

APPENDIX

INLAND
RAIL 

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Matters of National Environmental Significance Technical Report

Part 3 of 4

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

APPENDIX

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Matters of National Environmental Significance Technical Report

Appendix E Flora Species List

Part 1 of 2

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

Appendix E

Flora Species List

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Acanthaceae	<i>Brunoniella australis</i>	Blue trumpet	SL	-	Native
Aizoaceae	<i>Carpobrotus aequilaterus</i>	Coastal pigweed	-	-	Non-native
Amaranthaceae	<i>Alternanthera pungens</i>	Khaki weed	-	-	Non-native
Amaranthaceae	<i>Amaranthus viridis</i>	Green amaranth	-	-	Non-native
Amaranthaceae	<i>Gomphrena celosioides</i>	Gomphrena weed	-	-	Non-native
Amaranthaceae	<i>Nyssanthus diffusa</i>	Barbed-wire weed	C	-	Native
Amaranthaceae	<i>semilanatus</i>		C	-	Native
Apiaceae	<i>Centella asiatica</i>		C	-	Native
Apiaceae	<i>Foeniculum vulgare</i>	Fennel	-	-	Non-native
Apocynaceae	<i>Alstonia constricta</i>	Bitterbark	C	-	Native
Apocynaceae	<i>Araujia sericifera</i>	Moth plant	-	-	Non-native
Apocynaceae	<i>Carissa ovata</i>	Currantbush	C	-	Native
Apocynaceae	<i>Gomphocarpus physocarpus</i>	Balloon cottonbush	-	-	Non-native
Apocynaceae	<i>Nerium oleander</i>	Oleander	-	-	Non-native
Apocynaceae	<i>Parsonsia eucalyptophylla</i>	Gargaloo	C	-	Native
Apocynaceae	<i>Parsonsia lanceolata</i>	Northern silkpod	C	-	Native
Apocynaceae	<i>Parsonsia straminea</i>	Monkey rope	C	-	Native
Asparagaceae	<i>Asparagus africanus</i>	Ornamental asparagus	-	-	Non-native
Asphodelaceae	<i>Bulbine semibarbata</i>	Wild onion	C	-	Native
Asteraceae	<i>Ambrosia artemisiifolia</i>	Annual ragweed	-	-	Non-native
Asteraceae	<i>Arctotheca calendula</i>	Cape weed	-	-	Non-native
Asteraceae	<i>Bidens pilosa</i>		-	-	Non-native
Asteraceae	<i>Brachyscome chrysoglossa</i>		C	-	Native
Asteraceae	<i>Brachyscome dentata</i>		C	-	Native
Asteraceae	<i>Calotis cuneifolia</i>	Burr daisy	C	-	Native
Asteraceae	<i>Calotis hispidula</i>	Bogan flea	C	-	Native
Asteraceae	<i>Calotis lappulacea</i>	Yellow burr daisy	C	-	Native
Asteraceae	<i>Calyptocarpus vialis</i>	Creeping cinderella weed	-	-	Non-native
Asteraceae	<i>Cassinia laevis</i>		C	-	Native
Asteraceae	<i>Chrysocephalum apiculatum</i>	Yellow buttons	C	-	Native
Asteraceae	<i>Cirsium vulgare</i>	Spear thistle	-	-	Non-native
Asteraceae	<i>Conyza canadensis</i>	Canadian fleabane	-	-	Non-native
Asteraceae	<i>Eclipta prostrata</i>	White eclipta	-	-	Non-native
Asteraceae	<i>Euchiton sphaericus</i>		C	-	Native
Asteraceae	<i>Macroptilium atropurpureum</i>	Siratro	-	-	Non-native
Asteraceae	<i>discolor</i>		C	-	Native
Asteraceae	<i>Picris barbarorum</i>		V	-	Native
Asteraceae	<i>lutealbum</i>	Jersey cudweed	C	-	Native
Asteraceae	<i>Senecio madagascariensis</i>	Fireweed	-	-	Non-native
Asteraceae	<i>pinnatifolius</i>		C	-	Native
Asteraceae	<i>Sigesbeckia orientalis</i>	Indian weed	C	-	Native
Asteraceae	<i>Soliva anthemifolia</i>	Dwarf jo jo weed	-	-	Non-native
Asteraceae	<i>Soliva sessilis</i>		-	-	Non-native
Asteraceae	<i>Sonchus oleraceus</i>	Common sowthistle	-	-	Non-native
Asteraceae	<i>Tagetes minuta</i>	Stinking roger	-	-	Non-native
Asteraceae	<i>Tamarix aphylla</i>	Athol pine	-	-	Non-native
Asteraceae	<i>Vittadinia sulcata</i>	Native daisy	C	-	Native
Asteraceae	<i>Xanthium occidentale</i>	Nagoora burr	-	-	Non-native
Asteraceae	<i>Zinnia peruviana</i>	Wild zinnia	-	-	Non-native
Basellaceae	<i>Anredera cordifolia</i>	Madeira vine	-	-	Non-native
Bignoniaceae	<i>Jacaranda mimosifolia</i>	Jacaranda	-	-	Non-native
Bignoniaceae	<i>Pandorea pandorana</i>	Wonga vine	C	-	Native
Boraginaceae	<i>Heliotropium amplexicaule</i>	Blue heliotrope	-	-	Non-native
Brassicaceae	<i>Brassica tournefortii</i>	Wild turnip	-	-	Non-native
Brassicaceae	<i>Capsella bursapastoris</i>	Shepherd's purse	-	-	Non-native
Brassicaceae	<i>Lepidium africanum</i>	Common peppergrass	-	-	Non-native
Brassicaceae	<i>Lepidium bonariense</i>	Argentine peppergrass	-	-	Non-native

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Brassicaceae	<i>Lepidium virginicum</i>	Virginian peppergrass	-	-	Non-native
Cactaceae	<i>Cereus uruguayanus</i>		-	-	Non-native
Cactaceae	<i>Harrisia martinii</i>		-	-	Non-native
Cactaceae	<i>Opuntia aurantiaca</i>	Tiger pear	-	-	Non-native
Cactaceae	<i>Opuntia stricta</i>		-	-	Non-native
Cactaceae	<i>Opuntia tomentosa</i>	Velvety tree pear	-	-	Non-native
Caesalpiniaceae	<i>Cassia brewsteri</i>		C	-	Native
Campanulaceae	<i>Wahlenbergia communis</i>	Tufted bluebell	SL	-	Native
Campanulaceae	<i>Wahlenbergia gracilis</i>	Sprawling bluebell	SL	-	Native
Capparaceae	<i>Apophyllum anomalum</i>	Broom bush	C	-	Native
Capparaceae	<i>Capparis canescens</i>		C	-	Native
Capparaceae	<i>Capparis lasiantha</i>	Nipan	C	-	Native
Capparaceae	<i>Capparis mitchellii</i>		C	-	Native
Caryophyllaceae	<i>Stellaria media</i>	Chickweed	-	-	Non-native
Casuarinaceae	<i>Allocasuarina inophloia</i>		C	-	Native
Casuarinaceae	<i>Allocasuarina luehmannii</i>	Bull oak	C	-	Native
Casuarinaceae	<i>Casuarina cristata</i>	Belah	C	-	Native
Chenopodiaceae	<i>Atriplex leptocarpa</i>	Slender fruit saltbush	C	-	Native
Chenopodiaceae	<i>Atriplex muelleri</i>	Lagoon saltbush	C	-	Native
Chenopodiaceae	<i>Atriplex semibaccata</i>	Creeping saltbush	C	-	Native
Chenopodiaceae	<i>Chenopodium album</i>	Fat-hen	-	-	Non-native
Chenopodiaceae	<i>Einadia hastata</i>		C	-	Native
Chenopodiaceae	<i>Maireana microphylla</i>		C	-	Native
Chenopodiaceae	<i>Salsola australis</i>		C	-	Native
Chenopodiaceae	<i>Sclerolaena birchii</i>	Galvanised burr	C	-	Native
Chenopodiaceae	<i>Sclerolaena tetracuspis</i>	Brigalow burr	C	-	Native
Commelinaceae	<i>Commelina diffusa</i>	Wandering jew	C	-	Native
Commelinaceae	<i>Murdannia graminea</i>	Murdannia	C	-	Native
Convolvulaceae	<i>Convolvulus erubescens</i>	Australian bindweed	C	-	Native
Convolvulaceae	<i>Dichondra repens</i>	Kidney weed	C	-	Native
Convolvulaceae	<i>Ipomoea cairica</i>		-	-	Non-native
Convolvulaceae	<i>Ipomoea indica</i>	Blue morning-glory	-	-	Non-native
Crassulaceae	<i>Bryophyllum delagoense</i>	Mother of millions	-	-	Non-native
Cupressaceae	<i>Callitris glaucophylla</i>	White cypress pine	C	-	Native
Cyperaceae	<i>Carex appressa</i>		C	-	Native
Cyperaceae	<i>Cyperus bifax</i>	Western nutgrass	C	-	Native
Cyperaceae	<i>Cyperus difformis</i>	Rice sedge	C	-	Native
Cyperaceae	<i>Cyperus eragrostis</i>		-	-	Non-native
Cyperaceae	<i>Cyperus exaltatus</i>	Tall flatsedge	C	-	Native
Cyperaceae	<i>Cyperus fulvus</i>		C	-	Native
Cyperaceae	<i>Cyperus gracilis</i>		C	-	Native
Cyperaceae	<i>Cyperus iria</i>		C	-	Native
Cyperaceae	<i>Cyperus rotundus</i>	Nutgrass	-	-	Non-native
Cyperaceae	<i>Cyperus vaginatus</i>		C	-	Native
Cyperaceae	<i>Eleocharis plana</i>	Ribbed spikerush	C	-	Native
Cyperaceae	<i>Eleocharis pusilla</i>	Small spikerush	C	-	Native
Cyperaceae	<i>Fimbristylis dichotoma</i>	Common fringe-rush	C	-	Native
Cyperaceae	<i>Gahnia aspera</i>		C	-	Native
Ericaceae	<i>Leucopogon biflorus</i>		C	-	Native
Ericaceae	<i>Leucopogon mitchellii</i>		C	-	Native
Ericaceae	<i>Melichrus urceolatus</i>	Honey gorse	C	-	Native
Euphorbiaceae	<i>Euphorbia drummondii</i>		C	-	Native
Euphorbiaceae	<i>Euphorbia peplus</i>	Petty spurge	-	-	Non-native
Euphorbiaceae	<i>Ricinus communis</i>	Castor oil bush	-	-	Non-native
Fabaceae	<i>Acacia neriifolia</i>	Oleander wattle	C	-	Native
Fabaceae	<i>Aeschynomene indica</i>	Budda pea	C	-	Native
Fabaceae	<i>Cullen tenax</i>	Emu-foot	C	-	Native

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Fabaceae	<i>Desmodium brachypodum</i>	Large ticktrefoil	C	-	Native
Fabaceae	<i>Desmodium gunnii</i>		C	-	Native
Fabaceae	<i>Desmodium rhytidophyllum</i>		C	-	Native
Fabaceae	<i>Glycine tabacina</i>	Glycine pea	C	-	Native
Fabaceae	<i>Glycine tomentella</i>	Woolly glycine	C	-	Native
Fabaceae	<i>Hardenbergia violacea</i>		C	-	Native
Fabaceae	<i>Indigofera hirsuta</i>	Hairy indigo	C	-	Native
Fabaceae	<i>Jacksonia scoparia</i>		C	-	Native
Fabaceae	<i>Medicago lupulina</i>	Black medic	-	-	Non-native
Fabaceae	<i>Medicago polymorpha</i>	Burr medic	-	-	Non-native
Fabaceae	<i>australis</i>		C	-	Native
Fabaceae	<i>cannabina</i>		C	-	Native
Fabaceae	<i>Tipuana tipu</i>	Tipuana	-	-	Non-native
Fabaceae	<i>Trifolium repens</i> var. <i>repens</i>	White clover	-	-	Non-native
Fabaceae	<i>Vicia sativa</i> subsp. <i>nigra</i>		-	-	Non-native
Geraniaceae	<i>Erodium cicutarium</i>	Common crowfoot	-	-	Non-native
Goodeniaceae	<i>Goodenia rotundifolia</i>		C	-	Native
Juncaceae	<i>Juncus usitatus</i>		C	-	Native
Lamiaceae	<i>Ajuga australis</i>	Australian bugle	C	-	Native
Lamiaceae	<i>Mentha satureioides</i>	Native pennyroyal	C	-	Native
Lamiaceae	<i>Plectranthus parviflorus</i>		C	-	Native
Lamiaceae	<i>Salvia verbenaca</i>	Wild sage	-	-	Non-native
Lauraceae	<i>Cassytha pubescens</i>	Downy devil's twine	C	-	Native
Laxmanniaceae	<i>Eustrephus latifolius</i>	Wombat berry	C	-	Native
Laxmanniaceae	<i>Laxmannia compacta</i>	Compact wire lily	C	-	Native
Laxmanniaceae	<i>Laxmannia gracilis</i>	Slender wire lily	C	-	Native
Laxmanniaceae	<i>Lomandra hystrix</i>		C	-	Native
Laxmanniaceae	<i>Lomandra longifolia</i>	Spiny-head mat-rush	C	-	Native
Lomandraceae	<i>Lomandra leucocephala</i> subsp. <i>leucocephala</i>		C	-	Native
Loranthaceae	<i>Amyema bifurcata</i>		C	-	Native
Loranthaceae	<i>Amyema cabbagei</i>		C	-	Native
Loranthaceae	<i>Amyema gaudichaudii</i>		C	-	Native
Loranthaceae	<i>orientalis</i>		C	-	Native
Loranthaceae	<i>angustifolia</i>		C	-	Native
Malvaceae	<i>Abutilon otocarpum</i>		C	-	Native
Malvaceae	<i>Gossypium hirsutum</i>	Cotton	-	-	Non-native
Malvaceae	<i>Malva parviflora</i>	Small-flowered mallow	-	-	Non-native
Malvaceae	<i>Pavonia hastata</i>	Pink pavonia	-	-	Non-native
Malvaceae	<i>Sida fibulifera</i>		C	-	Native
Malvaceae	<i>Sida rhombifolia</i>		-	-	Non-native
Marsileaceae	<i>Marsilea drummondii</i>	Common nardoo	C	-	Native
Marsileaceae	<i>Marsilea hirsuta</i>	Hairy nardoo	C	-	Native
Meliaceae	<i>Melia azedarach</i>	White cedar	C	-	Native
Mimosaceae	<i>Acacia amblygona</i>	Fan wattle	C	-	Native
Mimosaceae	<i>Acacia aprepta</i>	Miles mulga	C	-	Native
Mimosaceae	<i>Acacia complanata</i>	Flatstem wattle	C	-	Native
Mimosaceae	<i>Acacia conferta</i>		C	-	Native
Mimosaceae	<i>Acacia decora</i>	Pretty wattle	C	-	Native
Mimosaceae	<i>Acacia harpophylla</i>	Brigalow	C	-	Native
Mimosaceae	<i>Acacia implexa</i>	Lightwood	C	-	Native
Mimosaceae	<i>Acacia pendula</i>	Myall	C	-	Native
Mimosaceae	<i>Acacia polybotrya</i>	Silver wattle	C	-	Native
Mimosaceae	<i>Acacia polybotrya</i>	Western silver wattle	C	-	Native
Mimosaceae	<i>Acacia salicina</i>	Doolan	C	-	Native
Mimosaceae	<i>Acacia shirleyi</i>	Lancewood	C	-	Native
Mimosaceae	<i>Acacia stenophylla</i>	Belalie	C	-	Native

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Mimosaceae	<i>Vachellia farnesiana</i>	Mimosa bush	-	-	Non-native
Molluginaceae	<i>Glinus lotoides</i>	Hairy carpet weed	C	-	Native
Moraceae	<i>Morus alba</i>	White mulberry	-	-	Non-native
Myrtaceae	<i>Angophora floribunda</i>	Rough-barked apple	C	-	Native
Myrtaceae	<i>Angophora leiocarpa</i>	Rusty gum	C	-	Native
Myrtaceae	<i>Calytrix tetragona</i>	Fringe-myrtle	C	-	Native
Myrtaceae	<i>Corymbia clarksoniana</i>		C	-	Native
Myrtaceae	<i>Corymbia tessellaris</i>	Moreton Bay ash	C	-	Native
Myrtaceae	<i>Corymbia torelliana</i>	Cadaghi	C	-	Native
Myrtaceae	<i>Eucalyptus albens</i>	White box	C	-	Native
Myrtaceae	<i>Eucalyptus chloroclada</i>	Baradine red gum	C	-	Native
Myrtaceae	<i>Eucalyptus crebra</i>	Narrow-leaved red ironbark	C	-	Native
Myrtaceae	<i>nubilis</i>		C	-	Native
Myrtaceae	<i>Eucalyptus melliodora</i>	Yellow box	C	-	Native
Myrtaceae	<i>Eucalyptus microcarpa</i>	Inland grey box	C	-	Native
Myrtaceae	<i>Eucalyptus moluccana</i>	Gum-topped box	C	-	Native
Myrtaceae	<i>Eucalyptus orgadophila</i>	Mountain coolibah	C	-	Native
Myrtaceae	<i>Eucalyptus populnea</i>	Poplar box	C	-	Native
Myrtaceae	<i>Homalocalyx polyandrus</i>		C	-	Native
Myrtaceae	<i>Leptospermum brevipes</i>		C	-	Native
Myrtaceae	<i>Melaleuca bracteata</i>		C	-	Native
Myrtaceae	<i>Melaleuca densispicata</i>		C	-	Native
Myrtaceae	<i>Melaleuca linariifolia</i>	Snow-in summer	C	-	Native
Myrtaceae	<i>Micromyrtus sessilis</i>		C	-	Native
Najadaceae	<i>Najas tenuifolia</i>	water nymph	C	-	Native
Nyctaginaceae	<i>Boerhavia dominii</i>	Tar vine	C	-	Native
Nyctaginaceae	<i>Bougainvillea glabra</i>		-	-	Non-native
Nymphaeaceae	<i>Nymphaea gigantea</i>		C	-	Native
Oleaceae	<i>Jasminum dianthifolium</i>		C	-	Native
Oleaceae	<i>Jasminum simplicifolium</i> subsp. <i>australiense</i>	Stiff jasmine	C	-	Native
Orchidaceae	<i>Cymbidium canaliculatum</i>	Black orchid	SL	-	Native
Oxalidaceae	<i>Oxalis chnoodes</i>		C	-	Native
Passifloraceae	<i>Passiflora subpeltata</i>	White passion flower	-	-	Non-native
Phyllanthaceae	<i>Phyllanthus virgatus</i>		C	-	Native
Phytolaccaceae	<i>Phytolacca octandra</i>	Inkweed	-	-	Non-native
Picrodendraceae	<i>Petalostigma pubescens</i>	Quinine tree	C	-	Native
Pittosporaceae	<i>Bursaria incana</i>		C	-	Native
Pittosporaceae	<i>spinosa</i>		C	-	Native
Pittosporaceae	<i>Pittosporum angustifolium</i>	Gumbi gumbi	C	-	Native
Pittosporaceae	<i>Pittosporum spinescens</i>		C	-	Native
Plantaginaceae	<i>Bacopa monnieri</i>		C	-	Native
Plantaginaceae	<i>Plantago lanceolata</i>		-	-	Non-native
Poaceae	<i>Alloteropsis semialata</i>	Cockatoo grass	C	-	Native
Poaceae	<i>Alopecurus geniculatus</i>	Marsh foxtail	-	-	Non-native
Poaceae	<i>Ancistrachne uncinulata</i>	Hooky grass	C	-	Native
Poaceae	<i>Aristida caput-medusae</i>		C	-	Native
Poaceae	<i>Aristida contorta</i>	Bunched kerosene grass	C	-	Native
Poaceae	<i>Aristida echinata</i>		C	-	Native
Poaceae	<i>Aristida lazardis</i>		C	-	Native
Poaceae	<i>Aristida leptopoda</i>	White speargrass	C	-	Native
Poaceae	<i>Aristida ramosa</i>	Purple wiregrass	C	-	Native
Poaceae	<i>Arundinella nepalensis</i>	Reedgrass	C	-	Native
Poaceae	<i>Astrebula lappacea</i>	Curly mitchell grass	C	-	Native
Poaceae	<i>Austrostipa ramosissima</i>	Bamboo grass	C	-	Native
Poaceae	<i>Austrostipa verticillata</i>	Slender bamboo grass	C	-	Native

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Poaceae	<i>Avena fatua</i>	Wild oats	-	-	Non-native
Poaceae	<i>Avena sativa</i>	Common oats	-	-	Non-native
Poaceae	<i>Bothriochloa erianthoides</i>	Fluffy tip	C	-	Native
Poaceae	<i>Bothriochloa ewartiana</i>	Desert bluegrass	C	-	Native
Poaceae	<i>Bothriochloa pertusa</i>	Indian couch	-	-	Non-native
Poaceae	<i>Brachyachne convergens</i>	Common native couch	C	-	Native
Poaceae	<i>Bromus catharticus</i>	Prairie grass	-	-	Non-native
Poaceae	<i>Capillipedium spicigerum</i>	Spicytop	C	-	Native
Poaceae	<i>Cenchrus ciliaris</i>	Buffel grass	-	-	Non-native
Poaceae	<i>Chloris gayana</i>	Rhodes grass	-	-	Non-native
Poaceae	<i>Chloris pectinata</i>	Comb chloris	C	-	Native
Poaceae	<i>Chloris truncata</i>		C	-	Native
Poaceae	<i>Chloris ventricosa</i>	Tall chloris	C	-	Native
Poaceae	<i>Chrysopogon fallax</i>		C	-	Native
Poaceae	<i>Cymbopogon oblectus</i>		C	-	Native
Poaceae	<i>Cymbopogon refractus</i>	Barbed-wire grass	C	-	Native
Poaceae	<i>Dactyloctenium radulans</i>	Button grass	C	-	Native
Poaceae	<i>Digitaria ammophila</i>	Silky umbrella grass	C	-	Native
Poaceae	<i>Digitaria porrecta</i>	Finger panic grass	NT	-	Native
Poaceae	<i>Digitaria brownii</i>		C	-	Native
Poaceae	<i>Digitaria diffusa</i>		C	-	Native
Poaceae	<i>Echinochloa colona</i>	Awnless barnyard grass	-	-	Non-native
Poaceae	<i>Echinochloa crus-galli</i>	Barnyard grass	-	-	Non-native
Poaceae	<i>Eleusine tristachya</i>	Goose grass	-	-	Non-native
Poaceae	<i>Enneapogon avenaceus</i>		C	-	Native
Poaceae	<i>Entolasia minutifolia</i>		C	-	Native
Poaceae	<i>Eragrostis brownii</i>	Brown's lovegrass	C	-	Native
Poaceae	<i>Eragrostis cilianensis</i>		-	-	Non-native
Poaceae	<i>Eragrostis curvula</i>	African love grass	-	-	Non-native
Poaceae	<i>Eragrostis elongata</i>		C	-	Native
Poaceae	<i>Eragrostis lacunaria</i>	Purple lovegrass	C	-	Native
Poaceae	<i>Eragrostis leptostachya</i>	Fairy grass	C	-	Native
Poaceae	<i>Eragrostis microcarpa</i>		C	-	Native
Poaceae	<i>Eragrostis parviflora</i>	Weeping lovegrass	C	-	Native
Poaceae	<i>Eragrostis sororia</i>		C	-	Native
Poaceae	<i>Eragrostis tenuifolia</i>	Elastic grass	-	-	Non-native
Poaceae	<i>Eremochloa bimaculata</i>	Poverty grass	C	-	Native
Poaceae	<i>Eulalia aurea</i>	Silky browntop	C	-	Native
Poaceae	<i>Homopholis belsonii</i>	Belson's panic	E	V	Native
Poaceae	<i>Hyparrhenia hirta</i>	Coolati grass	-	-	Non-native
Poaceae	<i>Imperata cylindrica</i>	Blady grass	C	-	Native
Poaceae	<i>Iseilema membranaceum</i>	Small flinders grass	C	-	Native
Poaceae	<i>Melinis repens</i>	Red natal grass	-	-	Non-native
Poaceae	<i>Oplismenus aemulus</i>	Creeping shade grass	C	-	Native
Poaceae	<i>Panicum effusum</i>		C	-	Native
Poaceae	<i>Paspalidium caespitosum</i>	Brigalow grass	C	-	Native
Poaceae	<i>Paspalidium distans</i>	Shotgrass	C	-	Native
Poaceae	<i>Paspalidium globoideum</i>	Sago grass	C	-	Native
Poaceae	<i>Paspalum dilatatum</i>	Paspalum	-	-	Non-native
Poaceae	<i>Paspalum distichum</i>	Water couch	C	-	Native
Poaceae	<i>Paspalum urvillei</i>	Vasey grass	-	-	Non-native
Poaceae	<i>Poa fordeana</i>	Sweet swampgrass	C	-	Native
Poaceae	<i>Setaria sphacelata</i>	Whorled pigeon grass	-	-	Non-native
Poaceae	<i>Setaria surgens</i>		C	-	Native
Poaceae	<i>Sorghum bicolor</i>	Forage sorghum	-	-	Non-native
Poaceae	<i>Sorghum halepense</i>	Johnson grass	-	-	Non-native
Poaceae	<i>Sporobolus caroli</i>	Fairy grass	C	-	Native

Family	Scientific Name	Common Name	NC Act status	EPBC Act status	Native/Non-native
Poaceae	<i>Sporobolus creber</i>		C	-	Native
Poaceae	<i>Themeda avenacea</i>		C	-	Native
Poaceae	<i>Themeda quadrivalvis</i>	Grader grass	-	-	Non-native
Poaceae	<i>Themeda triandra</i>	Kangaroo grass	C	-	Native
Poaceae	<i>Triodia scariosa</i>		C	-	Native
Poaceae	<i>Urochloa mosambicensis</i>	Sabi grass	-	-	Non-native
Poaceae	<i>panicoides</i>		-	-	Non-native
Poaceae	<i>Walwhalleya subxerophila</i>		C	-	Native
Polygonaceae	<i>Persicaria decipiens</i>	Slender knotweed	C	-	Native
Polygonaceae	<i>Persicaria orientalis</i>	Princes feathers	C	-	Native
Polygonaceae	<i>Persicaria prostrata</i>	Creeping knotweed	C	-	Native
Polygonaceae	<i>Rumex brownii</i>	Swamp dock	C	-	Native
Polygonaceae	<i>Rumex crispus</i>	Curled dock	-	-	Non-native
Portulacaceae	<i>Portulaca oleracea</i>	Pigweed	-	-	Non-native
Portulacaceae	<i>Portulaca pilosa</i>		-	-	Non-native
Proteaceae	<i>Grevillea striata</i>	Beefwood	C	-	Native
Rhamnaceae	<i>Alphitonia excelsa</i>	Soap tree	C	-	Native
Rhamnaceae	<i>Ventilago viminalis</i>	Supplejack	C	-	Native
Rubiaceae	<i>Asperula conferta</i>		C	-	Native
Rubiaceae	<i>Pomax umbellata</i>		C	-	Native
Rubiaceae	<i>Richardia stellaris</i>		-	-	Non-native
Rutaceae	<i>Boronia occidentalis</i>		C	-	Native
Rutaceae	<i>Citrus glauca</i>	Native lime	C	-	Native
Rutaceae	<i>Geijera parviflora</i>	Wilga	C	-	Native
Salicaceae	<i>Salix babylonica</i>	Weeping willow	-	-	Non-native
Santalaceae	<i>Exocarpos cupressiformis</i>	Native cherry	C	-	Native
Santalaceae	<i>Santalum lanceolatum</i>		C	-	Native
Sapindaceae	<i>Alectryon diversifolius</i>	Scrub boonaree	C	-	Native
Sapindaceae	<i>Atalaya hemiglauca</i>		C	-	Native
Scrophulariaceae	<i>Eremophila debilis</i>	Winter apple	C	-	Native
Scrophulariaceae	<i>Eremophila longifolia</i>	Berrigan	C	-	Native
Scrophulariaceae	<i>Eremophila mitchellii</i>	False sandlewood	C	-	Native
Scrophulariaceae	<i>Myoporum acuminatum</i>	Coastal boobialla	C	-	Native
Solanaceae	<i>Datura ferox</i>	Fierce thornapple	-	-	Non-native
Solanaceae	<i>Lycium ferocissimum</i>	African boxthorn	-	-	Non-native
Solanaceae	<i>Solanum esuriale</i>	Quena	C	-	Native
Stackhousiaceae	<i>Stackhousia muricata</i>		C	-	Native
Thymelaeaceae	<i>Pimelea neoanglica</i>	Poison pimelea	C	-	Native
Ulmaceae	<i>Celtis sinensis</i>	Chinese elm	-	-	Non-native
Verbenaceae	<i>Glandularia aristigera</i>		-	-	Non-native
Verbenaceae	<i>Phyla canescens</i>		-	-	Non-native
Verbenaceae	<i>Verbena bonariensis</i>	Purpletop	-	-	Non-native
Vitaceae	<i>Clematicissus opaca</i>		C	-	Native
Xanthorrhoeaceae	<i>Xanthorrhoea johnsonii</i>		SL	-	Native
Zygophyllaceae	<i>Tribulus terrestris</i>	Caltrop	C	-	Native

APPENDIX

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Matters of National Environmental Significance Technical Report

Appendix F Fauna Species List

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

Appendix F

Fauna Species List

Family	Scientific Name	Common Name	Conservation status		Native/Non-native	Restricted matter
			NC Act	EPBC Act		
Acanthizidae	<i>Acanthiza chrysorrhoa</i>	Yellow-rumped thornbill	C	-	Native	
Acanthizidae	<i>Acanthiza nana</i>	Yellow thornbill	C	-	Native	
Acanthizidae	<i>Acanthiza pusilla</i>	Brown thornbill	C	-	Native	
Acanthizidae	<i>Gerygone olivacea</i>	White-throated gerygone	C	-	Native	
Acanthizidae	<i>Smicrornis brevirostris</i>	Weebill	C	-	Native	
Accipitridae	<i>Elanus axillaris</i>	Black-shouldered kite	C	-	Native	
Accipitridae	<i>Haliastur sphenurus</i>	Whistling kite	C	-	Native	
Agamidae	<i>Pogona barbata</i>	Bearded dragon	C	-	Native	
Agamidae	<i>Tympanocryptis condaminesis</i>	Condamine earless dragon	E	E	Native	
Anatidae	<i>Anas superciliosa</i>	Pacific black duck	C	-	Native	
Anatidae	<i>Chenonetta jubata</i>	Australian wood duck	C	-	Native	
Anatidae	<i>Dendrocygna eytoni</i>	Plumed whistling-duck	C	-	Native	
Anatidae	<i>Malacorhynchus membranaceus</i>	Pink-eared duck	C	-	Native	
Anhingidae	<i>Anhinga novaehollandiae</i>	Australasian darter	C	-	Native	
Ardeidae	<i>Ardea alba</i>	Great egret	C	-	Native	
Ardeidae	<i>Egretta novaehollandiae</i>	White-faced heron	C	-	Native	
Ardeidae	<i>Nycticorax caledonicus</i>	Nankeen night-heron	C	-	Native	
Artamidae	<i>Artamus leucorhynchus</i>	White-breasted woodswallow	C	-	Native	
Artamidae	<i>Artamus superciliosus</i>	White-browed woodswallow	C	-	Native	
Artamidae	<i>Cracticus nigrogularis</i>	Pied butcherbird	C	-	Native	
Artamidae	<i>Cracticus tibicen</i>	Australian magpie	C	-	Native	
Artamidae	<i>Cracticus torquatus</i>	Grey butcherbird	C	-	Native	
Artamidae	<i>Strepera graculina</i>	Pied currawong	C	-	Native	
Bovidae	<i>Bos taurus</i>	European cattle	-	-	Non-native	
Bovidae	<i>Capra hircus</i>	Goat	-	-	Non-native	Class 3
Cacatuidae	<i>Cacatua galerita</i>	Sulphur-crested cockatoo	C	-	Native	
Cacatuidae	<i>Cacatua sanguinea</i>	Little corella	C	-	Native	
Cacatuidae	<i>Calyptorhynchus banksii</i>	Red-tailed black-cockatoo	C	-	Native	
Cacatuidae	<i>Eolophus roseicapilla</i>	Galah	C	-	Native	
Cacatuidae	<i>Nymphicus hollandicus</i>	Cockatiel	C	-	Native	
Campephagidae	<i>Coracina novaehollandiae</i>	Black-faced cuckoo-shrike	C	-	Native	
Campephagidae	<i>Lalage tricolor</i>	White-winged triller	C	-	Native	
Canidae	<i>Canis lupus familiaris</i>	Dog	-	-	Non-native	Class 3
Canidae	<i>Vulpes vulpes</i>	Red fox	-	-	Non-native	Class 3
Casuariidae	<i>Dromaius novaehollandiae</i>	Emu	C	-	Native	
Charadriidae	<i>Vanellus miles novaehollandiae</i>	Masked lapwing (southern subspecies)	C	-	Native	
Cisticolidae	<i>Cisticola exilis</i>	Golden-headed cisticola	C	-	Native	
Climacteridae	<i>Climacteris picumnus</i>	Brown treecreeper	C	-	Native	
Climacteridae	<i>Cormobates leucophaea</i>	White-throated treecreeper	C	-	Native	
Columbidae	<i>Columba livia</i>	Rock dove	-	-	Non-native	

Family	Scientific Name	Common Name	Conservation status		Native/Non-native	Restricted matter
			NC Act	EPBC Act		
Columbidae	<i>Geopelia humeralis</i>	Bar-shouldered dove	C	-	Native	
Columbidae	<i>Geopelia striata</i>	Peaceful dove	C	-	Native	
Columbidae	<i>Ocyphaps lophotes</i>	Crested pigeon	C	-	Native	
Corcoracidae	<i>Corcorax melanorhamphos</i>	White-winged chough	C	-	Native	
Corcoracidae	<i>Struthidea cinerea</i>	Apostlebird	C	-	Native	
Corvidae	<i>Corvus coronoides</i>	Australian raven	C	-	Native	
Corvidae	<i>Corvus orru</i>	Torresian crow	C	-	Native	
Cuculidae	<i>Cacomantis pallidus</i>	Pallid cuckoo	C	-	Native	
Cuculidae	<i>Chrysococcyx minutillus</i>	Little bronze cuckoo	C	-	Native	
Diplodactylidae	<i>Strophurus williamsi</i>	Soft-spined gecko	C	-	Native	
Elapidae	<i>Demansia psammophis</i>	Yellow-faced whipsnake	C	-	Native	
Elapidae	<i>Pseudechis australis</i>	Mulga snake	C	-	Native	
Equidae	<i>Equus caballus</i>	Horse	-	-	Non-native	
Estrildidae	<i>Neochmia temporalis</i>	Red-browed finch	C	-	Native	
Estrildidae	<i>Taeniopygia bichenovii</i>	Double-barred finch	C	-	Native	
Estrildidae	<i>Taeniopygia guttata</i>	Zebra finch	C	-	Native	
Falconidae	<i>Falco cenchroides</i>	Nankeen kestrel	C	-	Native	
Gekkonidae	<i>Heteronotia binoei</i>	Bynoe's gecko	C	-	Native	
Hirundinidae	<i>Hirundo neoxena</i>	Welcome swallow	C	-	Native	
Hirundinidae	<i>Petrochelidon ariel</i>	Fairy martin	C	-	Native	
Leporidae	<i>Lepus capensis</i>	Fare	-	-	Non-native	
Leporidae	<i>Oryctolagus cuniculus</i>	Rabbit	-	-	Non-native	Class 3
Limnodynastidae	<i>Limnodynastes tasmaniensis</i>	Spotted grassfrog	C	-	Native	
Macropodidae	<i>Macropus giganteus</i>	Eastern grey kangaroo	C	-	Native	
Macropodidae	<i>Macropus robustus</i>	Common wallaroo	C	-	Native	
Macropodidae	<i>Macropus rufogriseus</i>	Red-necked wallaby	C	-	Native	
Macropodidae	<i>Wallabia bicolor</i>	Swamp wallaby	C	-	Native	
Maluridae	<i>Malurus cyaneus</i>	Superb fairy-wren	C	-	Native	
Maluridae	<i>Malurus lamberti</i>	Variegated fairy-wren	C	-	Native	
Meliphagidae	<i>Acanthagenys rufogularis</i>	Spiny-cheeked honeyeater	C	-	Native	
Meliphagidae	<i>Caligavis chrysops</i>	Yellow-faced honeyeater	C	-	Native	
Meliphagidae	<i>Lichmera indistincta</i>	Brown honeyeater	C	-	Native	
Meliphagidae	<i>Manorina melanocephala</i>	Noisy miner	C	-	Native	
Meliphagidae	<i>Melithreptus lunatus</i>	White-naped honeyeater	C	-	Native	
Meliphagidae	<i>Nesoptilotis leucotis</i>	White-eared honeyeater	C	-	Native	
Meliphagidae	<i>Philemon corniculatus</i>	Noisy friarbird	C	-	Native	

Family	Scientific Name	Common Name	Conservation status		Native/Non-native	Restricted matter
			NC Act	EPBC Act		
Meliphagidae	<i>Plectorhyncha lanceolata</i>	Striped honeyeater	C	-	Native	
Meliphagidae	<i>Ptilotula penicillata</i>	White-plumed honeyeater	C	-	Native	
Meropidae	<i>Merops ornatus</i>	Rainbow bee-eater	C	-	Native	
Miniopteridae	<i>Miniopterus schreibersii oceanensi</i>	Eastern bentwing bat	C	-	Native	
Molossidae	<i>Mormopterus ridei</i>	Eastern freetail bat	C	-	Native	
Molossidae	<i>Tadarida australis</i>	White-striped freetail bat	C	-	Native	
Monarchidae	<i>Grallina cyanoleuca</i>	Magpie-lark	C	-	Native	
Motacillidae	<i>Anthus novaeseelandiae</i>	Australasian pipit	C	-	Native	
Muridae	<i>Hydromys chrysogaster</i>	Water rat	C	-	Native	
Myobatrachidae	<i>Crinia parinsignifera</i>	Beeping froglet	C	-	Native	
Myobatrachidae	<i>Uperoleia fusca</i>	Dusky gungan	C	-	Native	
Nectariniidae	<i>Dicaeum hirundinaceum</i>	Mistletoebird	C	-	Native	
Neosittidae	<i>Daphoenositta chrysoptera</i>	Varied sittella	C	-	Native	
Pachycephalidae	<i>Colluricincla harmonica</i>	Grey shrike-thrush	C	-	Native	
Pachycephalidae	<i>Falcunculus frontatus</i>	Crested shrike-tit	C	-	Native	
Pachycephalidae	<i>Pachycephala pectoralis</i>	Golden whistler	C	-	Native	
Pachycephalidae	<i>Pachycephala rufiventris</i>	Rufous whistler	C	-	Native	
Pardalotidae	<i>Pardalotus punctatus</i>	Spotted pardalote	C	-	Native	
Pardalotidae	<i>Pardalotus striatus</i>	Striated pardalote	C	-	Native	
Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican	C	-	Native	
Petauridae	<i>Petaurus australis</i>	Yellow-bellied glider	C	-	Native	
Petroicidae	<i>Eopsaltria australis</i>	Eastern yellow robin	C	-	Native	
Petroicidae	<i>Petroica goodenovii</i>	Red-capped robin	C	-	Native	
Phalacrocoracidae	<i>Phalacrocorax sulcirostris</i>	Little black cormorant	C	-	Native	
Phasianidae	<i>Coturnix ypsilophora</i>	Brown quail	C	-	Native	
Podicipedidae	<i>Poliocephalus poliocephalus</i>	Hoary-headed grebe	C	-	Native	
Pomatostomidae	<i>Pomatostomus temporalis</i>	Grey-crowned babbler	C	-	Native	
Psittacidae	<i>Aprosmictus erythropterus</i>	Red-winged parrot	C	-	Native	
Psittacidae	<i>Barnardius zonarius</i>	Australian ringneck	C	-	Native	
Psittacidae	<i>Platycercus adscitus</i>	Pale-headed rosella	C	-	Native	
Psittacidae	<i>Platycercus eximius</i>	Eastern rosella	C	-	Native	
Psittacidae	<i>Trichoglossus chlorolepidotus</i>	Scaly-breasted lorikeet	C	-	Native	

Family	Scientific Name	Common Name	Conservation status		Native/Non-native	Restricted matter
			NC Act	EPBC Act		
Pteropodidae	<i>Pteropus poliocephalus</i>	Grey-headed flying-fox	C	V	Native	
Ptilonorhynchidae	<i>Chlamydera maculata</i>	Spotted bowerbird	C	-	Native	
Recurvirostridae	<i>Himantopus himantopus</i>	Black-winged stilt	C	-	Native	
Rhipiduridae	<i>Rhipidura albiscapa</i>	Grey fantail	C	-	Native	
Rhipiduridae	<i>Rhipidura leucophrys</i>	Willie wagtail	C	-	Native	
Scincidae	<i>Carlia pectoralis</i>	Open-litter rainbow skink	C	-	Native	
Scincidae	<i>Concinnia tenuis</i>	Bar-sided skink	C	-	Native	
Scincidae	<i>Cryptoblepharus plagiocephalus</i>	Snake-eyed skink	C	-	Native	
Sturnidae	<i>Acridotheres tristis</i>	Common myna	-	-	Non-native	
Sturnidae	<i>Sturnus vulgaris</i>	Common starling	-	-	Non-native	
Suidae	<i>Sus scrofa</i>	Pig	-	-	Non-native	Class 3
Tachyglossidae	<i>Tachyglossus aculeatus</i>	Short-beaked echidna	SL	-	Native	
Threskiornithidae	<i>Threskiornis spinicollis</i>	Straw-necked ibis	C	-	Native	
Timaliidae	<i>Zosterops lateralis</i>	Silvereeye	C	-	Native	
Varanidae	<i>Varanus panoptes</i>	Yellow-spotted monitor	C	-	Native	
Vespertilionidae	<i>Chalinolobus gouldii</i>	Gould's wattled bat	C	-	Native	
Vespertilionidae	<i>Nyctophilus species</i>	Long-eared bat species	V*	V*	Native	
Vespertilionidae	<i>Scotorepens greyii/Scotorepens sp.</i>	Broad-nosed bats	C	-	Native	
Vespertilionidae	<i>Scotorepens orion/Falsistrellus tas</i>	Eastern broad-nosed bat	C	-	Native	
Vespertilionidae	<i>Vespadelus darlingtoni</i>	Large forest bat	C	-	Native	
Vespertilionidae	<i>Vespadelus troughtoni</i>	Eastern cave bat	C	-	Native	
Vespertilionidae	<i>Vespadelus vulturnus</i>	Little forest bat	C	-	Native	

APPENDIX

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Matters of National Environmental Significance Technical Report

Appendix G Flora Assessment Proformas

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

Appendix G

Flora Assessment Proformas

Vegetation Proforma

Date: 16/4/2018 CB26
 Observers: CS + OR Site Name: SK 1.



Future Freight
 Integrating Community, Environment, and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:
 Start point Zone 5 E 0 N
 End point Zone 5 E 0 N
 Photo points (number/s): North: 28.60824 South: 150.62366 West: GPS 057

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Shrub*	Ground
Height Range (m): 12-14	Height Range: 2-5m	Height Range: 0.1-0.3m
Av. Height (m): 12	Av. Height: 3m	Av. Height: 0.1
Cover (%): 0 - 65	Cover: 30	Cover: 10%
Balak Bingalen	Selak milga Scrub bamboo	Eucalyptus Callitriche Cypripedium Chlorophytum Cyperus Poa Chlorophytum Hedyotis Blackberry

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed <2m tall.

Table 2

Mapped Regional Ecosystem: 11.4.3	Confirmed Regional Ecosystem: 11.4.3-
Landform: Claypan	
Soils: fine silty clays	
Structural formation (eg woodland, open-forest etc.): Open Forest	
Field Observations/ Notes (eg. Level of disturbance connectivity): Road	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	

Vegetation Proforma

Date: 16/4/2018

Observers: CS/OR

Site Name: Mowat Site 2



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length: _____

Start point Zone 5 E 0 N _____

End point Zone 5 E 0 N _____

Photo points (numbers): North: _____ East: _____ South: _____ West: _____

S 28.59330
E 150.67551. GPS - 038.

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (not required for all sites)

Canopy/ Emergent	Tree	Shrub*	Ground
Height Range (m): 10-12	Height Range: 6-8	Height Range: 0.1-3	Height Range: 0.1-0.2
Av. Height (m): 11m	Av. Height: 7m	Av. Height: 2m	Av. Height: 0.1
Cover (%): 10%	Cover: 3%	Cover: 10%	Cover: 60%
E. woodsonia E. woodsonia Buloh- H. pop.	Acan. aurea. Grevillea striata Scaevola	Krematoph. milled Guzmania pith	hake of mlt washed tree near Coccol. pig for pig for red grass magn. pet Scaevola and
Point dens of canopy, Rob to cream and			

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem Confirmed Regional Ecosystem: Non rem

Landform: clay pan

Soils: fine silts

Structural formation (eg woodland, open-forest etc.): Closed

Field Observations/ Notes (eg. Level of disturbance connectivity): Highly disturbed (least)

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):
Tige near, velvet tree near, mlt of mlt

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – **“measured”, not “estimated”**) **A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.**

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Coastal		
Great fern		
Great anemone		
Moth of anemone		
Parrot daisy		
Chertsey garden		
Sea p. fern		
Salt sea milk		
False milk		
Flag		
Salix		
Willow		
Marine creek		
Do. Sea process		
Do. Sea daisy		
Do. Sea grass		
Do. Sea grass		
Do. Sea milk		

— canopy
ve



Future Freight

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S 28.57300.
E 150.72-74
GPS-039

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Canopy/ Emergent		Shrub*		Ground	
Height Range (m): 10-12m	Height Range:	Height Range:	Height Range:	Height Range:	Height Range:
Av. Height (m): 12	Av. Height:	Av. Height:	Av. Height:	Av. Height:	Av. Height:
Cover (%): 20%	Cover:	Cover:	Cover:	Cover:	Cover:
Bullock	Melaleuca sp densispecta	abnt		Acacia sp approx 10m	

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Mapped Regional Ecosystem:	11.5.19.	Confirmed Regional Ecosystem:	11.5.19.
Landform:	Draught		
Soils:	Loe silt.		
Structural formation (eg woodland, open-forest etc.):			
Field Observations/ Notes (eg. Level of disturbance connectivity):	Heavy grazed		
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):			

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

Veg

Date:

Observations

Transe

GPS coord

Photo p

Table 1

	Ca
--	----

Height	1.70
Weight	65

Av. Heig

Cover (%)

Cover (5)	
-----------	--

17

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stems w

Table

Mapp

Mapp
Land

Landt

Soils

Soils
Struc

Struc

Field

Weed

pw: drUG epu Q7Zu!

Vegetation Proforma

Date: 17/4/2018

Observers: CS/OR

Site Name: Neal's Gile



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:

Datum:

Transect length:

Start point

Zone

56

E

0278739

N

6834775

GPS 040

End point

Zone

5

E

0

N

Photo points (numbers):

North:

East:

South:

West:

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (Open Forest etc.)

Canopy/ Emergent	Tree	Shrub*	Ground
Height Range (m):	Height Range:	Height Range: 1-2m	Height Range:
Av. Height (m):	Av. Height:	Av. Height: 1m	Av. Height:
Cover (%):	Cover:	Cover: 5%	Cover:
Absent	Absent	E. mitchellii	d. rock of mth d. open mth brown slash mth Kambere grass clove Run

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Rain	Confirmed Regional Ecosystem:
Landform: Clay pan	
Soils: Fine silty-clay	
Structural formation (eg woodland, open-forest etc.):	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
largely dead & regrowth - heavily grazed by sheep	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
velvet tree par H. other. of pullos H. other. cock	38%

Vegeta

Date: _____

Observers:

Transect De

GPS coordinate

Start

End p

Photo points (r

Table 1: Est

Canopy

Height Range

Av. Height (m)

Cover (%):

Table notes: * stems within

Table 2

Mapped F

Landform

Soils:

Structural

Field Obs

Field Ob:

Weed sp

Note: or rather in several occur at "Bekuni Poni" were found

Vegetation Proforma

Date: 17/4/2018

Observers: CS / Q.R.

Site Name: New 6



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: 5 Transect length: 5

Start point Zone 5 E 0 2 8 4 0 3 5 N 6 8 3 9 0 6 7

End point Zone 5 E 0 0 0 0 0 0 N 0 0 0 0 0 0

Photo points (numbers): North: East: South: West:

GPS 41

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated vegetation cover (mandatory for all sites)

Canopy/ E	Shrub*	Ground
Height Range (m): 19-22	Height Range: 1-3	Height Range: 0.1-0.2
Av. Height (m): 20	Av. Height: 2m	Av. Height: 0.1
Cover (%): 0%	Cover: 10%	Cover: 30%
E. wattle	W. gum	Sorghum grass
Banyan	Banyan	Opuntia
	Black sheoak	Horsetail
	Opuntia	Fig
		Schm. mallee
		Eucalyptus sp.

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Rem. Confirmed Regional Ecosystem:

Landform: Plain

Soils: Fine silty/sand

Structural formation (eg woodland, open-forest etc.): Open woodland

Field Observations/ Notes (eg. Level of disturbance connectivity): Highy dense grass

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):
Horsetail
Opuntia

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

- canopy
ve

Future Freight

Integrating Community, Environment and Engineering

Open Land.

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Canopy/ Emergent		Tree 2		Shrub*		Ground	
Height Range (m):		Height Range:		Height Range:		Height Range:	
Av. Height (m):		Av. Height:		Av. Height:		Av. Height:	
Cover (%):		Cover:		Cover:		Cover:	
<i>E. pyramidalis</i>	c	<i>Calthe glauca</i>	c	<i>Calthe glauca</i>	d	<i>Lamonda</i>	e
<i>Allo lauranti</i>	c	<i>Allo lauranti</i>	c	<i>Acacia cath</i>	a	<i>Eich alba</i>	a
<i>E. lauranti</i>	a	<i>E. lauranti</i>	a	<i>Acacia viciifolia</i>	a	<i>Walter gossyp</i>	d
<i>E. lauranti</i>	a			<i>Acacia glauca</i>	a		
<i>Calthe</i>	c			<i>Acacia lauranti</i>	a		
<i>E. lauranti</i> ?	c						

Table 2

Table 2	
Mapped Regional Ecosystem:	11-S-1a, 11-S-14
Confirmed Regional Ecosystem:	11-S-1a
Landform:	
Soils:	
Structural formation (eg woodland, open-forest etc.):	Open forest 60%
Field Observations/ Notes (eg. Level of disturbance connectivity):	Relative connectivity
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	open forest risk of miller] - 2%

Table 3: Canopy cover using Canopy Intercept method (use only if a transect survey is required per representative "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>D. longus</i> sp. <i>Arctostaphylos</i> sp. <i>Prognathus</i> sp. <i>Entomophaga</i> <i>Spodopogon</i> <i>Melospiza</i> sp. <i>Callipepla</i> <i>Meleagris</i> <i>Meleagris</i> <i>Meleagris</i> <i>Meleagris</i> <i>E. f. f.</i> <i>C. f. f.</i> <i>Alta f. f.</i> <i>Brachyotus</i> <i>E. f. f.</i> <i>E. f. f.</i> <i>Teucon f. f.</i> <i>Chalcid f. f.</i>	<i>Chalcid f. f.</i> <i>Salam f. f.</i>
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Vegetation Proforma

Date:

17/4/18

Observers:

CS / OR.

Site Name:

Site 14.



Future Freight

Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 56 E 0296570 N 6845503 GPS 043

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

Note: if canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimate Canopy Cover (mandatory for all sites)

Canopy	Tree 2	Shrub*	Ground
Height Range (m):	Height Range: 4-7	Height Range: 2-5m	Height Range:
Av. Height (m):	Av. Height: 6m	Av. Height: 3m	Av. Height:
Cover (%): 5%	Cover: 10%	Cover: 20%	Cover:
E. pip d	Colea glau. d	gnk hake E. pip d	E. pip gnk weed Soft hke She hke Nake gres.

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Perm. Confirmed Regional Ecosystem:

Landform: Phm

Soils: spin ch 1

Structural formation (eg woodland, open-forest etc.): Ch

Field Observations/ Notes (eg. Level of disturbance connectivity):

Chard - gnk

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

gnk Tiger 30%

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

Vegetation Proforma

Date: 18/4/18

Observers: CS / AR

Site Name: Site 18



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 56 E 0300838 N 6853207 *GPS 44*

End point Zone 5 E 0

Photo points (numbers): North: East: South: West: *None seen*

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimate Canopy Cover (mandatory for all sites)

Canopy	Tree 1	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:	Height Range:
Av. Height (m): <i>5m</i>	Av. Height:	Av. Height:	Av. Height:	Av. Height:
Cover (%): <i>30%</i>	Cover:	Cover:	Cover:	Cover:
<i>F. leucophylla (mallee) d</i>	<i>Robusta frb. c</i>	<i>Opuntia basilaris c</i>	<i>Acacia sp. c</i>	
<i>E. maculosa a</i>	<i>Callitriche glabra c</i>	<i>Scaevola coarctata c</i>	<i>Conocarpus sp. c</i>	
<i>E. ? - sic a</i>	<i>Belot a</i>		<i>Philadelphus sp. c</i>	
<i>Any leucophylla a</i>			<i>U. c</i>	
			<i>Eragrost sp. c</i>	

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. # Shrub is a woody plant <8m tall with multiple stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: *Non rem* Confirmed Regional Ecosystem:

Landform: *Plains*

Soils: *Sandy loam / Shale*

Structural formation (eg woodland, open-forest etc.): *open forest regrowth*

Field Observations/ Notes (eg. Level of disturbance connectivity): *Highly disturbed ground to cattle*

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): *Opuntia basilaris 2%
Scaevola coarctata*

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

E. bark	Pachira obovata
E. edmon	Acacia implexa
P. parkson	Acacia caribaea
Conocarpus nutt.	Euclea
White gum grass	
Bastarda coleum	
Arct. capst.	
Phytolacca virginica	
Calliandra glauca	
weeping croton	
Bastarda d. l.	
Pachira pubescens	
Acacia glauca	
A. caribaea	
Albizia leonard	
Spunk bark	
Sambucus coccinea	
Chaptalia sp (not leaf)	
Gomphocarpus	

Wee

Vegetation Proforma

Date: 18/4/18

Observers: CS OR.

Site Name: new sites 15



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:
Start point Zone 56 E 0297206 N 6847771 GPS
End point Zone 5 E 0 N 045.
Photo points (numbers): North: East: South: West:

Note: if canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Shrub*	Ground
Height Range (m): 10-14	Height Range: 1-3m	Height Range: 0.1-0.3
Av. Height (m): 12m	Av. Height: 2m	Av. Height: 0.3
Cover (%): 10%	Cover: 15%	Cover: 30%
Cor. munda C	A. laetifolia C	Coker asp
Eucalypt sp C	A. caribaea C	Nature grasses
(C. C. eryth.) C	Alo. ingh C	Forbesia
(A. shirleyi) C		
E. laetifolia (S.) C		
C. nodosa		

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: HGL HSL	Confirmed Regional Ecosystem: L7 (7)
Landform: small rise	
Soils: Sandy	
Structural formation (eg woodland, open-forest etc.):	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
on edge of L27. Concerns dark over adjacent	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
grass pasture	

Vegetation Proforma

Date: 18/4/18.

Observers: CS / OR.

Site Name: new site 16



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Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E	0 2 9 7 8 5 5	N	6 8 4 8 2 3 5	GPS 096
End point	Zone 5 E	0	N		
Photo points (numbers): North: _____ East: _____ South: _____ West: _____					

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy/ Shrub/ Ground cover for all sites

Canopy/ Emergent		Shrub*		Ground	
Height Range (m):	6-12m	Height Range:	1-2m	Height Range:	0.1-0.2
Av. Height (m):	10m	Av. Height:	2m	Av. Height:	0.1
Cover (%):	40	Cover:	40%	Cover:	30%
E. banksiana	C	mitre (Asteraceae)	a	Waharoa	d
E. mucronata	C	Calluna glauca	d	Waharoa	d
A. stricta	a	Alnus incana	a	Waharoa	d
Corymbium (Ericaceae)	a				
C. galeata	C				

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: 11.3.2 / 11.3.28	Confirmed Regional Ecosystem:
Landform: gentle slope	
Soils: sand / underlying sandstone (C29)	
Structural formation (eg woodland, open-forest etc.):	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
fences, some shrub, relatively good	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
O. banksiana (1%)	

Vegetation Proforma

Date: 18/4/18.

Observers: CS/QR.

Site Name: New site 17.



Future Freight
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Transect Details (required for all sites)

GPS coordinates: Datum: J Transect length:

Start point Zone 5 6 E 0 2 9 7 6 4 7 N 6 8 4 8 2 6 1. GPS

End point Zone 5 E 0 O 4 Y

Photo points (numbers): North: East: South: West:

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree	Shrub*	Ground
Height Range (m): 10-13.	Height Range:	Height Range:	Height Range:
Av. Height (m): 12	Av. Height:	Av. Height:	Av. Height:
Cover (%): 30	Cover:	Cover:	Cover:
C. glaucophylla	C. glauca Albizia leucacantha	A. caribbea Lept. spec. sp. Dacrydium spec.	Angora grass Poa spec. Mint water Chenopodium spec. Xanthorrhoea

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: 11/5.1/11.7.1/11.7.4- Confirmed Regional Ecosystem:

Landform: land slope

Soils: sandy

Structural formation (eg woodland, open-forest etc.): open eucalypt forest

Field Observations/ Notes (eg. Level of disturbance connectivity): relatively undisturbed, some selective clearing

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):
Opuntia hindsii 1%
Piper faurii

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>Oenothera lutea</i> <i>Populus deltoides</i> <i>Urtica dioica</i> <i>Cassia</i> <i>Acanthaceae</i> <i>Berberis</i> <i>Alnus incana</i> <i>Aster</i> <i>Asplenium</i> <i>Xanthoxylum</i> <i>Sparganium angustifolium</i> <i>Sparganium angustifolium</i> <i>Malvastrum</i> <i>Persea</i> <i>Larix laricina</i> <i>Calocedrus</i> sp.		
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Vegetation Proforma

Date:

19/07/18

Observers:

CS OR

Site Name:

Site 27



Future Freight

Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:

Datum:

J

Transect length:

Start point

Zone

5

6

E

0

3

2

0

5

7

6

N

6

8

8

0

8

7

1

End point

Zone

5

E

0

Photo points (numbers):

North:

East:

South:

West:

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 13-18	Height Range: 4-8m	Height Range: 1-2m	Height Range: 0.1-0.2
Av. Height (m): 14	Av. Height: 5m	Av. Height: 1.5m	Av. Height: 0.1
Cover (%): 70% - 30%	Cover: 10%	Cover: 10%	Cover: 20%
Casuarina cristata	milga	Bellot	Nohu gosses
E. muraie		milga	Fips
A. Lerpa		E. pyram	

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: 11.5.20 / 11.9.5	Confirmed Regional Ecosystem: 11.9.5
Landform:	
Soils: fine & sandy	→ under 12.9.
Structural formation (eg woodland, open-forest etc.):	closed forest / woodland
Field Observations/ Notes (eg. Level of disturbance connectivity):	evident at chng. stands at Bellot and vst Bigelow
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	Sty African boxthorn 2% gum shiba

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>Bellah</i> <i>Bugabon</i> <i>mitga</i> <i>deas</i> <i>lurus</i> <i>deas</i> <i>jeal</i> <i>Artista</i> <i>agut</i> <i>Philobis</i> (<i>small pink</i>) <i>Arta</i> <i>cal</i> <i>Agenda</i> <i>cal</i> <i>G. micropus</i> <i>P. n. sula</i> <i>Ergo</i> <i>at</i> <i>lepto</i> <i>Myron</i> <i>chier</i> <i>Chengpoh</i> <i>a</i> <i>Artista</i> <i>sp</i> <i>Abram</i> <i>boxth</i> <i>Akechun</i> <i>sh</i> <i>Halatogon</i> <i>angth</i> <i>Spent</i> <i>sh</i>	<i>Myron</i> <i>jeal</i> <i>Artista</i> <i>Yellow</i> <i>trills</i> <i>Cypar</i> <i>eragor</i> <i>Paragon</i> <i>soroma</i> <i>Enchela</i> <i>beaut</i> <i>Scherm</i> <i>beaut</i> <i>Sentah</i> <i>lancet</i> <i>Pannu</i> <i>ell</i> <i>Piptor</i> <i>lao</i> <i>Dioneda</i> <i>aerth</i> <i>Kam</i> <i>stara</i> (<i>coll</i>) <i>Darlone</i> <i>micron</i>
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Vegetation Proforma

Date:

19/03/18

Observers:

CS / OR

Site Name:

new site
21



Future Freight

Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 56 E 0319408 N 6867999 CPS

End point Zone 5 E 0 N 050

Photo points (numbers): North: East: South: West:

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 10-12	Height Range: 4-6	Height Range: 1-2m	Height Range: 0.2-0.5
Av. Height (m): 12m	Av. Height: 6m	Av. Height: 1m	Av. Height: 0.2
Cover (%): 30%	Cover: 20%	Cover: 20%	Cover: 20% 60%
E. chlorostada ? (grey box. with wood bark thin (sp.) C	Acacia sp. graph Callitris glauca	A. glauca corp (ric) collected) Opuntia burch A. canaliculata	Eucalyptus sp. Arctostaphylos sp. Eucalyptus sp. rock grass Riparian
A. leucocarpa			
E. microcarpa			
BL			
Bulbake			

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem Confirmed Regional Ecosystem: Non rem

Landform: Plain

Soils: Sandy

Structural formation (eg woodland, open-forest etc.): Acacia woodland

Field Observations/ Notes (eg. Level of disturbance connectivity): Adjacent to road / higher site

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):
Opuntia burch 10%
Opuntia stricta

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

Vegetation Proforma

Date: 19/4/18

Observers: CS / OR

Site Name: Site 19.



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:		Datum: 5	Transect length:	
Start point	Zone 56	E 0316009	N 6859266	GPS
End point	Zone 5	E 0	N	052
Photo points (numbers): North: East: South: West:				

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Trees	Shrub*	Ground
Height Range (m): 18-20	Height Range: 8-12	Height Range: 2-5	Height Range: 0.1-0.5
Avg. Height (m): 18m	Avg. Height: 10m	Avg. Height: 3m	Avg. Height: 0.2
Cover (%): 15%	Cover: 60%	Cover: 60%	Cover: 30%
E. pop	C. glaucophylla	willow	natural grasses
R. Canad.		cashew	

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: 11.3.2	Confirmed Regional Ecosystem: 11.3.2
Landform: dune	
Soils: alluvium	
Structural formation (eg woodland, open-forest etc.): woodland	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
gully area	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
senecio coerulescens	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Semino Coctus open bog Poplar here Red gum tiger thorn Cal. tree flowers Austro. stipe. Major pest. Tasman. swam. wilga. citrae living Malaka. bamboo Gumbi Gumbi Shrubland azy. Camellia 1st ant. stipe Archid. copul. red C. 6. 11.		
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Vegeta

Date:

Observers:

Transect D

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Photo point

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Height Ra

Av. Heigh

Cover (%)

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Vegetation Proforma

Date: 19/4/18

Observers: CS / OR.

Site Name: New site 29.



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S 26.13984
E 151.18794

GPS 054

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 5m	Height Range:	Height Range: 1-3m	Height Range: 60%
Av. Height (m): 7-9m	Av. Height:	Av. Height: 2m	Av. Height: 0.3
Cover (%): 70%	Cover:	Cover: 30%	Cover: 0.1-0.5
St. hoop d F. pop (E) a in strip		wilgum braghten	Back bank Coar pan eye dark Dg dark

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Rain

Confirmed Regional Ecosystem: Non Rain

Landform: plain

Soils: 29.

Structural formation (eg woodland, open-forest etc.): closed forest

Field Observations/ Notes (eg. Level of disturbance connectivity):

B. galah strip on road side

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

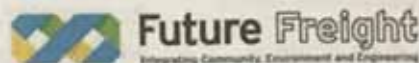
[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

A solan	colom ank	
Bugolan	digreed	
wilgin		
Alupha rutor		
C. lars auctor	(*) Digibaro proct	
lych tra		
Greeny green		
Pos Lohke		
Chly gyp		
Moharsh anan		
darle.		
b. h. p. l. a. e.		
Nephra green		
Ar. Bal. g. 12		
Grayshen wood		
Parren ebr		
Schach m. hea		
Bagala g. 11		
Sida hochkorn		

Vegetation Proforma

Date: 20/4/18
 Observers: CS / OR Site Name: 56 30.



Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N GBS
 End point Zone 5 E 0 N OSS.

Photo points (numbers): North: East: South: West:

S: -28.12714
 E: 151.18953.

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:
Av. Height (m):	Av. Height:	Av. Height:	Av. Height:
Cover (%):	Cover:	Cover:	Cover:
Ap 20	Abund	B Abund	Scrub under margin vegetation Hudon vegetation Habitat + exother grasses

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem Confirmed Regional Ecosystem: Non rem
 Landform: undulating - h. storm drainage line (exposed). Non wetland
 Soils:
 Structural formation (eg woodland, open-forest etc.):
 Field Observations/ Notes (eg. Level of disturbance connectivity):
 to Eucalyptus marginata (abundant). No aquatic vegetation
 Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):
 B. B. gopher straton 18.

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Blue heliotrope	Sporobolus caeruleus
for wire	Digitaria divaricata
Phylla cand.	Can. caribae
Shale goss.	Sida rostrata
Scheuchzeria	Cullen (Linn.)
Scheuchzeria	Black wire goss.
Many moca	Dichot. serrata
Majus p.	
Radicea p.	
Red wire goss.	
Artem. lora g.	
Juncus p.	
Austroshum.	
Panicum g.	
Chlor. p.	
Straw. lora	
Melastoma am.	
Passiflora g.	
Scheuchzeria	

Need s

Vegetation Proforma

Date: 20/4/18

Observers: CS / OR

Site Name: Site 31.



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E 0			N	
End point	Zone 5 E 0			N	
Photo points (numbers): North: East: South: West:					
S: 2410756 E: 15119574					

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range: 0.1-0.5m
Av. Height (m):	Av. Height:	Av. Height:	Av. Height: 0.2m
Cover (%):	Cover:	Cover:	Cover: 100%
Apart	About	Absent	[Muhlen (90%) M. Mt (10%) Gross.

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Rem	Confirmed Regional Ecosystem: Non rem
Landform: Heavy Loke soils (L29) - Bungalow Adj.	
Soils:	
Structural formation (eg woodland, open-forest etc.):	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
Road Reserve - Belsons Ponic (collected)	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
Cynch. tobrum 1%	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect is "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Labret cane Sorghum tops Ogishu Lw Pae deal. Sorghum grass Sorghum pest Blue grass Anthus grass Rhod. grass Sheep flocks Pig flocks Pinnate hoppers Red not amaranth B. d. p. l. s. Salvia combr. Chloa. d. s. Ensete. f. d. s. Bragelone Agrost. d. s.	Bragelone grass Calce. combr. Sida. f. d. s. Cyro. f. d. s. Mery. m. p. l. s. Anth. p. l. s. C. l. s. s. Chrysom. f. d. s. Bull. f. d. s. Mery. grass Yellow. p. l. s. G. d. s. D. s. s. A. s. s. C. s. s.	* B. s. s. p. l. s. (C. s. s. - 257 - 80) → C. s. s. f. d. s.
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Vegetation Proforma

Date: 20/4/18

Observers: CS / OR

Site Name: Site 32



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N 0000000000 GPS
End point Zone 5 E 0 N 0000000000 084.

Photo points (numbers): North: East: South: West:

5 26.07481
6 151.19788

(TREC)

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 15-18	Height Range: 8-10	Height Range: 1-3	Height Range: 0.1-0.5
Av. Height (m): 15	Av. Height: 9m	Av. Height: 2m	Av. Height: 0.2
Cover (%): 20%	Cover: 40%	Cover: 40%	Cover: 100%
Bragalan c	Bragalan d	Wetland c	Chenopod shrub c
Belah c	Belah a	Cumbi Umbri a	Coconut palm c
		Cassia aculeata a	Opuntia shrub c
		Albizia leucacantha a	Bougainvillea c
		Coppin Loranthus a	Bulbine lily a
		Coppin mitchellii a	

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: ? Confirmed Regional Ecosystem: 115.9?

Landform: 129.

Soils: Heavy brown soils with surface stones

Structural formation (eg woodland, open-forest etc.): Open woodland

Field Observations/ Notes (eg. Level of disturbance connectivity):

Bragalan palm, few large trees lots of regrowth

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

orange box tree
Opuntia shrub

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>Bugala</i> <i>Bulb.</i> <i>Cyrt. torata</i> <i>Cyrt. nitch</i> <i>bulgar</i> <i>Alchem. luvet.</i> <i>Cham. desert</i> <i>Bugala g. v. s.</i> <i>Agave. v. s.</i> <i>Enceph. luvet.</i> <i>laga. luvet.</i> <i>Cham. c. s. v. s.</i> <i>Acrostich. luvet.</i> <i>Pers. v. s.</i> <i>Sch. luvet.</i> <i>Big. luvet. v. s.</i> <i>laga. luvet.</i> <i>Solan. v. s. (tall, narrow).</i>	<i>Pin. v. s.</i> <i>Pig. luvet.</i> <i>laga. luvet.</i> <i>Enceph. luvet.</i> <i>laga. luvet.</i> <i>Bulb. g. v. s.</i>
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Cover (

Weed

Vegetation Proforma

Date:

21/4/18

Observers:

CS/QR

Site Name:

Sta 39



Future Freight

Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:	Datum:	Transect length:
Start point	Zone 5 E 0	N
End point	Zone 5 E 0	N
Photo points (numbers):	North: 27-89956	East: 151.29138

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 8-13m	Height Range:	Height Range:	Height Range:
Av. Height (m): 12m	Av. Height:	Av. Height:	Av. Height:
Cover (%): 70%	Cover:	Cover:	Cover:
Bahk	Alond	Alond Ophe hake	Bahk Bingel grass Jossman did Erich hake Ophe hake Horse Erich hake

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem:	Confirmed Regional Ecosystem:
Landform: Plain	
Soils: Rich Brown Fine sand/loam	
Structural formation (eg woodland, open-forest etc.):	Open/closed Rich
Field Observations/ Notes (eg. Level of disturbance connectivity):	→ highly likely
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
Honon Ophe hake	Box tree → 10%

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

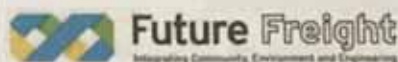
[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

Vegetation Proforma

Date: 21/4/18
 Observers: CS / OR Site Name: S.b x (new)



Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N
 End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S - 27.9022
 E 151.29285

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Trees 2	Shrub*	Ground
Height Range (m): 10-12	Height Range: 7-9	Height Range: 1-3m	Height Range: 0.1-1m
Av. Height (m): 12	Av. Height: 8	Av. Height: 2m	Av. Height: 0.5
Cover (%): 5%	Cover: 20%	Cover: 15%	Cover: 90%
E. pop	Belah	Dal. virens	Rubens pom
d	E. pop	A. solanum	Anch. de. hyla
	A. solanum	Amb. amb.	Cymb. c. h.
			Tas. d. h.
			Green pom
			Cymb. c. h.

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Confirmed Regional Ecosystem:

Landform: Plain

Soils: Dark Brown Sandy loam

Structural formation (eg woodland, open-forest etc.): Woodland

Field Observations/ Notes (eg. Level of disturbance connectivity):

* Belon's Pond - adjacent

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

Opuntia stricta

3608
 Open scrub
 Rd.

* Daryl Lindermeier
 Co. Kank. on bot. rem.
 record.

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>Pygmaea</i> <i>Solenopora</i> <i>Acanthopora</i> <i>Ascidia</i> gemma <i>column</i> <i>Cymba</i> <i>red</i> <i>Cymbid</i> <i>canth</i> <i>Dad</i> <i>viscous</i> <i>Alia</i> <i>terre</i> <i>Car</i> <i>ant.</i> <i>Tosman</i> <i>del.</i> <i>Chlora</i> <i>del.</i> <i>Chla</i> <i>red</i> <i>Pygmaea</i> <i>ant.</i> <i>Lodge</i> <i>ant.</i> <i>Pygmaea</i> <i>aby.</i> <i>Chla</i> <i>gogon.</i> <i>Solenopora</i> <i>sp.</i> <i>bulga.</i> <i>Ascidia</i> <i>ant.</i>	<i>Urogon</i> <i>Alia</i> <i>sp.</i> <i>Ascidia</i> <i>ant.</i> <i>pygmaea</i> <i>ant.</i>
--	--

Sphacelota.

Vegetation Proforma

Date:

21/4/18

Observers:

CS / OR

Site Name:

Site 36



Future Freight

Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:

Datum:

Transect length:

Start point

Zone

5

E

0

End point

Zone

5

E

0

Photo points (numbers):

North:

East:

South:

West:

S 27.79502

E 151.21924

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 16-18	Height Range: 7-8	Height Range: 2-3	Height Range: 0.1-1
Av. Height (m): 18m	Av. Height: 7	Av. Height: 3m	Av. Height: 0.5m
Cover (%): 60%	Cover: 30%	Cover: 50%	Cover: 60%
Sagah	Bogah	Wulgar	Chin desert
Sebl	Balch	Quint Quint	Bogah ges
		Coppah ocher	cop 60%
			Chin chin
			Chin rock
			Spink coar.
			Opit km
			Bolton
			Pone

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem:	Confirmed Regional Ecosystem:
Landform: Low hills	
Soils: heavy soils / cracker clay	
Structural formation (eg woodland, open-forest etc.):	
Field Observations/ Notes (eg. Level of disturbance connectivity):	
Sagah / ground	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
Opit km	
Opit shrub	
Borther	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Belcar Poai2	Brigalow Burr.	
Bon thum	Sabotea lorum	
aput lora		
aput spud		
Brigalow post		
Chas. desertum		
ulga		
Brigalow Cross		
Brigalow		
Chloris post		
Chloris div.		
Capparis lora		
Capparis arch.		
Belcar		
Iron Cross		
Plant post		
Coron lora		
Alaska can. S.		
aput		

For -

 $2, \quad x,$

Vegetation Proforma

** without use
Dead matter
Acrolypha +
Larshorn*

Date: 21/4/18

Observers: CS / OR

Site Name: Site 40



Future Freight
Integrating Communities, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N GPS

End point Zone 5 E 0 N 191

Photo points (numbers): North: East: South: West:

S 27.57240
E 151.31552

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 17-20	Height Range: 2-10	Height Range:	Height Range:
Av. Height (m): 18	Av. Height: 7m	Av. Height:	Av. Height:
Cover (%): 60% (ex. road)	Cover: 15%	Cover:	Cover:
Pepler Box E. canadi.	Belt Pepler	Absent	Gilgi Grass. Green patch Pos. dead. Both Leigars Chlens gay Opuntia shrub

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. # Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem

Confirmed Regional Ecosystem: Non Rem

Landform: subum / 629

Soils: Dark brown silty sand-loam

Structural formation (eg woodland, open-forest etc.): Open hlt.

Field Observations/ Notes (eg. Level of disturbance connectivity): Road cut

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):

Opuntia hlt.

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established and
"measured", not "estimated") A minimum of 1 measured canopy survey is required per representative
Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]Table 1
stems

Table
Map
Land
Soils
Struc
Field

Wee

Vegetation Proforma

Date: 21/4/14.

Observers: CS/ OR.

Site Name: Site 41.



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E 0			N	
End point	Zone 5 E 0			N	
Photo points (numbers): North: East: South: West:					
S 27.83856 E 151.36818					

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub ^a	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:
Av. Height (m):	Av. Height:	Av. Height:	Av. Height:
Cover (%):	Cover:	Cover:	Cover:
Aln	Aln	Aln	Noth + non-nth gosses

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. ^a Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem	Confirmed Regional Ecosystem: Non rem
Landform: Flat	
Soils: Bleach soil	
Structural formation (eg woodland, open-forest etc.): closed grass	
Field Observations/ Notes (eg. Level of disturbance connectivity): High disturbance Red rem	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
N/A	

Vegetation Proforma

Date: 22/4/18.
 Observers: CS OR. Site Name: site 42



Future Freight
 Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N APS
 End point Zone 5 E 0 N 193.

Photo points (numbers): North: East: South: West: S -27.71060 E 151.41299.

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub [*]	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:
Av. Height (m): 13m	Av. Height:	Av. Height:	Av. Height:
Cover (%): 10%	Cover:	Cover:	Cover:
At least one d	Abund	Abund	Phyla can Noctua (Long) Retic goss Whisk oak gosses

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. ^{*} Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: No. 1000	Confirmed Regional Ecosystem: No. 1000
Landform: Plains	
Soils: Block soils / croaking soils	
Structural formation (eg woodland, open-forest etc.):	Road easement Cross/Fork land
Field Observations/ Notes (eg. Level of disturbance connectivity):	
Highly disturbed - current wetland includes plants & landforms.	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
90% - no listed weeds	

Vegetation Proforma

Date: 22/4/18.

Observers: CS OR

Site Name: Ste 44


Future Freight
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Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E 0			N	
End point	Zone 5 E 0			N	
Photo points (numbers): North: _____ East: _____ South: _____ West: _____					
S - 27.78063 E 151.42378					

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m): 5-15.	Height Range: 4-8	Height Range: 1-2m	Height Range:
Av. Height (m): 12m	Av. Height: 6m	Av. Height: 2m	Av. Height:
Cover (%): 60% (along drain)	Cover: 40% (along drain)	Cover: 10% (along drain)	Cover:
E. forest	A. skene	A. skene	Nahin & earth gopher & paper

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: <i>Non Ren</i>	Confirmed Regional Ecosystem: <i>Non ren</i>
Landform: <i>adjacent to drainage</i>	
Soils: <i>alluvial / Black soil</i>	
Structural formation (eg woodland, open-forest etc.): <i>Crossland / Redden // open forest.</i>	
Field Observations/ Notes (eg. Level of disturbance connectivity): <i>adjacent to drainage in</i>	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	
60% - No label	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

<i>Eragrostis curvata</i> <i>Albizia julibrissin</i> <i>Passiflora</i> <i>Stem store</i> <i>Pea, faba</i> <i>Sorghum bicolour</i> <i>Myrica carolinensis</i> <i>Pigweed</i> <i>Magnolia grandiflora</i> <i>Sida acuta</i> <i>Magnolia liliifolia</i> <i>Chinese cotton</i> <i>Isatis tinctoria</i> <i>Amorpha fruticosa</i> <i>Taraxacum officinale</i> <i>Corylus cornuta</i> <i>Reynoldsia sp.</i> <i>Taraxacum</i> <i>Sesbania</i>	<i>Paspalum glaberrimum</i> <i>Helianthus</i>	<i>D. proteoides</i> <i>leaves</i> <i>Run this</i> <i>side</i>
--	---	---

Nok

D. procerus kera
Rm this
the

Vegetation Proforma

Date: 22/4/18.

Observers: CS / OR.

Site Name: Site 45.



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S: 27.75623
E: 151.45696

GPS
195

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:
Av. Height (m): 12m	Av. Height:	Av. Height:	Av. Height:
Cover (%): 5%	Cover:	Cover:	Cover:
Platan trees adjacent to site	N/A	N/A	Wahlu + exuberant grasses / forbs

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non rem Confirmed Regional Ecosystem: Non rem

Landform: Plain

Soils: Black soil.

Structural formation (eg woodland, open-forest etc.):

Field Observations/ Notes (eg. Level of disturbance connectivity): Mown Road/Rail corridor

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): 30% none listed.

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

1

Vegetation Proforma

Date: 22/4/18

Observers: CS / OR

Site Name: Site 43



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E 0			N	aps
End point	Zone 5 E 0			N	196
Photo points (numbers): North: _____ East: _____ South: _____ West: _____					
S 22.78631 E 151.41858					

Note: if canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range: 1-3m	Height Range:
Av. Height (m):	Av. Height:	Av. Height: 2m	Av. Height:
Cover (%):	Cover:	Cover: 70%	Cover:
Apocyn	Albizia	legume - adjacent to rail line ↓ only in rail corridor	Nahia + non-nahia grass & Forbs

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: NA	Confirmed Regional Ecosystem: NA
Landform: Plain	
Soils: Blocky sands	
Structural formation (eg woodland, open-forest etc.): Closed grassland/Forbs	
Field Observations/ Notes (eg. Level of disturbance connectivity): wetlands, undergrowth	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): 60% non nahia	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Hydr. cand		
Poa		
Blads gra		
Cyperus		
Acacia spha		
Poa dact		
Cory. canch		
Nardus		
Stele. nigra		
Sedum		
Myrsine		
Eragrostis		
Colchic		
Trifolium		
Euphorbia		
Cladonia		
Sax. hirta		
Botanoc. p.		
Coryph. weed		

Vegetation Proforma

Date: 23/4/18

Observers: CS/OR

Site Name: Site 54.

 **Future Freight**
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S - 27.50509
E 151.81789.

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated". Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range: 0.1 - 1m
Av. Height (m):	Av. Height:	Av. Height:	Av. Height: 1m
Cover (%):	Cover:	Cover:	Cover: 90%
Abund	Abund	Abund	Non / Non-Rock grasses

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non Perm

Confirmed Regional Ecosystem: Non Perm

Landform: Plain

Soils: Black soils

Structural formation (eg woodland, open-forest etc.): clumped grasses

Field Observations/ Notes (eg. Level of disturbance connectivity): Road reserve, Rock grasses

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): 90% non herb

Table 3: Canopy cover
"measured", not "est
Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Milk vine Green grass Sugar cane Palm grasses Pisonia Vicia (vetch) Celery Rhoda grass Cylindropuntia Star lettuce Ficus sp. Malva Cape weed Ivy vine Eucalyptus Cane Pisonia Cyrtandra Senecio sp.	Dubautia wild vine (Asteraceae) Bidens Kaula weed Acahual * Depressaria (advent) Sida Euphorbia Cape Ceanothus Malva Echidnia Nephrolepis Lycopodium Rubus Magnolia
--	--

Vegetation Proforma

Date: 23/4/18

Observers: CS / OR.

Site Name: Site 53



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S - 27.99117
E 151.54323

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy 1	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range: 0.1-1m
Av. Height (m):	Av. Height:	Av. Height:	Av. Height: 0.5m
Cover (%):	Cover:	Cover:	Cover: 95%
NA	NA	NA	msh + ecoh grass + fungi * D. purpurea

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: NA Confirmed Regional Ecosystem: NA

Landform: Terrestrial

Soils: Black soil

Structural formation (eg woodland, open-forest etc.): closed grassland

Field Observations/ Notes (eg. Level of disturbance connectivity): Road near herle Drag/creek.

Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): 20% non native

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy "measured", not "estimated") A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

[illegible]

Vegetation Proforma

Date: 23/4/16

Observers: CS / OR.

Site Name: Site 52



Future Freight
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Transect Details (required for all sites)

GPS coordinates:		Datum:		Transect length:	
Start point	Zone 5 E 0			N	
End point	Zone 5 E 0			N	
Photo points (numbers): North: _____ East: _____ South: _____ West: _____					
S - 27.49315					
E 151.84506					

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub*	Ground
Height Range (m):	Height Range:	Height Range:	Height Range:
Av. Height (m):	Av. Height:	Av. Height:	Av. Height:
Cover (%):	Cover:	Cover:	Cover:
NA	NA	NA	Non-woody grasses

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. * Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem: Non-rem	Confirmed Regional Ecosystem: Non-rem
Landform: reman	
Soils: Black soil	
Structural formation (eg woodland, open-forest etc.): closed grassland	
Field Observations/ Notes (eg. Level of disturbance connectivity): Road reserve / rock gorges	
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016): 80% non native	

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible][illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Eight legs Khawala sun mft end Brydon legs Dorian sun Green pear Plume gots Stokes hill Panna greens Swamp dock Kanga civ. Paa Cym vagab Digit drunk		
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Vegetation Proforma

Date: 23/4/18

Observers: CS / OR

Site Name: Site 55



Future Freight
Integrating Community, Environment and Engineering

Transect Details (required for all sites)

GPS coordinates: Datum: Transect length:

Start point Zone 5 E 0 N

End point Zone 5 E 0 N

Photo points (numbers): North: East: South: West:

S - 27.53602
E 151.78825

Site 55

Note: If canopy is estimated (eg. No transect), provide only a single GPS point with a transect length of "0" and state "estimated" Complete Tables 1, 2 and 4 only.

Table 1: Estimated Canopy Cover (mandatory for all sites)

Canopy/ Emergent	Tree 2	Shrub [#]	Ground
Height Range (m):	Height Range:	Height Range:	Height Range: 0.1-0.3
Av. Height (m):	Av. Height:	Av. Height:	Av. Height: 0.2
Cover (%):	Cover:	Cover:	Cover: 90%
Abun	N/A	N/A	closed grass Note + exch sp.

Table notes: * use following terms: D = dominant; C = co-dominant; A = associated; S = suppressed. [#] Shrub is a woody plant <8m tall with multi-stems within 20cm from base or if single stemmed < 2m tall.

Table 2

Mapped Regional Ecosystem:	N/A	Confirmed Regional Ecosystem:	N/A
Landform:	mid-slope		
Soils:	Dark brown loam		
Structural formation (eg woodland, open-forest etc.):	Closed grass		
Field Observations/ Notes (eg. Level of disturbance connectivity):	Good reserve		
Weed species and approx. cover (%) (including restricted matters under the Qld Biosecurity Act 2016):	80% non-veg		

Table 3: Canopy cover using Canopy Intercept method (use only if a transect has been established – canopy “measured”, not “estimated”) A minimum of 1 measured canopy survey is required per representative Regional Ecosystem.

[illegible]

Table 4: Flora species Present (15-20 minute random meander) (required for all sites):

Rhod. gum Decid. gum Agave chely Sorghum kopym Guadalupe Alpin lauges Turp. weed Bartula lept. Karim P. we. C. yon. bahn P. yon. jeth. Ghara Carole. Theunah tangut Stalk grass Sida hooker Hacky grass Lohr bahn stalks		pig weed Kraguak kammacha
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APPENDIX

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Matters of National Environmental Significance Technical Report

Appendix H Fauna Habitat Assessment Proformas

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

Appendix H

Fauna Habitat Assessment Proformas

Fauna Proforma



Future Freight
Integrating Community, Environment and Engineering

Site Information

Site Name: 1

Date: 16/4/18

Observers: CR + CS

Refer to flora proforma

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: _____

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Regent HE
curlew SP
black-throated F
border thick-tailed gecko
spotted pigeon
painted HE
keola
southern greyta
glider
eastern long-eared bat
dunnals snake
ballale 'jewell
grey snake
woma
white-throated noddie
white-winged black tern
caper tern
sharp-tailed sandpiper
glossy ibis
short-billed echin
glossy black-caterpillar
Midge Mitchell's cecropia
powerful owl
common death adder

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	3
Clearing	3
Erosion	2.

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
		NO

Incidental fauna observations/scats/traces:

Variegated Flycatcher ✓
 WW Chough ✓
 bar-shafted dave ✓
 Stopped HE ✓
 large macropod - (tracks + scats) ✓
 apostrophe ✓
 T. crown ✓
 Willie wagtail ✓
 infans whistler ✓
 mistletoe ✓

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter: 0 >15cm, <30cm diameter: 0 >10cm, <15cm diameter: 0 >5cm, <10cm diameter: 0 < 5cm diameter: 1
Fallen logs (>10cm diam.)	4
Coarse woody debris (<10cm diam.)	3
Decorticating bark	1
Leaf litter (%)	5%
Bare ground (%)	70%
Grass (%)	10%
Soil cracks	1
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	NO
Weeds and non-native species (%)	0
Rock Crevices	0
Flower Abundance (%)	0 5 mistletoe
Fruit Abundance (%)	0
Water present (Y/N)	Y road side ditch

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 2 (mored)

Date: 16/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: Refer to veg proforma.

Plot Centre: Zone: Easting: Northing: Accuracy m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	3
Clearing	3
Erosion	2

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

crested piggy
hairy miner ✓

ac bubbles ✓

mistaken

~~me~~ ~~large~~ ~~many~~
one length ✓

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)		7
Coarse woody debris (<10cm diam.)		6
Decorticating bark		0
Leaf litter (%)		20
Bare ground (%)		40
Grass (%)		20 30
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		10
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		Y, shallow

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 3

Date: 16/4/18

Observers: OE + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: refer to veg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree Canopy present Y / N average height _____ m cover _____ %

Dominant species: _____

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species: _____

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species: _____

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	3
Clearing	1
Erosion	2

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter: 0
	>15cm, <30cm diameter: 0
	>10cm, <15cm diameter: 0
	>5cm, <10cm diameter: 0
	< 5cm diameter: 0
Fallen logs (>10cm diam.)	3
Coarse woody debris (<10cm diam.)	4
Decorticating bark	2
Leaf litter (%)	5
Bare ground (%)	85
Grass (%)	5
Soil cracks	2
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	Y
Weeds and non-native species (%)	5
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	0
Water present (Y/N)	Wetland

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) – from database searches	Yes	No
Aus. bittern	✓	
Painted snipe	✓	

Incidental fauna

observations/scats/traces:

mistletoe bird
sheep
w. swallow
w. magpie

T. crow

C. parus

ducky toadlet
eastern grey

Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

lynnabynates farman
red-capped robin

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: LT new

Date: 11/11/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: Refer to veg proforma

Plot Centre: Zone: Easting: Northing: Accuracy m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	3
Clearing	3
Erosion	1

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) – from database searches	Yes	No

Incidental fauna

observations/scats/traces:

Brown TB ✓
 Willy wattle ✓
 Red-rump R ✓
 White-plummed HE
 WW-chough



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Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter: 0 >15cm, <30cm diameter: 0 >10cm, <15cm diameter: 0 >5cm, <10cm diameter: 1 < 5cm diameter: 2
Fallen logs (>10cm diam.)	0
Coarse woody debris (<10cm diam.)	0
Decorticating bark	0
Leaf litter (%)	0
Bare ground (%)	70
Grass (%)	20
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	N
Weeds and non-native species (%)	10
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	0
Water present (Y/N)	Y small depression

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: new site 6

Date: 17.4.18

Observers: ER, CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: all veg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	3
Clearing	3
Erosion	1

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

2 min ✓ gc babs ✓
ring neck.
owl nest in tree on road side
eastern gray thrushes ✓
noisy miner ✓



Future Freight

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)		1
Coarse woody debris (<10cm diam.)		1
Decorticating bark		0
Leaf litter (%)		5
Bare ground (%)		60
Grass (%)		30 20
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		1
Surface Rocks and/or Boulders		5
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		5
Rock Crevices		0
Flower Abundance (%)		10 (mistake)
Fruit Abundance (%)		0
Water present (Y/N)		Y dam

Note: 0 = absent; 1 = Rare; 2 = Rare to common; 3 = Common; 4 = Abundant; 5 = Very Abundant; 6 = Dominant; 7 = Exclusive

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name:⁹.....

Date: 17/4/18

Observers: OR + CS

LOCATION (GPS reference)

refer to veg proforma

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) – from database searches	Yes	No
Imperial hairstreak	Acacia irrorata	

Incidental fauna observations/scats/traces:

Acacia irrorata has signs of herbivory (ie imperial hairstreak)
 Rufous whistling warbler
 weebill
 wallaby sp rednecked

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter 2
	>15cm, <30cm diameter 4
	>10cm, <15cm diameter 2
	>5cm, <10cm diameter 2
	< 5cm diameter 1
Fallen logs (>10cm diam.)	6
Coarse woody debris (<10cm diam.)	7
Decorticating bark	4
Leaf litter (%)	50 55
Bare ground (%)	30
Grass (%)	10
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	5
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	0
Water present (Y/N)	N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

eulampius tenuis

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 14

Date: 17/4/18

Observers: GR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

refer to veg proforma

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	2
Clearing	3
Erosion	1

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

pied 66
noisy miner
pale head not
a possible red

Tarrow ✓
c' pyren ✓
wobill ✓
emu (track) ✓

(Tracks)
 Leightonham hwy,
 under bridge $\rightarrow$ faint marks

Future Freight
Innovative Community Development and Education

Habitat Features = Abundance:

Characteristics	Abundance (0-1% or % within landscape)
Hollows in trees and stags. (May include hollows in termentariae)	0
>20cm diameter	0
>15cm, <20cm diameter	0
>10cm, <15cm diameter	0
>5cm, <10cm diameter	0
< 5cm diameter	0
Fallen logs (>10cm diam.)	1
Coarse woody debris (<10cm diam.)	2
Decorticating bark	0
Leaf litter (%)	1%
Bare ground (%)	30
Grass (%)	50
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	29%
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	9
Water present (Y/N)	Y

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 18 GPS# 14

Date: ... / ... / ...

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

refer to veg proforma

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma



Future Freight
Infrastructure, Environment, Assessment and Engineering

Site Information

Site Name: New Site 15

Date: 1/1/11

Observer: CL + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: refer to map

Plot Centre: Zone: Easting: Northing: Accuracy m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: if a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

[illegible]

use 61/1 ✓ yellow pan HE
gs+
Alloxanurina in ~~in~~ phlova. potential
gb cockatoo food
wallaby sp (scat) ✓



Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in <i>termentartia</i>)	>30cm diameter >15cm, <30cm diameter >10cm, <15cm diameter >5cm, <10cm diameter <5cm diameter
Fallen logs (>10cm diam.)	
Coarse woody debris (<10cm diam.)	
Decorticating bark	
Leaf litter (%)	
Bare ground (%)	
Grass (%)	
Soil cracks	
Soil banks (eg. River banks/road cuttings, etc.)	
Surface Rocks and/or Boulders	
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	
Weeds and non-native species (%)	
Rock Crevices	
Flower Abundance (%)	
Fruit Abundance (%)	
Water present (Y/N)	

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

common to abundant; ? = abundant

man (scat) ✓
rabbit ✓ warren ✓
→ confirmed yellow-bellied glider ✓
scat see photo (red/brown) / Glider
in colour.
↳ coarse brown material

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: New Site 16

Date: 18/9/18

GPS 046

Observers: CS-1 OR

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

pelicans above ✓
emu (track) ✓
e' g' my k' (track) ✓
a post hole bit ✓



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	1
	>10cm, <15cm diameter	1
	>5cm, <10cm diameter	2
	< 5cm diameter	3
Fallen logs (>10cm diam.)		7
Coarse woody debris (<10cm diam.)		7
Decorticating bark		3
Leaf litter (%)		60
Bare ground (%)		20
Grass (%)		20
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		dry gully
Surface Rocks and/or Boulders		3
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		0
Rock Crevices		0
Flower Abundance (%)		5 (mistake)
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent: 1 = Rare: 2 = Rare: 3 = Rare: 4 = Rare: 5 = Rare: 6 = Rare: 7 = Rare:

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

yellow spotted monitor ✓
see photo

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: New site 19.

Date: 18/4/18

Observers: OR + CR

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics



Habitat Features – Abundance:

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

e' yellow robin ✓

bearded dragon.

Emu scar-

east grey

scat w seeds see photo

↳ Ceratironella

unfronced yellow bellied
fox scat. glider (Scat)

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	1
	< 5cm diameter	2.
Fallen logs (>10cm diam.)		5
Coarse woody debris (<10cm diam.)		6
Decorticating bark		2
Leaf litter (%)		50
Bare ground (%)		40
Grass (%)		10
Soil cracks		2
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		0
Weeds and non-native species (%)		0
Rock Crevices		0
Flower Abundance (%)		5 (mistlebe)
Fruit Abundance (%)		0
Water present (Y/N)		0

* Note: 0 = absent; 1 = Bare; 2 = D

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 27.

Date: 19/4/18

Observers: CR + CS.

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: Refer to veg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	1
Clearing	0
Erosion	0

belah woodland. on sandy clay
Habitat suitability for target fauna ^{no mistletoe}

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

grey kangaroo scat / tracks ✓
variegated fw ✓
grey FT ✓
weebill ✓
rufous WH
noisy miners



Future Freight

Interactive Community Environment and Engineering

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape	
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	4
	>15cm, <30cm diameter	4
	>10cm, <15cm diameter	4 4
	>5cm, <10cm diameter	5
	< 5cm diameter	5
Fallen logs (>10cm diam.)	6	
Coarse woody debris (<10cm diam.)	7	
Decorticating bark	2	
Leaf litter (%)	80	
Bare ground (%)	10	
Grass (%)	10	
Soil cracks	1	
Soil banks (eg. River banks/road cuttings, etc.)	0	
Surface Rocks and/or Boulders	1	
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	N	
Weeds and non-native species (%)	0	
Rock Crevices	0	
Flower Abundance (%)	15% wilga	
Fruit Abundance (%)	0	
Water present (Y/N)	N	

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

silver eye ✓
yellow TB ✓

Site Information



Site Name: new site 21

Date: 19/4/18

Observers: 029 CS.

LOCATION (GPS reference)Datum: ☐ AGD84☐ GDA94 (WGS84)

OTHER:

Plot Centre: Zone: Easting: Northing: Accuracy ____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height ____ m cover ____ %

Dominant species:

Sub canopy present Y / N average height ____ m cover ____ %

Dominant species:

Shrub layer present Y / N average height ____ m cover ____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

21

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0 2
Clearing	2
Erosion	1

callitris - box-belah on sand

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
S' pigeon	✓	
Painted he	✓	
Eastern bit	✓	
Death adder	✓	

Incidental fauna

observations/scats/traces:

weebill ✓
yellow TB ✓
e' grey 'k' fender ✓
gc tabs.

carlia pectoralis ✓



Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	1
	>15cm, <30cm diameter	2
	>10cm, <15cm diameter	2
	>5cm, <10cm diameter	2
	< 5cm diameter	2
Fallen logs (>10cm diam.)		5
Coarse woody debris (<10cm diam.)		5
Decorticating bark		3
Leaf litter (%)		10
Bare ground (%)		30/40
Grass (%)		50
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		2
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		N
Rock Crevices		N
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 20

Date: 19/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: refer to veg proforma

Plot Centre: Zone: Easting: Northing: Accuracy m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

20

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	1
Erosion	2

box-callers on sandy gravel (LZ 5)

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
acacia irrorata		
blue harlequin	✓	

Incidental fauna

observations/scats/traces:

camera trap ~800m north
 fox confirmed
 red-necked wallaby
 weebill
 shrike-see
 yellow-faced HE
 yellow TB
 white-eared HE



Habitat Features - Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter: 0 >15cm, <30cm diameter: 1 >10cm, <15cm diameter: 2 >5cm, <10cm diameter: 3 <5cm diameter: 4
Fallen logs (>10cm diam.)	3
Coarse woody debris (<10cm diam.)	5
Decorticating bark	2
Leaf litter (%)	20
Bare ground (%)	50-70
Grass (%)	10
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	7
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	0
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	0
Warrior butt	10
Water present (Y/N)	dam

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

nearby dam w water
 ab fine h

Fauna Proforma



Future Freight
Integrating Community, Environment and Engineering

Site Information

Site Name: 19

Date: 19/1/18

Observers: OR-CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: Easting: Northing: Accuracy: m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

alluvium.

Fauna Proforma

Habitat characteristics

Habitat Disturbance $\rightarrow$ box / gum.
+ Lantana

Disturbance type	Severity (1-3) (1=nil, 3=severe)
Fire	0
Grazing	1
Clearing	0
Erosion	0

Common
note

affixed in a fine sand, clay,

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

Impress ✓

average line
(deep cut)

looks to create
yellow TB.
NMS FT



Future Freight
Innovative Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in tementaria)	>30cm diameter	2
	>15cm, <30cm diameter	2
	>10cm, <15cm diameter	3
	>5cm, <10cm diameter	4
	<5cm diameter	3
Fallen logs (>10cm diam.)		5
Coarse woody debris (<10cm diam.)		6
Decorticating bark		3
Leaf litter (%)		75
Bare ground (%)		10
Grass (%)		15
Soil cracks		0
Soil banks (eg. river banks/road cuttings, etc.)		✓
Surface Rocks and/or Boulders		0
Wetlands (V/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%) L5%		very low 10%
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		5 w/lyg
Water present (V/N) NO WATER		N-crack

* Note: 1 = absent; 1 = rare; 2 = rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

? lille strake / dull light
med aurore golden w/

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 29

Date: 19/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0 1
Erosion	0

Habitat suitability for target fauna

Habitat suitability for target fauna

[illegible]

Future Freight
Innovation, Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape	
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)	1	
Coarse woody debris (<10cm diam.)	3	
Decorticating bark	0	
Leaf litter (%)	50 75	
Bare ground (%)	0	
Grass (%)	50	
Soil cracks	0	
Soil banks (eg. River banks/road cuttings, etc.)	0	
Surface Rocks and/or Boulders	2	
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	N	
Weeds and non-native species (%)	N	
Rock Crevices	0	
Flower Abundance (%)	0	
Fruit Abundance (%)	LS	
Water present (Y/N)	N	

Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Incidental fauna

observations/scats/traces:

Incidental fauna observations/scats/traces: *eastern grey roo scat/scat track*

water present (Y/N) *N*

Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

rufous wht. db finch. cockatiel. → nests in adjacent paddock → in native lime bushes

dark shouldered kite

she FW

black-faced CS

TONGUE

BAT

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 30

Date: 20/4/18 GPS# 55.

Observers: GR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

30

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	2
Clearing	3
Erosion	1

grassy paddock

half native
half exot
grassy

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
major antechinus	✓	
squitter pigeon	✓	

small cracks
not big enough
for pythons.



Habitat Features - Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter —
	>15cm, <30cm diameter —
	>10cm, <15cm diameter —
	>5cm, <10cm diameter —
	< 5cm diameter —
Fallen logs (>10cm diam.)	—
Coarse woody debris (<10cm diam.)	2
Decorticating bark	0
Leaf litter (%)	0
Bare ground (%)	40
Grass (%)	30
Soil cracks	2
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N damaged lake
Weeds and non-native species (%)	30
Rock Crevices	—
Flower Abundance (%)	0
Fruit Abundance (%)	0
Water present (Y/N)	N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Incidental fauna

observations/scats/traces:

N' kestrel ✓

coonella ✓

strated

galah ✓

plavers ✓

dob finch ✓

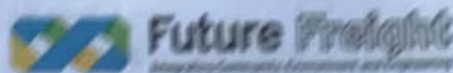
active nest in cypress bush

land zone 9

five sandy n 17

Fauna Proforma

Site Information



Site Name: 31

Date: 20/4/18

Observers: CA - CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: Easting: Northing: Accuracy: m

Altitude: m Altitude accuracy: +/- m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height m cover %

Dominant species:

Sub canopy present Y / N average height m cover %

Dominant species:

Shrub layer present Y / N average height m cover %

Dominant species:

Ground layer: cover % weeds % Dominant species

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

31

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

two dojacks
bright low habitat

L2 9

native grassland on dark heavy
cracking clay
derived from sandstone

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
Major mitchell	✓	
earless dragon	✓	
chameleons		

Incidental fauna

observations/scats/traces: golden-headed cisticola ✓

cockatiel ✓
grey kangaroo (scat)
T. crow
magpie

Habitat Features - Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	
>20cm diameter	0
>15cm, <20cm diameter	6
>10cm, <15cm diameter	0
>5cm, <10cm diameter	0
< 5cm diameter	0
Fallen logs (>10cm diam.)	0
Coarse woody debris (<10cm diam.)	0
Decorticating bark	0
Leaf litter (%)	0
Bare ground (%)	0
Grass (%)	100
Soil cracks but small.	6
Soil banks (eg. River banks/road cuttings, etc.)	
Surface Rocks and/or Boulders	
Wetlands (Y/N). If yes complete wetland Proforma	
Weeds and non-native species (%)	
Rock Crevices	
Flower Abundance (%)	
Fruit Abundance (%)	
Water present (Y/N)	

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

kestrel
db Finch.
blue FW

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 32

Date: 20/4/18

Observers: CR + ZS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

(32)

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	1 1
Clearing	0
Erosion	1

with mistle
to 1/2 fruit

orig - below in heavy dark clay

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
Painted HE	✓	

Incidental fauna

observations/scats/traces:

gc bats / spiny-cheeked HE
brown HE
grey roo (scat)

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter
	>15cm, <30cm diameter
	>10cm, <15cm diameter
	>5cm, <10cm diameter
	< 5cm diameter
Fallen logs (>10cm diam.)	4
Coarse woody debris (<10cm diam.)	5
Decorticating bark	1
Leaf litter (%)	70
Bare ground (%)	20
Grass (%)	10
Soil cracks	20
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	7
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	N
Weeds and non-native species (%)	< 1
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	10 (widge)
Water present (Y/N)	N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

chenopods in ground layer
cupress - paired thorn.

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 39

Date: 21/4/18

Observers: DR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

refer to veg proforma

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

think about under
paper box

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

Plaver / magpie.
+ crow / crested jay
starry miner /
fox dem. active (scats + tracks).



Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in <i>termentaria</i>)	>30cm diameter	2
	>15cm, <30cm diameter	2
	>10cm, <15cm diameter	3
	>5cm, <10cm diameter	3
	< 5cm diameter	4
Fallen logs (>10cm diam.)		4
Coarse woody debris (<10cm diam.)		5
Decorticating bark		1
Leaf litter (%)		80
Bare ground (%)		10
Grass (%)		10
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		1
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		0
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		0

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

eastern gray (scat)
+ trouble.

Fauna Proforma



Future Freight

Integrating Community, Environment and Engineering

Site Information

Site Name:

Site X gps #

S -27.90022 / 151.29285

Date:

21/4/18

Observers:

CR + CS

LOCATION (GPS reference)

Datum:

☐

AGD84

☐

GDA94 (WGS84)

OTHER:

refer to pg
proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics



Habitat Features – Abundance:

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	0
Erosion	0

woodland.
grass open forest? poplar. acacia.

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) – from database searches	Yes	No
not suitable for squatter.		
powerful owl	✓	

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter: 7
	>15cm, <30cm diameter: 7
	>10cm, <15cm diameter: 7
	>5cm, <10cm diameter: 7
	< 5cm diameter: 7
Fallen logs (>10cm diam.)	3
Coarse woody debris (<10cm diam.)	4
Decorticating bark	0
Leaf litter (%)	25
Bare ground (%)	5
Grass (%)	70
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	0
Rock Crevices	0
Flower Abundance (%)	Acacia 10
Fruit Abundance (%)	5
Water present (Y/N)	N

Incidental fauna observations/scats/traces:

T. crow ✓
c. pigeon ✓
noisy miner ✓
ringnecked plover ✓
grey b. bird ✓

willaby (scat) ✓

skunk - refer to incidentals in notes book

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 36

Date: 21/11/18

Observers: CD + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: refer to veg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	1
Clearing	6
Erosion	1

gray-chenopod.
grand (a) s.

Brig-beldn. open forest to muskbe.
Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
	Yes	No

high density of institute.

Incidental fauna
observations/scats/traces:

observations/scats/traces:

T. crow / grey 'bb' ✓
Aus Raven ✓
w/ 17 m m ✓
night hawk ✓
spiny-cheeked he.
spiny-cheeked he.

* Note: 0 = absent; 1 = Rare; 2
occasional; 4 = occasional to
common to abundant; 7 = abun



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics	Abundance (0-7)* or % within landscape	
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	1
	< 5cm diameter	1
e. Fallen logs (>10cm diam.)		5
Coarse woody debris (<10cm diam.)		6
Decorticating bark		0
Leaf litter (%)		30
Bare ground (%)		20
Grass (%)		50
Soil cracks <i>but too small</i>		3
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		<1
Rock Crevices		0
Flower Abundance (%)		10 mustard
Fruit Abundance (%)		5 <i>collyard</i>
Water present (Y/N)		N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 40

Date: 21/4/18

Observers: CR + CS

LOCATION (GPS reference)

Datum:

☐

AGD84

☐

GDA84 (WGS84)

OTHER: refer to reg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

M
N
1

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	
Grazing	
Clearing	
Erosion	

poplar green forest. 13

on black cracking clays

[illegible]

Incidental fauna *hoary*
observations/scats/traces:

hoary-headed grebe
s/traces: in dam

cockerel ✓
yellow-bellied (scratches)
maple mud lark ✓

sulphur crested cockatoo ✓



Future Freight
Integrating Community, Environment and Engineering

Characteristics	Abundance (0-7)* or % within landscape	
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	3
	>10cm, <15cm diameter	3
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)	1	
Coarse woody debris (<10cm diam.)	2	
Decorticating bark	0	
Leaf litter (%)	10	
Bare ground (%)	0	
Grass (%)	90	
Soil cracks	5	
Soil banks (eg. River banks/road cuttings, etc.)	0	
Surface Rocks and/or Boulders	1	
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma	N	
Weeds and non-native species (%)	80% of grasses 30% 80%	
Rock Crevices	N	
Flower Abundance (%)	0	
Fruit Abundance (%)	0	
Water present (Y/N)	Y dan	

Note: 0 = absent; 1 = Rare; 2 = Rare

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 4

Date: 21/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER: refer to veg proforma

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): _____ Regional Ecosystem Observed: _____

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

grassland on heavy black cracking clay

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

very deep large cracks
in soil.

T crow
nestorel.



Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter	—
	>15cm, <30cm diameter	—
	>10cm, <15cm diameter	—
	>5cm, <10cm diameter	—
	< 5cm diameter	—
Fallen logs (>10cm diam.)		—
Coarse woody debris (<10cm diam.)		—
Decorticating bark		—
Leaf litter (%)		—
Bare ground (%)		—
Grass (%)		100
Soil cracks		5
Soil banks (eg. River banks/road cuttings, etc.)		—
Surface Rocks and/or Boulders		—
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		✓
Weeds and non-native species (%)		90%
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent: 1 = Rare: 2 = Common: 3 = Abundant: 4 = Very Abundant: 5 = Dominant: 6 = Very Dominant: 7 = Exclusive

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 42

Date: 22/9/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

dominated by lipid.

weedy, near roadside

Habitat suitability for target fauna

[illegible]

Incidental fauna

observations/scats/traces:

rock dove ✓
indian myna.

may be.

n'kester



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Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)		0
Coarse woody debris (<10cm diam.)		2
Decorticating bark		0
Leaf litter (%)		0
Bare ground (%)		20
Grass (%)		10
Soil cracks		7
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		
Weeds and non-native species (%)		70
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent; 1 = 100%

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 44

Date: 22/4/18

Observers: ON Les

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s	Photo No/s	Other photo numbers and notes:
North:	South:	
East:	West:	

44

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

Slashed grass roadside

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
What EVNT species are known from region (complete in rows below) - from database searches	Yes	No
carless drgh	✓	

Incidental fauna observations/scats/traces:

emu (track)



sp list for nearby creeks (offsite)
- S.C. cockatoo
- grey FI
- willie wagtail
- T. crow



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	—
	>15cm, <30cm diameter	—
	>10cm, <15cm diameter	—
	>5cm, <10cm diameter	—
	< 5cm diameter	—
Fallen logs (>10cm diam.)		—
Coarse woody debris (<10cm diam.)		—
Decorticating bark		—
Leaf litter (%)		—
Bare ground (%)		10
Grass (%)		90
Soil cracks		7
Soil banks (eg. River banks/road cuttings, etc.)		drainage line
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		60%
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

older scars?
see photo

Fa
Sit

Site

Date:

LOC

Datu

Plot

Altitu

Loca

VEG

section

Gene

Regio

Remn

STRU

Tree

Domi

Sub

Domi

Shru

Dom

Grou

Site

North

East:

Fauna Proforma



Future Freight
Integrating Community, Environment and Engineering

Site Information

Site Name: 45 (mud) gps # 195

Date: 21/5/18

Observers: CR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

refer to veg proforma

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s	Photo No/s	Other photo numbers and notes:
North:	South:	
East:	West:	

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	0

planted
trees
adjacent
to site.
E. albens
E. torricornis

slashed roadside grassland.

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

1979 11/19 ✓
 pred 66 ✓
 mudark ✓
 streaked pred. ✓
 magpie.



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter	-
	>15cm, <30cm diameter	-
	>10cm, <15cm diameter	-
	>5cm, <10cm diameter	-
	< 5cm diameter	-
Fallen logs (>10cm diam.)		-
Coarse woody debris (<10cm diam.)		-
Decorticating bark		-
Leaf litter (%)		0
Bare ground (%)		10
Grass (%)		90
Soil cracks		3
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		60 30
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent; 1 = Rare

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 43

Date: 2, 4, 18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

43

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	
Grazing	
Clearing	
Erosion	

or black cracking clay -
lighter across tracks.

Roadside grassland (stashed).
Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
	Yes	No
What EVNT species are known from region (complete in rows below) - from database searches		
earless dragon	✓	

Incidental fauna observations/scats/traces:

T'crow



Habitat Features - Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter
	>15cm, <30cm diameter
	>10cm, <15cm diameter
	>5cm, <10cm diameter
	< 5cm diameter
Fallen logs (>10cm diam.)	
Coarse woody debris (<10cm diam.)	
Decorticating bark	
Leaf litter (%)	
Bare ground (%)	10
Grass (%)	90
Soil cracks	5
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	70
Rock Crevices	0
Flower Abundance (%)	0
Fruit Abundance (%)	0
Water present (Y/N)	N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 54

Date: 23/4/18

Observers: CR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

54

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	2

L2-8 burnt dried black soil.

roadside grassland

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
	Yes	No
What EVNT species are known from region (complete in rows below) - from database searches		
	0	

Incidental fauna observations/scats/traces:

indian myna
golden headed cisticola.
white wagtail.

Habitat Features - Abundance:

Characteristics	Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentaria)	>30cm diameter 0
	>15cm, <30cm diameter 0
	>10cm, <15cm diameter 0
	>5cm, <10cm diameter 0
	< 5cm diameter 0
Fallen logs (>10cm diam.)	0
Coarse woody debris (<10cm diam.)	0
Decorticating bark	0
Leaf litter (%)	0
Bare ground (%)	10
Grass (%)	80
Soil cracks	0
Soil banks (eg. River banks/road cuttings, etc.)	0
Surface Rocks and/or Boulders	0
Wetlands (Y/N). If yes complete wetland Proforma	N
Weeds and non-native species (%)	90
Rock Crevices	0
Flower Abundance (%)	41 (hubs)
Fruit Abundance (%)	0
Water present (Y/N)	N

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fauna Site

Site Name:
 Date: 23/11/2023

LOCALITY
Datum:
 Plot Cent:
 Altitude:
 Locality:

VEGETATION
section)
 General:

 Regional:
 Remnant:
 STRUCTURE
Tree can:
 Dominant:
 Sub can:
 Dominant:
 Shrub la:
 Dominant:
 Ground l:

Site Photo
PH
North:
 East:

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 53 moved gps # 267

Date: 23/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s		Photo No/s	Other photo numbers and notes:
North:		South:	
East:		West:	

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

grassy river terrace

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

Superb family when
with a great
black kite.



Future Freight

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	0
	>15cm, <30cm diameter	0
	>10cm, <15cm diameter	0
	>5cm, <10cm diameter	0
	< 5cm diameter	0
Fallen logs (>10cm diam.)		0
Coarse woody debris (<10cm diam.)		0
Decorticating bark		0
Leaf litter (%)		0
Bare ground (%)		5
Grass (%)		70
Soil cracks		7
Soil banks (eg. River banks/road cuttings, etc.)		creek bank
Surface Rocks and/or Boulders		1
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		20
Rock Crevices		0
Flower Abundance (%)		20 herbs.
Fruit Abundance (%)		0
Water present (Y/N)		Y creek

*note: 0 = absent; 1 = Rare; 2 = Common

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

dog (scat.)

Faur Site In

Site Name:

Date: 23.1.20

LOCATIC

Datum:

Plot Centre

Altitude:

Locality De

VEGETA
section)

General De

Regional E

Remnant /

STRUCTURE

Tree canopy

Dominant

Sub canop

Dominant

Shrub layer

Dominant

Ground la

Site Photo

North:

East:

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 52

Date: 3/4/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA94 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s	Photo No/s
North:	South:
East:	West:

Other photo numbers and notes:

52

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	0.

Habitat suitability for target fauna

Species (EVNT) known from Region	Suitable habitat present	
	Yes	No
What EVNT species are known from region (complete in rows below) - from database searches		
car-lees dgn	✓	

Incidental fauna observations/scats/traces:

black faced c s
kestrel
yellow-rumped TIB
sparrow.

c pigeon.

willy wagtail.



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	—
	>15cm, <30cm diameter	—
	>10cm, <15cm diameter	—
	>5cm, <10cm diameter	—
	< 5cm diameter	—
Fallen logs (>10cm diam.)		—
Coarse woody debris (<10cm diam.)		—
Decorticating bark		—
Leaf litter (%)		—
Bare ground (%)		—
Grass (%)		100
Soil cracks		7
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		0
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		80
Rock Crevices		0
Flower Abundance (%)		0
Fruit Abundance (%)		0
Water present (Y/N)		0
creek nearby		✓

* Note: 0 = absent: 1 = Rare

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

eastern rose
pink-headed

Fauna Proforma

Site Information



Future Freight
Integrating Community, Environment and Engineering

Site Name: 55

Date: 23/9/18

Observers: OR + CS

LOCATION (GPS reference)

Datum: ☐ AGD84 ☐ GDA84 (WGS84) OTHER:

Plot Centre: Zone: _____ Easting: _____ Northing: _____ Accuracy _____ m

Altitude: _____ m Altitude accuracy: +/- _____ m

Locality Description (e.g. proximity to roads, towns, creeks etc.):
.....

VEGETATION (Note: If a site specific vegetation assessment proforma has been completed, ignore this section)

General Description (e.g. Open woodland on alluvium):
.....

Regional Ecosystem (mapped): Regional Ecosystem Observed:

Remnant / Non-remnant (circle)

STRUCTURE

Tree canopy present Y / N average height _____ m cover _____ %

Dominant species:

Sub canopy present Y / N average height _____ m cover _____ %

Dominant species:

Shrub layer present Y / N average height _____ m cover _____ %

Dominant species:

Ground layer: cover _____ % weeds _____ % Dominant species _____

Site Photos

Photo No/s

Photo No/s

Other photo numbers and notes:

North:

South:

East:

West:

Fauna Proforma

Habitat characteristics

Habitat Disturbance

Disturbance type	Severity 0-3 (0=nil, 3=severe)
Fire	0
Grazing	0
Clearing	3
Erosion	1

sashed roadside grassland.	Erosion	1

on dark brown loam

Habitat suitability for target fauna

[illegible]

Incidental fauna
observations/scats/traces:

willie wagtail.
meat ants.
leestrel.



Future Freight
Integrating Community, Environment and Engineering

Habitat Features – Abundance:

Characteristics		Abundance (0-7)* or % within landscape
Hollows in trees and stags. (May include hollows in termentartia)	>30cm diameter	—
	>15cm, <30cm diameter	—
	>10cm, <15cm diameter	—
	>5cm, <10cm diameter	—
	< 5cm diameter	✓
Fallen logs (>10cm diam.)		—
Coarse woody debris (<10cm diam.)		—
Decorticating bark		—
Leaf litter (%)		—
Bare ground (%)		5
Grass (%)		95
Soil cracks		0
Soil banks (eg. River banks/road cuttings, etc.)		0
Surface Rocks and/or Boulders		4
Wetlands (Y/N). If <u>yes</u> complete wetland Proforma		N
Weeds and non-native species (%)		80
Rock Crevices		0
Flower Abundance (%)		herbs < 1
Fruit Abundance (%)		0
Water present (Y/N)		N

* Note: 0 = absent; 1 = 100%

* Note: 0 = absent; 1 = Rare; 2 = Rare to occasional; 3 = occasional; 4 = occasional to common; 5 = common; 6 = common to abundant; 7 = abundant

Fau Site I

Site Name

Date: ... / ... / ...

LOCAT

Datum:

Plot Cent

Altitude:

Locality 1

VEGETA

section)

General D

Regional

Remnant

STRUCTU

Dominant

Sub cano

Dominant

Shrub layer

Dominan

Ground I

Site Ph

PK

North:

East:

APPENDIX

L

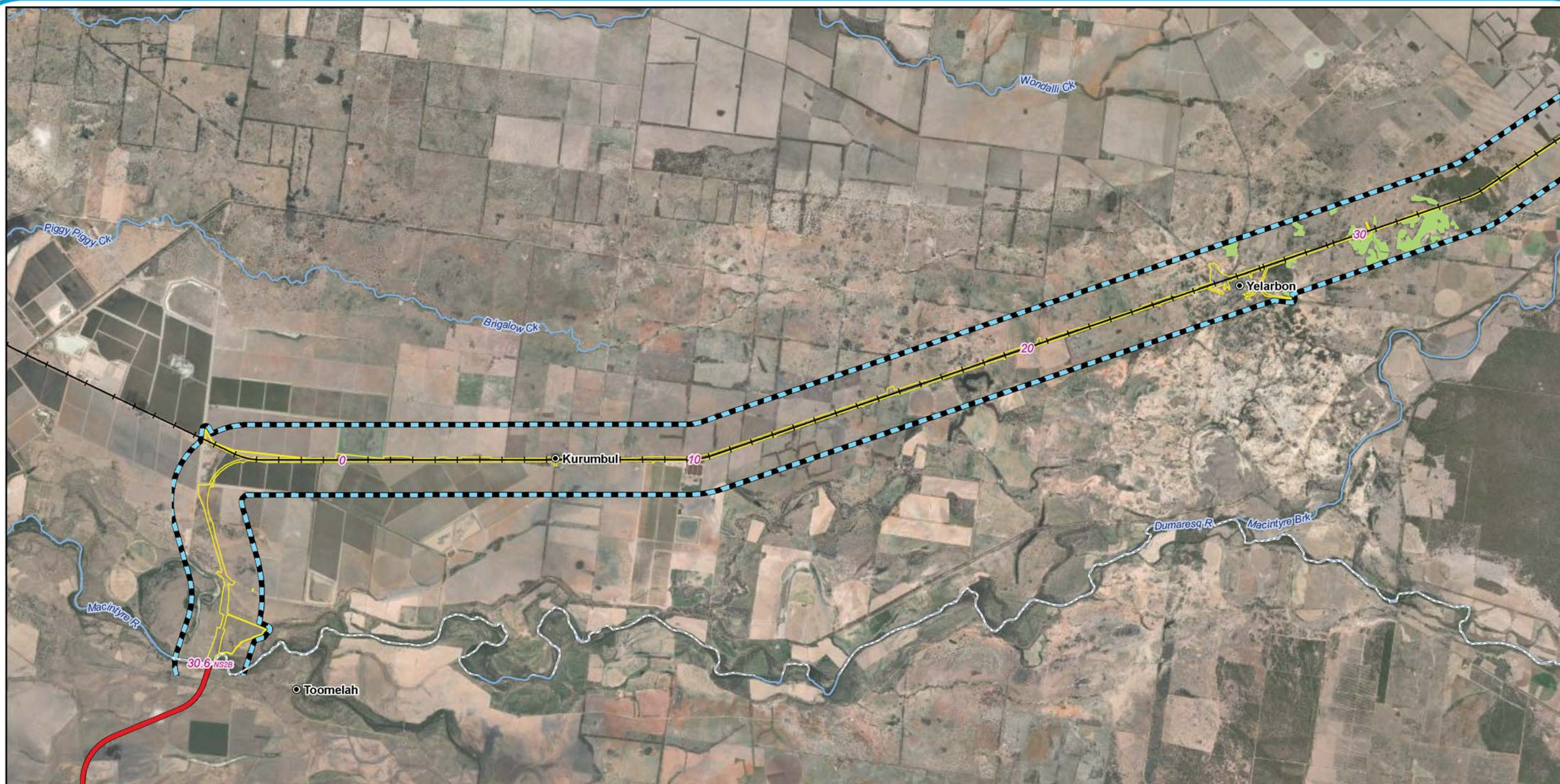
Matters of National Environmental Significance Technical Report

Appendix I Predicted Habitat and TEC Mapping

INLAND RAIL—BORDER TO GOWRIE ENVIRONMENTAL IMPACT STATEMENT

Appendix I

Predicted Habitat Mapping



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



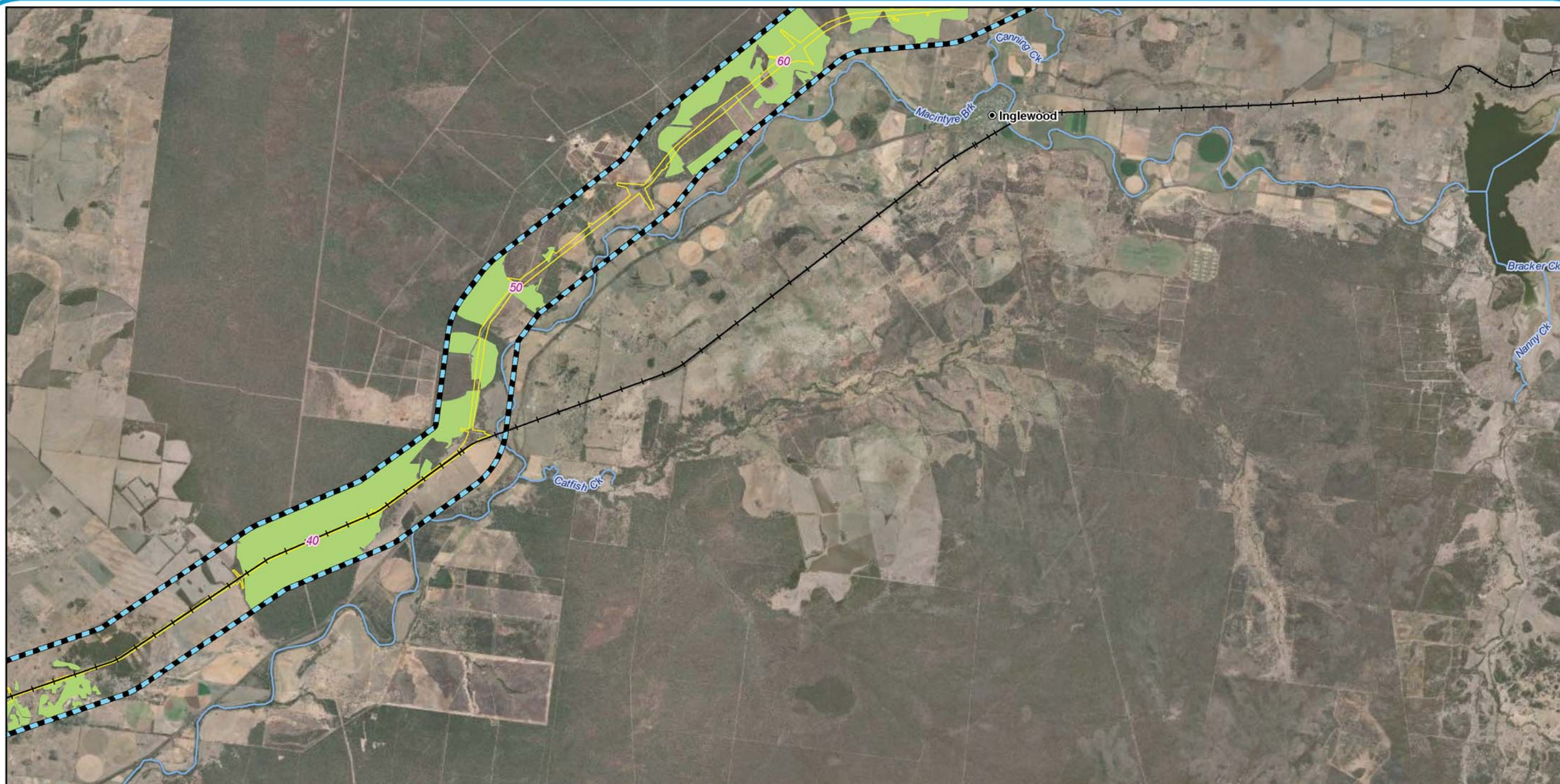
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)



Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



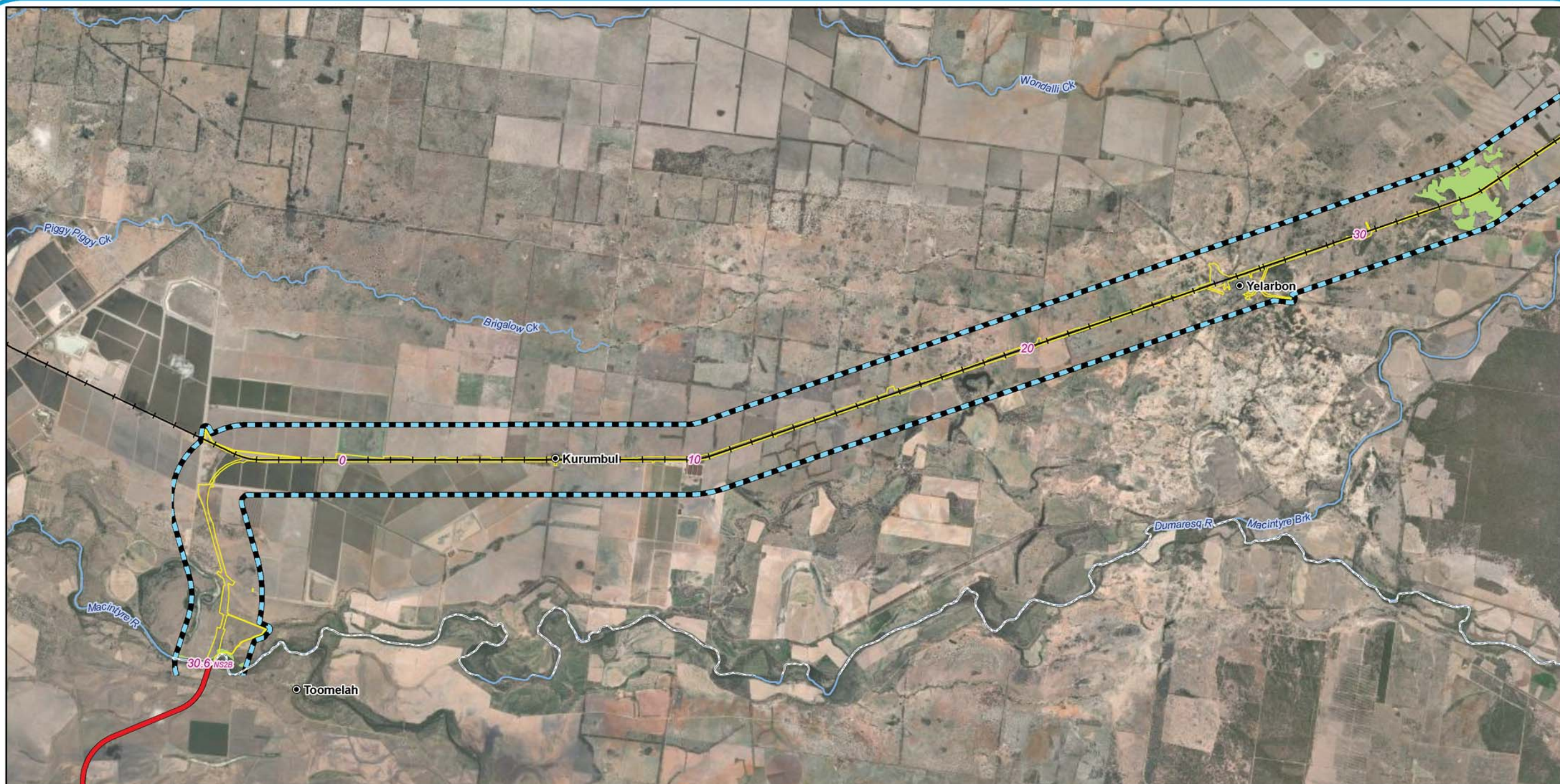
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Acacia lauta* (Tara wattle)

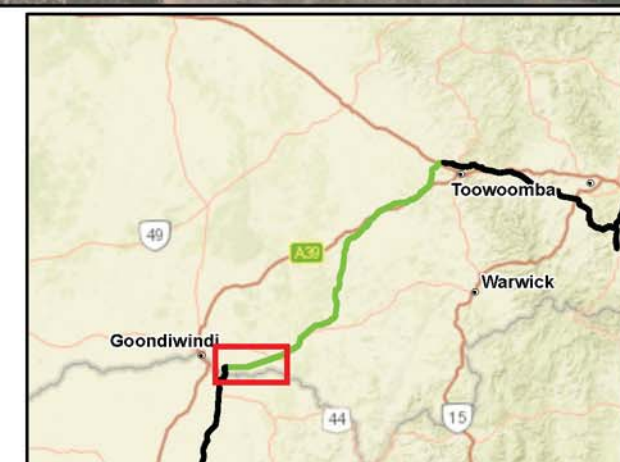


Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



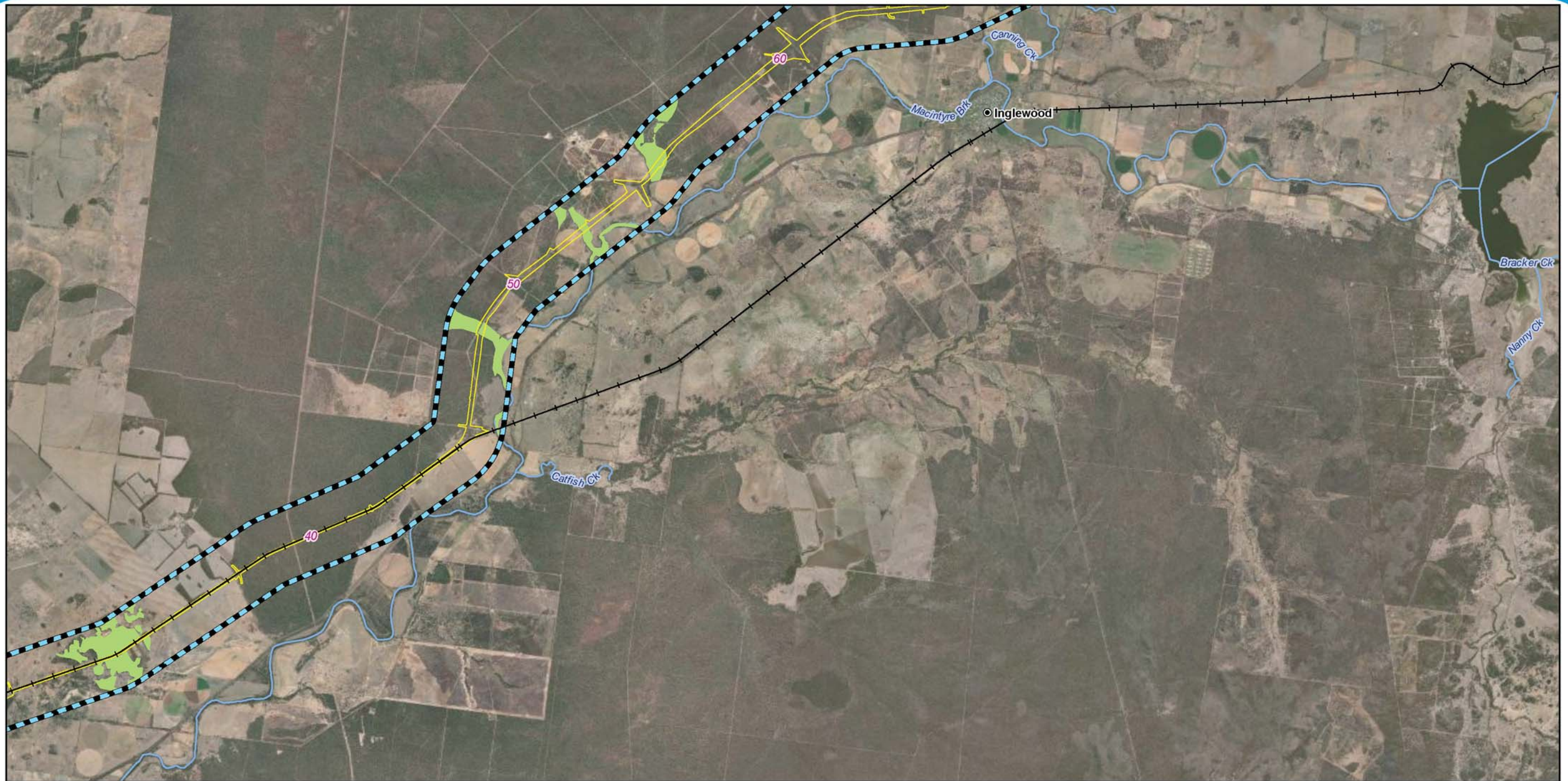
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0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Arthraxon hispidus* (Hairy-joint grass)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Arthraxon hispidus* (Hairy-joint grass)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



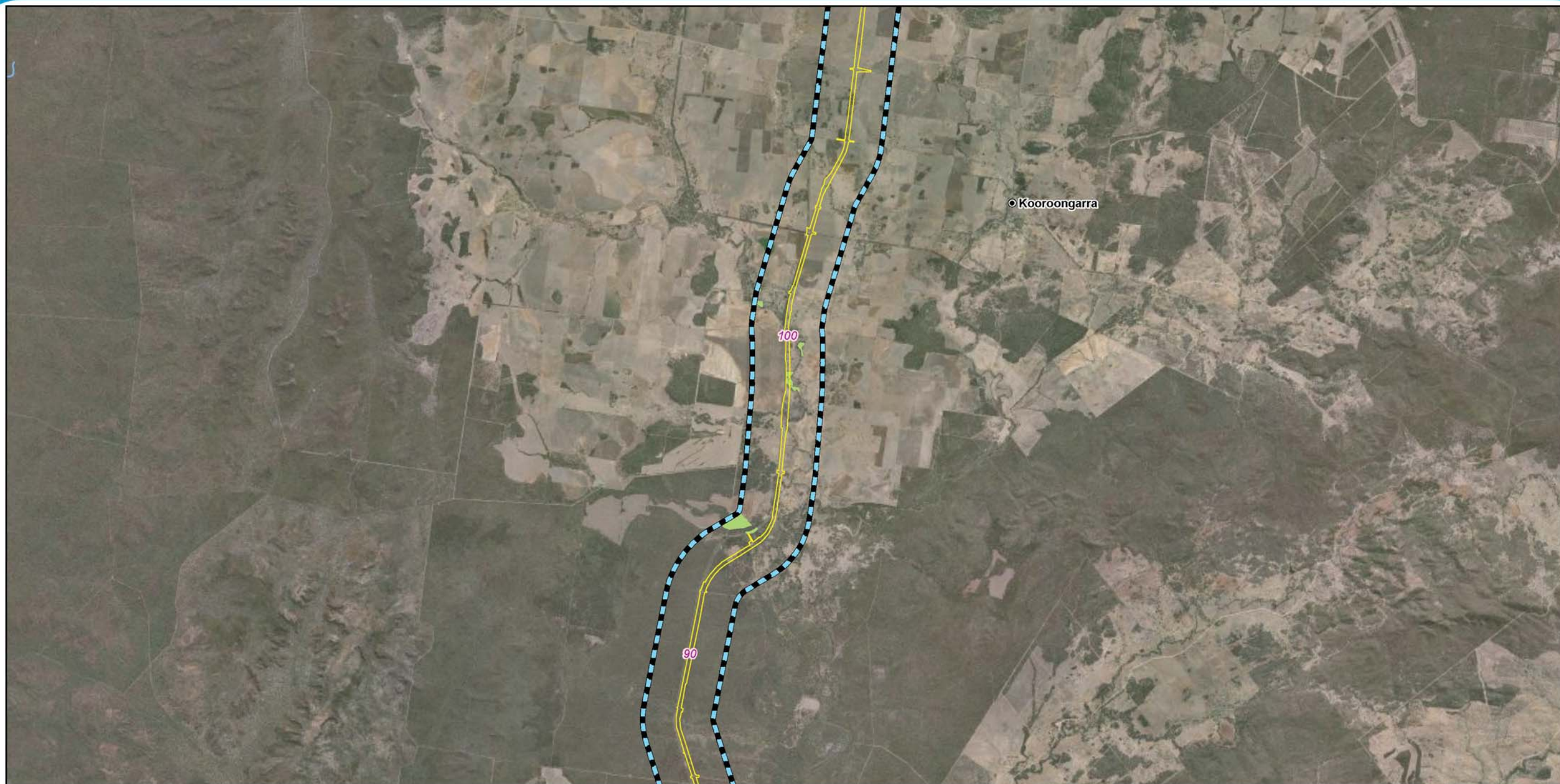
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Arthraxon hispidus* (Hairy-joint grass)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Arthraxon hispidus* (Hairy-joint grass)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

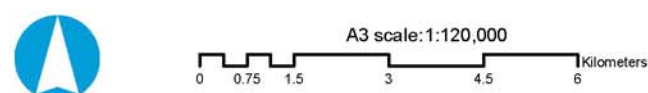
ARTC Inland Rail Study: Border to Gowrie

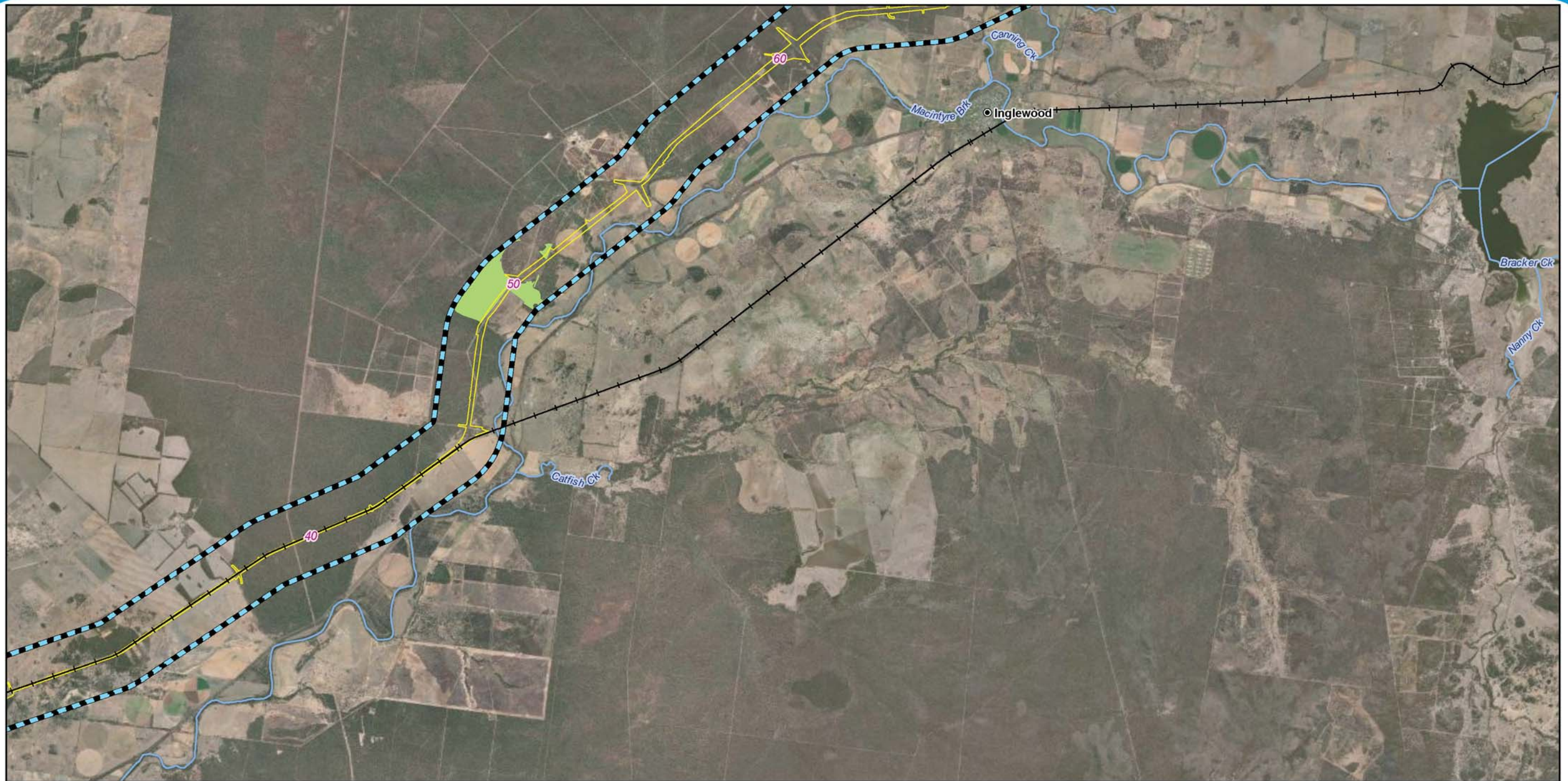
Predicted Habitat: *Arthraxon hispidus* (Hairy-joint grass)



Legend

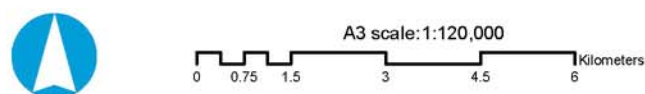
- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



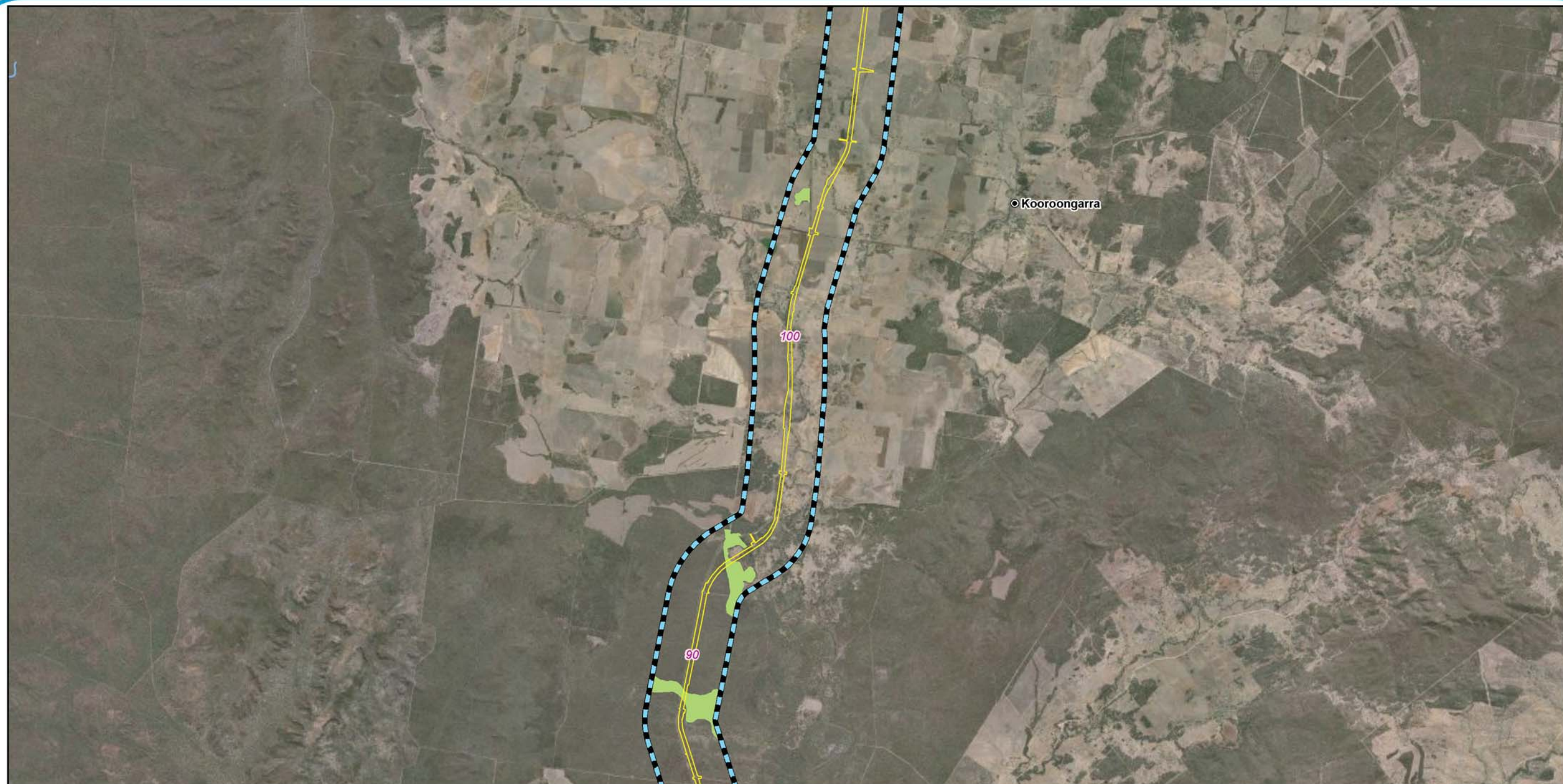
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Cadellia pentastylis* (Ooline)



Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Cadellia pentastylis* (Ooline)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Cadellia pentastylis* (Ooline)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



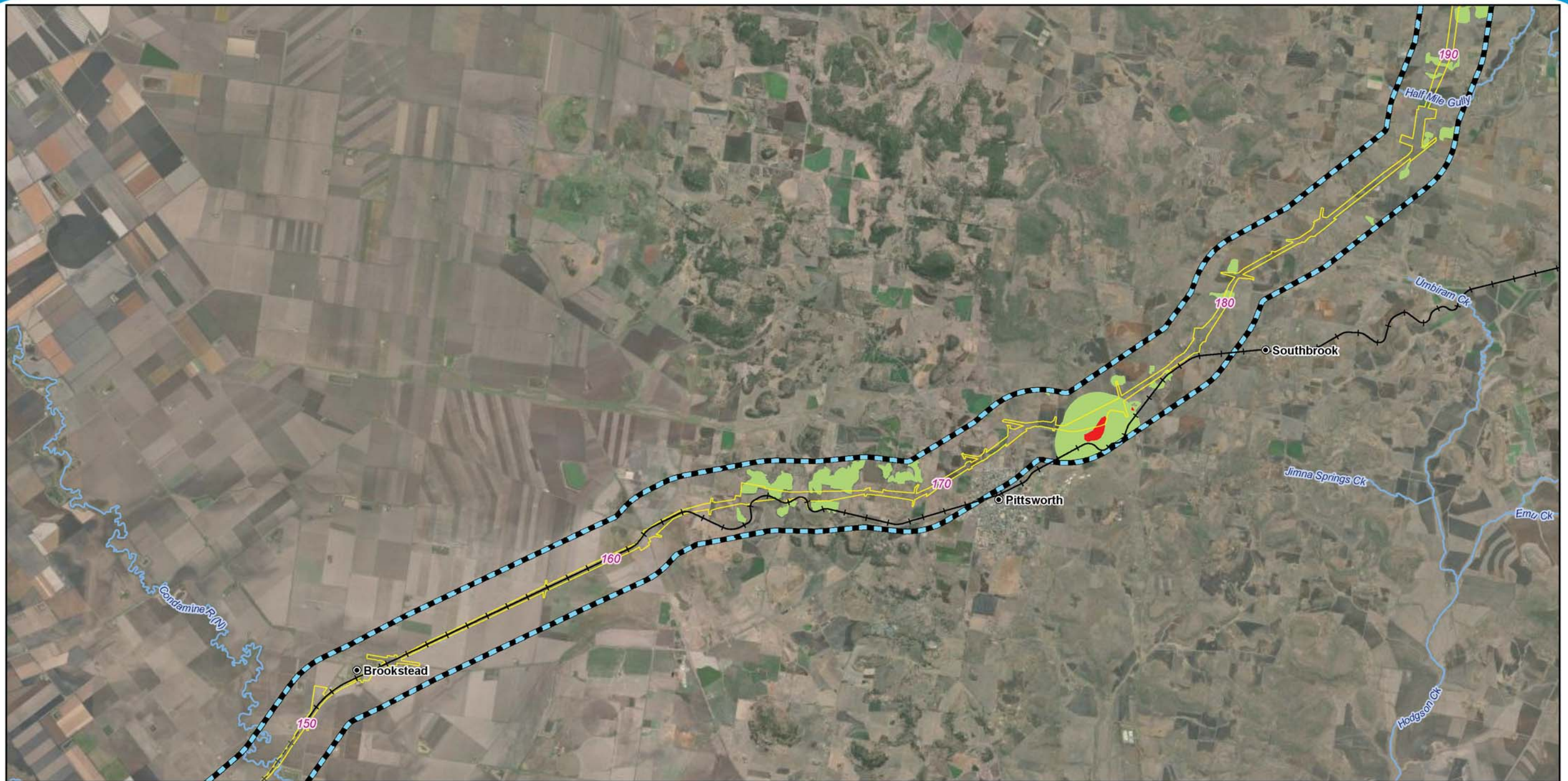
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

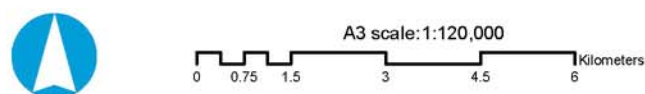
ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Cadellia pentastylis* (Ooline)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Habitat critical to the survival of the species
 - Potential habitat





Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- Gowrie to Helidon alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Dichanthium queenslandicum* (King blue-grass)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Dichanthium setosum* (Bluegrass)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- Gowrie to Helidon alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



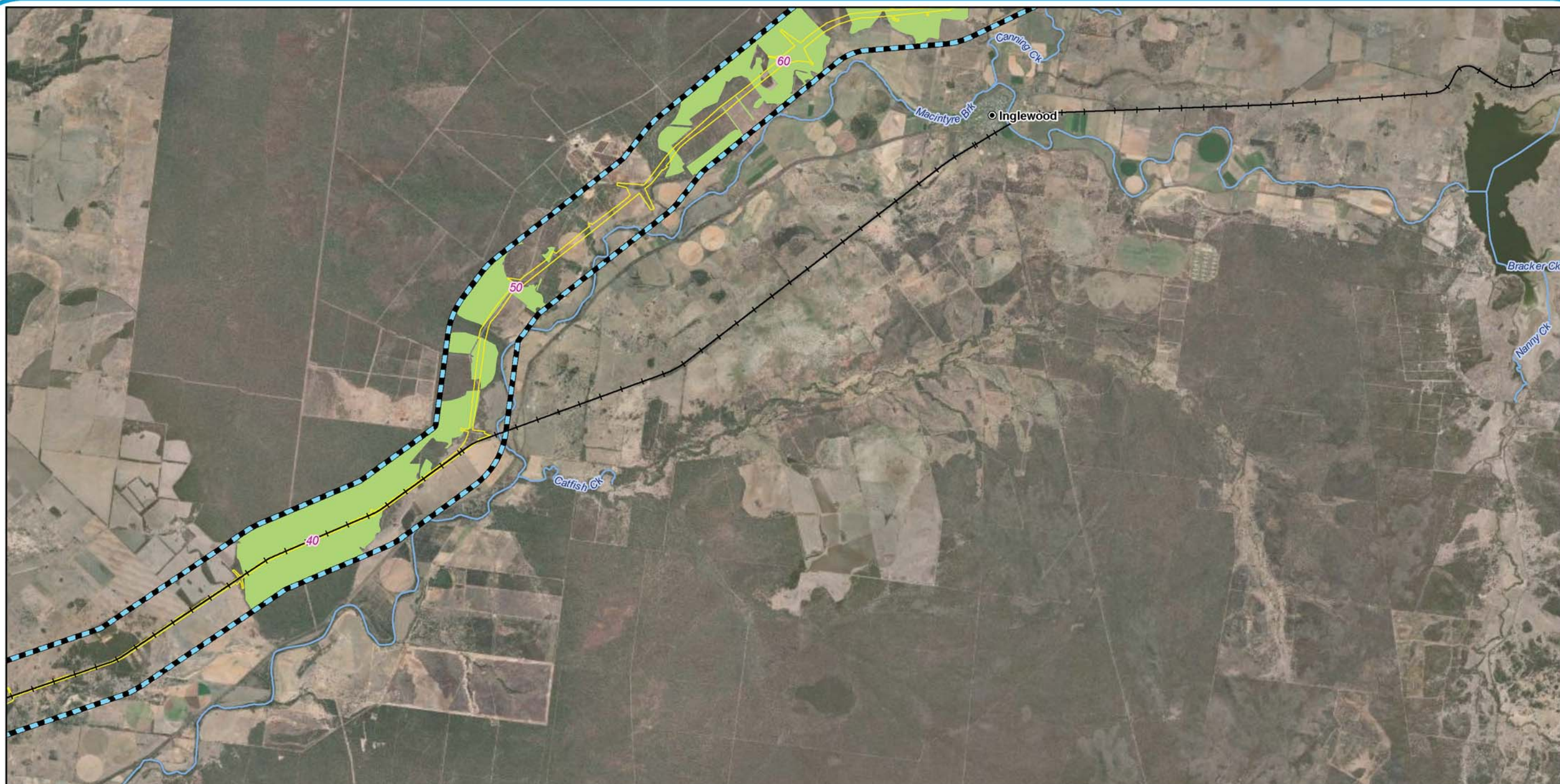
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Dichanthium setosum* (Bluegrass)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Eucalyptus virens* (Shiny-leaved ironbark)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



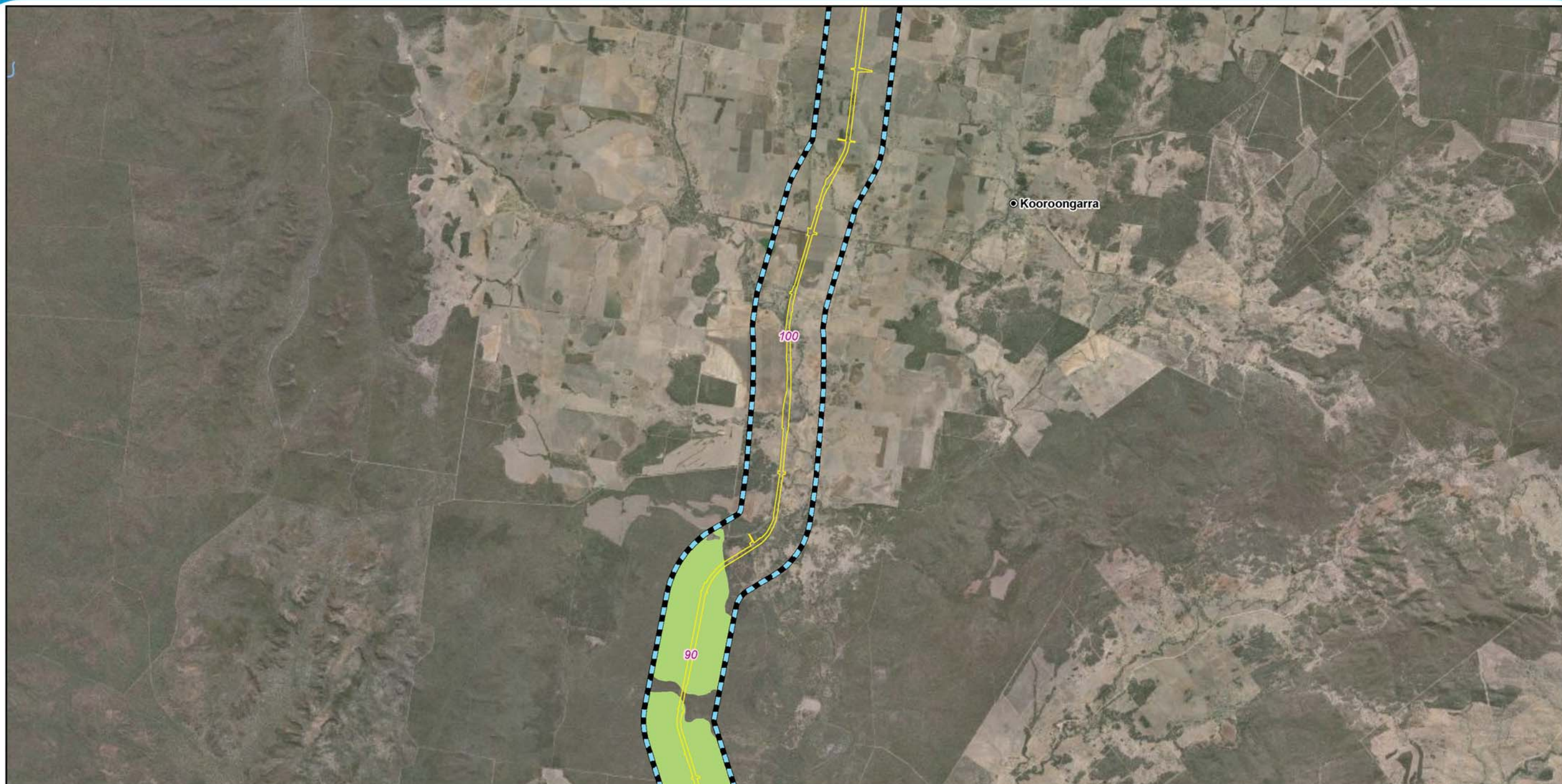
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Eucalyptus virens* (Shiny-leaved ironbark)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Eucalyptus virens* (Shiny-leaved ironbark)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Eucalyptus virens* (Shiny-leaved ironbark)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



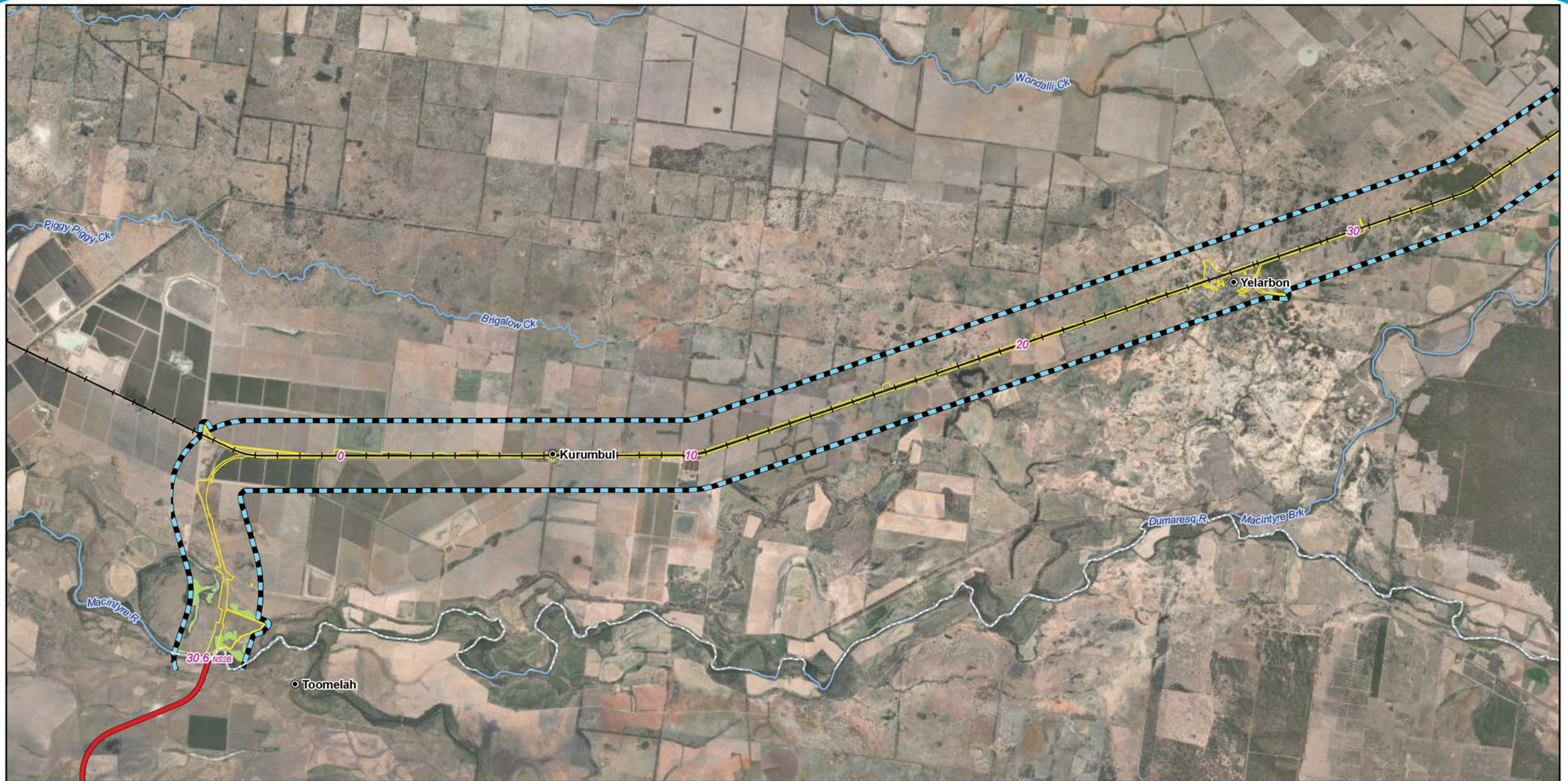
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Eucalyptus virens* (Shiny-leaved ironbark)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



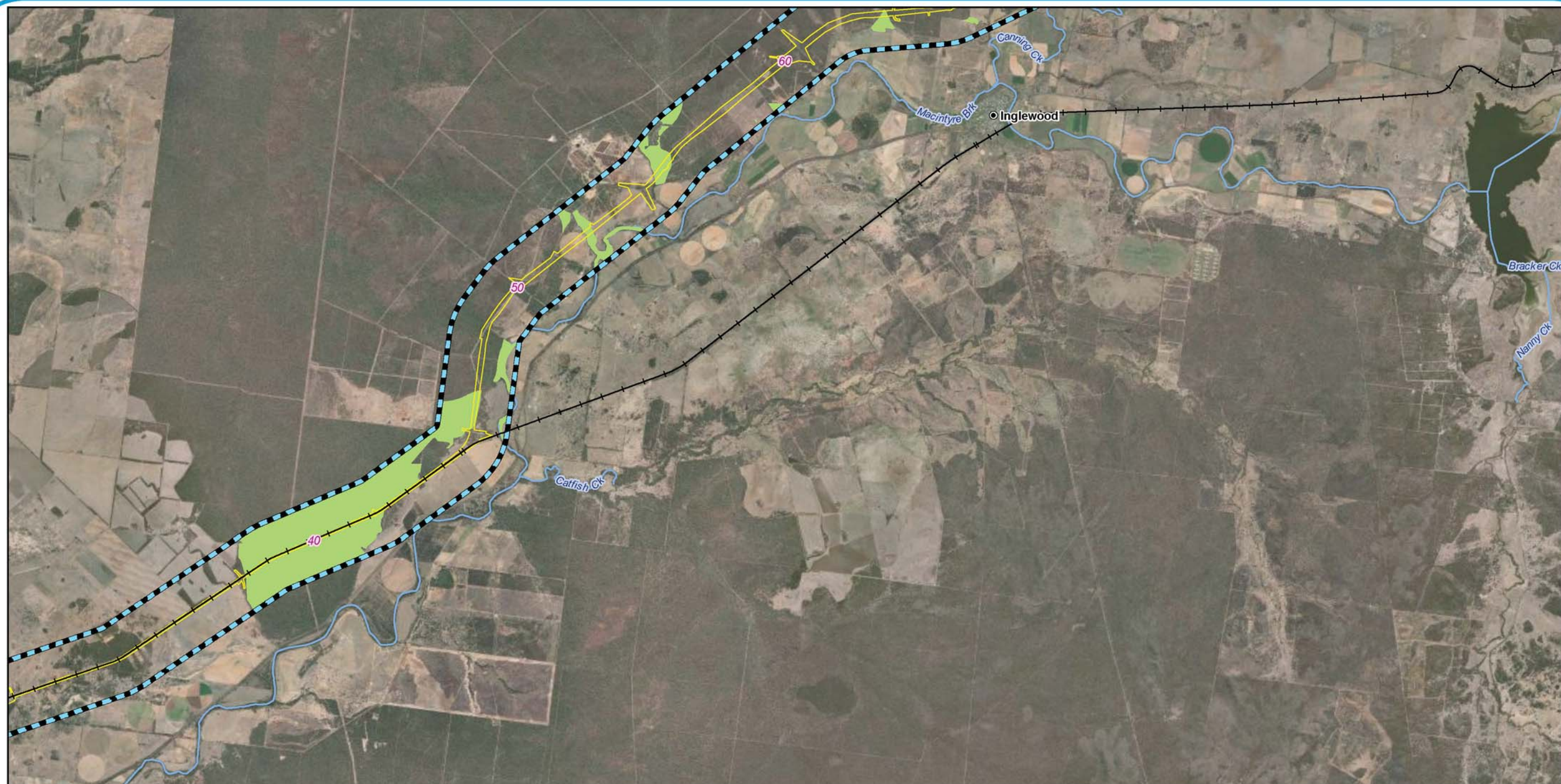
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)



Legend

- | | |
|---------------------------------------|---|
| 5 Chainage (km) | Predicted Habitat |
| --+-- Existing rail (non-operational) | Red Habitat critical to the survival of the species |
| Watercourses | Green Potential habitat |
| Project footprint | |
| Impact assessment area | |



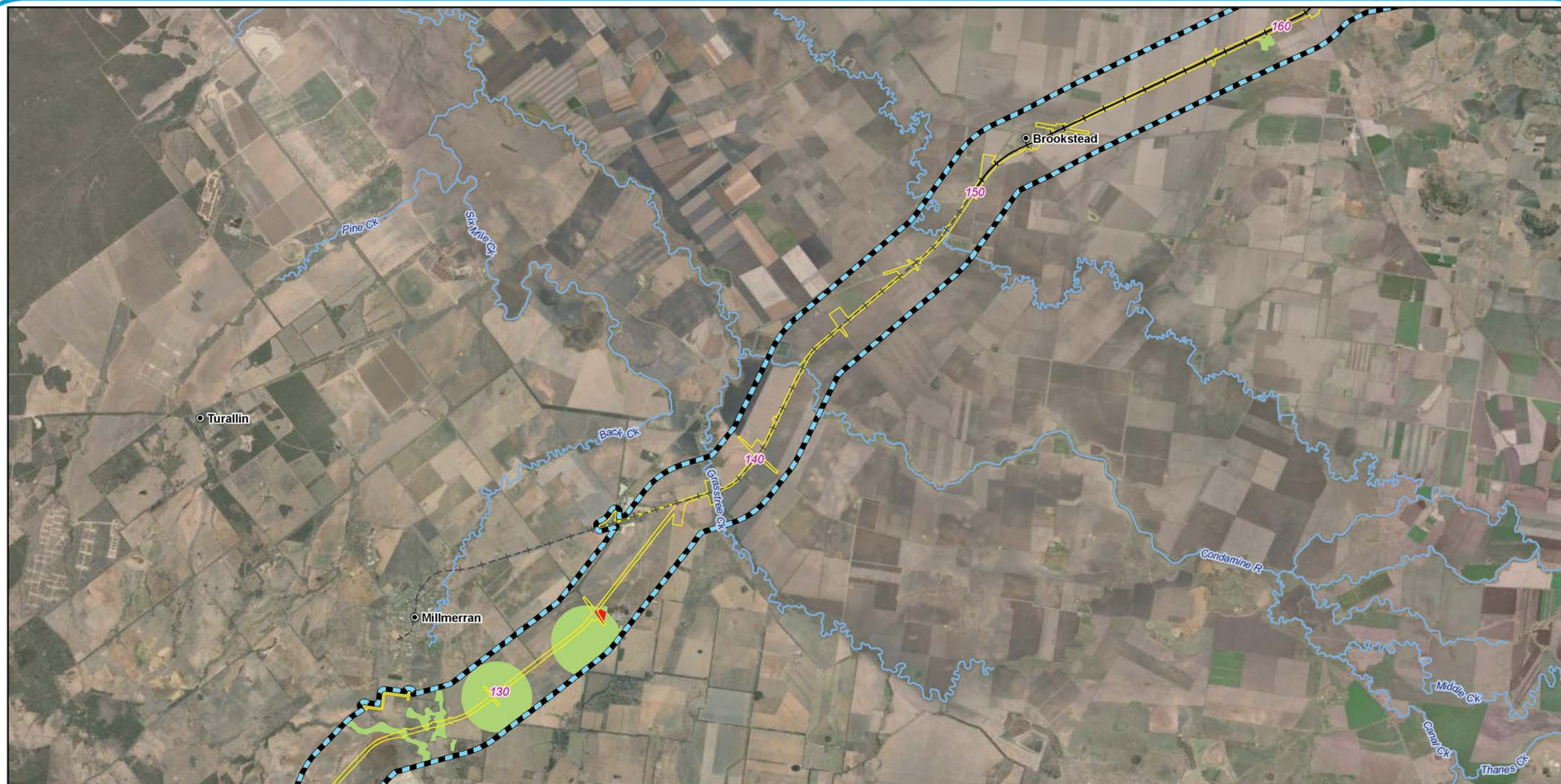
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)

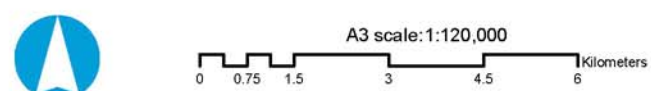


Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Habitat critical to the survival of the species
- Potential habitat



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

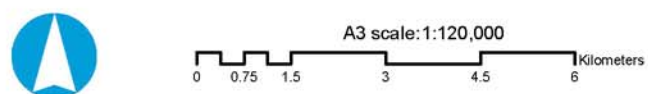
ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Homopholis belsonii* (Belsons panic)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Habitat critical to the survival of the species
 - Potential habitat





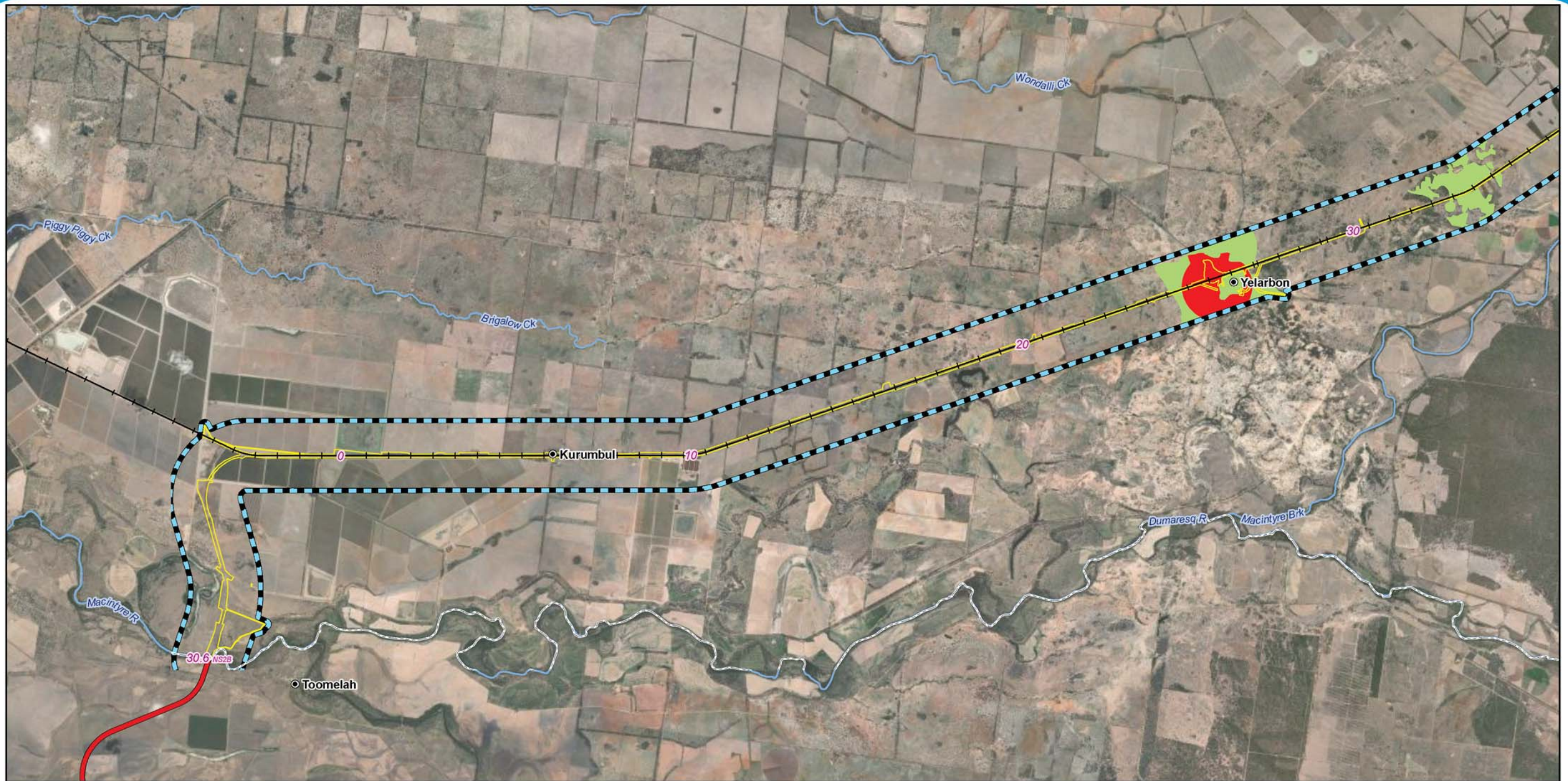
Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- Gowrie to Helidon alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



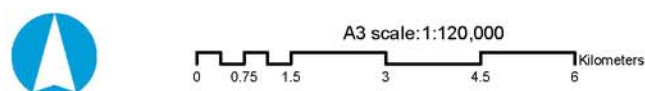


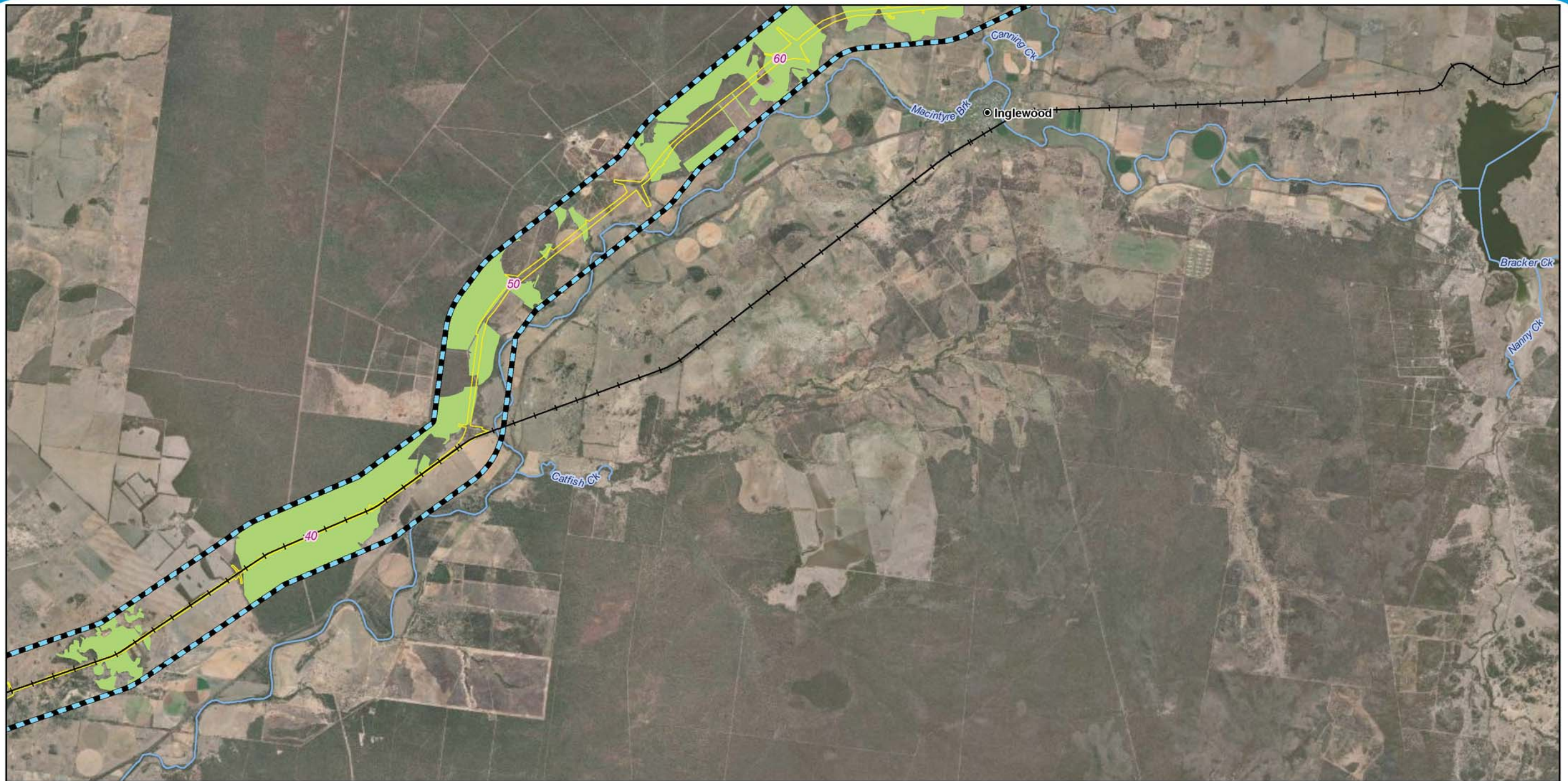
Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Habitat critical to the survival of the species
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium monoplacoides* (Winged pepper-cress)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



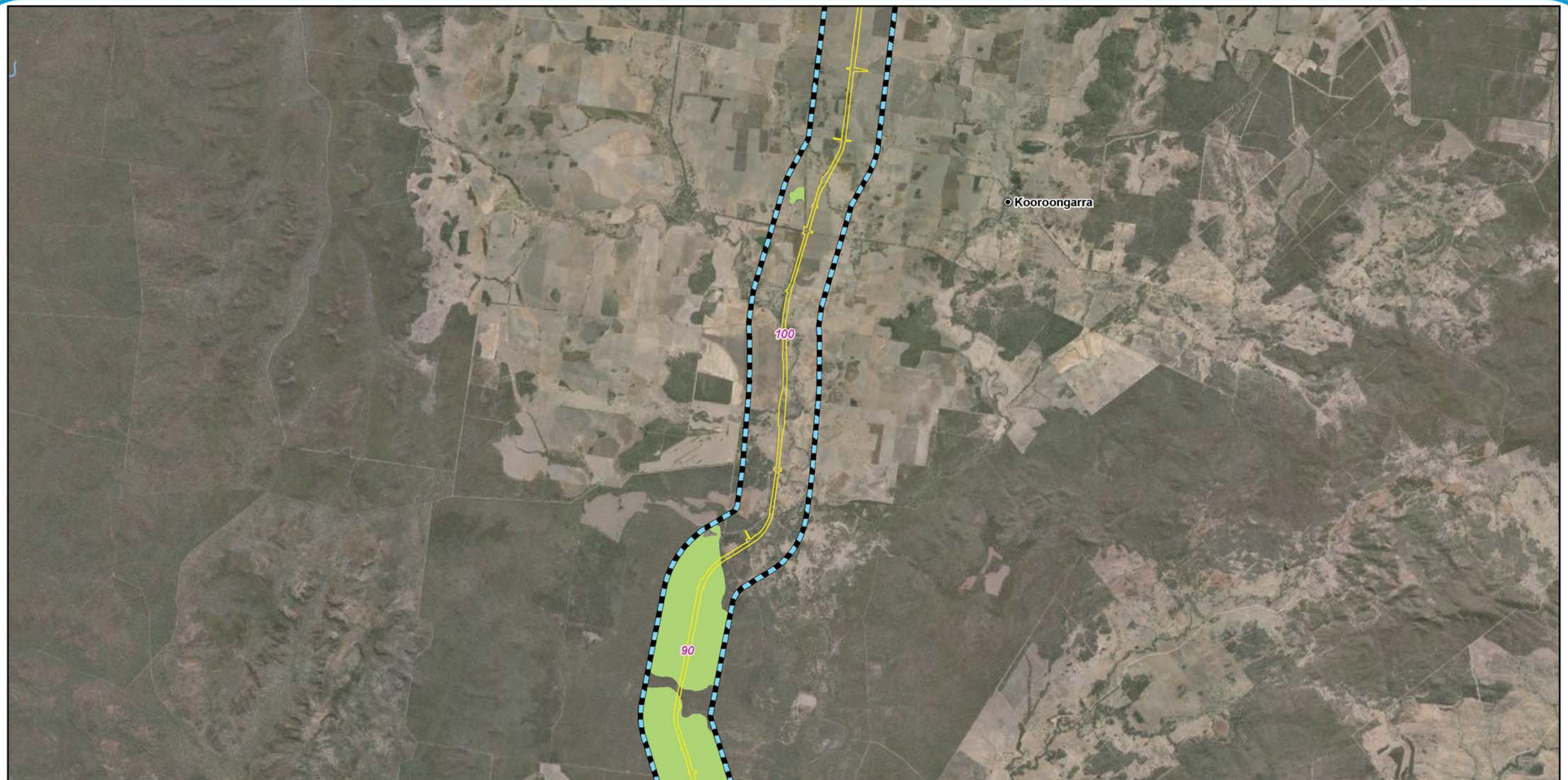
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium monoplacoides* (Winged pepper-cress)



Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium monoplacoides* (Winged pepper-cress)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium monoplacoides* (Winged pepper-cress)

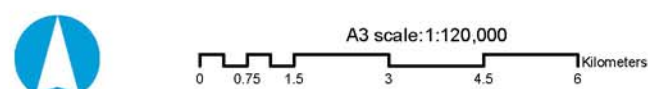


Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

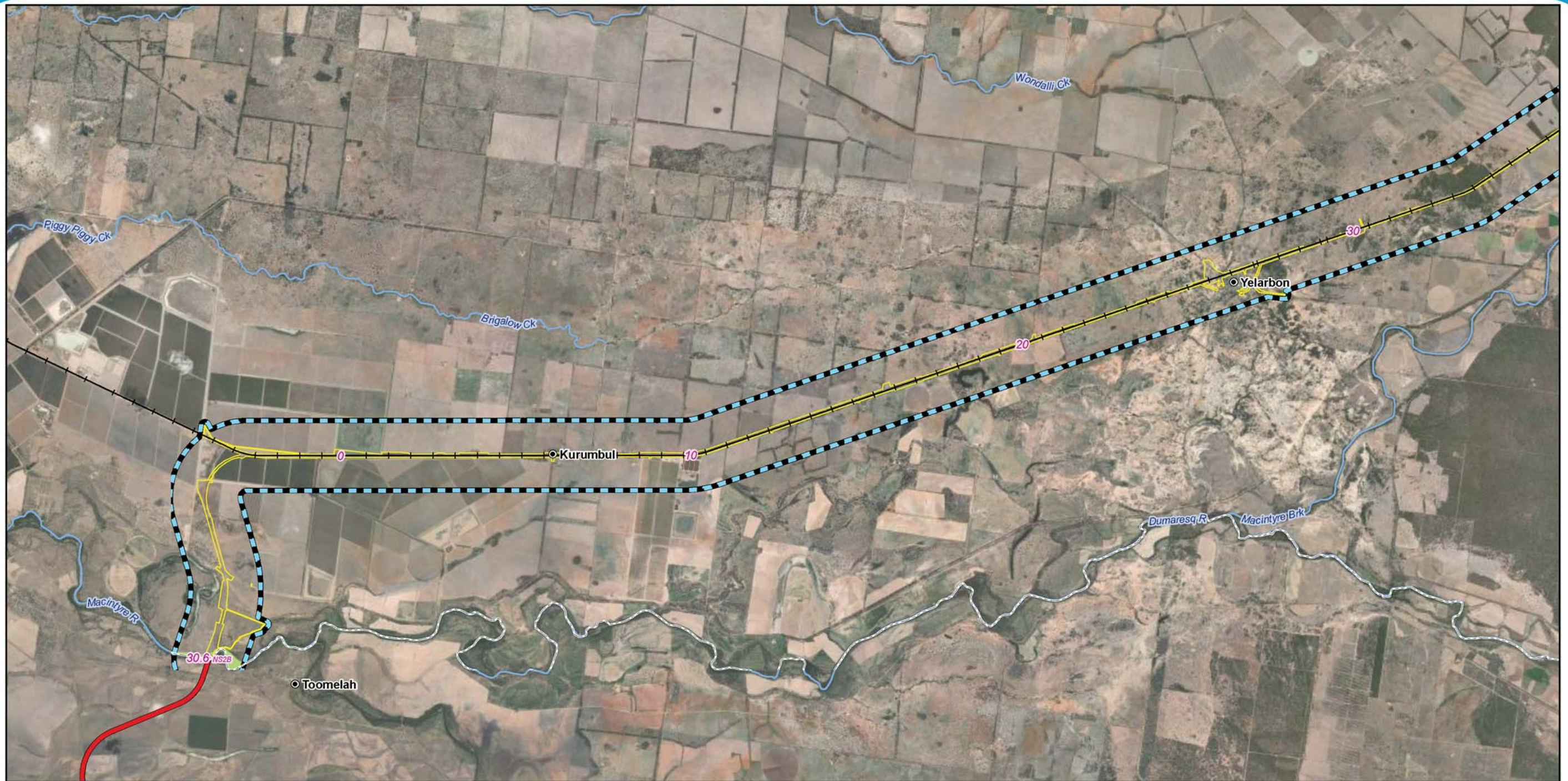
- Potential habitat



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium monoplacoides* (Winged pepper-cress)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



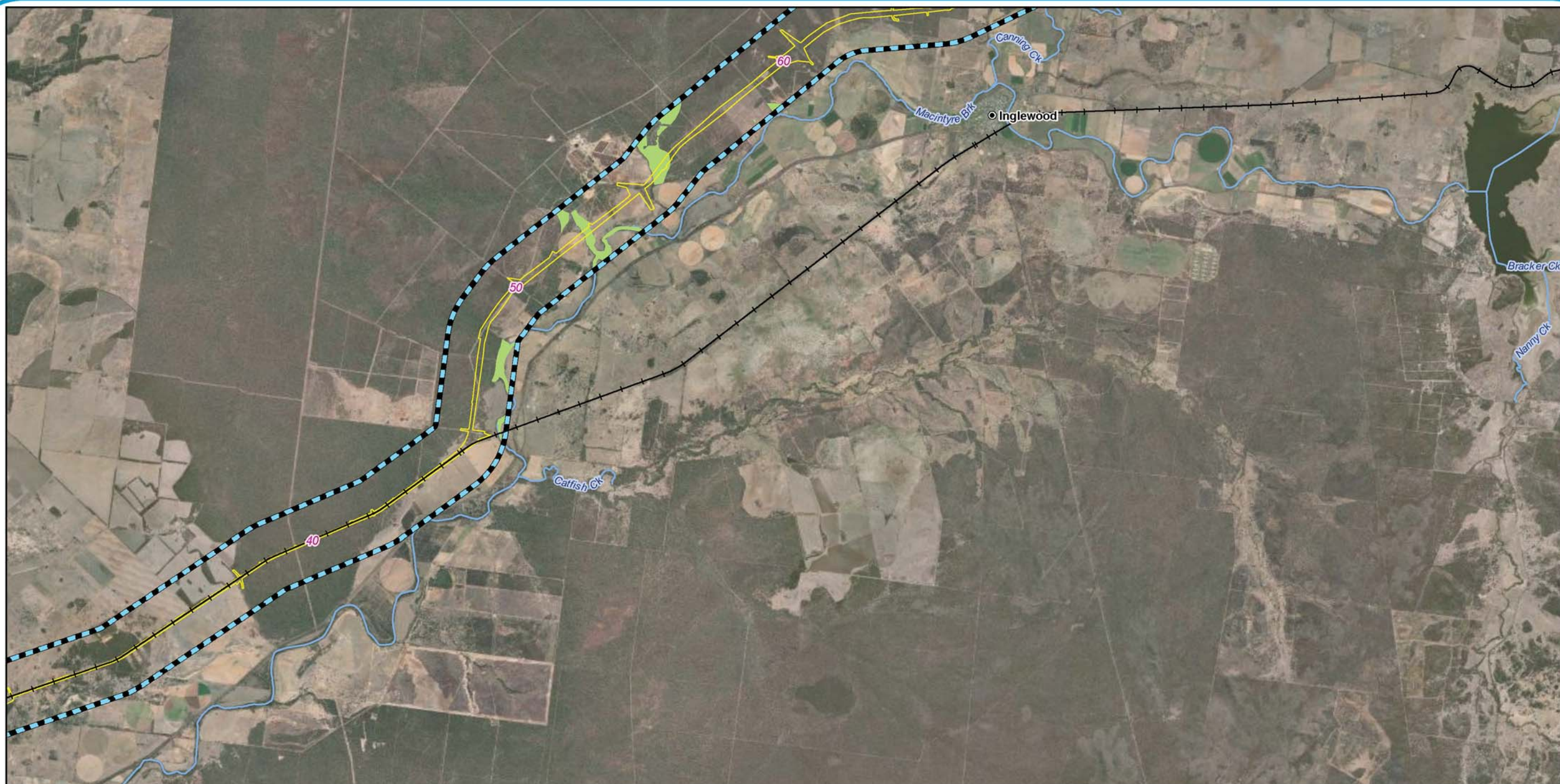
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium peregrinum* (Wandering pepper-cross)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium peregrinum* (Wandering pepper-cross)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium peregrinum* (Wandering pepper-cross)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium peregrinum* (Wandering pepper-cress)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Lepidium peregrinum* (Wandering pepper-cross)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat

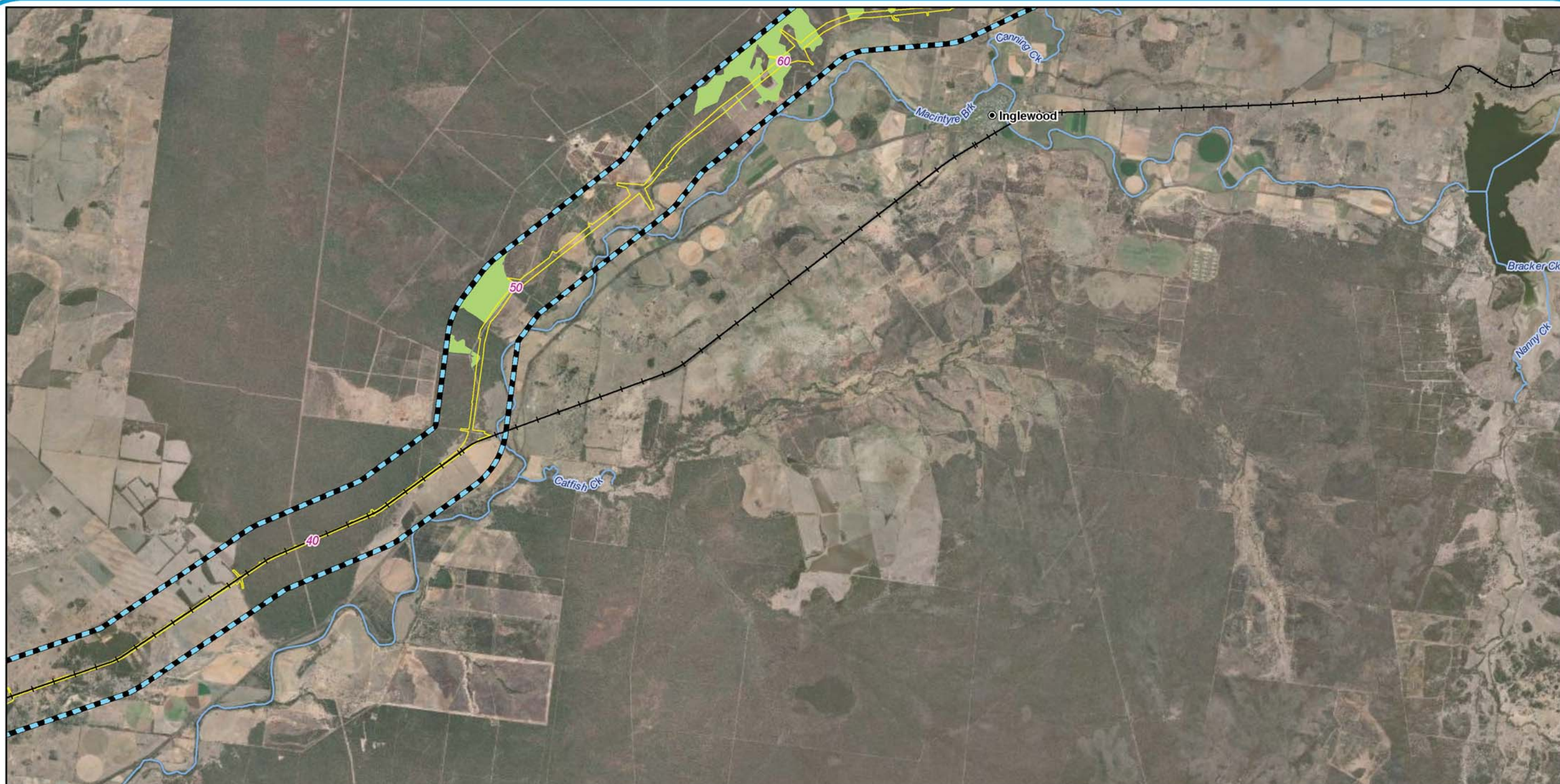




Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



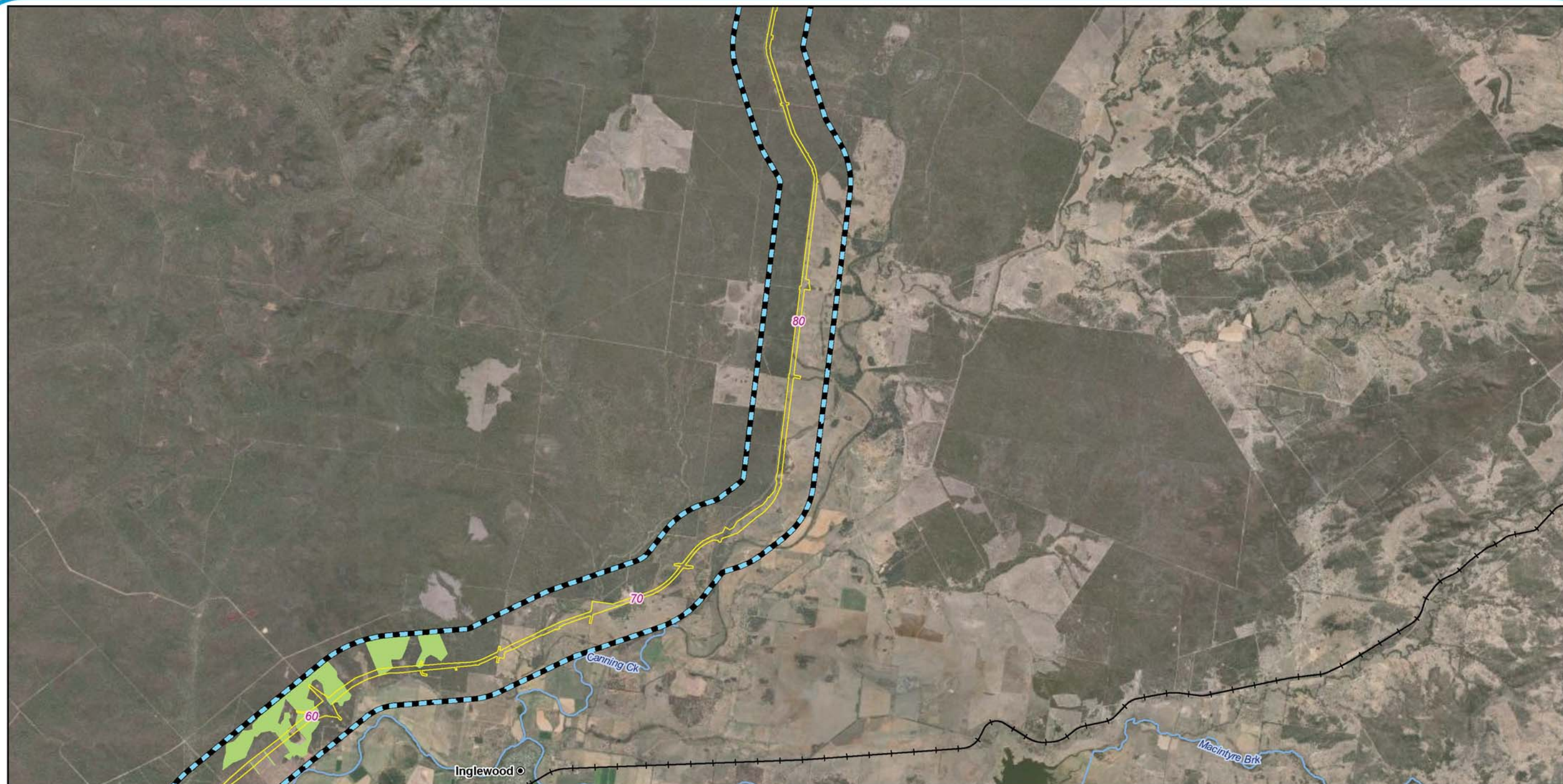
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0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Leucopogon sp. Coolmunda* (D. Halford Q 1635) (*Coolmunda leucopogon*)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



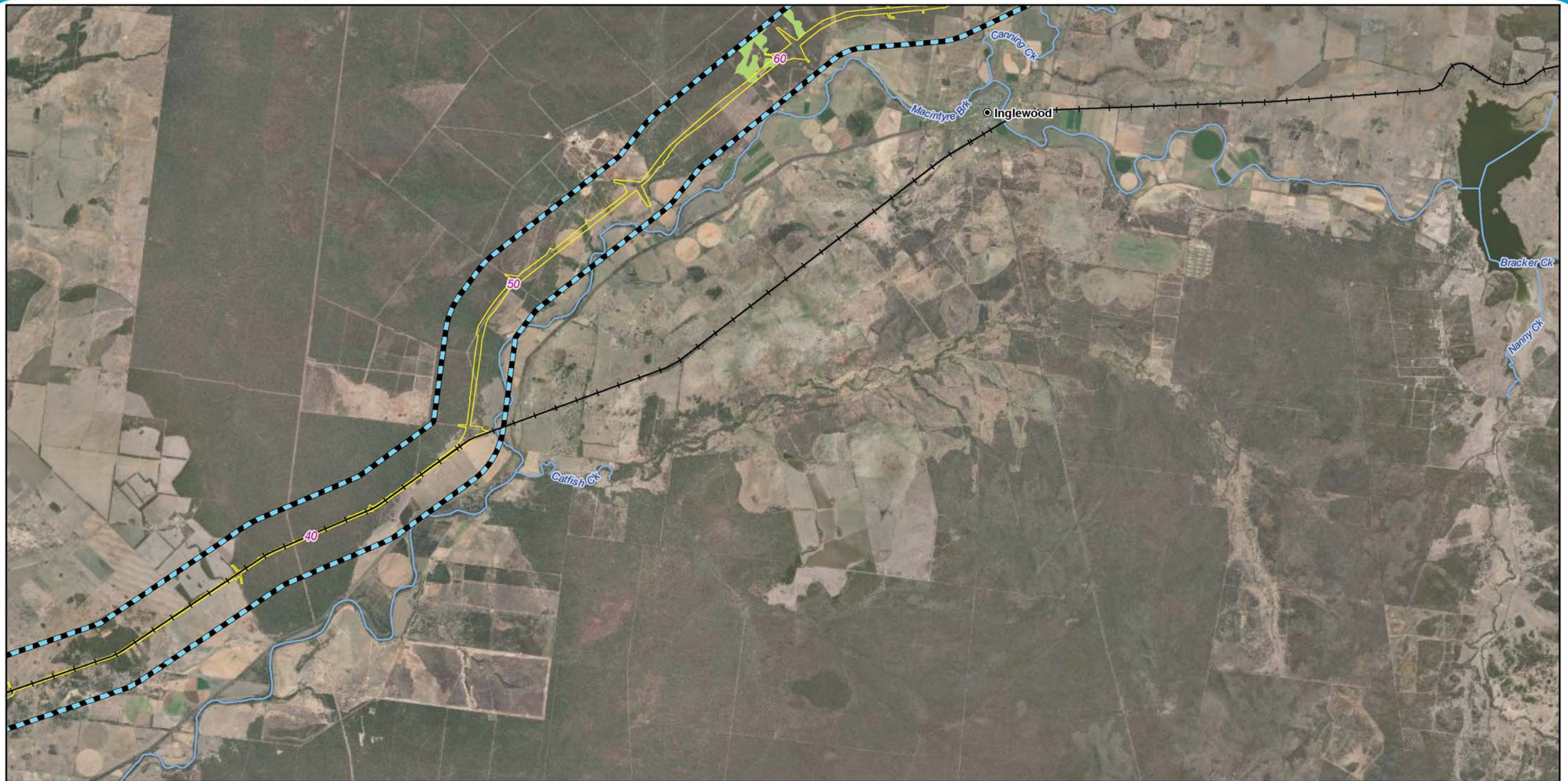
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Leucopogon sp. Coolmunda* (D. Halford Q 1635) (*Coolmunda leucopogon*)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Macrozamia machinii* (A cycad)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Macrozamia machinii* (A cycad)



Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Macrozamia machinii* (A cycad)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



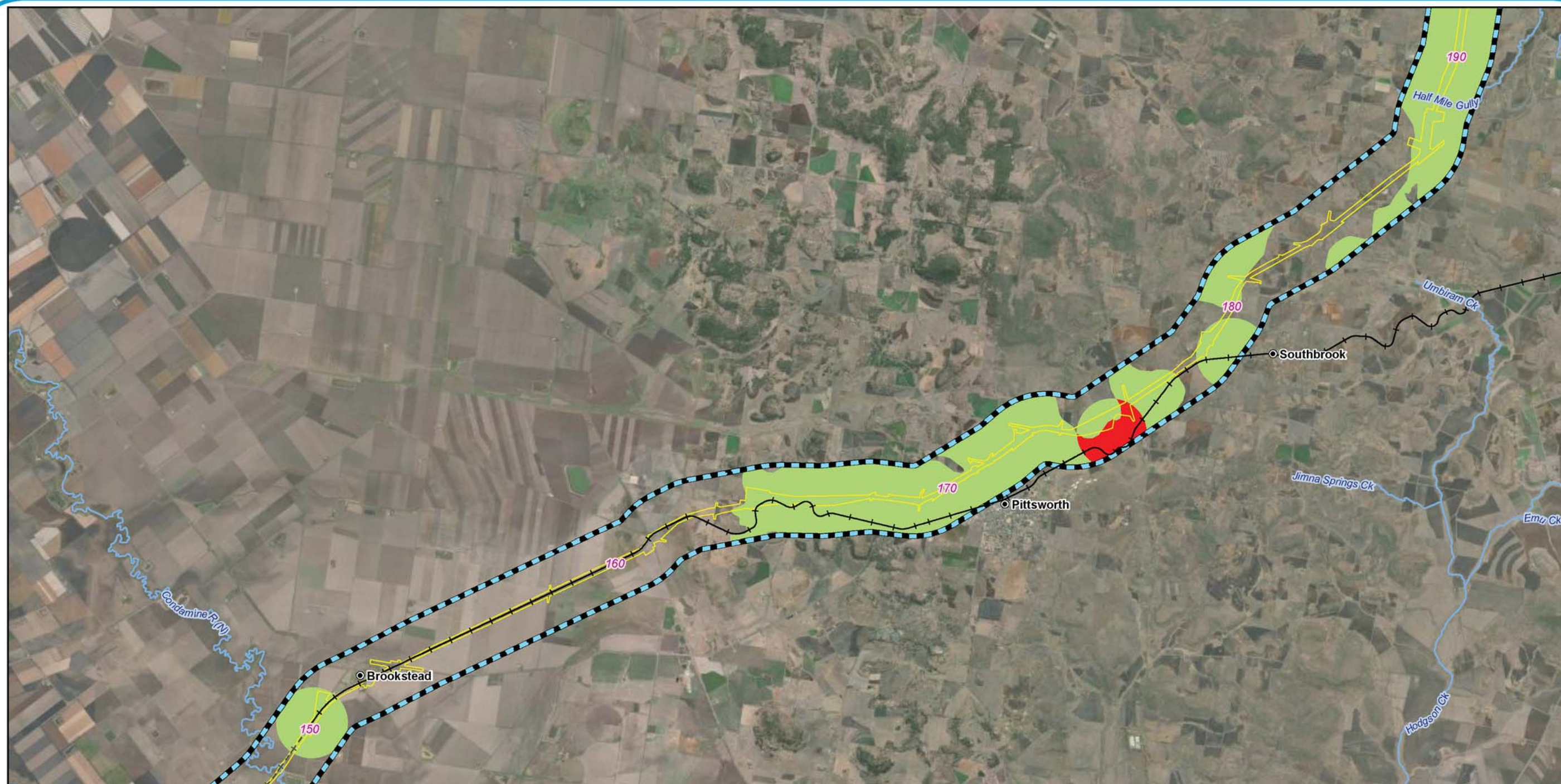
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0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Picris evae* (A hawkweed)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Habitat critical to the survival of the species
- Potential habitat





Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- Gowrie to Helidon alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



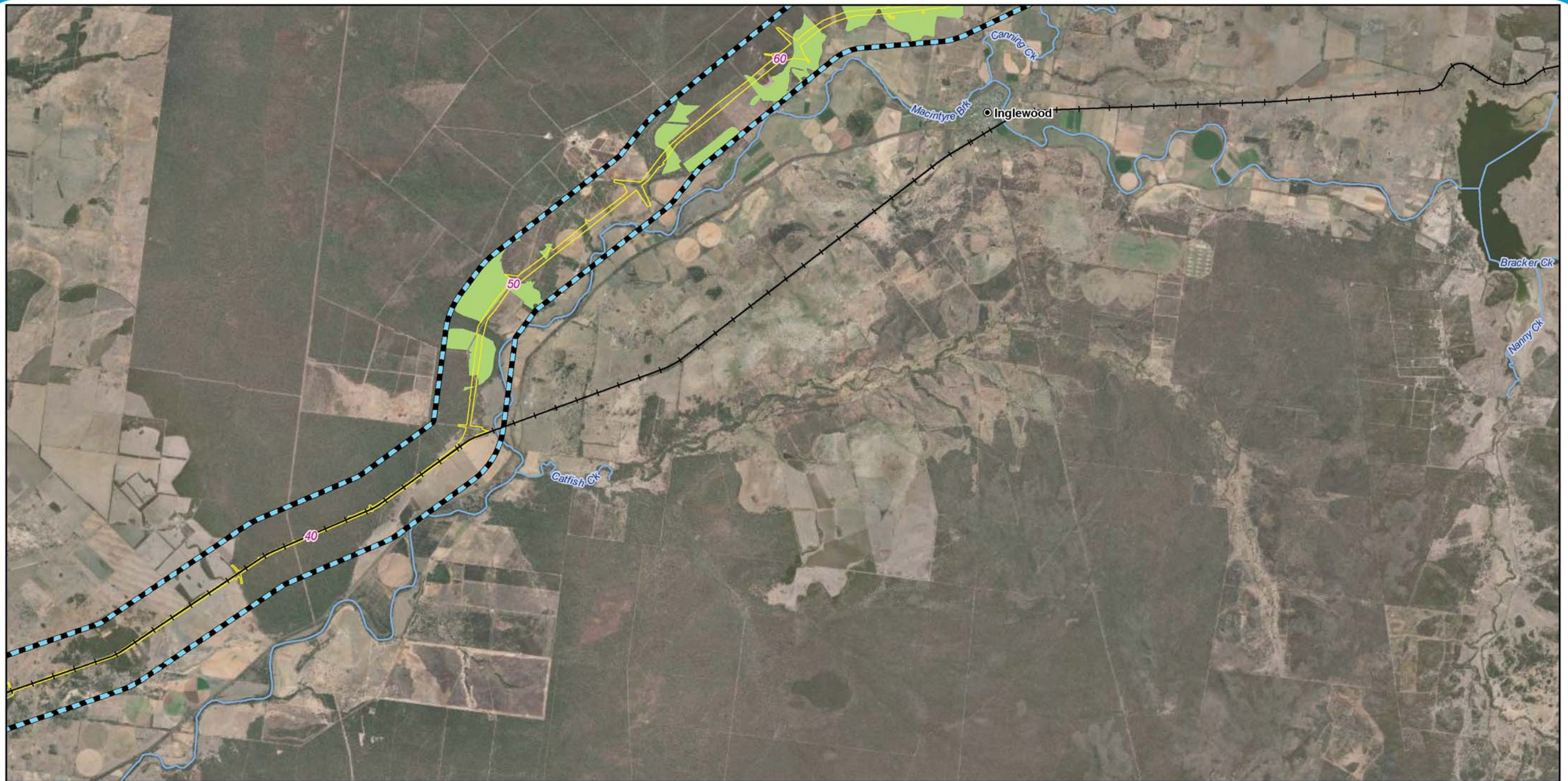
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0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Picris evae* (A hawkweed)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Prostanthera* (sp. *Dunmore*) (*Dunmore prostanthera*)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



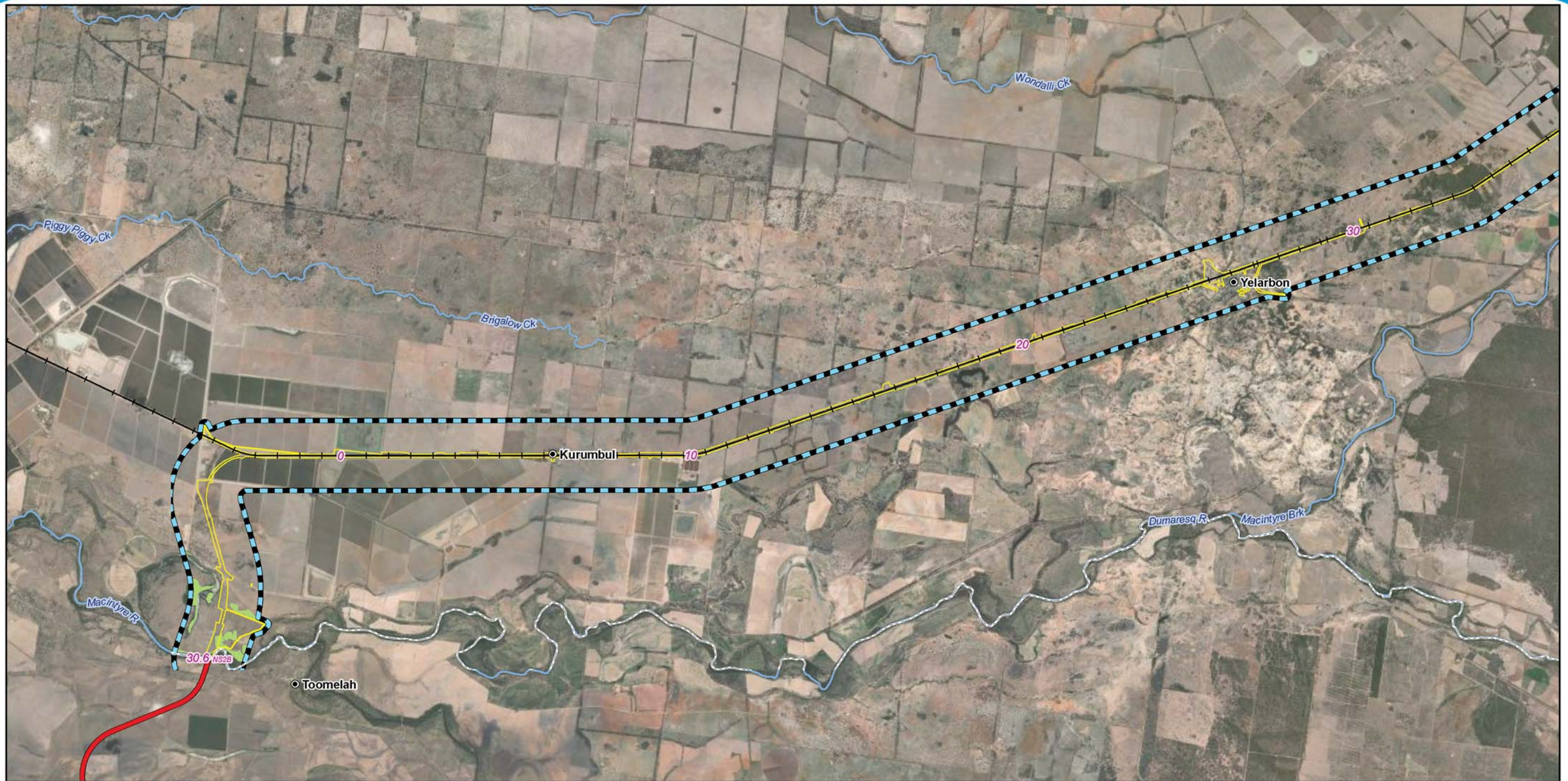
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Prostanthera* (sp. *Dunmore*) (*Dunmore prostanthera*)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



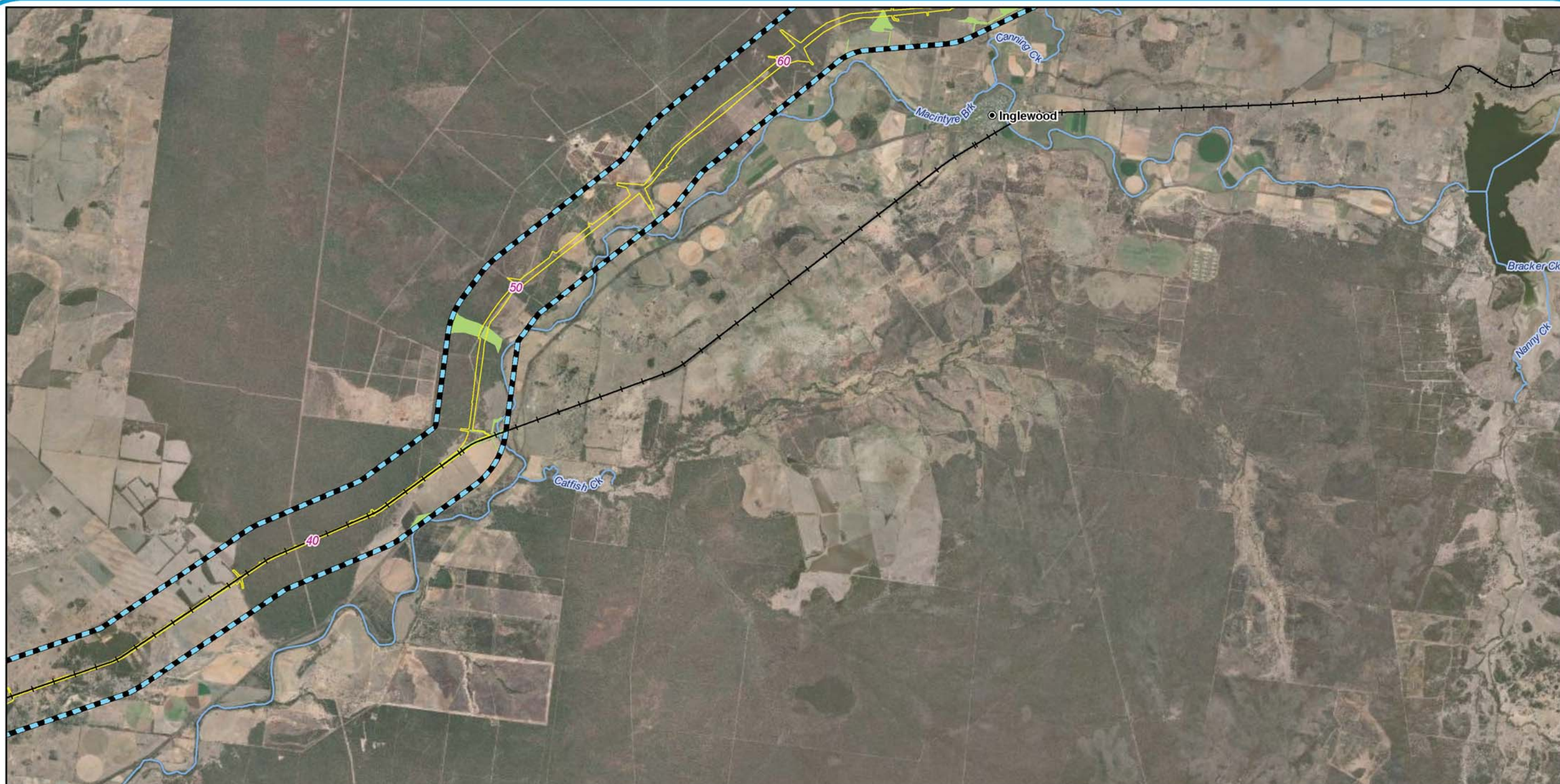
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



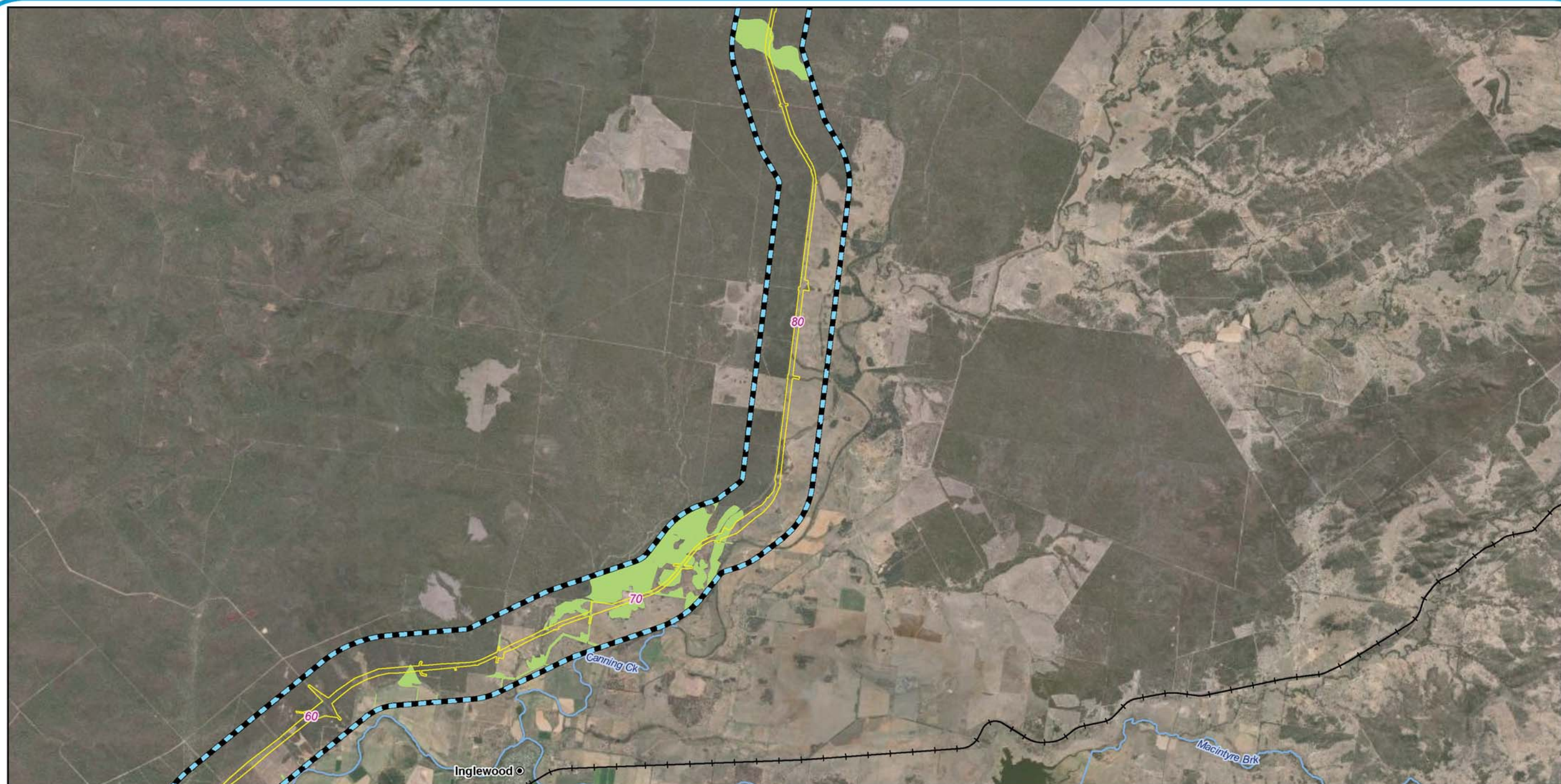
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



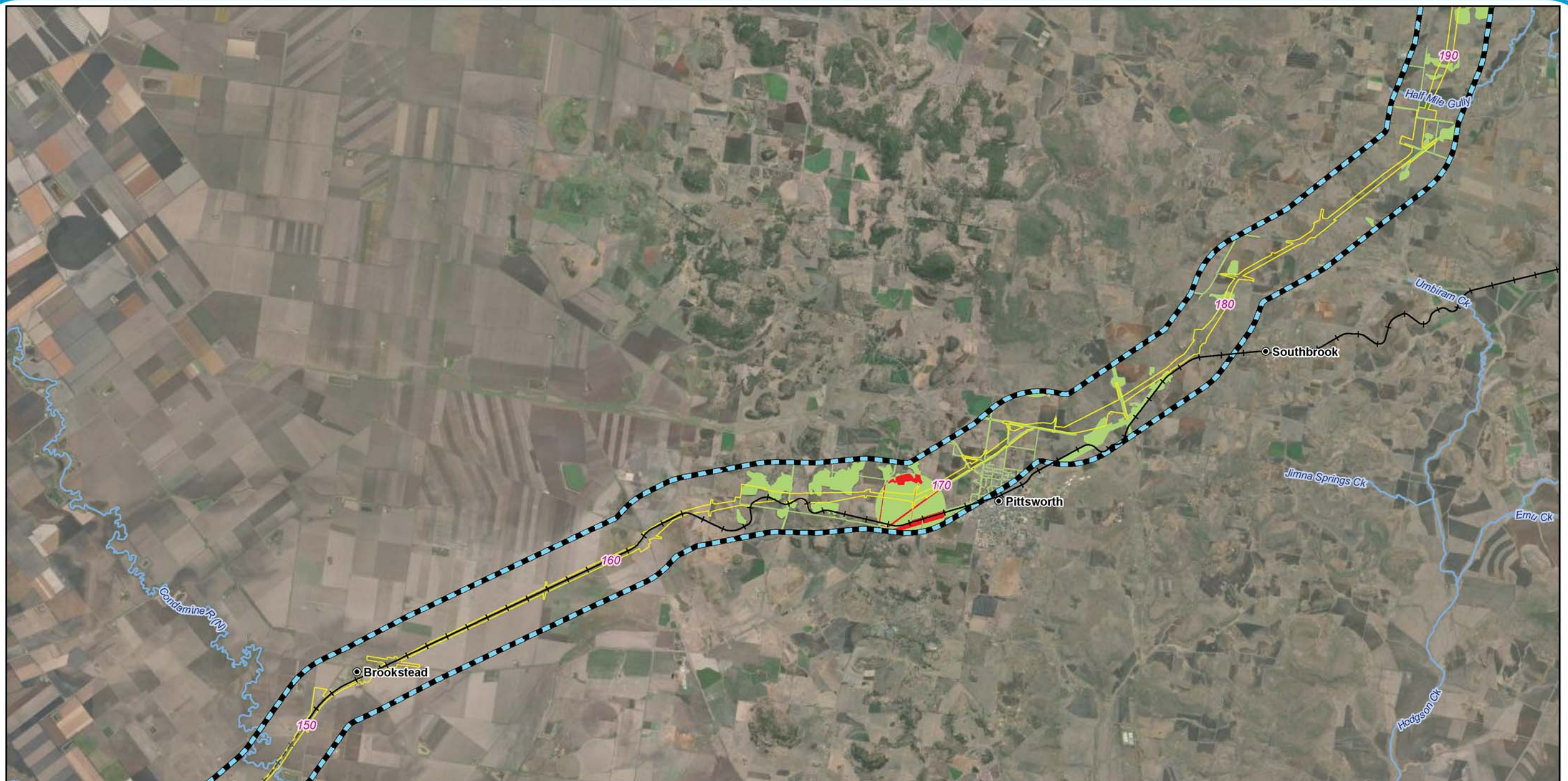
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

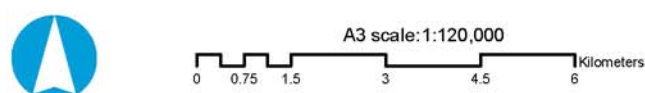
ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Rhaponticum australe* (Austral cornflower)



Legend

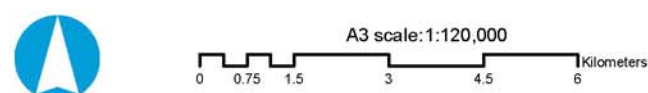
- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▤ Impact assessment area
- Predicted Habitat**
- Habitat critical to the survival of the species
 - Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - Gowrie to Helidon alignment
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - Gowrie to Helidon alignment
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



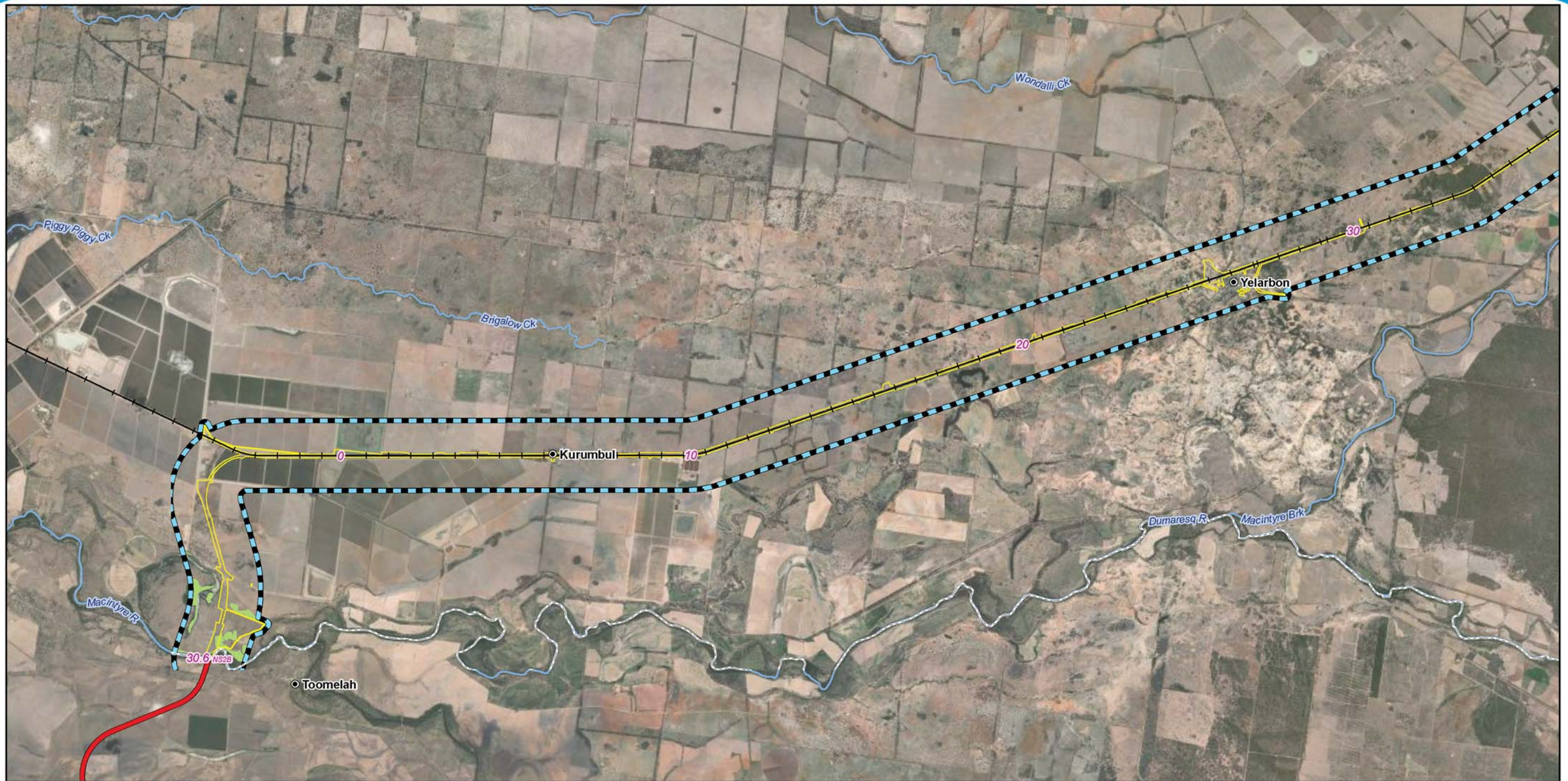
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Sophora fraseri* (Brush sophora)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



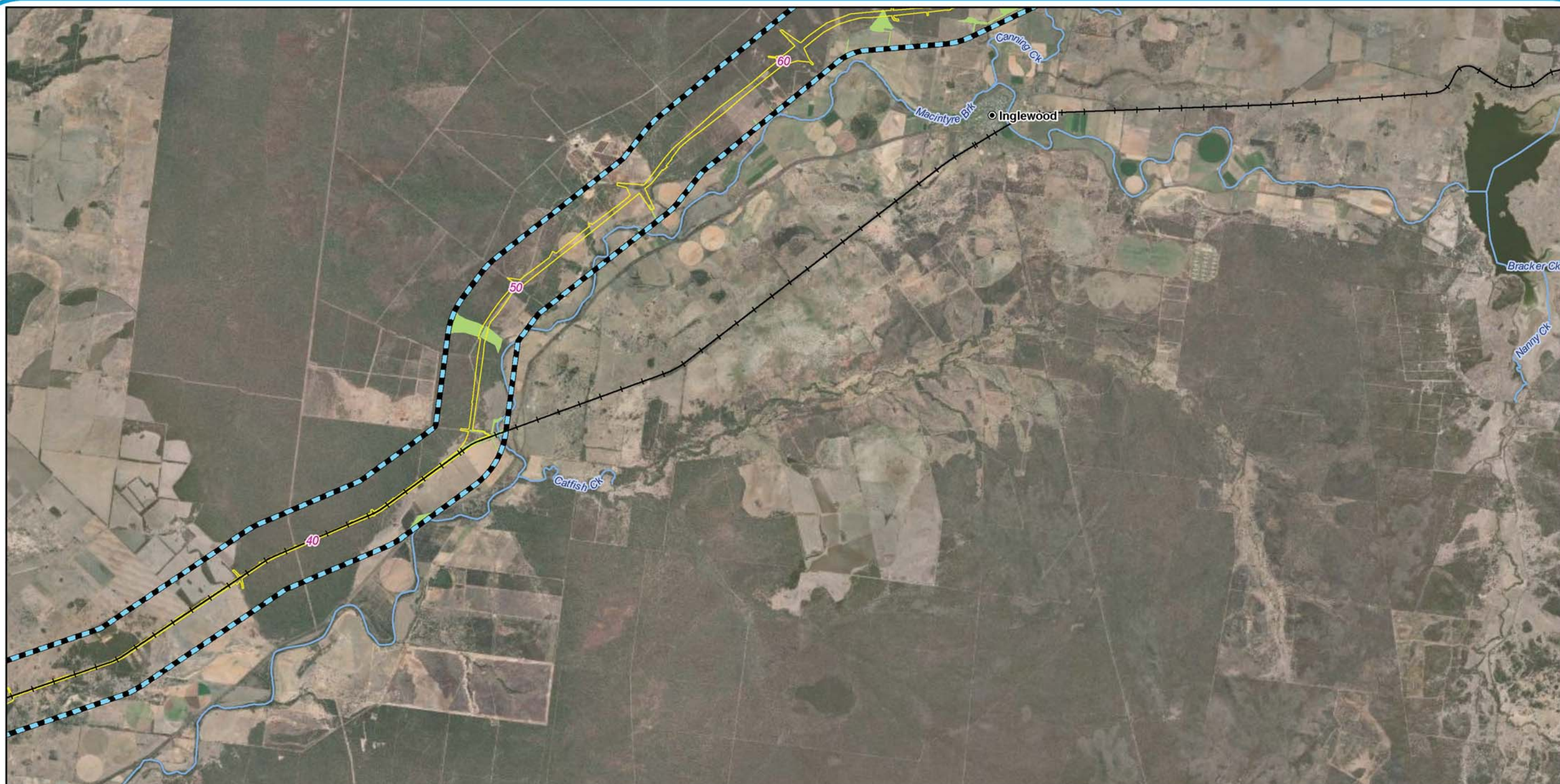
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
- 5 Chainage (km)
- Watercourses
- NSW/QLD border
- Project footprint
- ▨ Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - Gowrie to Helidon alignment
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



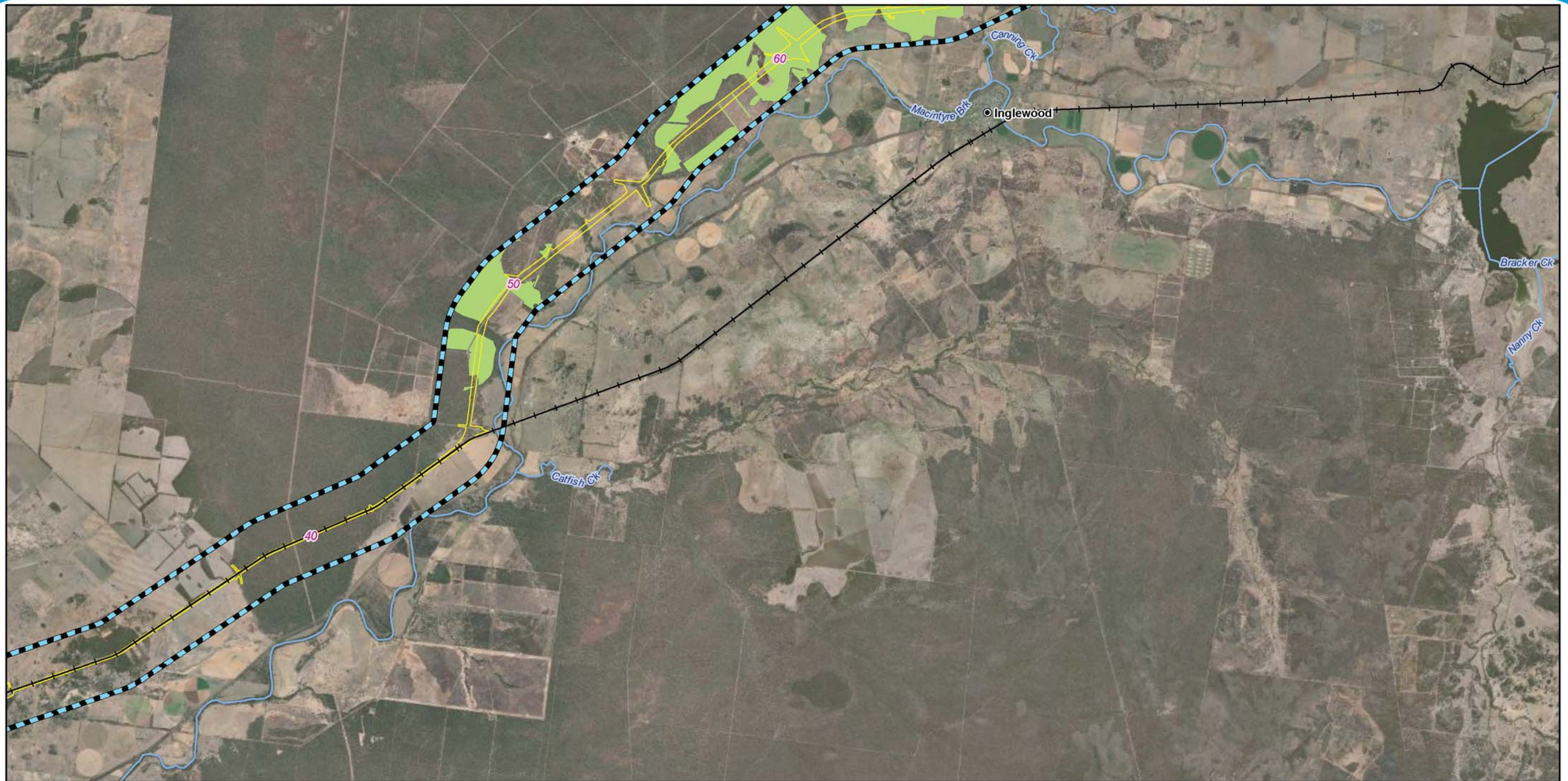
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

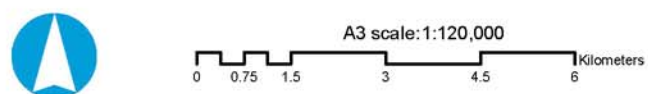
ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Thesium australe* (Austral toadflax)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Tylophora linearis* (Slender tylophora)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



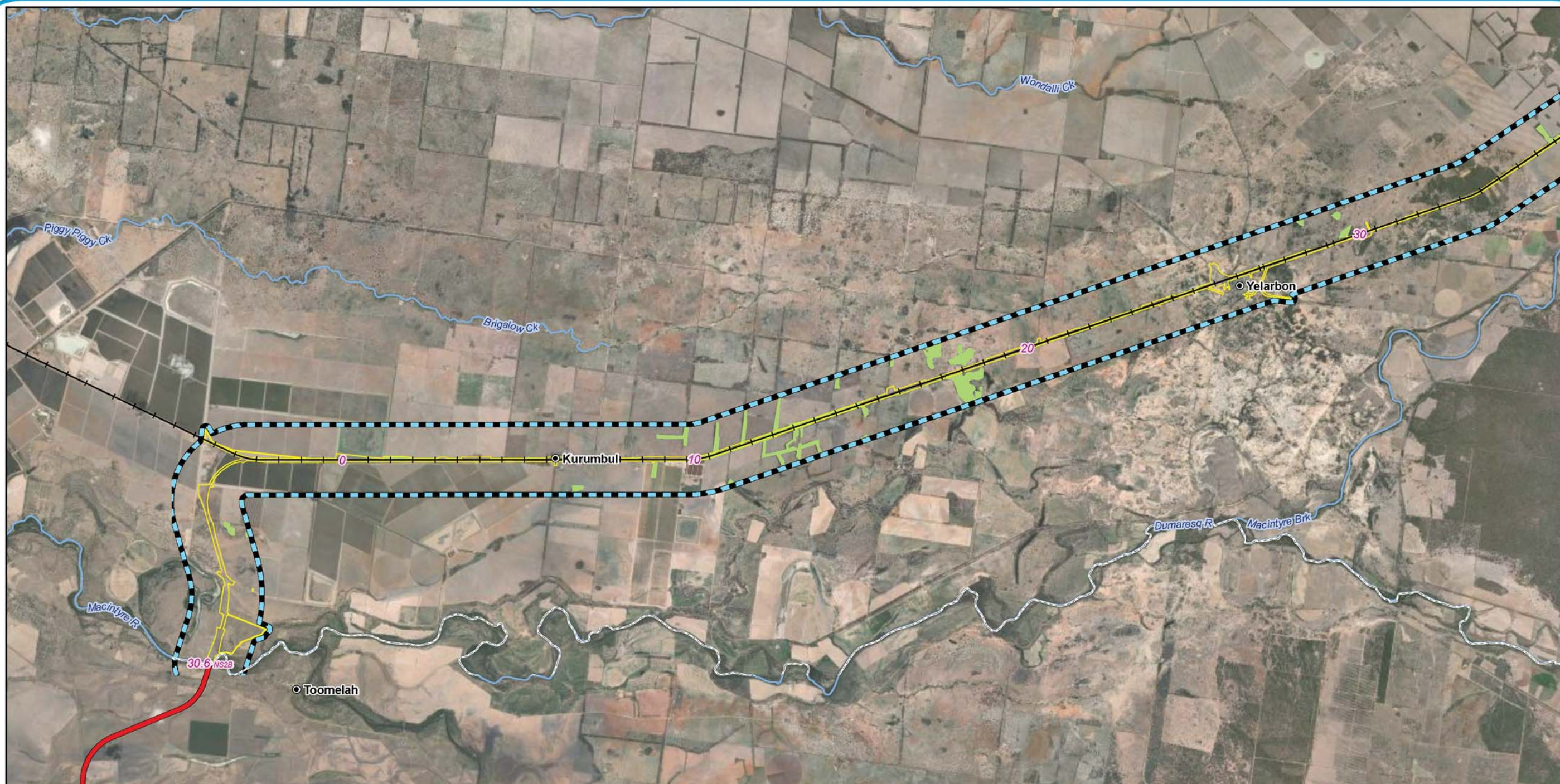
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Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Tylophora linearis* (Slender tylophora)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



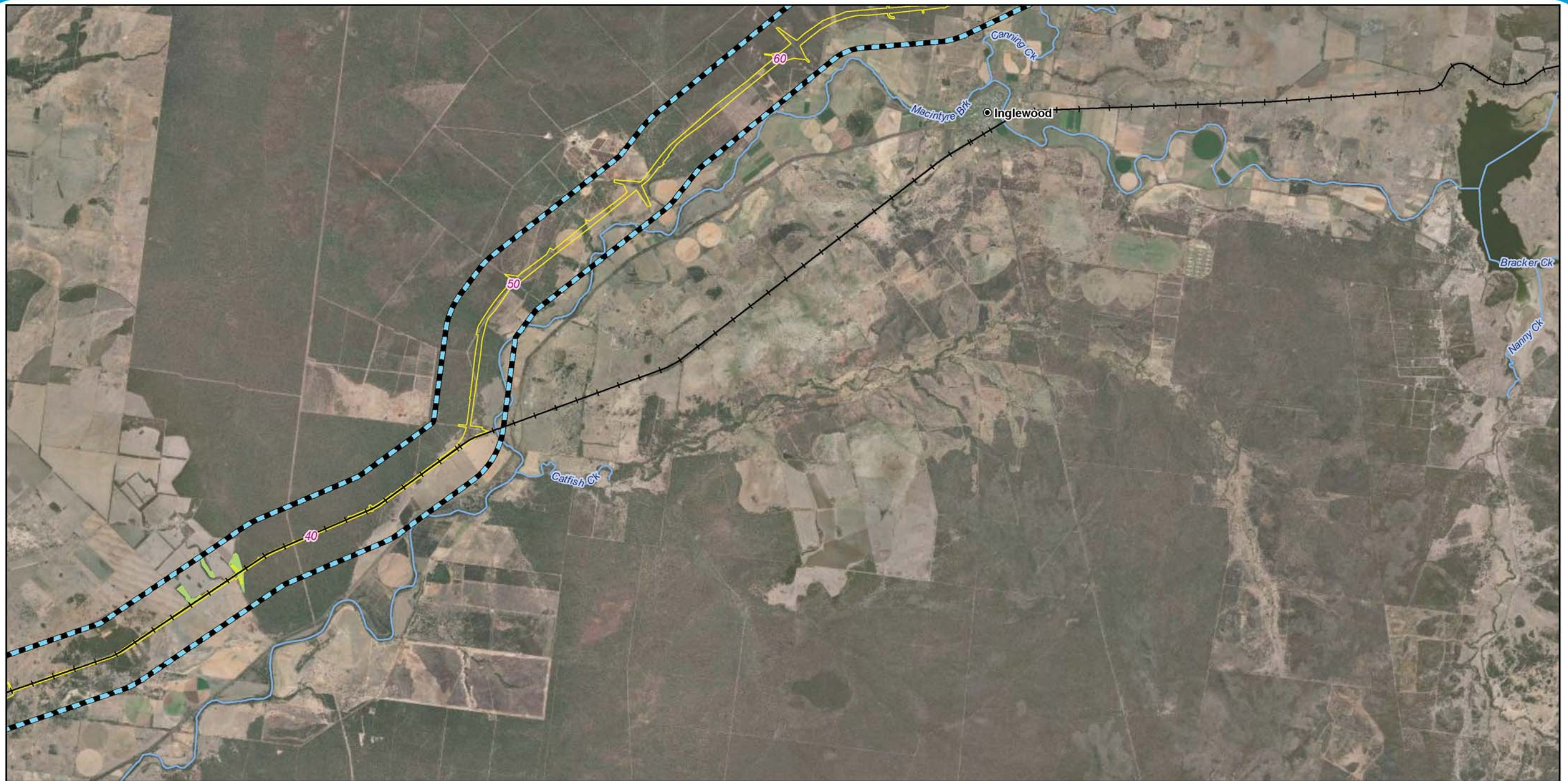
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0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



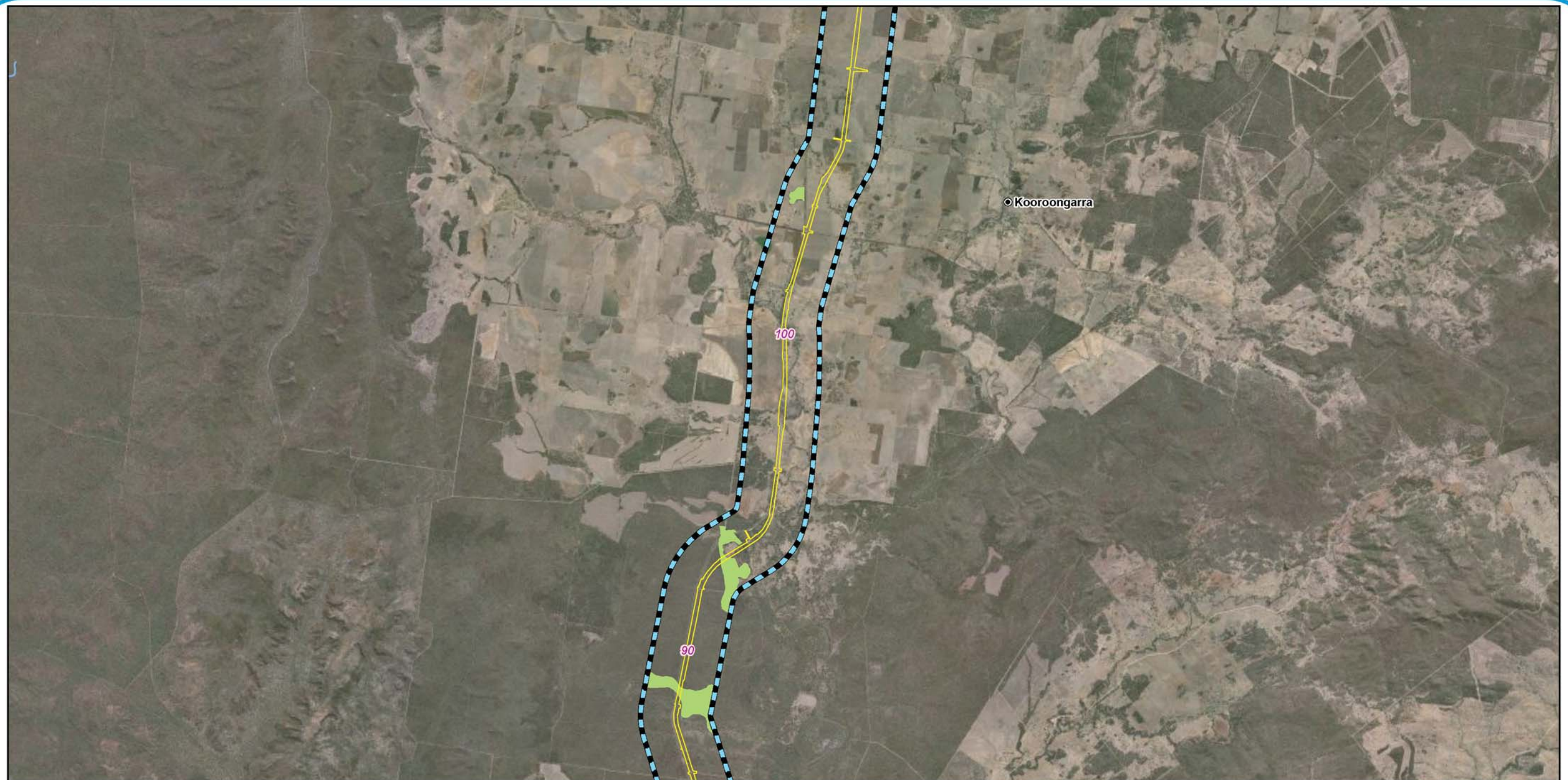
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- Localities
 - 5 Chainage (km)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Xerothamnella herbacea* (A herb)



Legend

- 5 Chainage (km)
 - +-- Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Adclarkia cameroni* (Brigalow woodland snail)



Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- - - Existing rail (non-operational)
- Watercourses
- Project footprint
- Impact assessment area

Predicted Habitat

- Potential habitat





Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - - - Existing rail (non-operational)
 - Watercourses
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Adclarkia cameroni* (Brigalow woodland snail)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - Gowrie to Helidon alignment
 - Project footprint
 - Impact assessment area
- Predicted Habitat**
- Potential habitat



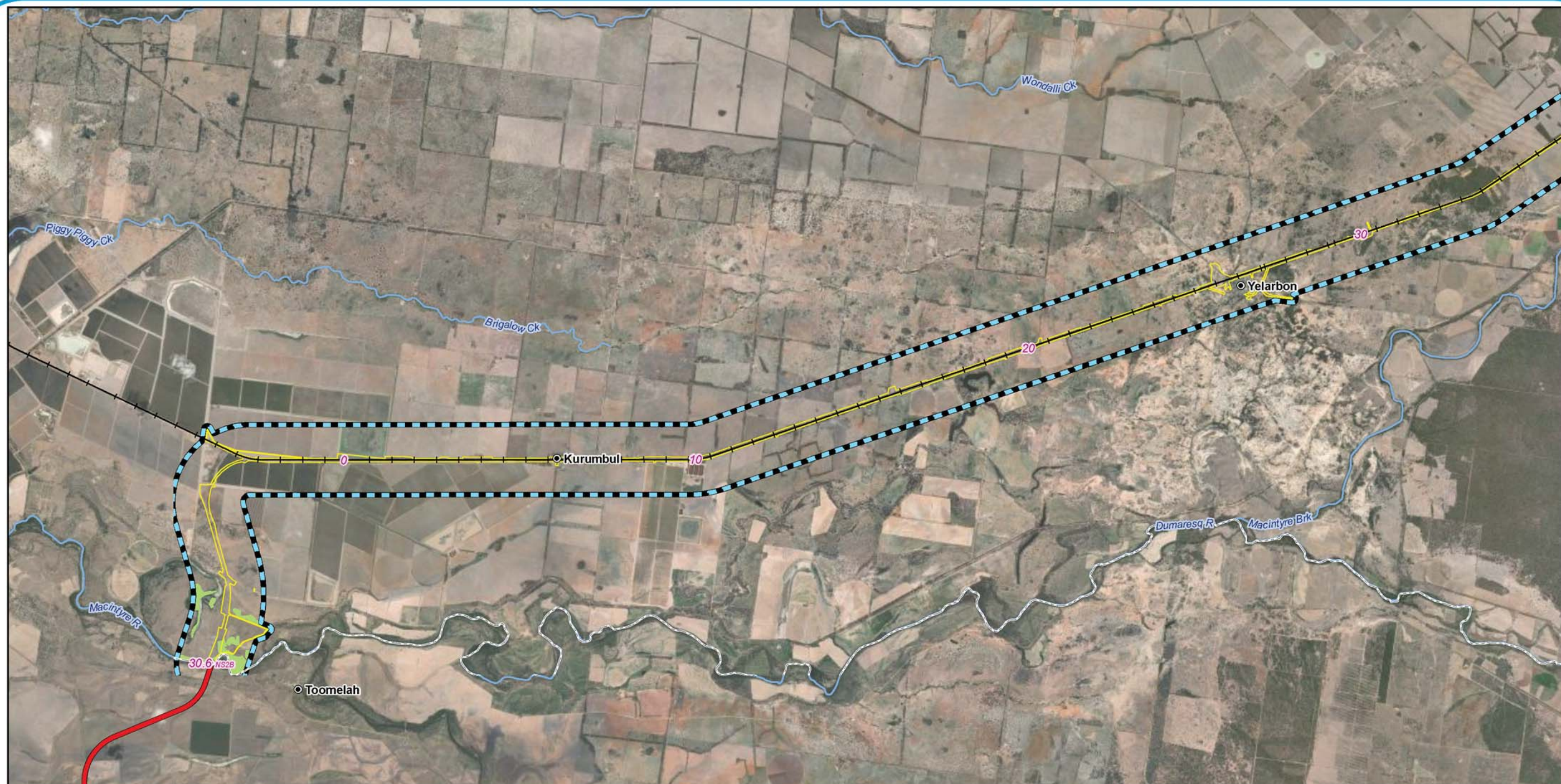
A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Adclarkia cameroni* (Brigalow woodland snail)

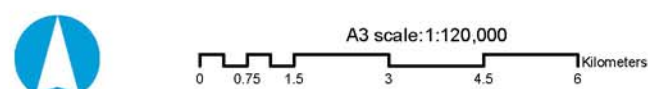


Legend

- Localities
- 5 Chainage (km)
- Existing rail (operational)
- Watercourses
- NSW/QLD border
- North Star to NSW/QLD border alignment
- Project footprint
- Impact assessment area

Predicted Habitat

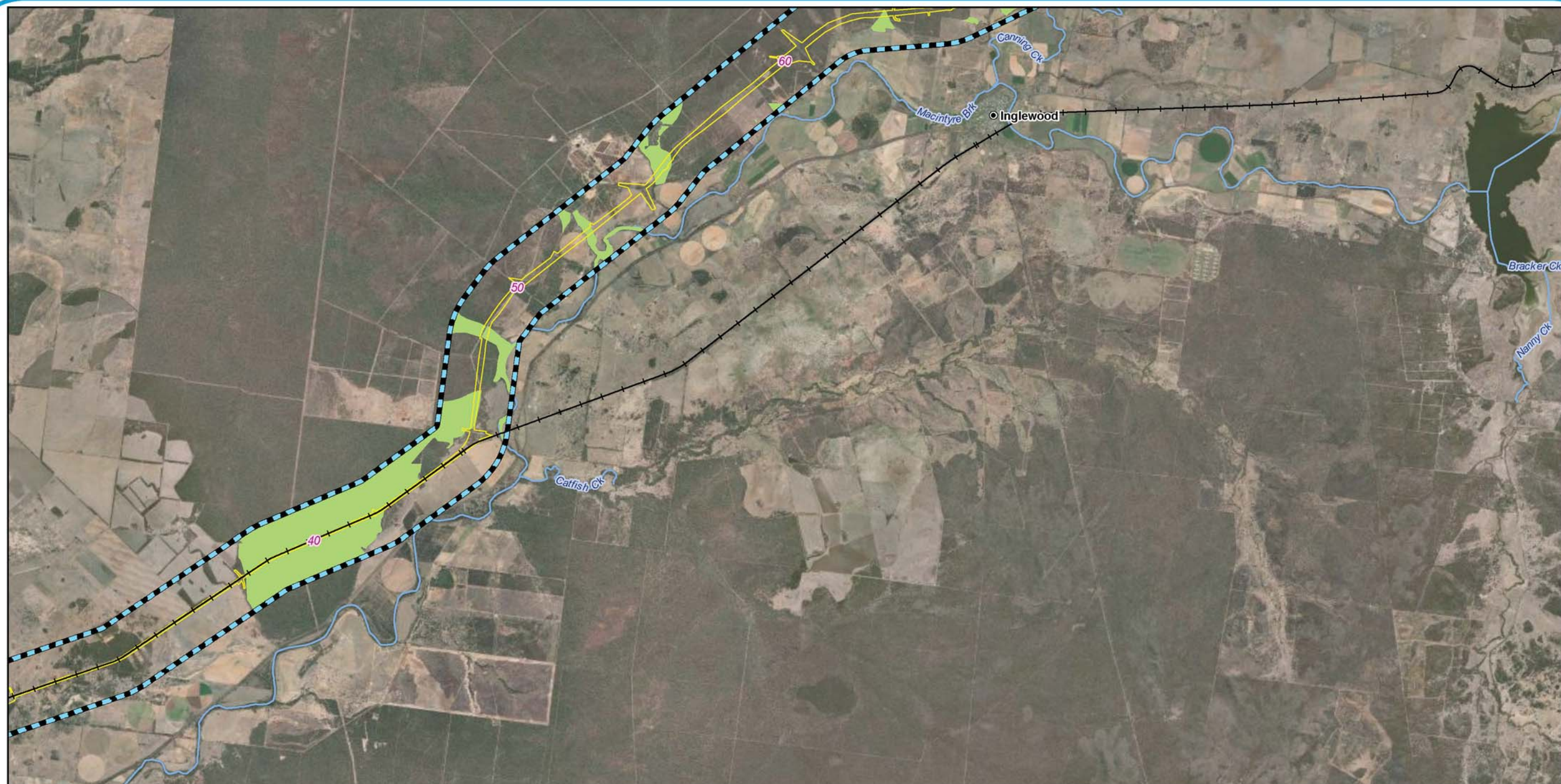
- Potential habitat



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Anomalopus mackayi* (Five-clawed worm-skink)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Anomalopus mackayi* (Five-clawed worm-skink)



Legend

- Localities
 - 5 Chainage (km)
 - Existing rail (operational)
 - Watercourses
 - NSW/QLD border
 - Project footprint
 - ▨ Impact assessment area
- Predicted Habitat**
- Potential habitat



A3 scale: 1:120,000
0 0.75 1.5 3 4.5 6 Kilometers



Issue date: 21/05/2020 Version: 4
Coordinate system: MGA56

ARTC Inland Rail Study: Border to Gowrie

Predicted Habitat: *Anomalopus mackayi* (Five-clawed worm-skink)