, 33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum.

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Stratum: T3

Height avg. = 6.5m, range 5-8m, 2 sites

Crown cover avg. = 4.5%, range 2.0-7.0%, 2 sites

Dominant species (relative cover, frequency): *Brachychiton populneus* (50, 33%), *Acacia disparrima subsp. disparrima* (50, 33%), *Corymbia citriodora subsp. variegata* (43, 33%), *Eucalyptus exserta* (29, 33%), *Eucalyptus crebra* (29, 33%)

Frequent species (cover, frequency): *Acacia disparrima subsp. disparrima* (1, 33%), *Brachychiton populneus* (1, 33%), *Corymbia citriodora subsp. variegata* (3, 33%), *Eucalyptus crebra* (2, 33%), *Eucalyptus exserta* (2, 33%)

Stratum: S1

Height avg. = 2.2m, range 2-2.5m, 3 sites

Crown cover avg. = 15.3%, range 4.0-32.0%, 3 sites

Dominant species (relative cover, frequency): *Lophostemon confertus* (58, 33%), *Acacia leiocalyx* (47, 67%), *Lantana camara** (31, 33%), *Alphitonia excelsa* (22, 100%), *Acacia grandifolia* (19, 33%)

Frequent species (cover, frequency): *Alphitonia excelsa* (3, 100%), *Acacia leiocalyx* (11, 67%), *Jacksonia scoparia* (67%), *Lophostemon suaveolens* (1, 67%), *Acacia disparrima subsp. disparrima* (5, 33%), *Acacia falcata* (33%), *Acacia grandifolia* (2, 33%), *Cymbidium canaliculatum* (33%), *Lantana camara** (1, 33%), *Leptospermum polygalifolium* (33%), *Lophostemon confertus* (6, 33%), *Parsonsia straminea* (33%)

Stratum: G

Height avg. = 0.5m, range 0.4-0.6m, 3 sites

PFC avg. = 73.3%, range 60-100%, 3 sites

Dominant species (relative cover, frequency): *Arundinella nepalensis* (39, 33%), *Melinis repens** (33, 33%), *Heteropogon contortus* (25, 67%), *Eragrostis leptostachya* (20, 33%), *Aristida queenslandica var. dissimilis* (16, 33%)

Frequent species (cover, frequency): **GRAMINOIDS:** *Aristida queenslandica var. queenslandica* (7, 67%), *Cymbopogon refractus* (7, 67%), *Eragrostis spartinoides* (1, 67%), *Heteropogon contortus* (16, 67%), *Panicum effusum* (5, 67%), *Themeda triandra* (3, 67%), *Alloteropsis semialata* (2, 33%), *Aristida queenslandica var. dissimilis* (10, 33%), *Aristida spuria* (2, 33%), *Arundinella nepalensis* (24, 33%), *Axonopus fissifolius** (10, 33%), *Capillipedium spicigerum* (3, 33%), *Dichanthium sericeum* (33%), *Digitaria parviflora* (5, 33%), *Eragrostis leptostachya* (20, 33%), *Fimbristylis depauperata* (10, 33%), *Fuirena ciliaris* (1, 33%), *Imperata cylindrica* (10, 33%), *Melinis repens** (20, 33%), *Paspalidium distans* (5, 33%), *Paspalum scrobiculatum* (2, 33%), *Rhynchospora heterochaeta* (5, 33%), *Scleria tricuspidata* (10, 33%)

FORBS: *Cheilanthes sieberi* (67%), *Cyanthillium cinereum* (67%), *Eustrephus latifolius* (1, 67%), *Adiantum hispidulum* (33%), *Bidens pilosa** (33%), *Brachycome microcarpa* (33%), *Cheilanthes distans* (33%), *Conyza sumatrensis** (33%), *Crassocephalum crepidioides** (33%), *Crotalaria montana* (33%), *Dianella brevipedunculata* (33%), *Dichondra repens* (33%), *Emilia sonchifolia** (33%), *Galactia tenuiflora* (33%), *Glycine clandestina* (33%), *Glycine tabacina* (33%), *Gomphocarpus physocarpus** (33%), *Goodenia rotundifolia* (33%), *Hardenbergia violacea* (33%), *Hibbertia linearis var. obtusifolia* (33%), *Hybanthus stellarioides* (33%), *Hypoxis hygrometrica var. villosisepala* (33%), *Lindernia crustacea* (33%), *Lomandra elongata* (33%), *Lomandra filiformis* (2, 33%), *Mentha diemenica* (33%), *Murdannia graminea* (33%), *Myoporum montanum* (33%), *Persoonia sericea* (33%), *Phyllanthus indet.* (33%), *Pterocaulon redolens* (33%), *Solanum stelligerum* (33%), *Sonchus oleraceus** (33%), *Verbena rigida** (33%), *Wahlenbergia gracilis* (33%)

Dominant species: Relative cover (mean of cover of species / total cover of all species in that stratum for all values > zero) and frequency (percent of total sites) ordered by decreasing relative abundance. Up to five most dominant species with frequency > 20% listed for each stratum.

Frequent species: Cover (mean of all values > zero) and frequency (percent of total sites) of all species occurring in more than 5% of sites ordered by decreasing frequency. Ground layer species are listed as either graminoid or forb.

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