



824-908 Greenbank Road, North Maclean

Ecological Assessment Report

2026-100

5 August 2026

Document Control

Project No: 2026-100
Project: 824-908 Greenbank Road, North Maclean
Document: Ecological Assessment Report
Client: Orchard Property Group

www.28south.com.au
28 South Environmental Pty Ltd

© 28 South Environmental Pty Ltd 2026

Disclaimer

This report has been prepared by 28 South Environmental Pty Ltd for the exclusive use of 28 South Environmental Pty Ltd's Client and is subject to and issued in connection with the provisions of the agreement between 28 South Environmental Pty Ltd and its Client. While reasonable effort has been made to ensure that the contents of this publication are factually correct, 28 South Environmental Pty Ltd does not accept responsibility for the accuracy or completeness of the contents and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this publication.

The assessments and conclusions presented in this report are based on our professional opinion and interpretation of current environmental legislation and planning frameworks. This report does not constitute legal advice and is not legally binding.

In some instances, regulatory authorities may have differing interpretations or requirements. In cases where regulatory positions differ from those expressed in this report, the decisions and directives of the relevant authorities will take precedence. We recommend consulting with appropriate regulatory bodies or seeking independent legal advice to ensure full compliance with all applicable laws and regulations.

Document History and Status

Revision	Date	Description	By	Review
0.1	17/07/2026	Draft	KC, NC, EK, AD	WM
1.0	24/07/2026	Issue for Client Review	NC	WM
1.0	05/08/2026	Final Issue	NC	WM

Approval for Issue

Name	Position	Date
Wayne Moffitt	Founding Director	05.08.2026

Table of Contents

Acronyms, Abbreviations & Definitions	vii
1. Introduction	1
1.1 Background and Purpose of the Report	1
1.2 Site Context and Locality	1
1.3 Land Use Planning Context	2
1.3.1 The South East Queensland Regional Plan	2
1.3.2 Greater Flagstone PDA Development Scheme	3
1.4 The Proposed Action	4
2. Legislative Framework	6
2.1 Matters of Commonwealth Interest	6
2.2 Matters of State Interest	6
2.2.1 Economic Development Act 2012 (Qld)	6
2.2.2 Planning Act 2016	6
2.2.3 Nature Conservation Act 1992	7
2.2.4 Vegetation Management Act 1999	7
2.2.5 Environmental Protection Act 1994	7
2.2.6 Biosecurity Act 2014	7
2.2.7 Environmental Offsets Act 2014	8
2.3 Matters of Local Interest	8
3. Desktop Assessment	12
3.1 Assessment Methodology	12
3.2 State Vegetation Mapping	12
3.2.1 Pre-clear Vegetation Mapping	12
3.2.2 Regulated Vegetation Mapping	13
3.3 Matters of National Environmental Significance	14
3.3.1 Threatened Ecological Communities	14
3.3.2 Threatened Species Search and Shortlisting	15
4. Ecological Survey Methodologies	17
4.1 Flora Survey Methodology	17
4.1.1 February 2026 survey	17
4.1.2 March 2026 survey	17
4.1.3 April – May 2026 Survey (Biocondition Assessments)	18
4.2 Fauna Survey	18
4.2.1 Amphibian Survey	18
4.2.2 Reptile Survey	18
4.2.3 Climbing Arborist's Hollow Assessment	18
4.2.4 Bird and Mammal Survey	19
4.3 Suitability of the Survey Window	21

4.3.1	Synopsis	21
4.3.2	Temperature	21
4.3.3	Rainfall	22
4.3.4	Antecedent Conditions and Survey Timing	24
4.3.5	Conclusion	24
5.	Ecological Survey Results	26
5.1	Ground-truthed Regional Ecosystems	26
5.1.1	Community 1 – RE 12.3.19 (Eastern Alluvial Patch)	26
5.1.2	Community 2 – RE 12.9-10.7 (Western Sedimentary Patch)	27
5.1.3	Community 3 – Non-remnant Vegetation	29
5.2	Threatened Species and Ecological Communities	29
5.2.1	Threatened Flora	29
5.2.2	Threatened Ecological Communities	29
5.2.3	Flora Matters Progressed to the Likelihood of Occurrence Assessment	33
5.3	Fauna Habitat Assessment	33
5.3.1	General Fauna Values	33
5.3.2	Threatened Fauna Habitat	38
5.3.3	Acoustic Survey Results	41
5.3.4	Fauna Matters Progressed to the Likelihood of Occurrence Assessment	42
5.4	Landscape Connectivity	43
6.	Impact Mitigation Hierarchy	47
6.1	Congruous Development in a Planned Setting	47
6.2	Targeted Avoidance	48
6.2.1	Project Design	48
6.2.2	Willowbrook Road East	49
6.3	The Role of Management Plans	49
6.4	Pre-clearance and Clearance Procedures	50
7.	Residual Impacts	51
7.1	Residual Impacts	51
7.1.1	Overview	51
7.1.2	Floodplain Forest TEC	51
7.1.3	Koala	52
7.1.4	Swift Parrot and Grey-headed Flying-fox	54
7.1.5	White-throated Needletail	56
8.	Statutory Compliance	57
8.1	EPBC Act	57
8.2	PDA Development Scheme Requirements	57
8.2.1	Response to the Constraints of the Land	57
8.2.2	Design Siting and Layout	59
8.2.3	Koala Conservation	61

9. PDA Development Scheme Guidelines	62
9.1 Viability Determination	62
9.1.1 PDA Guideline 14	63
9.2 PDA Guideline 17.....	67
10. Summary and Conclusion.....	68
11. References.....	69

Table of Tables

Table 1: Statutory matters considered by this Report	9
Table 2: Pre-clear RE mapping	12
Table 3: PMST Summary Results	14
Table 4: Threatened Ecological Communities on Site.....	14
Table 5: Threatened Species within 5 km radius based on WildNet Records	15
Table 6: Observed monthly temperature, March – June 2026, against the Archerfield Airport long-term average (departures in °C).....	21
Table 7: Observed monthly rainfall, October 2025 – June 2026, against the Maclean Bridge Alert long-term mean and median.	23
Table 8: Diagnostic-Species Screen for the Western Sedimentary Remnant (669 Trees Surveyed).....	28
Table 9: Floodplain Forest TEC – Key Diagnostic Characteristics Cross-checked against Community 1 (GTRE 12.3.19 – Eastern Alluvial Patch)	29
Table 10: Spot Assessment Technique (SAT) Results and Koala Habitat Tree Utilisation	40
Table 11: Summary of Target Species Detection.....	42
Table 12: Likelihood of Occurrence (Shortlist)	44
Table 13: NJKHTs by species, showing Koala Utility Class, Count and Protected Canopy Area (uncapped TPZ) Retained.....	52
Table 14: Retention of NJKHTs by Koala Tree-species Utility Class	53
Table 15: Queensland Blue Gum Retained and Removed by DBH Class, Count and Protected Canopy Area (uncapped TPZ)	54
Table 16: Proposed Action Response to the Constraints of the Land	57
Table 17: Project's adherence to design, siting and layout principles	59
Table 18: Koala Conservation Principles and Proposed Action Response	61
Table 19: Assessment of the Proposed Action against Environmental Values and Strategies	64

Table of Figures

Figure 1: Locality.....	71
Figure 2: Site Context	72
Figure 3: Historical Imagery	73
Figure 4: ALA Conservation Significant Fauna	75
Figure 5: BioCondition Plots.....	77
Figure 6: Reptile Searches and Habitat Assessment	78

Figure 7: Hollow Survey Assessment.....	79
Figure 8: Spotlighting Survey and Fauna Callback Sites	80
Figure 9: SAT Survey Locations.....	81
Figure 10: Bird Surveys, Camera Traps and Acoustic Recorder Sites	82
Figure 11: Ground-truthed Regional Ecosystems	83
Figure 12: Tree Species Overview	84
Figure 13: Tree Size Classes	85
Figure 14: Floodplain Forest TEC Analysis	86
Figure 15: Swamp Tea-tree Analysis	87
Figure 16: Field Survey Records of Conservation Significant Mammals	88
Figure 17: Eucalyptus tereticornis on Site.....	89
Figure 18: Avoidance Measures and Tree Retention	90
Figure 19: Avoidance and Retention of NJKHTs.....	95
Figure 20: Avoidance Measures and Retention of E. tereticornis.....	100
Figure 21: Avoidance Measure and Retention of Hollow-bearing Trees	101

Table of Attachments

Attachment 1 – Concept Plan
Attachment 2 –Topography
Attachment 3 – Watercourses
Attachment 4 – SEQ Regional Plan (Land Use)
Attachment 5 – SEQ Regional Plan (Biodiversity Designations)
Attachment 6 – Urban Development Area
Attachment 7 – North Maclean Context Plan
Attachment 8 – PMST
Attachment 9 – Regulated Vegetation Mapping
Attachment 10 –Regional Ecosystem Mapping
Attachment 11 – Koala Habitat Area
Attachment 12 – Protected Plant Trigger Area
Attachment 13 –Pre-clear RE Mapping
Attachment 14 – WildNet
Attachment 15 – Likelihood of Occurrence Assessment
Attachment 16 – Plant List
Attachment 17 – Biocondition Results
Attachment 18 – Amphibian List (5 km)
Attachment 19 – Reptile List (5 km)
Attachment 20 – Birds List (5 km)
Attachment 21 – Mammal List (5 km)
Attachment 22 – Fauna List
Attachment 23 – Arborist Assessment

Acronyms, Abbreviations & Definitions

28 South	28 South Environmental
AHD	Australian Height Datum
ALA	Atlas of Living Australia
AMO	Automatic Meteorological Observatory
CEMP	Construction Environmental Management Plan
CKHA	Core Koala Habitat Area
CREVNT	Critically Endangered, Endangered, Vulnerable and Near Threatened species under the <i>Nature Conservation Act 1992</i>
CWD	Coarse Woody Debris
DA	Development Application
DAMS	Development Assessment Mapping System
DBH	Diameter at Breast Height
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEHP	Former Department of Environment and Heritage Protection (Queensland)
DETSI	Department of the Environment, Tourism, Science and Innovation (Queensland)
Development Scheme	Greater Flagstone Priority Development Area Development Scheme
DPI	Department of Primary Industries (Queensland)
DLGWV	Department of Local Government, Water and Volunteers (Queensland)
DNRMMRRD	Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (Queensland)
DSDIP	Department of State Development, Infrastructure and Planning (Queensland)
EAR	Ecological Assessment Report
ED Act	<i>Economic Development Act 2012</i> (Queensland)
EDQ	Economic Development Queensland (Queensland)
EO Act	<i>Environmental Offsets Act 2014</i> (Queensland)
EP Act	<i>Environmental Protection Act 1994</i> (Queensland)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
ESD	Ecologically Sustainable Development

Floodplain Forest TEC	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions Threatened Ecological Community
GBO	General Biosecurity Obligation
GFPDA	Greater Flagstone Priority Development Area
GTRE	Ground-truthed Regional Ecosystems
ha	Hectare
ICC	Ipswich City Council
IBRA	Interim Biogeographic Regionalisation for Australia
KPA	Koala Priority Area
LGA	Local Government Area
LoO	Likelihood of Occurrence
MEDQ	Minister of Economic Development Queensland
MEIA	Major Enterprise and Industrial Area
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
National EPA	National Environmental Protection Agency (Commonwealth)
NC Act	<i>Nature Conservation Act 1992</i> (Queensland)
NC (Animals) Reg	<i>Nature Conservation (Animals) Regulation 2020</i> (Queensland)
NJKHT	Non-juvenile Koala Habitat Tree
PDA	Priority Development Area
PMST	Protected Matters Search Tool
PPTM	Protected Plants Trigger Mapping
Proposed Action	Industrial Subdivision
QSpatial	Queensland Spatial Catalogue
RE	Regional Ecosystem
REDD	Regional Ecosystem Description Database
RIFA	Red Imported Fire Ant
RVMM	Regulated Vegetation Management Map
SAT	Spot Assessment Technique
SARA	State Assessment and Referral Agency

SDAP	State Development Assessment Provisions
SEQ	South East Queensland
SIG	Significant Impact Guidelines
Site	824-908 Greenbank Road, North Maclean, formally described as Lot 1 on RP121663
SMP	Species Management Program
SPP	State Planning Policy
Swamp Tea-tree TEC	Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
VM Act	<i>Vegetation Management Act 1999</i> (Queensland)
VMREM	Vegetation Management Regional Ecosystem Map
WWBW	Waterway Barrier Works

1. Introduction

1.1 Background and Purpose of the Report

28 South Environmental has been engaged by Orchard Property Group (the '**Proponent**') to prepare an Ecological Assessment Report (**EAR**) to evaluate ecological and environmental planning matters in regard to a proposed industrial development at 824-908 Greenbank Road, North Maclean, Queensland (Lot 1 on RP121663) (the '**Site**').

The Site comprises a total area of 14.24 hectares (**ha**). The proposed industrial development (**Proposed Action**) is located within the north-western portion of the Site and comprises a 5.7 ha development footprint (the **Referral Area**), as shown on the Concept Plan (**Attachment 1**). The Proposed Action comprises 16 industrial allotments and associated road infrastructure, including a new 20.0 m wide road and cul-de-sac.

The Site is located within the Greater Flagstone Priority Development Area (**GFPDA**), originally declared as an Urban Development Area in 2011 under the repealed *Urban Land Development Authority Act 2007* (Qld) and subsequently transitioned to a Priority Development Area (**PDA**) under the *Economic Development Act 2012* (Qld) (**ED Act**).

As such, the Proposed Action is governed by the Greater Flagstone PDA Development Scheme (**Development Scheme**), which is the planning instrument determining the applicable planning and development controls for the Site.

The purpose of this EAR is to:

- Describe the existing environmental and ecological characteristics of the Site;
- Assess the potential impacts of design options and encroachment into mapped ecological overlays;
- Determine relevant Commonwealth, State and local legislation, policy and planning instruments, and demonstrate compliance where necessary;
- Identify ways through which development of the Site can avoid, minimise and mitigate the potential impacts on the environmental characteristics of the Site; and
- Demonstrate consistency with the biodiversity objectives of the Development Scheme. The proposed industrial development is consistent with this planning intent, contributing to the provision of employment opportunities within the GFPDA.

This Report is intended to support a Development Application (**DA**) to the Minister for Economic Development Queensland (**MEDQ**), the assessment manager for development within the GFPDA under the ED Act.

1.2 Site Context and Locality

The Site comprises a triangular parcel of land located within the City of Logan Local Government Area (**LGA**). The Site is formally described as Lot 1 on RP121663.

North Maclean forms part of the GFPDA, a State-coordinated urban growth area situated approximately 40 kilometres (**km**) southwest of Brisbane within South East Queensland's south-west growth corridor (EDQ, 2025). The GFPDA represents one of the region's key growth fronts, identified to accommodate substantial residential, industrial, and employment expansion. Within this broader framework, North Maclean is recognised as an Identified Growth Area under the ShapingSEQ South East Queensland Regional Plan 2023 (**SEQ Regional Plan**) (DSDILGP, 2023), with a planned role as a significant mixed industry and business precinct supporting a wide range of services and employment opportunities.

The Site is zoned Industry and Business under the Economic Development Queensland (**EDQ**) development framework, and the Proposed Action is consistent with the strategic intent of the GFPDA and SEQ Regional Plan,

contributing to the delivery of industrial land and employment opportunities within a regionally significant growth area while directing development towards the Site's lower ecological value areas and retaining key biodiversity features where practicable.

Contextually, the Site is located west of the Mount Lindesay Highway and is bounded by Greenbank Road to the southeast and Willowbrook East Road to the north. Surrounding land uses are undergoing rapid transformation in line with the GFPDA planning vision. Immediately to the north, Lot 1 on RP113251 is subject to approved development and is currently undergoing earthworks. Further to the east, Lots 3, 4 and 6 on RP137101 are also approved for industrial development and have commenced earthworks.

These adjoining developments form part of the planned industrial and employment precinct envisaged by the GFPDA and are contributing to the progressive urbanisation of the broader locality. Consequently, the Site is situated within an increasingly industrialised landscape while retaining areas of ecological value that have informed the design and layout of the Proposed Action.

Figure 1 shows the Site within its broader regional context, while **Figure 2** illustrates the Site's immediate setting, physical characteristics and the Referral Area.

The Site is characterised by a predominantly flat to gently undulating landform, with gradual changes in elevation and no steep slopes or significant escarpments. Topographically, the Site falls from a high point of approximately 37 m Australian Height Datum (AHD) at its north-western apex to approximately 28 m AHD within the low-lying alluvial flats in the south-east and east of the Site, including the area surrounding the existing dam near the eastern boundary (**Attachment 2**). A subtle ridgeline extends through the central portion of the Site towards the western boundary, while shallow depressions occur throughout the north-eastern and eastern portions.

The Site is not directly intersected by mapped watercourses or defined overland flow paths (**Attachment 3**). However, aerial imagery and site mapping indicate the presence of two perennial farm dams located within the northern and eastern portions of the Site. These water features are likely to contribute to local hydrology and may influence soil moisture regimes in their immediate vicinity. The surrounding landscape has been subject to historical rural land use and more recent urbanisation, with evidence of hydrological modification in the broader locality.

1.3 Land Use Planning Context

1.3.1 The South East Queensland Regional Plan

The Southeast Queensland Regional Plan (**ShapingSEQ 2023**) is the Queensland Government's overarching strategic land use plan for the Southeast Queensland region.¹ ShapingSEQ 2023 sets a long-term vision and framework for how the region can respond to growth and increase housing supply and housing choice. A key function of ShapingSEQ 2023 is the classification of all land in the region into three statutory land use categories: the Urban Footprint, Rural Living Area and Regional Landscape and Rural Production Area, which together guide where growth can occur and where it should be restricted. The Site and adjoining land are located within the Urban Footprint (**Attachment 4**).

The Urban Footprint identifies land that can accommodate the region's growth needs to 2046, encompassing both established urban areas and land with potential for new development. Its primary role is to concentrate and contain urban growth within defined boundaries by directing residential, employment and infrastructure development to appropriate locations while protecting areas outside the footprint from urban sprawl (State of Queensland 2023).

ShapingSEQ 2023 addresses employment and industrial land under its Prosper theme. The Prosper theme seeks to sustain the region's economic growth and global competitiveness by ensuring a sufficient supply of appropriately zoned land, identifying and protecting strategic locations with the potential to provide future employment, and

¹ Which extends from the Noosa local government area in the north to the Queensland-NSW border in the south, and to the eastern parts of the Toowoomba local government area in the west. It is a subset of the area identified as the Southeast Queensland under the Interim Biogeographic Regionalisation for Australia (**IBRA**) framework.

protecting the infrastructure corridors required to sustain that growth.² It expressly acknowledges that economic activity occurs across local government boundaries and seeks to support the connection between the place of residence and the place of employment.

Against this background, ShapingSEQ 2023 introduces a new regional strategic approach to industrial land in response to a recognised constraint. The plan notes that key areas of the region are approaching a critical shortfall of available industrial land and concludes that a region-wide focus, rather than a local government area focus, is critical to achieving the region's objectives for job creation, economic growth and innovation. Accordingly, a Priority Action is included to establish a regional industrial land framework to support the future development of industrial areas across the region.³ This constraint is of particular relevance within Logan, which records one of the lowest employment self-containment rates in the region, at 40 per cent, underscoring the strategic importance of well-located local employment land.⁴

Within this regional framework, North Maclean is identified in ShapingSEQ 2023 as a Major Enterprise and Industrial Area (**MEIA**), mapped as individual area M41 alongside the Bromelton State Development Area (M38) and Park Ridge (M40)⁵ (**Attachment 4**). SEQ MEIAs accommodate the region's most significant areas of medium and high-impact industries, together with the employment associated with state transport infrastructure, and are positioned as major drivers of economic growth located near existing or planned freight and supply-chain networks. The policy intent for MEIAs is strongly protective: the land within them is to be retained for industrial-related uses and protected from encroachment by incompatible uses, and development within them must be consistent with their regional role and function.

The MEIA designation confirms North Maclean's standing as a regionally significant employment precinct under the current regional plan. This aligns with, and elevates, the role envisaged for the area under the Development Scheme, which identifies North Maclean as a substantial mixed industry and business precinct with preliminary capacity for up to 7,800 jobs, serving Flagstone, Yarrabilba, Greenbank Central and the surrounding rural residential catchments⁶.

The regional biodiversity designations applying to the locality are shown in **Attachment 5**. The Site is contained within the SEQ major enterprise and industrial area and carries no SEQ regional biodiversity corridor, regionally significant greenspace or regional biodiversity value designation across any part of its extent. The biodiversity-related designations are instead concentrated in a continuous band to the north and east of the site, comprising extensive areas of regional biodiversity value and regionally significant greenspace together with the regional biodiversity corridor that runs through the broader landscape.

The Site sits to the south-west of this band and is well removed from it, separated by the intervening cleared and developed land of the enterprise and industrial area. The designated biodiversity values therefore form a coherent connected system in their own right, and the site neither contributes to nor forms part of that system. The Proposed Action would not intrude into the mapped corridor, greenspace or biodiversity-value areas, nor would it sever or interrupt the connectivity those designations are intended to maintain. The Site's position at the margin of the enterprise area, set apart from the biodiversity band, is consistent with retention of the regional biodiversity designations as a continuous landscape feature.

1.3.2 Greater Flagstone PDA Development Scheme

Land use planning for the Site is governed by the Development Scheme, which provides the statutory planning framework for development within the GFPDA. The Development Scheme, which commenced on 8 October 2011

²ShapingSEQ 2023 Background Paper 2: Prosper Theme (December 2023), p 4.

³South East Queensland Regional Plan 2023 (ShapingSEQ 2023), Prosper theme – Planning for industrial land.

⁴ShapingSEQ 2023 Background Paper 2: Prosper Theme (December 2023), p 6 (2016 journey-to-work data).

⁵ShapingSEQ 2023, Map 7 (Economic areas) and Table 5 (Individual Major Enterprise and Industrial Areas), area reference M41.

⁶Greater Flagstone Urban Development Area Development Scheme (amended 28 February 2025), s 2.1.

and was most recently amended in February 2025, guides land use planning, development coordination, and assessment within the PDA.

The Development Scheme includes a Land Use Plan that establishes the strategic planning context for the area and confirms the Site's inclusion within the Urban Development Area (**Attachment 6**). At a more detailed level, the endorsed North Maclean Context Plan identifies the Site within an Industry and Business Zone, reflecting its intended function as part of a broader employment-generating precinct (**Attachment 7**).

This zoning extends across adjacent landholdings and is intended to support the development of a major industrial and business hub servicing the growing residential population within the GFPDA. Consistent with this vision, the City of Logan is progressively upgrading key infrastructure, including transport, water, and sewer networks, to support planned development outcomes in the locality. The Development Scheme also establishes environmental planning requirements. Section 3.3.8 of the Development Scheme outlines expectations for the protection of natural and cultural values, including guidance relevant to ecological assessments. Requirements relevant to this ecological assessment are identified by **Inset 1**. As the Site is located within a PDA, the Proposed Development is assessed against the relevant PDA Guidelines. This includes consideration of:

- PDA Guideline 14 – Environmental Values and Sustainable Resource Use; and
- PDA Guideline 17 – Remnant Vegetation and Koala Obligations in Greater Flagstone and Yarrabilba PDAs.

This EAR addresses the applicable requirements of these guidelines in relation to the Proposed Action.

» Logan River » Flagstone Creek » Sandy Creek » Abade Creek » Oxley, Norris and Chambers Creeks, their tributaries and wetlands. Development responds to the constraints of the land and delivers: » protection of significant environmental and ecological values » protection of Remnant Endangered vegetation where proven by groundtruthing to be viable » minimal emissions to land, water and atmosphere » protection of culturally significant places and items » efficient use of land and resources. The design, siting and layout of development: » preserves and enhances important environment values, and respects local land forms » avoids, minimises and offsets development impacts on areas of biodiversity values and koala habitat values » maintains or improves ecological connectivity in the local urban context » incorporates landscaping with endemic species that contribute to bushland character, flora and fauna habitat, and fauna movement	» respects cultural heritage values » minimises adverse impacts on natural landforms and the visual amenity of the site » maintains or improves the ecological health and environmental values of surface and groundwater, including wetlands and waterways in and adjacent to the UDA » maintains and improves the functioning and characteristics of the hydrological network (including surface and groundwater) and generally maintains the natural flow regime » incorporates total water cycle management and water sensitive urban design principles to appropriately manage floodwater and stormwater » applies best industry practice erosion and sediment control techniques giving particular regard to the local dispersive soils » ensures that all land and groundwater will be fit for purpose in accordance with accepted standards and practices » manages air quality, noise and hazardous materials according to current standards » promotes innovative and efficient use of energy and water » maximises recycling opportunities and reduces waste generation.	Koala conservation The design, siting and layout of development: » incorporates koala conservation and habitat protection outcomes in a way that contributes to a net increase in koala habitat and assists in the long term viability of koala populations in SEQ » avoids (to the greatest extent possible) the clearing of areas mapped as High Value Bushland on the relevant State Planning Policy 2/10: Koala Conservation in South East Queensland (SPP) Koala Habitat Values Map » caters for koala movement between conserved areas of bushland koala habitat » ensures impacts on koala habitat are offset⁵ through the delivery of a net benefit to koalas, including through the expansion of habitat on lands as suitable for rehabilitation » incorporates koala sensitive urban design. Map 6 - Natural Values shows the key natural values in the UDA. The map is indicative only. Details of development, including greenspace, will be resolved through development applications and context planning.
--	--	--

⁵ Refer to the applicable ULDA guideline for koala offsets.

Inset 1: Greater Flagstone Development Scheme Section 3.3.8 with relevant ecological assessment components identified in red.

1.4 The Proposed Action

In February 2026, the Proponent engaged 28 South Environmental to undertake a preliminary ecological due diligence assessment of the Site to inform the proposed industrial development. Initial investigations identified several ecological constraints requiring consideration during the design process. Subsequent field surveys

confirmed the presence of vegetation consistent with the Subtropical Eucalypt Floodplain Forest and Woodland of the New South Wales North Coast and South East Queensland Bioregions Threatened Ecological Community (**Floodplain Forest TEC**), together with patches and individuals of Swamp Tea-tree (*Melaleuca irbyana*).

The concept layout was subsequently refined through an iterative design process involving ecological, engineering and planning disciplines to balance development objectives with identified ecological constraints. This process informed a layout that focuses development within the north-western portion of the Site, where ecological values are comparatively lower, while avoiding higher-value vegetation identified in the south-east and applying the avoid-minimise-mitigate hierarchy.

This EAR relates specifically to the proposed referral area, comprising approximately 5.7 ha in the north-western portion of the Site (**Attachment 1**). The Referral Area has been designed as a standalone industrial development with direct access from Greenbank Road and the infrastructure necessary to facilitate its independent construction and operation. The ecological assessment, impact evaluation and mitigation measures presented in this report apply only to the referral area and form the basis of the current development application.

Overall, the Proposed Action reflects the intended industrial land use outcomes for the precinct by directing development towards the more modified and lower ecological value portions of the Site, while incorporating targeted measures to avoid and minimise impacts on identified ecological values.

2. Legislative Framework

2.1 Matters of Commonwealth Interest

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (**EPBC Act**) provides the legal framework for the protection and management of nationally and internationally significant flora, fauna, ecological communities and heritage places, collectively referred to as Matters of National Environmental Significance (**MNES**). Under the EPBC Act, a referral to the National Environmental Protection Agency (**National EPA**) is required where an action is likely to have a Significant Impact on an MNES. The determination of whether a Significant Impact is likely to occur is made with reference to the *MNES Significant Impact Guidelines 1.1* (**MNES SIG**) (DEWHA, 2013) and other relevant EPBC Act policy statements.

A Protected Matters Search Tool (**PMST**) search was undertaken to identify threatened species and potential threatened species habitat within and surrounding the Site (**Attachment 8**), and targeted field surveys were completed to inform that assessment.

2.2 Matters of State Interest

2.2.1 Economic Development Act 2012 (Qld)

The ED Act is the statutory instrument governing land use planning and development assessment within the GFPDA. The Act establishes a streamlined, State-led planning framework administered by the EDQ, operating separately from the *Planning Act 2016* (Qld) (**Planning Act**) to facilitate timely, coordinated, and infrastructure-aligned economic development outcomes.

The ED Act enables the declaration of a PDA and the preparation of PDA-specific development schemes, which outline the preferred land uses, development outcomes, and assessment benchmarks for the area. Development applications within the PDA are assessed by the Minister for State Development, Infrastructure and Planning (**DSDIP**) (which is the minister responsible for EDQ), against the PDA development scheme, rather than the local planning scheme, allowing for a more flexible and responsive approach to planning and development.

Accordingly, local planning scheme provisions generally do not apply unless specifically incorporated into the PDA framework. Infrastructure planning and funding mechanisms may also be tailored under the PDA to support development delivery. Despite this alternative planning regime, the ED Act does not override the operation of other relevant legislation. Other applicable legislation continues to apply where triggered, including environmental and biodiversity obligations under the *Environmental Offsets Act 2014* (Qld), as well as protections for MNES under the EPBC Act (as discussed above).

2.2.2 Planning Act 2016

2.2.2.1 State Development Assessment Provisions

The Queensland Government defines matters of State Interest with referral triggers and responsible agencies set out in Schedule 10 of the *Planning Regulation 2017* (Qld) (**Planning Reg**). This EAR includes a summary of the State Development Assessment Provisions (**SDAP**) framework with regard to Proposed Action over the Site.

2.2.2.2 State Planning Policy 2017

The Queensland *State Planning Policy 2017* (Qld) is the primary State planning instrument in the Queensland planning system and sits above regional plans and planning schemes in the hierarchy of planning instruments. The SPP expresses and promotes the State's interests and identifies 17 State interests in land use planning and development, including the biodiversity State interest, which seeks to protect Matters of State Environmental Significance (**MSES**) and maintain ecological values important at the State level.

2.2.3 Nature Conservation Act 1992

The *Nature Conservation Act 1992* (Qld) (**NC Act**) establishes approval triggers and an assessment process for creating and managing protected areas as well as the protection of flora and fauna, controlled through the use of various subordinate regulations. With regard to conservation significant flora, the NC Act implements 'High-Risk Trigger Area' mapping as a means to regulate the clearing of potential protected plants located in the wild.

The NC Act also gives legislative power to the conservation of koala and koala habitat, regulated via the *Nature Conservation (Koala) Conservation Plan 2017*, *Nature Conservation (Animals) Regulation 2020* (Qld) (**NC (Animals) Reg**) and Planning Reg. The utilisation of Core Koala Habitat Area (**CKHA**), Koala Priority Area (**KPA**), Identified Koala Broad Hectare Area and Koala Habitat Restoration Area mapping layers help to achieve the intent of the legislation.

Potential impacts to fauna species listed under the NC (Animals) Reg and their breeding places is also regulated under the NC Act. The removal of, or tampering with, an animal breeding place necessitates a Species Management Program (**SMP**) and/or a damage mitigation permit which authorises the proposed removal or tampering may be required at the operational works phase. The conservation status of a potentially impacted species determines whether a low-risk SMP or high-risk SMP is required.

2.2.4 Vegetation Management Act 1999

The *Vegetation Management Act 1999* (Qld) (**VM Act**) is Queensland's principal legislation governing the protection and management of native vegetation. It works in conjunction with the state's Regional Ecosystem (**RE**) classification framework, which underpins the assessment and regulation of vegetation clearing activities. The VM Act provides for the development of regulatory maps that identify:

- Remnant vegetation;
- Areas of high conservation value;
- Areas vulnerable to land degradation; and
- Essential Habitat for species listed Critically Endangered, Endangered, Vulnerable or Near Threatened (**CREVNT**) species under the NC Act.

Interference with regulated vegetation that triggers assessment under the VM Act is regulated through the *Vegetation Management Regulation 2023* and Planning Reg.

2.2.5 Environmental Protection Act 1994

The *Environmental Protection Act 1994* (Qld) (**EP Act**) is a legislative framework designed to protect and manage the environment and natural resources within the State. The EP Act establishes regulations for the prevention and control of pollution, waste management, and environmental harm. It outlines responsibilities for government agencies, industry, and individuals to ensure sustainable development and conservation of Queensland's ecosystems and environments. The EP Act also incorporates provisions for environmental impact assessments, enforcement measures, and penalties for non-compliance, aiming to safeguard the environment for current and future generations.

2.2.6 Biosecurity Act 2014

The *Biosecurity Act 2014* (Qld) (**Biosecurity Act**) is a legislative framework aimed at preventing, managing, and controlling biosecurity risks to protect the State's economy, environment, and public health. It establishes measures to prevent the entry and spread of pests, diseases, and invasive species that could harm agriculture, natural ecosystems, and human health. The Biosecurity Act outlines responsibilities for government agencies, industry stakeholders, and individuals in detecting, reporting, and managing biosecurity threats. It also includes provisions for emergency responses, biosecurity planning, and enforcement actions to mitigate risks and safeguard

Queensland's biosecurity status. The Biosecurity Act introduces specific management provisions such as Biosecurity Instrument Permits and General Biosecurity Obligations.

2.2.7 Environmental Offsets Act 2014

The *Environmental Offsets Act 2014* (Qld) (**EO Act**) is designed to compensate for the environmental impacts of development activities by requiring proponents to offset any residual environmental harm through measures that deliver equivalent or greater environmental benefits. The EO Act establishes a framework for assessing, calculating, and implementing environmental offsets to maintain or improve the overall environmental values affected by development. It outlines principles for offsetting, including the use of biodiversity conservation, rehabilitation, and restoration initiatives, to achieve no net loss or a net gain of environmental values. Additionally, the EO Act includes provisions for monitoring, compliance, and enforcement to ensure the effectiveness and integrity of offsetting measures, promoting sustainable development and conservation outcomes in Queensland.

Statutory matters relevant to the Site are summarised in **Table 1**.

2.3 Matters of Local Interest

As the Site is located within the GFPDA, the local *Logan Planning Scheme 2015*, becomes secondary to the Development Scheme established under the ED Act.

The Development Scheme has been designed to integrate the goals of the local *Logan Planning Scheme 2015*. However, the *Logan Planning Scheme 2015* remains relevant in that it is often used as a reference point to inform planning decisions and ensure local character and planning objectives are considered where consistent with the intent of the Development Scheme.

Table 1: Statutory matters considered by this Report

Legislation	Approval Type/Compliance	Administering Authority	Trigger	Comments	Inset Reference
Commonwealth					
EPBC Act	EPBC Act Approval; or Not a Controlled Action Decision	National EPA	Proposing an Action that will significantly impact a MNES.	No significant impacts to MNES are expected, as ecological constraints informed the Referral Area and enabled retention of the Site's principal ecological values. Further discussion in Section 8.1.	N/A
State					
ED Act	Development Permit under the Development Scheme	DSDIP, as represented by EDQ	Proposing Assessable Development	The Proposed Action comprises industrial development within land designated for Industry and Business uses under the Development Scheme. Further assessment is required and is discussed in Section 8.2.	N/A
Planning Act	Development Permit for Operational Work: Native vegetation clearing	DSDIP, as represented by the State Assessment and Referral Agency (SARA) and Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (DNRMMRRD)	Clearing of native vegetation on prescribed land.	Clearing native vegetation The Site is predominantly identified as non-remnant vegetation. About 0.19 ha of northern and eastern boundary of the Site is mapped with Category B remnant vegetation, within the southern extent of Site mapped as Category C regrowth vegetation (3.25 ha). The Site is also mapped as containing essential habitat for species listed under the NC Act, including the Koala (<i>Phascolarctos cinereus</i>), Spotted-tailed Quoll (<i>Dasyurus maculatus maculatus</i>), and Swamp Tea-tree. Details of the regulated vegetation on Site and corresponding REs is presented in Section 3.2 below. Notwithstanding the above, clearing of vegetation on freehold land in a PDA is classified as exempt clearing works under Schedule 21, Part 2(2)(e) of the Planning Reg. No further assessment required.	Attachment 9 and 10

Legislation	Approval Type/Compliance	Administering Authority	Trigger	Comments	Inset Reference
	Development in South East Queensland koala habitat areas	DSDIP, as represented by the SARA and Department of Environment, Tourism, Science and Innovation (DETSI)	Interfering with CKHA.	Areas of remnant vegetation (Category B) along the northern boundary of the Site, together with adjacent regrowth vegetation within the Greenbank Road corridor to the south, are mapped as CKHA. The Site is not located within a declared KPA. Within a PDA, development interfering with koala habitat within a koala habitat area outside of a KPA is exempted development, in accordance with Schedule 24 of the Planning Reg. No further assessment required.	Attachment 11
	Exempt Clearing Notification/ Clearing Permit	DETSI	Clearing of CREVNT plants.	Mapped regulated vegetation on the Site is also identified as being within a high-risk area for threatened and near threatened plants. Protected plants within the GFPDA remain regulated under the NC Act and the <i>Nature Conservation (Plants) Regulation 2020</i> (Qld). Accordingly, a protected plant survey will be undertaken for the Site to identify any species present and ensure compliance with relevant legislative requirements. This process will be addressed separately from this EAR.	Attachment 12
	SMP	DETSI	Tampering with an animal breeding place.	The removal or tampering of an animal breeding place, if discovered, is allowed if it is part of a SMP for the same species, or if a damage mitigation permit is obtained and the permit authorises the proposed removal or tampering. Animal breeding places are defined as a bower, burrow, cave, hollow, nest or other thing that is commonly used by the animal to incubate or rear the animal's offspring. No further assessment required.	N/A
Biosecurity Act	Biosecurity Instrument Permit	DPI	Movement or storage of soil from Red Imported Fire Ant (RIFA) biosecurity zone 2.	The Proposed Action is located within biosecurity zone 2 on the RIFA map. A biosecurity instrument permit must be obtained to move soil from a property within biosecurity zone 2 unless: The soil remains within zone 2 or is moved to zone 1, or	N/A

Legislation	Approval Type/Compliance	Administering Authority	Trigger	Comments	Inset Reference
				The soil is moved to a waste facility within zone 1 or 2. All persons have a general biosecurity obligation (GBO) to manage biosecurity risks and threats under their control, in accordance with the Biosecurity Act. No further assessment required.	
General Obligations					
Biosecurity Act	Undertaking Construction Works	DPI	Compliance with GBO.	Individuals and organisations whose activities pose a biosecurity risk have a GBO to: Take all reasonable and practical steps to prevent or minimise each biosecurity risk Minimise the likelihood of causing a 'biosecurity event', and limit the consequences if such an event is caused Prevent or minimise the harmful effects a risk could have, and not do anything that might make any harmful effects worse. If an individual or organisation becomes aware of prohibited matter, the matter must be reported to Biosecurity Queensland within 24 hours unless the individual or organisation is aware that the matter has already been reported. No further assessment required.	N/A
EP Act	Undertaking Construction Works	DETSI	Compliance with general environmental duty and duty to notify environmental harm.	The EP Act outlines two duties that apply to everyone in Queensland: General environmental duty – a person must not carry out an activity that causes, or is likely to cause, environmental harm, unless measures to prevent or minimise the harm have been taken Duty to notify of environmental harm – to inform the administering authority, landowner or occupier when an incident has occurred that may have caused or threatens serious or material environmental harm. No further assessment required.	N/A

3. Desktop Assessment

3.1 Assessment Methodology

The following publicly available sources of information have been accessed to establish ecological and environmental constraints that are mapped across the Site:

- PMST Report, under the EPBC Act (5 km radius) (**Attachment 8**);
- Species list generated from the Queensland Government's WildNet database (5 km radius) (**Attachment 14**);
- DSDIP Development Assessment Mapping System (**DAMS**);
- DSDIP SPP Mapping System;
- Protected plant trigger mapping, under the NC Act;
- Queensland Globe mapping database;
- Atlas of Living Australia (**ALA**) interactive mapping database;
- QImagery historic aerial imagery; and
- Nearmap current high resolution aerial imagery.

Following review of the above-listed sources, ecological values and other environmental constraints of relevance for the Proposed Action have been defined with reference to Commonwealth and State legislation. These tools aid to inform the following sub-sections.

3.2 State Vegetation Mapping

3.2.1 Pre-clear Vegetation Mapping

The Queensland Herbarium's preclear RE (**Attachment 13**) mapping shows that the Site historically supported a mosaic of alluvial plain REs, as detailed in **Table 2**. The Site is now predominantly non-remnant.

Table 2: Pre-clear RE mapping

Pre-clear RE	Short Description	VM Act Status
12.3.18	<i>Melaleuca irbyana</i> low open forest on alluvial plains	Endangered
12.3.19	<i>Eucalyptus moluccana</i> and/or <i>Eucalyptus tereticornis</i> and <i>E. crebra</i> open forest to woodland, with a sparse to mid-dense understorey of <i>Melaleuca irbyana</i> on alluvial plains	Endangered
12.9-10.12	Mixed woodland usually containing <i>Corymbia intermedia</i> , <i>Angophora leiocarpa</i> and at least the presence of <i>Eucalyptus seeana</i> on sedimentary rocks	Endangered
12.9-10.2	<i>Corymbia citriodora</i> subsp. <i>variegata</i> +/- <i>Eucalyptus crebra</i> open forest on sedimentary rocks	Least Concern
12.9-10.27	<i>Corymbia</i> and/or <i>Eucalyptus</i> dominated open forest with a very sparse to middense understorey of <i>Melaleuca irbyana</i> on sedimentary rocks	Endangered

Pre-clear RE	Short Description	VM Act Status
12.9-10.7	<i>Eucalyptus crebra</i> +/- <i>E. tereticornis</i> , <i>Corymbia tessellaris</i> , <i>Angophora</i> spp. and <i>E. melanophloia</i> woodland on sedimentary rocks	Of concern

The earliest available historic aerial photography (1955) shows that the Site was largely cleared at this time, with vegetation remaining only in its low-lying eastern areas. By 1974, further clearing had been undertaken in the Site's east, and dams and rural buildings had been established. By 1978, regrowth was evident in the eastern and southern portions of the Site, generally consistent with the locations where mapped regrowth vegetation occurs today (see the discussion in the preceding paragraph). The photography from 1990 and 2002 continues to show this regrowth vegetation (now more mature) in the Site's south-eastern and eastern areas, but the photography from 2009 shows a notable thinning. There has been no notable disturbance to the vegetation since this time, and it has continued to regenerate to the present day (**Figure 3**).

The vegetation's age is important for assessing fauna habitat values, particularly for some of the MNES considered in this assessment. For example, the Greater glider conservation advice identifies that "*most hollow-bearing trees used for denning by arboreal and scansorial mammals are at least 100 years of age*" DCCEEW (2022), while (Glossy Black Conservatory (2010) notes that trees with suitable hollows are thought to be at least 100 years old, and possibly much older.

3.2.2 Regulated Vegetation Mapping

The Regulated Vegetation Management Map (**RVMM**) (**Attachment 9**) shows that the Site is largely identified as Category X. In the context of the VM Act, Category X identifies land where the clearing of vegetation is essentially unregulated under the Act. It is the "unrestricted" category in the regulated vegetation management framework. An area in the Site's south and south-east supports Category C (Regrowth) vegetation, which is regulated regrowth vegetation that has reached at least 15 years of age. The Vegetation Management Regional Ecosystem (VMRE) map (**Attachment 10**) shows that this vegetation is comprised of RE 12.3.19, with minor areas of RE 12.9-10.27 in the west.

Small areas extending marginally across the Site's northern and eastern boundaries are mapped as Category B (Remnant) vegetation. Such areas comprise native vegetation that has remained largely intact, or which has regenerated to recover more than 70% of its undisturbed canopy height, more than 50% of its undisturbed canopy cover, and which is dominated by species characteristic of the original ecosystem. This vegetation is comprised of RE 12.3.18. **Attachment 13** contains a description of the preclear and extant regional ecosystems for the Site.

3.3 Matters of National Environmental Significance

A search of the PMST reveals the potential or likely occurrence of flora MNES within a 5 km search radius of the Site (**Attachment 8**). The PMST search identified 18 threatened flora species, 35 threatened fauna species, 13 migratory species and eight (8) Threatened Ecological Communities (**TECs**) within the broader feature area when utilising a search radius from a central point of the Site. Results of this search are further included in **Table 3**.

Table 3: PMST Summary Results

MNES	Count	Identity
World Heritage Properties	0	Nil
National Heritage Places	0	Nil
Wetlands of International Importance (Ramsar)	1	Moreton Bay (20-30 km upstream)
Great Barrier Reef Marine Park	0	Nil
Commonwealth Marine Area	0	Nil
Listed TECs	8	See Section 3.3.1
Listed Threatened Species	53	See Section 3.3.2
Listed Migratory Species	13	See Section 3.3.2

3.3.1 Threatened Ecological Communities

Of the eight (8) TECs identified with a potential to occur within 5 km, only two were considered as 'likely to occur' on Site and were considered for further assessment (**Table 4**). The RVMM and mapped REs on Site were reviewed to inform the likelihood of TEC occurrence. This involved identifying REs on Site that are recognised in the relevant TEC Conservation Advice as supporting that TEC.

Table 4: Threatened Ecological Communities on Site

Community / Species	EPBC	Likelihood of occurrence on the Site	Targeted survey method
Threatened Ecological Communities			
Subtropical Eucalypt Floodplain Forest and Woodland of the NSW North Coast and SEQ Bioregions (Floodplain Forest TEC)	E	Known (confirmed)	BioCondition assessment plots and diagnostic transects to delineate the extent of the TEC and confirm condition against the diagnostic thresholds.
Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland (Swamp Tea-tree TEC)	CE	Known (adjoining land)	Targeted flora and BioCondition survey of alluvial clay flats for Swamp Tea-tree stands, with mapping and assessment against the TEC diagnostic and condition thresholds (e.g. either consistent with RE 12.3.18 or RE 12.3.19).

3.3.2 Threatened Species Search and Shortlisting

The PMST identified MNES flora and fauna species with the potential to occur within 5 km of the Site. A WildNet search was undertaken for the same search area to identify threatened species listed as MSES under the NC Act and to verify the potential occurrence of relevant MNES species (**Attachment 14**).

The potential occurrence of threatened fauna was further refined through a review of WildNet BioMaps, ALA mapping databases and relevant EPBC Act referrals. Records within 5 km of the Site were reviewed to inform the assessment. ALA records of threatened birds and mammals within 5 km of the Site are shown in

Figure 4.

The Site does not support habitat values for marine, wetland or shorebird species and, as such, these species have not been considered further. **Table 5** summarises the threatened MNES species identified by the PMST and the threatened MSES species identified through the WildNet database search as having potential to occur on or within 5 km of the Site.

Table 5: Threatened Species within 5 km radius based on WildNet Records

Name	NC Act Status	EPBC Act Status	Likelihood of Occurrence on the Site	Survey Effort Undertaken
Threatened Flora Species				
Hairy-joint Grass (<i>Arthraxon hispidus</i>)	V	V	Unlikely	Targeted searches of any damp depressions within the floodplain forest during the whole-of-site flora survey.
Bluegrass (<i>Dichanthium setosum</i>)	C	V	Unlikely	Targeted searches of grassy ground layers and any native grassland during the whole-of-site flora survey, timed to flowering.
Hawkweed (<i>Picris evae</i>)	V	V	Unlikely	Targeted searches of grassy ground layers and grassy woodland during the whole-of-site flora survey, timed to flowering.
Austral Toadflax (<i>Thesium australe</i>)	V	V	Unlikely	Targeted searches of kangaroo grass (<i>Themeda triandra</i>) stands within grassy ground layers during the whole-of-site flora survey, timed to flowering.
Threatened Fauna Species — Birds				
South-eastern Glossy Black-cockatoo (<i>Calyptorhynchus lathamii lathamii</i>)	V	V	Possible	Inspection for she-oak feed trees and diagnostic chewed cones (orts), and for large hollow-bearing trees as nest sites, during the flora and fauna surveys, with opportunistic observation and call detection.
Latham's Snipe (<i>Gallinago hardwickii</i>)	V	V	Possible	Targeted flush surveys of rank grassland, damp drainage lines and dam margins during the non-breeding season (August–February), at dawn or dusk.
White-throated Needletail (<i>Hirundapus caudacutus</i>)	V	V	Possible (aerial only)	Opportunistic aerial observation during fauna surveys; no targeted ground-based survey is warranted given the species' exclusively aerial habit.
Swift Parrot (<i>Lathamus discolor</i>)	E	CE	Possible (but very rare)	Targeted Swift parrot survey of the Floodplain Forest during winter flowering (blossom-watch observation and call detection), timed to confirmed regional arrival and peak blossom.
Powerful Owl (<i>Ninox strenua</i>)	V	Not listed	Possible and shortlisted	Targeted searches for suitable hollows; spotlighting and stag-watching surveys.
Threatened Fauna Species — Insects				

Name	NC Act Status	EPBC Act Status	Likelihood of Occurrence on the Site	Survey Effort Undertaken
Australian Fritillary (<i>Argynnis hyperbius inconstans</i>)	E	CE	Unlikely	Maintain awareness for the larval food plant in low-lying wet areas during surveys.
Threatened Fauna Species — Amphibians				
Tusked Frog (<i>Adelotus brevis</i>)	V	Not listed	Possible and Shortlisted	Targeted amphibian survey in suitable habitat
Threatened Fauna Species — Mammals				
Large-eared Pied Bat (<i>Chalinolobus dwyeri</i>)	E	E	Unlikely (foraging only)	Opportunistically targeted by the Anabat (echolocation) survey.
Spotted-tailed Quoll (SE) (<i>Dasyurus maculatus maculatus</i>)	E	E	Unlikely	Opportunistically targeted by the camera-trap survey.
Southern Greater Glider (<i>Petauroides volans</i>)	E	E	Possible and shortlisted	Targeted searches for suitable hollows, with spotlighting and stag-watching surveys of the mature floodplain forest.
Yellow-bellied Glider (SE) (<i>Petaurus australis australis</i>)	V	V	Possible	Targeted searches for suitable hollows and sap-feed trees, with spotlighting and stag-watching surveys.
Koala (<i>Phascolarctos cinereus</i>)	E	E	Known (confirmed)	Spot Assessment Technique (SAT), spotlighting, and call playback.
Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>)	C	V	Likely (foraging)	Observations for characteristic (raucous) roost / camp sites, and observations during the spotlighting survey, with the floodplain forest blossom targeted in particular.

The threatened species identified by this desktop assessment process provided focus for in-field Site surveys. A likelihood of occurrence (LOO) assessment for the TECs and threatened species is presented in **Attachment 15**.

4. Ecological Survey Methodologies

4.1 Flora Survey Methodology

4.1.1 February 2026 survey

The February 2026 survey was a scoping survey undertaken to identify broad ecological values and potential constraints to development, and to plan for later (more detailed) surveys. However, the opportunity was also taken to target species only (or more readily) encountered during Summer. Four of the targeted threatened flora species are most reliably detected and identified when in flower, so their survey timing is keyed to the flowering period.

- Hairy-joint Grass (*Arthraxon hispidus*) is a warm-season grass, long treated as an annual but now regarded as a perennial that dies down over winter, which flowers and fruits from summer into autumn (with flowering also recorded from about March to July), and is therefore best surveyed in late summer to autumn (approximately January/February to May), when the plant is actively growing and its distinctive elevated seed-heads are present to allow reliable identification (DEWHA, 2008).⁷
- *Dichanthium setosum* is a warm-season perennial that grows from spring, flowers through summer and is dormant by late autumn, and is therefore best surveyed in summer (approximately December to February/March) (DEWHA, 2008).⁸
- Austral Toadflax (*Thesium australe*) flowers mostly in spring and summer and, in Queensland, has been recorded flowering and fruiting through much of the year, with most herbarium collections made between October and April, so a spring–summer survey (approximately October to March) is appropriate (VicFlora, n.d), (DOE, 2013).⁹
- Hawkweed (*Picris euae*), an annual that germinates after rain, flowers principally in spring and summer and is likewise best targeted in that period following adequate rainfall, although its flowering months are not well documented and the window is indicative only (DEWHA, 2008).¹⁰

These 4 species share a spring–summer flowering window of approximately October to February/March and can accordingly be addressed within a single targeted flora survey undertaken in that period. On 26-27 February 2026, a targeted (late-summer) survey was undertaken for these species.

4.1.2 March 2026 survey

Briefed with the RVMM and VMSM, database searches and historic photography, a whole-of-site vegetation survey was undertaken between 10-20 March 2026. The survey involved:

- Comprehensive vegetation survey to characterise vegetation values and to conduct additional targeted survey for the threatened species discussed in Section 3.3.2;
- Mapping of all trees > 100 mm diameter at breast height (**DBH**). The following parameters were recorded: species, trunk diameter, the presence of habitat features (to be targeted in a later assessment), and the presence of structural deficiencies or signs of poor health.
- Mapping of Swamp tea tree clumps and individuals; and
- Searches for the Glossy Black-cockatoo (*Calyptorhynchus lathami*) feed trees, *Allocasuarina* spp. The species considered most likely to be encountered were Black sheoak (*Allocasuarina littoralis*) and Forest Oak (*Allocasuarina torulosa*). Where encountered, the botanists were instructed to search for characteristic signs of Glossy Black-cockatoo foraging activity (chewed seed cones called 'orts'). Assessment was conducted concurrently with the tree survey.

4.1.3 April – May 2026 Survey (Biocondition Assessments)

Biocondition assessments were conducted over 4 days (1-2 April, 19 April and 29 May 2026) to evaluate the condition of vegetation and habitat relative to a RE benchmark representing a remnant ecosystem in optimal condition (100/100). By scoring structural attributes (such as canopy cover, recruitment, and ground layer diversity) and functional components (such as the presence of weeds or coarse woody debris (**CWD**)), Biocondition provides a clear picture of how much ecological function a site retains. A score of 100 indicates a site comparable to a high-quality remnant, while a score of 0 indicates a complete loss of natural ecosystem features. Vegetation stratification identified the need to establish 11 Biocondition plots (**Figure 5**).

⁷ Harden (1993) (flowering March–July) and Jacobs & Wall (2007) (flowering summer to autumn), in DEWHA (2008).

⁸ Harden (1993) and Yu et al. (2000) in DEWHA (2008).

⁹ Cohn (2004) in DOE (2013); Threatened Species Section (2026) *Thesium australe*, Threatened Species Link, Department of Natural Resources and Environment Tasmania (most collections October–April).

¹⁰ Precise flowering months are not well documented; the spring–summer window is indicative, based on the species' annual habit and the summer-flowering phenology of the genus.

4.2 Fauna Survey

4.2.1 Amphibian Survey

Amphibians are the most weather-dependent vertebrate group for detection. The primary method, nocturnal call survey, requires warm nights (most South East Queensland species call above about 15–17 °C), rainfall and humidity, and the regional fauna is overwhelmingly warm-season breeding with a pronounced winter lull. The assessment therefore relies on the March survey window. March occurred under warm, moist late-summer conditions (daily maxima about 28–34 °C and overnight minima about 17–22 °C), well above calling thresholds, and followed a near-median February (120 mm) and useful early-March rainfall that maintained surface moisture. These conditions were well suited to detecting the assemblage, including the threatened Tusked Frog. As described in **Section 1.2**, the Site contains limited suitable wetland and waterway habitat for amphibians. The primary habitat feature, the centrally located dam, was assessed for amphibian activity during the March 2026 survey. While observations continued during the June survey, this survey was not relied upon for the assessment.

4.2.2 Reptile Survey

Reptiles are ectotherms whose activity, and therefore detectability, depends on warmth. Most South East Queensland reptiles are active through the warm months and retreat to shelter in winter, when basking, foraging and movement, and hence detection by active search, basking counts and incidental observation, decline sharply. The assessment, therefore, relies on the March survey window. March provided warm days (maxima about 28–34 °C) and mild nights (minima about 17–22 °C), well within the active-season envelope, when diurnal heliotherms bask, and forage and nocturnal species are abroad — maximising encounter rates across active search, spotlighting and habitat-based methods. While observations continued through the June survey, reliance was not placed on this survey.

During the March 2026 survey, all logs, rocks, and ground debris were ‘flipped’ in search of Reptiles. Surveys were undertaken during the warmer (middle parts) of the day, and particular effort was directed towards open sunny basking sites (**Figure 6**).

4.2.3 Climbing Arborist’s Hollow Assessment

One of the objectives of the tree survey was to identify hollow-bearing trees for further assessment of fauna habitat values. A total of 74 trees were selected for detailed hollow inspection, with their locations and size classes shown in **Figure 7**. Assessments occurred from 1–3 June 2026.

In 28 South’s experience, hollows that appear suitable from ground level often prove unsuitable for nesting or denning habitat when inspected at close range. Conversely, hollows that are not visible from the ground may also be present, although these are typically small and unlikely to provide habitat for the target species.

To assess the hollow resource more accurately, 28 South engaged a team of two qualified climbing arborists to undertake detailed inspections of each target tree. The arborists climbed each tree to allow hollows to be examined from multiple angles and to assess their dimensions, suitability for fauna occupancy, and any evidence of current or previous use. Surveys were conducted between 1 and 3 June 2026 (inclusive).

Hollows identified as having potential habitat value, particularly those exhibiting signs of occupation, were subsequently targeted during fauna surveys, including stag-watching, spotlighting, call-playback and Anabat surveys.

4.2.4 Bird and Mammal Survey

4.2.4.1 Seasonal Detectability

Unlike ectotherms, birds remain detectable throughout the year and are not limited by winter conditions. The assessment therefore relies primarily on the late June to early July survey period (22 June–7 July 2026), which

targets the winter assemblage of greatest significance, including winter migrants, blossom-nomadic nectarivores such as honeyeaters and lorikeets, and the winter-visiting Swift Parrot.

Survey conditions were favourable, with warm daytime temperatures (approximately 22–25 °C), mild and settled weather, minimal rainfall (approximately 2 mm during the survey period), and strong antecedent soil moisture from the exceptionally wet May 2026 supporting landscape productivity and flowering resources. While birds were also recorded during the March survey, the June survey provides the primary dataset as it captures winter-dependent species that may not be present during warmer months. As spring-breeding residents and summer migrants are less well represented by a winter survey, the June results are considered alongside March observations and locality records to provide a broader representation of the annual assemblage.

The mammal survey focused on nocturnal species, including hollow-dependent gliders, microbats, possums, the Grey-headed Flying-fox (*Pteropus poliocephalus*) and Koala (*Phascolarctos cinereus*). The late-June survey window was well suited to these targets. Overnight minimum temperatures averaged 10.7 °C, above the long-term June average of 9.3 °C, and survey activities including spotlighting, stag-watching, call-playback and ultrasonic bat detection were undertaken during mild, settled and predominantly dry conditions that favoured nocturnal activity and detectability. The timing also coincided with the winter flowering of Queensland Blue Gum (*Eucalyptus tereticornis*), providing a direct opportunity to assess Grey-headed Flying-fox foraging activity. Together with the favourable antecedent conditions created by the wet May period, the survey window was appropriate for assessing the nocturnal and hollow-dependent mammals that formed the primary focus of the assessment.

4.2.4.2 Spotlighting

Spotlighting was undertaken on 29 May, 4 June, 5 June and 8 June 2026 by two observers using high-powered LED spotlights. Surveys were conducted on foot throughout the study area, focusing on remnant vegetation, habitat corridors and hollow-bearing trees. Total spotlighting effort across the survey program was 56 person-hours.

4.2.4.3 Active Search

Active searches were undertaken throughout the survey period to detect fauna directly and identify signs of fauna activity. Searches focused on remnant vegetation and habitat features likely to support fauna. Shelter sites including hollows, loose bark, leaf litter, fallen timber and rock piles were examined where practical. Observers also recorded fauna encountered while undertaking other survey activities, including habitat assessments, acoustic recorder deployment and camera trap installation. Total active search effort exceeded 139 person-hours.

4.2.4.4 Call Playback

Pre-recorded calls of the Powerful Owl and Koala were broadcast through a Megaboom 4 Bluetooth speaker to elicit response calls. Eight Koala call-playback sites were established across the Site based on habitat suitability, together with eight call-playback sites targeting the Powerful Owl (**Figure 8**).

The following sequence was followed: 2 rounds of calls were played from the speaker, followed by a five-minute quiet listening period to detect response calls, and the Powerful Owl flying in to inspect the origins of the call. This was then followed by a five-minute spotlight sweep of the surrounding trees. This sequence was performed 3 times before proceeding to the next species. The overall pattern was completed 3 times over the course of approximately 1 hour and 15 minutes. The survey was conducted over four nights between 1 and 10 June 2026, accumulating approximately 5 hours of observation

4.2.4.5 Spot Assessment Technique

Eleven Spot Assessment Technique (SAT) (Phillips & Callaghan, 2011) sites were established across the study area to assess habitat utilisation by Koalas. SAT plots were established with a search radius of approximately 30 metres and were distributed across areas containing suitable Koala habitat (**Figure 9**).

4.2.4.6 *Camera Traps*

Ten passive infrared camera traps were deployed throughout areas of remnant vegetation between 29 May and 11 June 2026. The survey utilised ten Browning trail cameras mounted approximately 30 cm above ground level on trees or star pickets and directed towards bait stations positioned approximately 1.5 m away.

Bait stations consisted of Polyvinyl Chloride canisters containing sardines, with peanut butter, oats, honey and vanilla essence used as supplementary attractants. Cameras were configured to high sensitivity and programmed to capture three images per trigger event with no delay between successive triggers. All cameras remained operational for 13 consecutive nights (**Figure 10**).

4.2.4.7 *Bird Survey*

Dedicated bird surveys were conducted four nights in both May within two hours of sunset by a two observer (**Figure 10**). However, bird data was collected continuously throughout the day while deploying and collecting camera traps, and Song Meter® Mini 2 (Li-ion) Acoustic Recorder, during tree hollow surveys and while conducting active searches. Minimum dedicated bird survey effort was 16 person hours, although overall effective bird survey effort was much greater.

Bird surveys were also aided by meander habitat assessment and Biocondition surveys conducted by two 28 South ecologists over three days and four nights recording observations of avian records (totalling >139 person hours as well as 13 camera trap and acoustic survey nights).

4.2.4.8 *Bat and Bird Acoustic Detectors*

Two Song Meter® Mini 2 acoustic recorders were deployed between 29 May and 11 June 2026 for a period of 13 nights. Units were installed within the two largest areas of remnant vegetation present in the study area and programmed to record bird and bat activity. Bird recording was undertaken continuously, while bat recording focused on the sunset-to-sunrise period (**Figure 10**).

Acoustic monitoring supplemented active searches and provided additional survey coverage for cryptic, nocturnal and highly mobile fauna species.

4.2.4.9 *Opportunistic Observations*

To augment active survey effort, observations of terrestrial fauna were continuously made throughout the fauna survey while deploying and collecting camera traps and Anabats and during Biocondition surveys. Opportunistic observations were also captured during habitat assessments and vegetation assessments. Similarly to active searches, observers were vigilant for all terrestrial fauna, but habitat and shelter sites were inspected opportunistically rather than thoroughly searched. Minimum opportunistic search effort on foot was >144 person hours during the fauna survey April, May and June of 2026.

4.3 Suitability of the Survey Window

4.3.1 Synopsis

Climatic conditions over the survey period have been characterised to assess whether the surveys were undertaken in conditions representative of the locality, and to provide context for the detectability of the matters targeted. To some extent, discussion has already been provided in the preceding sections, but this section provides the analysis underpinning that discussion.

Two Bureau of Meteorology stations were used: daily rainfall from Maclean Bridge Alert (station 040935), on the Logan River floodplain near the Site, and daily maximum and minimum air temperature from Archerfield Airport (station 040211), the nearest station to the north with a long, continuous record and published long-term normals.

Archerfield Airport has operated since 1929 and records both daily maximum and minimum temperature, so its published all-years monthly statistics provide a robust baseline against which the observed temperatures can be compared. It was preferred over the closer Greenbank (Defence) station (station 140009), which opened only in 2018, has too short a record to support published long-term normals and records daily maxima alone.

Observed conditions are compared against each station's published long-term average. Temperature is assessed across the survey period of March to June 2026, while the rainfall assessment is extended back to October 2025 so that the antecedent conditions leading into both the vegetation survey (10–17 March 2026) and the fauna survey (20–25 June 2026) are captured. June 2026 is treated as a partial month.

4.3.2 Temperature

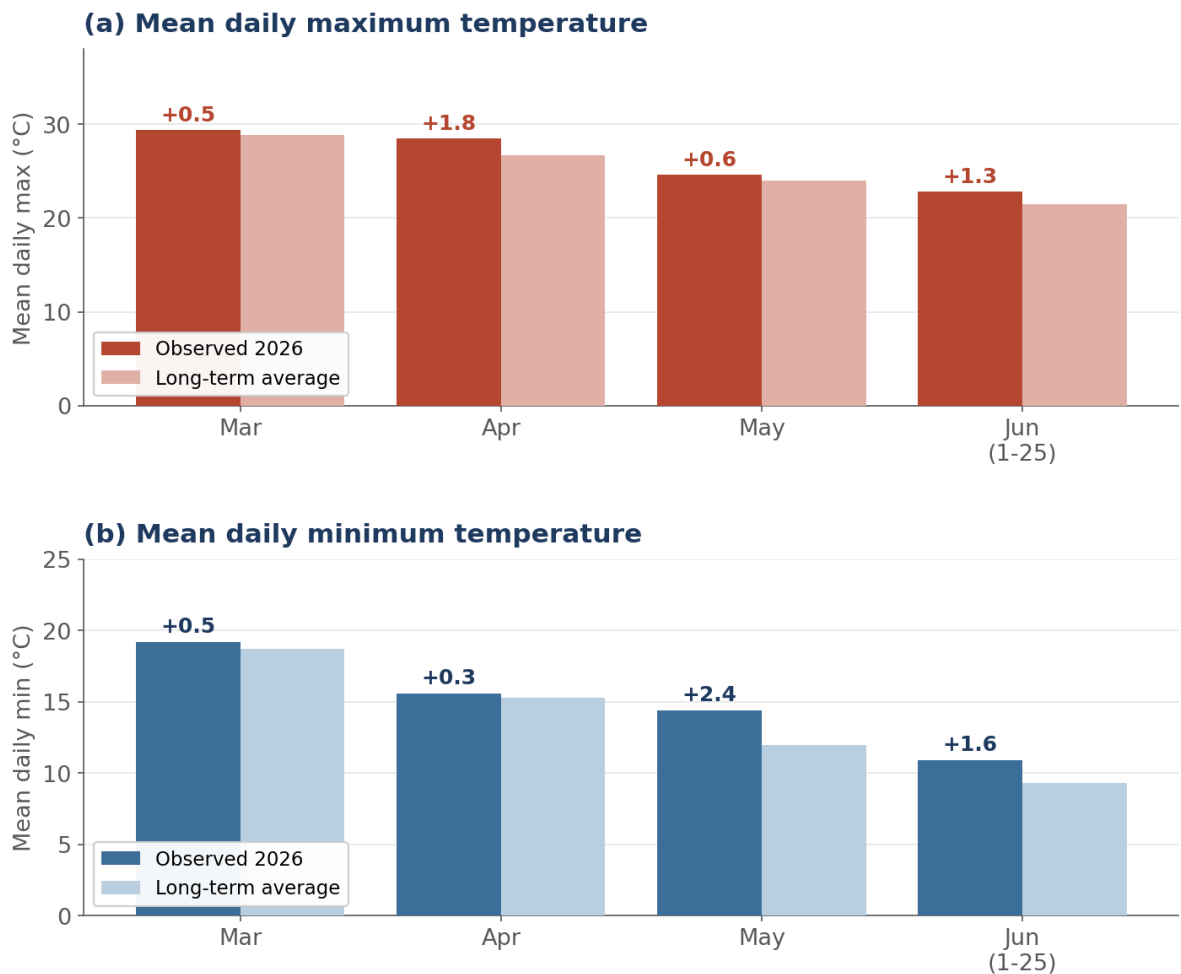
Daytime maximum temperatures were consistently above the long-term average across the survey period. Mean daily maxima at Archerfield Airport¹¹ exceeded the long-term average in each of March, April, May and June 2026, by between 0.5 °C and 1.8 °C (**Table 6**), the largest anomaly occurring in April. Overnight minima were close to the average in March and April (+0.5 °C and +0.3 °C) but markedly warmer than average in May (+2.4 °C) and June (+1.6 °C); the warm May nights are consistent with the extensive cloud cover accompanying that month's heavy rainfall.

Conditions during the vegetation survey (10–17 March) were warm by day and mild by night, with daily maxima of 27.9 °C to 34.0 °C (mean 30.1 °C) and overnight minima of 17.1 °C to 21.9 °C (mean 19.1 °C) — conditions well-suited to active plant growth and reliable botanical identification. The fauna survey (20–25 June) was undertaken in mild, settled early-winter conditions, with daily maxima of 21.7 °C to 25.0 °C (mean 22.8 °C). Overnight minima over the fauna survey averaged 10.7 °C — above the June long-term mean of 9.3 °C — and were mildest over the first three nights (12.5 °C, 14.2 °C and 14.0 °C on 20–22 June) before cooling to 6.9 °C, 8.0 °C and 8.3 °C over 23–25 June. The survey was therefore not undertaken in anomalously cold conditions; overnight temperatures were, if anything, slightly milder than the seasonal norm, which is favourable for the activity and detectability of nocturnal fauna.

Table 6: Observed monthly temperature, March – June 2026, against the Archerfield Airport long-term average (departures in °C).

Month	Max obs (°C)	Max avg (°C)	Dep.	Min obs (°C)	Min avg (°C)	Dep.
March	29.4	28.9	+0.5	19.2	18.7	+0.5
April	28.5	26.7	+1.8	15.6	15.3	+0.3
May	24.6	24.0	+0.6	14.4	12.0	+2.4
June (1–25)	22.8	21.5	+1.3	10.9	9.3	+1.6

¹¹ Bureau of Meteorology, Archerfield Airport (station 040211), daily maximum temperature (product IDCJAC0010) and daily minimum temperature (product IDCJAC0011); station opened 1929. Long-term averages are the all-years monthly statistics. Prepared using Climate Data Online, Bureau of Meteorology



Inset 2: Mean daily maximum (a) and minimum (b) temperature, March – June 2026, against the Archerfield Airport long-term average.

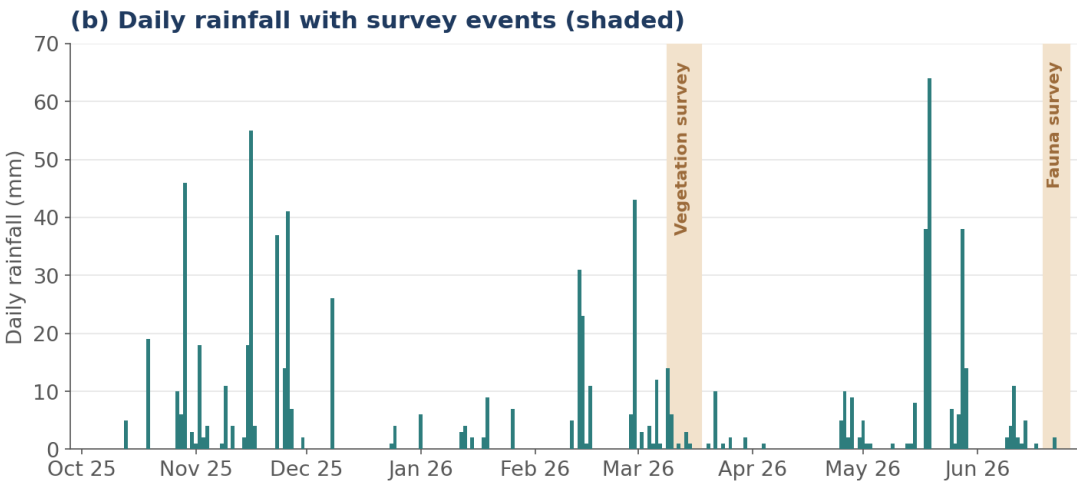
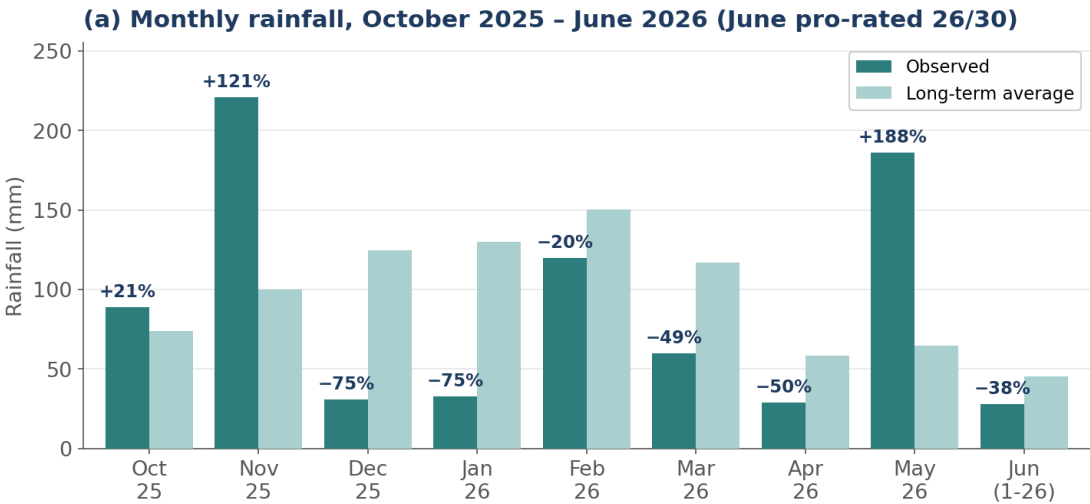
4.3.3 Rainfall

Over the extended period from October 2025 to 26 June 2026, rainfall at Maclean Bridge Alert¹² totalled 797.0 mm against a long-term equivalent of approximately 863.6 mm — close to, and slightly below (by about 8 per cent), the long-term average overall. The period total conceals pronounced month-to-month variation, with two wet phases separated by a dry summer and early autumn (**Table 7**). The spring of 2025 was wet, October being 21 per cent and November 121 per cent above their long-term means, the November total of 221.0 mm exceeding three times the November median. December 2025 and the following summer were then markedly dry, with December (–75 per cent), January (–75 per cent), February (–20 per cent), March (–49 per cent) and April (–50 per cent) all falling below their long-term means. May 2026 was exceptionally wet, recording 186.0 mm against a long-term mean of 64.5 mm (+188 per cent) and a median of only 34.0 mm; the great majority of that total fell in a single event, with 38.0 mm on 18 May and 64.0 mm on 19 May. June 2026 was drying, with 28.0 mm recorded to 26 June against a pro-rated long-term mean of approximately 45.2 mm.

Table 7: Observed monthly rainfall, October 2025 – June 2026, against the Maclean Bridge Alert long-term mean and median.

¹² Bureau of Meteorology, Maclean Bridge Alert (station 040935), daily rainfall (product IDCJAC0009); station opened 2002. Long-term mean and median are the all-years monthly statistics. Prepared using Climate Data Online, Bureau of Meteorology.

Month	Observed (mm)	LT mean (mm)	LT median (mm)	Anomaly vs mean
October 2025	89.0	73.7	67.5	+21%
November 2025	221.0	100.1	67.0	+121%
December 2025	31.0	124.4	104.0	-75%
January 2026	33.0	130.0	113.5	-75%
February 2026	120.0	150.3	120.0	-20%
March 2026	60.0	116.9	97.0	-49%
April 2026	29.0	58.5	41.0	-50%
May 2026	186.0	64.5	34.0	+188%
June 2026 (1–26) ¹³	28.0	45.2	32.0	-38%
Period total	797.0	863.6	–	-8%



¹³ June 2026 is a partial month. Observed rainfall (1–26 June) is compared against 26/30 of the long-term monthly mean; the observed mean daily maximum and minimum temperatures are the means of the available daily values for 1–25 June.

Inset 3. Monthly rainfall, October 2025 – June 2026, against the long-term average (a); and daily rainfall over the same period with survey events shaded (b).

4.3.4 Antecedent Conditions and Survey Timing

Despite the relatively dry summer and early autumn, antecedent conditions preceding both survey programs were favourable. The vegetation survey followed a near-median February rainfall total and several rainfall events in the days immediately preceding fieldwork, which maintained active plant growth and ensured vegetation was readily identifiable despite March being drier than average overall. Although rainfall during the survey period itself was limited, site conditions remained suitable for the collection of representative floristic and vegetation condition data.

Similarly, the fauna survey was preceded by exceptionally wet conditions in May and additional rainfall in early June, which collectively maintained elevated soil moisture and surface-water availability across the landscape. Survey activities were then undertaken during a predominantly dry and settled period, with mild overnight temperatures conducive to nocturnal fauna activity. These conditions were well suited to the spotlighting, stag-watching and call-playback methodologies employed and are considered unlikely to have constrained the detectability of the target fauna species.

4.3.5 Conclusion

The survey period was characterised by above-average daytime temperatures, with overnight temperatures close to average in autumn and slightly warmer than average through the wet May and June period. Rainfall was close to the long-term average overall, while a wet spring in 2025 and exceptionally wet conditions in May 2026 ensured favourable antecedent soil moisture prior to both survey events. Collectively, these conditions fell within the normal climatic range for the locality, and no component of the survey program was undertaken in conditions that would compromise survey validity. Although the fauna survey was conducted in late June, when ectotherm activity is naturally reduced, overnight temperatures remained slightly above the long-term June average rather than being anomalously cold. The survey timing was also well suited to the hollow-dependent and nocturnal fauna that formed the primary focus of the assessment. The vegetation survey was undertaken under warm, moist late-summer conditions conducive to reliable botanical identification.

5. Ecological Survey Results

5.1 Ground-truthed Regional Ecosystems

Queensland State RE mapping¹⁴ was interrogated and resolved to result in a spatially and ecologically accurate mapping layer. Two distinct REs have been mapped within the Site, as well as non-remnant vegetation (**Figure 11**). A complete flora species list is provided in **Attachment 16**.

Tree species and tree size classes are identified in **Figure 12** and **Figure 13** respectively. Results of the BioCondition assessment across the Site are presented in **Attachment 17**.

5.1.1 Community 1 – RE 12.3.19 (Eastern Alluvial Patch)

5.1.1.1 Vegetation Structure

Canopy. The canopy is a eucalypt open forest, generally 16–28 m tall¹⁵ (BC05 16–28 m; BC01 9–20 m; emergents to 26 m at BC02; eucalypt emergents 18–25 m at BC03). Queensland Blue Gum and Gum-topped Box (*Eucalyptus moluccana*) are the ecologically dominant canopy species at BC01, BC02 and BC05, with Grey Ironbark (*Eucalyptus siderophloia*) and, at the southern margin, Rusty Gum (*Angophora leiocarpa*) (BC05) associated. Swamp Tea-tree, where present, occupies a discontinuous lower tree stratum at 4–7 m beneath the eucalypt canopy (BC02, BC03) rather than the canopy itself with the exception being BC04 (below).

Midstorey. The sub-canopy and shrub layer is dominated by regenerating canopy eucalypts together with Red Ash (*Alphitonia excelsa*) (BC02–BC05), Hickory Wattle (*Acacia leiocalyx*) and Salwood (*Acacia disparrima*) (BC03, BC04), and scattered Silky Oak (*Grevillea robusta*) (BC03). Swamp Tea-tree recurs in this stratum at BC03. Recruiting Queensland Blue Gum, Gum-topped Box and Carbeen (*Blakella tessellaris*) occur as shrub-layer stems at BC01, BC02 and BC04, indicating active canopy regeneration.

Ground layer. A native tussock-grass and forb component persists — Queensland Blue Grass (*Bothriochloa bladhii*), Blady Grass (*Imperata cylindrica*), Brown's Lovegrass (*Eragrostis brownii*), Barbed-wire Grass (*Cymbopogon refractus*) and *Paspalidium* spp. (BC01, BC03, BC04) — with a diverse native forb suite including Centella (*Centella asiatica*), Blue Flax Lily (*Dianella brevipedunculata*), Blue Trumpet (*Brunoniella australis*), Twining Glycine (*Glycine tabacina*) and Small St John's Wort (*Hypericum gramineum*) (19 native forb taxa recorded at BC01; 15 at BC04). This overlies a substantial exotic component (see Community 3), heaviest at BC04 and BC05.

5.1.1.2 Basis for RE 12.3.19 Determination

Given that the community contains embedded patches of Swamp Tea-tree, it is necessary to explain why we have assigned it to RE 12.3.19 rather than a mosaic of RE 12.3.18 and 12.3.19.

RE 12.3.19 is described as *Eucalyptus moluccana* and/or *Eucalyptus tereticornis* and *Eucalyptus crebra* open forest to woodland, with a sparse to mid-dense understorey of *Melaleuca irbyana*, while RE 12.3.18 is described as *Melaleuca irbyana* low open forest or thicket. Emergent *Eucalyptus moluccana*, *Eucalyptus crebra*, *Eucalyptus tereticornis* or *Corymbia citriodora* subsp. variegata may be present (28 South underline of key phrasing). 28 South considers that the vegetation has a distinctive structure readily apparent from aerial photography and ground survey. **Inset 4** shows the distinctive characteristics of RE 12.3.18 on land to the north of the Site.

The determination also rests on canopy dominance, landform and the regional-ecosystem mapping. Four of the five plots on Land Zone 3 (BC01, BC02, BC03, BC05) record a eucalypt-dominated canopy of Queensland Blue Gum, Gum-topped Box and Grey Ironbark, closely matching the RE 12.3.19 description — *Eucalyptus moluccana* and/or *Eucalyptus tereticornis* and *Eucalyptus crebra* open forest to woodland with a sparse to mid-dense Swamp

¹⁴Vegetation management regulated vegetation management map - version 7.24 and Vegetation management regional ecosystem map - version 13.00

¹⁵ 28°S Environmental BioCondition assessments, plots BC01–BC11 (Impact), Project 2026-100; canopy, stratum composition, heights and ground-layer species as recorded on the plot datasheets.

Tea-tree understorey. BC04 is an anomaly, but the data still identify strong regeneration of eucalypt species here, suggesting it is appropriately included as RE 12.3.19 rather than split into a narrow adjoining unit of RE 12.3.18.



Inset 4: The distinctive canopy (within the blue polygon) of RE 12.3.18 within and to the north of the Willowbrook Road East road reserve.

5.1.2 Community 2 – RE 12.9-10.7 (Western Sedimentary Patch)

5.1.2.1 Vegetation Structure

Canopy. The canopy is a Eucalypt–Carbeen open forest, 17–26 m tall (BC06 17–22 m; BC07 17.5–26.5 m; BC08 14–22 m; BC09 18–25 m). Queensland Blue Gum is the ecologically dominant canopy species at all four plots, with Carbeen co-dominant (BC06, BC08) or associated (BC07, BC09), and Grey Ironbark associated (BC09). Carbeen regenerates abundantly in the 3–10 m sub-canopy. Swamp Tea-tree is absent to sparse — an associated sub-canopy species at BC06, and recorded immediately adjacent to, but not within, BC07 and BC09.

Midstorey. The sub-canopy is dominated by dense Carbeen regrowth, with Red Ash (*Alphitonia excelsa*), Salwood (*Acacia disparrima*), Maiden's Wattle (*Acacia maidenii*) and recruiting Queensland Blue Gum.

Ground layer. Native grasses are essentially absent from the western plots; the ground layer is a modest native forb component over a heavy exotic grass and forb sward dominated by Guinea Grass (*Megathyrsus maximus*), Signal Grass (*Urochloa decumbens*), *Sporobolus natalensis* and Lantana (*Lantana camara*), with exotic cover reaching about 85% at BC06 and BC07.

5.1.2.2 Basis for RE 12.9-10.7 Determination

The land zone confines the western vegetation to a 12.9-10.x (sedimentary) ecosystem; the correct unit is resolved by testing the standing canopy and understorey, as recorded on the tree survey and the four western plots, against the diagnostic species of each candidate (**Table 8**). The diagnostic species of RE 12.9-10.2, RE 12.9-10.12 and RE 12.9-10.27 are each effectively absent from the western extent, while the canopy matches RE 12.9-10.7.

Table 8: Diagnostic-Species Screen for the Western Sedimentary Remnant (669 Trees Surveyed)

Candidate RE (pre-clear)	Diagnostic canopy / understorey	Site record	Outcome
RE 12.9-10.2	<i>Corymbia citriodora</i> subsp. <i>variegata</i> (Spotted Gum) ± <i>Eucalyptus crebra</i> (Narrow-leaved Red Ironbark)	Spotted Gum x 1; Narrow-leaved Red Ironbark x 2; neither in western plots	Excluded
RE 12.9-10.12	<i>Eucalyptus seeana</i> (Narrow-leaved Red Gum) (diagnostic), with <i>Corymbia intermedia</i> (Pink Bloodwood), Rusty Gum	Narrow-leaved Red Gum x 2; Pink Bloodwood x 4; Rusty Gum x 1; none in western plots	Excluded
RE 12.9-10.27	Swamp-tea Tree understorey (sedimentary)	Sparse / adjacent only (BC06–BC09); Swamp Tea-tree concentrated in the eastern alluvial block	Excluded
RE 12.9-10.7	Narrow-leaved Red Ironbark ± Queensland Blue Gum, Carbeen, <i>Angophora</i> spp., <i>Eucalyptus melanophloia</i> (Silver-leaved Ironbark)	Queensland Blue Gum dominant (306; all western plots) + Carbeen (123) ± Grey Ironbark	Adopted

Exclusion of RE 12.9-10.2. RE 12.9-10.2 is defined by a Spotted Gum canopy, usually with Narrow-leaved Ironbark. Spotted Gum is represented by a single stem across the 669 mapped trees, and Narrow-leaved Ironbark by only two; neither is a canopy element in any of the western plots (BC06–BC09), whose canopies are Queensland Blue Gum with Carbeen. The defining Spotted Gum canopy of RE 12.9-10.2 is therefore absent, and that ecosystem is excluded.

Exclusion of RE 12.9-10.12. RE 12.9-10.12 is a mixed woodland, diagnosed by the presence of Narrow-leaved Red Gum, with Pink Bloodwood and Rusty Gum; the RE description explicitly states that Narrow-leaved Red Gum must be present to achieve RE 12.9-10.12. On the tree survey, Narrow-leaved Red Gum is represented by two stems, Pink Bloodwood by four and Rusty Gum by one, and none was recorded in the western plots. The diagnostic Narrow-leaved Red Gum association is not supported, and RE 12.9-10.12 is excluded.

Exclusion of RE 12.9-10.27. RE 12.9-10.27 is a *Corymbia* and/or *Eucalyptus* open forest distinguished from RE 12.9-10.7 by a very sparse to mid-dense Swamp Tea-tree understorey on sedimentary rocks¹⁶. That understorey is not developed in the western vegetation: Swamp Tea-tree was recorded only as an associated sub-canopy species at BC06 and immediately adjacent to (not within) BC07 and BC09 and was absent from BC08. RE 12.9-10.27 is excluded.

Fit to RE 12.9-10.7. RE 12.9-10.7 is described as Narrow-leaved Red Ironbark ± Queensland Blue Gum, Carbeen, *Angophora* spp., Silver-leaved Ironbark woodland on sedimentary rocks¹⁷. The western canopy, Queensland Blue Gum dominant, with Carbeen and Grey Ironbark, on sedimentary rises, falls squarely within this description: Queensland Blue Gum and Carbeen are both named canopy species of the ecosystem, and the leading Narrowleaved Red Ironbark is expressly optional ('±'). Queensland Blue Gum is the most abundant tree on the Site (306 of 669 mapped stems) and the canopy dominant at every western plot, and Carbeen is the second most abundant (123 stems); their prominence on the sedimentary rises is the signature of RE 12.9-10.7. On the exclusion of the three competing units and the positive match of the canopy, the western vegetation is determined as RE 12.9-10.7.

¹⁶ REDD, RE 12.9-10.27 (Endangered; last updated 10 November 2025). The description notes that the same *Corymbia/Eucalyptus*–*M. irbyana* association on Land Zone 3 is mapped as RE 12.3.19

¹⁷ REDD, RE 12.9-10.7 (last updated 10 November 2025).

5.1.3 Community 3 – Non-remnant Vegetation

The northern paddock and cleared margins are non-remnant. BC10 (western, sedimentary) and BC11 (eastern, alluvial) recorded no tree canopy (ecologically dominant layer not applicable) and comprise open, weed-dominated pasture, with exotic ground cover of 80–85% and only sparse native ground species including Blue Flax Lily (*Dianella brevipedunculata*), Slender Flat-sedge (*Cyperus gracilis*), Swamp Dock (*Rumex brownii*) and Common Rush (*Juncus usitatus*). Pre-clear vegetation in this community corresponds to RE 12.3.18 (BC11) and the RE 12.9-10.2/7/12 mosaic (BC10).

Disturbance on the Site is not confined to the cleared areas. Throughout the high-value regrowth vegetation on the Site, the ground layer carries a heavy exotic load reflecting the long-grazed, rural-residential setting. Pasture grasses — Guinea Grass, Signal Grass, *Sporobolus natalensis*, Curly Bluegrass (*Bothriochloa pertusa*) and Couch (*Cynodon dactylon*) — and environmental weeds — Lantana, Groundsel Bush (*Baccharis halimifolia*), Chinese Elm (*Celtis sinensis*), Broad-leaved Pepper Tree (*Schinus terebinthifolius*), Cat's Claw Creeper (*Dolichandra unguis-cati*) and Climbing Asparagus (*Asparagus africanus*) — are widespread, with exotic cover exceeding 50% at several plots (BC04, BC05, BC06, BC07, BC10, BC11).

5.2 Threatened Species and Ecological Communities

5.2.1 Threatened Flora

No MNES flora species were recorded during the surveys. Swamp Tea-tree is listed as a CREVNT species under the NC Act. A Protected Plant Clearing Permit will be obtained prior to undertaking vegetation clearing on the Site.

5.2.2 Threatened Ecological Communities

5.2.2.1 Floodplain Forest TEC

Assessment of Community 1 – RE 12.3.19 — eastern (alluvial) Patch against the Floodplain Forest TEC-approved conservation advice (Floodplain Forest TEC Conservation Advice): (i) the Key Diagnostic Characteristics; and (ii) the Condition classes, categories, and thresholds follow:

Key Diagnostic Characteristics

Table 9 validates the key diagnostic characteristics for the Floodplain Forest TEC against the Key Diagnostic Characteristics. As identified, all of the TEC requirements are met.

Table 9: Floodplain Forest TEC – Key Diagnostic Characteristics Cross-checked against Community 1 (GTRE 12.3.19 – Eastern Alluvial Patch)

Key diagnostic characteristic (Section 2.1)	Community 1 (GTRE 12.3.19 Eastern Alluvial Patch) – how the characteristic is met	Assessment
Occurs in the New South Wales North Coast and South Eastern Queensland (SEQ) IBRA bioregions, and on Curtis Island in the Brigalow Belt North bioregion.	The Site is located at North Maclean, within the Logan local government area, which lies within the South Eastern Queensland (SEQ) IBRA bioregion. Community 1 occurs within the bioregional range of the ecological community.	Met
Occurs in the catchments of the eastern watershed of the Great Dividing Range, typically in their lower reaches.	The Site drains via local watercourses within the Logan River catchment, on the eastern fall of the Great Dividing Range. Community 1 occupies the lower-lying alluvial floodplain on the Site.	Met

Key diagnostic characteristic (Section 2.1)	Community 1 (GTRE 12.3.19 Eastern Alluvial Patch) – how the characteristic is met	Assessment
Occurs at elevations up to 250 m above sea-level (ASL), most typically below 50 m ASL.	The alluvial floodplain at the Site is low-lying and sits well within the elevation envelope, below 50 m ASL.	Met
Occurs on alluvial landforms including river floodplains, riparian zones, tributary gullies, floodplain pockets, alluvial flats, fans and terraces, and localised depressions where water can pond.	Community 1 occupies the Site's alluvial floodplain on Quaternary alluvium, consistent with RE 12.3.19 (<i>Eucalyptus tereticornis</i> woodland on Quaternary alluvium).	Met
Occurs on alluvial soils of various textures, including silts, clay loams, sandy loams, gravel and cobbles.	Community 1 on Quaternary alluvium consistent with the Queensland Herbarium's Landzone 3.	Met
Does not typically occur on soils that are primarily marine or aeolian sands (but may occur on such substrates after fluvial modification).	The Site is an inland alluvial floodplain within the Logan River catchment; the substrate is not primarily marine or aeolian sand. The exclusion is not triggered.	Met
Occurs as tall closed-forest, tall open-forest, closed forest, open forest, tall woodland or woodland (Specht 1970); canopy crown cover of at least 20%.	Community 1 is mapped as a woodland – a structural class within the listed range.	Met
Canopy dominated by one or a combination of Angophora, Corymbia, Eucalyptus, Lophostemon and/or Syncarpia, but NOT dominated by Eucalyptus robusta (swamp mahogany).	Community 1 is dominated by mature Queensland Blue Gum, a species of the genus Eucalyptus – one of the 5 characteristic genera. <i>Eucalyptus robusta</i> is not dominant. This is the defining diagnostic match.	Met
A mid-layer (sub-canopy and/or shrub-layer) may be present, sparse or absent; and fauna may be abundant or rare.	This is a permissive characteristic that does not exclude any patch. The mid-layer and fauna recorded in Community 1 are accommodated regardless of density.	Met

Condition classes, categories, and thresholds

Patch Size – The size of the 'patch' in the Site is 4.137 ha (**Figure 14**). In this regard, when assessed against Table 2 of the Floodplain Forest TEC Conservation Advice, it is already considered a 'large patch', and no further consideration of landscape connection beyond the Site is required.

Biotic Threshold – Groundcover Richness – The Conservation Advice defines groundcover richness as the combined richness of native grasses, forbs, ferns and sedges recorded within a 0.04 ha (20 m × 20 m) assessment plot. BioCondition assessments recorded an average native groundcover richness of 24 species per plot, ranging from 8 species at BC05 to 37 species at BC02. Across the patch, Community 1 supports a diverse assemblage of native grasses and forbs, including Queensland Blue Grass, Blady Grass, Brown's Lovegrass, Barbed-wire Grass, *Paspalidium* spp., Centella, Blue Flax Lily, Blue Trumpet, Twining Glycine and Small St John's Wort. These results demonstrate that Community 1 readily exceeds the groundcover richness thresholds specified in the Conservation Advice and supports a diverse native ground layer characteristic of the Floodplain Forest TEC.

Biotic Threshold – Total Perennial Understorey Vegetation - The Conservation Advice defines perennial understorey vegetation as all vegetation below the canopy layer, from species with a life-cycle of more than two growing seasons. It includes herbs (graminoids and forbs), grasses, shrubs, shorter trees, juvenile canopy species, resprouting or suckering of the lower portions of canopy trees, and cryptograms; but it does not include annual plants, plant litter, or exposed soil. Community 1 supports a well-developed perennial understorey comprising regenerating Queensland Blue Gum, Gum-topped Box, Carbeen, Swamp Tea-tree, Red Ash, Hickory Wattle, Salwood and a diverse assemblage of perennial grasses and forbs. Juvenile canopy species and regenerating woody vegetation are common throughout the patch, indicating ongoing recruitment and structural complexity. While exotic species occur within parts of the community, particularly BC04 and BC05, the perennial understorey remains predominantly native and provides a substantial contribution to vegetation structure and ecological function. Consistent with the condition-class assessment, Community 1 satisfies the perennial understorey vegetation criterion of the Conservation Advice and qualifies as a Moderate Condition patch within the Floodplain Forest TEC condition framework.

Biotic Threshold – Large Native Trees and Very Large Native Trees - **Figure 14** shows that, although Community 1 is regrowth (consider the historic aerial photographs in **Figure 3**), there has been sufficient regeneration to establish trees that are identified as 'large' and 'very large' in Table 2 of the Floodplain Forest TEC Conservation Advice. Within the patch, 49 trees meet the 'large tree' threshold, and 9 meet the 'very large tree' threshold (note the 9 'Very Large Trees' are a subset of the overall 58 'large native trees').

Collectively, Community 1 exceeds the minimum patch-size threshold, supports a diverse native groundcover and perennial understorey, and contains both large and very large native trees. Accordingly, Community 1 satisfies the diagnostic characteristics and condition thresholds for the Floodplain Forest TEC and is classified as a Condition Class C2 patch (**Inset 5**).

BioCondition Assessment						
Subtropical Eucalypt Floodplain Threatened Ecological Community						
BioCondition attribute	BC01	BC05	BC02	BC03	BC04	Average
Ground-layer species richness — 50 × 10 m plot (dimensions to confirm)						
Native plant species richness – grasses	5	0	9	20	7	
Native plant species richness – forbs	19	8	28	9	15	
Native plant species richness – combined	24	8	37	29	22	24
Non-native cover — 5 × 100 m						
Non-native plant cover (%)	17.0	38.6	38.0	34.0	14.0	
Ground cover — 5 × 1 m						
Native perennial grass cover (%)	33.0	0.0	22.0	21.0	33.0	
Organic litter cover (%)	37.8	56.0	53.0	36.0	26.8	
Large trees — 50 × 25 m (BC04: 100 × 50 m; dimensions to confirm)						
Very large native trees /plot (> 600 DBH) ¹	0	0	0	0	0	
Very large native trees /ha (> 600 DBH) ¹	0	0	0	0	0	
Large trees /plot (> 450 to < 600 DBH) ²	1	0	2	1	0	
Large trees /ha (> 450 to < 600 DBH) ²	8	0	16	8	0	
Native ground-cover components — 5 × 1 m						
Native perennial grass cover (%)	33.0	0.0	22.0	21.0	33.0	
Native other grass (%)	0.0	0.0	0.0	0.0	0.0	
Native forbs & other non-grass species (%)	16.4	4.0	12.4	11.0	1.0	
Native shrubs < 1 m (%)	0.0	0.0	0.2	0.0	0.0	
Native cover total (%) ³	49.4	4.0	34.6	32.0	34.0	
Derived low tree & shrub cover — estimate only						
Low tree (T3) ⁴	7.2	16.4	7.2	0.0	1.7	
Shrub	1.2	0.0	0.0	0.8	0.0	
Total derived tree & shrub cover (%)	8.4	16.4	7.2	0.8	1.7	
TOTAL cover (%)	57.8	20.4	41.8	32.8	35.7	37.7
CONDITION-CLASS ASSESSMENT						
High condition						
Ground cover > 10 native species	Y	Y	Y	Y	Y	Yes
> 20 large trees per ha	N	N	N	N	N	No
> 80% of perennial understorey cover is native	N	N	N	N	N	No
High condition class?	No	No	No	No	No	No
Good condition						
Ground cover > 6 native species	Y	Y	Y	Y	Y	Yes
> 10 large trees per ha	Y	Y	Y	Y	Y	Yes
> 50% of perennial understorey cover is native	Y	N	N	N	N	No
Good condition class?	Yes	No	No	No	No	
Moderate condition						
Ground cover richness > 4	Y	Y	Y	Y	Y	Yes
At least 6 very large trees / ha	N	N	N	N	N	No
≥ 30% total perennial veg cover is native	Y	N	Y	Y	Y	Yes
Moderate condition class?	Yes	No	Yes	Yes	Yes	
PATCH SIZE 4.12 ha = Large patch						
CLASS C2						
Large or contiguous patch, with moderate quality understorey and/or some very large native trees.						

¹ Analysis of very large trees from field data: 9 stems / 4.137 ha = 2.2 /ha.

² Analysis of large trees from field data: 44 stems / 4.137 ha = 10.6 /ha.

³ Native cover total excludes the low tree and shrub components referred to in the Conservation Advice (captured under 'Derived low tree & shrub cover').

⁴ Low tree (T3) only; T2 not counted, as the sub-canopy is considered part of the canopy as described by the TEC.

Values entered as percentages. Zeros denote measured absence. 'Dimensions to confirm' marks assessment areas flagged as provisional in the source.

Inset 5: Biocondition Assessment for Floodplain Forest TEC

5.2.2.1.1 Swamp Tea-tree TEC

As shown in **Figure 15**, confirmed Swamp Tea-tree TEC (RE 12.3.18) is identified in green off-site, and *Melaleuca irbyana* clusters on the eastern extent of the Site in orange. The Swamp Tea-tree TEC, reflective of RE 12.3.18, occurs to the north and east of the Site and lies wholly outside the Site boundary. The Proposed Action does not clear, disturb or otherwise interfere with this TEC.

The Swamp Tea-tree clusters mapped on the Site were assessed against the diagnostic criteria for RE 12.3.18 and do not meet them, for the reasons set out in **Section 5.1.1**. They therefore do not constitute the TEC. In any case, these clusters fall outside the Referral Area and are not affected by the Proposed Action.

5.2.3 Flora Matters Progressed to the Likelihood of Occurrence Assessment

While the Proposed Action will not impact the Floodplain Forest TEC, this community has been confirmed on the Site and therefore, carried forward in the LOO table (**Table 12**).

5.3 Fauna Habitat Assessment

5.3.1 General Fauna Values

This section assesses the Site's fauna habitat values and its potential to support MNES and MSES. The assessment draws on two desktop sources, interpreted against the habitats present on the Site: a WildNet search (**Attachment 14**) for the Site and surrounding 5 km, which identifies fauna species recorded in the locality, including species listed as MNES and/or MSES; and the PMST report (**Attachment 8**) for the same area, which identifies MNES with potential occurrence based on modelled distributions and habitat associations.

These sources serve different purposes. WildNet provides confirmed records of species from the locality and identifies fauna species listed under both Commonwealth and State legislation, whereas the PMST identifies MNES with potential, but not confirmed, occurrence where modelled distributions or habitat overlap the locality. Species returned by the PMST but not recorded in WildNet are therefore assessed against the suitability of Site habitats and the absence of confirmed local records.

The WildNet extract returned 213 native and introduced vertebrate taxa from the locality: 122 birds, 28 mammals, 24 reptiles, 21 amphibians and five fish, together with one butterfly. The dataset includes a number of fauna species listed as MNES and/or MSES under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Nature Conservation Act 1992* (NC Act). The PMST returned eight TECs, 53 listed threatened species and 13 listed migratory species modelled for the locality. The fauna species discussed below are grouped by habitat guild and assessed against the Site's key habitat features. A desktop record or modelled distribution does not confirm presence where suitable habitat is absent, and non-detection in a desktop search does not confirm absence.

Fauna habitat values identified across the Site are summarised below:

- The Site does not support natural waterways or wetlands; aquatic habitat is limited to a single farm dam of approximately 0.56 ha,
- Vegetation on the Site is a regenerating expression of RE 12.3.19, an Endangered RE associated with Grey Box and/or Queensland Blue Gum and Narrow-leaved Red Ironbark over a Swamp Tea-tree understorey on alluvial plains,
- The Site supports mature canopy trees, including Queensland Blue Gum, but does not contain a significant occurrence of hollows, and no large hollows were identified,
- The vegetation lacks substantial structural complexity, with limited development of ground litter and CWD,
- The Site retains habitat connectivity to vegetated areas to the north,
- RE 12.3.19 is recognised in the Regional Ecosystem Description Database as suitable Koala habitat, and Queensland Blue Gum is a primary Koala food tree (Youngentob, Marsh, & Skewes, 2021),
- The mature canopy, particularly Queensland Blue Gum, provides the Site's key fauna habitat value, including potential blossom resources for Swift Parrot and Grey-headed Flying Fox.

Koala and Grey-headed Flying-fox were identified during the surveys, and their locations are presented in **Figure 16**.

5.3.1.1 Amphibians

The WildNet search returned 21 amphibian taxa within 5 km of the Site (**Attachment 18**), including the introduced Cane Toad (*Rhinella marina*). One species, the Tusked Frog (*Adelotus brevis*), is listed as Vulnerable under the NC Act and is therefore an MSES. The remaining species are common and widespread taxa associated with farm dams, wetlands and modified rural landscapes. **Attachment 18** presents the full WildNet amphibian species list for the locality, while the 28 South Records column identifies species recorded during the field surveys.

The Site's capacity to support amphibians is primarily determined by its only aquatic feature, a 0.56 ha farm dam, as no natural waterways or wetlands occur on the Site.

The dam is most suitable for still-water breeding species typically associated with farm dams and vegetated pond margins. Common locality records indicate that tree frogs, marsh frogs, pobblebunks, rocketfrogs and other widespread species are likely to utilise the dam and its fringing vegetation. The dam margins and seasonally inundated grassy areas also provide suitable habitat for a range of ground-dwelling frog species.

The Tusked Frog breeds in still and slow-moving waters, including farm dams, and shelters beneath ground cover adjacent to water. The Site's dam provides potential breeding habitat for the species, and it is assessed as having a moderate LOO. As the only threatened amphibian recorded from the locality, it represents the principal amphibian MSES and is therefore carried forward to the LOO assessment.

Species associated with flowing water, rainforest habitats or moist litter-rich forest floors are less likely to occur due to the absence of waterways and the limited structural complexity of the Site's vegetation. Several locality records fall within this category and are considered unlikely or, at most, occasional dispersers through the Site.

The PMST identified one additional threatened amphibian, Fleay's Frog (*Mixophyes fleayi*), an MNES, as potentially occurring within the broader locality. However, Fleay's Frog is a specialist of rainforest streams and wet sclerophyll waterways. As the Site contains neither flowing-water nor rainforest habitat, and the species was not returned by the WildNet search, it is considered unlikely to occur.

In summary, the Site is likely to support a typical assemblage of common still-water and grassy-margin amphibian species associated with farm dams and modified rural landscapes. The Tusked Frog is the only threatened amphibian identified from locality records and is the only amphibian species progressed for further assessment (**Attachment 15**).

5.3.1.2 Reptiles

The WildNet search returned 24 reptile taxa from the locality (**Attachment 19**). All species are listed as Least Concern under the NC Act, and none are listed under the EPBC Act. Reptile use of the Site is largely influenced by the regenerating vegetation structure, limited leaf litter and CWD, and the absence of natural waterways. These conditions favour open-country and disturbance-tolerant species, while habitat suitability for litter-dependent and water-associated reptiles is more restricted.

The Site provides its greatest habitat value for reptiles associated with open grassland, pasture and woodland edge environments. Cleared and regenerating areas are likely to support Eastern Brown Snake (*Pseudonaja textilis*) and Yellow-faced Whipsnake (*Demansia psammophis*), both of which are commonly recorded in disturbed rural landscapes. Similar habitats are also suitable for Bearded Dragon (*Pogona barbata*), the most frequently recorded reptile in the locality, as well as Tommy Roundhead (*Diporiphora australis*) and Straight-browed Ctenotus (*Ctenotus spaldingi*).

The mature canopy elements within high-value regrowth RE 12.3.19 vegetation are likely to support arboreal and structure-associated reptiles, including Green Tree Snake (*Dendrelaphis punctulatus*), Carpet Python (*Morelia spilota*), Lace Monitor (*Varanus varius*) and Sand Monitor (*Varanus gouldii*). However, habitat value for hollow-dependent reptiles is limited by the relative scarcity of large hollow-bearing trees within the regenerating woodland.

Reptiles dependent on leaf litter, fallen timber and other ground-level refuge features are more constrained by current Site conditions. Species such as Three-clawed Worm-skink (*Anomalopus verreauxii*), White-crowned

Snake (*Cacophis harriettae*), Golden-crowned Snake (*Cacophis squamulosus*), Eastern Small-eyed Snake (*Cryptophis nigrescens*), Red-naped Snake (*Furina diadema*) and Bandy-bandy (*Vermicella annulata*) rely on litter accumulation, coarse woody debris or friable soils that are presently limited across much of the Site. These species are therefore considered to have a moderate LOO, with habitat suitability expected to improve as vegetation structure matures over time.

Aquatic and semi-aquatic reptiles are largely restricted to the Site dam and its associated margins. Species with a moderate LOO include Eastern Water Dragon (*Intellagama lesueurii*), Eastern Water Skink (*Eulamprus quoyii*), Freshwater Snake (*Tropidonophis mairii*) and Eastern Snake-necked Turtle (*Chelodina longicollis*). The occurrence of Red-bellied Black Snake (*Pseudechis porphyriacus*) within the locality is also consistent with the availability of amphibian prey associated with permanent standing water. Eastern Blue-tongue (*Tiliqua scincoides scincoides*) and Jacky Lizard (*Amphibolurus muricatus*) are also likely to utilise open and edge habitats throughout the Site.

The PMST identified four MNES reptile species that were not returned by the WildNet search: Grey Snake (*Hemiaspis damelii*), Collared Delma (*Delma torquata*), Dunmall's Snake (*Furina dunmalli*) and Three-toed Snake-tooth Skink (*Coeranoscincus reticulatus*). These species are associated with specialised habitats, including cracking-clay floodplains, rocky woodland, brigalow communities and moist forest with deep litter. As none of these habitat types occur within the Site, all four species are considered unlikely to occur.

In summary, the Site primarily supports open-country and disturbance-tolerant reptile species, while the occurrence of litter-dependent reptiles is limited by the relatively undeveloped ground layer and aquatic reptiles are largely confined to the dam. No threatened reptile species were identified in the WildNet search, and all four MNES reptile species identified by the PMST are considered unlikely to occur due to the absence of suitable habitat.

5.3.1.3 Fish

The WildNet search returned five fish taxa from the locality, including the introduced Mosquitofish (*Gambusia holbrooki*) and the Southern Purple-spotted Gudgeon (*Mogurnda adspersa*), which is listed as Endangered under the NCA and is an MSES. Other recorded species include Firetail Gudgeon (*Hypseleotris galii*), Empire Gudgeon (*Hypseleotris compressa*) and an unidentified Eel (*Anguilla* sp.).

The Site contains no natural waterways or wetlands, with aquatic habitat limited to a single 0.56 ha farm dam that is unconnected to the broader drainage network. As a result, habitat suitability for stream-associated fish is very low. The Southern Purple-spotted Gudgeon, which depends on vegetated, connected freshwater habitats, is considered unlikely to occur. The dam is more likely to support hardy disturbance-tolerant species such as Mosquitofish.

The PMST identified the Mary River Cod (*Maccullochella mariensis*), listed as Endangered under the EPBC Act. This species is native to the Mary River catchment, and any local occurrence is likely associated with stocked impoundments elsewhere in the locality. The Site's isolated farm dam does not provide suitable habitat, and the species is considered unlikely to occur.

5.3.1.4 Birds

The WildNet database search returned 122 bird taxa within 5 km of the Site, ranked in **Attachment 20** by the number of locality records. An additional four species were recorded during the 28 South field surveys but were not returned by the WildNet search; these are included at the end of the list and identified by a dash in the WildNet Records column. Most species are common and widespread taxa listed as Least Concern under the NC Act. Four threatened birds were identified: the Powerful Owl, which is an MSES, and the White-throated Needletail, South-eastern Glossy Black-cockatoo, and Swift Parrot, all of which are dually-listed MNES and MSES under the EPBC Act. **Attachment 20** presents the full WildNet species list, while the 28 South Records column identifies species recorded during the field surveys.

Open-country and grassland birds are supported by the cleared paddocks and grassy areas across the Site. Species likely to utilise these habitats include Golden-headed Cisticola (*Cisticola exilis*), Tawny Grassbird (*Cincloramphus timoriensis*), Brown Quail (*Synoicus ypsilophorus*) and Pheasant Coucal (*Centropus phasianinus*). Seeding grasses and shrubby woodland margins provide foraging habitat for Double-barred Finch (*Taeniopygia*

bichenovii), Red-browed Finch (*Neochmia temporalis*) and Chestnut-breasted Mannikin (*Lonchura castaneothorax*). The open landscape is also favourable for raptors, with Black-shouldered Kite (*Elanus axillaris*), Collared Sparrowhawk (*Accipiter cirrocephalus*), Wedge-tailed Eagle (*Aquila audax*), Brown Falcon (*Falco berigora*) and Nankeen Kestrel (*Falco cenchroides*) likely to forage across grassland and pasture habitats.

Woodland and forest birds are primarily associated with the mature canopy of the RE 12.3.19 vegetation, which represents the Site's principal treed habitat. This assemblage includes insectivorous species such as Golden Whistler (*Pachycephala pectoralis*), Rufous Whistler (*Pachycephala rufiventris*), Grey Shrike-thrush (*Colluricincla harmonica*), Grey Fantail (*Rhipidura albiscapa*), Spotted Pardalote (*Pardalotus punctatus*), Striated Pardalote (*Pardalotus striatus*) and White-throated Treecreeper (*Cormobates leucophaea*), together with Black-faced Cuckoo-shrike (*Coracina novaehollandiae*), Eastern Yellow Robin (*Eopsaltria australis*) and Australian Brush-turkey (*Alectura lathamii*). Habitat quality for hollow-dependent woodland birds is constrained by the regenerating nature of the woodland and the limited availability of large hollow-bearing trees.

Flowering eucalypts and other native trees provide seasonal nectar resources for a variety of honeyeaters and parrots, including Lewin's Honeyeater (*Meliphaga lewinii*), Brown Honeyeater (*Lichmera indistincta*), White-throated Honeyeater (*Melithreptus albogularis*), Scarlet Honeyeater (*Myzomela sanguinolenta*), Yellow-faced Honeyeater (*Caligavis chrysops*), Blue-faced Honeyeater (*Entomyzon cyanotis*), Rainbow Lorikeet (*Trichoglossus moluccanus*), Scaly-breasted Lorikeet (*Trichoglossus chlorolepidotus*), Little Lorikeet (*Parvipsitta pusilla*), Galah (*Eolophus roseicapilla*), Sulphur-crested Cockatoo (*Cacatua galerita*) and Pale-headed Rosella (*Platycercus adscitus*).

The Site also supports a range of common disturbance-tolerant species characteristic of modified rural environments, including Noisy Miner (*Manorina melanocephala*), Noisy Friarbird (*Philemon corniculatus*), Australian Magpie (*Gymnorhina tibicen*), Pied Butcherbird (*Cracticus nigrogularis*), Grey Butcherbird (*Cracticus torquatus*), Pied Currawong (*Strepera graculina*), Torresian Crow (*Corvus orru*) and Magpie-lark (*Grallina cyanoleuca*). The abundance of Noisy Miner within the locality is likely to reduce the diversity and abundance of smaller woodland insectivores, which are represented by a relatively limited suite of species including Superb Fairy-wren (*Malurus cyaneus*), Variegated Fairy-wren (*Malurus lamberti*), Silvereye (*Zosterops lateralis*) and Willie Wagtail (*Rhipidura leucophrys*).

The Powerful Owl is the only threatened woodland bird identified from the locality that may utilise habitat within the broader area. However, the Site contains few large hollow-bearing trees suitable for nesting and supports only limited areas of mature forest, reducing its value as breeding habitat. The species may occasionally forage within the Site, but it is unlikely to rely on the area for any significant component of its life cycle.

The PMST identified two threatened MNES bird species within the locality that were not considered likely to regularly utilise the Site. The South-eastern Glossy Black-cockatoo is dependent on extensive stands of *Allocasuarina* species for foraging and requires suitable large hollows for nesting. These resources are absent or highly limited within the Site, and the species is therefore considered unlikely to occur. The White-throated Needletail is a highly mobile aerial migrant that forages almost exclusively on the wing and may occasionally pass over the Site during migration, but no important habitat is present.

In summary, the bird assemblage is typical of a modified rural landscape and is dominated by widespread species associated with open habitats, woodland edges and farm dams. Habitat values are highest for common woodland, grassland and edge-dwelling species, while specialised hollow-dependent and threatened birds are limited by the lack of mature forest features. The Site is not considered to provide important habitat for threatened bird species, with the Powerful Owl potentially occurring only as an occasional forager and both the South-eastern Glossy Black-cockatoo and White-throated Needletail considered unlikely to regularly utilise the Site.

5.3.1.4.1 Migratory Species

The PMST identified 13 listed migratory species within the locality. Assessment of migratory species is based on whether the Site provides important habitat, as defined under the MNES SIG, and whether a Proposed Action is likely to substantially modify, destroy or isolate that habitat, introduce harmful invasive species, or significantly disrupt the lifecycle of an ecologically significant proportion of a population.

The migratory assemblage is dominated by wetland and shorebird species, including Common Sandpiper (*Actitis hypoleucos*), Curlew Sandpiper (*Calidris ferruginea*), Sharp-tailed Sandpiper (*Calidris acuminata*), Pectoral Sandpiper (*Calidris melanotos*), Greater Sand Plover (*Charadrius leschenaultii*), Eastern Curlew (*Numenius madagascariensis*), Common Greenshank (*Tringa nebularia*), Latham's Snipe (*Gallinago hardwickii*) and Osprey (*Pandion haliaetus*). These species depend on intertidal flats, estuaries, coastal habitats or substantial freshwater wetlands, none of which occur within the Site. Consequently, the Site does not provide important habitat for these species.

The remaining migratory species comprise highly mobile aerial or terrestrial migrants, including Fork-tailed Swift (*Apus pacificus*), White-throated Needletail (*Hirundapus caudacutus*), Oriental Cuckoo (*Cuculus optatus*) and Yellow Wagtail (*Motacilla flava*). These species do not rely on habitat features present within the Site and, if present, would most likely occur as infrequent transient visitors moving through the broader landscape.

Accordingly, the Site is not considered to support important habitat for any listed migratory species, and the proposed action is unlikely to significantly disrupt the lifecycle of an ecologically significant proportion of any migratory species population. Of the migratory species identified, only Latham's Snipe and White-throated Needletail are supported by WildNet locality records. Both species are considered occasional visitors with a low likelihood of regular utilisation of the Site and are therefore unlikely to be significantly impacted by the proposed action. These are further discussed in **Section 5.3.2.1** below.

5.3.1.5 Mammals

The WildNet database search returned 28 mammal taxa from the locality (**Attachment 21**). The assemblage is typical of a modified rural landscape and is dominated by grazing macropods, common arboreal marsupials and a range of established introduced species. Six threatened mammals were identified separately, with the Koala representing the key conservation matter for the Site. **Attachment 21** presents the full WildNet species list and identifies where the species were recorded during the field survey.

Open and grassy areas provide suitable habitat for several macropod species, including Eastern Grey Kangaroo (*Macropus giganteus*), Red-necked Wallaby (*Notamacropus rufogriseus*), Swamp Wallaby (*Wallabia bicolor*) and Agile Wallaby (*Notamacropus agilis*). These species are likely to utilise the Site for foraging and shelter, particularly along woodland edges and within adjacent vegetated areas.

The RE 12.3.19 vegetation provides habitat for arboreal mammals, including Common Brushtail Possum (*Trichosurus vulpecula*), Common Ringtail Possum (*Pseudocheirus peregrinus*), Sugar Glider (*Petaurus breviceps*) and Squirrel Glider (*Petaurus norfolcensis*), all of which are considered likely to occur. However, the habitat value of the regenerating woodland is constrained by the limited availability of large tree hollows. While smaller arboreal mammals can utilise available denning sites and canopy resources, larger hollow-dependent species are likely to be restricted. The Brush-tailed Phascogale (*Phascogale tapoatafa tapoatafa*), which relies on hollows and structurally complex forest habitat, is therefore considered to have a low LOO.

The Short-beaked Echidna (*Tachyglossus aculeatus*), listed as Special Least Concern under the NC Act and therefore an MSES, is a widespread species likely to forage throughout both open and wooded areas of the Site. The Northern Brown Bandicoot (*Isodon macrourus*) is also considered likely to occur, although habitat suitability is somewhat reduced by the limited development of dense ground-layer vegetation.

Consistent with the modified character of the locality, several introduced mammal species have been recorded, including Red Fox (*Vulpes vulpes*), European Brown Hare (*Lepus europaeus*), Feral Cat (*Felis catus*), Rabbit (*Oryctolagus cuniculus*), House Mouse (*Mus musculus*), Black Rat (*Rattus rattus*) and Brown Rat (*Rattus norvegicus*). In particular, Red Fox and Feral Cat are likely to continue exerting predation pressure on native mammals, birds and reptiles across the locality.

In summary, the mammal assemblage is typical of a modified rural landscape and is dominated by grazing macropods, common arboreal mammals and introduced species. Habitat values are highest for widespread generalist species capable of utilising open pasture and regenerating woodland habitats. Of the threatened mammals identified separately, the Koala represents the principal species of relevance to the Site.

A complete list of all fauna species recorded during the survey is presented in **Attachment 22**.

5.3.2 Threatened Fauna Habitat

5.3.2.1 Birds

Desktop searches identified four threatened bird species from the locality, comprising White-throated Needletail, South-Eastern Glossy Black-cockatoo, Latham's Snipe and Powerful Owl. The PMST also identified a number of additional threatened and migratory bird species. Overall, the Site provides limited threatened bird habitat, with suitability largely restricted to occasional foraging opportunities rather than supporting resident populations or breeding activity.

5.3.2.1.1 White-throated Needletail

The White-throated Needletail is a highly mobile migratory species that forages exclusively on aerial insects while in flight. As the species does not rely on terrestrial habitat features and does not breed in Australia, the Site provides no essential habitat requirements beyond potential airspace for occasional foraging. The species is considered a possible seasonal overflight visitor only. This species is discussed further in the LOO assessment in **Table 12**.

5.3.2.1.2 South-eastern Glossy Black-cockatoo

The South-Eastern Glossy Black-cockatoo is dependent on She-oak (*Allocasuarina* and *Casuarina* spp.) feed trees and large nesting hollows. The RE 12.3.19 vegetation present on the Site is a Eucalypt-Melaleuca community and does not contain significant she-oak resources and lacks the large hollows required for nesting. Accordingly, suitable habitat is absent, and the species is considered unlikely to occur. However, given its conservation status, it is carried forward to the LOO assessment (**Table 12**) as a precautionary measure.

5.3.2.1.3 Latham's Snipe

Latham's Snipe is a non-breeding austral-summer migrant that occupies shallow, vegetated freshwater wetlands, feeding on exposed or shallowly covered mud with nearby low, dense cover, and roosting by day in wet tussock grassland and dense ground vegetation near water. The Site offers no wetland and no exposed muddy feeding substrate; the margins of the single dam, where vegetated, could provide marginal and intermittent roosting cover when water is held, but the defining foraging requirement — soft, probeable mud at shallow water — is not present. With a single, dated locality record (1984) and only marginal habitat, the species is assessed as no more than a low likelihood, possible on a transient basis at the dam margin. It is carried forward to the LOO assessment in **Table 12** for completeness as a Migratory species.

5.3.2.1.4 Swift Parrot

The Swift Parrot is a migratory species that breeds in Tasmania before dispersing to mainland Australia during autumn and winter, where it forages primarily on the nectar of flowering eucalypts. South East Queensland represents the northern limit of its winter range and is occupied only intermittently, as birds track highly variable flowering resources. Mature Queensland Blue Gum within the RE 12.3.19 canopy are a preferred foraging species in the region, and the Site's flowering canopy therefore provides a genuine, albeit limited and seasonal, foraging resource (**Figure 17**). However, given the species' highly nomadic behaviour, the absence of local records, and the fragmented extent of suitable habitat on and around the Site, the Swift Parrot is considered a possible but very infrequent winter visitor rather than a regular user of the area. Nevertheless, owing to its Critically Endangered status under the EPBC Act, the species has been included in LOO assessment (**Table 12**).

5.3.2.1.5 Powerful Owl

The Powerful Owl requires large hollows for nesting and a supply of arboreal-mammal prey. The regenerating RE 12.3.19 vegetation lacks hollows of the size the species needs for breeding, so the Site offers, at most, foraging habitat for a wide-ranging individual hunting the locality's possums and gliders. It is accordingly considered a possible occasional forager only, with no breeding habitat present, and is the principal threatened bird MSES carried forward for consideration.

5.3.2.1.6 Other Threatened Birds

The PMST identified several additional threatened bird species that were not returned by the WildNet search.

The Regent Honeyeater (*Anthochaera phrygia*) is considered highly unlikely due to its very limited contemporary distribution, absence from the locality and rarity in South East Queensland.

A second group comprises wetland-dependent species including Australasian Bittern (*Botaurus poiciloptilus*), Australian Painted Snipe (*Rostratula australis*), Common Greenshank, Curlew Sandpiper, Sharp-Tailed Sandpiper, Greater Sand Plover and Eastern Curlew. These species rely on extensive wetlands, estuaries or intertidal habitats that are absent from the Site. Consequently, all are considered unlikely to occur.

The PMST also identified woodland and forest species including Black-Breasted Button-quail (*Turnix melanogaster*), Brown Treecreeper (*Climacteris picumnus victoriae*), Painted Honeyeater (*Grantiella picta*), Diamond Firetail (*Stagonopleura guttata*), Squatter Pigeon (*Geophaps scripta scripta*), Coxen's Fig-parrot (*Cyclopsitta diophthalma coxeni*), Red Goshawk (*Erythrotriorchis radiatus*) and Grey Falcon (*Falco hypoleucos*). The Site lacks the dense rainforest, high-quality woodland, extensive forest or specialised habitat required by these species. None were returned by the WildNet search and all are considered unlikely to occur, although rare overflight by Red Goshawk cannot be entirely discounted.

5.3.2.2 Mammals

Six threatened mammal species were identified from the locality through the WildNet search, including Koala, Southern Greater Glider (*Petauroides volans volans*), Spotted-tailed Quoll (*Dasyurus maculatus maculatus*), Yellow-bellied Glider (*Petaurus australis australis*), Grey-headed Flying-fox and Short-Beaked Echidna. Additional species were identified through the PMST. Of these, the Koala is the principal threatened fauna value associated with the Site.

5.3.2.2.1 Koala

The Koala represents the most significant fauna value of the Site. WildNet records (**Attachment 14**) confirm a substantial and ongoing local population, with approximately 300 recent records occurring within the surrounding landscape. This is consistent with the Site's location at North Maclean, within a landscape of recognised koala significance. The Site supports vegetation representative of RE 12.3.19, which is recognised koala habitat and contains key feed tree species including Queensland Blue Gum, Grey Box and Narrow-leaved Ironbark. The Site also maintains connectivity with adjoining vegetation, supporting local movement and habitat utilisation. Koalas were additionally confirmed on the Site during camera trapping surveys (**Figure 16**).

To further assess habitat utilisation, SAT surveys were undertaken at each of the BioCondition plots shown on **Figure 9**. SAT surveys recorded koala scats beneath eucalypts greater than 100 mm DBH and greater than 4 m in height, with a target of 30 trees assessed per plot where available. Where fewer than 30 suitable Koala Habitat Trees were present, all available trees were assessed. Fresh scat records were recorded separately as evidence of recent occupancy. Results of the SAT assessment are presented in **Table 10** and **Attachment 17**.

SAT surveys demonstrated that the highest levels of koala utilisation were concentrated within Community 1 (RE 12.3.19), which lies outside the Referral Area and is retained by the Proposed Action. Two fresh scat records were identified at BC01, confirming recent koala activity. Utilisation was strongly associated with Queensland Blue Gum, with additional records from Grey Box and Grey Ironbark. These results support field observations and camera trap records, demonstrating that koala activity is concentrated within the higher-quality eastern vegetation that is retained outside the Referral Area.

Table 10: Spot Assessment Technique (SAT) Results and Koala Habitat Tree Utilisation

SAT Site	Trees Assessed	Trees with Scats	Fresh Scat Records	SAT Score (%)	Koala Habitat Tree Species with Scat Records
BC01	30	9	2	30.0	<i>Eucalyptus tereticornis</i> (7 trees), <i>Eucalyptus moluccana</i> (2 trees)
BC02	30	3	0	10.0	<i>Eucalyptus moluccana</i> (2 trees), <i>Eucalyptus tereticornis</i> (1 tree)
BC03	30	7	0	23.3	<i>Eucalyptus tereticornis</i> (4 trees), <i>Eucalyptus moluccana</i> (2 trees), <i>Eucalyptus siderophloia</i> (1 tree)
BC04	30	1	0	3.3	<i>Eucalyptus tereticornis</i> (1 tree)
BC05	30	8	0	26.7	<i>Eucalyptus tereticornis</i> (6 trees), <i>Eucalyptus siderophloia</i> (2 trees)
BC06	14	0	0	0.0	Nil
BC07	7	1	0	14.3	<i>Eucalyptus tereticornis</i> (1 tree; 2 scats recorded)
BC08	23	0	0	0.0	Nil
BC09	16	1	0	6.3	<i>Eucalyptus tereticornis</i> (1 tree)
BC10	1	0	0	0.0	Nil
BC11	0	0	0	N/A	No suitable Koala Habitat Trees present for SAT assessment
Total	211	30	2	14.2	Predominantly <i>Eucalyptus tereticornis</i> , with secondary use of <i>Eucalyptus moluccana</i> and limited use of <i>Eucalyptus siderophloia</i> .

The Koala is considered a known occurrence and the principal threatened species associated with the Site. This species is discussed further in the LOO assessment in **Table 12** and **Attachment 15**.

5.3.2.2.2 Grey-headed Flying-fox

The Grey-headed Flying-fox is a highly mobile, blossom- and fruit-dependent nectarivore. The species is known to occur within the area, and the Site's RE 12.3.19 provides suitable foraging habitat for the species. Queensland Blue Gum is a winter-flowering species (DAWE, 2021), and its canopy provides seasonal foraging resources for the Grey-headed Flying-fox (**Figure 17**). While the Site does not support a roost camp, the Site is within the foraging distance for the species in the locality, and presence of the species on Site cannot be discounted.

Grey-headed Flying-fox was confirmed during field surveys (**Figure 16**). This species is discussed further in the LOO assessment in **Table 12**.

5.3.2.2.3 Southern Greater Glider

The Southern Greater Glider is an obligate folivore of taller eucalypt forest that dens in large tree hollows and is highly sensitive to their loss and to fragmentation. The single, dated locality record (a 1994 specimen) reflects the

species' former or peripheral occurrence rather than a current population about the Site. Decisively, the regenerating RE 12.3.19 vegetation lacks the large hollows the species requires for denning. Most denning hollows for the species are usually formed in trees at least a century old (DCCEEW, 2022). The species is known to have low persistence in fragmented landscapes. The Greater Glider is accordingly considered unlikely to occur.

However, given its conservation status, it is carried forward to the LOO assessment (**Table 12**) as a precautionary measure.

5.3.2.2.4 Other Threatened Mammals

The remaining threatened mammals recorded in the locality are considered unlikely to occur due to limited habitat suitability. The Yellow-bellied Glider requires extensive forest with hollow-bearing den trees and feeding resources, while the Spotted-tailed Quoll depends on large areas of structurally intact forest. The Site does not provide habitat of sufficient scale or quality for either species.

The Platypus (*Ornithorhynchus anatinus*), an MSES, requires permanent connected waterways for foraging and burrowing. The Site contains only a small isolated farm dam and is therefore considered unsuitable.

The PMST also identified the Large-Eared Pied Bat (*Chalinolobus dwyeri*), Long-Nosed Potoroo (*Potorous tridactylus tridactylus*) and New Holland Mouse (*Pseudomys novaehollandiae*). These species require specialised habitats, including caves or rocky roosts, dense litter-rich forest understorey, or heath and heathy woodland with dense ground cover, none of which are present on the Site. Accordingly, all are considered unlikely to occur.

In summary, the Koala is the primary threatened mammal and principal species associated with the Site, supported by extensive locality records, recognised koala habitat within RE 12.3.19 vegetation and the presence of preferred feed trees. The Grey-headed Flying-fox is also known to utilise the Site seasonally for foraging in flowering eucalypts.

The Southern Greater Glider, Yellow-bellied Glider, Spotted-tailed Quoll, Platypus, Large-eared Pied Bat, Long-nosed Potoroo and New Holland Mouse are considered unlikely due to the absence of large hollows, extensive forest habitat, permanent waterways, suitable roosting sites or dense ground-layer vegetation.

5.3.3 Acoustic Survey Results

Acoustic recordings collected during the survey were processed using species-specific classifiers developed in Kaleidoscope Pro to identify potential detections of the target fauna species (**Table 11**). All automated detections were subsequently reviewed manually to verify species identification and reduce the likelihood of false positives.

5.3.3.1 Swift Parrot

Automated searches were conducted using the Swift Parrot classifier across the full acoustic dataset. However, results were inconclusive. A number of candidate detections exhibited acoustic characteristics similar to Swift Parrot calls, but vocalisations could not be reliably distinguished from those of Rainbow Lorikeets (*Trichoglossus moluccanus*), which produce calls within a similar frequency range and acoustic structure. Consequently, no confirmed Swift Parrot detections were obtained from the acoustic survey, and the presence of the species at the site could not be verified using acoustic methods alone.

5.3.3.2 Powerful Owl

The Powerful Owl classifier identified multiple candidate detections that were subsequently reviewed; however, none were confirmed as Powerful Owl. While this does not preclude the species from utilising the Site, it indicates that no evidence of its presence was detected during the survey period. Consequently, no confirmed Powerful Owl detections were obtained from the acoustic survey, and the presence of the species at the Site could not be verified using acoustic methods alone.

5.3.3.3 *Yellow-bellied Glider*

Development of an effective Yellow-bellied Glider classifier proved challenging due to insufficient reference recordings available for training and validation. As a result, a robust classifier could not be developed to a standard suitable for reliable deployment across the dataset. Consequently, acoustic survey results for Yellow-bellied Glider were considered inconclusive, and the species could not be confidently detected or ruled out based on the available recordings.

5.3.3.4 *Grey-headed Flying-fox*

The Grey-headed Flying-fox classifier identified multiple candidate detections, which were subsequently reviewed and confirmed as Grey-headed Flying-fox. These detections verify that the species utilised the site during the survey period, likely for commuting and/or foraging. Consequently, the acoustic survey confirmed the presence of Grey-headed Flying-fox within the Site, indicating that the Site provides habitat resources suitable for use by the species.

Table 11: Summary of Target Species Detection

Species	Acoustic Survey Result
Swift Parrot	Inconclusive; candidate detections could not be reliably separated from Rainbow Lorikeet calls
Powerful Owl	Not recorded
Koala	Not recorded
Yellow-bellied Glider	Not recorded
Grey-headed Flying-fox	Recorded – Present on site and confirmed with both acoustic capture and in-person observations.

5.3.4 Fauna Matters Progressed to the Likelihood of Occurrence Assessment

Based on the assessment above, a limited number of fauna values warrant further consideration in the LOO assessment due to the presence of suitable habitat, confirmed locality records, or their conservation significance.

Dually listed MNES-MSES values progressed for further assessment comprise the Koala, which is a known occurrence and the principal species associated with the Site, and the Grey-headed Flying-fox, which is considered a likely seasonal forager utilising flowering eucalypts within the Site. The Swift Parrot has also been retained due to the potential for occasional winter foraging within flowering Queensland Blue Gum habitat and its Critically Endangered status.

The MSES values progressed for further assessment comprise the Powerful Owl, which is supported by locality records and the presence of potentially suitable foraging habitat within the Site.

As a precautionary measure, the Southern Greater Glider, South-eastern Glossy Black-cockatoo, Latham's Snipe and White-throated Needletail have also been progressed despite their low LOO. All remaining threatened species identified through the PMST and WildNet searches are considered unlikely to occur due to the absence of suitable habitat and/or a lack of confirmed locality records.

For species confirmed within the locality and supported by suitable habitat, namely the Koala, Grey-headed Flying-fox and Powerful Owl, the LOO assessment (**Table 12**) further evaluates habitat quality, availability and landscape connectivity. For species retained on a precautionary basis, the assessment considers locality records, habitat attributes present on the Site, connections to adjoining vegetation, and the extent to which the Site may contribute to foraging, dispersal, ecological connectivity or other relevant ecological functions.

5.4 Landscape Connectivity

At the regional scale, the Site lies outside the biodiversity-related designations that structure connectivity across the locality. It carries no SEQ regional biodiversity corridor, regionally significant greenspace or regional biodiversity value designation under ShapingSEQ 2023; those designations instead form a continuous band to the north and east of the Site, from which it is separated by the intervening cleared and developed land of the North Maclean enterprise area (**Attachment 5**). The only connectivity-related feature attaching to the Site is the indicative future biodiversity corridor mapped along its eastern part under the North Maclean Context Plan (**Attachment 7**).

Table 12: Likelihood of Occurrence (Shortlist)

Matter	Legislative Status		Habitat (foraging and resting) preferences, breeding/nesting and seasonal influences	Distribution and local records	Likelihood of occurrence
	EPBC Act	NC Act			
MNES Threatened Ecological Communities					
Subtropical Eucalypt Floodplain Forest and Woodland of the NSW North Coast and SEQ Bioregions (Floodplain Forest TEC)	E	–	The Floodplain Forest TEC comprises eucalypt forest and woodland of coastal and subcoastal floodplains, alluvial flats and associated drainage lines, characteristically dominated by Queensland Blue Gum with associated floodplain eucalypts over a grassy to sparse-shrub ground layer (DCCEEW, 2022a). The community is an alluvial, flood-dependent system: its structure and floristics are maintained by periodic overbank flooding that recharges soil moisture and deposits fine alluvium, and it occupies the level to gently undulating soils of valley floors rather than the surrounding slopes. The diagnostic and condition thresholds for the community — canopy composition, the extent and intactness of native ground cover, patch size and the presence of large trees — are set out in the approved conservation advice (DCCEEW, 2022a) and determine whether a given stand qualifies as the listed community.	The community occurs on the floodplains of the NSW North Coast and South East Queensland bioregions, where it has been extensively cleared and fragmented for agriculture and urban development, so that surviving remnants are typically small, linear and embedded in cleared land. At the Site the community corresponds to mapped RE 12.3.19 (<i>Eucalyptus moluccana</i> and/or <i>Eucalyptus tereticornis</i> and <i>E. crebra</i> open forest to woodland, with a sparse to mid-dense understorey of <i>Melaleuca irbyana</i> on alluvial plains), and eucalypt floodplain forest and woodland consistent with the TEC has been confirmed on the Site's alluvial flat during the Site assessment (Section 5.2.2.1). Its presence is therefore established by direct observation rather than inferred from desktop mapping alone.	Known (recorded) Eucalypt floodplain forest consistent with the TEC (RE 12.3.19), dominated by Queensland Blue Gum, occurs on the Site's alluvial flat and has been confirmed during the Site assessment. The community is treated as present. Impacts to the TEC are discussed further in Section 7.1.2 below.
MNES Threatened Fauna Species — Birds					
South-eastern Glossy Black-cockatoo (<i>Calyptorhynchus lathami lathami</i>)	V	V	The South-eastern Glossy Black-cockatoo is a highly specialised feeder that depends almost exclusively on the seed of she-oaks (<i>Allocasuarina</i> and <i>Casuarina</i> spp.) and is an obligate hollow-nester requiring large hollows in mature eucalypts (DCCEEW, 2022b). It occupies a mosaic of she-oak feeding habitat and hollow-bearing forest, and its occurrence at any site is governed by the co-occurrence of these two resources — a productive she-oak feed resource within foraging range of suitable nest hollows. The subspecies forages selectively, returning to particular productive she-oak stands, and the limited availability of both feed trees and large nest hollows makes it sensitive to the loss of either resource.	The subspecies is recorded in the locality: the WildNet searches return 13 records within 15 km of the Site and a single record within 5 km (most recent 2010) (Section 3.3.2), and the PMST identifies the subspecies or its habitat as likely to occur. The local records relate principally to the better-forested country of the surrounding district, where she-oak feeding habitat and hollow-bearing trees occur together, rather than to cleared and modified land.	Unlikely The species is recorded within the locality; however, habitat suitability is principally determined by the presence of <i>Allocasuarina</i> and <i>Casuarina</i> feed trees and suitable nesting hollows (Figure 21 and Attachment 23). No she-oak feed trees, chewed cones (orts) or evidence of foraging activity were identified during surveys. The species was not recorded and is considered unlikely to occur. No impacts to the species are expected.
White-throated Needletail (<i>Hirundapus caudacutus</i>)	V	V	The white-throated needletail is a non-breeding austral-summer migrant from north-east Asia that is almost wholly aerial while in Australia. It forages on the wing for flying insects high in the airspace over a very wide range of habitats, frequently in association with weather fronts and rising air, and only rarely descends to or interacts with the ground or vegetation (TSSC, 2019). The species does not breed in Australia and depends on no particular terrestrial habitat feature while present, roosting in trees but ranging widely in response to insect availability and weather.	The species is widespread over eastern and south-eastern Australia in the austral summer. It is recorded over the locality: the WildNet searches return 20 records within 15 km of the Site and a single record within 5 km (most recent 2012) (Section 3.3.2), and the PMST identifies the species or its habitat as likely to occur. These records reflect aerial passage over the landscape rather than site-based occupation.	Possible (overflying forager only) Supported by locality records within 5 km of the Site. The species is a highly mobile aerial migrant that does not depend on specific habitat features present on the Site and may occur only as an occasional transient visitor. It was not recorded during surveys. The Site does not provide important habitat and no impacts to the species are expected.
Swift Parrot (<i>Lathamus discolor</i>)	CE	E	The swift parrot breeds only in Tasmania in spring and summer, and the entire population then crosses Bass Strait to overwinter on the south-eastern Australian mainland, dispersing through Victoria and New South Wales and, at the northern extremity of its range, into southern Queensland (Saunders & Tzaros, 2011; DCCEEW, 2024) On the mainland it is a nectarivore that tracks flowering eucalypts, with a strong preference for box, ironbark and Queensland Blue Gum, and it forages preferentially in large, mature trees, which provide more reliable nectar than younger trees (Saunders & Tzaros, 2011). Because the species is nomadic and follows blossom, its presence in any locality and year is highly variable, and it may be absent from apparently suitable habitat for years before reappearing during a favourable flowering event.	South East Queensland represents the northern extremity of the winter range, reached only irregularly and in small numbers; occurrence is strongly governed by nectar availability further south (Saunders & Tzaros, 2011). At the Site the WildNet searches return two records within 5–15 km (most recent 2004) and none within 5 km (Section 3.3.2), and the PMST identifies the species or its habitat as likely to occur. This sparse and dated local record set is consistent with the species' irregular, infrequent occurrence at the far margin of its winter range.	Possible (but very rare) No locality records were identified within 5 km of the Site; however, the species may occasionally forage within flowering Queensland Blue Gum woodland during winter. The species was not recorded during surveys. Given the presence of potential foraging resources and the species' Critically Endangered status, this species is discussed further in Section 7.1.4.
MNES Threatened Fauna Species — Mammals					
Southern Greater Glider (<i>Petauroides volans</i>)	E	E	The conservation advice for the Greater Glider identifies that it reaches its highest abundance in taller, montane, moist eucalypt forest on fertile soils with relatively old trees and abundant hollows, but that it also occurs in drier habitats in south-eastern Queensland (DCCEEW, 2022). It is a strictly arboreal, hollow-dependent folivore: individuals require several large tree hollows for denning and a continuous canopy for gliding,	In South East Queensland the Southern Greater Glide depends on large, hollow-bearing trees and is generally associated with more extensive, structurally mature and well-connected forest. The locality supports a substantial and reasonably recent record set: the WildNet searches return 28 records within 15 km of the Site (most recent 2020) and a single record within 5 km (1994) (Section 3.3.2), and the PMST	Unlikely The Southern Greater Glider, listed as Endangered under the EPBC Act, was progressed from the desktop assessment on a precautionary basis due to its conservation status. However, the species was not detected during targeted

Matter	Legislative Status		Habitat (foraging and resting) preferences, breeding/nesting and seasonal influences	Distribution and local records	Likelihood of occurrence
	EPBC Act	NC Act			
			and the species is highly sensitive to the loss of hollow-bearing trees and to canopy disturbance. Most hollow-bearing trees used for denning are at least a century old, so the availability of large, old hollow-bearing trees is the principal determinant of habitat suitability.	identifies the species or its habitat as likely to occur. The records indicate an established local presence in the surrounding forested country.	surveys, including a climbing-arborist assessment of hollow-bearing trees and nocturnal spotlighting within the Queensland Blue Gum vegetation. The residual impact on the Southern Greater Glider is considered negligible. Vegetation proposed for clearing comprises predominantly post-1970s regrowth (Community 2) that lacks the abundance of large hollows and structurally complex forest characteristics typically required by the species for denning and shelter (Figure 21 and Attachment 23). The Site does not provide high-quality habitat consistent with that occupied by the species elsewhere in the region. Suitable habitat for the Southern Greater Glider is more likely to occur within larger and more intact forested areas of the surrounding landscape, which will not be affected by the Proposed Action.
Yellow-bellied Glider (south-eastern) (<i>Petaurus australis australis</i>)	V	V	The Yellow-bellied Glider is a wide-ranging, sap- and nectar-feeding glider of tall, productive mature eucalypt forest, requiring large hollows for denning and a connected canopy for movement (DAWE, 2022). It occupies large home ranges and depends on characteristic sap-feeding incisions cut into particular 'sap trees', and like other hollow-dependent gliders it is sensitive to the loss of large old trees and to canopy fragmentation.	The WildNet searches return 6 records within 15 km of the Site (most recent 2015) and a single record within 5 km (2005) (Section 3.3.2), and the PMST identifies the species or its habitat as likely to occur. The records indicate a sparse but extant local presence in the surrounding forest.	Unlikely Habitat suitability is limited by the absence of extensive mature forest supporting denning hollows and reliable feed-tree resources (Figure 21 and Attachment 23). The species was not recorded during field surveys and no evidence of feeding or occupancy was observed. The species is considered unlikely to occur and no impacts to the species are expected.
Koala (<i>Phascolarctos cinereus</i>)	E	E	Within South East Queensland the Koala occupies the moist coastal forests and adjacent eucalypt woodlands of the region, which the EPBC Act conservation advice identifies as one of Queensland's strongholds (DAWE, 2022). An individual koala requires access to sufficient food and shelter trees to meet its daily energetic and reproductive needs, together with a safe intervening ground matrix for movement between trees and patches. Although koalas use many tree species, primary food trees in SEQ are a narrow set in which Queensland Blue Gum — often along watercourses and alluvial flats — is a strong driver of habitat quality (DES 2023; Youngentob et al. 2021). Koalas do not build nests; resting needs are met within home ranges, recorded in rural SEQ at roughly 34 ha for males and 15 ha for females, with individuals sometimes moving more than 5 km in a season (DAWE, 2022). Movement increases during the breeding season, when males in particular range more widely and roadside mortality risk rises around dawn and dusk.	The Koala is distributed widely but unevenly across the SEQ Regional Plan area, persisting in fragmented rural and peri-urban mosaics and in connected urban and bushland habitat where retained corridors maintain movement and gene flow. Persistence in the rural mosaic is contingent on the retention and connectivity of food-tree communities rather than their extent alone. The Koala is by far the most frequently recorded threatened species in the locality: the WildNet searches return an exceptionally strong record set of 2,888 records within 15 km of the Site and 330 records within 5 km, the most recent in 2026 (Section 3.3.2), confirming a current, well-documented and substantial local population. These desktop records are corroborated by the Site assessment, which confirmed the koala on the Site.	Known (recorded) The Site's Floodplain Forest TEC is dominated by Queensland Blue Gum corresponding to RE 12.3.19, which DES (2023) identifies as a high-value RE for the Koala. (Youngentob, Marsh, & Skewes (2021) likewise identify Queensland Blue Gum as a locally important koala tree in South East Queensland. The Site therefore offers preferred koala food and shelter trees within a landscape carrying an exceptionally strong record set (2,888 records within 15 km, 330 within 5 km, to 2026). The Koala has been confirmed on the Site during the Site assessment. Impacts to the Koala are discussed further in Section 7.1.3.
Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>)	V	C	The Grey-headed Flying-fox occupies forests and woodlands of the coastal lowlands, tablelands and slopes of eastern Australia, generally below 200 m. It is a canopy-feeding nectarivore and frugivore, feeding chiefly on the blossom of myrtaceous species (<i>Eucalyptus</i>, <i>Corymbia</i>, <i>Angophora</i>, <i>Melaleuca</i>, <i>Banksia</i>) and on rainforest fruit, foraging over large areas — typically up to around 40 km from the camp — and returning to the camp the same night Because food trees flower unpredictably the species is nomadic, with no biological adaptation to withstand food shortages, and it moves in response to the changing quantity and location of blossom. It roosts colonially by day in 'camps' in dense streamside, swamp or remnant vegetation; camps provide resting habitat and refuge through critical phases of the annual cycle (birth, lactation, conception) and many show strong long-term fidelity. Winter and spring blossom is critical because these shortage periods coincide with late gestation, birth and early lactation (DAWE, 2021).	The Grey-headed Flying-fox is highly vagile and is managed as a single interbreeding population across south-eastern Australia, moving freely among a network of camps in response to blossom availability, so that occupancy at any locality is intermittent and irregular (DAWE, 2021). Because individuals are highly mobile and occupancy is intermittent, absence from a site at the time of survey does not indicate that its habitat is unimportant. The species is well recorded foraging across the locality: the WildNet searches return 66 records within 15 km of the Site (most recent 2021) and 3 records within 5 km (1992) (Section 3.3.2), and the PMST identifies foraging or related behaviour as known to occur.	Known (foraging) Foraging Grey-headed Flying-foxes have been recorded on the Site during the Site assessment, in the blossom of the Eucalypt Floodplain Forest. The Site does not support a camp; its value to the species is as a foraging resource. That resource is significant in the right season because the Floodplain Forest is dominated by the winter-blossoming Queensland Blue Gum, and the National Recovery Plan identifies winter–spring blossom as the population-limiting bottleneck in the species' annual cycle, when forage shortages coincide with late gestation, birth and early lactation (DAWE, 2021). The value of these trees is increased by their size, larger mature eucalypts flowering more frequently and intensely and so providing more reliable nectar. Impacts to the Grey-headed Flying-fox are discussed further in Section 7.1.4.
MSES Threatened Fauna – Amphibian					
Tusked Frog (<i>Adelotus brevis</i>)	Not Listed	V	Occupies wet eucalypt forest, rainforest, and, less frequently, dry eucalypt forest, where it is generally associated with suitable breeding habitat including ponds and slow-flowing sections of stream (Roland, 2013). The species has also been documented using dams and garden ponds within urban and peri-urban landscapes (Roland, 2013). Surveys for Tusked Frog should be undertaken during the warmer months (September to February), particularly in early spring when calling activity	Tusked Frog has a disjunct distribution extending from central Queensland to eastern New South Wales. In south-east Queensland, the species has declined in parts of its former range, including the New England Tableland, Bunya Mountains, and sections of the Scenic Rim. Despite these declines, it remains widespread throughout the lowlands and foothills east of the Great Dividing Range, where it continues to occupy suitable forest habitats (Roland, 2013).	Possible Tusked Frogs have been recorded in the surrounding area to the Site. The Site's farm dam provides potential habitat for the species, including breeding habitat. Nonetheless, the dam occurs outside the Referral Area and will not be disturbed by the Proposed Action.

Matter	Legislative Status		Habitat (foraging and resting) preferences, breeding/nesting and seasonal influences	Distribution and local records	Likelihood of occurrence
	EPBC Act	NC Act			
			by males is highest (Rowland, 2013). Surveys may be conducted during the day or night under suitable weather conditions, preferably following rainfall on warm, humid, and calm days or nights when surface water is present. Survey effort should avoid periods of heavy rainfall, elevated stream flows, and prolonged dry conditions, as these are likely to reduce detectability (Rowland, 2013).	The species is recoded in the locality: the WildNet searches return 10 records within 15 km, (most recent 2023), and two (2) records within 5 km of the Site (Section 3.3.2).	
MSES Threatened Fauna – Bird					
Powerful Owl	Not Listed	V	The Powerful Owl has historically been associated with dense gullies of tall open forests in hilly or mountainous areas of the coast and Great Dividing Range. Pairs roost during the day in shady, protected areas along gullies, waterways, or beneath the canopy of large, dense trees. The Powerful Owl is primarily dedicated to hunting arboreal mammals, particularly small to medium-sized marsupials, which can comprise around three-quarters of its diet. It forages mainly in trees, swooping down on prey, with Common Ringtail Possum and Greater Glider forming the core of the diet, supplemented by roosting birds and occasionally small ground-dwelling mammals. The Powerful Owl breeds during the Australian winter, with breeding occurring mainly in May and June and brooding at the nest continuing into September. Breeding territories are large — even when food is abundant, territories are at least 800 to 1,000 hectares, and nests of adjacent pairs are typically found five to twenty kilometres apart. Recent mapping work has shown that stream corridors between ridges covered with eucalypt forest are often prime habitat for this species. Disturbed or fragmented habitat is considered suboptimal, as fire, clearing, and thinning can directly reduce the availability of hollow-bearing nest trees and degrade the surrounding forest structure that supports arboreal prey species such as possums, upon which the owl heavily depends.	The Powerful Owl is endemic to eastern and south-eastern Australia, occurring mainly on the eastern side of the Great Dividing Range from south-eastern Queensland to Victoria. Its range extends from Eungella and the Dawson River in Queensland south to the central highlands of Victoria, and the species is rarely recorded more than 200 km inland. Within this range, it is found in open forests and woodlands as well as along sheltered gullies in wet forests with dense understoreys, especially along watercourses, and will sometimes be found in open areas near forests such as farmland, parks, and suburban areas with remnant bushland patches. Wildnet and ALA records indicate that there are multiple records within 5km of the site.	Possible (rare) The species is supported by locality records within the broader area and suitable foraging habitat occurs within the retained woodland. While the species was not recorded during surveys and the Site provides limited nesting opportunities due to a lack of large hollows, occasional foraging use is possible.
Notes on Legislative status: EPBC Act: Critically Endangered (CE), Endangered (E), Vulnerable (V); Migratory (Mi) and Marine (Ma) are additional EPBC Act listing categories. NC Act: Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL), Conservation Dependent (CD), Common (C). A dash (–) denotes a TEC, which is a EPBC Act listing category and is not listed as wildlife under the NC Act.					

6. Impact Mitigation Hierarchy

This section of the report discusses how the Proposed Action progresses through the first three steps of the four-step impact mitigation hierarchy, a sequential framework used in environmental assessment to manage the effects of a development on ecological values. The first three steps are: first, *avoid* impacts through siting and design to maintain significant values. Second, *minimise* unavoidable impacts by reducing their extent, duration or intensity, and third, *rehabilitate* or restore values degraded during works.

The primary focus of this assessment is on avoidance and minimisation through ecology-informed design. Ecological investigations undertaken during the early stages of project planning identified the Site's principal biodiversity values, including Floodplain Forest TEC, Swamp Tea-tree habitat, mature Queensland Blue Gum woodland, koala habitat and ecological connectivity functions. These ecological constraints directly informed refinement of the development layout. As a result, development has been preferentially directed towards the more modified and lower ecological value portions of the Site, while retaining the substantial majority of the Site's highest-value ecological features.

6.1 Congruous Development in a Planned Setting

As established in **Section 1.3**, development of the Site for industrial and business purposes is supported at three nested and mutually reinforcing scales of planning. At the regional scale, ShapingSEQ 2023 places the Site and adjoining land within the Urban Footprint and identifies North Maclean as a Major Enterprise and Industrial Area (M41), alongside the Bromelton State Development Area (M38) and Park Ridge (M40). The Prosper theme directs that land within a Major Enterprise and Industrial Area be retained for industrial-related uses, protected from encroachment by incompatible uses, and developed in a manner consistent with its regional role and function. This intent is reinforced by a Priority Action to establish a regional industrial land framework in response to the recognised region-wide shortfall of industrial land, a matter of particular relevance in Logan, which records one of the lowest employment self-containment rates in South East Queensland.

At the PDA scale, the Development Scheme identifies North Maclean as an enterprise precinct accommodating office, commercial, warehouse, retail service and low-impact industrial uses. The precinct is intended to function as a substantial mixed industry and business area with preliminary capacity for up to 7,800 jobs serving the wider Greater Flagstone catchment, including Flagstone, Yarrabilba, Greenbank Central and surrounding rural-residential areas. At full development, the broader Greater Flagstone community is anticipated to support a population of between 100,000 and 120,000 people.

At the Site scale, the EDQ-endorsed North Maclean Context Plan places the Site within the Industry and Business Zone, providing for a broad range of industrial and business activities. Collectively, these planning instruments establish a clear and consistent industrial role for the Site, with the regional planning framework aligning with and reinforcing the intended outcomes of the PDA and Context Plan.

The Proposed Action is therefore anticipated by, and consistent with, the State's long-standing planning intent for the locality. The area is planned as an enterprise and industrial precinct that is currently transitioning from a predominantly rural landscape to an urban employment area. In that context, the Proposed Action represents implementation of the planning framework rather than an intrusion into an otherwise intact landscape.

This is further reflected in the Site's location on the margin of the broader enterprise area. The Site does not contain any mapped regional biodiversity corridor, regionally significant greenspace or regional biodiversity value designation under ShapingSEQ 2023 and is separated from the connected biodiversity network located to the north and east (**Attachment 5**). The only mapped ecological constraint affecting the Site is the indicative future biodiversity corridor shown along the eastern portion of the Context Plan, the extent and treatment of which is indicative and intended to be resolved through the development assessment process.

This planning framework also informs what avoidance outcomes can reasonably be achieved on land specifically designated for industrial development. The relevant question is not whether development occurs, but whether ecological values have been identified, understood and incorporated into the design process such that impacts are avoided and minimised wherever practicable. The following sections demonstrate how ecological investigations

informed the development layout and directed development towards lower ecological value areas while retaining the Site's highest biodiversity values.

6.2 Targeted Avoidance

6.2.1 Project Design

Beyond the strategic planning context described above, the Proposed Action has been shaped through an iterative, ecology-informed design process undertaken from the earliest stages of project planning.

In February 2026, the Proponent engaged 28 South to undertake preliminary ecological due diligence investigations to identify biodiversity values and ecological constraints that could influence the development layout. At that time, an initial concept plan had been prepared in consultation with EDQ that contemplated development across a larger proportion of the Site.

Preliminary investigations identified a number of high-value ecological features on Site, including Floodplain Forest TEC, Swamp Tea-tree habitat, mature Queensland Blue Gum woodland, koala habitat and areas contributing to ecological connectivity, primarily in the south-east corner. These features established the ecological constraint framework that subsequently guided refinement of the development layout.

Targeted field surveys completed in March 2026 confirmed the extent, condition and distribution of these biodiversity values, enabling the concept layout to be refined in response to identified ecological constraints. The findings demonstrated that the highest ecological values were concentrated within discrete portions of the Site, allowing development to be preferentially directed towards the more modified and lower ecological value areas.

The final layout is a direct outcome of this process. The Floodplain Forest TEC is retained outside the Referral Area, together with the principal areas of mature Queensland Blue Gum woodland, koala habitat and associated ecological connectivity functions.

Figure 18 illustrates the outcomes of the avoidance and retention strategy. Of the 669 trees surveyed across the Site, 447 are retained and 218 are proposed for removal, with a further 4 to be retained subject to arborist assessment. A tree schedule is provided in **Attachment 24**. Tree retention has been directed towards the Site's most significant habitat and landscape values, including large-diameter Queensland Blue Gums, hollow-bearing and other habitat trees, and the vegetation contributing to biodiversity connectivity in the south-eastern corner.

Figure 19 presents the same outcome for koala habitat trees specifically. Of the 554 NJKHTs surveyed, 338 are retained and 212 are proposed for removal, with a further 4 to be retained subject to arborist assessment. Retention is concentrated in the higher-value trees: 200 of 306 Queensland Blue Gums (65%), the only Higher-utility koala browse species on the Site, are retained within the eastern portion, while removal falls predominantly on lower-utility trees within the development footprint. The retained trees form part of a connected vegetation corridor rather than scattered remnants, maintaining habitat and movement opportunities for koalas and other native fauna.

The resulting layout demonstrates the central design principle applied throughout the project: ecological values were not assessed after the design was completed; rather, ecological investigations directly informed the location, extent and configuration of development areas. The design evolved in response to ecological constraints.

Consequently, development has been directed towards the Site's lower ecological value areas while retaining its principal biodiversity values. The Proposed Action therefore achieves the intended industrial and employment outcomes of the Greater Flagstone PDA while maintaining the substantial majority of the Site's highest ecological values, including threatened ecological communities, koala habitat, mature woodland habitat and ecological connectivity functions.

6.2.2 Willowbrook Road East

Setting aside the planning expectations, the appropriateness of the Site for development can be established on ecological first principles. The objective of avoidance is the conservation of important ecological features, and that objective is best served by directing unavoidable urban growth onto land that is already cleared and degraded, rather than onto the less modified and better-connected habitat the region retains. Assessed against this standard, the Site is well-positioned for the following reasons:

- (i) It is located outside the bounds of (and thus the Proposed Action avoids) the connected biodiversity band mapped to the north and east under ShapingSEQ 2023, to which the Site neither contributes nor forms part (**Attachment 5**);
- (ii) It occupies cleared and substantially modified land at the margin of the North Maclean enterprise precinct, and does not provide cross-locality habitat connections for forest-dependent fauna; and
- (iii) The Referral Area is directed to non-remnant vegetation and cleared pasture. The highest ecological values are concentrated in Community 1 (RE 12.3.19 – Eastern Alluvial Patch), including the Floodplain Forest TEC, mature Queensland Blue Gum woodland and ground-truthed koala habitat, which have been avoided. The Proposed Action involves only limited encroachment into Community 2 (RE 12.9-10.7 – Western Sedimentary Patch), a regenerating woodland of moderate ecological value.

6.3 The Role of Management Plans

Environmental management plans are the principal mechanism through which the mitigation measures identified during assessment and design are implemented during construction and operation. While the Proposed Action has been designed to avoid and minimise impacts through the retention of high-value habitat and ecological features, management plans provide the framework for managing residual risks associated with vegetation clearing, construction activities and ongoing site operations.

Construction phase controls will be developed prior to the commencement of works and documented through the following management plans and procedures:

- Construction Environmental Management Plan (**CEMP**) to outline environmental requirements and management measures for construction activities;
- Vegetation and Fauna Management Plan, including pre-clearing fauna assessments, clearing procedures and the engagement of a suitably qualified fauna spotter-catcher where required;
- Rehabilitation Management Plan, including rehabilitation methodologies, weed management measures and the long-term management of rehabilitated areas; and
- Erosion and Sediment Control Plan to prevent erosion, sediment transport and impacts to surrounding receiving environments during construction and operation.

Additional mitigation measures may include temporary fauna exclusion fencing where required, fauna-sensitive lighting to minimise disturbance to adjacent habitat, and arborist supervision of works undertaken adjacent to retained habitat trees.

The management plans will establish clear responsibilities, monitoring requirements and performance measures to ensure mitigation commitments are implemented throughout the project. Through monitoring and adaptive management, mitigation measures may be refined where necessary to ensure environmental outcomes are achieved and retained ecological values are protected.

The Proponent will accept development conditions requiring the preparation and implementation of appropriate environmental management plans.

6.4 Pre-clearance and Clearance Procedures

Pre-clearance surveys are a well-established mitigation measure that reduce the risk of injury or mortality to fauna during vegetation clearing. Prior to clearing, a suitably qualified ecologist or accredited fauna spotter-catcher will inspect the disturbance footprint to identify habitat features and potential animal breeding places, including nests and hollow-bearing trees. On the day of clearing, the fauna spotter-catcher will provide a pre-start briefing, oversee the clearing process, and manage any fauna encountered during works.

Particular consideration is required for Koalas. Where koala habitat trees are proposed to be cleared, pre-clearance koala inspections and sequential clearing procedures will be undertaken to minimise the risk of injury and provide koalas with the opportunity to move from the clearing area of their own volition. As koalas cannot generally be relocated without specific authorisation, the effectiveness of the measure relies on early detection and staged clearing procedures that facilitate natural movement from the disturbance area.

The benefits of pre-clearance surveys extend beyond koalas. They enable occupied breeding places to be identified prior to disturbance, allow fauna to be safely removed from harm where appropriate, and assist in ensuring that clearing activities are undertaken in a controlled and supervised manner.

Importantly, these measures are not merely good practice but also reflect statutory requirements. The *Nature Conservation (Koala) Conservation Plan 2017* imposes clearing requirements for koala habitat trees, including the use of staged clearing methods and koala spotters where required. Separately, animal breeding places are protected under the NC Act, and any interference with a breeding place may require a SMP or other statutory authorisation. Accordingly, fauna management measures implemented during clearing will be undertaken in accordance with all relevant legislative requirements.

The Proponent will accept development conditions requiring pre-clearance surveys and the engagement of a suitably qualified fauna spotter-catcher during vegetation clearing.

7. Residual Impacts

This section identifies the residual impacts that remain following implementation of the avoidance, minimisation and mitigation measures outlined in **Section 6**. For the purposes of this assessment, residual impacts are those effects reasonably expected to persist after all practicable avoidance, and mitigation measures have been applied. These impacts may be:

- Direct, resulting from the clearing of vegetation and fauna habitat within the Referral Area;
- Indirect, arising from edge effects, altered habitat conditions and construction-related disturbance adjacent to retained vegetation; or
- Temporary, where impacts are confined to the construction phase and are not expected to persist during operation.

The Proposed Action has been specifically designed to avoid Community 1 (RE 12.3.19 – Eastern Alluvial Patch), which supports the Floodplain Forest TEC, mature Queensland Blue Gum woodland and the highest ecological values recorded within the Site. Consequently, residual impacts are largely confined to the clearing of non-remnant vegetation and a comparatively small extent of Community 2 (RE 12.9-10.7 – Western Sedimentary Patch).

7.1 Residual Impacts

7.1.1 Overview

The assessment demonstrated that the majority of the Site's ecological values will be retained, including:

- 4.137 ha of Floodplain Forest TEC, which will remain intact and protected from direct disturbance;
- 338 of 554 Non-Juvenile Koala Habitat Trees (NJKHTs) (61.0%) and 1.745 ha of canopy cover (55.8%), which will be retained within the Site;
- The majority of higher-quality Queensland Blue Gum habitat, which occurs outside the development footprint and will be preserved; and
- A development footprint that is principally confined to a 5.7 ha Referral Area comprising predominantly non-remnant vegetation and a limited area of Community 2.

Overall, the Proposed Action has been configured to substantially avoid areas of highest ecological significance, resulting in residual impacts that are predominantly associated with lower-value vegetation communities and modified habitat areas.

7.1.2 Floodplain Forest TEC

Detailed ecological assessment, BioCondition data and assessing key diagnostic criteria (Section 6.1.5) confirmed the presence of approximately 4.137 ha of Floodplain Forest TEC within the alluvial plains of Landzone 3 (**Figure 14**). The confirmed 4.137 ha Floodplain Forest TEC patch occurs wholly outside the Referral Area and will be retained in its entirety. Accordingly, the Proposed Action will not result in the loss, fragmentation or direct disturbance of the TEC.

7.1.3 Koala

7.1.3.1 Retention and loss of NJKHTs

As shown in **Table 13** and **Table 14**, and **Figure 19**, the Proposed Action will result in the removal of 212 Non-Juvenile Koala Habitat Trees¹⁸ (NJKHTs) and approximately 1.381 ha of associated canopy. However, the impact is limited by the retention of 338 NJKHTs (61.0%) and 1.745 ha of canopy (55.8%), including the majority of the Site's highest-value koala habitat resource.

Each of these trees have been assigned to koala tree-species utility class — Higher, Medium or Lower — following the classification adopted in the Queensland Government's koala spatial modelling for South East Queensland¹⁹, which ranks the usefulness of each species to koalas. Retention and loss are assessed for each species and each utility class, by count and by protected canopy area.²⁰

Table 13: NJKHTs by species, showing Koala Utility Class, Count and Protected Canopy Area (uncapped TPZ) Retained

Species	Utility	Trees (n)	Retained (n)	Canopy (ha)	Canopy retained (ha)
Queensland Blue Gum (<i>Eucalyptus tereticornis</i>)	Higher	306	200	1.998	1.062
Spotted Gum (<i>Blakella citriodora</i>)	Medium	1	1	0.001	0.001
Narrow-leaved Ironbark (<i>Eucalyptus crebra</i>)	Medium	2	2	0.015	0.015
Gum-topped Box (<i>Eucalyptus moluccana</i>)	Medium	55	55	0.322	0.322
Grey Ironbark (<i>Eucalyptus siderophloia</i>)	Medium	51	35	0.491	0.229
Narrow-leaved Red Gum (<i>Eucalyptus seeana</i>)	Medium	2	0	0.024	0
Pink Bloodwood (<i>Corymbia intermedia</i>)	Medium	4	2	0.016	0.007
Rusty Gum (<i>Angophora leiocarpa</i>)	Lower	1	1	0.002	0.002
Carbeen (<i>Blakella tessellaris</i>)	Lower	123	36	0.237	0.092
Swamp Box (<i>Lophostemon suaveolens</i>)	Lower	9	6	0.02	0.015
Total		554	338	3.126	1.745

¹⁸ A Koala Habitat Tree is defined as: a) a food tree of the *Corymbia*, *Melaleuca*, or *Lophostemon* or *Eucalyptus* genera; or b) a preferred shelter species such as *Angophora*. A Non-Juvenile Koala Habitat Tree is defined as Koala Habitat Tree that has: a) a height of more than four metres; or b) a trunk with a circumference of more than 31.5 centimetres at 1.3 metres above the ground (*Melaleuca irbyana* is not an NJKHT).

¹⁹ Tree-species utility classes follow Department of Environment and Science (DES) 2023, Spatial modelling for koalas in South East Queensland: Report version 4.0, Brisbane, which ranks each species' usefulness to koalas as Higher, Medium, Lower, or None/unknown (Table 1; species list at Appendix 3). *Blakella citriodora* and *Blakella tessellaris* are listed in that source under their synonyms *Corymbia citriodora* and *C. tessellaris*.

²⁰ Protected canopy area is taken as the area of each tree's Tree Protection Zone (TPZ), calculated under AS 4970-2009 as a radius of twelve times the diameter at breast height, with the 15 m administrative cap not applied so that the surrogate reflects relative canopy extent. Columns may not sum exactly owing to rounding.

Table 14: Retention of NJKHTs by Koala Tree-species Utility Class

Utility class*	Trees (n)	Retained (n)	Retention (number)	Canopy (ha)	Canopy retained (ha)	Retention (canopy)
Higher	306	200	65.4%	1.998	1.062	53.2%
Medium	115	95	82.6%	0.869	0.574	66.1%
Lower	133	43	32.3%	0.259	0.109	42.1%
Total	554	338	61.0%	3.126	1.745	55.8%
Utility classes (after DES 2023): Higher — species described as an important koala browse resource across a range of literature, the majority being definitive studies; Medium — species with some, secondary or anecdotal, references to use by koalas; Lower — species with no supporting literature, trace food species, or eucalypts not otherwise classified. No species recorded on the Site falls within the None/unknown class.						

7.1.3.2 Composition of the Koala Habitat Tree Assemblage

The koala habitat tree assemblage comprises 554 NJKHTs across ten species. Queensland Blue Gum is the dominant species, accounting for 306 trees (55.2% of all NJKHTs) and 1.998 ha of protected canopy area (63.9% of total canopy). As the only Higher-utility species recorded on the Site, Queensland Blue Gum represents the most important browse resource for koalas within the Site.

Medium-utility species comprise 115 trees (20.8%) and 0.869 ha of canopy (27.8%), including Gum-topped Box, Grey Ironbark, Narrow-leaved Ironbark, Spotted Gum, and Pink Bloodwood. Lower-utility species comprise 133 trees (24.0%) and 0.259 ha of canopy (8.3%), predominantly Carbeen.

Overall, the koala habitat resource on the Site is strongly weighted towards Queensland Blue Gum, which forms the principal habitat and browse resource for koalas and also comprises the core canopy component of the Floodplain Forest TEC.

7.1.3.3 Retention in Relation to Koala Utility

Retention has been prioritised towards Higher- and Medium-utility koala habitat trees. Of the 306 Higher-utility Queensland Blue Gums, 200 trees (65.4%) are retained, representing 1.062 ha of canopy or 53.2% of the Queensland Blue Gum canopy resource. Retention rates are highest within the Medium-utility class, with 95 of 115 trees retained (82.6%) and 0.574 ha of canopy retained (66.1%). Medium-utility species therefore experience the lowest proportional loss and remain well represented within the retained vegetation.

Lower-utility species experience the greatest proportional reduction, with 43 of 133 trees retained (32.3%) and 0.109 ha of canopy retained (42.1%). These species contribute comparatively little to the overall koala habitat resource and comprise less than 10% of total canopy area across the Site. In total, 338 of 554 NJKHTs (61.0%) are retained, while 1.745 ha of the 3.126 ha of protected canopy area (55.8%) is conserved. This retention outcome demonstrates that the design has focused on maintaining the majority of the Site's higher-value koala habitat resource, particularly Queensland Blue Gum woodland.

7.1.3.4 Distribution of Loss and Implications for the Koala

Loss of koala habitat trees is concentrated within the Referral Area, resulting in the removal of 216 NJKHTs and approximately 1.381 ha of protected canopy area. However, the majority of retained habitat is associated with Queensland Blue Gum, the highest-utility koala browse species on the Site and the principal component of the Floodplain Forest TEC.

Importantly, 200 Queensland Blue Gums are retained, representing almost two-thirds of all Higher-utility koala habitat trees. Retained vegetation also contains more than half of the total Queensland Blue Gum canopy resource present on the Site and remains concentrated within the eastern portion of the Site, where the highest-quality habitat occurs.

When assessed by utility class, the retained vegetation contains 59.2% of all retained koala habitat trees but approximately 60.9% of all retained canopy within the Higher-utility class. This demonstrates that the retained habitat remains strongly centred on Queensland Blue Gum rather than lower-value habitat species.

Accordingly, while the Proposed Action will reduce the overall extent of koala habitat available on Site, it retains the majority of Higher-utility habitat trees and a substantial proportion of associated canopy. The retained Queensland Blue Gum woodland will continue to provide foraging habitat, shelter opportunities and habitat connectivity for koalas moving through the local landscape. Consequently, the residual impact is largely confined to a reduction in habitat extent rather than a disproportionate loss of the Site's highest-value koala habitat resources.

7.1.4 Swift Parrot and Grey-headed Flying-fox

7.1.4.1 Winter Blossom Bottleneck Target Species

The Proposed Action will result in the removal of 106 Queensland Blue Gum trees (**Figure 20**) and approximately 0.94 ha of associated canopy cover (**Table 15**). However, 200 Queensland Blue Gum trees will be retained within the eastern portion of the Site, including a substantial proportion of mature trees and the majority of the retained canopy resource²¹.

The retained vegetation contains approximately 1.06 ha of protected canopy area and encompasses the area of Floodplain Forest TEC occurring on the Site. This retained habitat will continue to provide foraging resources, habitat structure and ecological connectivity within the local landscape. While some larger trees will be removed, the retained area includes numerous mature Queensland Blue Gums and maintains the core ecological values associated with the Site's high-value regrowth vegetation.

Given the retention of approximately 65% of all Queensland Blue Gum trees on the Site, the protection of the Floodplain Forest TEC, and the maintenance of a substantial canopy resource and connected vegetation corridor, the residual impact is considered low. The Proposed Action is not expected to result in a significant reduction in the local viability of Queensland Blue Gum habitat or the ecological function of the retained vegetation. The retained trees will continue to contribute to habitat availability, connectivity and long-term ecological values within the broader landscape.

Table 15: Queensland Blue Gum Retained and Removed by DBH Class, Count and Protected Canopy Area (uncapped TPZ).

DBH class (mm)	Trees (n)	Retained (n)	Removed (n)	Retained %	Canopy retained (ha)	Canopy removed (ha)	Retention (%)
<150 mm DBH	59	43	16	72.9%	0.043	0.016	72.9%
150-300 mm DBH	89	71	18	79.8%	0.145	0.047	75.5%
300-500 mm DBH	106	61	45	57.5%	0.459	0.32	58.9%

²¹ Protected canopy area is taken as the area of each tree's Tree Protection Zone (TPZ), calculated under AS 4970-2009 as a radius of twelve times the diameter at breast height. The 15 m administrative cap that AS 4970 applies for tree-protection purposes is not applied here, so that the surrogate reflects the relative canopy extent of the largest trees rather than the capped protection radius.

DBH class (mm)	Trees (n)	Retained (n)	Removed (n)	Retained %	Canopy retained (ha)	Canopy removed (ha)	Retention (%)
500-700 mm DBH	42	22	20	52.4%	0.334	0.307	52.1%
700-900 mm DBH	8	3	5	37.5%	0.081	0.153	34.6%
>900mm DBH	2	0	2	0.0%	0	0.093	0.0%
Total	306	200	106	65.4%	1.062	0.936	53.2%

7.1.4.2 Distribution of trees by size class

The Queensland Blue Gum population comprises 306 trees and is dominated by small and medium-sized stems. A total of 148 trees (48.4%) are less than 300 mm DBH, while a further 106 trees (34.6%) occur within the 300 to 500 mm DBH class. Tree abundance declines with increasing size, with only 52 trees (17.0%) exceeding 500 mm DBH and just 10 trees (3.3%) exceeding 700 mm DBH.

Tree removal is concentrated within the more abundant small to mid-sized cohorts that occur within the Referral Area. The 300 to 500 mm and 500 to 700 mm DBH classes together account for 65 of the 106 trees proposed for removal. In contrast, the majority of smaller trees are retained, with retention rates of 72.9% and 79.8% within the less than 150 mm and 150 to 300 mm DBH classes respectively. Overall, the pattern of removal is focused on well-represented size classes, while retaining a substantial proportion of trees across all cohorts.

7.1.4.3 Focus on retention of the largest trees

The design has prioritised the retention of Queensland Blue Gum trees associated with the highest ecological values on the Site, particularly those occurring within the retained Floodplain Forest TEC (**Figure 20**). Of the 306 Queensland Blue Gum trees recorded, 200 trees (65.4%) will be retained, including a substantial proportion of the mature and larger canopy-forming individuals.

The retained vegetation supports approximately 1.06 ha of protected canopy area, representing 53.2% of the total Queensland Blue Gum canopy resource on the Site. Notably, the majority of retained canopy occurs within the 300 to 700 mm DBH classes, which collectively contribute almost 0.8 ha of retained canopy. These mature trees provide the greatest structural complexity, foraging resources and long-term habitat value within the retained vegetation.

Although all trees greater than 900 mm DBH occur within the Referral Area and cannot be retained, the retained vegetation contains numerous large Queensland Blue Gums, including 28 trees greater than 500 mm DBH and seven trees greater than 700 mm DBH. These trees contribute disproportionately to canopy extent and habitat value relative to their abundance and form the core of the retained ecological corridor.

This retention pattern demonstrates that the design has focused on conserving the highest quality Queensland Blue Gum habitat remaining on the Site. The retained trees are concentrated within the eastern portion of the Site, where they form part of the Floodplain Forest TEC and maintain the strongest vegetation connectivity and ecological function. While some Queensland Blue Gum trees will be removed to accommodate the Proposed Action, the retention of the majority of mature trees, more than half of the total canopy resource, and the entirety of the retained Floodplain Forest TEC ensures that the Site's principal ecological values are conserved. Over time, continued growth of retained trees and recruitment within the TEC will further contribute to the maintenance of canopy cover and habitat values across the Site.

7.1.5 White-throated Needletail

The White-throated Needletail, listed as Vulnerable and Migratory under the EPBC Act, was progressed from the desktop assessment on a precautionary basis due to its conservation status and the presence of locality records within the broader area. The species is a highly mobile aerial insectivore that forages over extensive areas and does not depend on specific habitat features within the Site. It occurs in Australia as a non-breeding migratory visitor and was not recorded during field surveys.

The residual impact on the White-throated Needletail is considered negligible. While the Proposed Action will result in the removal of some trees, the species does not rely on the Site for breeding, foraging or other critical lifecycle functions. Any potential use of taller trees as occasional roosting habitat is expected to be incidental and of low significance given the abundance of comparable vegetation throughout the surrounding landscape.

The Site does not provide important habitat for the species, nor does it support habitat critical to its survival. Extensive areas of suitable airspace and vegetation will remain available locally following the Proposed Action, and no barriers to movement will be created. Given the species' highly mobile nature, its non-detection during surveys, and the availability of equivalent habitat resources throughout the locality, the Proposed Action is not expected to adversely affect the White-throated Needletail or significantly impact the migratory population. Accordingly, the residual impact is considered negligible.

8. Statutory Compliance

8.1 EPBC Act

The assessment identified the Koala, Grey-headed Flying-fox and the Floodplain Forest TEC as the principal MNES relevant to the Site.

Ecological investigations informed the development layout, resulting in avoidance of the highest-value ecological features on the Site. The confirmed Floodplain Forest TEC (4.137 ha) occurs outside the Referral Area and will be retained. Assessment of the TEC against the Conservation Advice confirmed that the patch satisfies the relevant diagnostic characteristics and condition thresholds and is classified as a Condition Class C2 patch.

The Site also supports koala habitat and confirmed koala utilisation. However, the majority of higher-quality habitat, including the principal areas of Queensland Blue Gum woodland and associated habitat connectivity, will be retained. Of the 554 identified NJKHTs, 338 trees (61%) will be retained. SAT surveys, camera trapping and habitat assessments indicate that koala activity is concentrated within these retained eastern alluvial vegetation communities.

The Grey-headed Flying-fox was recorded utilising the Site for foraging; however, no roost camp occurs on the Site. Retention of the Floodplain Forest TEC and associated woodland communities will maintain the majority of the higher-quality foraging resources available on the Site.

The Proposed Action is not considered likely to result in a significant impact on any MNES. The Referral Area has been specifically designed to avoid the confirmed Floodplain Forest TEC and minimise impacts to higher-quality koala habitat. Consequently, the majority of MNES values identified on the Site, including the 4.137 ha Floodplain Forest TEC patch, the principal concentration of koala habitat, and the Site's primary areas of ecological connectivity, will be retained outside the Referral Area. Accordingly, the activities proposed within the Referral Area are not expected to result in a significant impact on any MNES.

On this basis, it is considered that a controlled action referral to the National EPA is not warranted. Notwithstanding this assessment, it is acknowledged that legal certainty under the EPBC Act can only be achieved through referral to the National EPA and a subsequent decision by the Minister. Voluntary referral of a project, even where referral is not mandatory, may provide additional regulatory certainty and reduce potential future compliance risk.

8.2 PDA Development Scheme Requirements

This section provides an assessment of the Proposed Action against relevant matters under the Development Scheme.

8.2.1 Response to the Constraints of the Land

The Development Scheme specifies that development should respond to the constraints of the land by delivering against the requirements specified in **Table 16**.

Table 16: Proposed Action Response to the Constraints of the Land

Requirement	Proposed Action Response
Protection of significant environmental and ecological values	The Proposed Action has been designed in accordance with the avoidance and minimisation hierarchy, ensuring the protection of the Site's most significant environmental and ecological values. Ecological investigations confirmed that no remnant vegetation occurs within the Site. However, field assessments identified areas of high ecological significance associated with RE 12.3.19 vegetation, the
Protection of remnant endangered vegetation	

Requirement	Proposed Action Response
where proven by ground truthing to be viable	Floodplain Forest TEC and mature Queensland Blue Gum woodland. These areas have been avoided through the design process and retained in situ. Development is confined to approximately 5.7 ha of the 14.24 ha Site (Figure 2) and is concentrated within non-remnant vegetation and areas equivalent to RE 12.9-10.7. The retained vegetation contains the highest-quality habitat on the Site, including the majority of mature Queensland Blue Gum trees, the Floodplain Forest TEC and habitat values associated with koala utilisation and native fauna movement. Of the 669 trees surveyed across the Site, only 218 are proposed to be removed (Figure 18), with the majority retained. The design also retains vegetation along Greenbank Road and avoids impacts to the highest-value ecological areas occurring elsewhere on the Site. Through the protection of these retained vegetation communities and habitat resources, the Proposed Action avoids impacts to ecologically significant areas and achieves an outcome consistent with the intent of the performance outcomes.
Minimal emissions to land, water and atmosphere	The Proposed Action is expected to generate only limited and temporary emissions during the construction phase, which will be appropriately managed through the implementation of CEMP and standard environmental controls for erosion, sedimentation, dust, noise and waste management. Following completion of construction, the proposed low-impact industrial development is not anticipated to generate significant emissions to land, water or air. The retention of extensive vegetation and environmental corridors across the Site further assists in maintaining natural ecological processes and minimising environmental impacts.
Protection of culturally significant places and items	The Proposed Action has been informed by relevant cultural heritage investigations and planning considerations to ensure culturally significant places and items are appropriately identified, considered and protected. Development has been designed to avoid known constraints and will be undertaken in accordance with applicable legislative requirements, ensuring cultural heritage values are preserved and managed responsibly throughout the life of the development.
Efficient use of land and resources.	The Proposed Action represents an efficient and orderly use of land by facilitating employment-generating industrial and business activities within an area specifically identified for such purposes under both the PDA Development Scheme and the EDQ endorsed North Maclean Context Plan. The Site is located within the Industry and Business Zone, where industrial, commercial, warehouse and related business uses are expressly anticipated. By concentrating development within a limited portion of the Site while retaining significant environmental areas, the Proposed Action achieves an appropriate balance between economic development and environmental protection. As such, the development aligns with the long-term strategic planning intent for the locality and contributes to the efficient utilisation of land and infrastructure resources.

8.2.2 Design Siting and Layout

The Development Scheme specifies that development should be developed with consideration for the design, siting and layout principles specified in **Table 17**.

Table 17: Project's adherence to design, siting and layout principles

Principle	Project Response
Preserves and enhances important environment values, and respects local landforms	The Proposed Action has been informed by a design-led approach that prioritises the avoidance and protection of areas with the highest ecological values on the Site. Development is restricted to approximately 5.7 ha of the 14.24 ha Site and is concentrated within non-remnant vegetation, and areas equivalent to RE 12.9-10.7. Areas supporting the highest ecological values, including RE 12.3.19 vegetation, the Floodplain Forest TEC, mature Queensland Blue Gum woodland and associated koala habitat, are avoided and retained in situ.
Avoids, minimises and offsets development impacts on areas of biodiversity value and koala habitat values	
Maintains or improves ecological connectivity in the local urban context	The retention of these areas preserves the Site's most significant biodiversity values and maintains habitat availability, foraging resources and ecological connectivity with adjoining vegetation. While a portion of lower-value vegetation will be removed to facilitate development, the majority of higher-quality habitat remains protected, including the principal areas supporting koala habitat values and the Floodplain Forest TEC. The Proposed Action therefore avoids and minimises impacts on biodiversity values and koala habitat while maintaining ecological connectivity within the local landscape. The Site is identified within the North Maclean Industry and Business Zone under the Queensland Government-endorsed North Maclean Context Plan and is intended to accommodate industrial and business activities. Accordingly, the Proposed Action achieves an appropriate balance between development and environmental protection by directing development to the most suitable portions of the Site while retaining its most ecologically significant areas.
Incorporates landscaping with endemic species that contributes to bushland character, flora and fauna habitat, and fauna movement	General weed management, landscaping and site rehabilitation measures will be implemented to maintain the condition and functionality of retained vegetation. Landscaping and rehabilitation works will utilise locally appropriate native species where required and will focus on protecting retained ecological values, improving vegetation condition and minimising edge effects. Activities will be managed to avoid disturbance to retained RE 12.3.19 vegetation, the Floodplain Forest TEC and associated habitat trees.
Respects cultural heritage values	The Proposed Action has been planned with due regard to the potential for cultural heritage values on the Site. Relevant investigations and statutory processes have been undertaken to identify and appropriately manage cultural heritage considerations. The development will be carried out in accordance with all applicable legislative requirements, ensuring any identified cultural heritage values are protected and managed responsibly throughout the life of the project.
Minimises adverse impacts on natural landforms and the visual amenity of the Site	The Proposed Action has been designed to concentrate development within disturbed and lower-value portions of the Site, minimising the need for extensive modification of natural landforms. Retention of the Site's most significant vegetation communities, including RE 12.3.19 vegetation and the Floodplain Forest TEC, will maintain the natural landscape character and visual amenity of the Site.
Maintains or improves the ecological health and environmental values of	The Proposed Action has been designed to maintain the ecological health and environmental values of surface water and groundwater

Principle	Project Response
surface and groundwater, including wetlands and waterways in and adjacent to the UDA	systems while preserving the existing hydrological function of the Site. No mapped watercourses occur within the Site. Development has been planned to retain the Site's low-lying vegetated areas and maintain existing drainage patterns to the greatest extent practicable. Stormwater infrastructure will be designed in accordance with contemporary water-sensitive urban design principles to appropriately manage stormwater quality, quantity and discharge, replicate existing flow conditions where practicable, and support the ongoing function of local surface and groundwater systems. Collectively, these measures will maintain the natural flow regime, protect downstream receiving environments and ensure the long-term hydrological and environmental values of the Site are maintained.
Maintains and improves the functioning and characteristics of the hydrological network (including surface and groundwater) and generally maintains the natural flow regime	
Incorporates total water cycle management and water sensitive urban design principles to appropriately manage flood water and storm water	
Applies best industry practice erosion and sediment control techniques giving particular regard to the local dispersive soils	The Proposed Action will incorporate best-practice erosion and sediment control measures throughout construction. An Erosion and Sediment Control Plan will be prepared and implemented with specific regard to the dispersive soil characteristics of the locality, minimising the risk of erosion and sediment movement beyond the Site.
Ensures that all land and groundwater will be fit for purpose in accordance with accepted standards and practises	The Proposed Action will be designed, constructed and operated to avoid detrimental impacts to land and groundwater resources.
Manages air quality, noise and hazardous materials according to current standards	The Proposed Action will be designed, constructed and operated in accordance with applicable standards and requirements to appropriately manage air quality, noise and hazardous materials.
Promote innovative and efficient use of energy and water	The Proposed Action will be designed to maximise practicable opportunities for the efficient use of energy and water resources.
Maximises recycling opportunities and reduces waste generation	The Proposed Action will incorporate waste management measures that maximise recycling opportunities and minimise waste generation throughout construction and operation.

8.2.3 Koala Conservation

The Development Scheme requires that the design, siting and layout of development consider the principles in **Table 18**.

Table 18: Koala Conservation Principles and Proposed Action Response

Koala Conservation Principles	Project Response
Incorporates koala conservation and habitat protection outcomes in a way that contributes to a net increase in koala habitat and assists in the long term viability of koala populations in SEQ.	The Proposed Action has been designed to minimise impacts on koala habitat values by retaining the majority of NJKHTs. As identified in Figure 20, of the 554 NJKHTs surveyed, 338 trees forming a continued canopy will be avoided and retained on the eastern extent of the Site. Retained habitat is concentrated within the eastern portion of the Site and includes the majority of Higher-utility Queensland Blue Gum trees and the Floodplain Forest TEC. The retained vegetation will continue to provide foraging habitat, shelter opportunities and habitat connectivity for koalas within the local landscape.
Avoids (to the greatest extent possible) the clearing of areas mapped as high value bushland on the relevant state planning policy 2/10: Koala Conservation in South East Queensland (SPP) Koala Habitat Values Map.	The Site is not mapped as Core Koala Habitat Area or Locally Refined Koala Habitat Area under the current SEQ Koala Mapping. Notwithstanding this, the Proposed Action has been designed to avoid the areas supporting the highest concentration of koala habitat trees and highest habitat values. Development is confined principally to non-remnant vegetation and areas equivalent to RE 12.9-10.7, while RE 12.3.19 vegetation, the Floodplain Forest TEC and the majority of Higher-utility Queensland Blue Gum habitat are retained.
Caters for koala movement between conserved areas of bushland koala habitat	Retained vegetation within the eastern portion of the Site will continue to provide habitat continuity and movement opportunities for koalas. The retention of mature Queensland Blue Gum woodland and associated vegetation maintains connectivity with adjoining vegetated areas and contributes to broader habitat linkages within the local landscape.
Ensures impacts on koala in habitat are offset through the delivery of a net benefit to koalas including through the expansion of habitat on lands as suitable for rehabilitation.	The Proposed Action has been designed to minimise impacts through the retention of the majority of koala habitat trees and the protection of the highest-quality habitat on the Site. General weed management, landscaping and rehabilitation measures will be implemented within retained vegetation areas to maintain and improve habitat condition, reduce edge effects and support the long-term ecological function of retained koala habitat.
Incorporates koala sensitive urban design.	While the Site is not mapped as Core Koala Habitat Area or Locally Refined Koala Habitat Area, the Proposed Action incorporates key koala conservation outcomes through the retention of 338 NJKHTs, protection of the majority of Higher-utility koala habitat, avoidance of the Floodplain Forest TEC and maintenance of habitat connectivity. These measures minimise habitat fragmentation and support the ongoing use of the Site by koalas within the broader landscape.

9. PDA Development Scheme Guidelines

EDQ guidelines are instated to support the development schemes for PDAs. This section provides an assessment of the Proposed Development against the relevant ecological PDA Guidelines 14 'Environmental values and sustainable resource use' and 17 'Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs'.

9.1 Viability Determination

Both PDA Guidelines 14 and 17 specify responsibilities of the Proponent to retain viable remnant vegetation containing endangered REs to the greatest extent possible. The definition states this refers to areas of remnant vegetation containing endangered REs as shown on the RE map prepared under the VM Act.

Non-viable areas of remnant vegetation containing endangered REs are classified under the following criteria. Importantly, a mapped remnant patch of endangered RE is required to meet all the listed criteria to be considered non-viable endangered remnant vegetation.

Areas of remnant vegetation containing endangered regional ecosystems as shown on the regional ecosystem map prepared under the VM Act that:

- *Are smaller than 5ha*
- *Are not connected to:*
 - *Other remnant or high value regrowth communities*
 - *A watercourse or waterbody*
 - *A mapped corridor within or external to the PDA (including State and local government corridor)*
- *Are not confirmed endangered communities located within a:*
 - *State or Regional Corridor*
 - *Local Government Strategic Biodiversity Corridor*
 - *Adjacent to a Protected Area Estate*
- *Has become, or is likely to become, isolated or fragmented as a result of the surrounding land use pattern*
- *Has greater than 50 per cent weed species through the understorey and ground layer.*

Ground-truthing and detailed ecological assessment identified vegetation on the Site that is representative of Endangered RE 12.3.19 and Of Concern RE 12.9-10.7. However, the field assessments confirmed that these vegetation communities occur as regrowth vegetation rather than remnant vegetation. Consequently, no areas of remnant Endangered RE occur on the Site and the provisions of PDA Guidelines 14 and 17 relating to the retention of viable remnant vegetation containing Endangered REs are not directly applicable.

Notwithstanding this, ecological investigations identified areas of comparatively higher ecological value within the eastern portion of the Site, comprising regrowth vegetation representative of RE 12.3.19, including Queensland Blue Gum, Gum-topped Box, Grey Ironbark, Rusty Gum and clumps of Swamp Tea-tree. These areas support the highest biodiversity, habitat and connectivity values present on the Site and have been avoided by the Proposed Action.

Regrowth vegetation representative of RE 12.9-10.7 occurs predominantly within the western portion of the Site and is generally characterised by a substantially degraded condition, including high levels of weed infestation and historical disturbance. Development has been directed towards these more modified areas to minimise impacts on higher-value ecological features.

The balance lot provides the Site's highest value regrowth vegetation and strengthens the indicative future biodiversity corridor identified under the North Maclean Context Plan.

Accordingly, while no viable remnant Endangered REs occur on the Site, the Proposed Action has nevertheless been designed to avoid and retain the highest value regrowth vegetation communities, protect ecological connectivity, and deliver a balanced outcome that aligns environmental protection with the planned industrial development intent for the North Maclean enterprise precinct.

9.1.1 PDA Guideline 14

Guideline 14 'Environmental values and sustainable resource use' published in May 2015, outlines the values and strategies for protecting the environment and optimising resource use in PDAs in Queensland and is used in conjunction with the provisions of the Development Scheme. **Table 19** identifies the Proposed Action's response to the Environmental values of PDA Guideline 14.

Table 19: Assessment of the Proposed Action against Environmental Values and Strategies

Values	Strategies	Proposed Action Response
Ecological Processes and Natural Systems		
Significant terrestrial biodiversity values. Areas of significant biodiversity value may include (but are not limited to): - land mapped in the applicable PDA development scheme as having significant biodiversity values - mapped biodiversity corridors identified in the applicable PDA development scheme - other areas of significance identified in the applicable PDA development scheme - viable areas of remnant vegetation containing endangered regional ecosystems as defined in Appendix 1 listed threatened species habitat.	- Identify significant terrestrial biodiversity values within and adjoining the development area by undertaking: - robust field surveys (appropriately timed and conducted for expected biodiversity) - desktop assessments using local, state and commonwealth environment databases and mapping searches. - Demonstrate how the development minimises impacts on significant biodiversity values by minimising vegetation clearing generally within the area and by specifically: - retaining and enhancing areas of viable remnant vegetation containing endangered regional ecosystems as defined in Appendix 1 (of the Guideline) - avoiding, minimising or off-setting the clearing of non-viable remnant vegetation containing endangered regional ecosystems as defined in Appendix 1 (of the Guideline) - minimising the clearing of remnant and regulated regrowth vegetation within the area - Providing adequate buffers between development and any identified significant biodiversity value within or adjoining the development site. - Providing management plans to reduce and control clearing and manage other development and construction impacts on the area.	The Proposed Action has been informed by comprehensive desktop assessments and detailed field investigations, including vegetation mapping, BioCondition assessments, threatened species habitat assessments and verification of RE mapping. The highest biodiversity values occur within the eastern portion of the Site, where vegetation representative of RE 12.3.19 and the Floodplain Forest TEC occurs. These areas support the strongest habitat, floristic diversity and ecological connectivity values on the Site. Through an iterative design process, these areas have been largely avoided and retained in situ to ensure their ongoing protection and management. Vegetation representative of RE 12.9-10.7 occurs primarily within the western portion of the Site and is generally in a more disturbed condition, with substantial weed infestation, historical modification and reduced ecological function. Development has therefore been directed towards these lower-quality areas to minimise impacts on higher-value vegetation and biodiversity values. While the Site does not contain viable remnant Endangered RE to which the specific provisions of PDA Guidelines 14 and 17 apply, the Proposed Action nevertheless retains the highest-value vegetation on the Site, including RE 12.3.19 and the Floodplain Forest TEC. The Proposed Action also minimises vegetation clearing, provides separation between development and retained ecological features, and incorporates weed management and rehabilitation measures to maintain habitat quality, ecological function and connectivity over time. Accordingly, the Proposed Action achieves a balanced outcome that protects significant biodiversity values while facilitating the development outcomes anticipated under the planning framework.

Values	Strategies	Proposed Action Response
Ecological connectivity	- Identify priority vegetation patches, fauna habitat features and fauna movement corridors in and beyond the application site through detailed site assessments completed in accordance with the relevant local government authority guidelines or planning scheme policies for ecological assessment. - Retain vegetation connections between priority vegetation patches, fauna habitat features and fauna linkages to ensure ecological connectivity is maintained or enhanced. - Minimise locating major infrastructure through identified corridor linkages. - Undertake strategic rehabilitation of degraded land where required to improve or create functioning corridors	Ecological connectivity has been a key consideration in the design of the Proposed Action. Detailed ecological investigations identified the eastern portion of the Site as containing the highest habitat values and providing the strongest contribution to local habitat connectivity. As a result, these areas, including RE 12.3.19 vegetation and the Floodplain Forest TEC, have been retained. Although the Site is not located within a ShapingSEQ Regional Biodiversity Corridor or Regionally Significant Greenspace Area, the North Maclean Context Plan identifies an indicative future biodiversity corridor along the eastern extent of the Site. The retention of vegetation within this area maintains habitat continuity and contributes to broader landscape connectivity. Development infrastructure has been concentrated within the western portion of the Site to avoid fragmentation of the highest-value vegetation. Retained vegetation in the eastern extent will continue to provide habitat, foraging resources and movement opportunities for native fauna, ensuring ecological connectivity is maintained within the evolving North Maclean landscape. Any vegetation clearing will occur within areas already separated from retained habitat by disturbance and historical modification and will not result in fragmentation of retained vegetation or the creation of barriers to fauna movement.
Sustainable landscaping practices	- Incorporate biodiversity friendly landscape principles and practices such as retaining habitat trees in road reserves and open space areas - Maximise use of locally occurring native species in landscaping - Identify opportunities for revegetation and rehabilitation along waterways and biodiversity corridors	The Proposed Action incorporates the retention of the Site's highest-value vegetation communities, including RE 12.3.19 vegetation, the Floodplain Forest TEC and mature Queensland Blue Gum habitat. General weed management, landscaping and rehabilitation measures will be undertaken to maintain and improve the condition of retained vegetation. Landscaping and rehabilitation works will utilise locally native species where required and will focus on improving vegetation condition,

Values	Strategies	Proposed Action Response
		reducing weed cover and minimising edge effects adjacent to retained ecological values.
Bushfire risk management	▪ Ensure significant biodiversity values are protected from exempt clearing by ensuring new built infrastructure is adequately set back from identified biodiversity areas. ▪ Where a firebreak is required to protect new infrastructure ensure clearing associated with the firebreak is located external to significant biodiversity areas. ▪ Note: Protection from bushfire is not considered suitable justification for impacts on significant biodiversity values	The Proposed Action will incorporate appropriate bushfire management measures through detailed design to ensure the protection of future development while minimising impacts on retained biodiversity values. Building setbacks, asset protection measures and infrastructure design will be configured to avoid unnecessary clearing of retained vegetation, including RE 12.3.19 vegetation and the Floodplain Forest TEC.

9.2 PDA Guideline 17

The Development Scheme requirements under this guideline include:

- *the protections of viable²² remnant vegetation containing endangered regional ecosystems; and*
- *development to*
 - *avoid (to the greatest extent possible) the clearing of areas mapped as having High value Bushland on the relevant State Planning Policy 2/10: Koala Conservation in South East Queensland Koala Habitat Value maps;*
 - *cater for koala movement between conserved areas of bushland koala habitat; and*
 - *incorporate koala sensitive urban design.*

When development results in the clearing of confirmed non-viable remnant vegetation containing endangered regional ecosystems, compensation planting must be undertaken. When development results in the necessary clearing of koala areas, koala habitat planting must be undertaken or a monetary contribution made.

The Proposed Action has been designed to achieve the intent of the Development Scheme by avoiding and minimising impacts on ecological and koala habitat values to the greatest extent practicable. Detailed ecological investigations confirmed that the Site does not contain viable remnant vegetation containing Endangered REs. While vegetation representative of Endangered RE 12.3.19 and the Floodplain Forest TEC occurs on the Site, these values are primarily associated with higher-quality regrowth vegetation rather than viable remnant vegetation for the purposes of the Guideline. Notwithstanding this, the highest-value vegetation communities on the Site, including RE 12.3.19 vegetation, the Floodplain Forest TEC and associated mature Queensland Blue Gum woodland, have been largely avoided and retained.

The Site is not mapped as High Value Bushland, CKHA or Locally Refined Koala Habitat Area under the relevant SEQ Koala Habitat Mapping. Nevertheless, the Proposed Action has sought to minimise impacts on koala habitat values through an iterative design process that retains substantial areas of koala habitat and associated vegetation, including the majority of Higher-utility koala habitat trees and extensive vegetation adjoining the eastern boundary of the Site. These retained areas will continue to provide habitat resources, movement opportunities and connectivity outcomes for koalas and other native fauna.

Notwithstanding these avoidance and minimisation measures, the Proposed Action requires the clearing of approximately 216 NJKHTs and approximately 1.38 ha of associated koala habitat canopy to facilitate development within land identified for industrial and business purposes under the North Maclean Context Plan. In accordance with the Guideline, where the necessary clearing of koala habitat occurs, compensation planting or financial settlement may be required.

Accordingly, the Proposed Action satisfies the intent of the Development Scheme by retaining the Site's highest ecological values, maintaining ecological connectivity, minimising impacts on koala habitat values, and appropriately addressing the necessary clearing of koala habitat trees associated with the development footprint.

10. Summary and Conclusion

28 South was engaged by Orchard Property Group to assess the ecological values of 824–908 Greenbank Road, North Maclean (Lot 1 on RP121663) and evaluate the ecological implications of the Proposed Action, being a 5.7 ha industrial subdivision within the north-western portion of the 14.24 ha Site. The Site is located within the GFPDA and the North Maclean MEIA (M41), where industrial and employment-generating development is envisaged under ShapingSEQ 2023 and the Development Scheme. This EAR has been prepared in support of a DA to the MEDQ.

The assessment was informed by a comprehensive program of desktop investigations and field surveys undertaken between February and June 2026, including RE ground-truthing, BioCondition assessments, targeted flora surveys and detailed fauna investigations. The assessment confirmed that vegetation representative of Endangered RE 12.3.19 and Of Concern RE 12.9-10.7 occurs on the Site as regrowth rather than remnant vegetation. The Site also contains approximately 4.137 ha of Floodplain Forest TEC, together with mature Queensland Blue Gum (*Eucalyptus tereticornis*) woodland and Swamp Tea-tree habitat concentrated within the eastern alluvial portion of the Site.

The assessment demonstrated that the Site's principal ecological values are concentrated within the eastern alluvial vegetation, where vegetation condition, habitat quality, ecological connectivity and koala habitat values are most strongly expressed. This understanding directly informed the development layout. The Proposed Action has been designed to concentrate development within the more modified and lower ecological value western portion of the Site, while avoiding and retaining the key ecological values identified during the assessment. Importantly, the Floodplain Forest TEC occurs wholly outside the Referral Area and will remain undisturbed. Retained vegetation within the balance lot will continue to provide habitat connectivity, fauna movement opportunities and the Site's primary koala habitat resource.

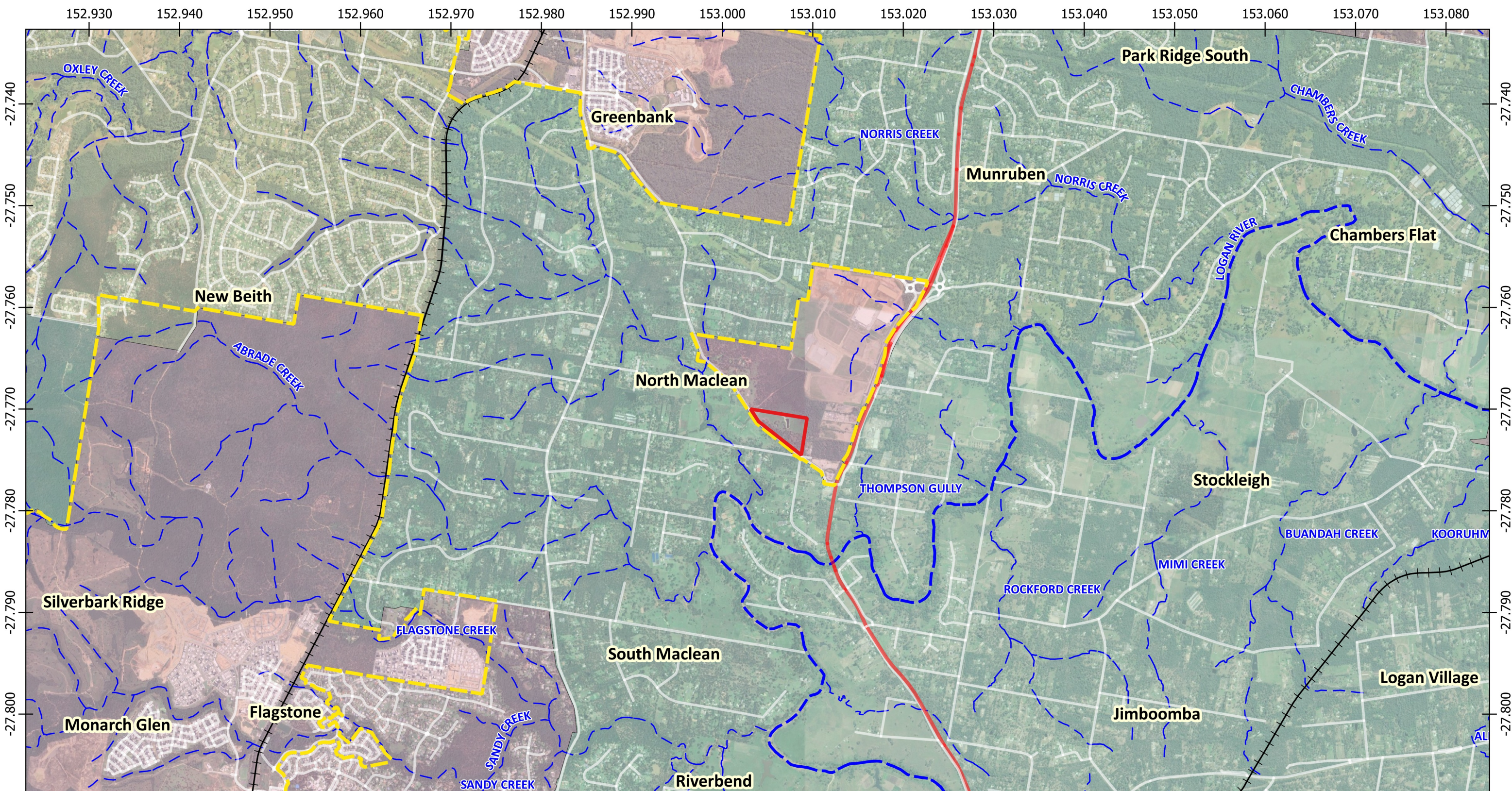
While the Proposed Action will result in the clearing of non-remnant vegetation and a limited extent of regrowth vegetation, the assessment confirms that the majority of higher-value habitat resources will be retained. This includes the majority of Higher-utility koala habitat, mature Queensland Blue Gum woodland, the Floodplain Forest TEC and the strongest areas of ecological connectivity. SAT surveys and other fauna investigations further demonstrated that the highest levels of koala utilisation occur within habitat retained outside the Referral Area. Residual impacts to conservation-significant fauna are therefore limited and are not expected to adversely affect the long-term viability or ecological function of local populations.

Overall, the Proposed Action is consistent with the environmental values, biodiversity objectives and ecological outcomes sought by the Development Scheme and satisfies the intent of PDA Guidelines 14 and 17. Having regard to the avoidance of the Floodplain Forest TEC, retention of the majority of higher-value koala habitat, maintenance of ecological connectivity and the concentration of development within modified and lower-value vegetation, the Proposed Action is not considered likely to result in a significant impact on any relevant MNES under the EPBC Act. Subject to the mitigation, management and clearance measures outlined in this report, the Proposed Action is considered ecologically acceptable and suitable to proceed.

11. References

- DAWE. (2021). *National Recovery Plan for the Grey-headed Flying-fox Pteropus poliocephalus*. Canberra: Department of Agriculture, Water and the Environment.
- DAWE. (2022). *Conservation Advice for Petaurus australis australis (yellow-bellied glider (south-eastern))*. Canberra: Department of Agriculture, Water and the Environment.
- DAWE. (2022). *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory*. Canberra: Department of Agriculture, Water and the Environment.
- DAWE. (2022). *National Recovery Plan for the Koala Phascolarctos cinereus (combined populations of Queensland, New South Wales and the Australian Capital Territory)*. Canberra: Department of Agriculture, Water and the Environment.
- DCCEEW. (2022, July). *Conservation Advice for Petauroides volans (greater glider (southern and central))*. Canberra: Department of Climate Change, Energy, the Environment and Water.
- DCCEEW. (2022a). *Approved Conservation Advice for the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions*. Canberra: Department of Climate Change, Energy, the Environment and Water.
- DCCEEW. (2022b). *Conservation Advice for Calyptorhynchus lathami lathami (South-eastern Glossy Black Cockatoo). In effect under the EPBC Act from 10 August 2022*. Canberra: Department of Climate Change, Energy, the Environment and Water.
- DCCEEW. (2024). *National Recovery Plan for the Swift Parrot (Lathamus discolor)*. Canberra: Department of Climate Change, Energy, the Environment and Water.
- DEWHA. (2008). *Approved Conservation Advice for Arthraxon hispidus (Hairy-joint Grass)*. Canberra: Department of the Environment, Water, Heritage and the Arts.
- DEWHA. (2008). *Approved Conservation Advice for Dichanthium setosum*. Canberra: Department of the Environment, Water, Heritage and the Arts.
- DEWHA. (2008). *Approved Conservation Advice for Picris evae (Hawkweed)*. Canberra: Department of the Environment, Water, Heritage and the Arts.
- DEWHA. (2013). *MNES Significant impact guidelines 1.1*. Canberra: Department of the Environment, Water, Heritage and the Arts.
- DOE. (2013). *Approved Conservation Advice for Thesium australe (austral toadflax)*. Canberra: Department of the Environment.
- DSDILGP. (2023). *ShapingSEQ: South East Queensland Regional Plan 2023*.
- EDQ. (2025). *Greater Flagstone Urban Development Area Development Scheme*. Brisbane: Economic Development Queensland.
- Glossy Black Conservatory. (2010). *Glossy Black-Cockatoo Conservation Guidelines for South-Eastern Queensland and Far North-Eastern New South Wales*.
- Phillips, S., & Callaghan, J. (2011). The Spot Assessment Technique: A tool for determining localised levels of habitat use by Koalas Phascolarctos cinereus. *Australian Zoologist*.
- Roland, J. (2013). *Tusked frog, Adelotus brevis. Targeted species survey guidelines*. Brisbane: Queensland Herbarium, Department of Environment and Science.
- Saunders, D., & Tzaros, C. (2011). *National Recovery Plan for the Swift Parrot Lathamus discolor*. Melbourne: Birds Australia.
- TSSC. (2019). *Conservation Advice Hirundapus caudacutus White-throated Needletail*. Canberra: Department of the Environment and Energy.
- VicFlora. (n.d). *Thesium australe R.Br. Austral Toad-flax*. Retrieved from VicFlora - Flora of Victoria: <https://vicflora.rbg.vic.gov.au/flora/taxon/4c83ac42-14c5-4705-a8f3-0914b8b345e5>
- Youngentob, K., Marsh, K., & Skewes, J. (2021). *A review of koala habitat assessment criteria and methods*. Canberra: DCCEEW.

Figures



824-908 Greenbank Road, North Maclean

Figure 1 - Locality

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Priority Development Areas

Highway/Major Road

Road

Rail Network

Waterway/overland flow path

SEQ Regional Plan

Regional Landscape and Rural Production Area

Rural Living Area

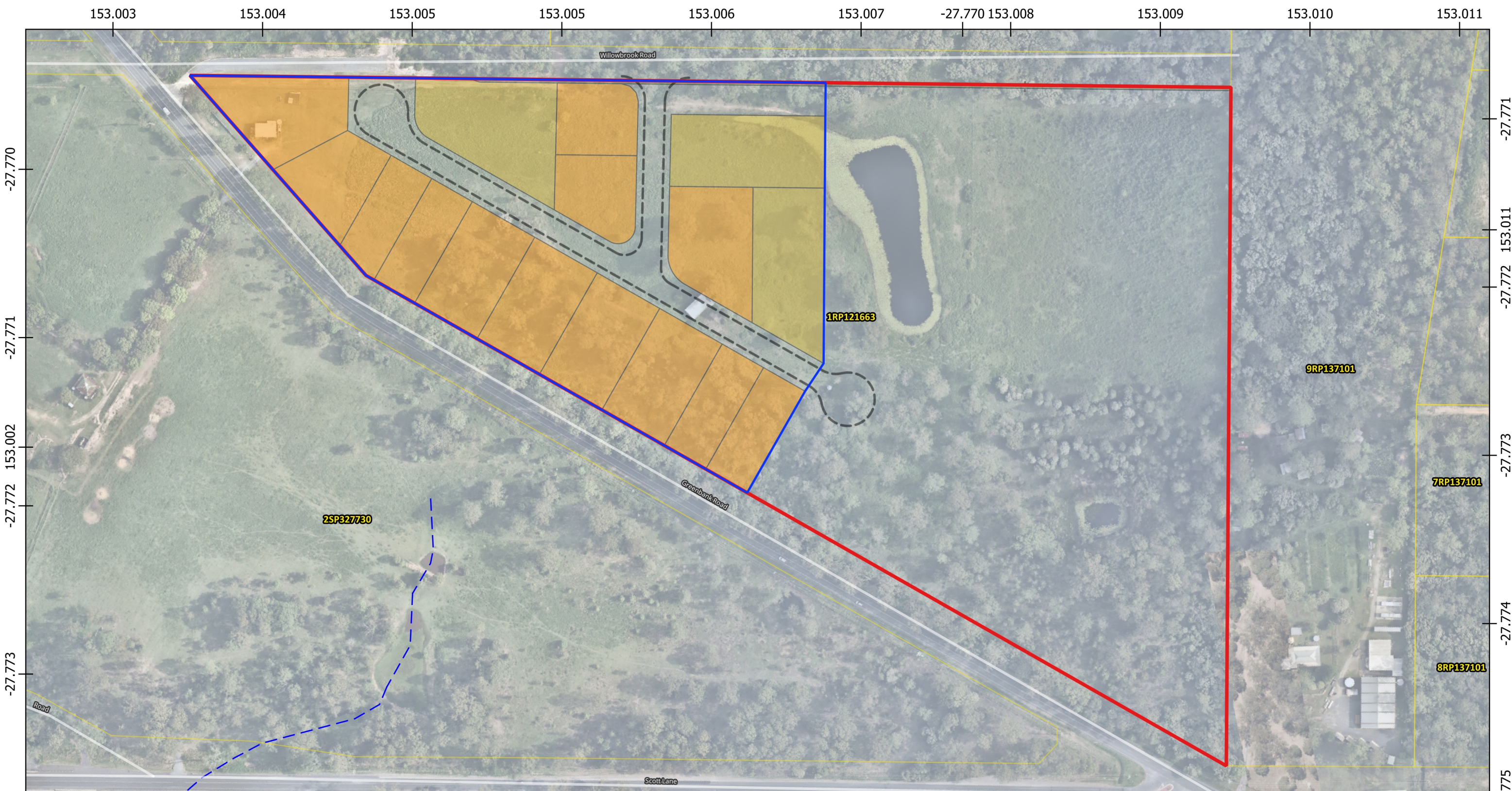
Urban Footprint

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:40,000

0 1 2 km



824-908 Greenbank Road, North Maclean

Figure 2 - Context

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

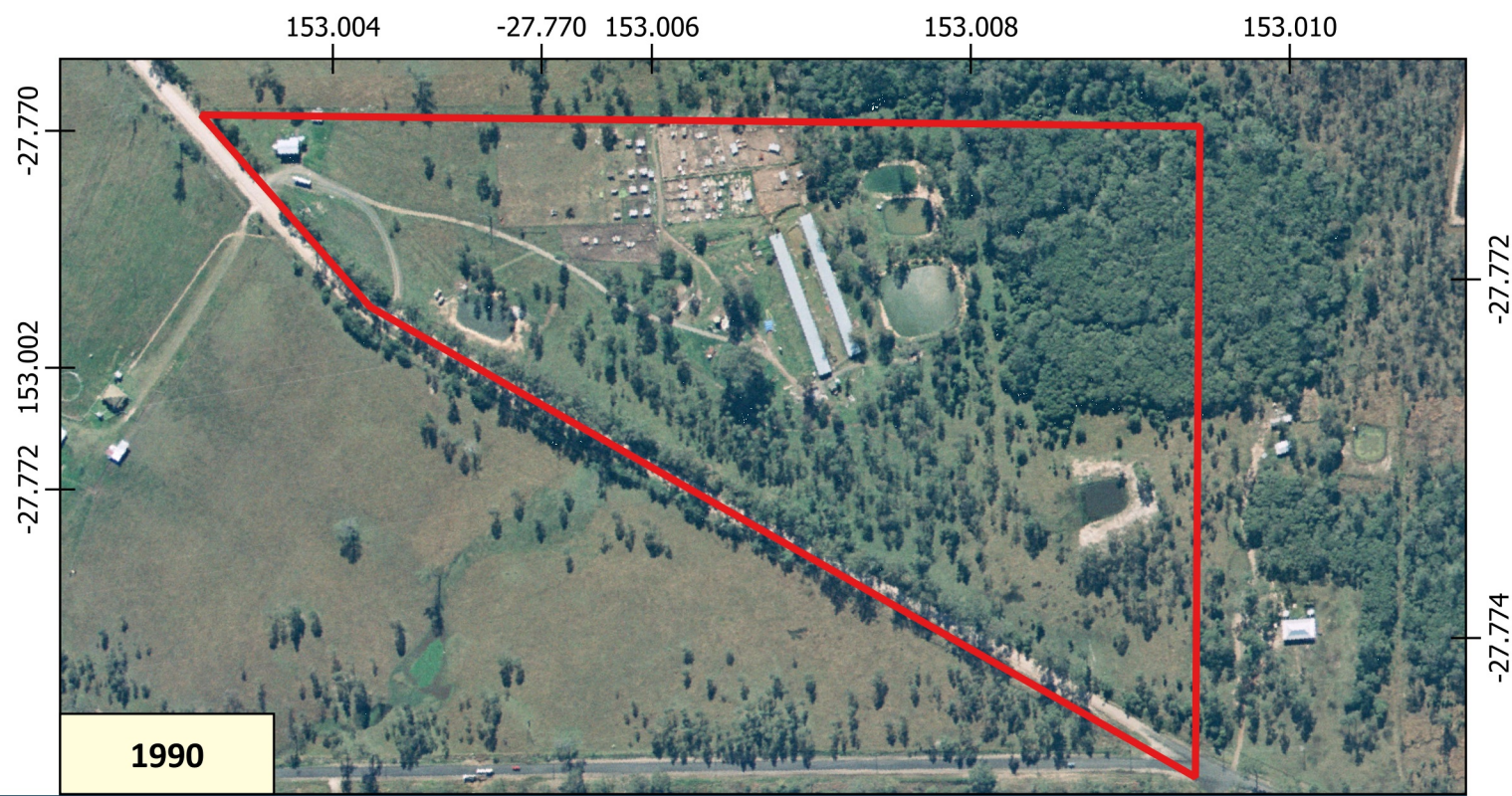
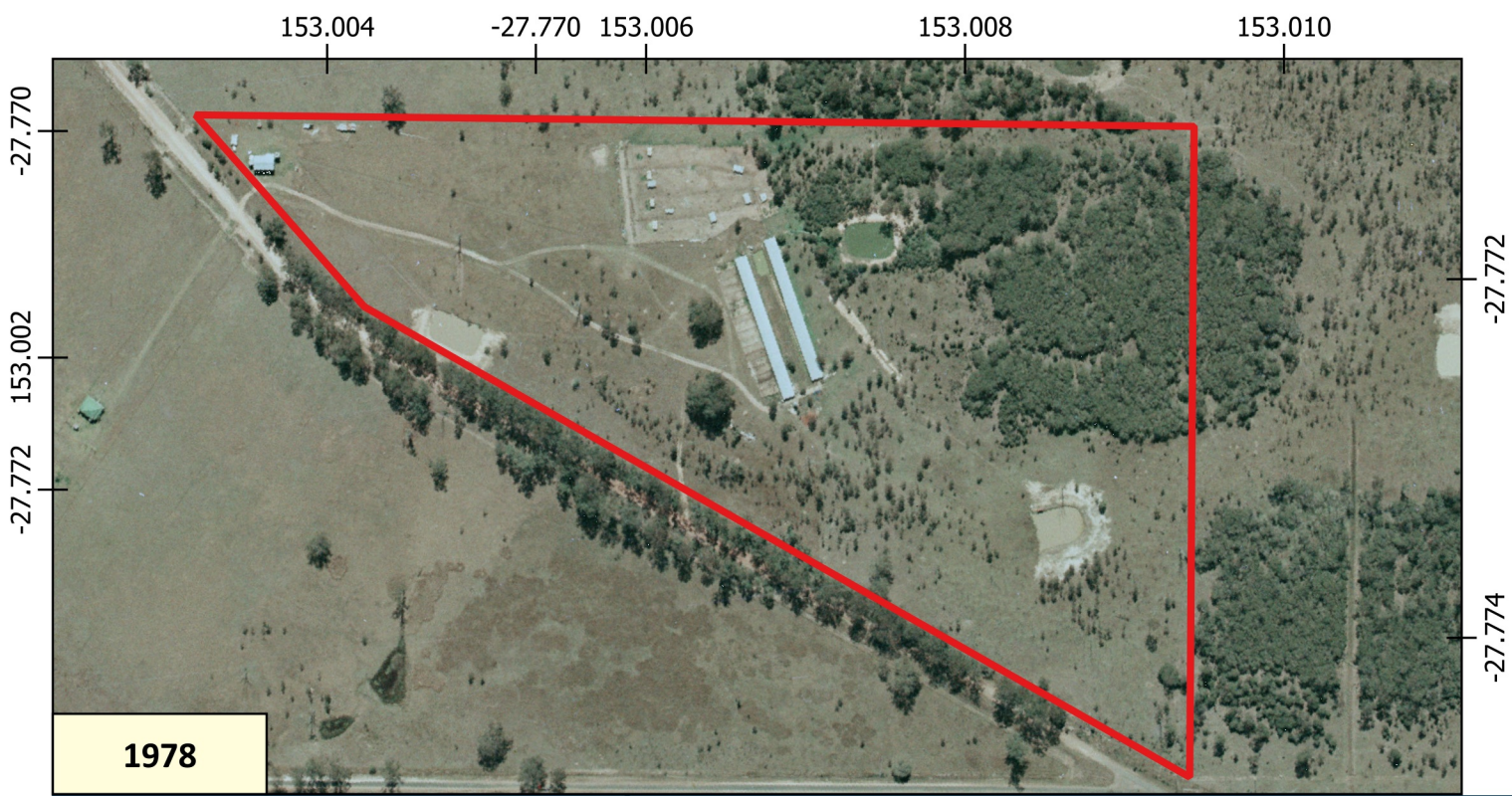
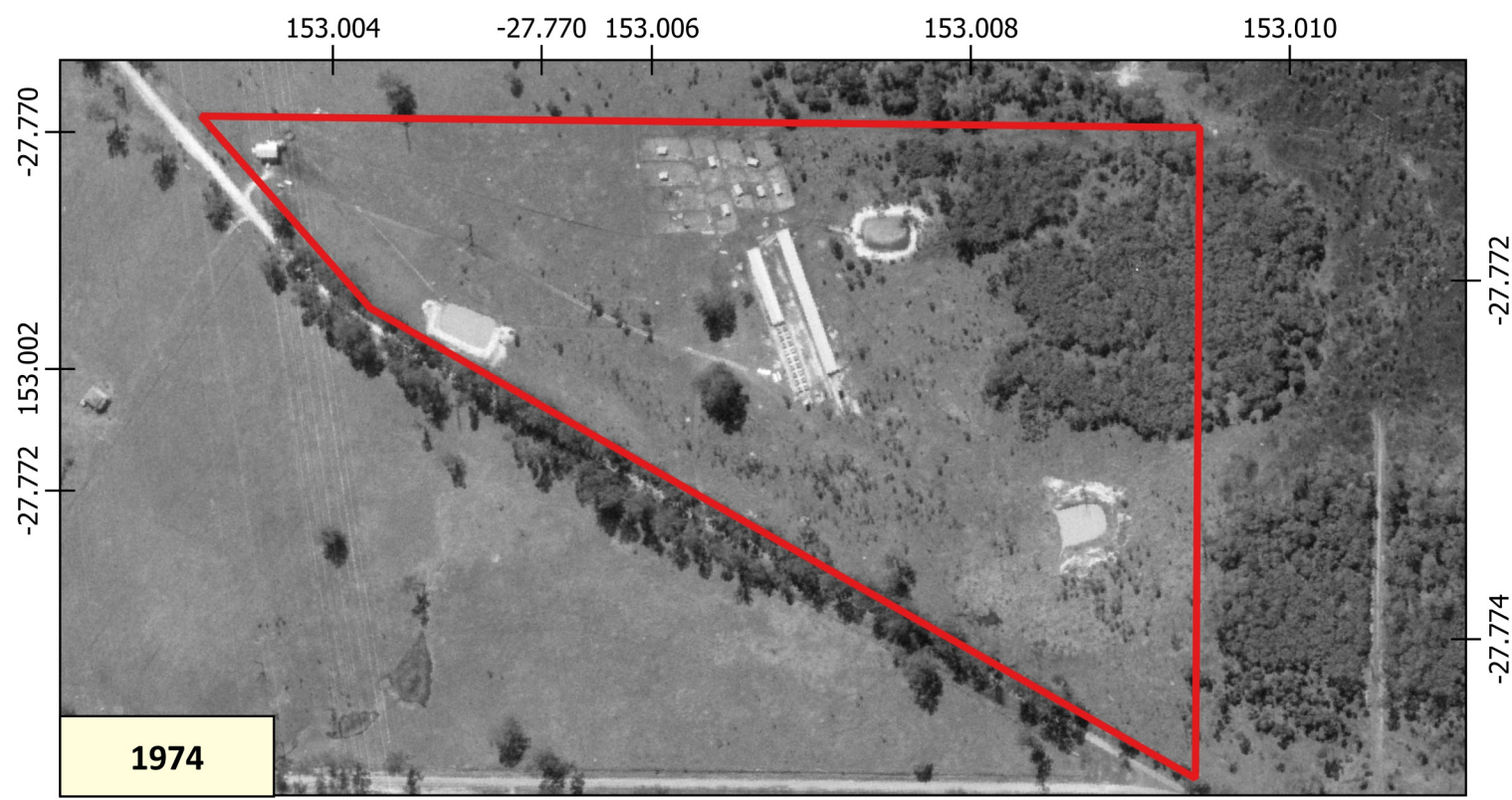
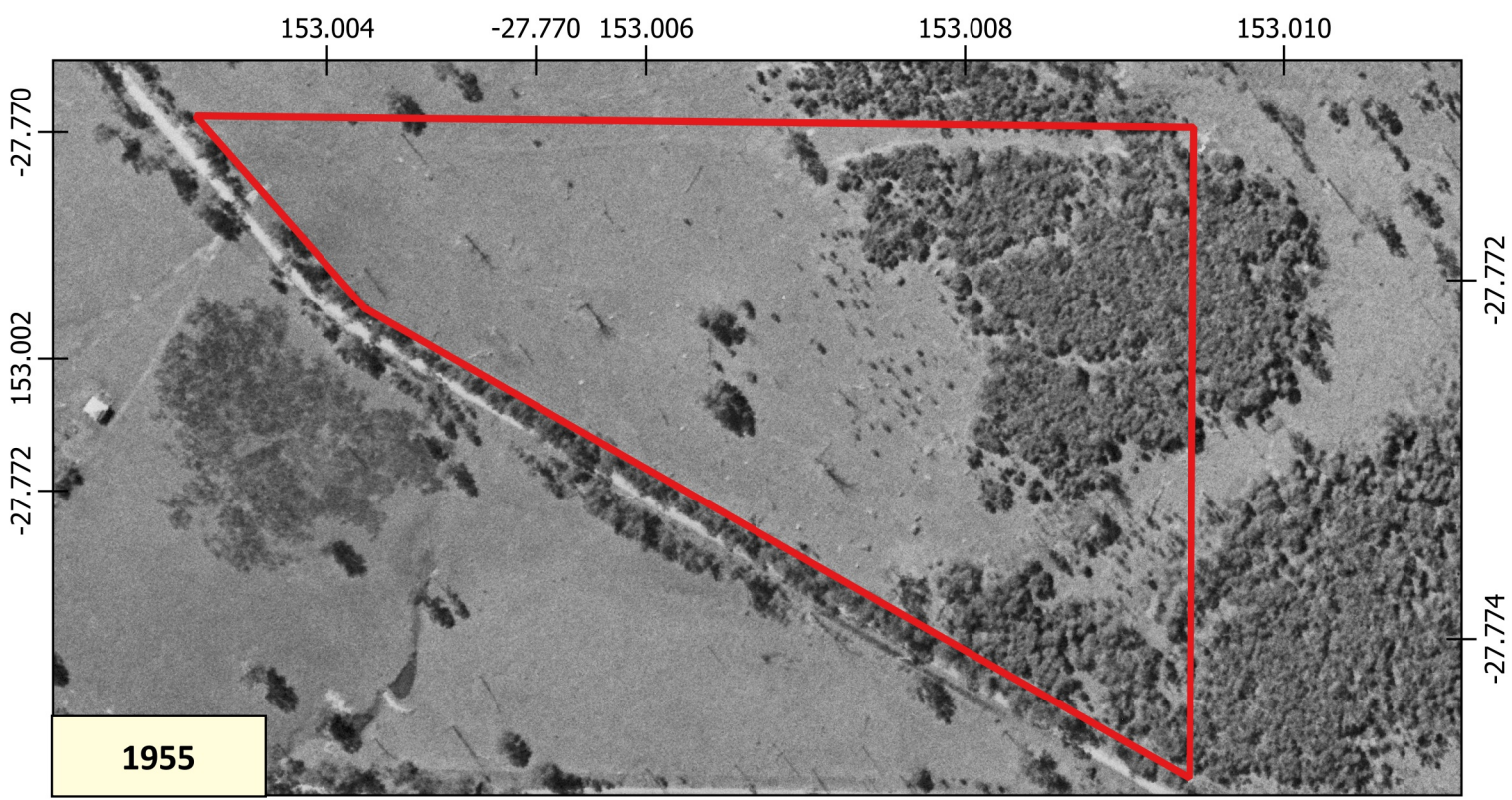
- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:2,200

0 100 200 m



824-908 Greenbank Road, North Maclean Legend

Figure 3a - Historical Imagery Analysis

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

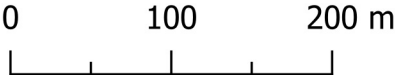
Links to data sources can be provided upon request.

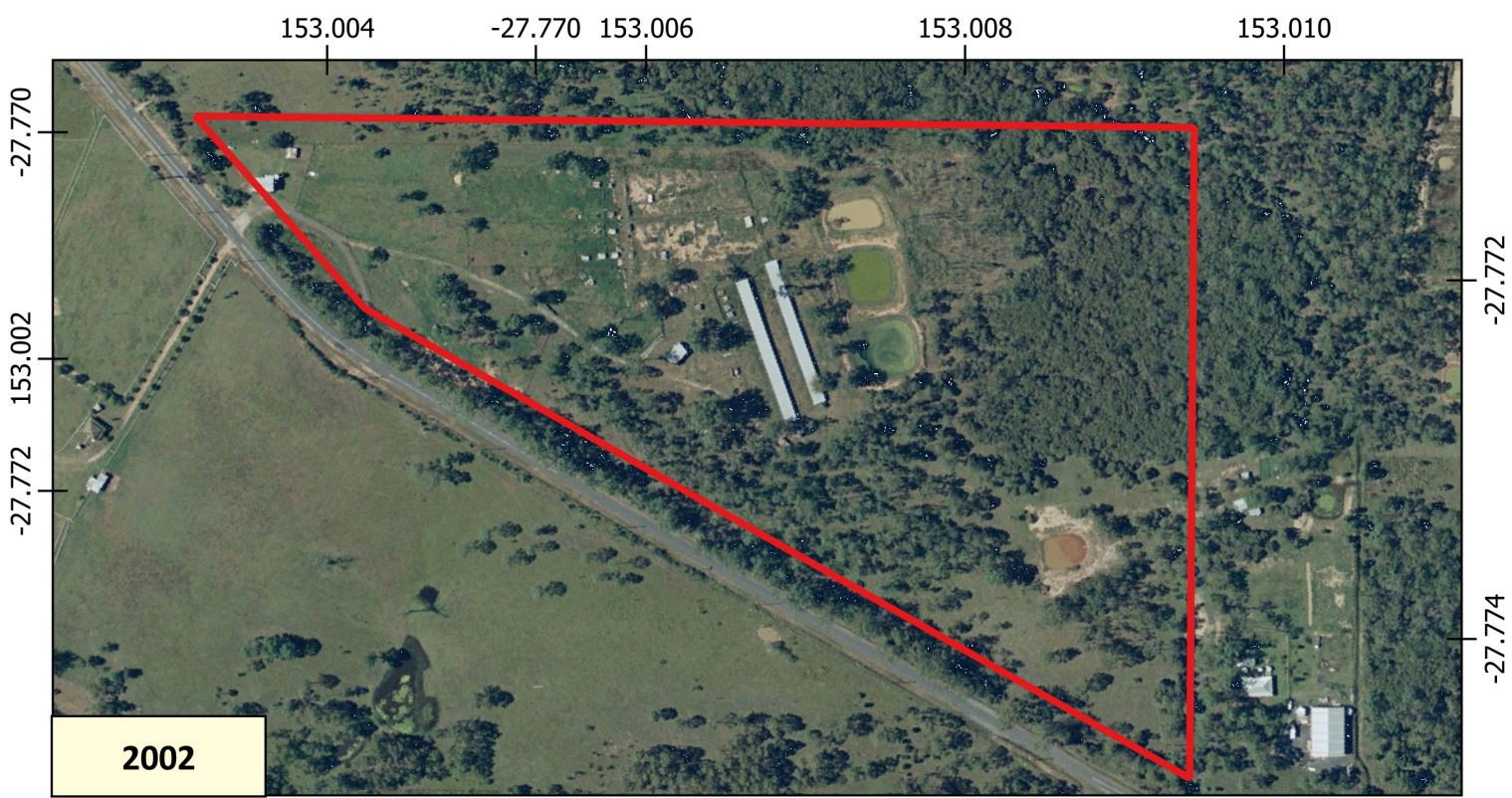


 Site Boundary

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56
1:4,700





824-908 Greenbank Road, North Maclean Legend

Figure 3b - Historical Imagery Analysis

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

28°S
ENVIRONMENTAL

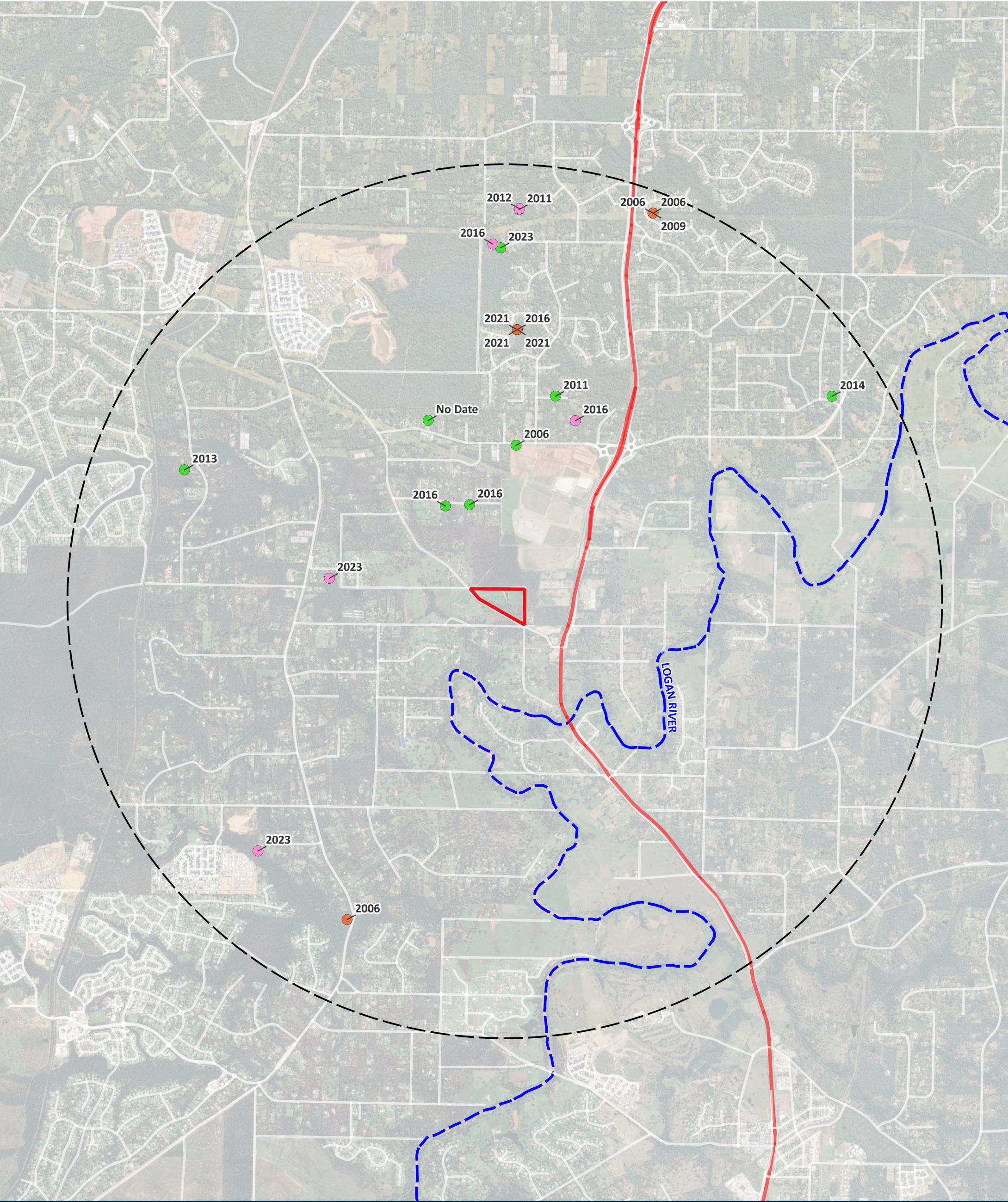
 Site Boundary

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56
1:4,700

0 100 200 m





824-908 Greenbank Road, North Maclean

Figure 4a - ALA Conservation Significant Birds

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\ld\Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS\GDA2020.qgz

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

28°S

ENVIRONMENTAL

Site Boundary

5 km Radius

Major Road/Highway

Road

Major Waterway

Conservation Significant Birds [ALA Records within 5 km]

South-eastern Glossy Black-cockatoo [8]

White-throated Needletail [10]

Powerful Owl [6]

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

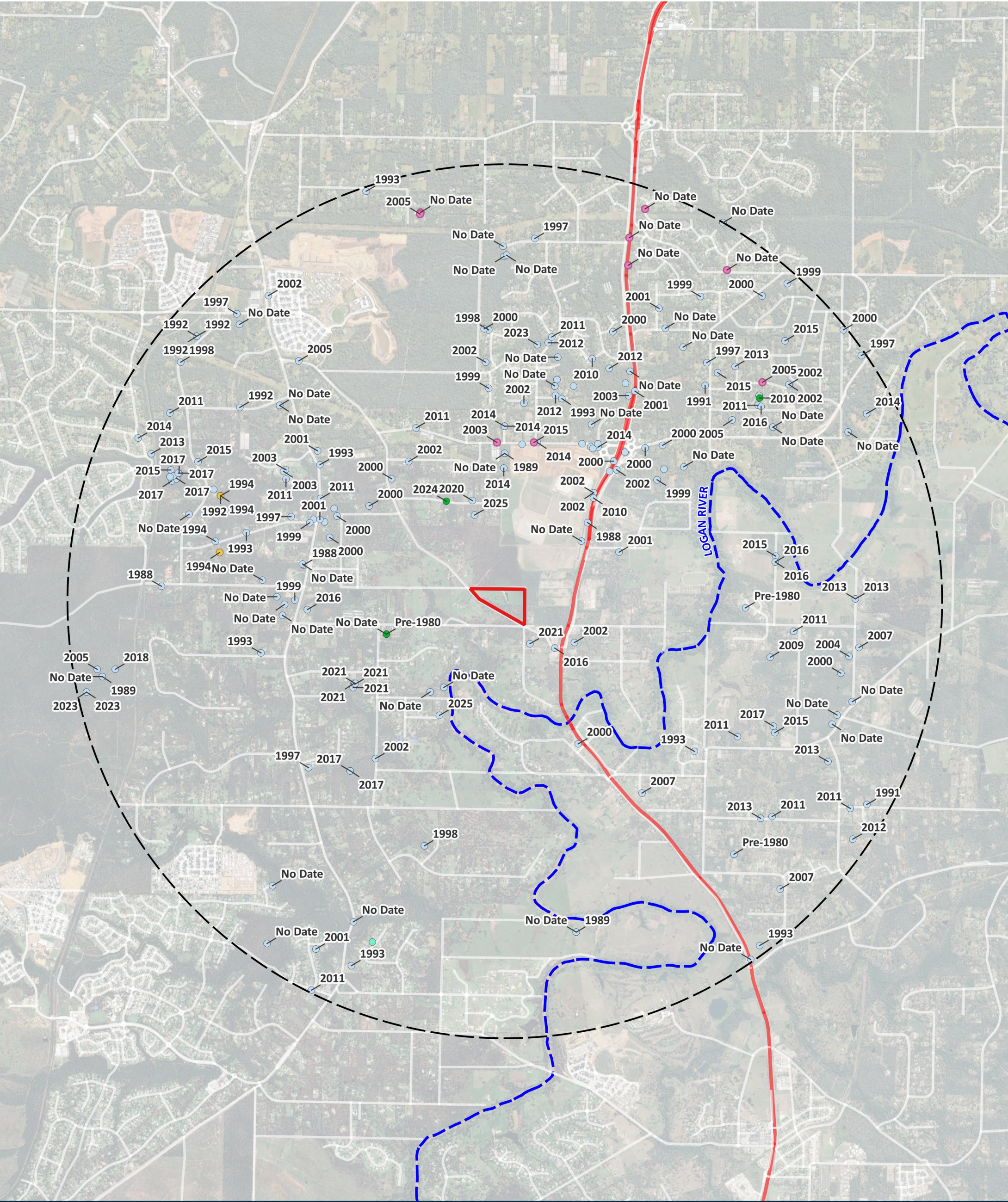
1:40,000

0

1

2 km

N



824-908 Greenbank Road, North Maclean

Figure 4b - ALA Conservation Significant Mammals

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d\Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS\GDA2020.aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

28°S

ENVIRONMENTAL

Links to data sources can be provided upon request.

Site Boundary

5 km Radius

Major Road/Highway

Road

Major Waterway

Conservation Significant Mammals [ALA Records]

Southern Greater Glider [2]

Grey-headed Flying-fox [4]

Koala [206]

Yellow-bellied Glider [1]

Spotted-tailed Quoll [9]

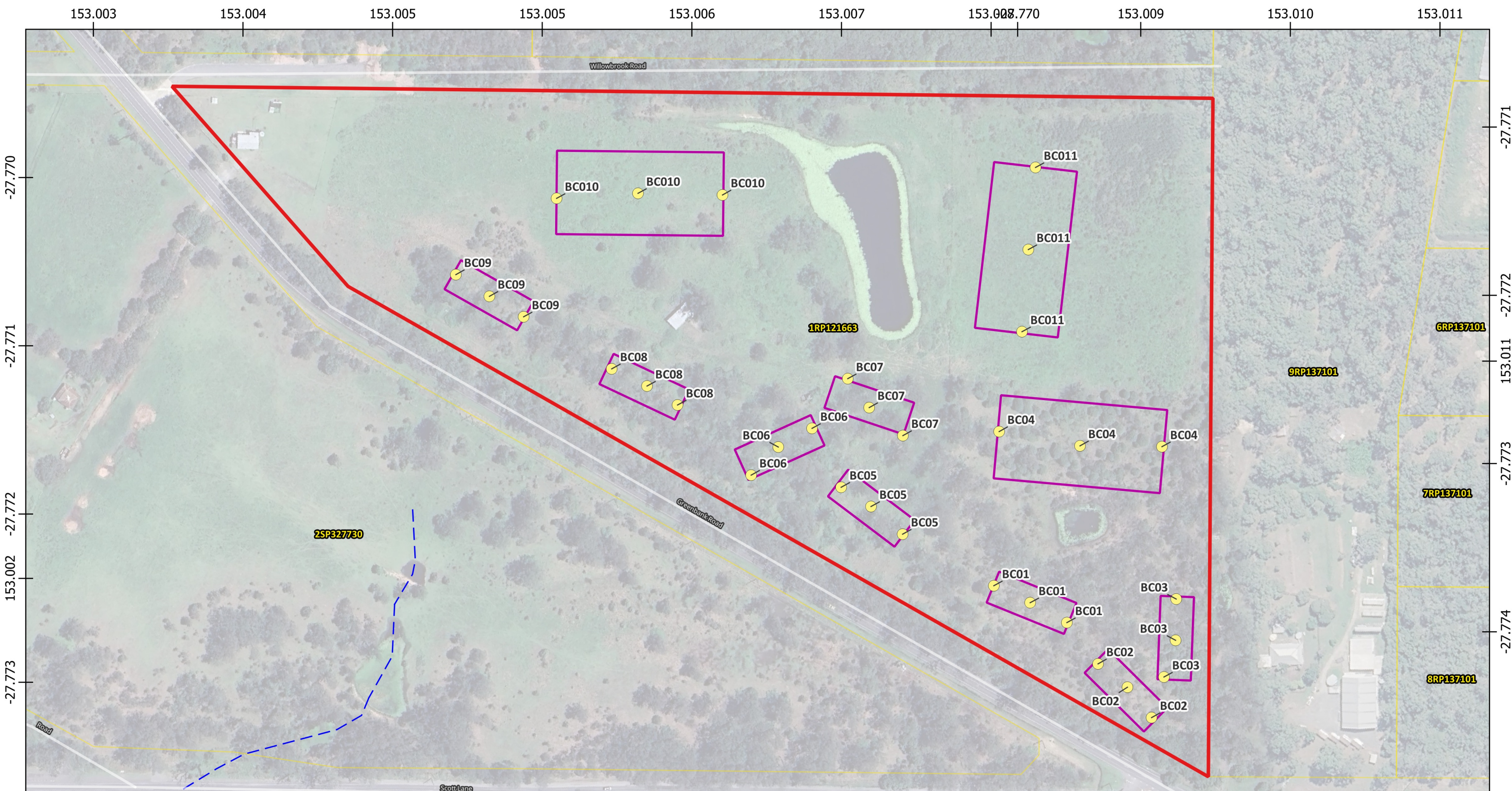
Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:40,000

012 km

N



824-908 Greenbank Road, North Maclean

Figure 5 - BioCondition Plots

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\103 Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

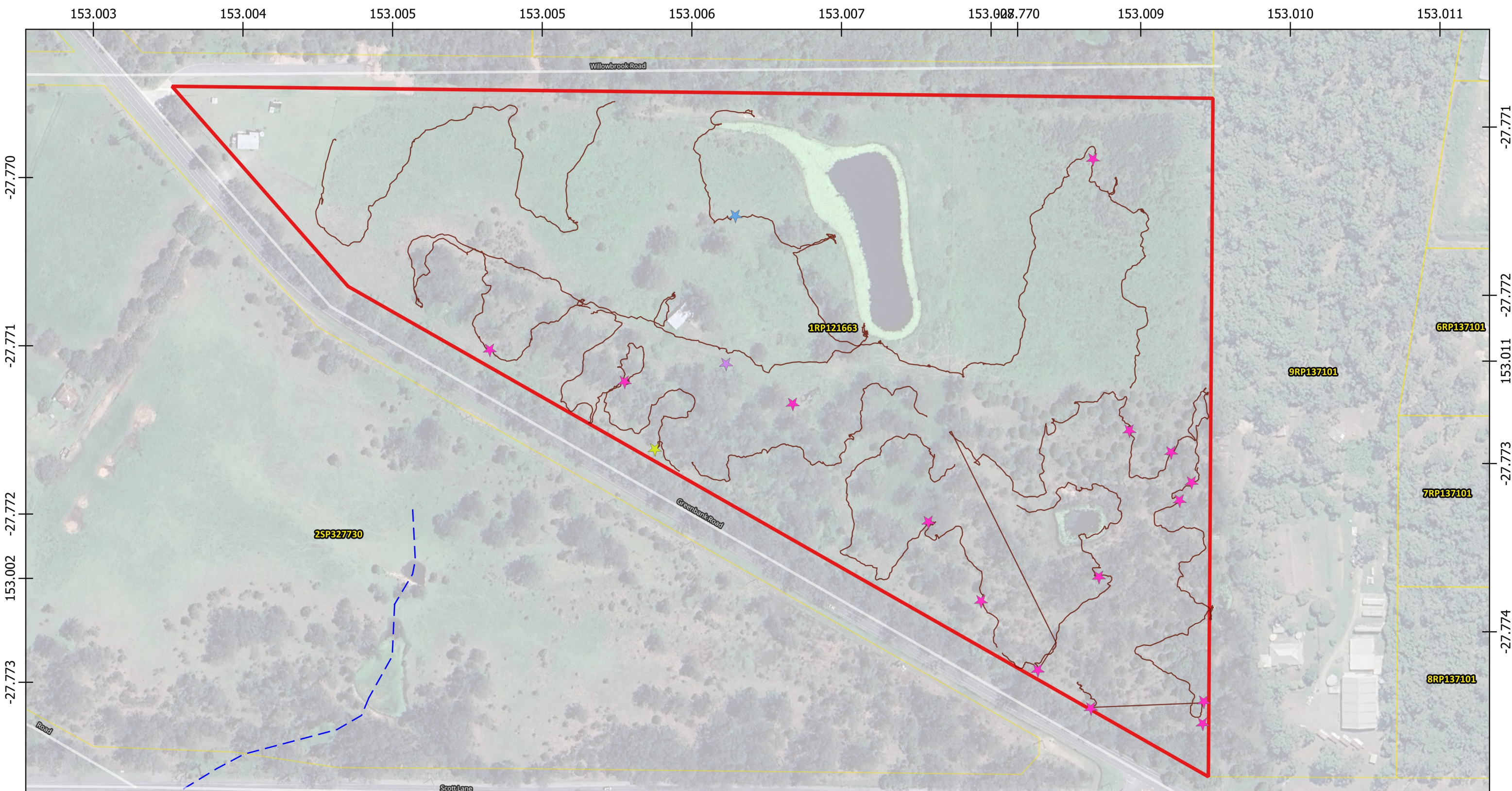


- Site Boundary
- Property Boundaries
- Road
- Waterway/overland flow path
- BioCondition Points
- BioCondition Plots

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200





824-908 Greenbank Road, North Maclean

Figure 6 - Reptile Searches and Habitat Assessment

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS\GDA2020.aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Property Boundaries

Road

Waterway/overland flow path

Reptile & Habitat Search Tracks

Woody Debris and Possible Reptile Habitat

Fallen Tree

Rocky Areas

Woody Debris

Woody Debris/Fallen Tree

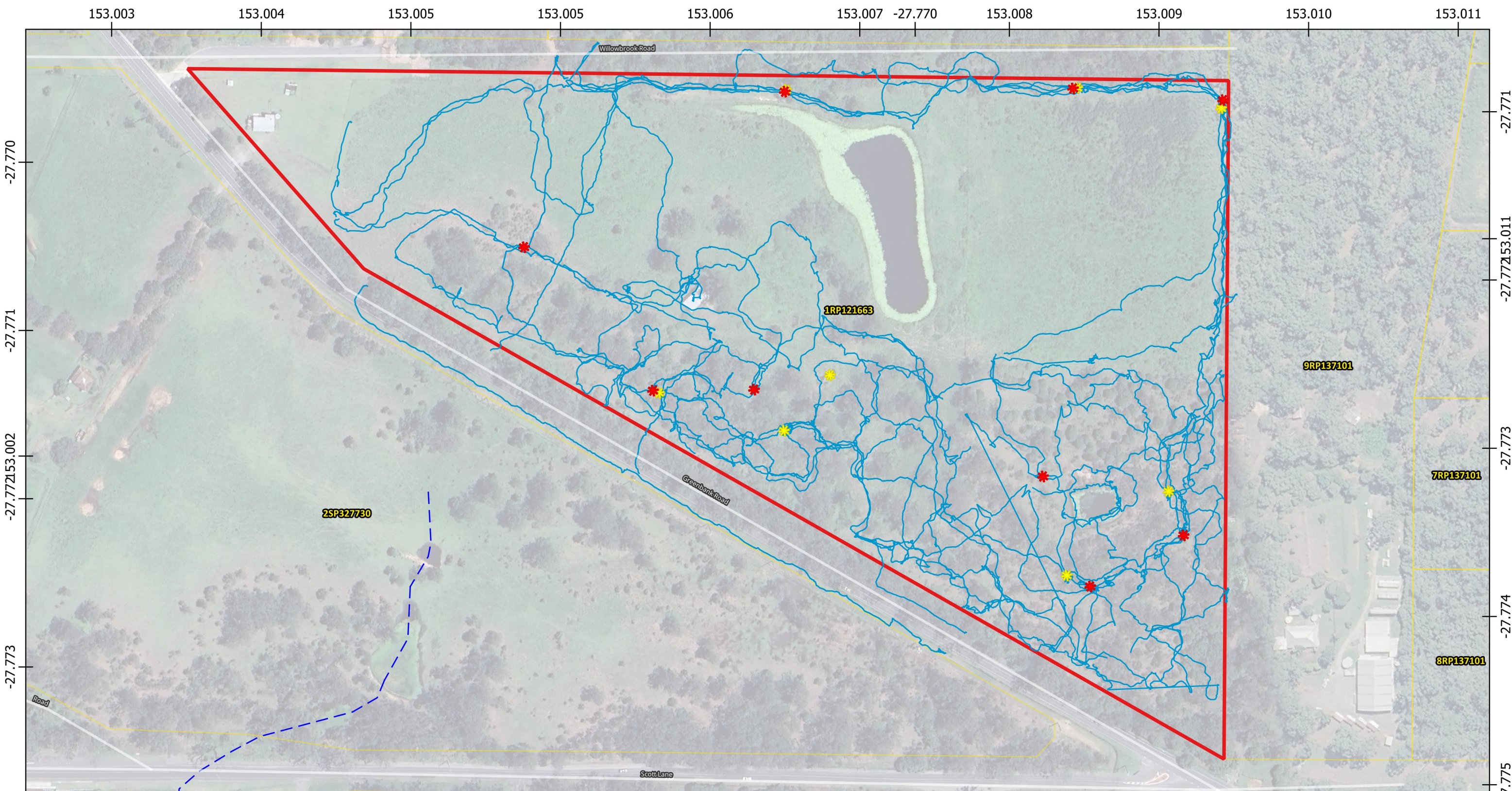
Issue Date	Dwg No.	Author
07-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

1:2,200

0100200

m



824-908 Greenbank Road, North Maclean

Figure 8 - Spotlighting Survey and Fauna Callback Sites

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1\6 Projects\2026\2026100_824-908 Greenbank Rd North Maclean\03_Working\02_GIS\2026100_824-908 Greenbank Rd_GIS (GDA2020).app

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

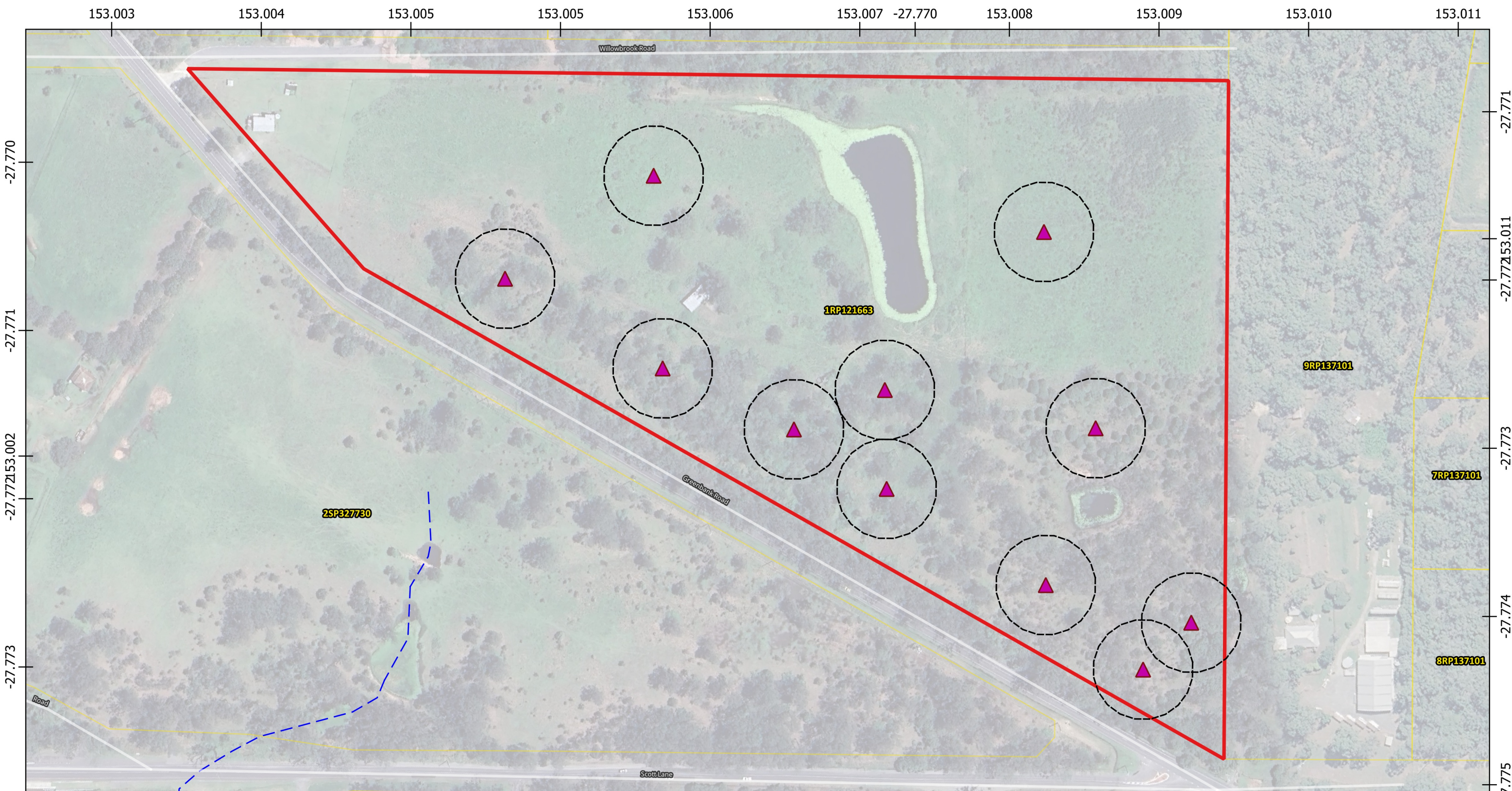


- Site Boundary
- Property Boundaries
- Road
- Waterway/overland flow path
- Spotlighting Tracks
- Powerful Owl Callback Sites [8]
- Koala Callback Sites [9]

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200
0 100 200 m





824-908 Greenbank Road, North Maclean

Figure 9 - SAT Survey Locations

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1\6 Projects\2026\2026100_824-908 Greenbank Rd North Maclean\03_Working\02_GIS\2026100_824-908 Greenbank Rd_GIS (GDA2020).appx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

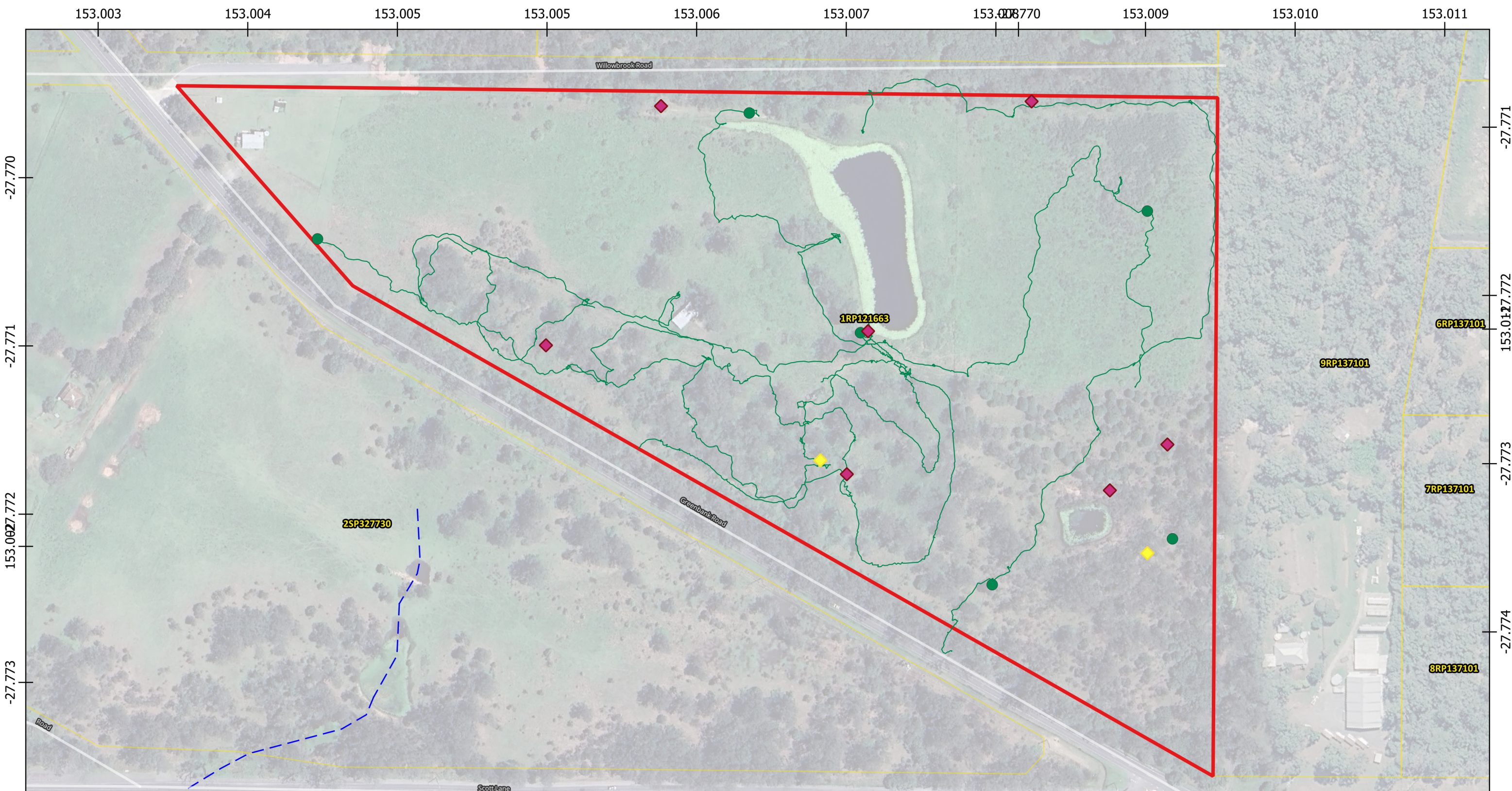


- Site Boundary
- Property Boundaries
- Road
- Waterway/overland flow path
- SAT Survey Points
- Search Radius [30 m]

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200
0 100 200 m





824-908 Greenbank Road, North Maclean

Figure 10 - Bird Surveys, Camera Traps and Acoustic Recorder Sites

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\100 Projects\2026\2026100_824-908 Greenbank Rd North Maclean\03_Working\02_GIS\2026100_824-908 Greenbank Rd_GIS (GDA2020).app

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

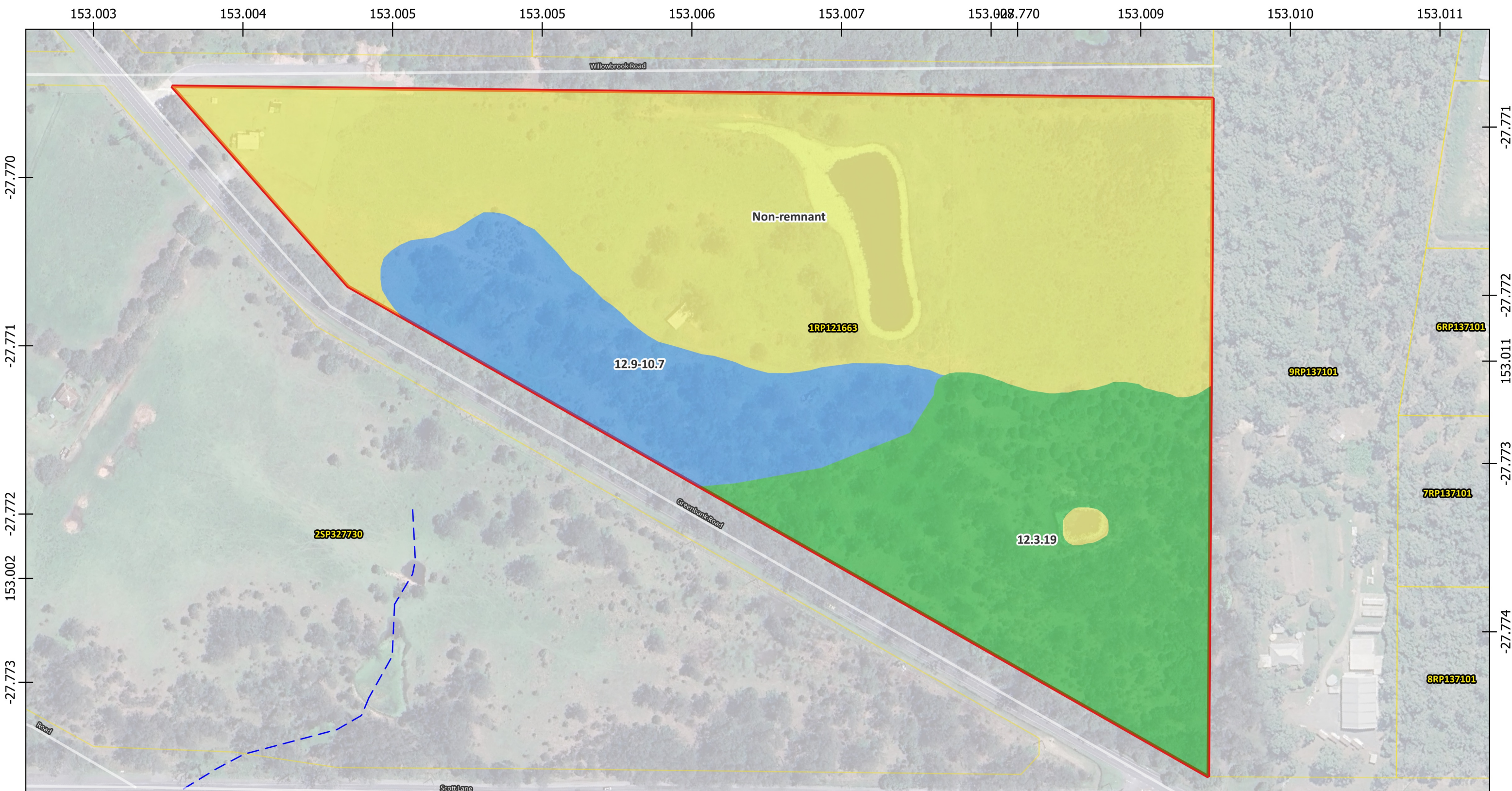
Links to data sources can be provided upon request.



- | | |
|-----------------------------|-------------------------|
| Site Boundary | Camera Trap Sites |
| Property Boundaries | Acoustic Recorder Sites |
| Road | Bird Survey Points |
| Waterway/overland flow path | Bird Survey Tracks |

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		





824-908 Greenbank Road, North Maclean

Figure 11 - Ground-truthed Regional Ecosystems

28 South Project Ref: 2026 - 100

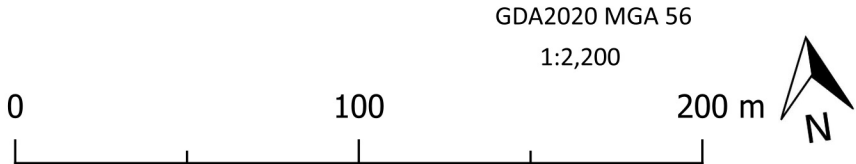
Source: C:\Users\Weha\28 South\Company Data - Documents\103 Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

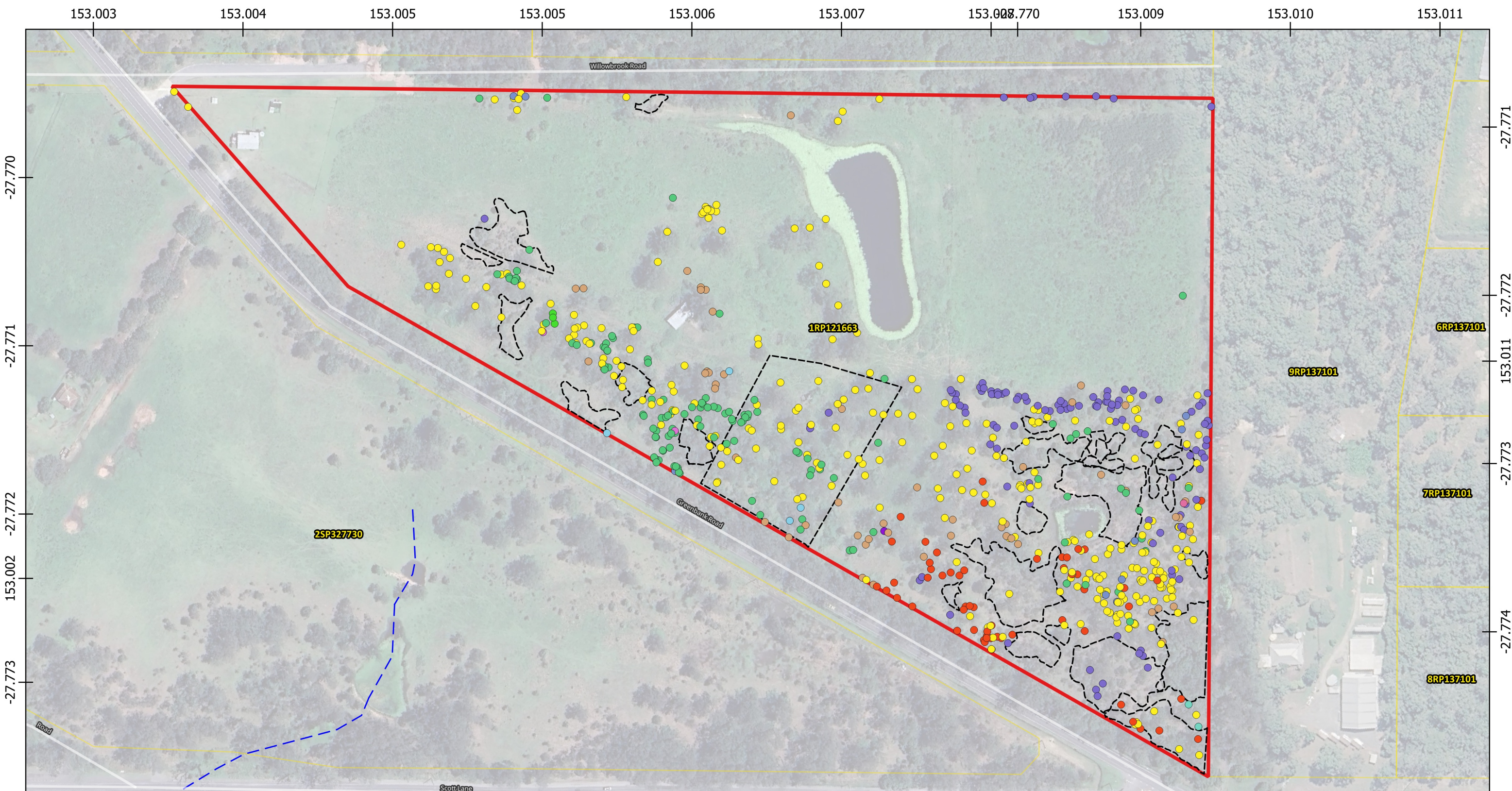
The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

- Site Boundary
- Property Boundaries
- Road
- Waterway/overland flow path
- Ground-truthed Regional Ecosystems
- RE 12.3.19
- RE 12.9-10.7
- Non-remnant

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved		Revision Note
WM		





824-908 Greenbank Road, North Maclean

Figure 12 - Tree Species Overview

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\GIS Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Property Boundaries

Road

Waterway/overland flow path

Vegetation Polygons

Tree Species Overview [669]

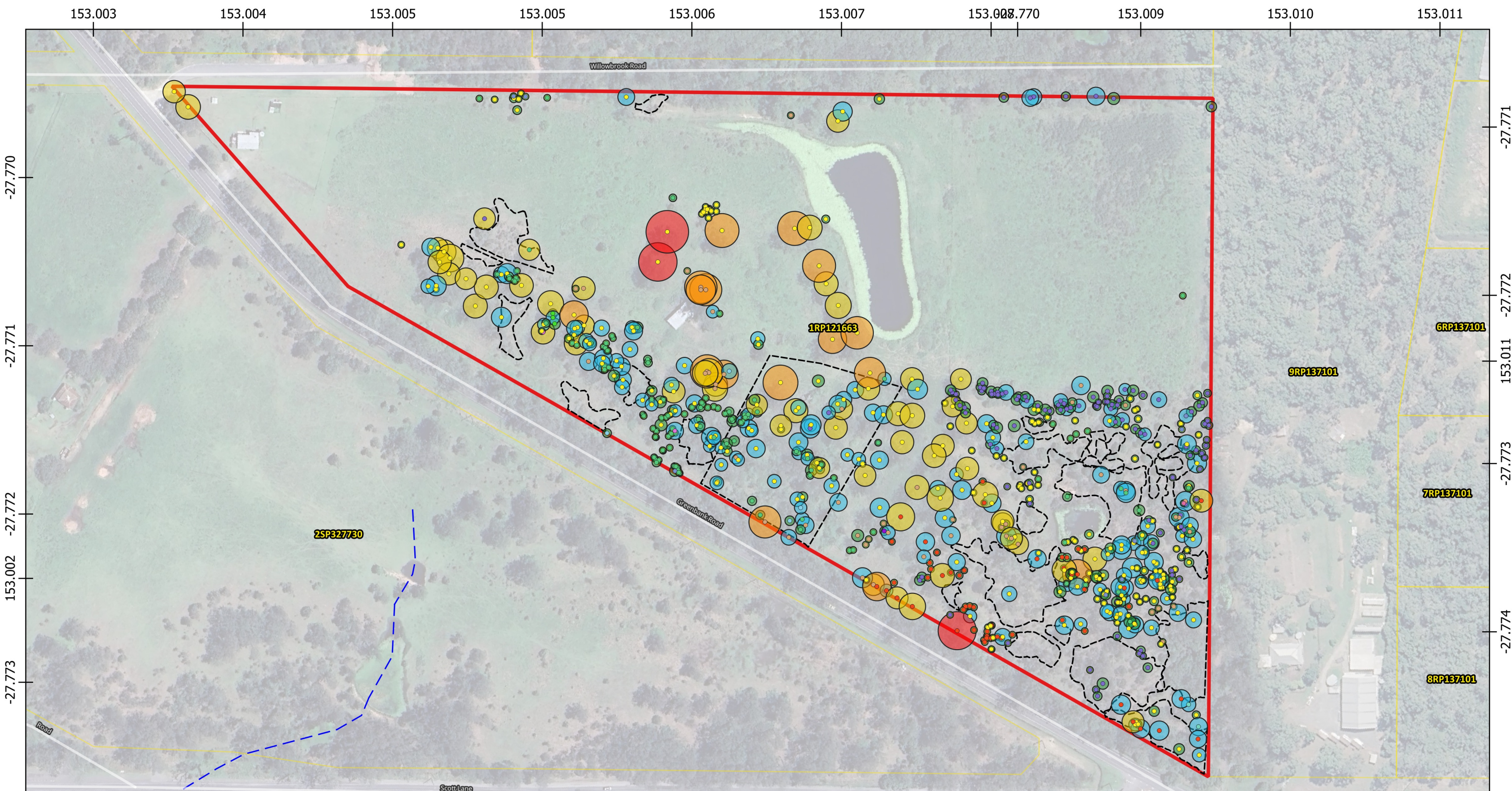
- Angophora leiocarpa [1]
- Blakella citriodora [1]
- Blakella tessellaris [123]
- Corymbia intermedia [4]
- Eucalyptus crebra [2]
- Eucalyptus moluccana [55]
- Eucalyptus seeana [2]
- Eucalyptus siderophloia [51]
- Eucalyptus tereticornis [306]
- Lophostemon suaveolens [9]
- Melaleuca irbyana [112]
- Petalostigma pubescens [3]

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

1:2,200

0100200 m



824-908 Greenbank Road, North Maclean

Figure 13 - Tree Size Classes

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Legend

- Site Boundary
- Property Boundaries
- Road
- Waterway/overland flow path
- Vegetation Polygons

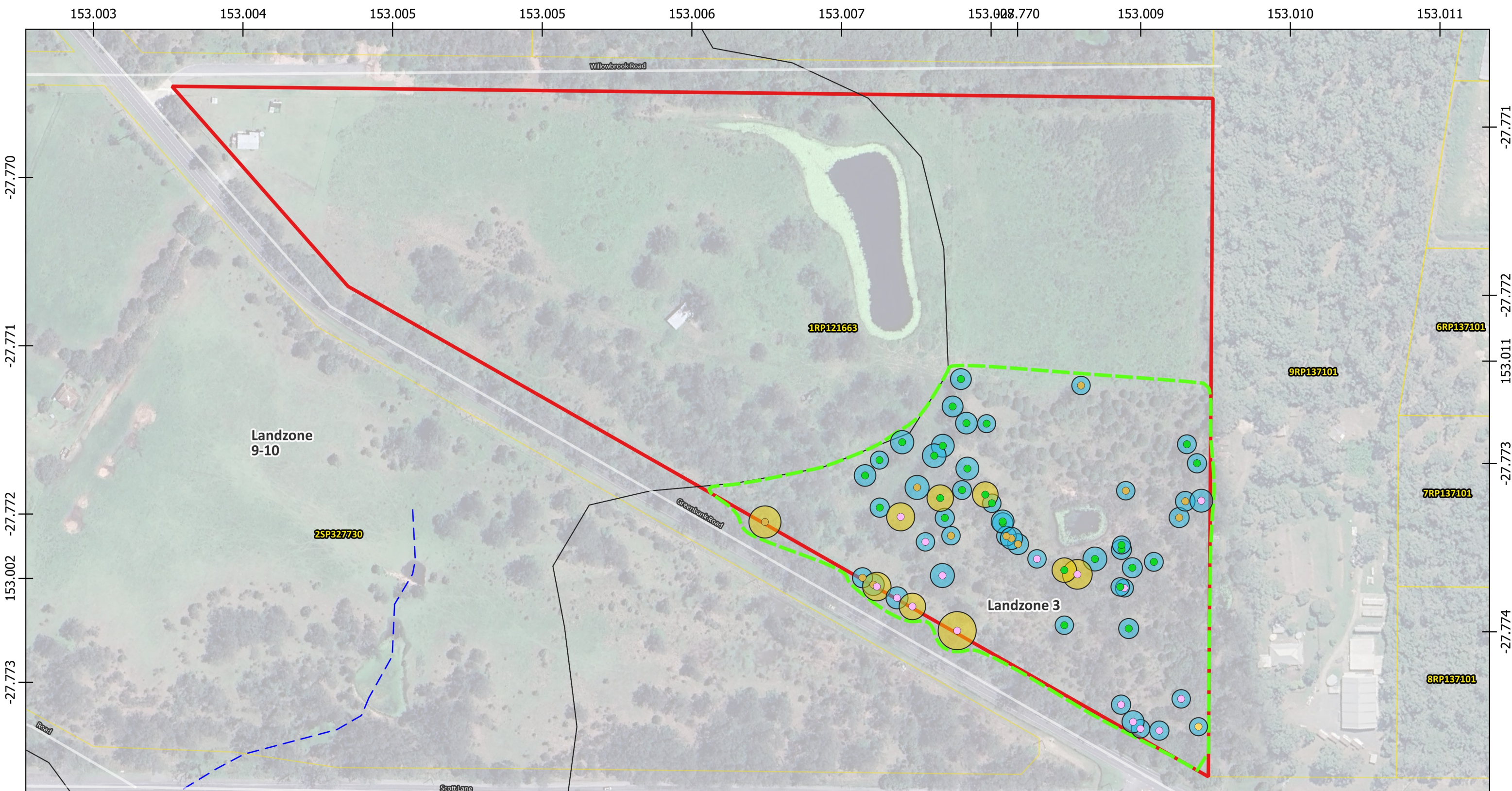
Tree Size Classes [669]

- 0 - 150mm DBH [187]
- 151 - 300mm DBH [237]
- 301 - 500mm DBH [165]
- 501 - 700mm DBH [61]
- 701 - 900mm DBH [16]
- 900+mm DBH [3]

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56
1:2,200

0 100 200 m



824-908 Greenbank Road, North Maclean

Figure 14 - Floodplain Forest TEC Analysis

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\103 Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



Site Boundary

Property Boundaries

Road

Waterway/overland flow path

Impact Area [4.137 ha]

Floodplain Forest TEC Analysis [58]

Eucalyptus crebra [1]

Eucalyptus moluccana [16]

Eucalyptus siderophloia [12]

Eucalyptus tereticornis [29]

Tree Size Classes [58]

450 - 600mm DBH [49]

600+mm DBH [9]

Issue Date

14-07-2026

Dwg No.

Author

NC

Approved

WM

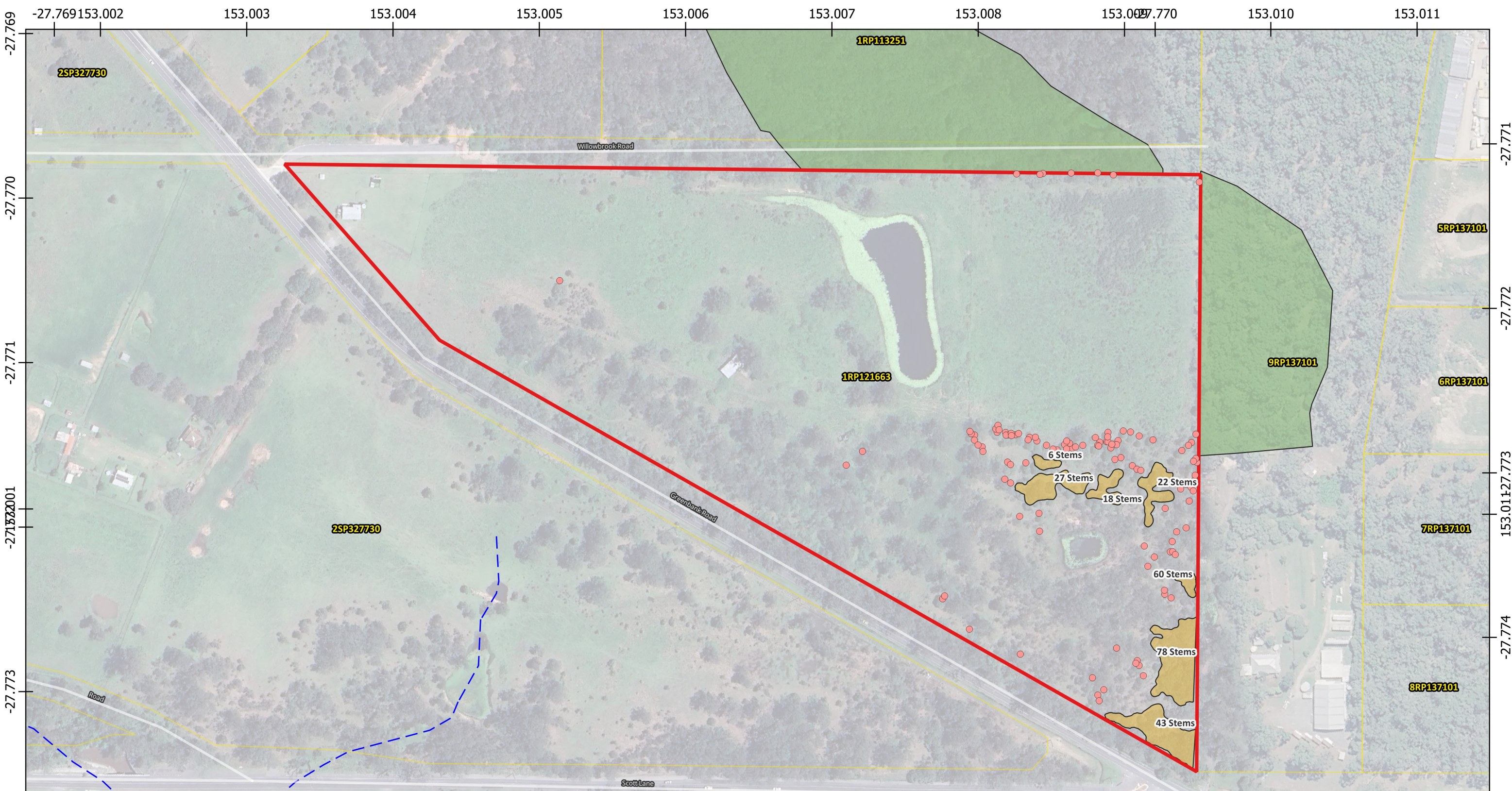
Revision Note

GDA2020 MGA 56

1:2,200

0 50 100 m





824-908 Greenbank Road, North Maclean

Figure 15 - Swamp Tea-tree Analysis

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

- Site Boundary

Property Boundaries

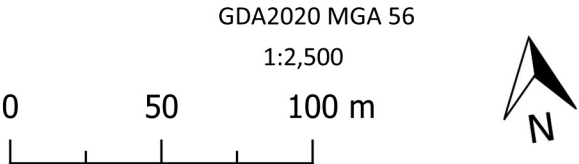
Road

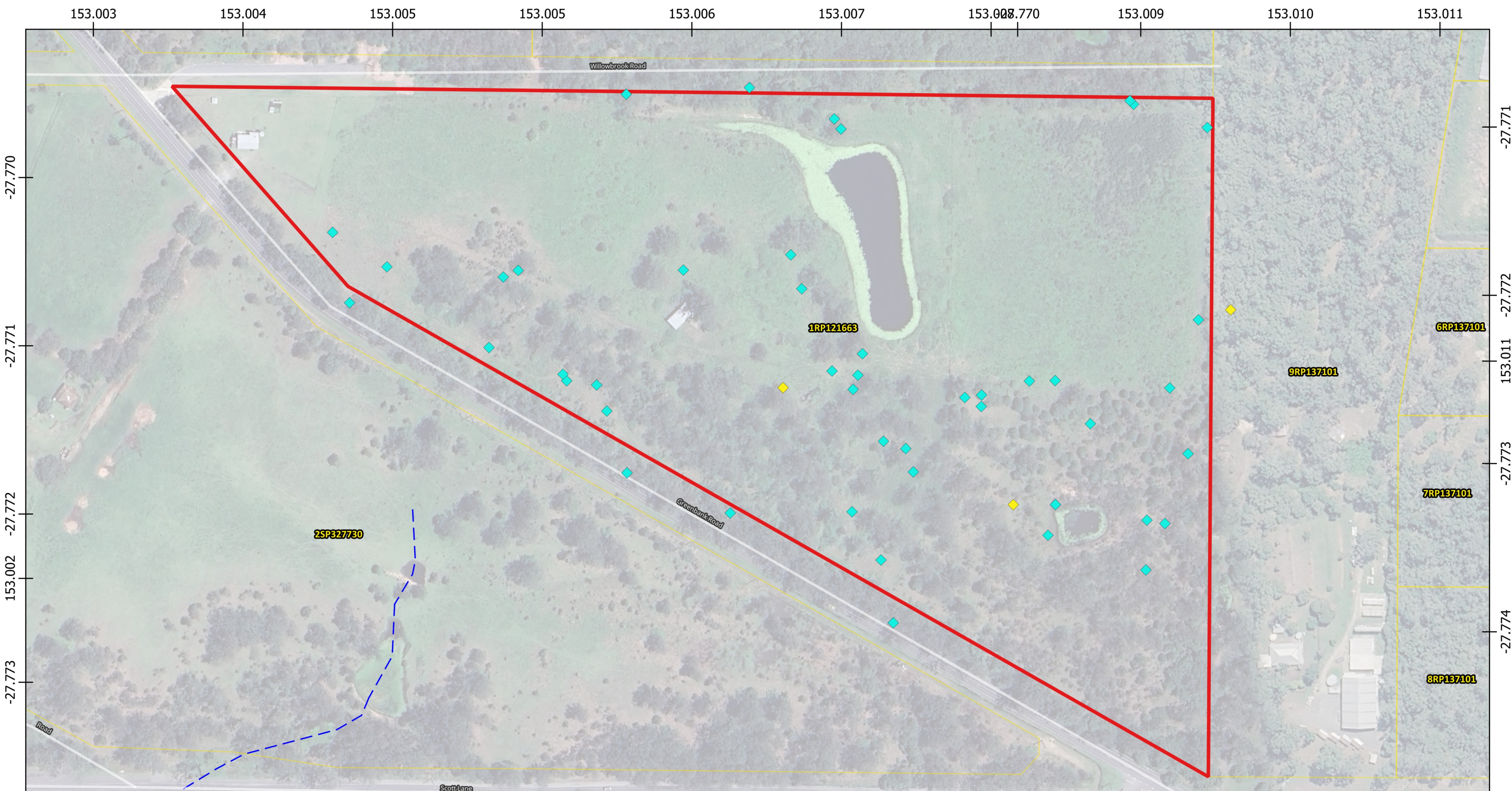
Waterway/overland flow path
- Confirmed Swamp Tea-Tree TEC Area [Offsite]

Melaleuca irbyana Clusters

Melaleuca irbyana Individuals [112]

Issue Date	Dwg No.	Author
08-07-2026		NC
Approved		Revision Note
WM		





824-908 Greenbank Road, North Maclean

Figure 16 - Field Survey Records of Conservation Significant Mammals

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

- Site Boundary

Property Boundaries

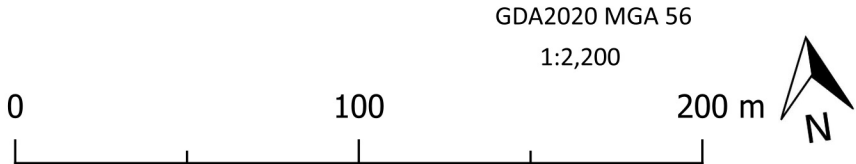
Road

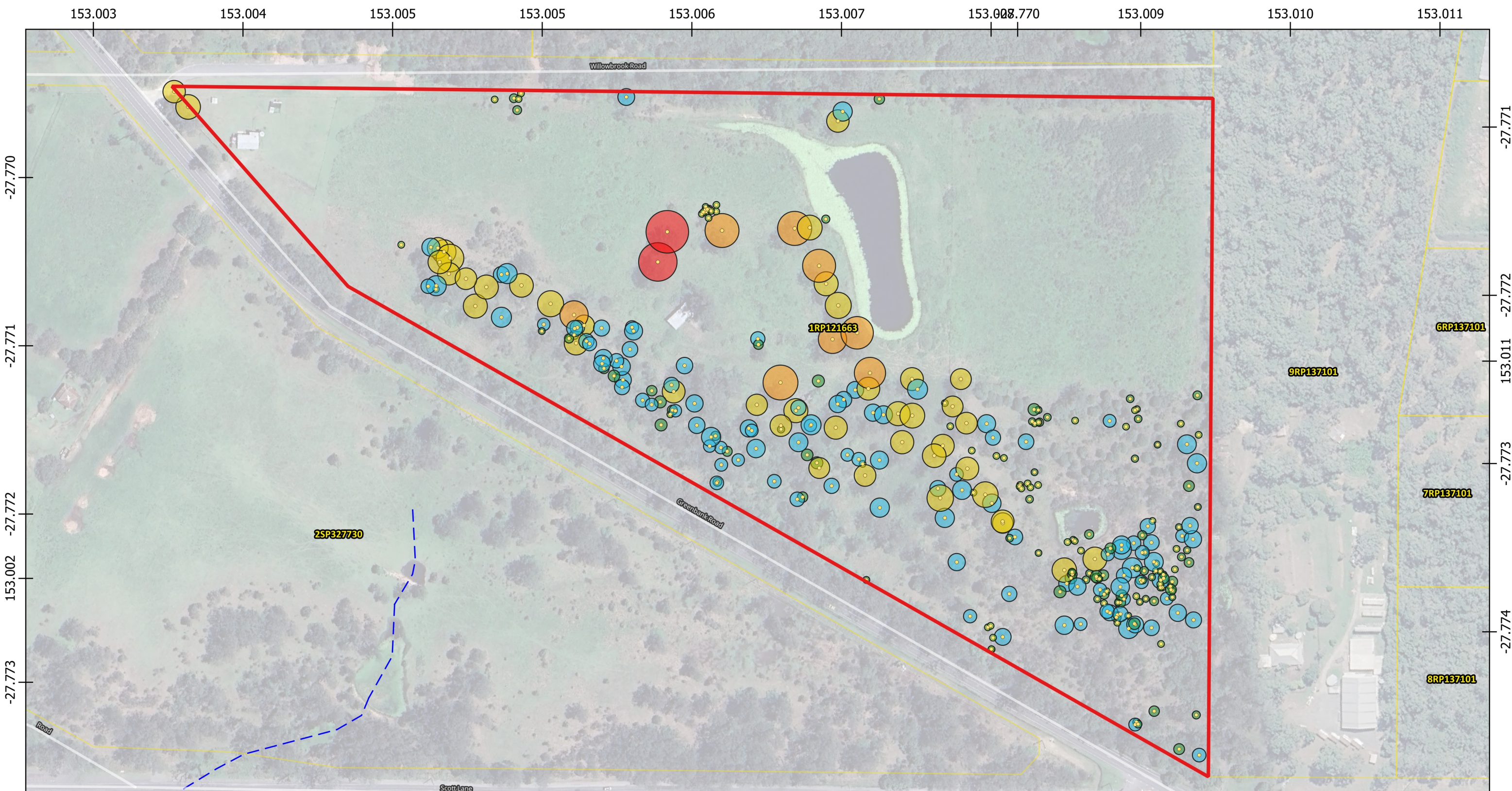
Waterway/overland flow path
- 28 South Field Survey Records

Grey-headed Flying-fox [46]

Koala [3]

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved		Revision Note
WM		





824-908 Greenbank Road, North Maclean

Figure 17 - Eucalyptus tereticornis on Site

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\103 Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



Site Boundary

Property Boundaries

Road

Waterway/overland flow path

Eucalyptus tereticornis [306]

E. tereticornis Size Classes [306]

0 - 150mm DBH [59]

151 - 300mm DBH [89]

301 - 500mm DBH [106]

501 - 700mm DBH [42]

701 - 900mm DBH [8]

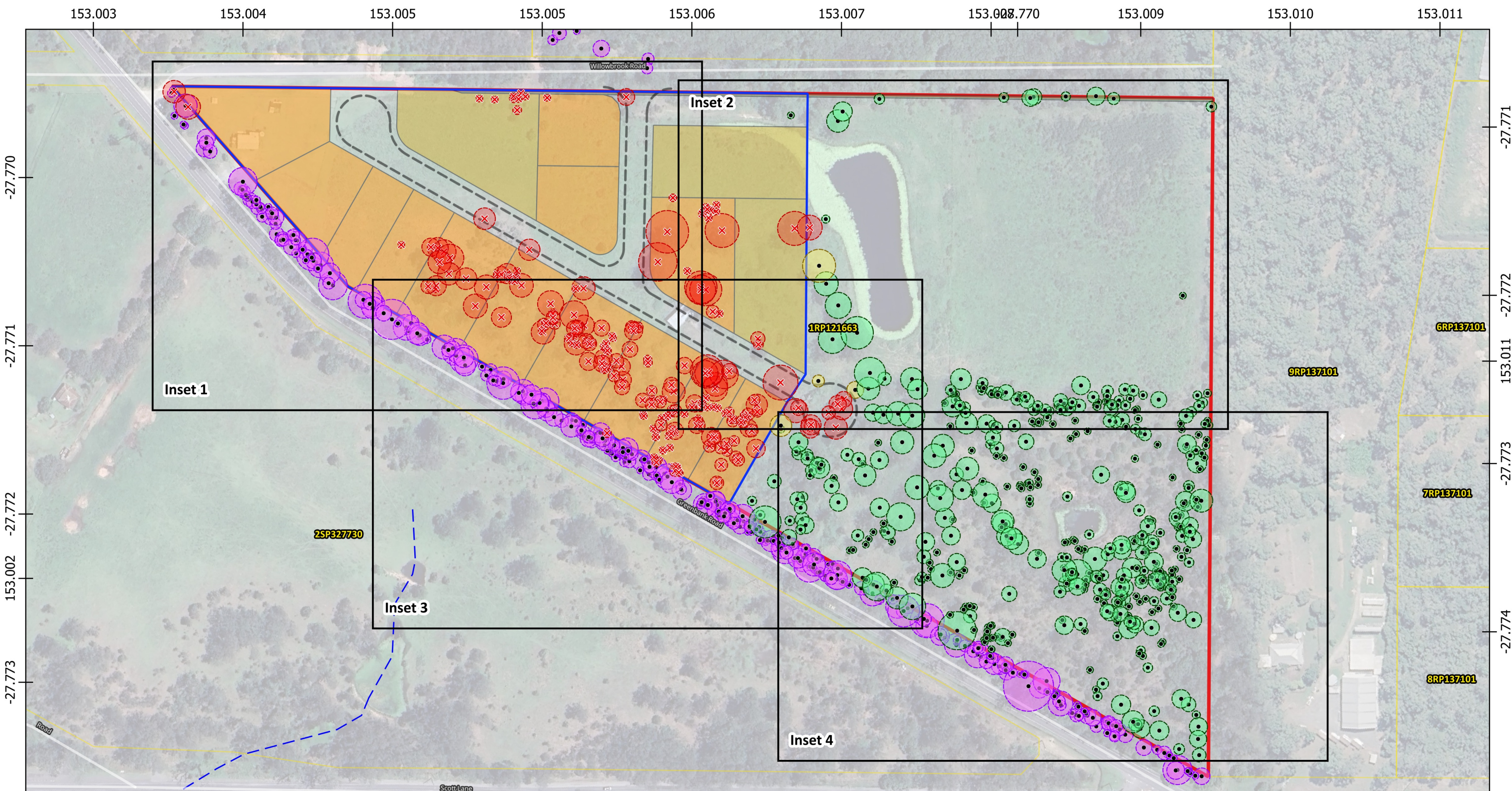
900+mm DBH [2]

Issue Date	Dwg No.	Author
07-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:2,200

0100200 m



824-908 Greenbank Road, North Maclean

Figure 18a - Avoidance Measures and Tree Retention [Overview]

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

Trees Surveyed [669]

- Tree to be removed [218]
- Tree to be retained [447]
- Tree to be retained subject to Arborist Assessment [4]

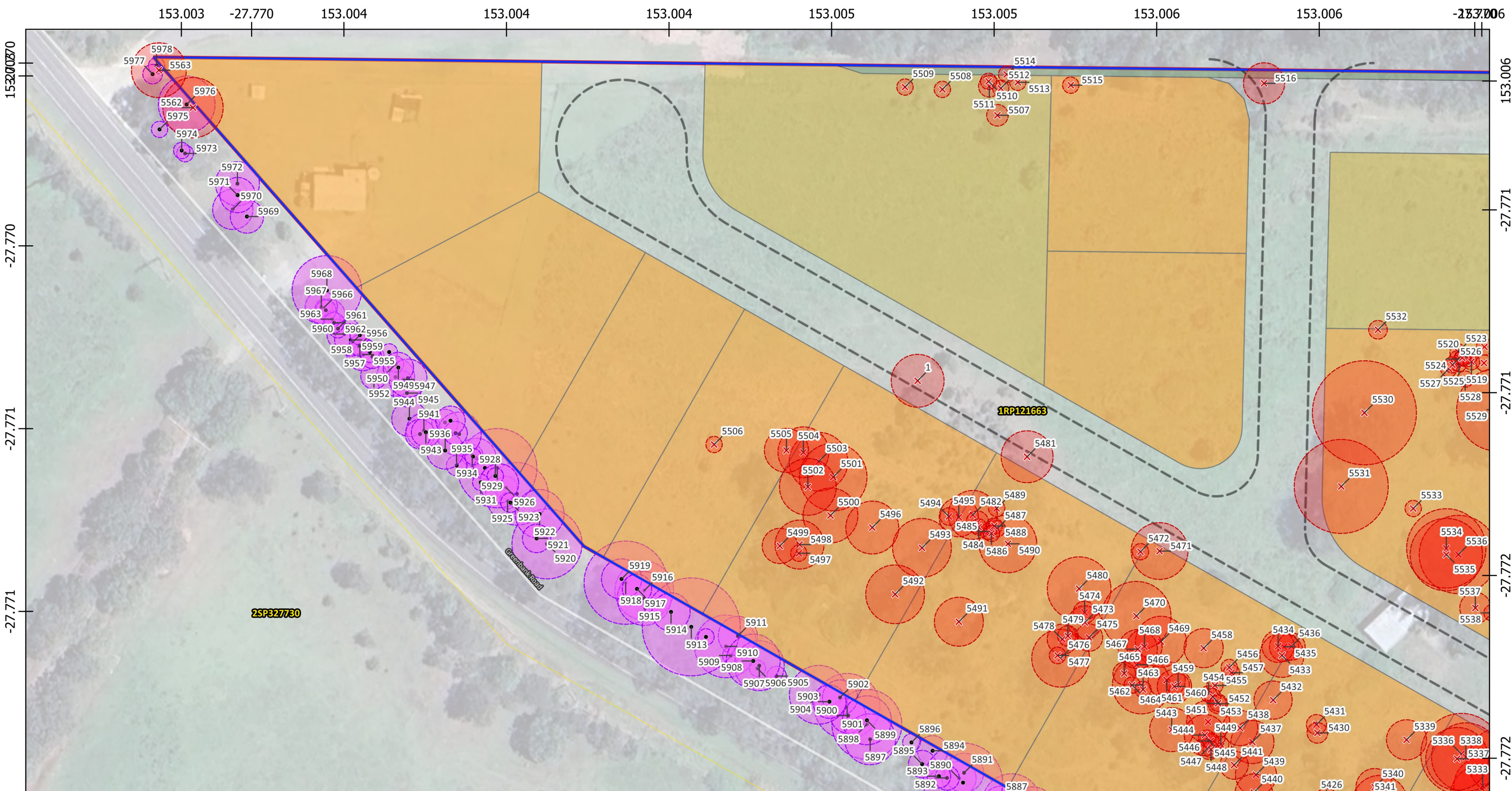
Trees Surveyed Offsite [1129]

- Tree located offsite to be retained [1129]

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200





824-908 Greenbank Road, North Maclean

Figure 18b - Avoidance Measures and Tree Retention [Inset 1]

28 South Project Ref: 2026 - 100

Source: C:\Users\Nehe\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

Trees Surveyed [669]

- Tree to be removed [218]
- Tree to be retained [447]
- Tree to be retained subject to Arborist Assessment [4]

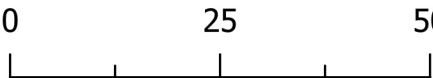
Trees Surveyed Offsite [1129]

- Tree located offsite to be retained [1129]

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:900
50 m





824-908 Greenbank Road, North Maclean

Figure 18c - Avoidance Measures and Tree Retention [Inset 2]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



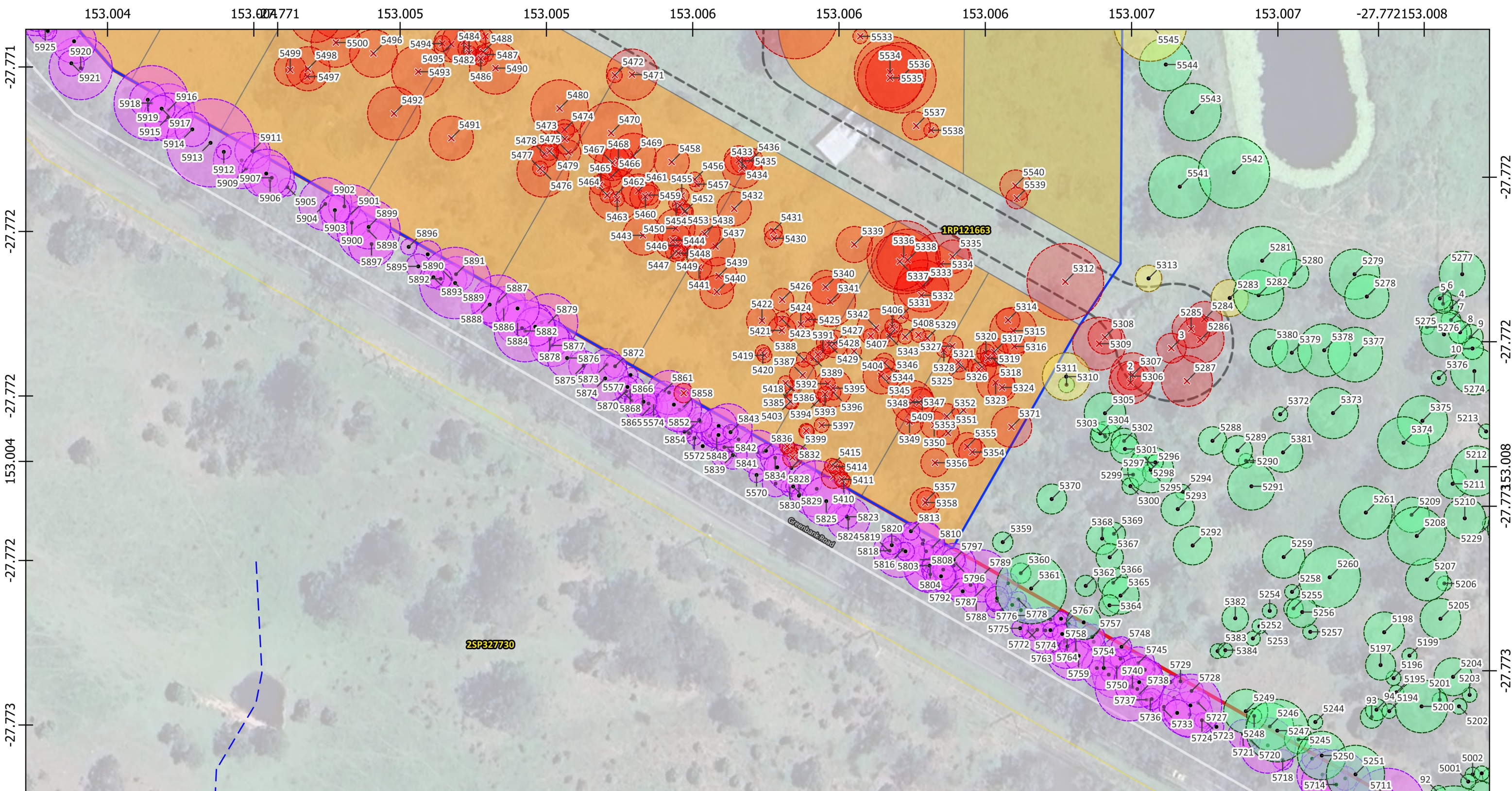
- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road

- Trees Surveyed [669]
- Tree to be removed [218]
 - Tree to be retained [447]
 - Tree to be retained subject to Arborist Assessment [4]

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:1,000
0 25 50 m





824-908 Greenbank Road, North Maclean

Figure 18d - Avoidance Measures and Tree Retention [Inset 3]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1\d\Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

Trees Surveyed [669]

- Tree to be removed [218]
- Tree to be retained [447]
- Tree to be retained subject to Arborist Assessment [4]

Trees Surveyed Offsite [1129]

- Tree located offsite to be retained [1129]

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

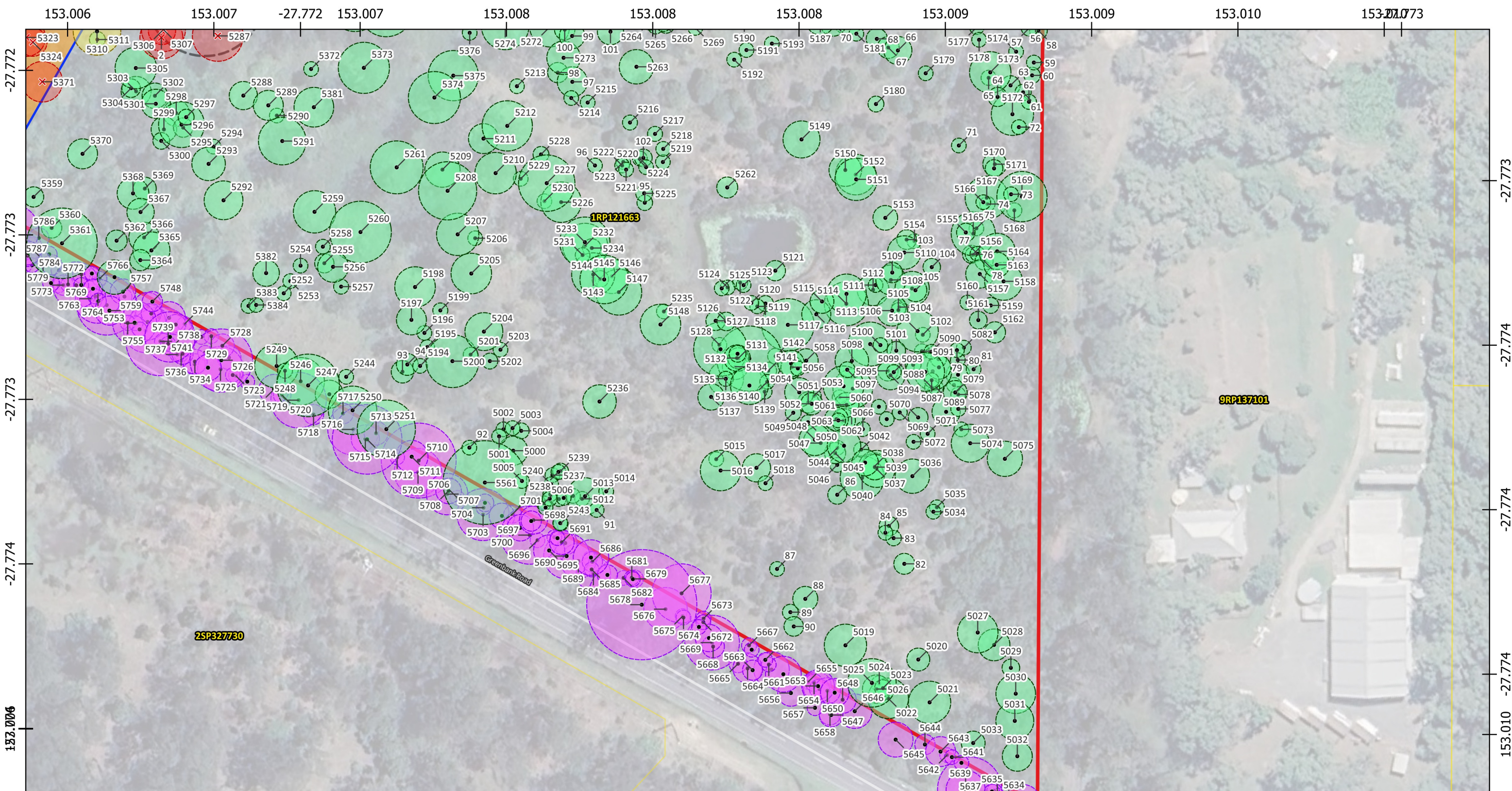
1:1,000

50 m

0

25





824-908 Greenbank Road, North Maclean

Figure 18e - Avoidance Measures and Tree Retention [Inset 4]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1\d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



- Site Boundary

Referral Area [5.75 ha]

Property Boundaries

New Road [20 m wide]

Road
- Trees Surveyed [669]

Tree to be removed [218]

Tree to be retained [447]

Tree to be retained subject to Arborist Assessment [4]
- Trees Surveyed Offsite [1129]

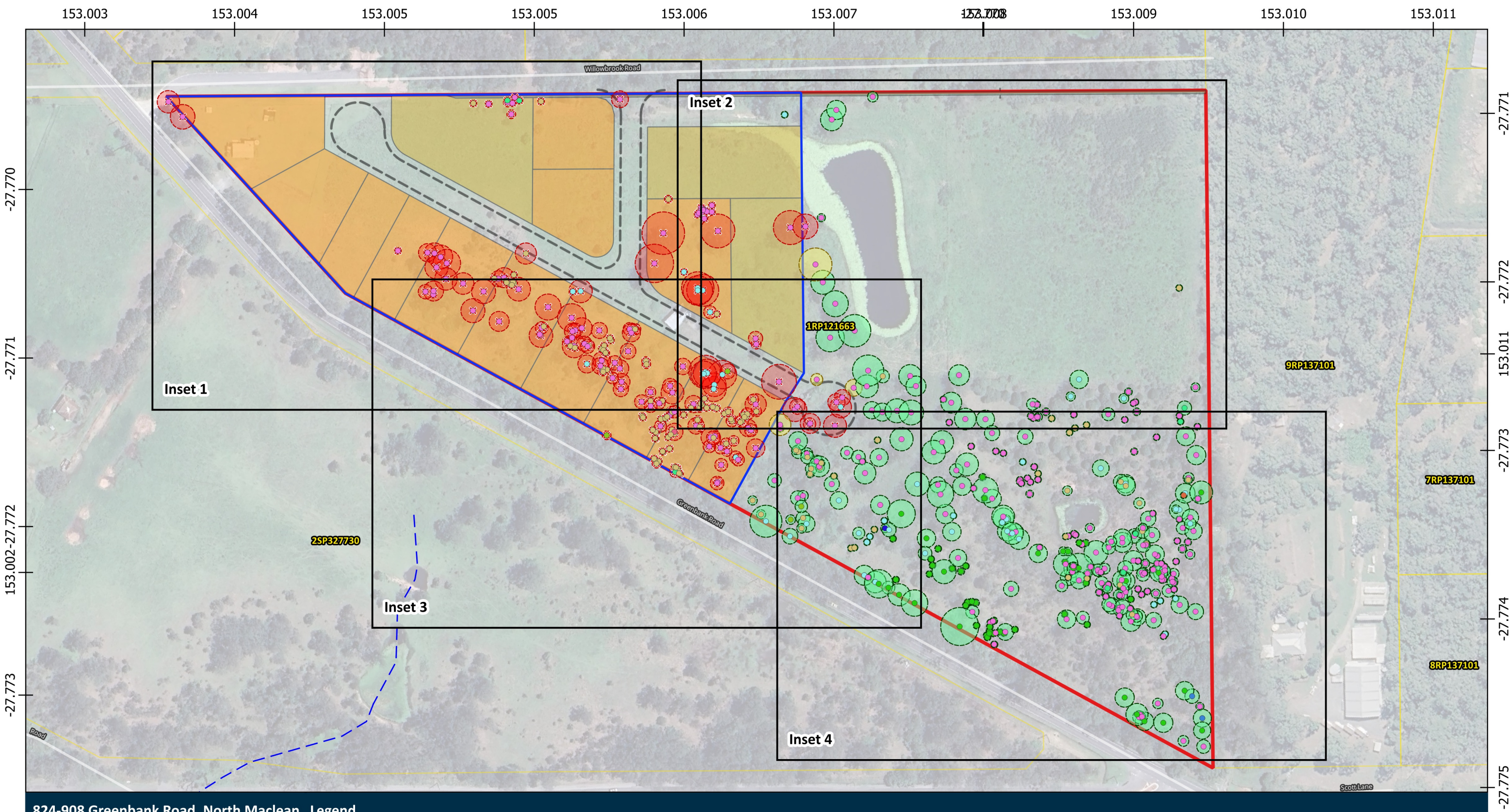
Tree located offsite to be retained [1129]

Issue Date	Dwg No.	Author
15-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:1,000

02550 m



824-908 Greenbank Road, North Maclean

Figure 19a - Avoidance and Retention of NJKHTs [Overview]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

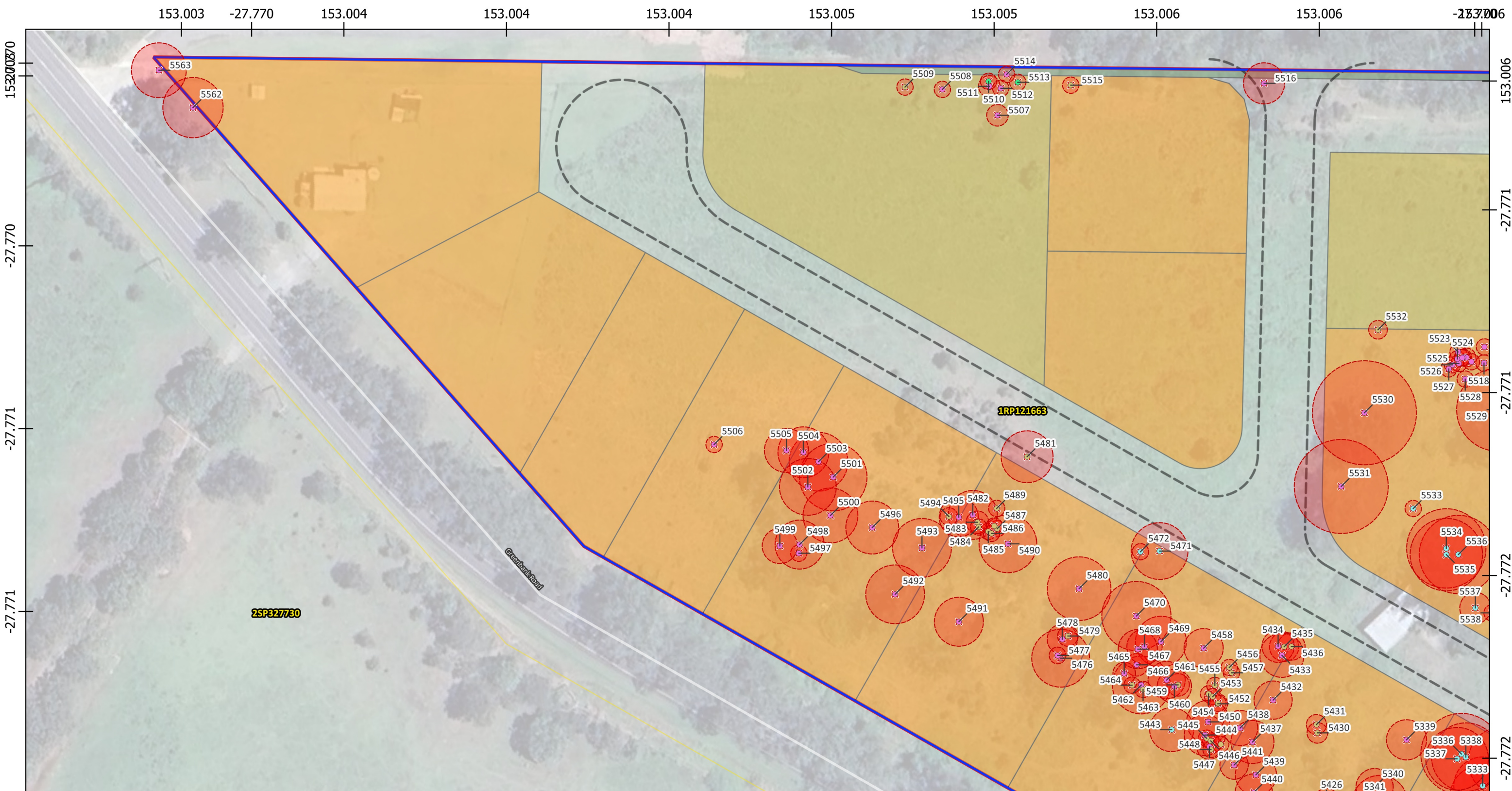
Site Boundary	Non-juvenile Koala Habitat Trees Surveyed [554] Tree to be removed [212]	Tree to be retained [338]	Tree to be retained subject to Arborist Assessment [4]	Tree Species [554] - Angophora leiocarpa [1] - Blakella citriodora [1] - Blakella tessellaris [123] - Corymbia intermedia [4] - Eucalyptus crebra [2]	Eucalyptus moluccana [55] - Eucalyptus seeana [2] - Eucalyptus siderophloia [51] - Eucalyptus tereticornis [306] - Lophostemon suaveolens [9]
Referral Area [5.75 ha]					
Property Boundaries					
New Road [20 m wide]					
Road					
Waterway/overland flow path					

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

1:2,200

0 100 200 m



824-908 Greenbank Road, North Maclean

Figure 19b - Avoidance and Retention of NJKHTs [Inset 1]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Referral Area [5.75 ha]

Property Boundaries

New Road [20 m wide]

Road

Waterway/overland flow path

Non-juvenile Koala Habitat Trees Surveyed [554]
Tree to be removed [212]

Tree to be retained [338]

Tree to be retained subject to Arborist Assessment [4]

Tree Species [554]

Angophora leiocarpa [1]

Blakella citriodora [1]

Blakella tessellaris [123]

Corymbia intermedia [4]

Eucalyptus crebra [2]

Eucalyptus moluccana [55]

Eucalyptus seeana [2]

Eucalyptus siderophloia [51]

Eucalyptus tereticornis [306]

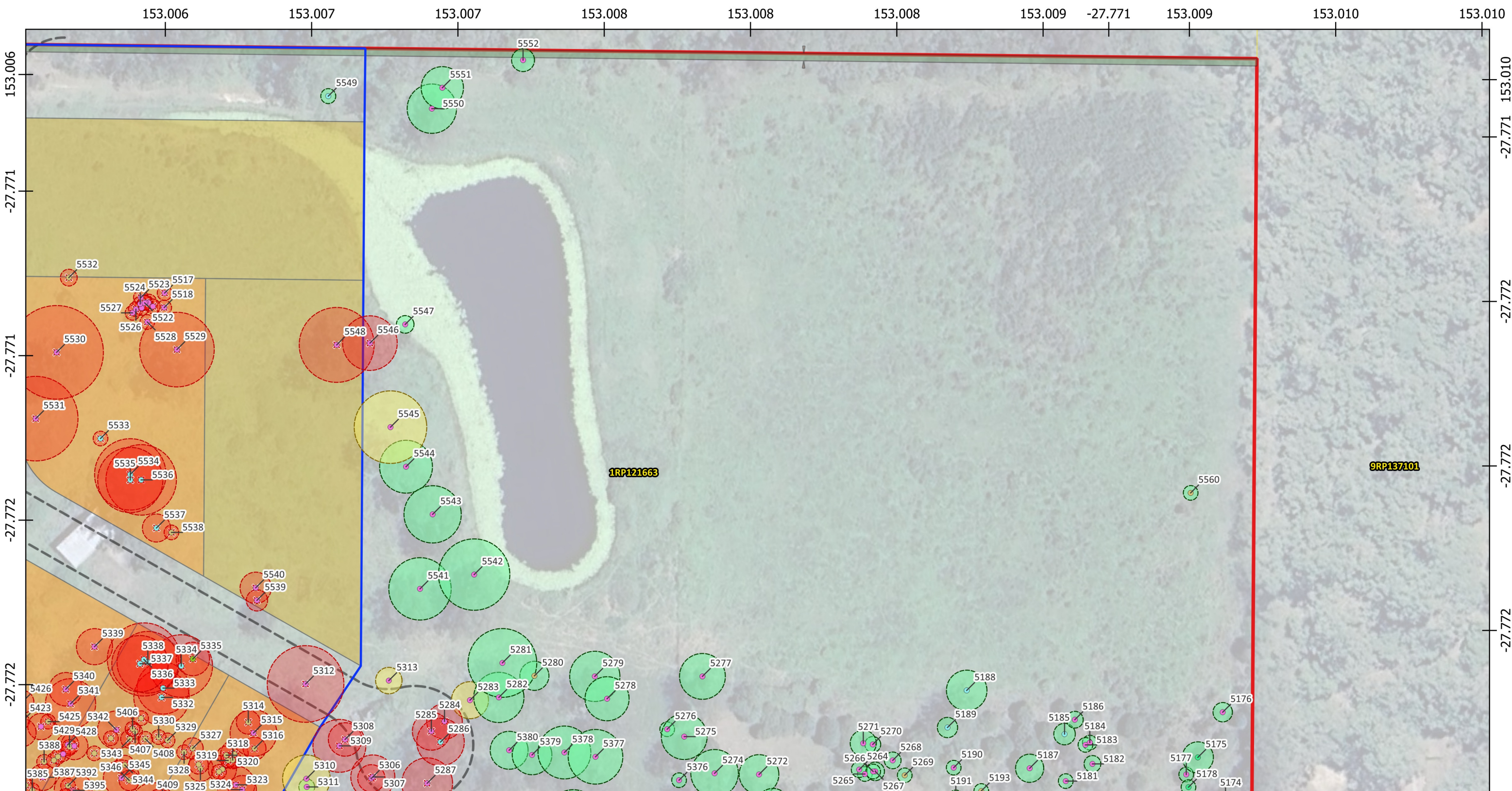
Lophostemon suaveolens [9]

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

1:900

0 25 50 m



824-908 Greenbank Road, North Maclean

Figure 19c - Avoidance and Retention of NJKHTs [Inset 2]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Referral Area [5.75 ha]

Property Boundaries

New Road [20 m wide]

Road

Tree to be removed [212]

Tree to be retained [338]

Tree to be retained subject to Arborist Assessment [4]

Non-juvenile Koala Habitat Trees Surveyed [554]

Tree Species [554]

- Angophora leiocarpa [1]
- Blakella citriodora [1]
- Blakella tessellaris [123]
- Corymbia intermedia [4]
- Eucalyptus crebra [2]

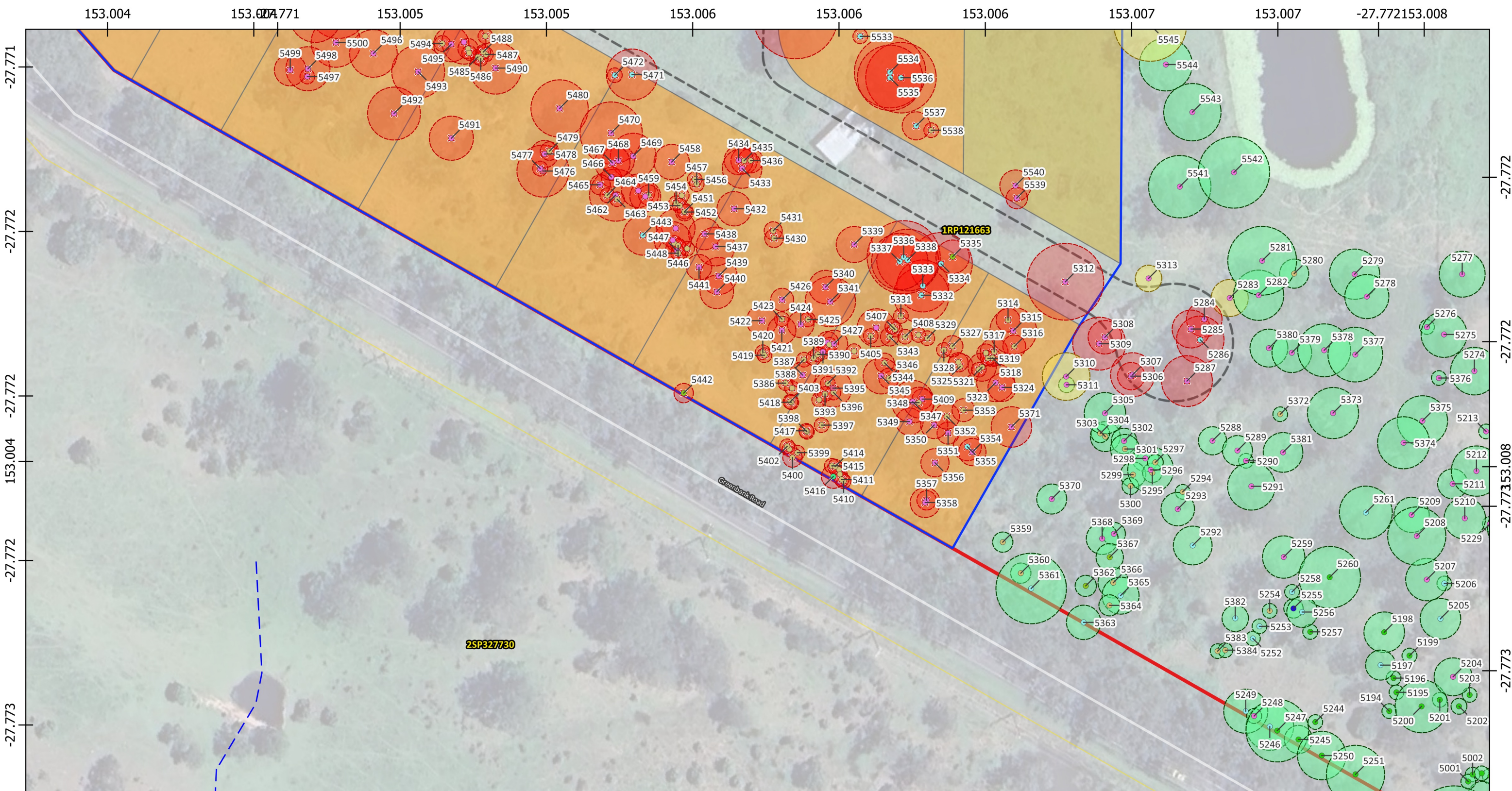
- Eucalyptus moluccana [55]
- Eucalyptus seeana [2]
- Eucalyptus siderophloia [51]
- Eucalyptus tereticornis [306]
- Lophostemon suaveolens [9]

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:1,000

0 25 50 m



824-908 Greenbank Road, North Maclean Legend

Figure 19d -Avoidance and Retention of NJKHTs [Inset 3]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

- Non-juvenile Koala Habitat Trees Surveyed [554]
- Tree to be removed [212]
 - Tree to be retained [338]
 - Tree to be retained subject to Arborist Assessment [4]

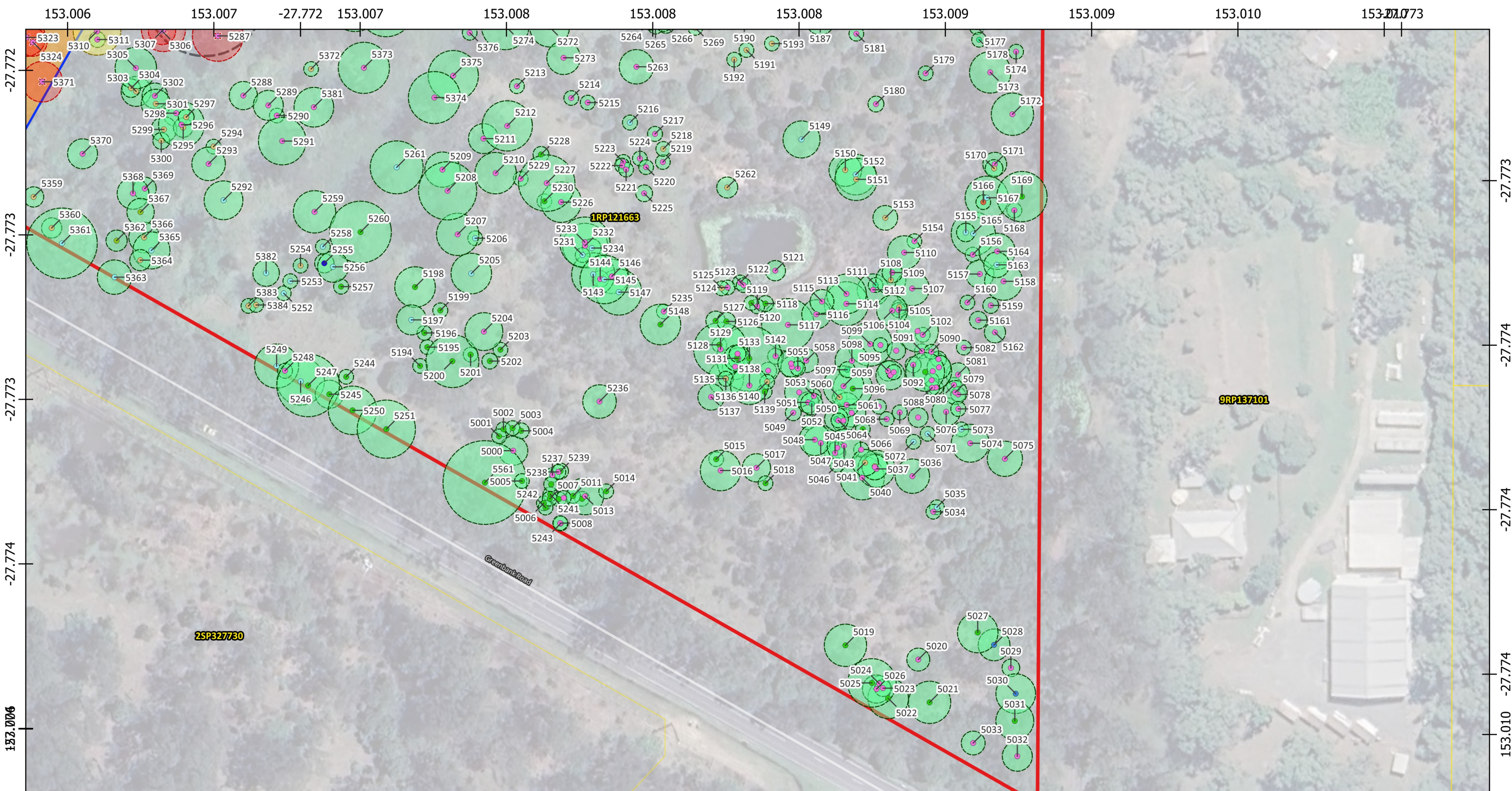
- Tree Species [554]
- Angophora leiocarpa [1]
 - Blakella citriodora [1]
 - Blakella tessellaris [123]
 - Corymbia intermedia [4]
 - Eucalyptus crebra [2]
 - Eucalyptus moluccana [55]
 - Eucalyptus seeana [2]
 - Eucalyptus siderophloia [51]
 - Eucalyptus tereticornis [306]
 - Lophostemon suaveolens [9]

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56

1:1,000

0 25 50 m



824-908 Greenbank Road, North Maclean

Figure 19e - Avoidance and Retention of NJKHTs [Inset 4]

28 South Project Ref: 2026 - 100

Source: C:\Users\Neha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.

Site Boundary

Referral Area [5.75 ha]

Property Boundaries

New Road [20 m wide]

Road

Tree to be removed [212]

Tree to be retained [338]

Tree to be retained subject to Arborist Assessment [4]

Non-juvenile Koala Habitat Trees Surveyed [554]

Tree Species [554]

- Angophora leiocarpa [1]
- Blakella citriodora [1]
- Blakella tessellaris [123]
- Corymbia intermedia [4]
- Eucalyptus crebra [2]

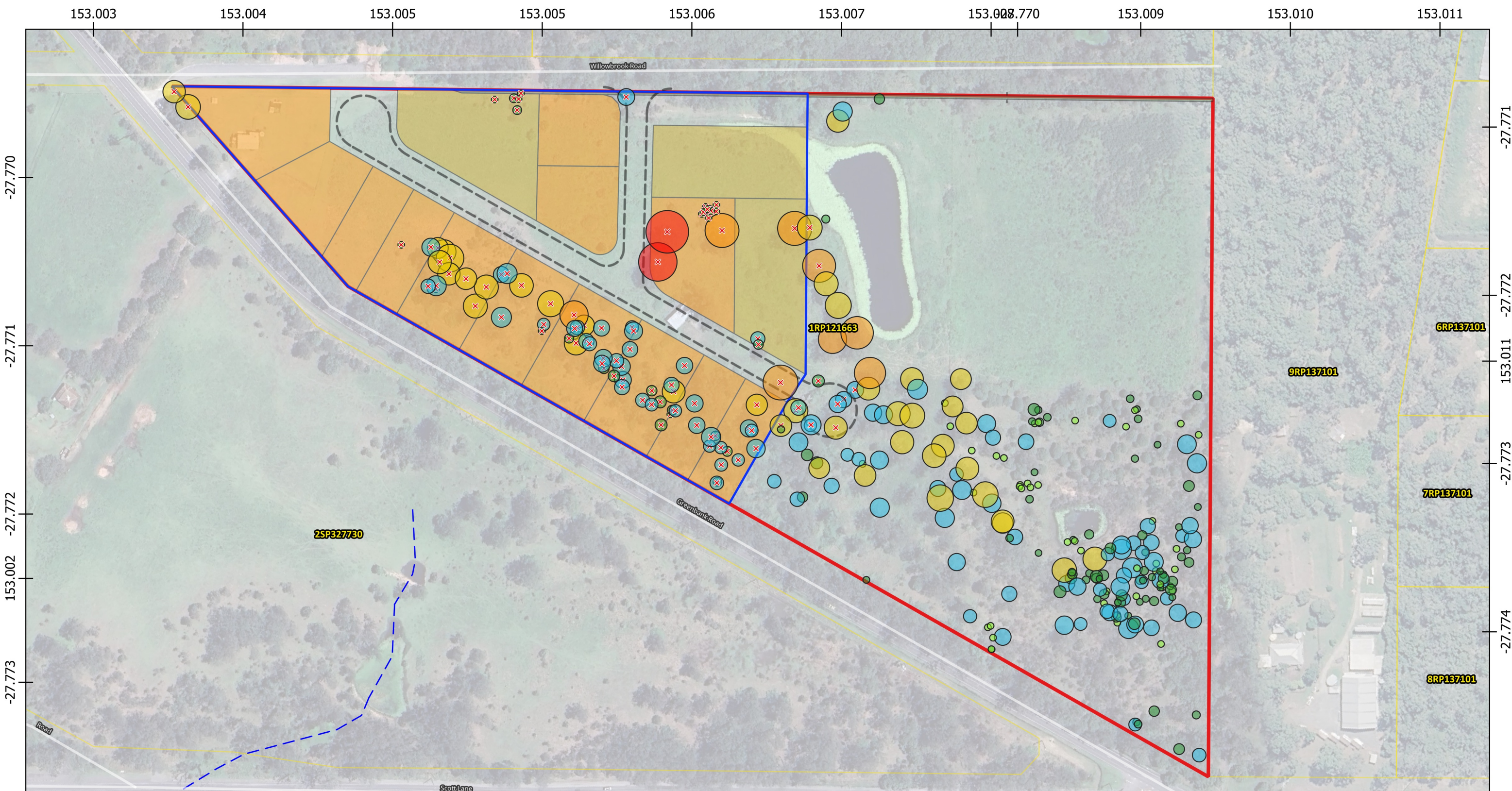
- Eucalyptus moluccana [55]
- Eucalyptus seeana [2]
- Eucalyptus siderophloia [51]
- Eucalyptus tereticornis [306]
- Lophostemon suaveolens [9]

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved	Revision Note	
WM		

GDA2020 MGA 56

1:1,000

0 25 50 m



824-908 Greenbank Road, North Maclean

Figure 20 - Avoidance Measures and Retention of E. tereticornis

28 South Project Ref: 2026 - 100

Source: C:\Users\Nehe\28 South\Company Data - Documents\103 Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.



Links to data sources can be provided upon request.

Site Boundary

Referral Area [5.75 ha]

Property Boundaries

New Road [20 m wide]

Road

Waterway/overland flow path

E. Tereticornis to be retained [200]

Retained 0–150mm DBH [43]

Retained 151–300mm DBH [71]

Retained 301–500mm DBH [61]

Retained 501–700mm DBH [22]

Retained 701–900mm DBH [3]

Retained 900+mm DBH [0]

E. Tereticornis to be removed [106]

Removed 0–150mm DBH [16]

Removed 151–300mm DBH [18]

Removed 301–500mm DBH [45]

Removed 501–700mm DBH [20]

Removed 701–900mm DBH [5]

Removed 900+mm DBH [2]

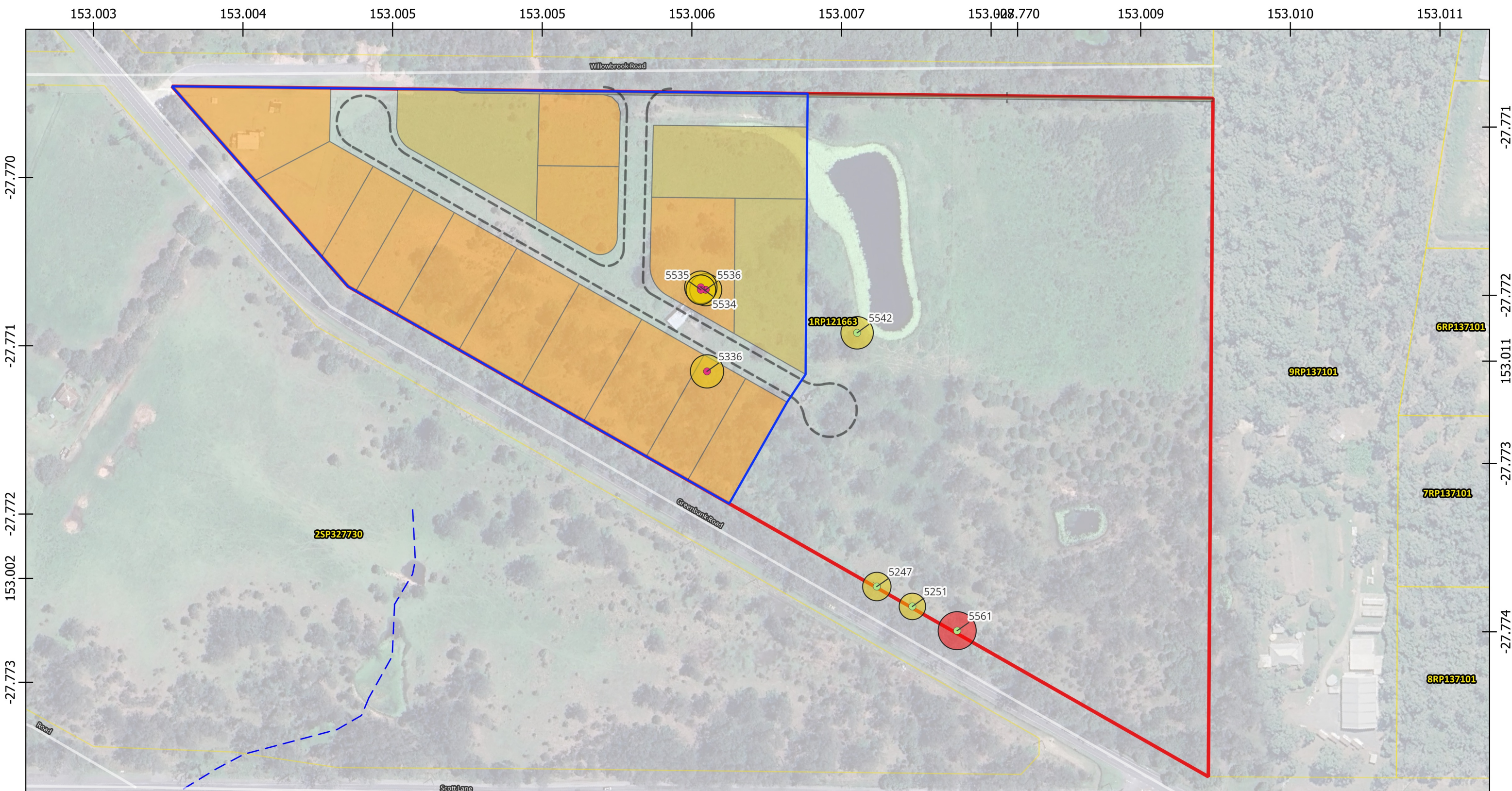
Canopy cover of 300+ mm DBH
E. tereticornis to be retained = 0.87 ha

Canopy cover of 300+ mm DBH
E. tereticornis to be removed = 0.89 ha

Issue Date	Dwg No.	Author
16-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200





824-908 Greenbank Road, North Maclean

Figure 21 - Avoidance and Retention of Hollow-bearing Trees

28 South Project Ref: 2026 - 100

Source: C:\Users\Weha\28 South\Company Data - Documents\1d Projects\2026\2026100_824-908-Greenbank-Rd-North-Maclean\03_Working\01_GIS\2026100_824-908-Greenbank-Rd_GIS (GDA2020).aprx

The spatial data referenced within this map has been obtained from a variety of verified and licensed sources, as follows: Relevant local government data portals, DoR's QSpatial data catalogue, 28 South Environmental, clients and associates. Aerial imagery is sourced from NearMap, Google Satellite and the DoR repositories QImagery and QGlobe.

Links to data sources can be provided upon request.



- Site Boundary
- Referral Area [5.75 ha]
- Property Boundaries
- New Road [20 m wide]
- Road
- Waterway/overland flow path

- Hollow-bearing Trees [8]
- Remove [4]
 - Retain [4]

- Tree Size Classes
- 0 - 450 mm DBH
 - 451 - 600 mm DBH
 - 601 - 900 mm DBH
 - 900+mm DBH

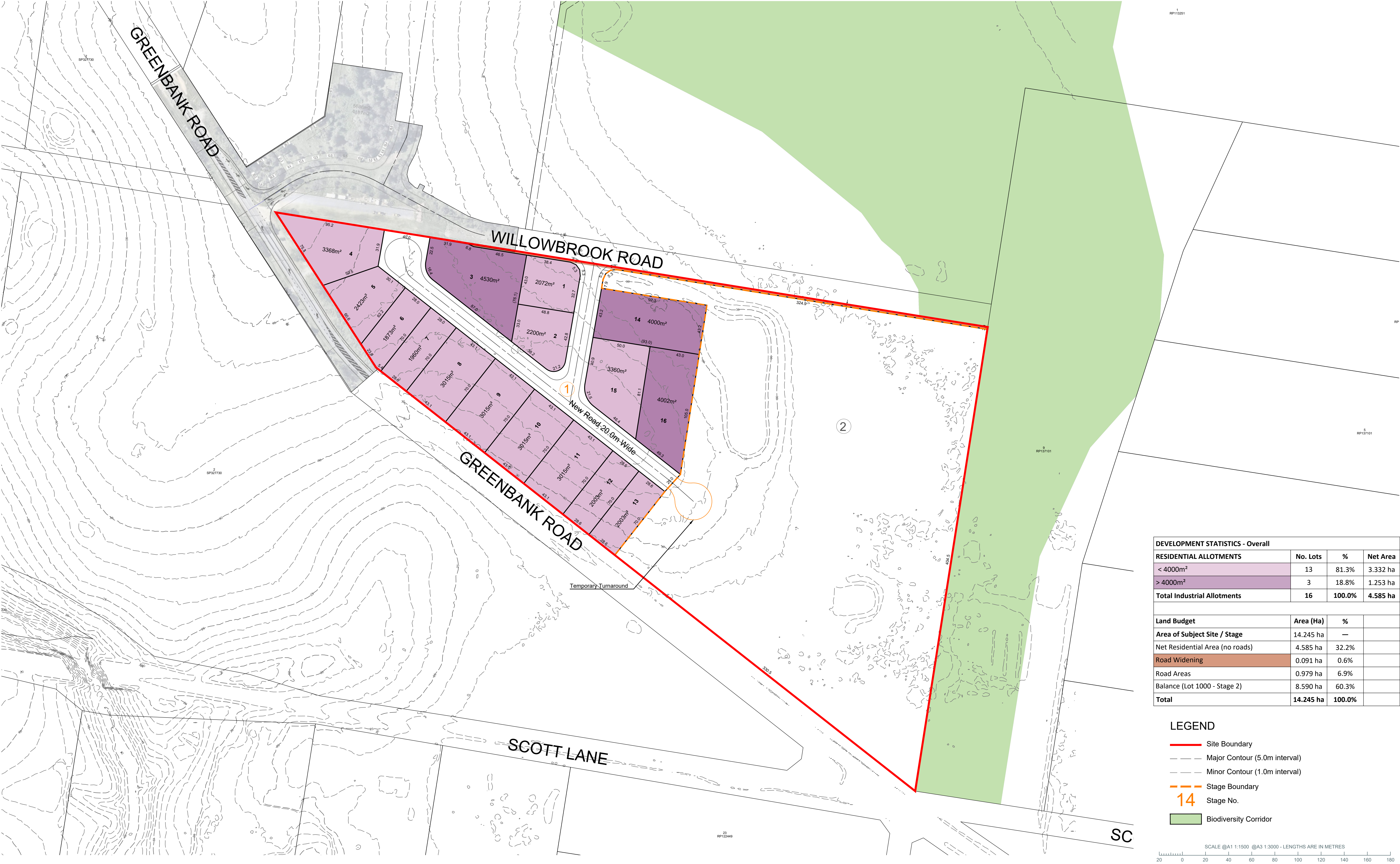
Issue Date	Dwg No.	Author
16-07-2026		NC
Approved		Revision Note
WM		

GDA2020 MGA 56
1:2,200



Attachment 1 – Concept Plan

CONCEPT PLAN



DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	No. Lots	%	Net Area
< 4000m²	13	81.3%	3.332 ha
> 4000m²	3	18.8%	1.253 ha
Total Industrial Allotments	16	100.0%	4.585 ha

Land Budget	Area (Ha)	%	
Area of Subject Site / Stage	14.245 ha	—	
Net Residential Area (no roads)	4.585 ha	32.2%	
Road Widening	0.091 ha	0.6%	
Road Areas	0.979 ha	6.9%	
Balance (Lot 1000 - Stage 2)	8.590 ha	60.3%	
Total	14.245 ha	100.0%	

LEGEND

- Site Boundary
- Major Contour (5.0m interval)
- Minor Contour (1.0m interval)
- Stage Boundary
- 14 Stage No.
- Biodiversity Corridor

SCALE @A1 1:1500 @A3 1:3000 - LENGTHS ARE IN METRES

20 0 20 40 60 80 100 120 140 160 180

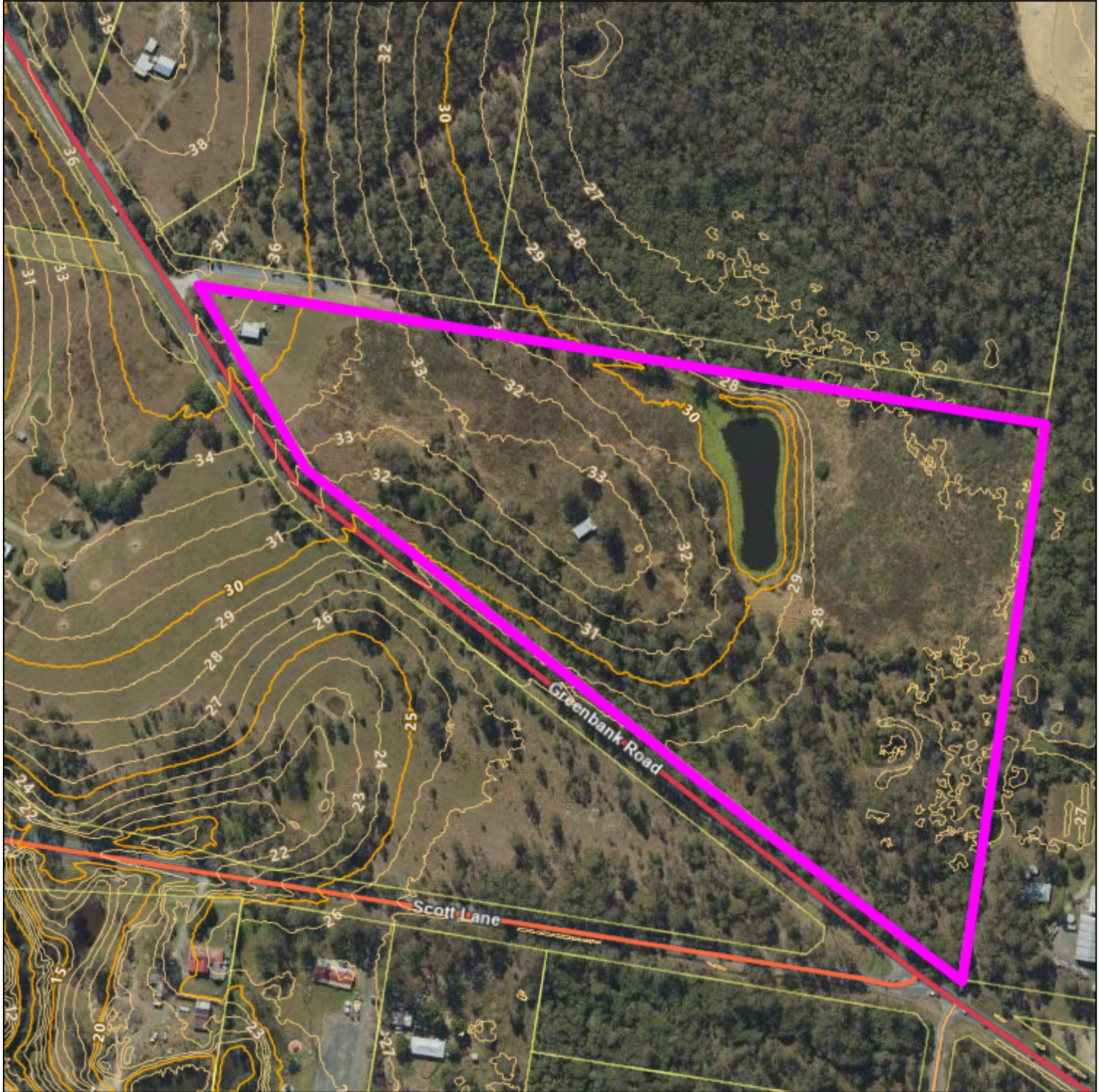


Attachment 2 – Topography

Contour Plan - Site Scale

27°46'5"S 153°0'6"E

27°46'5"S 153°0'35"E



27°46'31"S 153°0'6"E

27°46'31"S 153°0'35"E

A product of

Legend located on next page



Scale: 1:4500

Printed at: A4

Print date: 29/6/2026

Not suitable for accurate measurement.

Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Contour Plan - Site Scale

Legend

Contour SRTM 10m

- Index Contour
- Intermediate Contour

Contour LiDAR 5m

- Index Contour
- Intermediate Contour

Contour LiDAR 1m

- Index Contour
- Intermediate Contour

Land parcel



Land parcel - gt 1 ha



Land parcel - gt 10 ha



Land parcel - gt 1000 ha



Places: My Places(1)

- My Place 2

Green bridges



Bridges



Tunnels



Railway stations



Roads and tracks

- Motorway
- Highway
- Secondary
- Connector
- Local
- Restricted Access Road
- Mall
- Busway
- Bikeway
- Restricted Access Bikeway
- Walkway
- Restricted Access Walkway
- Non-vehicular Track
- Track
- Restricted Access Track
- Ferry
- Proposed Thoroughfare

Railways



Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2026

Attachment 3 – Watercourses

Watercourse Mapping

27°45'37"S 152°59'32"E

27°45'37"S 153°1'8"E



27°47'2"S 152°59'32"E

27°47'2"S 153°1'8"E

A product of
 **Queensland Globe**



Legend

VM watercourse/drainage - 1:25 000



Places: My Places(1)

 Site



0  250 metres

Scale: 1:15000

Printed at: A4
Print date: 29/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>

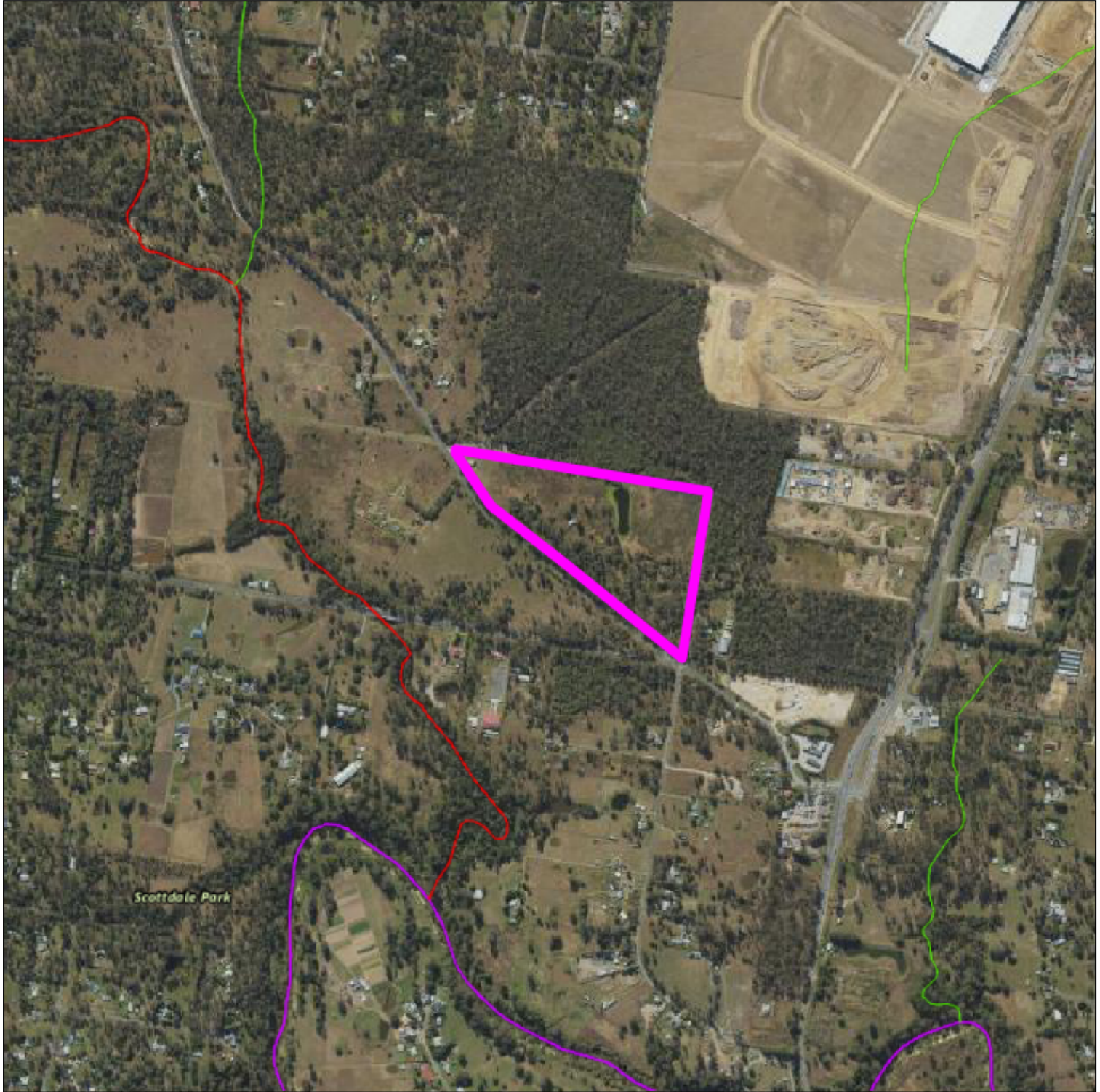
Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Waterway for Waterway Barrier Works

27°45'37"S 152°59'32"E

27°45'37"S 153°1'8"E



27°47'2"S 152°59'32"E

27°47'2"S 153°1'8"E

A product of

Legend located on next page



Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Printed at: A4
Print date: 29/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Waterway for Waterway Barrier Works

Legend

Queensland waterways for waterway barrier works

- Major (Tidal)
- Major
- High
- Moderate
- Low

Places: My Places(1)

- Site

Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Agriculture and Fisheries) 2023

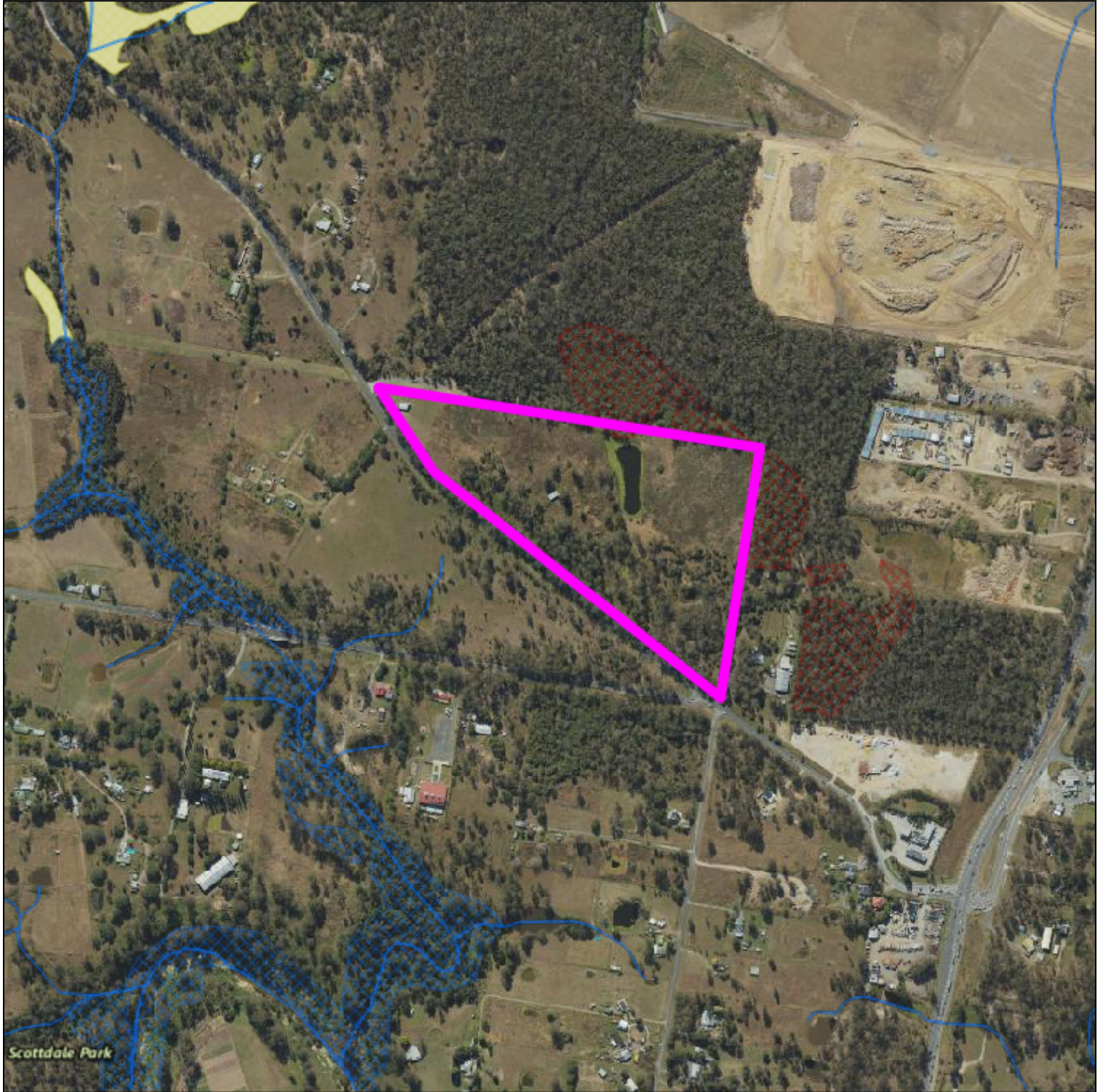
© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Wetland Mapping

27°45'52"S 152°59'49"E

27°45'52"S 153°0'53"E

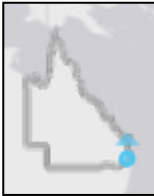


27°46'49"S 152°59'49"E

27°46'49"S 153°0'53"E

A product of

Legend located on next page



Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Wetland Mapping

Legend

Wetland points

-  Palustrine wetlands
-  Riverine wetlands
-  Wetlands with unknown wetland system

Wetland lines

Wetland areas

-  Lacustrine wetlands [hydrologically natural]
-  Palustrine wetlands [hydrologically natural]
-  Riverine wetlands [hydrologically natural]
-  Intertidal wetlands [hydrologically natural]
-  Intertidal/subtidal wetlands [hydrologically natural]
-  Lacustrine wetlands [hydrologically modified or artificial]
-  Palustrine wetlands [hydrologically modified or artificial]
-  Riverine wetlands [hydrologically modified or artificial]
-  Intertidal wetlands [hydrologically modified or artificial]
-  Sub-dominant wetlands [51 to 80%]
-  Contains wetlands [1 to 50%]

Places: My Places(1)

-  Site

Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Environment and Science) 2023

© State of Queensland (Department of Resources) 2024

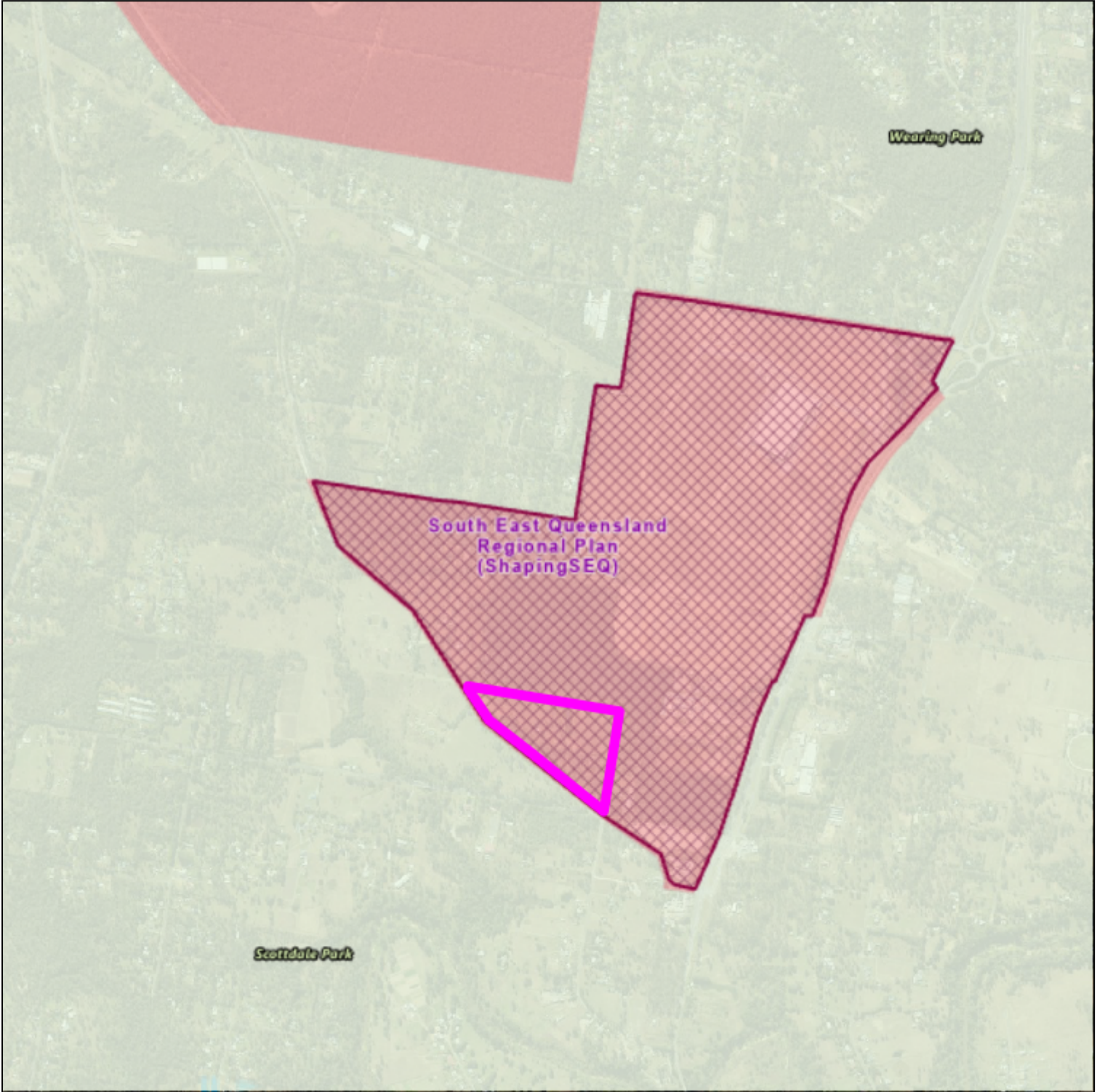
© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Attachment 4 – SEQ
Regional Plan (Land
Use)

ShapingSEQ 2023 (Landuse Designations)

27°44'43"S 152°59'3"E

27°44'43"S 153°1'43"E



27°47'5"S 152°59'3"E

27°47'5"S 153°1'43"E



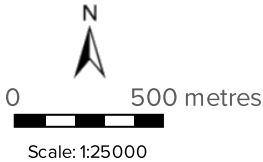
A product of

Legend located on next page



Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Queensland Regional
Plan 2026



Regional land use
categories - Far North
Queensland Regional
Plan 2026



Regional Landscape and
Rural Production Area



Rural Living Area



Urban Footprint

Regional planning
boundaries



SEQ development area -
ShapingSEQ 2023



Category 1



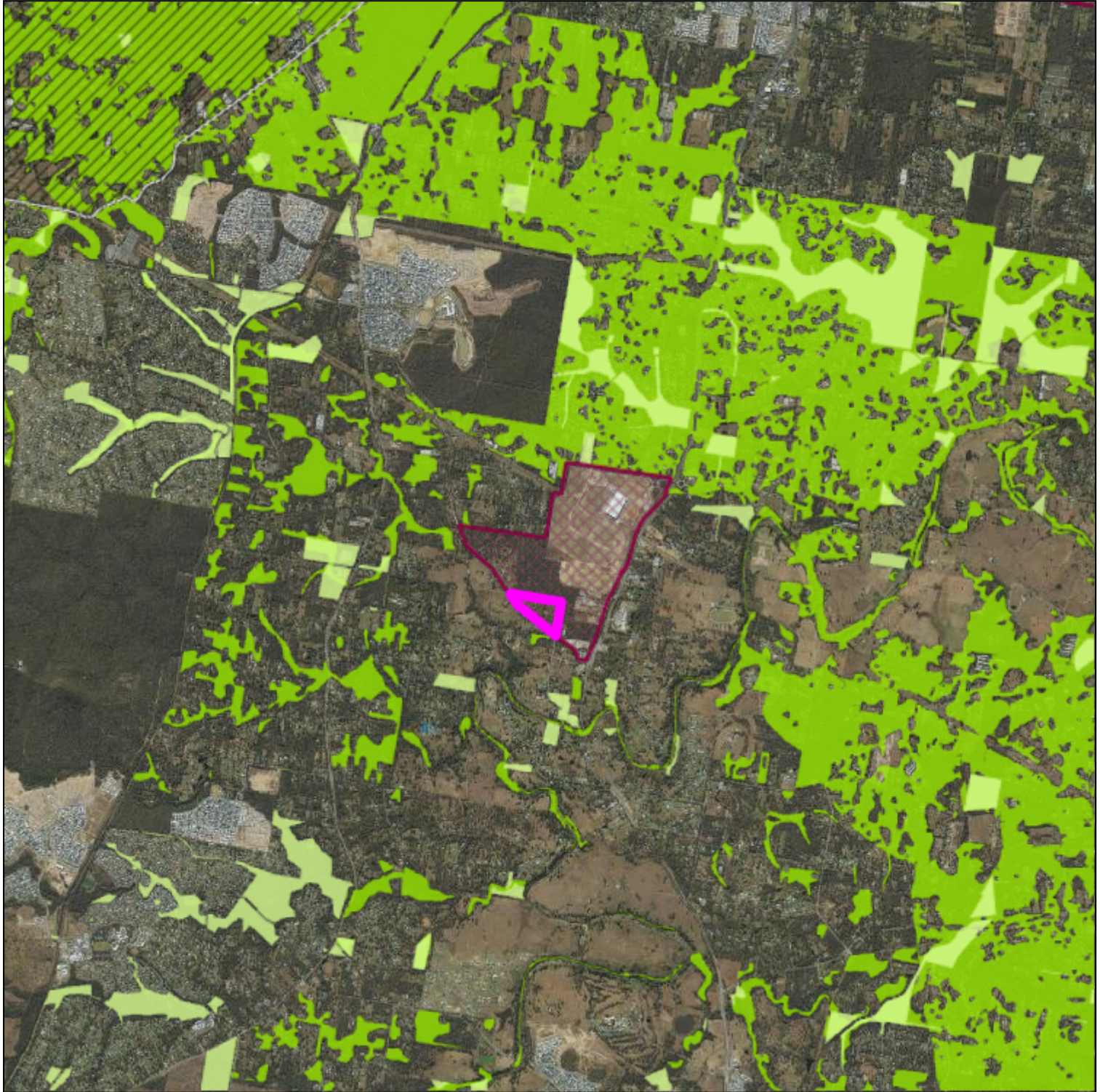
Category 2

Attachment 5 – SEQ
Regional Plan
(Biodiversity
Designations)

Shaping SEQ Biodiversity Designations

27°42'21"S 152°56'28"E

27°42'21"S 153°4'28"E

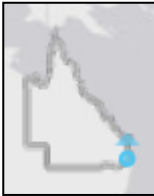


27°49'26"S 152°56'28"E

27°49'26"S 153°4'28"E

A product of

Legend located on next page



0 1 km

Scale: 1:75000

Printed at: A4

Print date: 29/6/2026

Not suitable for accurate measurement.

Projection: Web Mercator EPSG 102100 (3857)

For more information, visit

<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Shaping SEQ Biodiversity Designations

Legend

SEQ regional biodiversity corridor - ShapingSEQ 2023



SEQ major enterprise and industrial area - ShapingSEQ 2023



SEQ regionally significant greenspace - ShapingSEQ 2023



SEQ regional biodiversity value - ShapingSEQ 2023



Places: My Places(1)



My Place 1

Attribution

Earthstar Geographics

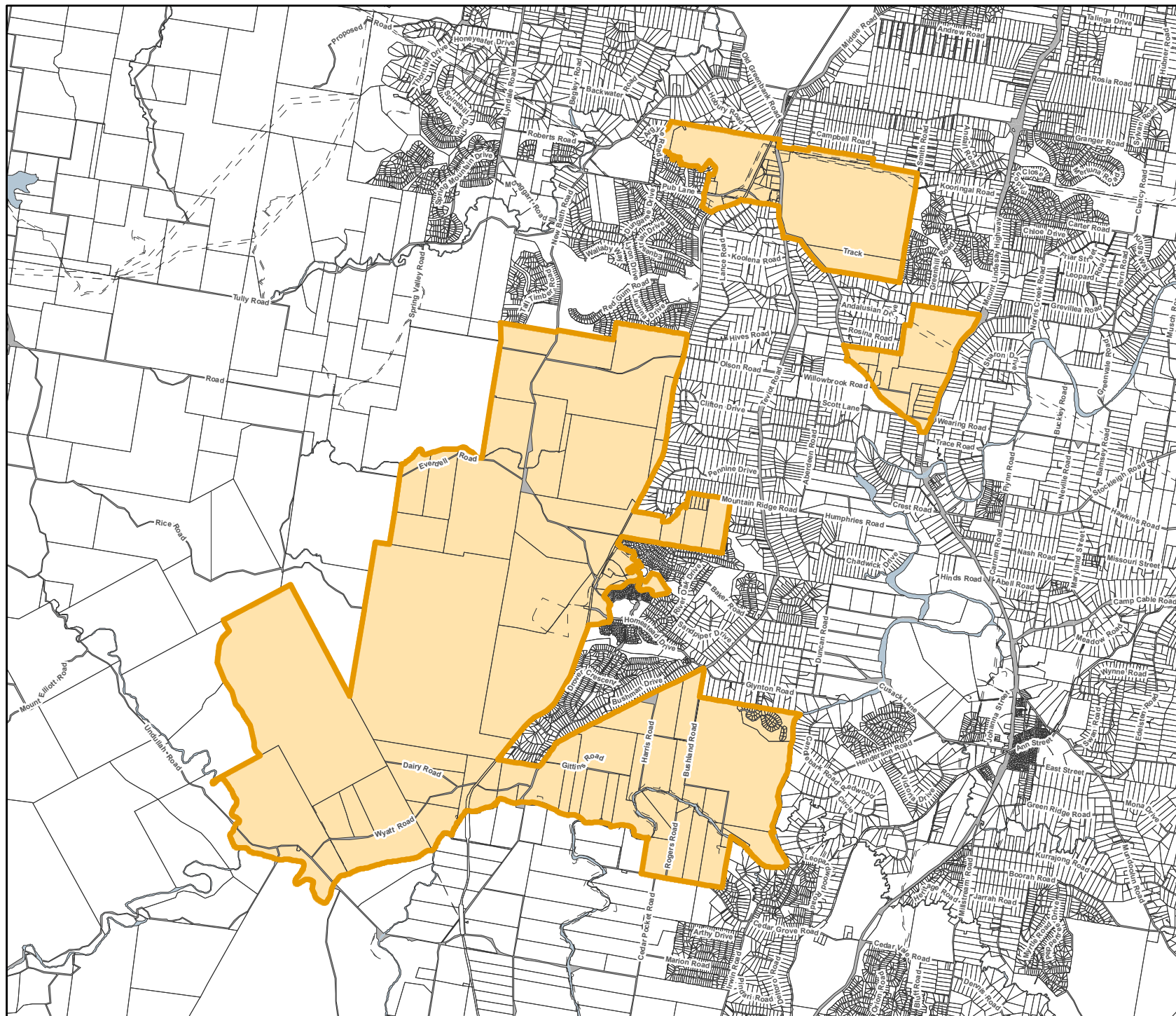
Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2026

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Attachment 6 – Urban Development Area



Map No: UDA 11 - Greater Flagstone Urban Development Area

Declared by Regulation on: 08/10/2010

Key

 Flagstone PDA

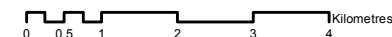
Cadastre

 Parcel Boundaries

 Easements

 Road Dedications

 Waterbody



Source: Department of Natural Resource Management
and Mines: Digital Cadastre Database: 2010.

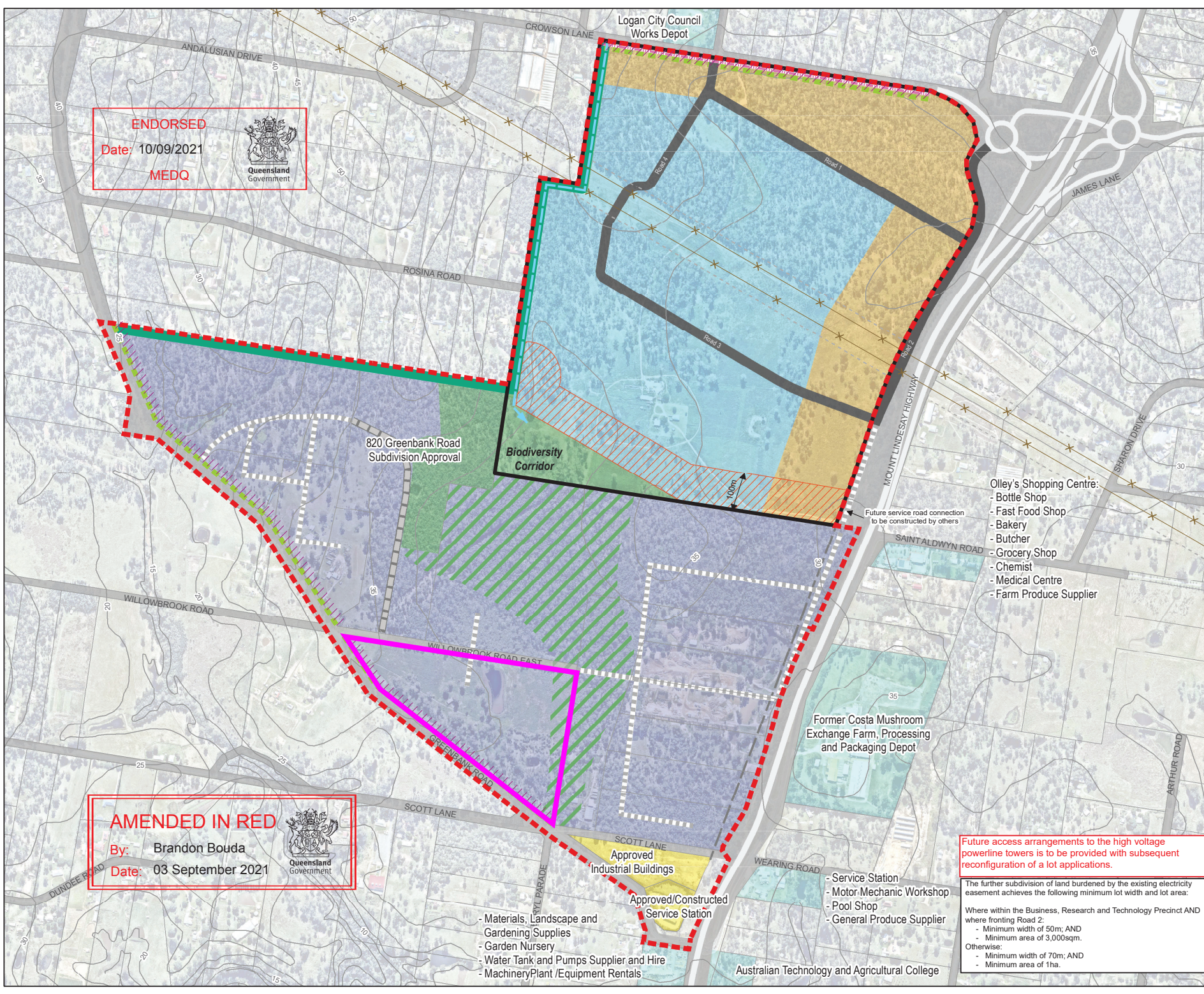
Map generated by Spatial Services Branch of the Department
of State Development, Infrastructure and Planning, 12/01/2015

While every care is taken to ensure the accuracy of this product the Department of State Development, Infrastructure and Planning and the Department of Natural Resources and Mines make no representations or warranties about the accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs you may incur as a result of the product being inaccurate or incomplete in any way or for any reason.



**Queensland
Government**

Attachment 7 – North Maclean Context Plan



ENDORSED
Date: 10/09/2021
MEDQ



AMENDED IN RED
By: Brandon Bouda
Date: 03 September 2021



- North Maclean PDA - Industry and Business Precinct
- Subject site
- Precincts (excluding high impact and noxious and hazardous industries)**
 - Business, research and technology precinct (subject to future application)
 - Industry and warehouse precinct (subject to future application)
 - Biodiversity corridor
 - Indicative future biodiversity corridor
 - Industry and business zone
 - Approved land uses
- Surrounding business land uses**
 - Surrounding business land uses
- Road Layout**
 - Industrial connector
 - Mt Lindesay Highway widening
 - Indicative new roads by others
 - Existing road network: highway, roundabout and overpass
 - Future Crowson Lane road widening (subject to acquisition by Logan City Council)
 - 820 Greenbank Road Subdivision Approval Road Layout
- Other features**
 - Buffer to adjoining rural residential area (minimum 25m) with no vegetation clearing permitted unless required for stormwater infrastructure and access track
 - Potential deep planting screening buffer to be assessed as part of future applications
 - Proposed stormwater infrastructure and access track
 - High voltage powerlines
 - Maximum building height of 2 storeys and 9.5m within 25m of road frontage
 - Bushfire Protection Zone
 - 5m contours

REFERENCES
Cadastral - (c) The State of Queensland (DNRM DCDB)
Coordinate System: GDA 1994 MGA Zone 56
Images are not orthorectified, overlays are best fit. Features are based on topographical data and may vary. Contains digitised data.
Nearmap imagery 26/05/2021.
Layout: sourced from Telford Civil, Proposed Development Layout Plan, Drawing No. 010, 07/07/2021, Issue H.

Note: Indicative only
Date: 12/07/2021



1:9,000
0 105 210 420 M

TITLE
NORTH MACLEAN ENTERPRISE
CONTEXT PLAN LAND USE AND
ROAD NETWORK

PROJECT
4499 - 4651 MT
LINDESAY HIGHWAY,
NORTH MACLEAN
CLIENT: WEARCO PTY LTD

Future access arrangements to the high voltage powerline towers is to be provided with subsequent reconfiguration of a lot applications.

The further subdivision of land burdened by the existing electricity easement achieves the following minimum lot width and lot area.

Where within the Business, Research and Technology Precinct AND where fronting Road 2:

- Minimum width of 50m; AND
- Minimum area of 3,000sqm.

Otherwise:

- Minimum width of 70m; AND
- Minimum area of 1ha.

ENDORSED
Date: 10/09/2021
MEDQ

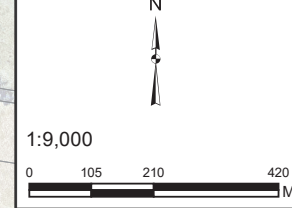


- North Maclean PDA - Industry and Business Precinct
- Subject site
- Water and Sewer Connection**
 - Proposed water main
 - Proposed sewer reticulation
 - Proposed sewer rising main to connect to future rising main in Greenbank Road
 - Reticulation sewer on the land to the south
- Municipal pump station
- Sub-regional pump station

- Road Layout**
 - Industrial connector
 - Mt Lindesay Highway widening
 - Indicative new roads by others
 - Existing road network: highway, roundabout and overpass
 - 820 Greenbank Road Subdivision Approval Road Layout

REFERENCES
Cadastral - (c) The State of Queensland (DNRM DCDB)
Coordinate System: GDA 1994 MGA Zone 56
Images are not orthorectified, overlays are best fit. Features are based on topographical data and may vary. Contains digitised data.
Nearmap imagery 26/05/2021.
Layout: sourced from Telford Civil, Proposed Development Layout Plan, Drawing No. 010, 07/07/2021, Issue H.
Services: sourced from Telford Civil, Concept Sewer Reticulation Layout Plan, Drawing No. 012, Issue G, 07/07/2021 and Concept Water Reticulation Layout Plan, Drawing No. 014, Issue G, 07/07/2021.

Note: Indicative only Date: 12/07/2021



TITLE
**NORTH MACLEAN ENTERPRISE
CONTEXT PLAN ULTIMATE
WATER AND SEWER NETWORK**

PROJECT
**4499 - 4651 MT
LINDESAY HIGHWAY,
NORTH MACLEAN**
CLIENT: WEARCO PTY LTD

Notes:
1. Water from Round Mountain Reservoir via Greenbank Rd to Crowson Lane (Source: Master Planning Review of the Southern Regional Pipeline Water Supply - April 2015)
2. Sewer as per strategy advised by EDQ on the 19 May 2021.



ENDORSED
Date: 10/09/2021
MEDQ



AMENDED IN RED
By: Brandon Bouda
Date: 03 September 2021

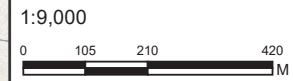


Proposed stormwater pipe is subject to Council requirements for Crowson Lane upgrade. Integration into the internal network is required in accordance with the conditions of this approval

- North Maclean PDA - Industry and Business Precinct
- Subject site
- Stormwater**
 - Proposed stormwater for road reserve
 - Proposed stormwater for external flow
 - Proposed swale for external stormwater flow
- Easement
- Detention basin
- Lawful point of discharge
- Existing culvert
- Proposed culvert
- Road Layout**
 - Industrial connector
 - Mt Lindesay Highway widening
 - Indicative new roads by others
 - Existing road network: highway, roundabout and overpass
 - 820 Greenbank Road Subdivision Approval Road Layout

REFERENCES
Cadastral - (c) The State of Queensland (DNRM DCDB)
Coordinate System: GDA 1994 MGA Zone 56
Images are not orthorectified, overlays are best fit. Features are based on topographical data and may vary. Contains digitised data.
Nearmap imagery 26/05/2021.
Layout: sourced from Telford Civil, Proposed Development Layout Plan, Drawing No. 010, 07/07/2021, Issue H.
Services: sourced from Telford Civil, Concept Stormwater Drainage Layout Plan, Drawing No. 013, Issue H, 07/07/2021.

Note: Indicative only Date: 12/07/2021



TITLE
NORTH MACLEAN ENTERPRISE
CONTEXT PLAN ULTIMATE
STORMWATER NETWORK

PROJECT
4499 - 4651 MT
LINDESAY HIGHWAY,
NORTH MACLEAN

CLIENT: WEARCO PTY LTD



Attachment 8 – PMST



Australian Government

Department of Climate Change, Energy,
the Environment and Water

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 01-Jun-2026

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	8
Listed Threatened Species:	53
Listed Migratory Species:	13

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <https://www.dcceew.gov.au/parks-heritage/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	24
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	3
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	23
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Moreton bay	20 - 30km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities	[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.	

Community Name	Threatened Category	Presence Text	Buffer Status
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area	In feature area
Grey box-grey gum wet forest of subtropical eastern Australia	Endangered	Community likely to occur within area	In buffer area only
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area	In feature area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area	In feature area
Swamp Tea-tree (Melaleuca irbyana) Forest of South-east Queensland	Critically Endangered	Community likely to occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area	In feature area

Listed Threatened Species			[<u>Resource Information</u>]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat may occur within area	In feature area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Critically Endangered	Species or species habitat may occur within area	In feature area
Erythroriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat likely to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Stagonopleura guttata Diamond Firetail [59398]	Vulnerable	Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area	In feature area
FISH			
Maccullochella mariensis Mary River Cod [83806]	Endangered	Translocated population known to occur within area	In feature area
FROG			
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area	In buffer area only
INSECT			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat may occur within area	In feature area
Dasyurus maculatus maculatus (SE mainland population) Spotted-tail Quoll, Spot-tailed Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area	In feature area
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Potorous tridactylus tridactylus Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat may occur within area	In feature area
Pseudomys novaehollandiae Pookila, New Holland Mouse [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Coleus habrophyllus listed as Plectranthus habrophyllus [91378]	Endangered	Species or species habitat may occur within area	In buffer area only
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Fontainea venosa [24040]	Vulnerable	Species or species habitat may occur within area	In feature area
Leuzea australis listed as Rhaponticum australe Austral Cornflower, Native Thistle [9363]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough- leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area	In feature area
Notelaea lloydii Lloyd's Olive [15002]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Notelaea x ipsviciensis listed as Notelaea ipsviciensis Cooneana Olive [93460]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Picris evae Hawkweed [10839]	Vulnerable	Species or species habitat may occur within area	In feature area
Planchonella eerwah Shiny-leaved Condoo, Black Plum, Wild Apple [17340]	Endangered	Species or species habitat likely to occur within area	In feature area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat may occur within area	In feature area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area	In feature area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area	In feature area
Hemiaspis damelii Grey Snake [1179]	Endangered	Species or species habitat likely to occur within area	In feature area
Listed Migratory Species		[Resource Information]	
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species	[Resource Information]		
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area	In feature area
Pterodroma cervicalis White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sterna striata White-fronted Tern [799]		Migration route may occur within area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat likely to occur within area overfly marine area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
A and T Koala Billabong	Nature Refuge	QLD	In buffer area only
Koolena	Nature Refuge	QLD	In buffer area only
Van der Loos	Nature Refuge	QLD	In buffer area only

EPBC Act Referrals			[Resource Information]	
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Construction and Operation of Small Lot Industrial Development	2024/10069		Assessment	In feature area
DT0018 Matt Court Wastewater Conveyance	2023/09529		Completed	In buffer area only
Industrial Development	2023/09607		Assessment	In feature area
Kagaru to Acacia Ridge and Bromelton Inland Rail Project	2021/8927		Completed	In buffer area only
Mirvac Greater Flagstone Project - Master Planned Development, Greenbank, Qld	2016/7817		Post-Approval	In buffer area only
Proposed Industrial Development at North Maclean	2022/09304		Approval	In feature area
Controlled action				
Cedar Grove Connector Pipeline	2011/6013	Controlled Action	Completed	In feature area
Crowson Lane Road Upgrade	2021/9084	Controlled Action	Assessment Approach	In buffer area only
Flagstone West Urban Development Project, QLD	2014/7206	Controlled Action	Post-Approval	In buffer area only
Industrial Development in the Greater Flagstone Urban Development Area 4499-4651 Mount Lindesay Hwy.	2013/6941	Controlled Action	Post-Approval	In feature area
Residential Development, Lot 4 RP45728, New Beith, Qld	2019/8398	Controlled Action	Further Information Request	In buffer area only
Residential Development (Lot30, SP309195) Mountain Ridge Rd, South Maclean, Qld	2019/8408	Controlled Action	Post-Approval	In buffer area only
Tarnbrae Greater Flagstone Residential Development, New Beith, QLD	2019/8412	Controlled Action	Further Information Request	In buffer area only
Teviot Downs Residential Estate, Greenbank	2011/6106	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Construction and upgrade of approximately 7km of external road corridor, Flagstone, Qld	2014/7319	Not Controlled Action	Completed	In buffer area only
Construction of a new water main (pipeline), Jimboomba, QLD	2010/5576	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Flagstone Central to Cedar Grove WWTP Conveyance Pipeline	2018/8190	Not Controlled Action	Completed	In buffer area only
Greenbank to Flagstone Central Conveyance Pipeline Project, Qld	2018/8344	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Loganlea to Jimboomba 110kV network upgrade, SE Qld	2013/7035	Not Controlled Action	Completed	In buffer area only
South West Pipeline and Wyaralong Tanks Project, Qld	2018/8320	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Construction & Operation 275/330kV Transmission Line	2006/2820	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Residential subdivision 348-434 Cusack Lane, Jimboomba, Qld	2015/7617	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only

Bioregional Assessments			[Resource Information]
SubRegion	BioRegion	Website	Buffer Status
Clarence-Moreton	Clarence-Moreton	BA website	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact us](#) page.

[© Commonwealth of Australia](#)

Department of Climate Change, Energy, the Environment and Water

GPO Box 3090

Canberra ACT 2601 Australia

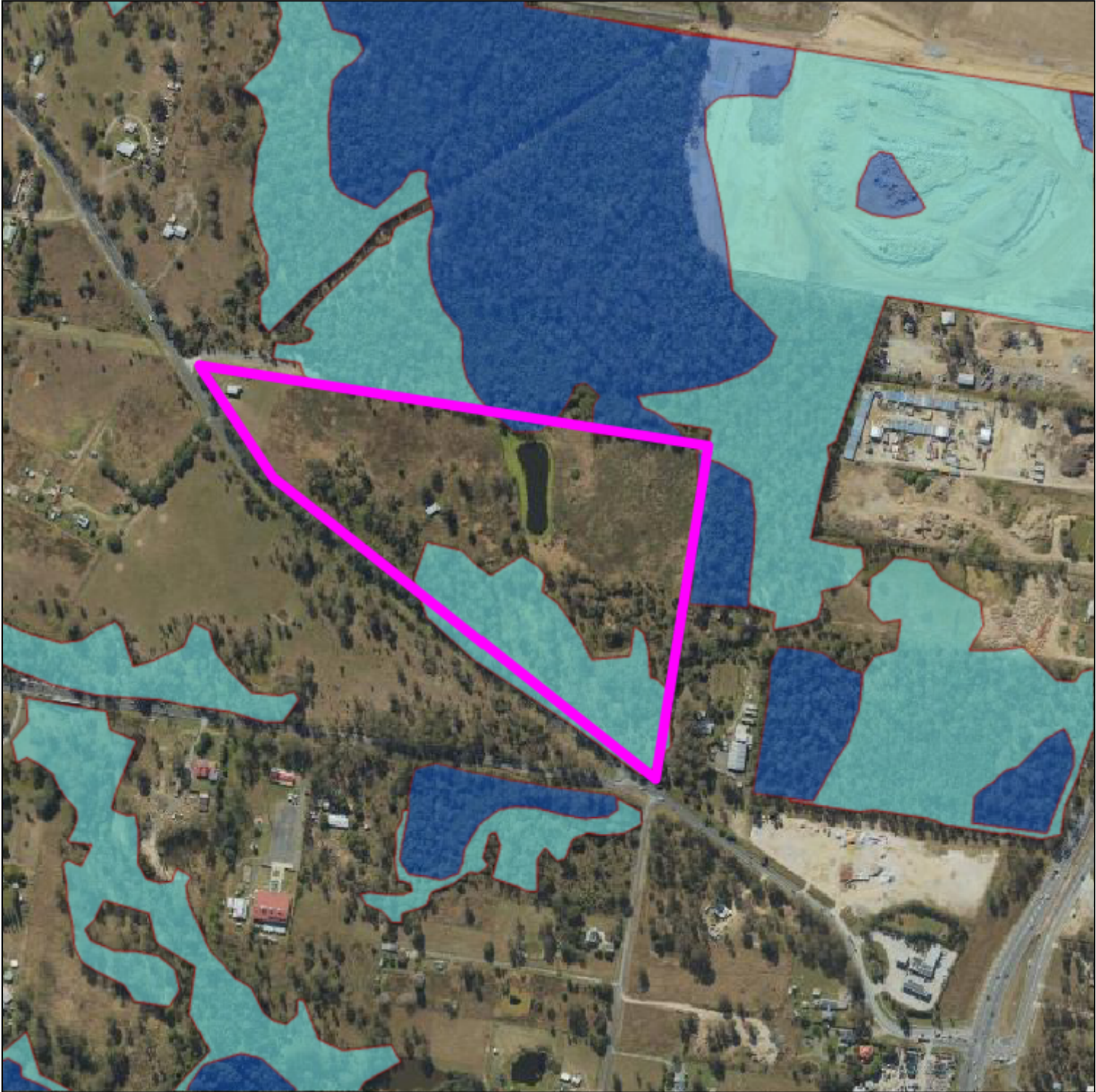
+61 2 6274 1111

Attachment 9 –
Regulated Vegetation
Mapping

Regulated Vegetation (Site)

27°45'58"S 153°0'3"E

27°45'58"S 153°0'51"E

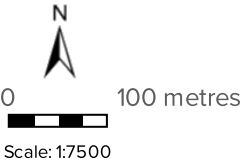
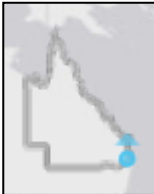


27°46'40"S 153°0'3"E

27°46'40"S 153°0'51"E

A product of

Legend located on next page



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Regulated Vegetation (Site)

Legend

RVM category A -
vegetation offsets;
compliance notices;
VDecs



RVM category B -
remnant vegetation



RVM category C - high-
value regrowth
vegetation



RVM category R - reef-
regrowth watercourse
vegetation



Places: My Places(1)



Site

Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

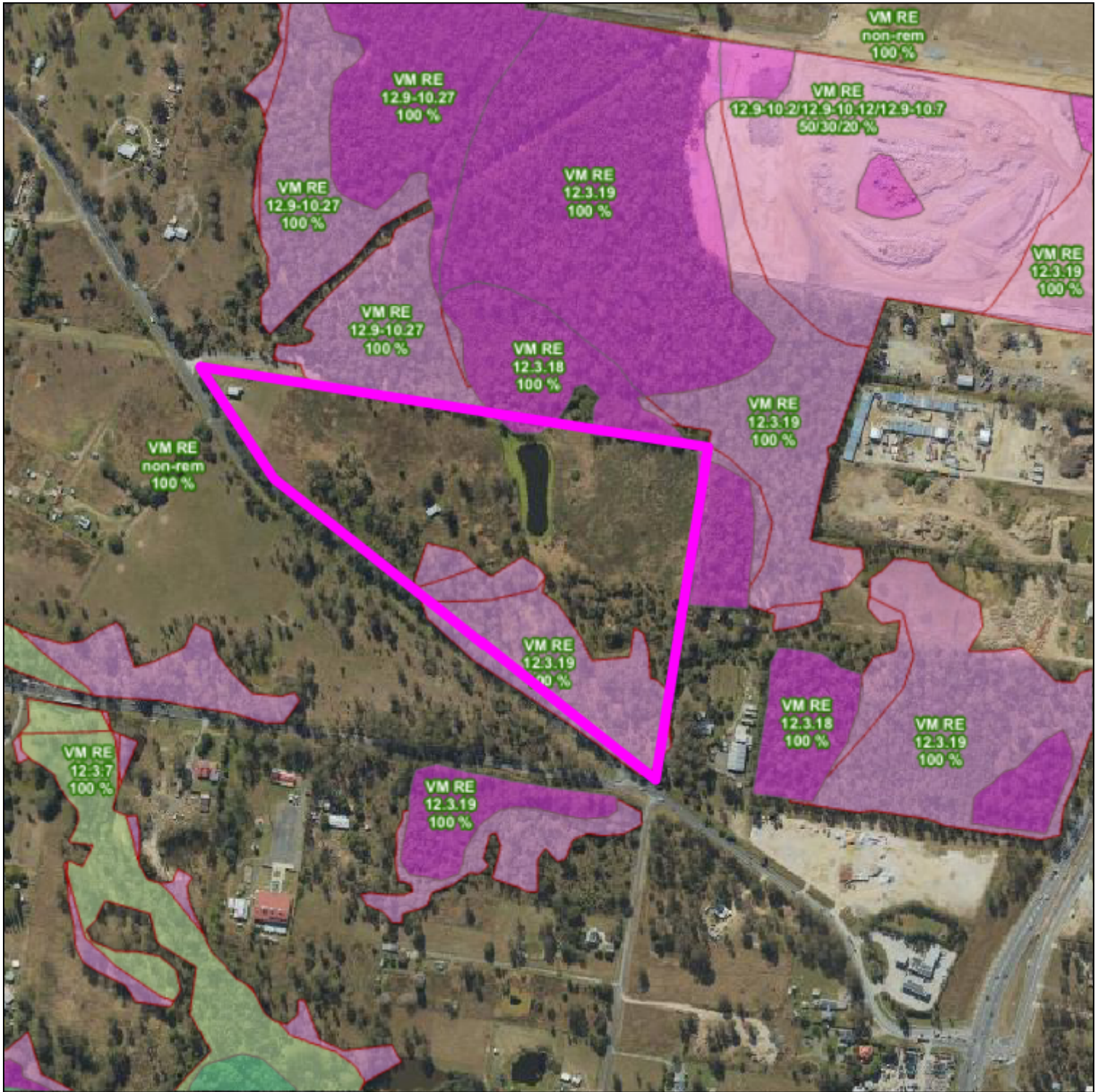
© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Regulated Vegetation (RE Map) Site

27°45'58"S 153°0'3"E

27°45'58"S 153°0'51"E

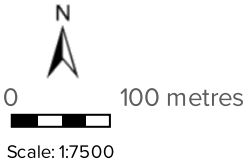


27°46'40"S 153°0'3"E

27°46'40"S 153°0'51"E

A product of

Legend located on next page



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Regulated Vegetation (RE Map) Site

 Legend

Vegetation management
regional ecosystem map
labels

Category A or B area
containing endangered



Category A or B area
containing of concern



Category A or B area that
is least concern



Category C or R area
containing endangered



Category C or R area
containing of concern



Category C or R area that
is of least concern



Places: My Places(1)



Site

 Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

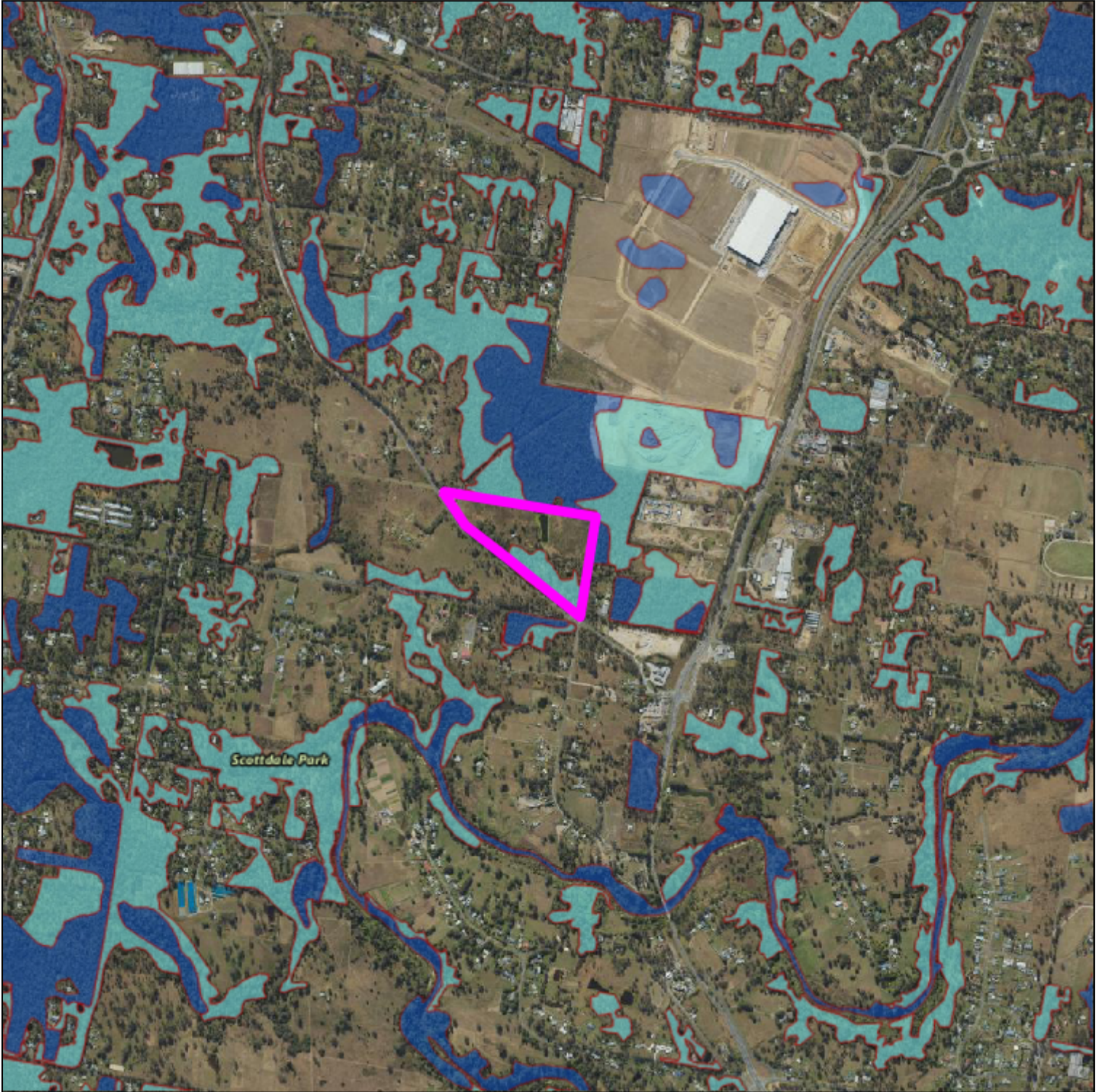
© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Regulated Vegetation (Locality)

27°45'8"S 152°59'7"E

27°45'8"S 153°1'47"E



27°47'30"S 152°59'7"E

27°47'30"S 153°1'47"E

A product of

Legend located on next page



0 500 metres

Scale: 1:25000

Printed at: A4

Print date: 30/6/2026

Not suitable for accurate measurement.

Projection: Web Mercator EPSG 102100 (3857)

For more information, visit

<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Regulated Vegetation (Locality)

Legend

RVM category A -
vegetation offsets;
compliance notices;
VDecs



RVM category B -
remnant vegetation



RVM category C - high-
value regrowth
vegetation



RVM category R - reef-
regrowth watercourse
vegetation



Places: My Places(1)



Site

Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

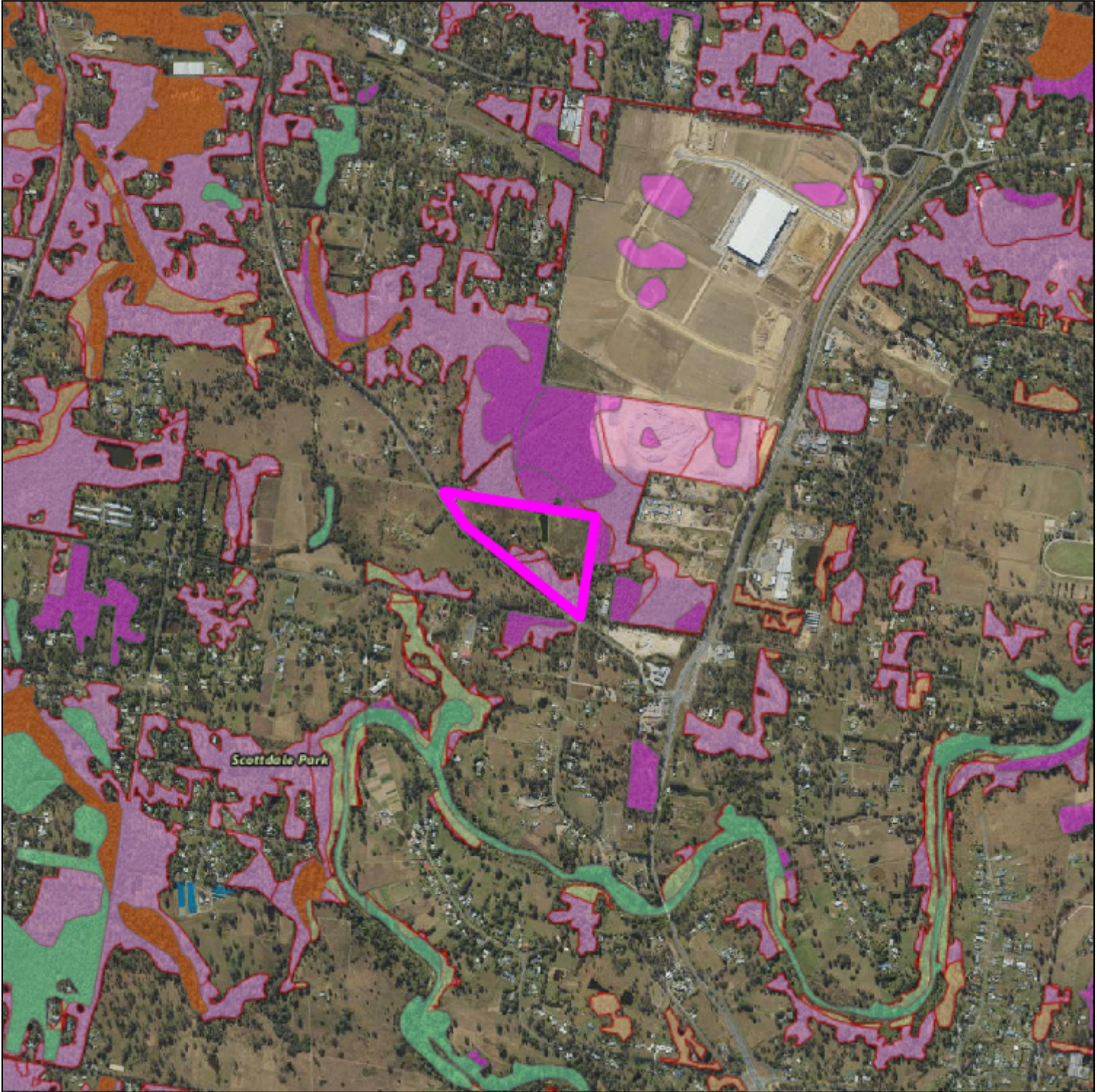
© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Regulated Vegetation (RE Map) Locality

27°45'8"S 152°59'7"E

27°45'8"S 153°1'47"E

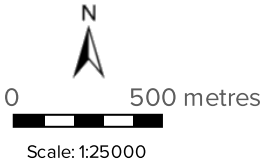
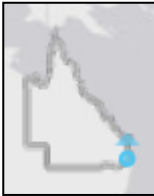


27°47'30"S 152°59'7"E

27°47'30"S 153°1'47"E

A product of

Legend located on next page



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Regulated Vegetation (RE Map) Locality

 Legend

Category A or B area
containing endangered



Category A or B area
containing of concern



Category A or B area that
is least concern



Category C or R area
containing endangered



Category C or R area
containing of concern



Category C or R area that
is of least concern



Places: My Places(1)



Site

 Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Resources) 2024

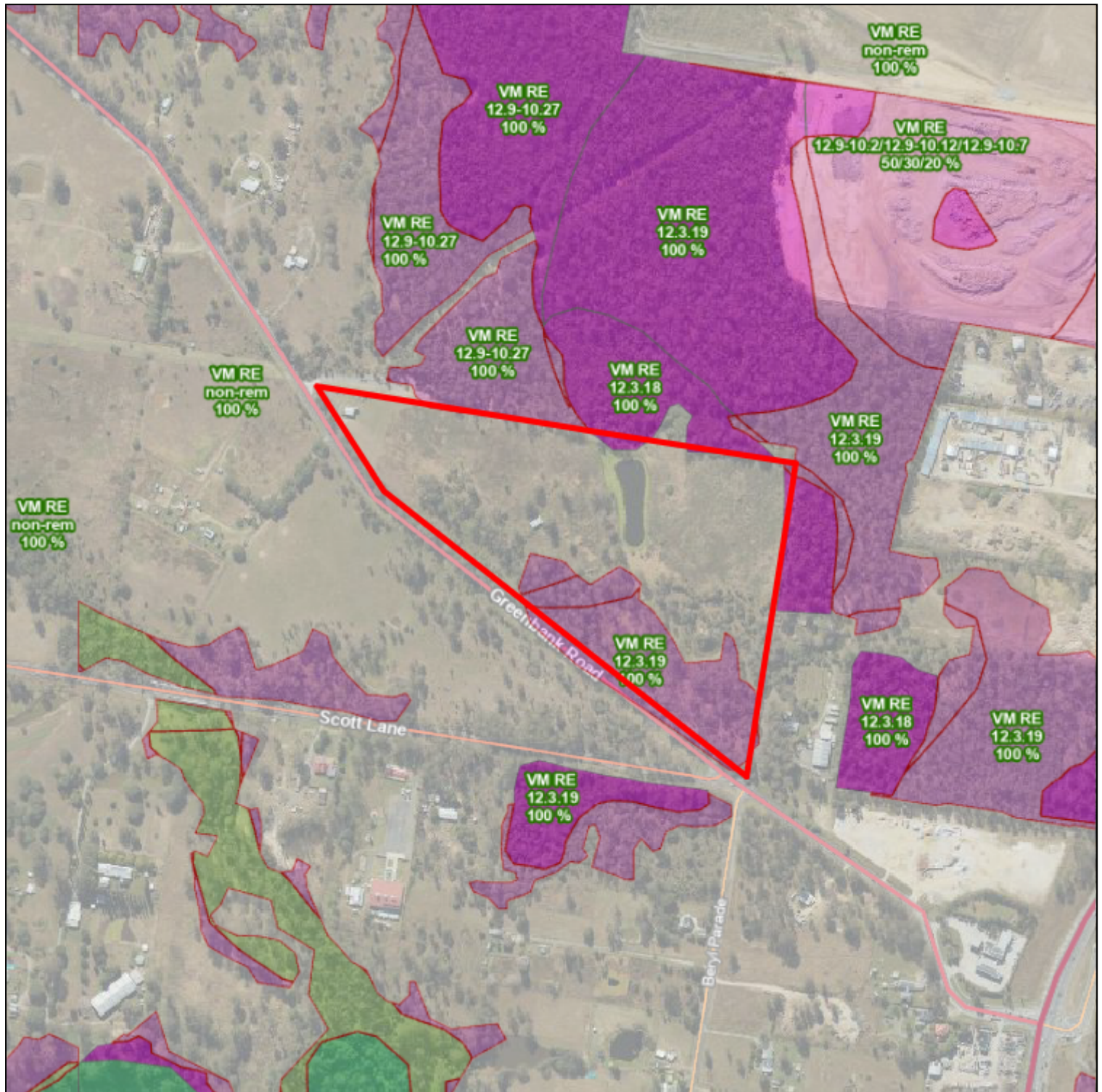
© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Attachment 10 – Regional Ecosystem Mapping

Vegetation Management Regional Ecosystem Map

49990718E 6928761.51N (Zone 56)

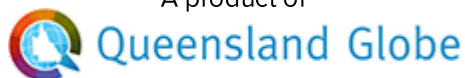
501310.49E 6928761.44N (Zone 56)



49990719E 6927365.65N (Zone 56)

501310.34E 6927365.58N (Zone 56)

A product of



Legend located on next page



Scale: 1:8000

Printed at: A4

Print date: 3/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Vegetation Management Regional Ecosystem Map

Legend

Attribution

Roads and tracks

-  Motorway
-  Highway
-  Secondary
-  Connector
-  Local
-  Restricted Access Road
-  Mall
-  Busway
-  Bikeway
-  Restricted Access Bikeway
-  Walkway
-  Restricted Access Walkway
-  Non-vehicular Track
-  Track
-  Restricted Access Track
-  Ferry
-  Proposed Thoroughfare

Green bridges



Bridges



Tunnels



Vegetation management regional ecosystem map labels

Places: Search Results

-  1RP121663

Vegetation management regional ecosystem - all

-  Category A or B area containing endangered
-  Category A or B area containing of concern
-  Category A or B area that is least concern
-  Category C or R area containing endangered
-  Category C or R area containing of concern
-  Category C or R area that is of least concern
-  Water
-  Non-remnant

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

© State of Queensland (Department of Resources) 2024

Attachment 11 – Koala Habitat Area

Koala Mapping (Site)

27°45'58"S 153°0'3"E

27°45'58"S 153°0'51"E



27°46'40"S 153°0'3"E

27°46'40"S 153°0'51"E

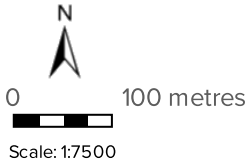
A product of

Legend located on next page



Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Printed at: A4

Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Koala Mapping (Site)

 Legend

Koala priority area



Core koala habitat area



Places: My Places(1)



Site

 Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Environment and Science) 2022

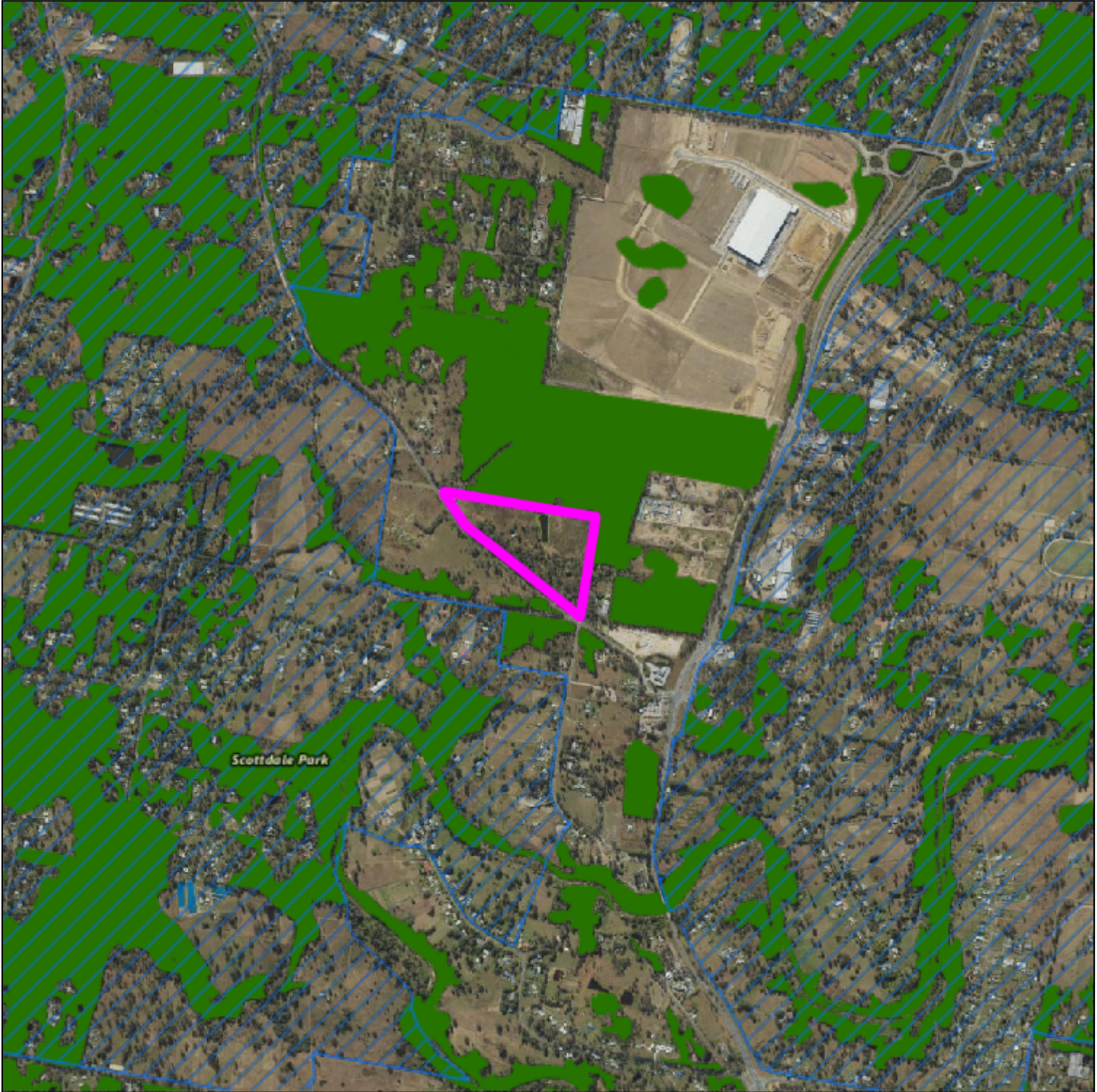
© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Koala Mapping (Locality)

27°45'8"S 152°59'7"E

27°45'8"S 153°1'47"E



27°47'30"S 152°59'7"E

27°47'30"S 153°1'47"E

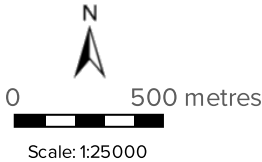
A product of

Legend located on next page



Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025



Printed at: A4
Print date: 30/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Koala Mapping (Locality)

 Legend

Koala priority area



Core koala habitat area



Places: My Places(1)



Site

 Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Environment and Science) 2022

© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

Attachment 12 – Protected Plant Trigger Area

Protected Plant Trigger Area Map

499948.85E 6928776.69N (Zone 56)

501350.28E 6928776.62N (Zone 56)

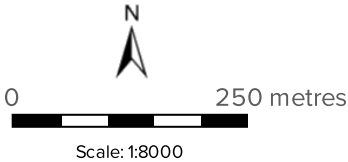


499948.86E 6927382.69N (Zone 56)

501350.13E 6927382.62N (Zone 56)

A product of

Legend located on next page



Scale: 1:8000

Printed at: A4

Print date: 8/6/2026

Not suitable for accurate measurement.
Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Protected Plant Trigger Area Map

Legend

Protected plants trigger map



Places: Search Results



1RP121663

Railway stations



Railways



Roads and tracks



Motorway



Highway



Secondary



Connector



Local



Restricted Access Road



Mall



Busway



Bikeway



Restricted Access Bikeway



Walkway



Restricted Access Walkway



Walkway



Non-vehicular Track



Track



Restricted Access Track



Ferry



Proposed Thoroughfare

Green bridges



Bridges



Tunnels



Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

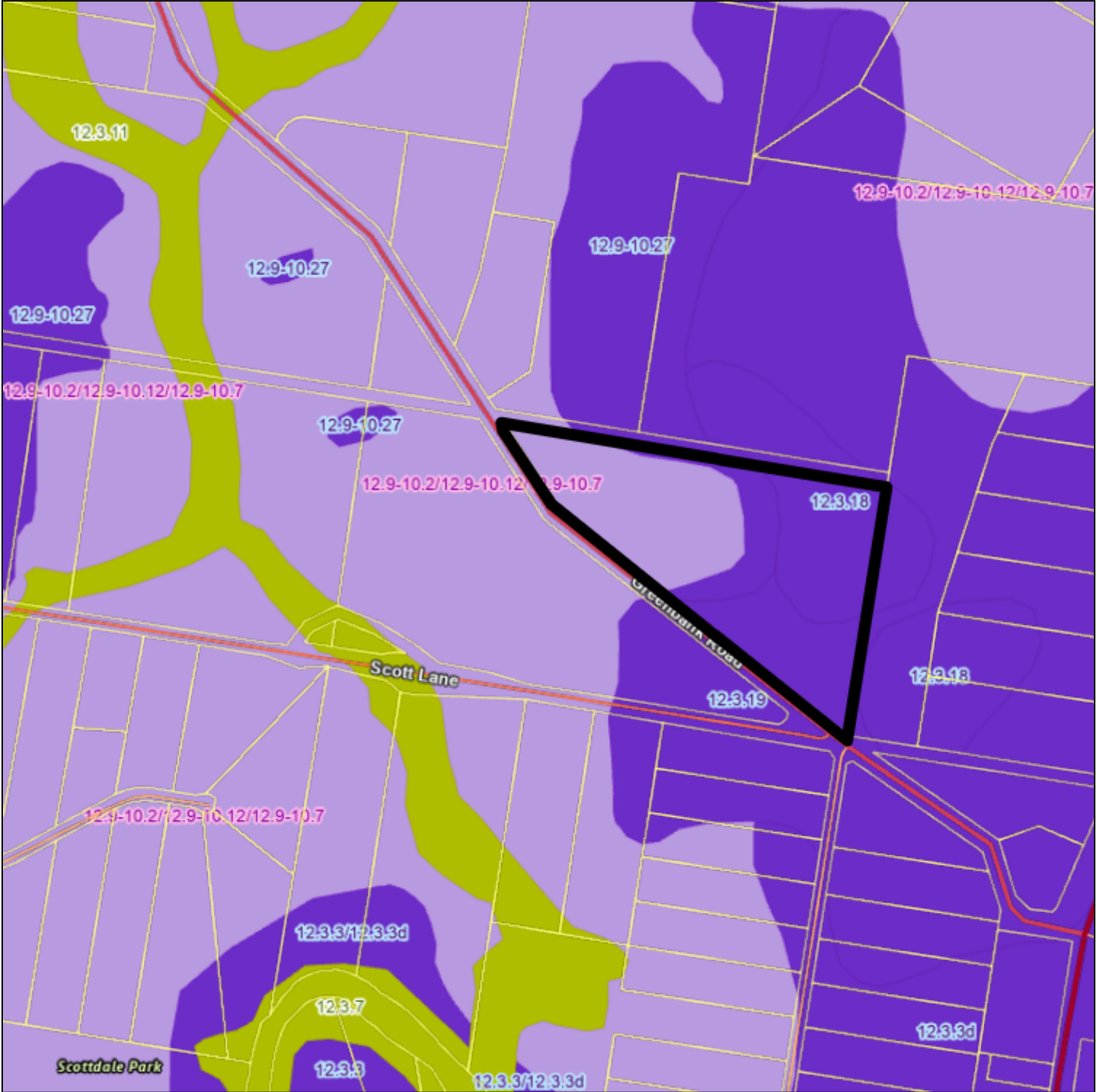
© State of Queensland (Department of Resources) 2024

Attachment 13 –Pre- clear RE Mapping

Preclear Regional Ecosystems

27°45'50"S 152°59'42"E

27°45'50"S 153°0'46"E



27°46'47"S 152°59'42"E

27°46'47"S 153°0'46"E

A product of

Legend located on next page



Scale: 1:10000

Printed at: A4

Print date: 29/6/2026

Not suitable for accurate measurement.

Projection: Web Mercator EPSG 102100 (3857)

For more information, visit
<https://qldglobe.information.qld.gov.au/help-info/Contact-us.html>



**Queensland
Government**

Department of Natural Resources and Mines,
Manufacturing, and Regional and Rural Development

Includes material © State of Queensland 2026. You are responsible for ensuring that the map is suitable for your purposes. The State of Queensland makes no representation or warranties in relation to the map contents and disclaims all liability.

If imagery is displayed, imagery includes material © CNES reproduced under license from Airbus DS, all rights reserved © 21AT © Earth-i, all rights reserved, © Planet Labs PBC, 2025

Preclear Regional Ecosystems

Legend

Biodiversity status - preclear

-  Endangered - Dominant vegetation
-  Endangered - Sub-dominant
-  Of Concern - Dominant
-  Of Concern - Sub-dominant
-  No concern at present
-  Estuary, ocean

Land parcel



Land parcel - gt 1 ha



Land parcel - gt 10 ha



Land parcel - gt 1000 ha



Places: My Places(1)



Green bridges



Bridges



Tunnels



Railway stations



Railways



Roads and tracks

-  Motorway
-  Highway
-  Secondary
-  Connector
-  Local
-  Restricted Access Road
-  Mall
-  Busway
-  Bikeway
-  Restricted Access Bikeway
-  Walkway
-  Restricted Access Walkway
-  Non-vehicular Track
-  Track
-  Restricted Access Track
-  Ferry
-  Proposed Thoroughfare

Attribution

Vantor

Includes material © State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development); © Commonwealth of Australia (Geoscience Australia); © 21AT, © Earth-i, all rights reserved, 2026.

Queensland Herbarium (2022) Biodiversity Status of Pre-clearing Regional Ecosystems of Queensland. State of Queensland (Department of Environment and Science).

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2025

© State of Queensland (Department of Resources) 2024

© State of Queensland (Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development) 2026

Attachment 14 – WildNet



WildNet Records

Conservation Significant Species List

For the selected area of interest Custom input
Current as at 01/06/2026 2026100_5km

Summary Information

The following table provides an overview of the area of interest: Custom input

Table 1. Area of interest details

Size (ha)	
5,066.00	
Local Government(s)	
Logan City	
Catchment(s)	
Logan-Albert	
Bioregion(s)	Subregion(s)
Southeast Queensland	Moreton Basin

Protected Area(s)

No estates or reserves are located within the area of interest.

World Heritage Area(s)

No World Heritage Areas are located within the area of interest.

Ramsar Area(s)

No Ramsar Areas are located within the area of interest.

Introduction

This WildNet report is derived from a spatial layer that is generated from the [WildNet database](#), managed by the Department of the Environment, Tourism, Science and Innovation. The layer, which is generated weekly, contains a subset of WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero. It does not include aspatial data such as some baseline species lists created for some protected areas.

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a conservation significant species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest.

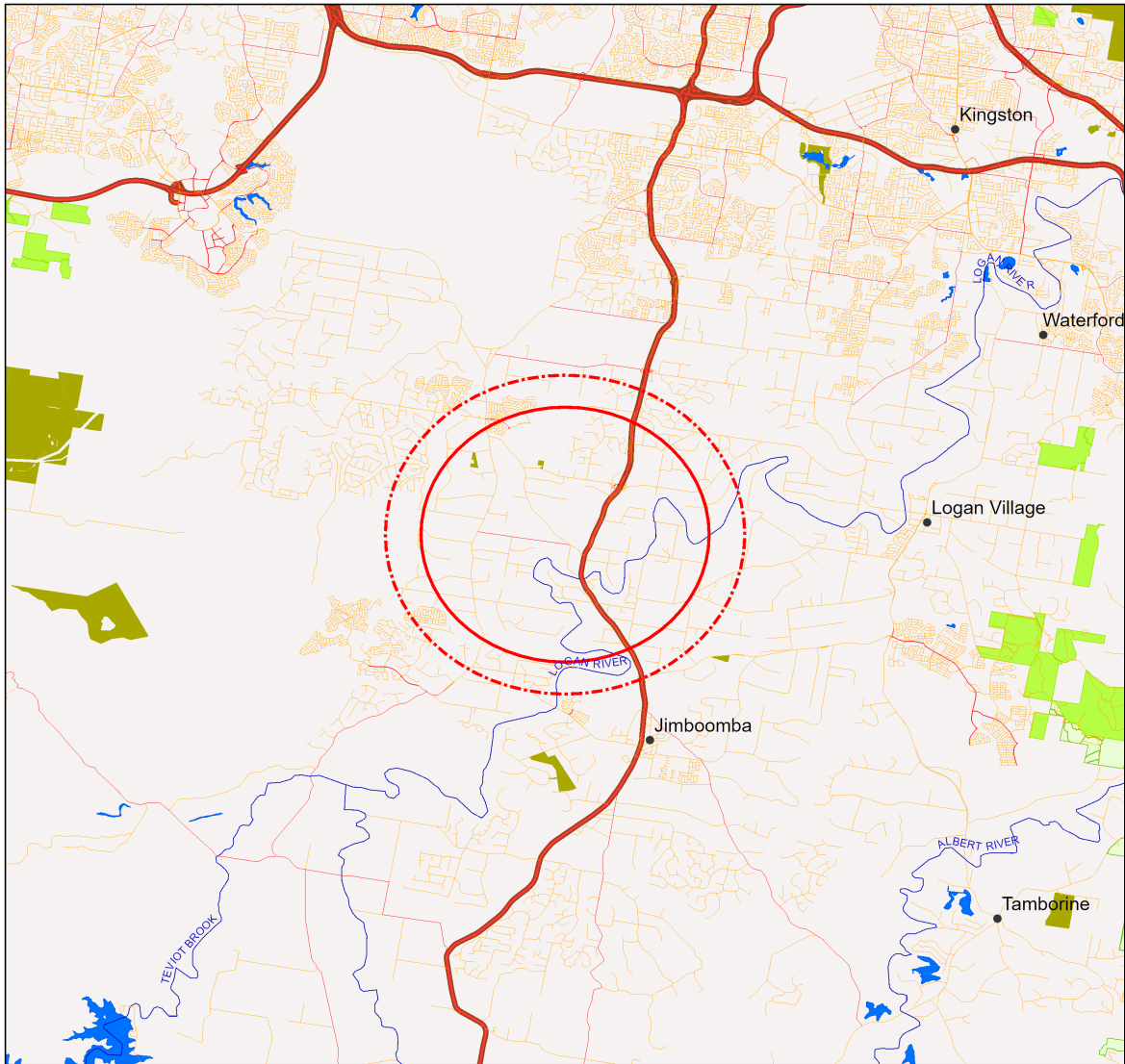
The [WildNet Application](#) may provide additional information on species occurrence within your area of interest.

Conservation significant species are species listed:

- as threatened or near threatened under the *Nature Conservation Act 1992*;
- as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* or
- migratory species protected under the following international agreements:
 - Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
 - China-Australia Migratory Bird Agreement
 - Japan-Australia Migratory Bird Agreement
 - Republic of Korea-Australia Migratory Bird Agreement

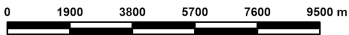
Table 2 lists the species recorded within the area of interest and its one kilometre buffer.

Map 1. Locality Map



Locality Map

- Legend**
- Towns
 - Freeways/Highways
 - Connector
 - Street/Local Road
 - Lakes and reservoirs
 - National Park
 - National Park (Scientific)
 - National Park (CYPAL)
 - National Park (Aboriginal Land)
 - Conservation Park
 - Resources Reserve
 - Forest Reserve
 - State Forest
 - Timber Reserve
 - Nature Refuges
 - Coordinated Conservation Areas
 - Major rivers/creeks
 - Queensland
 - Custom area
 - 1 kilometre buffer



This product is displayed in GDA2020

DISCLAIMER:
Information presented on this product is distributed by the Queensland Government as an information source only. While every care is taken to ensure the accuracy of this data, the State of Queensland makes no statements, representations or warranties about the accuracy, reliability, completeness or suitability of any information contained in this product.

The state of Queensland disclaims all responsibility for information contained in this product and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

© The State of Queensland, 2026

Table 2. Conservation significant species recorded within the area of interest and its one kilometre buffer

Taxon Id	Kingdom	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
18168	Animalia	Actinopterygii	Eleotridae	<i>Mogurnda adspersa</i>	southern purplespotted gudgeon		E	0	1	20/02/2019
706	Animalia	Amphibia	Limnodynastidae	<i>Adelotus brevis</i>	tusked frog	V		1	2	14/10/2021
1971	Animalia	Aves	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail	V	V	0	2	3/11/2006
22494	Animalia	Aves	Cacatuidae	<i>Calyptorhynchus lathami lathami</i>	glossy black-cockatoo (eastern)	V	V	0	1	30/08/2008
1857	Animalia	Aves	Scolopacidae	<i>Gallinago hardwickii</i>	Latham's snipe	V	V	0	1	31/12/1984
1107	Animalia	Aves	Strigidae	<i>Ninox strenua</i>	powerful owl	V		0	5	10/08/2019
803	Animalia	Mammalia	Dasyuridae	<i>Dasyurus maculatus maculatus</i>	spotted-tailed quoll (southern subspecies)	E	E	0	8	6/03/2006
836	Animalia	Mammalia	Ornithorhynchidae	<i>Ornithorhynchus anatinus</i>	platypus	SL		0	1	23/02/1994
875	Animalia	Mammalia	Petauridae	<i>Petaurus australis australis</i>	yellow-bellied glider (southern subspecies)	V	V	0	1	10/11/2005
860	Animalia	Mammalia	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala	E	E	0	337	9/03/2026
2455	Animalia	Mammalia	Pseudocheiridae	<i>Petauroideus volans volans</i>	southern greater glider	E	E	1	1	28/06/1994
962	Animalia	Mammalia	Pteropodidae	<i>Pteropus poliocephalus</i>	grey-headed flying-fox	C	V	0	3	31/12/1992
838	Animalia	Mammalia	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna	SL		0	3	31/03/2020
13866	Plantae	Equisetopsida	Campanulaceae	<i>Lobelia quadrangulata</i>		SL		1	2	21/04/2023
17350	Plantae	Equisetopsida	Droseraceae	<i>Drosera spatulata</i>		SL		0	1	31/12/1992
13434	Plantae	Equisetopsida	Hydrocharitaceae	<i>Najas marina</i>		SL		1	1	14/03/2016
14366	Plantae	Equisetopsida	Hydrocharitaceae	<i>Najas tenuifolia</i>	water nymph	SL		1	1	7/12/2018
26403	Plantae	Equisetopsida	Myrtaceae	<i>Melaleuca irbyana</i>		E		2	11	25/11/2022
17505	Plantae	Equisetopsida	Orchidaceae	<i>Cymbidium canaliculatum</i>		SL		0	1	31/12/1992

Taxon Id: Unique identifier of the taxon from the WildNet database.

NCA: Queensland conservation status of the taxon under the *Nature Conservation Act 1992* (Least Concern (C), Critically Endangered (CR), Endangered (E), Extinct (EX), Near Threatened (NT), Extinct in the Wild (PE), Special Least Concern (SL), and Vulnerable (V)).

EPBC: Australian conservation status of the taxon under the *Environment Protection and Biodiversity Conservation Act 1999* (Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Vulnerable (V), and Extinct in the Wild (XW)).

Specimens: The number of specimen-backed records of the taxon.

Records: The total number of records of the taxon.

Last record: Date of most recent record of the taxon.

Links and Support

Other sites that deliver species information from the [WildNet database](#) include:

- [WildNet Application](#) - public interface to find species information and species lists generated from the WildNet database.
- [Biomaps](#) - view biodiversity information, including WildNet records approved for publication, and generate reports
- [Queensland Globe](#) - view spatial information, including WildNet records approved for publication
- [Qld WildNet Data API](#) - access WildNet species information approved for publication such as notes, images and records etc.
- [Wetland Maps](#) - view species records, survey locations etc. approved for publication
- [Wetland Summary](#) - view wildlife statistics, species lists for a range of area types, and access WildNet species profiles
- [WildNet wildlife records - published - Queensland](#) - spatial layer of WildNet records approved for publication generated weekly
- [Generalised distribution and densities of Queensland wildlife](#) - Queensland species distributions and densities generalised to a 10 km grid resolution
- [Conservation status of Queensland wildlife](#) - access current lists of priority species for Queensland including nomenclature and status information
- [Queensland Confidential Species](#) - the list of species flagged as confidential in the WildNet database.

Please direct queries about this report to the WildNet Team WildNet@detsi.qld.gov.au.

Other useful sites for accessing Queensland biodiversity data include:

- [Useful wildlife resources](#)
- [Queensland Government Data](#)
- [Atlas of Living Australia \(ALA\)](#)
- [Online Zoological Collections of Australian Museums \(OZCAM\)](#)
- [Australasian Virtual Herbarium \(AVH\)](#)
- [Protected Matters Search Tool](#)

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government, to the maximum extent permitted by law, makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.

© State of Queensland 2026



Attachment 15 –
Likelihood of
Occurrence
Assessment

1.1 Likelihood of Occurrence Assessment — Threatened Ecological Communities and Threatened Species

This attachment presents the desktop likelihood of occurrence assessment for the Matters of National Environmental Significance (MNES) threatened ecological communities and threatened species identified for the Site. It draws on the Protected Matters Search Tool (PMST; 5-kilometre search, report dated 1 June 2026), the WildNet database and the Atlas of Living Australia. WildNet records are graded by proximity to the Site using two searches: a near search (records within approximately 5 km) and a wider Conservation Significant Species List search of a 15-kilometre area of interest (DETSI 2026, current to 11 June 2026). For each matter the WildNet column records whether it is recorded within approximately 5 km of the Site, or beyond 5 km but within 15 km, or not at all within 15 km. Matters with no record within 15 km are treated as likely to be absent from the Site in the absence of any proximate record, unless suitable habitat is present, in which case a precautionary survey check is retained; for all matters, the suitability of the habitat present on the Site relative to the matter's specific requirements is the primary determinant of likelihood, and matters whose required habitat is clearly absent are excluded with greater confidence regardless of distant records. For each matter the table records its EPBC Act status, its PMST presence, its WildNet record proximity, whether the Site lies within the species' range, the habitat the matter requires compared with the habitat present on the Site, the resulting likelihood of occurrence on the Site, and, for matters assessed as Known, Likely or Possible (and for those carried to the shortlist), the survey method by which the matter is targeted. A small number of additional EPBC-listed matters returned by the 15-kilometre WildNet search but not by the PMST are included and identified as such. The listed migratory species and the other MNES matters are addressed separately.

Species habitat requirements and distributions are drawn from the EPBC Act Species Profile and Threats Database (DCCEEW 2025) unless otherwise cited; habitat present on the Site is described from the Site assessment (Section 3.1). **Likelihood categories (after EcoSmart Ecology 2015):** Known (recorded on the Site); Likely (>50%); Possible (20–50%); Unlikely (1–19%); Highly unlikely (<1%); Absent (community only); Transient (highly mobile, not reliant on the Site).

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Threatened Ecological Communities							
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of NSW and SEQ	E	may occur	No record ≤15 km	Within bioregion	A swamp oak forest of low-lying estuarine and near-coastal flats subject to periodic brackish or saline inundation, dominated by swamp oak (<i>Casuarina glauca</i>) over a salt-tolerant ground layer of grasses, sedges and herbs, and dependent on a high, often brackish watertable on waterlogged estuarine and alluvial soils (DCCEEW 2025). The Site carries no estuarine, brackish or permanently waterlogged flat, no <i>Casuarina glauca</i> canopy and no salt-tolerant ground layer, and the WildNet search returns no record of the community or its dominant within 15 km (Section 3.1).	Does not occur. The defining estuarine swamp oak assemblage and brackish hydrological setting are absent from the Site.	—
Coastal Swamp Sclerophyll Forest of NSW and SEQ	E	likely to occur	No record ≤15 km	Within bioregion	A paperbark (<i>Melaleuca quinquenervia</i> and allies) and/or swamp mahogany (<i>Eucalyptus robusta</i>) open forest to woodland of waterlogged or periodically inundated coastal lowland flats, drainage depressions and the landward margins of estuarine systems, over a sedge–rush–moisture-tolerant grass ground layer on humic clay loams and peaty alluvium, dependent on a high or seasonally fluctuating watertable (DCCEEW 2025). The Site supports no permanently waterlogged flat, wetland or paperbark / swamp-mahogany assemblage, lacks the diagnostic sedge–rush ground layer and high watertable, and the community is not recorded within 15 km (Section 3.1).	Does not occur. The diagnostic swamp sclerophyll assemblage and hydrological setting are absent from the Site.	—

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Grey box–grey gum wet forest of subtropical eastern Australia	E	likely to occur (buffer only)	No record ≤15 km	Within bioregion	A tall, wet to moist sclerophyll forest of higher-rainfall foothills and lower slopes, generally on fertile clay-rich soils, dominated by grey box (<i>Eucalyptus moluccana</i>) and grey gum (<i>E. propinqua</i>) with a mesic shrub, fern and vine understorey in a sheltered, moist microclimate (DCCEEW 2025). The Site comprises eucalypt floodplain forest and woodland and cleared and modified land on alluvial flats; it lacks the wet-forest canopy dominants, the mesic understorey and the sheltered, higher-rainfall foothill setting that define the community (Section 3.1).	Does not occur. The characteristic wet grey box / grey gum forest is absent; the community is mapped in the search buffer only.	–
Lowland Rainforest of Subtropical Australia	CE	may occur	No record ≤15 km	Within bioregion	Closed subtropical rainforest of lowland and foothill alluvial, basaltic and other fertile substrates, generally below about 300 m, with a dense, multi-layered, largely evergreen canopy, abundant vines and epiphytes and a shaded, litter-rich floor (DCCEEW 2025). No rainforest, gallery forest or vine thicket of any kind occurs on the Site, which carries only eucalypt floodplain forest, woodland and cleared land (Section 3.1).	Does not occur. No rainforest is present on the Site.	–
Poplar Box Grassy Woodland on Alluvial Plains	E	may occur	No record ≤15 km	Within bioregion	A grassy woodland of level to gently undulating alluvial and texture-contrast clay plains dominated by poplar box (<i>Eucalyptus populnea</i>), sometimes with associated eucalypts, over a tussock-grass and forb ground layer, on soils subject to seasonal waterlogging and cracking (DCCEEW 2025). The Site's alluvial floodplain is dominated by forest red gum / Queensland blue gum (<i>Eucalyptus tereticornis</i>) rather than poplar box, and neither the diagnostic canopy dominant nor the characteristic cracking-clay-plain assemblage is present (Section 3.1).	Does not occur. Poplar box and the diagnostic grassy woodland are absent from the Site.	–
Subtropical Eucalypt Floodplain Forest and Woodland of the NSW North Coast and SEQ Bioregions (Floodplain Forest TEC)	E	likely to occur	Mapped as RE 12.3.3; confirmed on Site	Within bioregion	Eucalypt forest and woodland of coastal and subcoastal floodplains, alluvial flats and associated drainage lines, typically dominated by forest red gum / Queensland blue gum (<i>Eucalyptus tereticornis</i>) with associated floodplain eucalypts over a grassy to sparse-shrub ground layer, maintained by periodic overbank flooding on alluvial soils (DCCEEW 2022). Eucalypt floodplain forest and woodland consistent with the TEC (RE 12.3.3) occurs on the Site's alluvial flat and has been confirmed during the Site assessment; its extent and condition are to be delineated by the BioCondition assessment (Section 3.1).	Known (confirmed). Confirmed on the Site; extent and condition to be delineated and assessed against the diagnostic and condition thresholds.	BioCondition assessment plots and diagnostic transects to delineate the extent of the TEC and confirm condition against the diagnostic thresholds.
Swamp Tea-tree (<i>Melaleuca irbyana</i>) Forest of South-east Queensland	CE	likely to occur	<i>Melaleuca irbyana</i> ≤5 km: 11 records (2022); ≤15 km: 62 records (2022)	Within bioregion	A low, dense forest to woodland dominated by swamp tea-tree (<i>Melaleuca irbyana</i>), characteristically on heavy, seasonally waterlogged grey and brown texture-contrast clay soils of level to gently undulating alluvial plains and flats, with a sparse, often bare ground layer (DCCEEW 2025). Swamp tea-tree forest consistent with the TEC occurs on the Site's alluvial clay flats and has been confirmed during the Site assessment, supported by a strong locality record set (<i>Melaleuca irbyana</i> 62 records within 15 km, 11 within 5 km); its extent and condition are to be delineated by the BioCondition assessment (Section 3.1).	Likely (confirmed off-Site). Confirmed off-site immediately north and east of the Site; on-Site presence and condition yet to be assessment against the diagnostic and condition thresholds.	Targeted flora and BioCondition survey of alluvial clay flats for <i>Melaleuca irbyana</i> stands, with mapping and assessment against the TEC diagnostic and condition thresholds.

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
White Box–Yellow Box–Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CE	may occur	No record ≤15 km	Outside core range	A grassy woodland or derived native grassland of the inland slopes, tablelands and western plains, dominated by white box (<i>Eucalyptus albens</i>), yellow box (<i>E. melliodora</i>) and/or Blakely's red gum (<i>E. blakelyi</i>) over a species-rich native tussock-grass and forb ground layer, generally west of the coastal ranges (DCCEEW 2025). The box-gum canopy dominants are absent from the Site, the community is not recorded within 15 km, and the Site lies east of its principal distribution (Section 3.1).	Does not occur. The characteristic box-gum eucalypts are absent and the Site is outside the community's core range.	–
Threatened Flora Species							
Hairy-joint Grass (<i>Arthraxon hispidus</i>)	V	likely to occur	No record ≤15 km	Yes	A perennial, semi-aquatic to mesic grass of damp, shaded creek banks, drainage lines, soaks and the margins of wetlands and rainforest, on moist, fertile alluvial soils where reliable soil moisture and partial shade persist (DCCEEW 2025). The Site has no waterway, drainage line, soak or wetland, the only marginal potential being transient damp depressions within the floodplain forest, and the species is not recorded within 15 km (Section 3.1).	Unlikely. The shaded riparian / wetland-margin habitat the species depends on is absent and there is no record within 15 km; marginal damp depressions to be checked as a precaution.	Targeted searches of any damp depressions within the floodplain forest during the whole-of-site flora survey.
Three-leaved Bosistoa (<i>Bosistoa transversa</i>)	V	may occur (buffer only)	No record ≤15 km	Yes	A tree of lowland and gallery subtropical and dry rainforest and their margins, generally on fertile alluvial or basaltic soils in warm, sheltered situations (DCCEEW 2025). No rainforest, gallery forest or vine thicket occurs on the Site, so the species' obligate rainforest habitat is wholly absent, and there is no record within 15 km (Section 3.1).	Highly unlikely. No rainforest or gallery-forest habitat is present and there is no proximate record; the species is effectively excluded.	–
(<i>Coleus habrophyllus</i>)	E	may occur (buffer only)	Not ≤5 km. 5–15 km: 10 records (2023)	Yes	A soft-wooded perennial herb of sheltered, often rocky microsites in dry rainforest, vine thicket and the ecotone with dry eucalypt forest, largely restricted to the Ipswich–Brisbane district, favouring shaded, moist crevices with the protection of rock and leaf litter (DCCEEW 2025). Although the species is recorded in the wider locality (10 records within 5–15 km), no dry rainforest, vine thicket or sheltered rocky ecotone occurs on the Site, so the specialised microhabitat it depends on is absent (Section 3.1).	Unlikely. Recorded within 5–15 km, but the dry-rainforest / vine-thicket microhabitat is absent from the Site, which is the limiting factor.	–
Leafless Tongue-orchid (<i>Cryptostylis hunteriana</i>)	V	may occur (buffer only)	No record ≤15 km	Yes	A leafless, saprophytic ground orchid of coastal heath, sedgeland, swamp margins and open eucalypt and paperbark woodland, on seasonally moist sandy or peaty soils (DCCEEW 2025). The Site lacks the heath, sedgeland, swamp margin and seasonally moist sandy or peaty substrates the species requires, and there is no record within 15 km (Section 3.1).	Highly unlikely. The heath / swamp-margin habitat and sandy / peaty substrate are absent and there is no proximate record.	–
Wedge-leaf Tuckeroo (<i>Cupaniopsis shirleyana</i>)	V	may occur (buffer only)	No record ≤15 km	Yes	A small tree of riparian and lowland subtropical rainforest and gallery forest, characteristically on alluvial soils along watercourses (DCCEEW 2025). No rainforest, gallery forest or watercourse occurs on the Site, so its obligate riparian-rainforest	Highly unlikely. No rainforest / gallery-forest habitat is present and there is no proximate record.	–

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
					habitat is absent, and there is no record within 15 km (Section 3.1).		
Bluegrass (<i>Dichanthium setosum</i>)	V	likely to occur	No record ≤15 km	Yes	A perennial tussock grass of native grassland and grassy woodland, characteristically on heavy, often cracking clay and basaltic soils, frequently persisting in moderately disturbed, grazed or roadside situations (DCCEEW 2025). The grassy ground layer of the Site's floodplain forest and any retained grassy woodland provides broadly suitable substrate, but the species is not recorded within 15 km, weakening the likelihood of local occurrence (Section 3.1).	Unlikely. Broadly suitable grassy ground layer is present, but there is no record within 15 km; retained as a precautionary flora-survey target given the species is readily overlooked.	Targeted searches of grassy ground layers and any native grassland during the whole-of-site flora survey, timed to flowering.
(<i>Fontainea venosa</i>)	V	may occur	No record ≤15 km	Yes	A rainforest shrub or small tree of dry rainforest and vine thicket on fertile soils in southern inland Queensland (DCCEEW 2025). No dry rainforest or vine thicket occurs on the Site, so suitable habitat is wholly absent, and there is no record within 15 km (Section 3.1).	Highly unlikely. No vine-thicket / dry-rainforest habitat is present and there is no proximate record.	–
Macadamia Nut (<i>Macadamia integrifolia</i>)	V	likely to occur	Not ≤5 km. 5–15 km: 1 record (2018)	Yes	A tree of lowland and foothill subtropical rainforest and notophyll vine forest, often riparian, on fertile alluvial and basaltic soils in south-east Queensland (DCCEEW 2025). A single record lies within 5–15 km, but no rainforest, gallery forest or vine forest occurs on the Site, so the obligate rainforest habitat is absent (Section 3.1).	Unlikely. A single record within 5–15 km, but the rainforest habitat required is absent from the Site.	Maintain awareness for the species during the flora survey of any retained gallery or fertile alluvial vegetation.
Rough-shelled Bush Nut (<i>Macadamia tetraphylla</i>)	V	may occur	No record ≤15 km	Yes	A tree of subtropical rainforest, gallery forest and wet sclerophyll margins on fertile soils in south-east Queensland and far north-east New South Wales (DCCEEW 2025). No rainforest or wet sclerophyll forest occurs on the Site, so suitable habitat is absent, and there is no record within 15 km (Section 3.1).	Highly unlikely. No rainforest / wet sclerophyll habitat is present and there is no proximate record.	–
Lloyd's Olive (<i>Notelaea lloydii</i>)	V	likely to occur	No record ≤15 km	Yes	A shrub of dry eucalypt open forest and woodland, often near the margins of vine thicket, on shallow, stony or rocky soils, largely endemic to the Ipswich–Brisbane region (DCCEEW 2025). Any retained dry eucalypt open forest on the Site provides broadly suitable substrate, but the species is not recorded within 15 km, reducing the likelihood of local occurrence (Section 3.1).	Unlikely. Broadly suitable dry eucalypt forest may be present, but there is no record within 15 km; retained as a precautionary flora-survey target.	Targeted searches of dry eucalypt open forest and woodland, including any vine-thicket ecotones and rocky soils, during the whole-of-site flora survey.
Cooneana Olive (<i>Notelaea × ipsviciensis</i>)	CE	may occur	No record ≤15 km	Yes	A critically rare hybrid olive of dry open eucalypt forest known from a very restricted area near Ipswich (Cooneana), on shallow soils (DCCEEW 2025). The Site lies within the broad mapped range and any dry open eucalypt forest provides marginal substrate, but the taxon is extremely localised and is not recorded within 15 km (Section 3.1).	Unlikely. Within the broad mapped range but extremely localised, with no record within 15 km; retained as a precautionary flora-survey target.	Targeted searches of dry open eucalypt forest within the species' restricted local range during the whole-of-site flora survey.
Hawkweed (<i>Picris evae</i>)	V	may occur	No record ≤15 km	Yes	A perennial herb of native grassland, grassy woodland and remnant roadside vegetation, often on clay or alluvial soils, persisting in lightly disturbed grassy situations (DCCEEW 2025). The grassy ground layer of the Site's floodplain forest and any grassy woodland provides broadly suitable substrate, but the species is not recorded within 15 km (Section 3.1).	Unlikely. Broadly suitable grassy ground layer is present, but there is no record within 15 km; retained as a precautionary flora-survey target.	Targeted searches of grassy ground layers and grassy woodland during the whole-of-site flora survey, timed to flowering.

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Shiny-leaved Condoo (<i>Planchonella eerwah</i>)	E	likely to occur	No record ≤15 km	Yes	A rainforest tree of lowland and foothill subtropical rainforest in south-east Queensland, on fertile soils in sheltered situations (DCCEEW 2025). No rainforest occurs on the Site, so suitable habitat is absent, and there is no record within 15 km (Section 3.1).	Highly unlikely. No rainforest habitat is present and there is no proximate record.	—
Scrub Turpentine (<i>Rhodamnia rubescens</i>)	CE	likely to occur	No record ≤15 km	Yes	A shrub or small tree of rainforest, rainforest margins and wet sclerophyll forest in coastal and near-coastal districts, now severely affected by myrtle rust (<i>Austropuccinia psidii</i>) (DCCEEW 2025). No rainforest or wet sclerophyll forest occurs on the Site, so suitable habitat is absent; <i>R. rubescens</i> is not recorded within 15 km (the congener <i>Rhodamnia maideniana</i> is recorded, but is a distinct taxon of the same obligate rainforest habitat) (Section 3.1).	Highly unlikely. No rainforest / wet sclerophyll habitat is present and there is no proximate record of this species.	—
Native Guava (<i>Rhodomyrtus psidioides</i>)	CE	may occur	Not ≤5 km. 5–15 km: 2 records (2023)	Yes	A small tree of rainforest margins, gallery forest, swamp forest and wet sclerophyll forest in coastal districts, also severely affected by myrtle rust (DCCEEW 2025). Two records lie within 5–15 km, but no rainforest, gallery, swamp or wet sclerophyll forest occurs on the Site, so the habitat the species requires is absent (Section 3.1).	Unlikely. Recorded within 5–15 km, but the rainforest / wet-sclerophyll habitat required is absent from the Site.	—
Smooth Scrub Turpentine (<i>Rhodamnia maideniana</i>)	CE	not in PMST; WildNet	Not ≤5 km. 5–15 km: 1 record (2022)	Yes	A rainforest shrub or small tree of subtropical rainforest and its margins on fertile coastal and subcoastal soils, severely affected by myrtle rust (DCCEEW 2025). A single record lies within 5–15 km, but no rainforest or vine forest occurs on the Site, so the obligate habitat is absent (Section 3.1).	Highly unlikely. Identified by the 15 km WildNet search; a single record within 5–15 km, but no rainforest habitat is present on the Site.	—
Quassia (<i>Samadera bidwillii</i>)	V	likely to occur	No record ≤15 km	Yes	A shrub or small tree of dry rainforest, semi-evergreen vine thicket and riparian scrub, generally on fertile soils in coastal and subcoastal Queensland (DCCEEW 2025). The vine-thicket and riparian-scrub habitat the species favours is absent from the Site, and there is no record within 15 km (Section 3.1).	Highly unlikely. No vine-thicket / riparian-scrub habitat is present and there is no proximate record.	—
Austral Toadflax (<i>Thesium australe</i>)	V	likely to occur	No record ≤15 km	Yes	A small, root-hemiparasitic perennial herb of native grassland and grassy woodland that parasitises the roots of kangaroo grass (<i>Themeda triandra</i>) and other grasses, persisting in lightly grazed or undisturbed native grassland (DCCEEW 2025). Kangaroo grass may occur in the Site's grassy ground layer as a potential host, but <i>T. australe</i> is not recorded within 15 km, reducing the likelihood of local occurrence (Section 3.1).	Unlikely. A potential host grass may be present, but there is no record within 15 km; retained as a precautionary flora-survey target.	Targeted searches of kangaroo grass (<i>Themeda triandra</i>) stands within grassy ground layers during the whole-of-site flora survey, timed to flowering.
Threatened Fauna Species — Birds							
Regent Honeyeater (<i>Anthochaera phrygia</i>)	CE	foraging may occur	Not ≤5 km. 5–15 km: 5 records (all pre-1991; last 1990)	Marginal	A nomadic woodland honeyeater dependent on the nectar of a few key eucalypts (especially box and ironbark) and on riparian and lowland eucalypt woodland for foraging and breeding; the population has collapsed to a few hundred birds centred on a handful of sites in central New South Wales and north-east Victoria (DCCEEW 2025). South-east Queensland lies at the extreme northern edge of the much-contracted range; the only local records are five pre-1991 records within 5–15 km, with none in the past three decades (Section 3.1).	Unlikely. At the margin of a severely contracted range, with only pre-1991 local records; at most a rare vagrant.	—

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Australasian Bittern (<i>Botaurus poiciloptilus</i>)	E	likely to occur	No record ≤15 km	Yes	A large, secretive heron of densely vegetated permanent and semi-permanent freshwater wetlands, dependent on tall, dense beds of reeds, rushes and sedges over shallow water for cover, foraging and breeding (DCCEEW 2025). The Site has no waterway or wetland of any kind, so the dense-wetland habitat the species requires is wholly absent, and there is no record within 15 km (Section 3.1).	Highly unlikely. No densely vegetated permanent wetland habitat is present and there is no proximate record.	—
Sharp-tailed Sandpiper (<i>Calidris acuminata</i>)	V	may occur	Not ≤5 km. 5–15 km: 3 records (1980)	Yes (migratory range)	A long-distance migratory shorebird of the shallow, open margins of fresh, brackish and saline wetlands, lagoons, sewage ponds and floodplain pools, favouring exposed mud and low fringing vegetation for feeding (DCCEEW 2025). The Site offers no wetland, lagoon or open-water margin; the only local records are three 1980 records within 5–15 km, reflecting historic wetland use elsewhere (Section 3.1).	Unlikely. No open wetland habitat is present; local records are confined to historic (1980) wetland sites within 5–15 km.	—
Curlew Sandpiper (<i>Calidris ferruginea</i>)	CE	may occur	No record ≤15 km	Yes (migratory range)	A migratory shorebird of intertidal mudflats, estuaries, coastal lagoons and saline wetlands, occasionally using inland freshwater wetland margins on passage, feeding on exposed soft sediments (DCCEEW 2025). The Site provides no intertidal, estuarine or open-wetland habitat, and there is no record within 15 km (Section 3.1).	Highly unlikely. No coastal or open-wetland habitat is present and there is no proximate record.	—
South-eastern Glossy Black-Cockatoo (<i>Calyptrorhynchus lathami lathami</i>)	V	likely to occur	≤5 km: 1 record (2008); ≤15 km: 13 records (2010)	Yes	A highly specialised cockatoo that feeds almost exclusively on the seed of she-oaks (<i>Allocasuarina</i> and <i>Casuarina</i> spp.) and nests in large hollows in mature eucalypts near feeding habitat, occupying a mosaic of she-oak woodland and hollow-bearing forest (DCCEEW 2025). Eucalypt forest is present on the Site and the species is recorded in the locality (within 5 km); the presence and extent of she-oak feed trees and large hollows are to be confirmed by survey (Section 3.1).	Possible. Recorded within 5 km; the she-oak feed resource and large hollows are to be confirmed by survey.	Inspection for she-oak feed trees and diagnostic chewed cones, and for large hollow-bearing trees as nest sites, during the flora and fauna surveys, with opportunistic observation and call detection.
Greater Sand Plover (<i>Charadrius leschenaultii</i>)	V	may occur	No record ≤15 km	Yes (migratory range)	A migratory shorebird of intertidal sandflats, mudflats, estuaries and coastal lagoons, feeding on intertidal invertebrates and rarely moving to inland waters (DCCEEW 2025). The Site, an inland alluvial floodplain, provides no intertidal, estuarine or open-water habitat, and there is no record within 15 km (Section 3.1).	Highly unlikely. No coastal or intertidal habitat is present and there is no proximate record.	—
Brown Treecreeper (south-eastern) (<i>Climacteris picumnus victoriae</i>)	V	may occur	No record ≤15 km	Yes	A sedentary bird of open eucalypt woodland and dry forest with an open, grassy ground layer, abundant fallen timber and standing dead trees, dependent on hollows for nesting and fallen timber for foraging, and highly sensitive to fragmentation and loss of ground timber (DCCEEW 2025). The Site lies in a fragmented, partly cleared setting in which the hollow, standing-dead-timber and fallen-timber resource is likely limited, and the subspecies is not recorded within 15 km (Section 3.1).	Unlikely. Fragmented setting with a limited hollow and fallen-timber resource, and no record within 15 km.	—
Coxen's Fig-Parrot (<i>Cyclopsitta diophthalma coxeni</i>)	CE	may occur	No record ≤15 km	Yes (historic range)	A tiny, critically rare fig-parrot of lowland and upland subtropical rainforest, dependent on the fruit of figs (<i>Ficus</i> spp.) and other rainforest trees, with very few confirmed records in recent decades (DCCEEW 2025). No rainforest or fig resource occurs	Highly unlikely. No rainforest / fig habitat is present, the subspecies is critically rare,	—

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
					on the Site, and the critically rare subspecies is not recorded within 15 km (Section 3.1).	and there is no proximate record.	
Red Goshawk (<i>Erythrorhynchus radiatus</i>)	E	likely to occur	No record ≤15 km	Yes	A rare, wide-ranging raptor occupying very large territories in open forest and woodland mosaics, particularly along watercourses, requiring extensive tracts of intact, prey-rich habitat and large emergent trees for nesting (DCCEEW 2025). The small, partly cleared and fragmented Site cannot meet the species' very large home-range or nesting requirements, and there is no record within 15 km (Section 3.1).	Highly unlikely. The Site is far too small and fragmented to support the species, and there is no proximate record.	—
Grey Falcon (<i>Falco hypoleucos</i>)	V	may occur	Not ≤5 km. 5–15 km: 1 record (2008)	No (vagrant)	A scarce falcon of arid and semi-arid inland plains, shrublands and timbered watercourses, largely confined to areas west of the Great Dividing Range and only rarely recorded in coastal districts (DCCEEW 2025). South-east Queensland is outside the species' normal range and the Site provides no arid-zone habitat; the single 2008 record within 5–15 km is consistent with rare vagrancy (Section 3.1).	Unlikely. Outside the species' arid-zone range; the single old local record reflects vagrancy only.	—
Latham's Snipe (<i>Gallinago hardwickii</i>)	V	likely to occur	≤5 km: 1 record (1984); ≤15 km: 7 records (2006)	Yes (non-breeding range)	A non-breeding migratory shorebird present in eastern Australia from about August to February, using freshwater wetland margins, damp rank grassland, drainage lines, boggy ground and vegetated swamp edges with low, dense cover for daytime concealment, feeding on soft, damp substrates (DCCEEW 2025). Although recorded in the locality (within 5 km and 5–15 km), the Site has no waterway, wetland, drainage line, boggy ground or damp swampy margin, so the foraging and roosting habitat the species relies on is absent (Section 3.1).	Unlikely. Recorded in the locality, but the wetland / damp-grassland / boggy habitat the species depends on is absent from the Site; the local records are off-site.	—
Squatter Pigeon (southern) (<i>Geophaps scripta scripta</i>)	V	may occur	Not ≤5 km. 5–15 km: 1 record (2001)	Marginal	A ground-dwelling pigeon of open eucalypt and acacia woodland and forest on sandy or gravelly soils, foraging on fallen seed on bare or sparsely grassed ground and remaining within reach of water, now contracted largely to inland and central Queensland (DCCEEW 2025). The Site lies at the eastern edge of the contracted range on alluvial (not sandy / gravelly) soils, offering only marginal habitat, with a single 2001 record within 5–15 km (Section 3.1).	Unlikely. Contracted from coastal SEQ; marginal habitat on unsuitable soils, with a single old record within 5–15 km.	—
Painted Honeyeater (<i>Grantiella picta</i>)	V	may occur	No record ≤15 km	Yes	A nomadic honeyeater that specialises on the fruit of mistletoes in box-ironbark, riparian and inland woodland, moving widely in response to mistletoe fruiting and breeding where fruit is abundant (DCCEEW 2025). Mistletoe-rich box-ironbark woodland is limited in the fragmented coastal-fringe setting of the Site, and the species is not recorded within 15 km (Section 3.1).	Unlikely. A nomadic mistletoe specialist, uncommon in this fragmented setting, with no record within 15 km.	—
White-throated Needletail (<i>Hirundapus caudacutus</i>)	V	likely to occur	≤5 km: 1 record (2006); ≤15 km: 20 records (2012)	Yes	An almost wholly aerial migratory swift that feeds on flying insects high in the airspace above a very wide range of habitats and only rarely descends to or interacts with the ground or vegetation (DCCEEW 2025). The species is recorded over the locality (within 5 km and 5–15 km), but any occurrence over the	Possible (aerial only). Recorded in the locality; aerial overflight only, with no impact pathway to Site habitat.	Opportunistic aerial observation during fauna surveys; no targeted ground-based survey is warranted given the species' exclusively aerial habit.

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
					Site would be transient aerial foraging on the wing, with no reliance on Site habitat (Section 3.1).		
Swift Parrot (<i>Lathamus discolor</i>)	CE	likely to occur	Not ≤5 km. 5–15 km: 2 records (2004)	Marginal (winter range)	A migratory parrot that breeds in Tasmania and winters on the south-eastern mainland from about May, foraging on the nectar and lerp of flowering eucalypts with a strong preference for box, ironbark and <i>Eucalyptus tereticornis</i> ; mainland occurrence tracks eucalypt flowering and is concentrated in New South Wales and Victoria (DCCEEW 2025). The forest red gum / Queensland blue gum of the Site's floodplain forest is a preferred forage species, but south-east Queensland lies at the far northern extremity of the winter range and is reached only irregularly and in small numbers, with two 2004 records within 5–15 km (Section 3.1).	Possible (rare). Preferred <i>E. tereticornis</i> forage is present, but the Site is at the far margin of the winter range with only old (2004) records within 5–15 km.	Targeted Swift parrot survey of the floodplain forest during winter flowering (blossom-watch observation and call detection), timed to confirmed regional arrival and peak blossom.
Australian Painted Snipe (<i>Rostratula australis</i>)	E	likely to occur	Not ≤5 km. 5–15 km: 2 records (1999)	Yes	A cryptic shorebird of shallow, densely vegetated freshwater and brackish wetlands, requiring a mosaic of cover (grasses, sedges, low shrubs) and exposed mud for feeding, and breeding on small islands or in dense wetland margins (DCCEEW 2025). The Site lacks the densely vegetated shallow-wetland margins the species requires; the only local records are two 1999 records within 5–15 km (Section 3.1).	Unlikely. No densely vegetated shallow-wetland habitat is present; local records are old and off-site.	—
Diamond Firetail (<i>Stagonopleura guttata</i>)	V	may occur	No record ≤15 km	Yes	A grass-finch of grassy eucalypt woodland, open forest and adjoining native grassland with a seeding native-grass ground layer, which has declined markedly in fragmented, heavily grazed and weed-invaded lowland landscapes (DCCEEW 2025). Habitat on the Site is marginal in the fragmented, partly grazed setting, and the species is not recorded within 15 km (Section 3.1).	Unlikely. Marginal habitat in a fragmented, grazed setting, with no record within 15 km.	—
Common Greenshank (<i>Tringa nebularia</i>)	E	likely to occur	Not ≤5 km. 5–15 km: 2 records (1980)	Yes (migratory range)	A migratory wader using the margins of estuaries, coastal lagoons, freshwater wetlands, floodplain pools and sewage ponds, favouring open, shallow shorelines for feeding on aquatic invertebrates and small fish (DCCEEW 2025). The Site provides no open, shallow wetland or shoreline habitat; the only local records are two 1980 records within 5–15 km (Section 3.1).	Unlikely. No open wetland or shoreline habitat is present; local records are confined to historic wetland sites.	—
Black-breasted Button-quail (<i>Turnix melanogaster</i>)	V	likely to occur	No record ≤15 km	Yes	A secretive, ground-dwelling button-quail of dry rainforest, semi-evergreen vine thicket and adjoining dense <i>Acacia</i> or lantana scrub with a deep, soft leaf-litter layer, in which it forms characteristic circular feeding platelets (DCCEEW 2025). No vine scrub, vine thicket or deep-litter habitat occurs on the Site, and the species is not recorded within 15 km (Section 3.1).	Highly unlikely. Requires vine scrub and deep litter, both absent from the Site, with no proximate record.	—
Threatened Fauna Species — Fish							
Mary River Cod (<i>Maccullochella mariensis</i>)	E	translocated population	No record ≤15 km	Yes (translocated)	A large freshwater cod of deep, structurally complex pools in flowing rivers and streams with abundant submerged timber and undercut banks; outside the Mary River its presence reflects translocated and stocked populations in impoundments (DCCEEW 2025). The Site has no waterway, stream or	Does not occur. No aquatic habitat is present on the Site and there is no proximate record.	—

[illegible]

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Australian Fritillary (<i>Argynnis hyperbius inconstans</i>)	CE	may occur	No record ≤15 km	Yes (historic range)	A critically endangered butterfly of coastal and subcoastal freshwater swamps, swampy heath and damp grassland, wholly dependent on its larval food plant, the arrow-leaved violet (<i>Viola betonicifolia</i>), which grows in damp, open, sunny situations; the species is feared close to extinction in Australia (DCCEEW 2025). The Site has no freshwater swamp, swampy heath or damp grassland, the larval food plant is not expected, and there is no record within 15 km (Section 3.1).	Highly unlikely. Critically rare; the larval-foodplant swamp / damp-grassland habitat is absent and there is no proximate record.	Maintain awareness for the larval food plant in any low-lying damp areas during surveys.
Threatened Fauna Species — Mammals							
Large-eared Pied Bat (<i>Chalinolobus dwyeri</i>)	E	may occur	No record ≤15 km	Yes	A microbat that roosts by day in caves, mine adits, overhangs and the abandoned mud-nests of fairy martins, principally in sandstone escarpment country, and forages at night over adjacent forest and woodland and along watercourses (DCCEEW 2025). The Site has no cave, cliff, overhang or escarpment roosting habitat and is not recorded within 15 km, although the species could occasionally forage in the airspace above the floodplain forest (Section 3.1).	Unlikely (foraging only). No roosting habitat is present and there is no proximate record; at most occasional foraging overflight, captured opportunistically by the echolocation survey.	Opportunistically targeted by the Anabat (echolocation) survey.
Spot-tailed Quoll (SE mainland) (<i>Dasyurus maculatus maculatus</i>)	E	likely to occur	≤5 km: 8 records (2006); ≤15 km: 17 records (2011)	Yes	A large carnivorous marsupial requiring extensive, connected forest and woodland with abundant prey, hollow logs, rock crevices and other denning sites, occupying very large home ranges and highly sensitive to habitat loss, fragmentation and introduced predators (DCCEEW 2025). The small, partly cleared and fragmented Site cannot support the species' habitat or home-range requirements, and the locality records (within 5 km and 5–15 km) are historic, the most recent being 2011 (Section 3.1).	Unlikely. Recorded historically in the locality, but the Site is too small and fragmented to support the species; targeted opportunistically by the camera-trap survey.	Opportunistically targeted by the camera-trap survey.
Southern Greater Glider (<i>Petauroides volans</i>)	E	likely to occur	≤5 km: 1 record (1994); ≤15 km: 28 records (2020)	Yes	A folivorous, strictly arboreal and hollow-dependent marsupial of tall, mature eucalypt forest, requiring abundant large tree hollows for denning (often several per individual) and a continuous canopy for gliding and movement, and highly sensitive to the loss of hollow-bearing trees and canopy disturbance (DCCEEW 2025). The mature eucalypt floodplain forest on the Site may provide denning hollows and canopy connectivity, and the locality supports a substantial recent record set (28 records within 15 km, to 2020); the hollow resource and any occupancy are to be confirmed by survey (Section 3.1).	Possible and shortlisted. Well recorded in the locality (to 2020); mature floodplain forest may provide denning hollows; carried to the shortlist pending survey.	Targeted searches for suitable hollows, with spotlighting and stag-watching surveys of the mature floodplain forest.
Yellow-bellied Glider (SE) (<i>Petaurus australis australis</i>)	V	likely to occur	≤5 km: 1 record (2005); ≤15 km: 6 records (2015)	Yes	A wide-ranging, sap- and nectar-feeding glider of tall, productive mature eucalypt forest with large hollows for denning and a connected canopy, occupying large home ranges and depending on characteristic sap-feeding incisions in particular trees (DCCEEW 2025). The mature eucalypt floodplain forest on the Site may provide habitat, and the species is recorded in the locality (within 5 km and 5–15 km); the extent of mature forest, hollows and any sap-feeding incisions are to be confirmed by survey (Section 3.1).	Possible. Recorded in the locality; mature floodplain forest may provide habitat, subject to confirmation of the hollow and forest resource by survey.	Targeted searches for suitable hollows and sap-feed trees, with spotlighting and stag-watching surveys.

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
Koala (<i>Phascolarctos cinereus</i>)	E	likely to occur	≤5 km: 330 records (2026); ≤15 km: 2,888 records (2026)	Yes	A specialist arboreal folivore of eucalypt forest and woodland, dependent on locally preferred food trees — in this district especially Queensland blue gum / forest red gum (<i>Eucalyptus tereticornis</i>) — and occupying home ranges that encompass multiple food and shelter trees with a safe ground matrix for movement between them (DAWE 2022; DES 2023; Youngentob et al. 2021). The Site's eucalypt floodplain forest provides preferred koala food and shelter trees; the koala has been confirmed on the Site during the Site assessment and the locality supports an exceptionally strong record set (2,888 records within 15 km, 330 within 5 km, the most recent in 2026) (Section 3.1).	Known (confirmed). Confirmed on the Site; the locality record set (2,888 within 15 km, 330 within 5 km, to 2026) confirms a strong resident population.	Spot Assessment Technique (SAT), spotlighting, and call playback.
Long-nosed Potoroo (northern) (<i>Potorous tridactylus tridactylus</i>)	V	may occur	No record ≤15 km	Yes	A small, ground-dwelling potoroid of forest, woodland and heath with a dense, low understorey and soft soils in which it digs for hypogaeal fungi, fruits and roots, requiring dense cover for shelter and highly vulnerable to foxes and cats (DCCEEW 2025). The Site lacks the dense understorey the species needs, supports introduced predators, and is not recorded within 15 km (Section 3.1).	Highly unlikely. No dense understorey; introduced predators present; no proximate record.	—
Pookila / New Holland Mouse (<i>Pseudomys novaehollandiae</i>)	V	may occur	No record ≤15 km	Yes	A small native rodent of coastal heath, heathy open woodland and forest with a dense, diverse heathy or shrubby understorey, characteristically on sandy soils and often in early post-fire successional vegetation (DCCEEW 2025). The Site lacks the heathy understorey and sandy substrate the species requires, and is not recorded within 15 km (Section 3.1).	Highly unlikely. No heath / heathy-understorey habitat or sandy substrate is present and there is no proximate record.	—
Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>)	V	foraging known to occur	≤5 km: 3 records (1992); ≤15 km: 66 records (2021)	Yes	A highly mobile nectarivore and frugivore that roosts colonially by day in camps in dense streamside, swamp or remnant vegetation and forages by night, often up to around 40 km from the camp, on the nectar and pollen of flowering eucalypts, paperbarks and other trees and on rainforest fruit, with occupancy tracking the local availability of blossom (DCCEEW 2025). No flying-fox camp occurs on the Site, but the blossom of the eucalypt floodplain forest provides a foraging resource and the species is well recorded foraging across the locality (66 records within 15 km, to 2021) (Section 3.1).	Likely (foraging). No camp on the Site, but floodplain forest blossom provides forage for this highly mobile, well-recorded species.	Observations for characteristic (raucous) roost / camp sites, and observations during the spotlighting survey, with the floodplain forest blossom targeted in particular.
Brush-tailed Rock-wallaby (<i>Petrogale penicillata</i>)	V	not in PMST; WildNet	Not ≤5 km. 5–15 km: 3 records (1994)	Yes	A rock-wallaby restricted to rocky escarpments, cliff lines, gorges, boulder piles and talus slopes with complex rock structure for shelter and refuge, foraging on adjacent vegetation but obligately tied to rocky terrain (DCCEEW 2025). The Site is a low-relief alluvial floodplain with no cliff, escarpment, gorge or boulder habitat of any kind; the three local records (within 5–15 km, last 1994) lie in the surrounding ranges (Section 3.1).	Highly unlikely. Identified by the 15 km WildNet search; the obligate rocky-escarpment habitat is wholly absent from the floodplain Site, and local records lie in the ranges.	—
Threatened Fauna Species — Reptiles							
Three-toed Snake-tooth Skink (<i>Coeranoscincus reticulatus</i>)	V	may occur	No record ≤15 km	Yes	A large, fossorial, snake-like skink of subtropical rainforest and wet sclerophyll forest, sheltering and burrowing in loose, moist soil, deep leaf litter and rotting logs (DCCEEW 2025). No rainforest or wet sclerophyll forest occurs on the Site, so the	Highly unlikely. No rainforest / wet sclerophyll habitat is present and there is no proximate record.	—

Community / Species	EPBC	PMST (5 km)	WildNet records (≤5 km / 5–15 km)	Within range	Habitat requirements and habitat present on the Site	Likelihood of occurrence on the Site	Targeted survey method
					moist forest-floor habitat the species requires is absent, and there is no record within 15 km (Section 3.1).		
Collared Delma (<i>Delma torquata</i>)	V	may occur	No record ≤15 km	Yes (modelled range)	A small, secretive legless lizard of dry open eucalypt forest and woodland on shallow, stony or rocky soils, characteristically on ridgelines and slopes with abundant surface rock over a thin leaf-litter layer, sheltering by day beneath surface rocks, logs, litter and grass tussocks (DCCEEW 2025). Although the species' modelled distribution encompasses the locality, the Site is a low-relief alluvial floodplain that lacks the stony ridgeline soils and surface-rock microhabitat the species depends on, and progressively expanded WildNet and ALA searches return no record within 15 km (Section 3.1).	Highly unlikely. The stony ridgeline / surface-rock microhabitat the species depends on is absent from the alluvial floodplain Site, and there is no record within 15 km.	–
Dunmall's Snake (<i>Furina dunmali</i>)	V	may occur	No record ≤15 km	Yes	A secretive snake of brigalow, belah and other inland woodland on cracking-clay and texture-contrast soils, sheltering in soil cracks and under fallen timber and ground debris (DCCEEW 2025). The brigalow and cracking-clay woodland habitat the species favours is absent from the Site, and there is no record within 15 km (Section 3.1).	Highly unlikely. Brigalow / cracking-clay woodland habitat is absent and there is no proximate record.	–
Grey Snake (<i>Hemiaspis damelii</i>)	E	likely to occur	No record ≤15 km	Yes	A snake of cracking-clay floodplains and grassland associated with brigalow and adjacent woodland, often near water, sheltering in soil cracks and under debris and feeding largely on frogs (DCCEEW 2025). The Site lacks the cracking-clay brigalow / grassland habitat, has no waterway or wetland to support a frog prey base, and is not recorded within 15 km (Section 3.1).	Highly unlikely. Cracking-clay brigalow / grassland and the associated wetland prey base are absent, with no proximate record.	–

1.1.1 References

DAWE (2022) National Recovery Plan for the Koala (*Phascolarctos cinereus*) (combined populations of Queensland, New South Wales and the Australian Capital Territory). Department of Agriculture, Water and the Environment, Canberra.

DCCEEW (2022) Approved Conservation Advice for the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions. Department of Climate Change, Energy, the Environment and Water, Canberra.

DCCEEW (2025) Species Profile and Threats Database (SPRAT). Department of Climate Change, Energy, the Environment and Water, Canberra. Available at: <http://www.environment.gov.au/sprat>.

DES (2023) Regional ecosystem koala habitat values. Department of Environment and Science, Queensland.

DETSI (2026) WildNet database – Conservation Significant Species List (15-kilometre area of interest, current to 11 June 2026). Department of the Environment, Tourism, Science and Innovation, Queensland.

EcoSmart Ecology (2015) Likelihood of Occurrence Classification.

Youngentob, K.N., Marsh, K.J. and Skewes, J. (2021) A review of koala habitat assessment criteria and methods. Report to the Australian Government, Department of Agriculture, Water and the Environment, Canberra.

Citation note. Species habitat and distribution information is drawn from DCCEEW (2025) unless otherwise cited; the listed conservation advice and recovery plan are cited where they are the primary source. [Habitat-present descriptions and the likelihoods for survey-dependent matters are provisional pending completion of the BioCondition / flora and fauna surveys; confirm on finalisation, and add site-specific references (e.g. flood / hydrology and BioCondition reports).]

Attachment 16 – Plant List

Greenbank Rd, North Maclean - Full Flora Species List

Family	Scientific name	Common name	NCA status	EPBC status	Establishment	Biosecurity Act Status	WoNS
Acanthaceae	<i>Brunoniella australis</i>	Blue Trumpet	C		NTQ		
Acanthaceae	<i>Barleria repens</i>	Coral Creeper			NAQ		
Acanthaceae	<i>Dyschoriste depressa</i>				NAQ		
Amaranthaceae	<i>Alternanthera denticulata</i>	Lesser Joyweed	C		NTQ		
Amaranthaceae	<i>Gomphrena</i>						
Anacardiaceae	<i>Schinus terebinthifolius</i>	Broad-Leaf Pepper Tree			NAQ	Category 3	No
Apiaceae	<i>Centella asiatica</i>	Pennywort			NTQ		
Apocynaceae	<i>Parsonsia straminea</i>	Monkey Rope	C		NTQ		
Apocynaceae	<i>Gomphocarpus</i>		C		U		
Araliaceae	<i>Hydrocotyle paludosa</i>		C		NTQ		
Asparagaceae	<i>Lomandra longifolia</i>	Common Mat-Rush	C		NTQ		
Asparagaceae	<i>Asparagus africanus</i>	Ornamental Asparagus			NAQ	Category 3	No
Asparagaceae	<i>Asparagus aethiopicus</i>	Ground Asparagus			NAQ	Category 3	Yes
Asteraceae	<i>Praxelis</i>		C		IU		
Asteraceae	<i>Chrysocephalum apiculatum</i>	Yellow Buttons	C		NTQ		
Asteraceae	<i>Cyanthillium cinereum</i>	Little Ironweed	C		NTQ		
Asteraceae	<i>Eclipta platyglossa</i>		C		NTQ		
Asteraceae	<i>Einadia nutans</i>		C		NTQ		
Asteraceae	<i>Sphaeromorphaea australis</i>	Spreading Nut-Heads	C		NTQ		
Asteraceae	<i>Ageratum houstonianum</i>	Blue Billygoat Weed			NAQ		
Asteraceae	<i>Bidens pilosa</i>	Cobbler's Pegs			NAQ		
Asteraceae	<i>Calypocarpus vialis</i>	Creeping Cinderella Weed			NAQ		
Asteraceae	<i>Emilia sonchifolia</i>	Emilia			NAQ		
Asteraceae	<i>Hypochoeris albiflora</i>	White Flatweed			NAQ		
Asteraceae	<i>Hypochoeris glabra</i>	Smooth Catsear			NAQ		
Asteraceae	<i>Praxelis clematidea</i>				NAQ		
Asteraceae	<i>Tagetes minuta</i>	Stinking Roger			NAQ		
Asteraceae	<i>Ambrosia artemisiifolia</i>	Annual Ragweed			NAQ	Category 3	No
Asteraceae	<i>Baccharis halimifolia</i>	Groundsel Bush			NAQ	Category 3	No
Asteraceae	<i>Senecio madagascariensis</i>	Fireweed			NAQ	Category 3	Yes
Asteraceae	<i>Conyza bonariensis</i>				XU		
Bignoniaceae	<i>Dolichandra unguis-cati</i>	Cat's Claw Creeper			NAQ	Category 3	Yes
Campanulaceae	<i>Lobelia stenophylla</i>		LS		NTQ		
Campanulaceae	<i>Lobelia purpurascens</i>	White Root	SL		NTQ		
Campanulaceae	<i>Wahlenbergia gracilis</i>	Sprawling Bluebell	SL		NTQ		
Cannabaceae	<i>Celtis sinensis</i>	Chinese Elm			NAQ	Category 3	No
Commelinaceae	<i>Murdannia graminea</i>	Murdannia	C		NTQ		
Commelinaceae	<i>Callisia repens</i>				NAQ		
Commelinaceae	<i>Commelina benghalensis</i>	Benghal Dayflower			NAQ		
Cyperaceae	<i>Cyperus gracilis</i>	Whisker Flatsedge	C		NTQ		
Cyperaceae	<i>Cyperus polystachyos</i>		C		NTQ		
Cyperaceae	<i>Fimbristylis dichotoma</i>	Common Fringe-Rush	C		NTQ		
Cyperaceae	<i>Cyperus brevifolius</i>	Mullumbimby Couch			NAQ		
Cyperaceae	<i>Carex inversa</i>	Knob Sedge			NTQ		
Cyperaceae	<i>Cyperus</i>	Nutsedge					
Cyperaceae	<i>Fimbristylis</i>						
Goodeniaceae	<i>Goodenia</i>						
Hemerocallidaceae	<i>Dianella brevipedunculata</i>	Blue Flax Lily	C		NTQ		
Hemerocallidaceae	<i>Dianella</i>	Flax Lily					
Hypericaceae	<i>Hypericum gramineum</i>	Small St John's Wort	C		NTQ		
Juncaceae	<i>Juncus usitatus</i>	Common Rush	C		NTQ		
Laxmanniaceae	<i>Eustrephus latifolius</i>	Wombat Berry	C		NTQ		
Leguminosae	<i>Acacia disparrima</i>	Hickory Wattle	C		NTQ		
Leguminosae	<i>Acacia leiocalyx</i>	Black Wattle	C		NTQ		
Leguminosae	<i>Acacia maidenii</i>	Maiden's Wattle	C		NTQ		
Leguminosae	<i>Aeschynomene indica</i>	Budda Pea	C		NTQ		
Leguminosae	<i>Desmodium varians</i>	Slender Tick Trefoil	C		NTQ		
Leguminosae	<i>Glycine tabacina</i>	Glycine Pea	C		NTQ		
Leguminosae	<i>Zornia dyctiocarpa</i>	Zornia	C		NTQ		
Leguminosae	<i>Macroptilium lathyroides</i>				NAQ		
Leguminosae	<i>Macrotyloma axillare</i>				NAQ		
Leguminosae	<i>Neonotonia wightii</i>	Glycine			NAQ		
Leguminosae	<i>Peltophorum pterocarpum</i>	Yellow Poinciana			NAQ		
Leguminosae	<i>Glycine</i> sp. 2						
Malvaceae	<i>Sida hackettiana</i>	Spiked Sida	C		NTQ		
Malvaceae	<i>Sida acuta</i>	Spinyhead Sida			NAQ		
Malvaceae	<i>Sida cordifolia</i>	Flannel Weed			NAQ		
Malvaceae	<i>Sida rhombifolia</i>	Paddy's Lucerne			NAQ		
Myrtaceae	<i>Blakella torelliana</i>	Cadaghi	C		NNQ		
Myrtaceae	<i>Blakella tessellaris</i>	Moreton Bay Ash	C		NTQ		
Myrtaceae	<i>Eucalyptus moluccana</i>	Gum-Topped Box	C		NTQ		
Myrtaceae	<i>Eucalyptus tereticornis</i>	Forest Red Gum	C		NTQ		
Myrtaceae	<i>Eucalyptus crebra</i>	Narrow-Leaved Red Ironbark	C		NTQ		
Myrtaceae	<i>Eucalyptus seeana</i>	Narrow-Leaved Red Gum	C		NTQ		
Myrtaceae	<i>Eucalyptus siderophloia</i>	Grey Ironbark	C		NTQ		
Myrtaceae	<i>Melaleuca irbyana</i>		E		NTQ		
Oxalidaceae	<i>Oxalis pes-caprae</i>	Soursob			NAQ		
Oxalidaceae	<i>Oxalis</i> sp.	Oxalis					
Passifloraceae	<i>Passiflora suberosa</i>	Corky Passion Flower			NAQ		
Passifloraceae	<i>Passiflora foetida</i>				NAQ		

Phyllanthaceae	<i>Phyllanthus virgatus</i>	Creeping Phyllanthus	C		NTQ		
Phyllanthaceae	<i>Sauropus hirtellus</i>	Sauropus			XU		
Picrodendraceae	<i>Petalostigma pubescens</i>	Quinine Tree	C		NTQ		
Plantaginaceae	<i>Plantago debilis</i>	Shade Plantain	C		NTQ		
Poaceae	<i>Bothriochloa bladhii</i>	Forest Bluegrass	C		NTQ		
Poaceae	<i>Cymbopogon refractus</i>	Barbed-Wire Grass	C		NTQ		
Poaceae	<i>Echinopogon intermedius</i>	Erect Hedgehog Grass	C		NTQ		
Poaceae	<i>Eragrostis leptostachya</i>		C		NTQ		
Poaceae	<i>Eriochloa pseudoacrotricha</i>		C		NTQ		
Poaceae	<i>Heteropogon triticeus</i>	Giant Speargrass	C		NTQ		
Poaceae	<i>Opismenus aemulus</i>	Creeping Shade Grass	C		NTQ		
Poaceae	<i>Sacciolepis indica</i>	Indian Cupscale Grass	C		NTQ		
Poaceae	<i>Sporobolus creber</i>		C		NTQ		
Poaceae	<i>Eragrostis brownii</i>	Brown's Lovegrass	C		NTQ		
Poaceae	<i>Imperata cylindrica</i>	Blady Grass	C		NTQ		
Poaceae	<i>Paspalidium distans</i>	Shotgrass	C		NTQ		
Poaceae	<i>Axonopus fissifolius</i>	Narrow-Leaved Carpet Grass			NAQ		
Poaceae	<i>Bothriochloa pertusa</i>				NAQ		
Poaceae	<i>Chloris virgata</i>	Feathertop Rhodes Grass			NAQ		
Poaceae	<i>Cynodon dactylon</i>	Couch Grass			NAQ		
Poaceae	<i>Megathyrsus maximus</i>	Guinea Grass			NAQ		
Poaceae	<i>Melinis repens</i>	Red Natal Grass			NAQ		
Poaceae	<i>Sporobolus natalensis</i>				NAQ	Category 3	No
Poaceae	<i>Sporobolus pyramidalis</i>				NAQ	Category 3	no
Poaceae	<i>Chloris gayana</i>	Rhodes Grass			NAQ		
Poaceae	<i>Urochloa decumbens</i>	Signal Grass			NAQ		
Poaceae	<i>Chloris divaricata</i>				NTQ		
Poaceae	<i>Capillipedium spicigerum</i>	Spicytop			NTQ		
Poaceae	<i>Eriachne</i>	Wanderrie Grass					
Poaceae	<i>Eragrostis sp. 1</i>						
Poaceae	<i>Eragrostis sp. 2</i>						
Poaceae	<i>Panicum sp.</i>	Panic Grass					
Poaceae	<i>Paspalidium sp. 1</i>						
Poaceae	<i>Paspalidium sp. 2</i>						
Polygalaceae	<i>Polygala paniculata</i>	Root Beer Plant			NAQ		
Polygonaceae	<i>Rumex brownii</i>	Swamp Dock	C		NTQ		
Portulacaceae	<i>Portulaca pilosa</i>				NAQ		
Portulacaceae	<i>Portulaca</i>						
Pteridaceae	<i>Cheilanthes sieberi</i>	Rock Fern			NTQ		
Rhamnaceae	<i>Alphitonia excelsa</i>	Soap Tree	C		NTQ		
Rubiaceae	<i>Richardia stellaris</i>				NAQ		
Scrophulariaceae	<i>Eremophila debilis</i>	Winter Apple	C		NTQ		
Solanaceae	<i>Solanum nigrum</i>	Black Nightshade			NAQ		
Solanaceae	<i>Solanum seaforthianum</i>	Brazilian Nightshade			NAQ		
Solanaceae	<i>Solanum seaforthianum</i>	Brazilian Nightshade			NAQ		
Verbenaceae	<i>Verbena bonariensis</i>	Purpletop			NAQ		
Verbenaceae	<i>Lantana montevidensis</i>	Creeping Lantana			NAQ	Category 3	No
Verbenaceae	<i>Lantana camara</i>	Lantana			NAQ	Category 3	Yes
Verbenaceae	<i>Verbena aristigera</i>	Mayne's Pest			XU		
Verbenaceae	<i>Verbena</i>	Verbena					
Violaceae	<i>Viola banksii</i>		C		NTQ		
Violaceae	<i>Viola betonicifolia</i>		C		NTQ		

NCA Status = Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).
EPBC status = Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).
Establishment = Native to Queensland (NTQ), Naturalised in Queensland (NAQ), Exotic - International (XI), Intranational (QA), Not Endemic to Australia (QA!), Introduced - International (II), Unknown (U)

Attachment 17 – Biocondition Results

HABITAT QUALITY ASSESSMENT

Date:	22.06.2026	Collector:	CM JA				Site: BCI01	
Time:	7:56am	Job No.	2026-100 Greenbank Road North Maclean					
Mapped RE:	12.3.19	Description:	<i>Eucalyptus moluccana</i> and/or <i>Eucalyptus tereticornis</i> and <i>E. crebra</i> open forest to woodland, with a sparse to mid-dense understorey of <i>Melaleuca irbyana</i> on alluvial plains.					
Field RE:	12.3.19	Description:	<i>Eucalyptus moluccana</i> , <i>Eucalyptus tereticornis</i> . Open forest to 18 m. Some regrowth in canopy gaps. <i>Eucalyptus siderophloia</i> less common.					
Pre-clear RE:	12.3.19	Description:	<i>Eucalyptus moluccana</i> and/or <i>Eucalyptus tereticornis</i> and <i>E. crebra</i> open forest to woodland, with a sparse to mid-dense understorey of <i>Melaleuca irbyana</i> .					
Plot size:	50 x 25	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
Flat	Flat	3 – alluvial plain			Floodplain			
Slope Shape:	concave							

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary		
	Site Total:	0	
	Per ha Total: (*10)	0	
50x25m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus tereticornis</i> * <i>Eucalyptus moluccana</i> *	Associated / Suppressed: <i>Eucalyptus siderophloia</i> *
T1	16, 20, 9	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>	100
T2	4-10		
T3	-	Total Native Tree Spp. Richness	3
50x10m area			
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)			Total
Shrub	<i>Eucalyptus tereticornis</i> , <i>Eucalyptus moluccana</i> , <i>Eucalyptus siderophloia</i> , <i>Blakella tessellaris</i>		4
Grass	<i>Bothriochloa bladhii</i> , <i>Eragrostis brownii</i> , <i>Imperata cylindrica</i> , <i>Eriochloa pseudoacrotricha</i> , <i>Paspalidium distans</i>		5
Forb	<i>Centella asiatica</i> , <i>Dianella brevipedunculata</i> , <i>Hypericum gramineum</i> , <i>Cyanthillium cinereum</i> , <i>Alternanthera denticulata</i> , <i>Phyllanthus virgatus</i> , <i>Fimbristylis</i> sp., <i>Goodenia</i> sp., <i>Viola betonicifolia</i> , <i>Lobelia purpurascens</i> , <i>Wahlenbergia gracilis</i> , <i>Glycine tabacina</i> , <i>Brunoniella australis</i> , <i>Parsonsia straminea</i> , <i>Sphaeromorphaea australis</i> , <i>Hydrocotyle paludosa</i> , <i>Aeschynomene indica</i> , <i>Cyperus</i> sp., <i>Eclipta platyglossa</i> ,		19
Non-native plant cover (List all species)	<i>Cynodon dactylon</i> , <i>Sporobolus natalensis</i> , <i>Ageratum houstonianum</i> , <i>Axonopus fissifolius</i> , <i>Macroptilium lathyroides</i> , <i>Hypochaeris albiflora</i> , <i>Ambrosia artemisiifolia</i> , <i>Baccharis halimifolia</i> , <i>Senecio madagascariensis</i> , <i>Sida cordifolia</i> , <i>Asparagus africanus</i> , <i>Lantana camara</i> , <i>Verbena bonariensis</i> , <i>Praxelis clematidea</i> , <i>Sporobolus pyramidalis</i> , <i>Sida rhombifolia</i> , <i>Bidens Pilosa</i> , <i>Passiflora suberosa</i> , <i>Gomphocarpus</i> sp, <i>Crotalaria</i> sp, <i>Blakella torelliana</i>		21 species 17% cover

50x25m Area:	*from benchmark doc					
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	1	Total Large Trees (ha):		8
Non-eucalypt large tree DBH:	230	No. of large non-eucalypt trees in plot:	0			

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts >300mm dbh – record multiple stems in parentheses this way (230, 250, 190)					
Species	DBH in mm					
<i>Eucalyptus tereticornis</i>	320, 300, 460					

HABITAT QUALITY ASSESSMENT

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus moluccana</i>	3	7	17	17
<i>Eucalyptus tereticornis</i>	6	12	15	3
<i>Eucalyptus siderophloia</i>	1	3	4	1
<i>Blakella tessellaris</i>	0	2	0	0

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.		
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded		
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	
<i>Eucalyptus tereticornis</i> – 1 (fresh)	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus moluccana</i> – 0	
<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0	
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0	
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 1 (fresh)	<i>Eucalyptus tereticornis</i> – 0	
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus moluccana</i> – 1	
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus moluccana</i> – 1	<i>Eucalyptus tereticornis</i> – 1	
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	20	75	20	10	40	33
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	5	1	0	75	1	16.4
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	40	5	5	1	0	10.2
Non-native forbs and shrubs	3	1	1	0	8	2.6
Litter	32	18	74	14	51	37.8
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Lantana camara</i>	0	0	0	5	1	1.5
<i>Verbena bonariensis</i>	0	1	0	1	1	0.75
<i>Praxelis clematidea</i>	0	1	0	1	1	0.75
<i>Sporobolus pyramidalis</i>	0	1	0	0	1	0.5
<i>Sida rhombifolia</i>	0	1	0	0	1	0.5
<i>Bidens pilosa</i>	0	1	0	0	1	0.5
<i>Passiflora suberosa</i>	0	0	0	0	1	0.25
<i>Cynodon dactylon</i>	0	1	10	5	25	10.25
<i>Gomphocarpus sp.</i>	0	1	1	1	1	1
<i>Crotalaria dactylon</i>	0	1	1	1	0	1
<i>Ambrosia artemisiifolia</i>	0	0	1	1	0	0.666667

HABITAT QUALITY ASSESSMENT

<i>Sida cordifolia</i>	0	1	1	1	0	1
<i>Axonopus fissifolius</i>	0	2	5	5	0	4
<i>Baccharis halimifolia</i>	0	1	0	0	0	0.5
Total plot cover	0	12	19	21	33	17

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	18	0	7.5	7.5	7.5
<i>Eucalyptus tereticornis</i>	T1	16	36.5	42.7	6.2	6.2
<i>Eucalyptus tereticornis</i>	T2	5	22.1	23.7	1.6	9.1
<i>Eucalyptus tereticornis</i>	T2	4	22.8	24.5	1.7	
<i>Eucalyptus tereticornis</i>	T2	3	22.8	24.5	1.7	
<i>Eucalyptus tereticornis</i>	T2	6	24.2	26.2	2	
<i>Eucalyptus moluccana</i>	T2	7	24.3	28	3.7	
<i>Eucalyptus tereticornis</i>	T2	5	27.3	31.2	3.9	
<i>Eucalyptus moluccana</i>	T2	7	34.5	35.1	0.6	0.6
<i>Eucalyptus moluccana</i>	T2	8	37.6	40.1	2.5	2.5
<i>Eucalyptus moluccana</i>	T2	10	48	50	2	2
<i>Eucalyptus siderophloia</i>	T2	7	49.3	50	0.7	
Total Canopy (T1) Cover					13.7 m (27.4 %) Med ht: 17 m	
Total Canopy (T2) Cover					14.2 m (28.4 %) Med ht: 6.5 m	
Average Canopy (T1) and Canopy (T2) Cover					13.95 m (27.9 %) Med ht: 7 m	

100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	S	1.2	25.7	26.3	0.6	0.6
Total Native Shrub Cover					0.6 m (1.2 %) Med ht: 1.2 m	

HABITAT QUALITY ASSESSMENT
Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



End of Transect



Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	22.06.2026	Collector:	CM JA				Site: BCI02	
Time:	10:11am	Job No.	2026-100 Greenbank Rd North Maclean					
Mapped RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana on alluvial plains					
Field RE:	12.3.19	Description:	Regrowth Melaleuca irbyana open forest with Eucalyptus moluccana, Blakella torelliana, and Eucalyptus tereticornis, regrowth. Weedy infestations moderate, Cracking clays within plot					
Pre-clear RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana.					
Plot size:	50 x 25	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
n/a	North East	3 – fine alluvial soils with clay			3			
Slope Shape:								

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary		
	Site Total:	0	
	Per ha Total: (*10)	0	
100x50m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent		Dominant / Codominant: <i>Eucalyptus moluccana</i> *	Associated / Suppressed: <i>Eucalyptus tereticornis</i> * <i>Blakella tessellaris</i> <i>Melaleuca irbyana</i> <i>Acacia leiocalyx</i> <i>Acacia disparrima</i>
T1	24.4, 23.6, 26.4, 19.1, 13.4	Proportion of EDL species with evidence of recruitment (<i>Recruitment is expressed as the proportion of dominant species present at a site that are regenerating</i>)	100%
T2	2.6, 10.3, 9.1, 9.6, 6.6		
T3	-	Total Native Tree Spp. Richness	6
50x10m area			
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)			Total
Shrub	<i>Alphitonia excelsa</i> , <i>Eucalyptus moluccana</i> , <i>Acacia leiocalyx</i> , <i>Eucalyptus tereticornis</i> , <i>Melaleuca irbyana</i> , <i>Acacia disparrima</i> , <i>Grevillea robusta</i> , <i>Blakella tessellaris</i>		8
Grass	<i>Oplismenus aemulus</i> , <i>Paspalidium</i> sp.1, <i>Sporobolus</i> sp., <i>Eriachne</i> sp., <i>Cymbopogon refractus</i> , <i>Echinopogon intermedius</i> , <i>Paspalidium</i> sp.2, <i>Eragrostis</i> sp.1, <i>Eragrostis</i> sp.2,		9
Forb	<i>Glycine tabacina</i> , <i>Glycine</i> sp.2, <i>Lobelia purpurascens</i> , <i>Cyperus gracilis</i> , <i>Dianella</i> sp., <i>Cyanthillium cinereum</i> , <i>Cyperus polystachyos</i> , <i>Alphitonia excelsa</i> , <i>Lomandra longifolia</i> , <i>Desmodium varians</i> , <i>Fimbristylis dichotoma</i> , <i>Pterocaulon redolens</i> , <i>Sphaeromorphaea australis</i> , <i>Eremophila debilis</i> , <i>Sida hackettiana</i> , <i>Viola banksii</i> , <i>Phyllanthus virgatus</i> , <i>Cheilanthes sieberi</i> , <i>Hypericum gramineum</i> , <i>Chrysocephalum apiculatum</i> , <i>Zornia dyctiocarpa</i> , <i>Eustrephus latifolius</i> , <i>Eucalyptus moluccana</i> , <i>Eucalyptus tereticornis</i> , <i>Blakella tessellaris</i> , <i>Parsonsia straminea</i> , <i>Murdannia graminea</i> , <i>Brunoniella australis</i>		28
Non-native plant cover (List all species)	<i>Calissa repens</i> , <i>Solanum seaforthianum</i> , <i>Lantana camara</i> , <i>Asparagus aethiopicus</i> , <i>Asparagus africanus</i> , <i>Celtis sinensis</i> , <i>Dolichandra unguis-cati</i> , <i>Sida acutifolia</i> , <i>Passiflora suberosa</i> , <i>Megathyrsus maximus</i> , <i>Sida rhombifolia</i> , <i>Bidens pilosa</i> , <i>Emelia sonchifolia</i> , <i>Praxelis</i> sp., <i>Lantana montevidensis</i> , <i>Hypochoeris glabra</i> , <i>Tagetes minuta</i> , <i>Sida cordifolia</i> , <i>Bothriochloa pertusa</i> , <i>Gomphrena</i> sp., <i>Portulaca</i> sp., <i>Schinus terebinthifolius</i> , <i>Blakella torelliana</i> , <i>Melinis repens</i> , <i>Dyschoriste depressa</i> , <i>Richardia stellarioides</i> , <i>Peltophorum pterocarpum</i>		27 38% cover

50x25m Area:	*from benchmark doc				
Eucalypt large tree DBH:	370	No. of large eucalypt trees in plot:	3	Total Large Trees (ha):	48
Non-eucalypt large tree DBH:	250	No. of large non-eucalypt trees in plot:	3		

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts >300mm dbh – record multiple stems in parentheses this way (230, 250, 190)						
Species	DBH in mm						
<i>Eucalyptus moluccana</i>	440, 350, 530, 480						
<i>Melaleuca irbyana</i>	260, 220, 250, 240, 220, 330, 230, 240						

HABITAT QUALITY ASSESSMENT

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus tereticornis</i>	4	4	6	4
<i>Eucalyptus moluccana</i>	7	12	10	12
<i>Melaleuca irbyana</i>	0	0	1	2
<i>Acacia dispartima</i>	1	0	0	0
<i>Acacia leiocalyx</i>	1	1	0	0
<i>Grevillea robusta</i>	2	0	0	0
<i>Blakella tessellaris</i>	0	0	1	0
<i>Alphitonia excelsa</i>	2	0	0	0

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus moluccana</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 1
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 1	<i>Eucalyptus tereticornis</i> – 1

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	25	5	50	30	22
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	10	5	2	5	40	12.4
Native shrubs (<1m in height)	0	0	0	1	0	0.2
Non-native grass	0	2	1	0	0	0.6
Non-native forbs and shrubs	8	0	35	0	6	9.8
Litter	82	68	57	34	24	53
Rock	0	0	0	0	0	0
Bare ground	0	0	0	10	0	2
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Dolichandra unguis-cati</i>	10	0	0	0	0	2
<i>Callisia repens</i>	25	0	0	0	0	5
<i>Lantana camara</i>	15	10	10	5	20	12
<i>Blakella torelliana</i>	0	0	0	80	0	16
<i>Asparagus africanus</i>	0	0	0	0	15	3
Total plot cover	50	10	10	85	35	38

HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus moluccana</i>	T1	15	0	10.3	10.3	10.3
<i>Eucalyptus moluccana</i>	T1	9	18.6	21.9	3.3	3.3
<i>Eucalyptus moluccana</i>	T1	11	29.7	33.3	3.6	3.6
<i>Eucalyptus moluccana</i>	T2	3	0	0.5	0.5	0.5
<i>Eucalyptus tereticornis</i>	T2	4	3.4	4.8	1.4	1.4
<i>Blakella tessellaris</i>	T2	6	8	10	2	2
<i>Eucalyptus tereticornis</i>	T2	3	22.1	23.8	1.7	1.7
<i>Eucalyptus moluccana</i>	T2	6	23.9	27.4	3.5	3.5
<i>Eucalyptus moluccana</i>	T2	5	35.4	39.5	4.1	4.1
<i>Melaleuca irbyana</i>	T2	6	41.2	50	8.8	8.8
Total Canopy (T1) Cover					17.2 m (34.4 %) Med ht: 11 m	
Total Sub-canopy (T2) Cover					22.0 m (44.0%) Med ht: 5 m	
Average Canopy (T1) and Canopy (T2) Cover					19.6 m (39.2 %) Med ht: 6 m	

100m Transect Shrub canopy cover	* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall					
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Lantana camara</i>	S*	1	5.4	7	1.6	1.6
<i>Lantana camara</i>	S*	2	35.4	40.3	4.9	4.9
Total Non-native Shrub Cover					6.5 m (13 %) Med ht: 1.5 m	

HABITAT QUALITY ASSESSMENT
Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



End of Transect



Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	22.06.2026	Collector:	CM, JA				Site: BCI03	
Time:	-	Job No.	2026-100 Greenbank Road North Maclean					
Mapped RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana.					
Field RE:	12.3.18	Description:	Eucalyptus moluccana, Eucalyptus tereticornis (22m), open forest with a sub-canopy layer of Melaleuca irbyana (4-7m).					
Pre-clear RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana.					
Plot size:	50x25	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
Flat	Flat	Floodplain			Alluvial			
Slope Shape:	Concave							

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary		
	Site Total:	0	
	Per ha Total: (*10)	0	
100x50m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	-	Dominant / Codominant: <i>Melaleuca irbyana</i> * <i>Eucalyptus tereticornis</i> * <i>Eucalyptus moluccana</i> *	Associated / Suppressed: <i>Eucalyptus siderophloia</i> *
T1	18-25 m	Proportion of EDL species with evidence of recruitment (Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)	100
T2	5-6 m		
T3	-	Total Native Tree Spp. Richness	4
50x10m area			
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)			Total
Shrub	<i>Grevillea robusta</i> , <i>Acacia disparrima</i> , <i>Alphitonia excelsa</i> , <i>Melaleuca irbyana</i> , <i>Eucalyptus tereticornis</i> , <i>Eucalyptus siderophloia</i>		6
Grass	<i>Imperata cylindrica</i> , <i>Eragrostis brownii</i> , <i>Cymbopogon refractus</i> , <i>Paspalidium</i> sp., <i>Enteropogon acicularis</i> , <i>Aristida</i> sp., <i>Oplismenus hirtellus</i> , <i>Eriochloa pseudoacrotricha</i> ,		8
Forb	<i>Cyanthillium cinereum</i> , <i>Brunoniella australis</i> , <i>Centella asiatica</i> , <i>Crotalaria montana</i> , <i>Geitonoplesium cymosum</i> , <i>Dianella brevipedunculata</i> , <i>Hypericum gramineum</i> , <i>Eclipta platyglossa</i> , <i>Oxalis</i> sp., <i>Glycine tabacina</i> , <i>Sphaeromorphaea australis</i> , <i>Lobelia purpurascens</i> , <i>Solenogyne belliioides</i> , <i>Carex inversa</i> , <i>Cyperus</i> sp., <i>Plantago debilis</i> , <i>Fimbristylis</i> sp., <i>Desmodium varans</i> , <i>Lobelia stenophylla</i> , <i>Phyllanthus virgatus</i> , <i>Parsonsia straminea</i> ,		21
Non-native plant cover (List all species)	<i>Cheilanthes sieberi</i> , <i>Sporobolus natalensis</i> , <i>Sida rhombifolia</i> , <i>Ageratum houstonianum</i> , <i>Bidens pilosa</i> , <i>Verbena</i> sp., <i>Passiflora suberosa</i> , <i>Asparagus africanus</i> , <i>Sida cordifolia</i> , <i>Asparagus aethiopicus</i> , <i>Solanum seaforthianum</i> , <i>Richardia stellaris</i> , <i>Lantana camara</i> , <i>Callisia repens</i> , <i>Bothriochloa pertusa</i> , <i>Axonopus fissifolius</i> , <i>Megathyrsus maximus</i> , <i>Polygala paniculata</i> , <i>Grona triflora</i> , <i>Praxelis clematidea</i> , <i>Barleria repens</i> , <i>Calypocarpus vialis</i> , <i>Commelina benghalensis</i> , <i>Blakella torelliana</i>		24 14% cover

50x25m Area:	*from benchmark doc				
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	2	Total Large Trees (ha):	72
Non-eucalypt large tree DBH:	230	No. of large non-eucalypt trees in plot:	7		

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)	
Species	DBH in mm	
<i>Eucalyptus tereticornis</i>	440, 400	
<i>Melaleuca irbyana</i>	240, 290, 330, 210, 230, 280, 300, 300, 200, 510	

HABITAT QUALITY ASSESSMENT

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)
<i>Eucalyptus siderophloia</i>	320

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus siderophloia</i>	1	1	4	3
<i>Melaleuca irbyana</i>	12	10	5	11
<i>Blakella tessellaris</i>	0	0	1	0
<i>Eucalyptus tereticornis</i>	2	7	8	11

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus moluccana</i> – 1	<i>Eucalyptus siderophloia</i> – 1
<i>Eucalyptus moluccana</i> – 3	<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 3	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	40	20	5	5	35	21
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	10	5	10	10	20	11
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	5	25	5	0	5	8
Non-native forbs and shrubs	10	20	1	5	10	9.2
Litter	20	10	70	70	10	36
Rock	0	0	0	0	0	0
Bare ground	15	15	4	5	0	7.8
Other (e.g. timber, inorganic refuse)	0	5	5	5	20	7
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Bidens pilosa</i>	1	1	1	1	1	1
<i>Sida rhombifolia</i>	1	1	0	1	1	0.8
<i>Ageratum houstonianum</i>	1	1	1	1	1	1
<i>Lantana camara</i>	10	5	5	5	2	5.4
<i>Asparagus africanus</i>	1	1	1	1	1	1
<i>Passiflora suberosa</i>	1	1	1	1	1	1
<i>Sporobolus natalensis</i>	0	1	0	1	0	0.4
<i>Solanum seaforthianum</i>	1	1	1	1	0	0.8
<i>Hypochaeris glabra</i>	0	0	0	1	0	0.2

HABITAT QUALITY ASSESSMENT

<i>Scoparia dulcis</i>	1	1	0	0	0	0.4
<i>Sida cordifolia</i>	2	1	3	0	0	1.2
<i>Megathyrus maximus</i>	1	1	0	0	0	0.4
<i>Talinum paniculatum</i>	1	1	0	0	0	0.4
<i>Gomphocarpus sp.</i>	1	0	0	0	0	0.2
<i>Callisia repens</i>	5	0	0	0	0	1
Total plot cover	21	16	13	13	7	14

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	25	40	48	8	8
<i>Eucalyptus tereticornis</i>	T1	13	48	50	2	2
<i>Melaleuca irbyana</i>	T2	6	0	4.5	4.5	4.5
<i>Melaleuca irbyana</i>	T2	6	5.2	11.4	6.2	6.2
<i>Melaleuca irbyana</i>	T2	8	15.5	33.9	18.4	20.9
<i>Acacia disparrima</i>	T2	7	33.3	36.4	3.1	
<i>Melaleuca irbyana</i>	T2	6	39.6	42	2.4	7.9
Total Canopy (T1) Cover					10 m (20 %) Med ht: 19 m	
Total Sub-canopy (T2) Cover					39.5 m (79 %) Med ht: 6 m	
Average Canopy (T1) and Canopy (T2) Cover					24.75 m (49.5 %) Med ht: 6.5 m	

100m Transect Shrub canopy cover	* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall					
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Alphitonia excelsa</i>	S	2	1.4	1.8	0.4	0.4
<i>Lantana camara</i>	S*	5	35.8	39.3	3.5	3.5
Total Native Shrub Cover					0.4 m (0.8%) Med ht: 2 m	
Total Non-native Shrub Cover					3.5 m (7%) Med ht: 5 m	

HABITAT QUALITY ASSESSMENT

Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



End of Transect



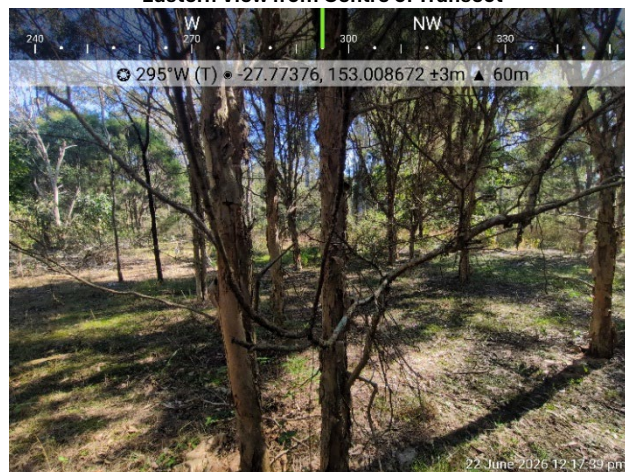
Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	22.06.2026	Collector:	CM, JA				Site: BCI04
Time:	-	Job No.	2026-100 Greenbank Rd North Maclean				
Mapped RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana. Occurs on margins of Quaternary alluvial plains.				
Field RE:	12.3.19	Description:	Melaleuca irbyana dominate sub-canopy (dominant layer) with canopy of Eucalyptus siderophloia, Blakella tessellaris, Eucalyptus tereticornis. Shrub layer consists of recruiting canopy species and Lantana camara. Cracking clay soils.				
Pre-clear RE:	12.3.18	Description:	Melaleuca irbyana low open forest on alluvial plains				
Plot size:	100 x 50	Photos	N	E	S	W	Pano
Slope:	Aspect:	Landform (local):			Landform (broad):		
0		3 – cracking clays			3		
Slope Shape:	0						

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary						
	Site Total:	0					
	Per ha Total: (*10)	0					

100x50m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent		Dominant / Codominant: <i>Melaleuca irbyana</i> *	Associated / Suppressed: <i>Eucalyptus siderophloia</i> * <i>Eucalyptus tereticornis</i> * <i>Blakella tessellaris</i> * <i>Acacia leiocalyx</i> * <i>Alphitonia excelsa</i> * <i>Acacia disparrima</i> *
T1	17, 13.1, 12.1, 12.1, 18.9	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>	100%
T2	6, 7.3, 5.6, 5.7, 7.4		
T3		Total Native Tree Spp. Richness	7

50x10m area							
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)							Total
Shrub	<i>Blakella tessellaris</i> , <i>Acacia leiocalyx</i> , <i>Alphitonia excelsa</i> , <i>Eucalyptus tereticornis</i> ,						4
Grass	<i>Bothriochloa bladhii</i> , <i>Eragrostis</i> sp., <i>Paspalidium</i> sp., <i>Bothriochloa pertusa</i> , <i>Chloris divaricata</i> , <i>Eragrostis leptostachya</i>						7
Forb	<i>Cyanthillium cinereum</i> , <i>Brunoniella australis</i> , <i>Centella asiatica</i> , <i>Crotalaria montana</i> , <i>Geitonoplesium cymosum</i> , <i>Dianella brevipedunculata</i> , <i>Hypericum gramineum</i> , <i>Eclipta platyglossa</i> , <i>Oxalis</i> sp.,						15
Non-native plant cover (List all species)	<i>Sporobolus natalensis</i> , <i>Sida cordifolia</i> , <i>Callisia repens</i> , <i>Lantana camara</i> , <i>Sida rhombifolia</i> , <i>Megathyrsus maximus</i> , <i>Passiflora suberosa</i> , <i>Crotalaria</i> sp., <i>Asparagus africanus</i> , <i>Portulaca</i> sp., <i>Urochloa decumbens</i> , <i>Praxelis</i> sp., <i>Bidens pilosa</i> ., <i>Ambrosia artemisiifolia</i> , <i>Chloris virgata</i> , <i>Verbena bonariensis</i> , <i>Gomphrena</i> sp., <i>Sacciolepis indica</i> , <i>Solanum seaforthianum</i> , <i>Solanum nigrum</i> , <i>Gomphocarpus</i> sp., <i>Senecio madagascariensis</i> , <i>Cynodon dactylon</i> , <i>Cyperus brevifolius</i> , <i>Emilia sonchifolia</i>						25 species 35% cover

100x50m Area:	*from benchmark doc				
Eucalypt large tree DBH:	370	No. of large eucalypt trees in plot:	3	Total Large Trees (ha):	8
Non-eucalypt large tree DBH:	250	No. of large non-eucalypt trees in plot:	1		

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)						
Species	DBH in mm						
<i>Melaleuca irbyana</i>	200, 300 , 210, 200, 210, 290, 220, 260, 200, 200, 210, 230, 210						
<i>Eucalyptus tereticornis</i>	330, 400 , 400 , 330						
<i>Eucalyptus siderophloia</i>	420						

HABITAT QUALITY ASSESSMENT

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus tereticornis</i>	2	3	2	4
<i>Eucalyptus moluccana</i>	0	1	0	0
<i>Melaleuca irbyana</i>	0	0	0	7
<i>Blakella tessellaris</i>	18	11	9	0
<i>Eucalyptus siderophloia</i>	0	0	1	3
<i>Acacia leiocalyx</i>	0	0	1	0

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1
<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	80	20	0	25	40	33
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	2	1	0	0	2	1
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	5	58	60	30	1	30.8
Non-native forbs and shrubs	2	1	1	1	37	8.4
Litter	11	20	39	44	20	26.8
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Sporobolus natalensis</i>	20	40	30	35	20	29
<i>Lantana camara</i>	5	0	0	0	0	1
<i>Sida cordifolia</i>	5	0	0	0	0	1
<i>Cynodon dactylon</i>	5	0	0	0	0	1
<i>Callisa repens</i>	0	0	0	5	0	1
<i>Megathyrsus maximus</i>	5	0	0	0	0	1
Total plot cover	40	40	30	40	20	34

HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept		(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.				
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Acacia leiocalyx</i>	T2	3	5.8	7	1.2	1.2
<i>Eucalyptus siderophloia</i>	T2	8	53	57.6	4.6	4.6
<i>Melaleuca irbyana</i>	T2	7	63.1	64.5	1.4	1.4
<i>Eucalyptus tereticornis</i>	T2	5	65.4	67.6	2.2	10
<i>Melaleuca irbyana</i>	T2	5	67	69.9	2.9	
<i>Eucalyptus tereticornis</i>	T2	6	67.2	70	2.8	
<i>Melaleuca irbyana</i>	T2	6	69.6	75.4	5.8	
<i>Blakella tessellaris</i>	T2	3	82.1	83	0.9	0.9
<i>Melaleuca irbyana</i>	T2	5	88.2	93.6	5.4	9.3
<i>Eucalyptus tereticornis</i>	T2	7	93.5	97.5	4	
<i>Melaleuca irbyana</i>	T2	6	98.6	100	1.4	1.4
Total Canopy (T1) Cover					None along intercept line	
Total Sub-canopy (T2) Cover					28.8 m (28.8 %) Med ht: 6 m	
Average Canopy (T1) and Canopy (T2) Cover					14.4 m (14.4 %) Med ht: 6 m	

100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Melaleuca irbyana</i>	S	7	0	2.6	2.6	2.6
<i>Melaleuca irbyana</i>	S	6	8.4	10.5	2.1	2.1
<i>Melaleuca irbyana</i>	S	5	17.5	21.8	4.3	4.3
<i>Blakella tessellaris</i>	S	1.2	24.3	24.7	0.4	0.4
<i>Melaleuca irbyana</i>	S	4	33.7	39.4	5.7	5.7
<i>Melaleuca irbyana</i>	S	7	50.7	55	4.3	4.3
<i>Blakella tessellaris</i>	S	2	63.8	64.8	1	1
<i>Blakella tessellaris</i>	S	1.8	65	65.3	0.3	0.3
<i>Lantana camara</i>	S*	1.5	0	2	2	2
<i>Lantana camara</i>	S*	1.8	72.3	73.1	0.8	0.8
Total Native Shrub Cover					20.7 m (20.7%) Med ht: 4.5m	
Total Non-native Shrub Cover					2.8 m (2.8 %) Med ht: 1.65 m	

HABITAT QUALITY ASSESSMENT
Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



End of Transect



Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23.06.2026	Collector:	CM JA				Site: BCI05	
Time:	7:50am	Job No.	2026-100 Greenbank Rd North Maclean					
Mapped RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana.					
Field RE:	12.3.19	Description:	Eucalyptus tereticornis, Eucalyptus moluccana, Eucalyptus siderophloia, open forest. More widely spaced here. Mid story and shrubs generally removed					
Pre-clear RE:	12.3.19	Description:	Eucalyptus moluccana and/or Eucalyptus tereticornis and E. crebra open forest to woodland, with a sparse to mid-dense understorey of Melaleuca irbyana.					
Plot size:	50x25	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
2%	East	Low sand plain						
Slope Shape:	convex							

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary						
	Site Total:	Nil					
	Per ha Total: (*10)	Nil					

50x25m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus tereticornis</i> <i>Eucalyptus moluccana</i> * <i>Eucalyptus siderophloia</i> *	Associated / Suppressed: <i>Angophora leiocarpa</i> *
T1	16, 28, 22, 21, 25	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>	66%
T2	6, 8, 11, 8		
T3		Total Native Tree Spp. Richness	4

50x10m area							
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)						Total	
Shrub	<i>Alphitonia excelsa</i>					1	
Grass	-					0	
Forb	<i>Dianella brevipedunculata</i> , <i>Cyanthillium cinereum</i> , <i>Glycine tabacina</i> , <i>Sauropus hirtellus</i> , <i>Cyperus gracilis</i> , <i>Alternanthera nana</i> , <i>Phyllanthus virgatus</i> , <i>Murdannia graminea</i>					8	
Non-native plant cover (List all species)	<i>Lantana camara</i> , <i>Urochloa decumbens</i> , <i>Verbena</i> sp., <i>Asparagus africanus</i> , <i>Sida cordifolia</i> , <i>Sida rhombifolia</i> , <i>Cynodon dactylon</i> , <i>Cyperus sesquiflorus</i> , <i>Praxelis clematidea</i> , <i>Bidens pilosa</i> , <i>Macroptilium lathyroides</i> , <i>Fimbristylis</i> sp., <i>Megathyrsus maximus</i> , <i>Oxalis</i> sp., <i>Sporobolus natalensis</i> , <i>Sida acuta</i> , <i>Gomphocarpus</i> sp.					17 species 38.6% cover	

100x50m Area:	*from benchmark doc					
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	0	Total Large Trees (ha):		0
Non-eucalypt large tree DBH:	230	No. of large non-eucalypt trees in plot:	0			

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts >300mm dbh – record multiple stems in parentheses this way (230, 250, 190)						
Species	DBH in mm						
<i>Eucalyptus siderophloia</i>	340						

HABITAT QUALITY ASSESSMENT

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus siderophloia</i>	0	0	0	1
<i>Eucalyptus moluccana</i>	0	1	0	1
<i>Eucalyptus tereticornis</i>	0	0	0	0
<i>Angophora leiocarpa</i>	0	0	0	2
<i>Blakella tessellaris</i>	0	0	1	0

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 5
<i>Eucalyptus moluccana</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Angophora leiocarpa</i> – 0
<i>Eucalyptus siderophloia</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Angophora leiocarpa</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus siderophloia</i> – 1
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 1	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus siderophloia</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 1	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus siderophloia</i> – 0

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	5	10	5	0	4
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	85	5	25	0	25	28
Non-native forbs and shrubs	10	10	20	15	5	12
Litter	5	80	45	80	70	56
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

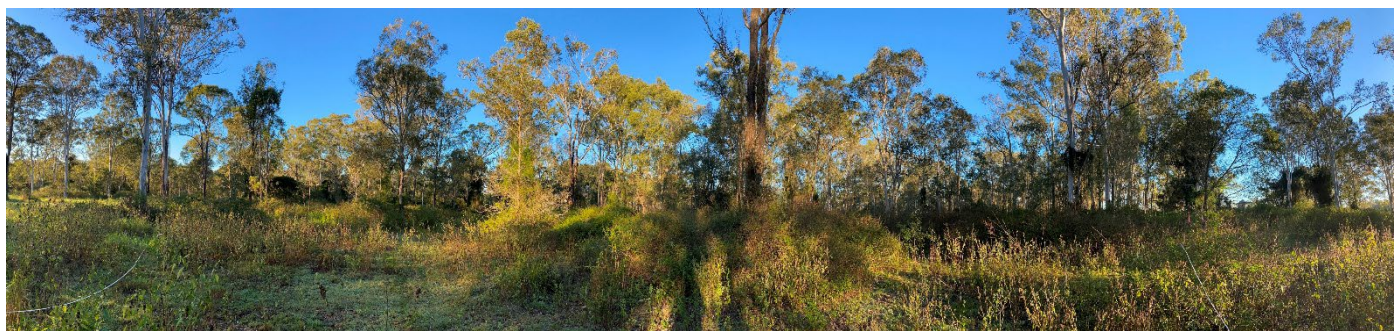
Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Lantana camara</i>	50	5	15	10	35	23
<i>Asparagus africanus</i>	1	1	1	1	5	1.8
<i>Bidens pilosa</i>	1	1	1	1	1	1
<i>Urochloa decumbens</i>	1	5	5	15	5	6.2
<i>Sida cordifolia</i>	10	10	5	2	1	5.6
<i>Sida rhombifolia</i>	1	1	1	1	1	1
<i>Praxelis clematidea</i>	1	1	1	1	0	0.8
<i>Cynodon dactylon</i>	40	60	0	0	0	20
<i>Gomphocarpus</i> sp.	0	1	0	0	0	0.2
<i>Macroptilium lathyroides</i>	0	1	0	0	0	0.2
Total plot cover	64	23	28	30	48	38.6

HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	25	24.6	37.4	12.8	12.8
<i>Eucalyptus tereticornis</i>	T1	28	38	50	12	12
<i>Eucalyptus siderophloia</i>	T2	8	35	40.2	5.2	5.2
<i>Acacia disparrima</i>	T2	5	43.3	46.3	3	3
Total Canopy (T1) Cover					24.8m (49.6 %) Med ht: 26.5 m	
Total Canopy (T2) Cover					8.2 m (16.4 %) Med ht: 6.5 m	
Average Canopy (T1) and Canopy (T2) Cover					16.5 m (33 %) Med ht: 16.5 m	

100m Transect Shrub canopy cover	* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall					
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
Lantana camara	S*	1.5	1.5	5	3.5	3.5
Lantana camara	S*	1.5	26.5	28.8	2.3	2.3
Lantana camara	S*	1.5	45	46.4	1.4	1.4
Total Native Shrub Cover					0m (0%) Med ht0: m	
Total Non-native Shrub Cover					7.2 m (14.4 %) Med ht: 1.5 m	

HABITAT QUALITY ASSESSMENT
Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



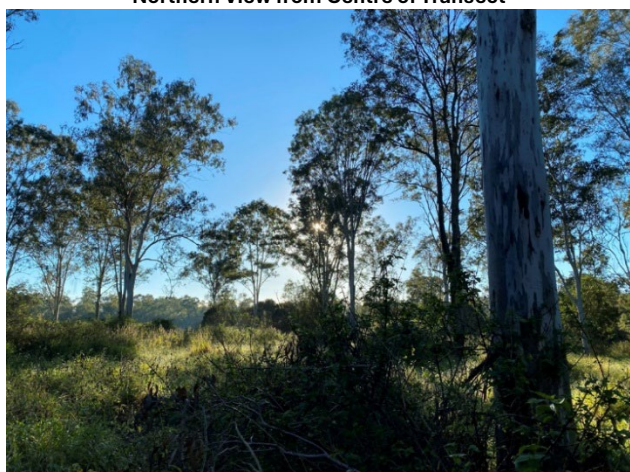
End of Transect



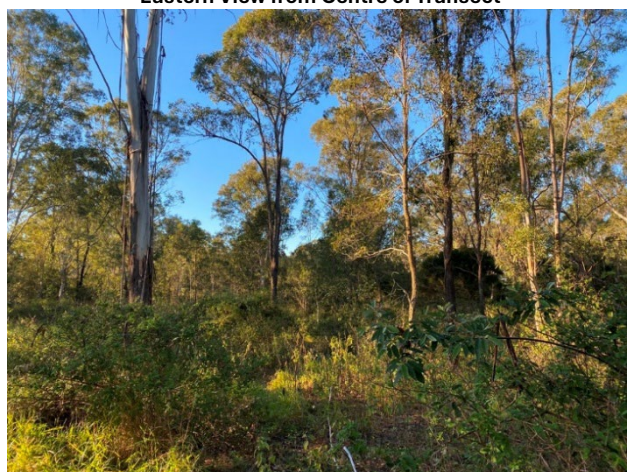
Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23.06.2026	Collector:	CM JA				Site: BCI06	
Time:	9:57am	Job No.	2026-100 Greenbank Rd North Maclean					
Mapped RE:	12.9-10.27	Description:	Corymbia and/or Eucalyptus dominated open forest with a very sparse to mid-dense understorey of Melaleuca irbyana on sedimentary rocks					
Field RE:	12.9-10.27	Description:	Eucalyptus tereticornis, Blakella tessellaris, Melaleuca irbyana. Abundant B. tessellaris regeneration (3–7 m).					
Pre-clear RE:	12.9-10.27	Description:	Corymbia and/or Eucalyptus dominated open forest with a very sparse to mid-dense understorey of Melaleuca irbyana. Canopy species may include Corymbia citriodora subsp. variegata, Eucalyptus crebra, E. moluccana, E. tereticornis.					
Plot size:	50x25	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
4	South	Low hills			Sand plain			
Slope Shape:	-							

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary						
	Site Total:	0					
	Per ha Total: (*10)	0					

50x25m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus tereticornis</i> * <i>Blakella tessellaris</i> *	Associated / Suppressed: <i>Eucalyptus siderophloia</i> <i>Melaleuca irbyana</i> <i>Acacia disparrima</i> .
T1	21, 17, 22, 18, 20	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>	100%
T2	6, 8, 5, 4, 9		
T3	-		
		Total Native Tree Spp. Richness	5

50x10m area							
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)						Total	
Shrub	-					0	
Grass	-					0	
Forb	<i>Cyperus gracilis</i> , <i>Dianella brevipedunculata</i>					2	
Non-native plant cover (List all species)	<i>Lantana camara</i> , <i>Callisia repens</i> , <i>Sida cordifolia</i> , <i>Solanum seaforthianum</i> , <i>Passiflora foetida</i> , <i>Asparagus africanus</i> , <i>Megathyrsus maximus</i> , <i>Carissa ovata</i>					8 93.2% cover	

50x25m Area:	*from benchmark doc					
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	1	Total Large Trees (ha):		8
Non-eucalypt large tree DBH:	230	No. of large non-eucalypt trees in plot:	0			

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts ≥200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)		
Species	DBH in mm		
<i>Melaleuca irbyana</i>	430, 340		
<i>Eucalyptus tereticornis</i>	490, 310		

canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus tereticornis</i>	0	0	0	2

HABITAT QUALITY ASSESSMENT

canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Melaleuca irbyana</i>	0	0	0	0
<i>Eucalyptus moluccana</i>	0	0	0	0
<i>Blakella tessellaris</i>	0	2	15	4

*Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>B. tessellaris</i> – 0	<i>B. tessellaris</i> – 0	<i>B. tessellaris</i> – 0 (outside of plot)
<i>B. tessellaris</i> – 0	<i>E. tereticornis</i> – 0	<i>B. tessellaris</i> – 0
<i>E. tereticornis</i> – 0	<i>E. tereticornis</i> – 0	<i>B. tessellaris</i> – 0
<i>Corymbia intermedia</i> – 0 (outside of plot)	<i>B. tessellaris</i> – 0	<i>E. tereticornis</i> – 0
<i>B. tessellaris</i> – 0	<i>B. tessellaris</i> – 0	-
No other trees were suitable for Koala Spot Assessment Techniques (SATs)		

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ("decreaser") grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	0	0	0	0
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	5	85	5	65	35	39
Non-native forbs and shrubs	85	5	75	15	5	37
Litter	0	5	20	5	10	8
Rock	0	0	0	0	0	0
Bare ground	0	5	0	5	50	12
Other (e.g. timber, inorganic refuse)	10	0	0	10	0	4
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Carissa ovata</i>	40	0	0	0	0	8
<i>Lantana camara</i>	20	60	80	60	95	63
<i>Asparagus africanus</i>	5	0	1	0	0	1.2
<i>Solanum seaforthianum</i>	5	0	0	0	0	1
<i>Megathyrsus maximus</i>	15	20	10	25	0	14
<i>Passiflora foetida</i>	5	0	0	0	0	1
<i>Sida cordifolia</i>	5	10	5	5	0	5
Total plot cover	95	90	96	90	95	93.2

HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept		(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.				
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	17	0	2.6	2.6	2.6
<i>Eucalyptus tereticornis</i>	T1	17	19.6	21	1.4	1.4
<i>Melaleuca irbyana</i>	T2	8	0	10.2	10.2	10.2
<i>Blakella tessellaris</i>	T2	7	48.4	50	1.6	1.6
Total Canopy (T1) Cover					4m (8%) Med ht: 17 m	
Total Canopy (T2) Cover					11.8 m (23.6 %) Med ht: 7.5 m	
Average Canopy (T1) and Canopy (T2) Cover					7.9m (15.8%) Med ht:12.5 m	

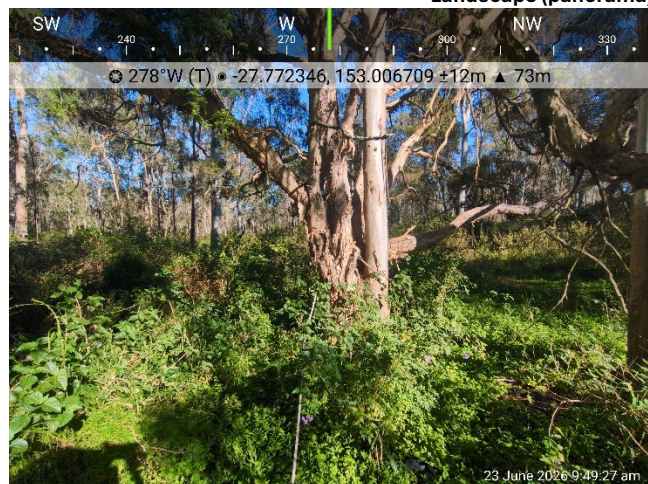
100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Lantana camara</i>	S*	1.5	1	3.9	2.9	2.9
<i>Lantana camara</i>	S*	1.5	6	9.3	3.3	3.3
<i>Lantana camara</i>	S*	1.7	15	21.3	6.3	6.3
<i>Lantana camara</i>	S*	2	23.3	29.7	6.4	6.4
<i>Lantana camara</i>	S*	2	34.2	50	15.8	15.8
Total Native Shrub Cover					0m (0%) Med ht:0m	
Total Non-native Shrub Cover					34.7 m (69.4 %) Med ht: 1.7 m	

HABITAT QUALITY ASSESSMENT

Site Photos



Landscape (panorama) photo/s of the general terrain



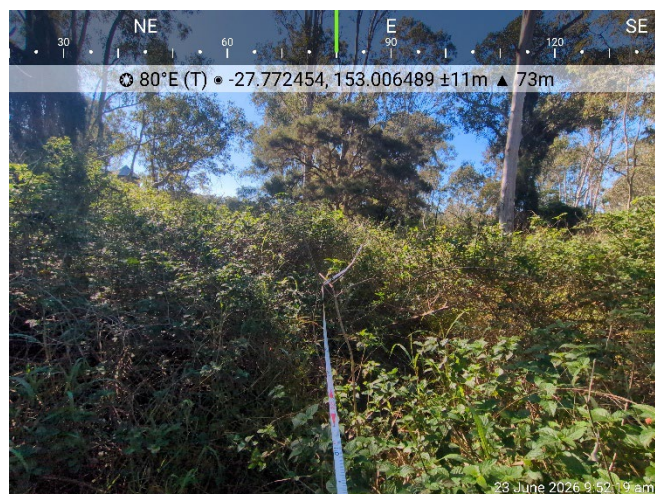
Start of Transect



End of Transect



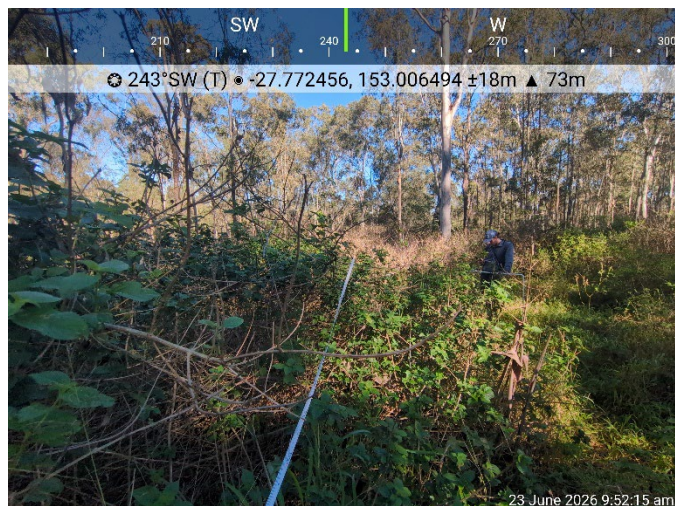
Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23.06.2026	Collector:	CM, JA, AF				Site: BCI07
Time:	-	Job No.	2026-100 Greenbank Rd North Maclean				
Mapped RE:	12.9-10.27	Description:	Corymbia and/or Eucalyptus dominated open forest with a very sparse to mid-dense understorey of Melaleuca irbyana on sedimentary rocks				
Field RE:	12.9-10.27	Description:	Eucalyptus tereticornis dominated open forest with Blakella tessellaris and Eucalyptus siderophloia. Significantly, disturbed understorey and sub-canopy with Blakella tessellaris and Acacia excelsa, with significant weed infestation including Lantana camara and Megathyrsus maximus. Melaleuca irbyana immediately adjacent to plot.				
Pre-clear RE:	12.9-10.27	Description:	Corymbia and/or Eucalyptus dominated open forest with a very sparse to mid-dense understorey of Melaleuca irbyana. Canopy species may include Corymbia citriodora subsp. variegata, Eucalyptus crebra, E. moluccana, E. tereticornis.				
Plot size:	50x25	Photos	N	E	S	W	Pano
Slope:	Aspect:	Landform (local):	Landform (broad):				
2.5	-	9-10	9-10				
Slope Shape:	Convex						

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary	
	Site Total:	0
	Per ha Total: (*10)	0

50x25m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus tereticornis</i> *	Associated / Suppressed: <i>Blakella tessellaris</i> * <i>Alphitonia excelsa</i>
T1	20, 25, 26.5, 18, 17.5	Proportion of EDL species with evidence of recruitment (<i>Recruitment is expressed as the proportion of dominant species present at a site that are regenerating</i>)	100
T2	6,5,7,10		
T3		Total Native Tree Spp. Richness	3

50x10m area		
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)		Total
Shrub	<i>Eucalyptus tereticornis</i>	1
Grass	-	0
Forb	<i>Cyperus gracilis</i> , <i>Einadia nutans</i> , <i>Parsonsia straminea</i> , <i>Alphitonia excelsa</i> , <i>Dianella</i> sp., <i>Murdannia graminea</i> , <i>Glycine tabacina</i> ,	7
Non-native plant cover (List all species)	<i>Sporobolus natalensis</i> , <i>Sida cordifolia</i> , <i>Megathyrsus maximus</i> , <i>Macroptilium atropurpureum</i> , <i>Sida rhombifolia</i> , <i>Callisia repens</i> , <i>Urochloa decumbens</i> , <i>Ambrosia artemisiifolia</i> , <i>Asparagus africanus</i> , <i>Commelina benghalensis</i> , <i>Bidens pilosa</i> , <i>Lantana camara</i> , <i>Passiflora suberosa</i> , <i>Macroptilium lathyroides</i> , <i>Macrotyloma axillare</i> , <i>Calypocarpus vialis</i> , <i>Urochloa decumbens</i>	17

50x25 m Area:	*from benchmark doc				
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	6	Total Large Trees (ha):	48
Non-eucalypt large tree DBH:	230	No. of large non-eucalypt trees in plot:	0		

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts >300mm dbh – record multiple stems in parentheses this way (230, 250, 190)		
Species	DBH in mm		
<i>Eucalyptus tereticornis</i>	680, 500, 440, 590, 430, 820		

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus tereticornis</i>	0	1	0	0

HABITAT QUALITY ASSESSMENT

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Blakella tessellaris</i>	0	1	0	1

Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 2	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	-	-
No other trees were suitable for Koala Spot Assessment Techniques (SATs)		

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	0	0	0	0
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	70	5	25	40	80	44
Non-native forbs and shrubs	25	85	50	30	0	38
Litter	5	10	15	30	20	16
Rock	0	0	0	0	0	0
Bare ground	0	0	10	0	0	2
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Callisia repens</i>	0	2.5	25	45	35	21.5
<i>Lantana camara</i>	20	50	30	30	10	28
<i>Sida cordifolia</i>	5	15	10	10	10	10
<i>Asparagus africanus</i>	0	0	2.5	10	5	3.5
<i>Megathyrsus maximus</i>	70	20	30	2.5	35	31.5
Total plot cover	95	87.5	97.5	97.5	95	94.5

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	19	24.8	10	14.8	14.8
<i>Eucalyptus tereticornis</i>	T1	20	42.1	25.2	16.9	21
<i>Eucalyptus tereticornis</i>	T1	17	46.2	34	12.2	
Total Canopy (T1) Cover					35.8m (71.6 %) Med ht: 19 m	
Total Canopy (T2) Cover					0m (0%) Med ht: 0m	
Average Canopy (T1) and Canopy (T2) Cover					35.8 m (071.6 %) Med ht:019 m	

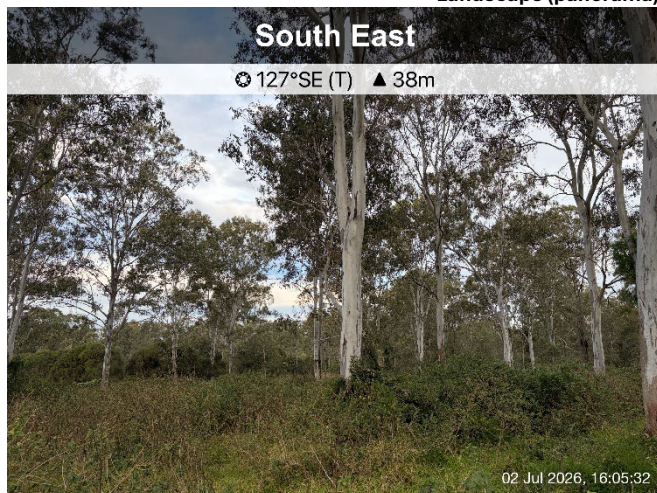
HABITAT QUALITY ASSESSMENT

100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	S	1.5	11.3	10.9	0.4	0.4
<i>Lantana camara</i>	S*	2	1.8	0	1.8	1.8
<i>Lantana camara</i>	S*	1.8	6.7	3.8	2.9	2.9
<i>Lantana camara</i>	S*	2.5	21.8	11.2	10.6	10.6
<i>Lantana camara</i>	S*	2	35.1	27	8.1	8.1
<i>Lantana camara</i>	S*	1.5	45.2	43.5	1.7	1.7
Total Native Shrub Cover					0.4 m (0.8 %) Med ht: 2 m	
Total Non-native Shrub Cover					25.1 m (50.2%) Med ht: 2 m	

HABITAT QUALITY ASSESSMENT
Site Photos



Landscape (panorama) photo/s of the general terrain



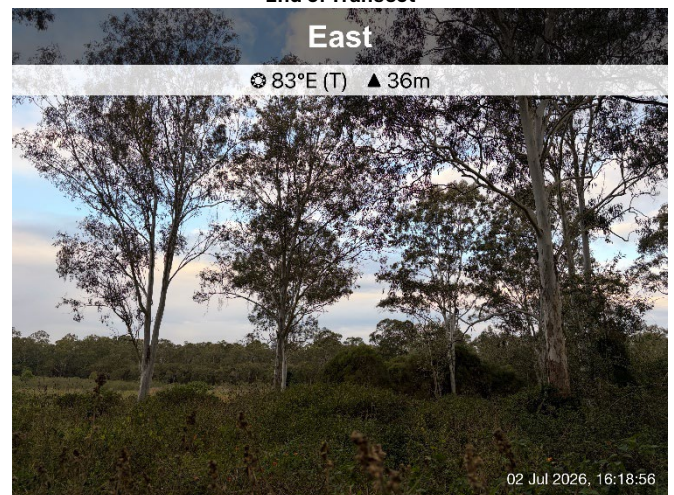
Start of Transect



End of Transect



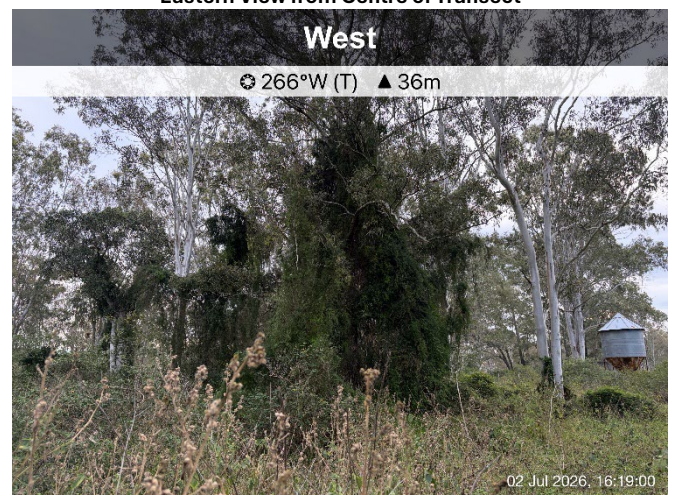
Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23.06.2026	Collector:	CM, JA, AF				Site: BCI08
Time:	1:53pm	Job No.	2026-100 Greenbank Rd North Maclean				
Mapped RE:	Non Remnant	Description:					
Field RE:	12.9-10.7	Description:	E. tereticornis, Blakella tessellaris. open forest to 22 m. T2 of regenerating canopy species 5–10 m				
Pre-clear RE:	12.9-10.2 / 12.9-10.7 / 12.9-10.12	Description:	12.9-10.2 Corymbia citriodora subsp. variegata +/- Eucalyptus crebra open forest on sedimentary rocks 12.9-10.7 Eucalyptus crebra +/- E. tereticornis, Corymbia tessellaris, Angophora spp. and E. melanophloia woodland on sedimentary rocks 12.9-10.12 Mixed woodland usually containing Corymbia intermedia, Angophora leiocarpa and at least the presence of Eucalyptus seeana on sedimentary rocks				
Plot size:	50x25	Photos	N	E	S	W	Pano
Slope:	Aspect:	Landform (local):			Landform (broad):		
4	South	Low rise			Old sand plain		
Slope Shape:	convex						

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary	
	Site Total:	0
	Per ha Total: (*10)	0

50x25 Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus. tereticornis</i> * <i>Blakella. tessellaris</i> *	Associated / Suppressed: <i>Alphitonia excelsa</i> <i>Acacia disparrima</i> <i>Acacia maidenii</i>
T1	18, 22, 14, 17	Proportion of EDL species with evidence of recruitment (Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)	100
T2	9, 10, 8, 5, 6		
T3			
		Total Native Tree Spp. Richness	5

50x10m area		
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)		Total
Shrub	<i>Alphitonia excelsa</i> , <i>Acacia disparrima</i> , <i>Acacia maidenii</i> , <i>Blakella tessellaris</i>	4
Grass	-	0
Forb	<i>Dianella brevipedunculata</i> , <i>Cyperus gracilis</i> , <i>Lobelia purpurascens</i> , <i>Chenopodium trigynum</i> , <i>Sauropus hirtellus</i>	5
Non-native plant cover (List all species)	<i>Lantana camara</i> , <i>Megathyrsus maximus</i> , <i>Sida cordifolia</i> , <i>Callisia repens</i> , <i>Cynodon dactylon</i> , <i>Neonotonia wightii</i> , <i>Portulaca pilosa</i> , <i>Praxelis clematidea</i> , <i>Asparagus africanus</i> , <i>Sporobolus natalensis</i>	10

50x25m Area:	*from benchmark doc				
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	4	Total Large Trees (ha):	32
Non-eucalypt large tree DBH:	na	No. of large non-eucalypt trees in plot:	0		

HABITAT QUALITY ASSESSMENT

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)
Species	DBH in mm
<i>Eucalyptus tereticornis</i>	460, 380, 370, 580, 310, 320, 300, 310, 360, 260, 450, 430

canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Blakella tessellaris</i>	1	7	17	21
<i>Eucalyptus tereticornis</i>	0	0	0	2

*Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0	-
No more suitable trees in the plot		

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	5	0	0	1
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	5	30	50	80	20	37
Non-native forbs and shrubs	30	20	15	5	40	22
Litter	60	45	30	15	40	38
Rock	0	0	0	0	0	0
Bare ground	0	5	0	0	0	1
Other (e.g. timber, inorganic refuse)	5	0	0	0	0	1
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Cynodon dactylon</i>	10	25	10	35	0	16
<i>Megathyrsus maximus</i>	20	35	15	15	25	22
<i>Lantana camara</i>	50	25	25	15	35	30
<i>Sida cordifolia</i>	5	5	5	10	25	10
<i>Calissia repens</i>	5	5	40	15	0	13
<i>Asparagus africanus</i>	5	0	0	0	0	1
Total plot cover	95	95	95	90	85	92%

HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept		(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.				
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	16	49	50	1	1
<i>Eucalyptus tereticornis</i>	T1	18	33	46.4	13.4	13.4
<i>Alphitonia excelsa</i>	T1	14	28.2	32	3.8	3.8
<i>Blakella tessellaris</i>	T1	11	16	18.7	2.7	2.7
<i>Blakella tessellaris</i>	T1	17	10.1	11.7	1.6	1.6
<i>Eucalyptus tereticornis</i>	T1	22	0	7.6	7.6	7.6
<i>Blakella tessellaris</i>	T2	5	0	1	1	1
<i>Blakella tessellaris</i>	T2	6	2.5	3.4	0.9	0.9
<i>Blakella tessellaris</i>	T2	8	7	9.3	2.3	3.1
<i>Blakella tessellaris</i>	T2	8	9	10.1	1.1	
<i>Blakella tessellaris</i>	T2	8	13	15.5	2.5	3.6
<i>Blakella tessellaris</i>	T2	7	15	16.6	1.6	
<i>Eucalyptus tereticornis</i>	T2	7	19.6	20.9	1.3	1.3
<i>Blakella tessellaris</i>	T2	9	19.7	20.9	1.2	
<i>Eucalyptus tereticornis</i>	T2	5	21.3	22.8	1.5	5
<i>Blakella tessellaris</i>	T2	10	22.6	26.3	3.7	
<i>Blakella tessellaris</i>	T2	3	26.5	28.5	2	2
<i>Blakella tessellaris</i>	T2	7	38	38.6	0.6	0.6
Total Canopy (T1) Cover					30.1 m (60.2%) Med ht:16.5 m	
Total Canopy (T2) Cover					17.5 m (35 %) Med ht:7 m	
Average Canopy (T1) and Canopy (T2) Cover					23.8 m 47.6%) Med ht: 8 m	

100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Alphitonia excelsa</i>	S	2	20.5	18.8	1.7	1.7
<i>Lantana camara</i>	S*	2.5	5.5	0	5.5	5.5
<i>Lantana camara</i>	S*	2.5	13	7.9	5.1	5.1
<i>Lantana camara</i>	S*	1.5	19	17.6	1.4	1.4
<i>Lantana camara</i>	S*	2	28.3	22.5	5.8	5.8
<i>Lantana camara</i>	S*	2	50	36	14	14
Total Native Shrub Cover					1.7 m (3.4%) Med ht: 1.7 m	
Total Non-native Shrub Cover					31.8 m (63.6 %) Med ht: 2 m	

HABITAT QUALITY ASSESSMENT
Site Photos



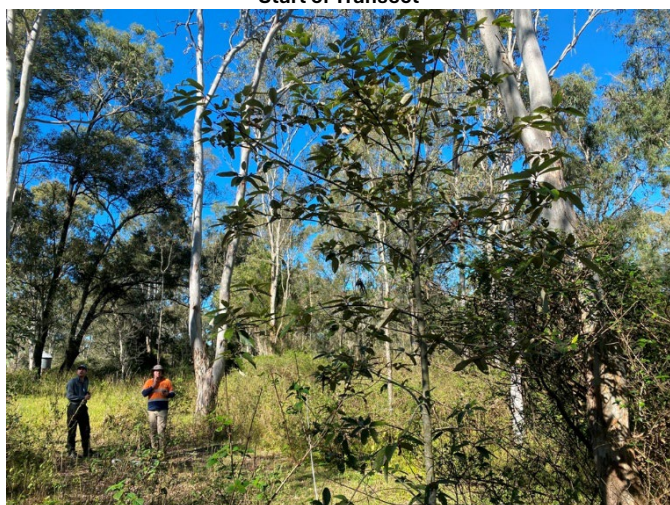
Landscape (panorama) photo/s of the general terrain



Start of Transect



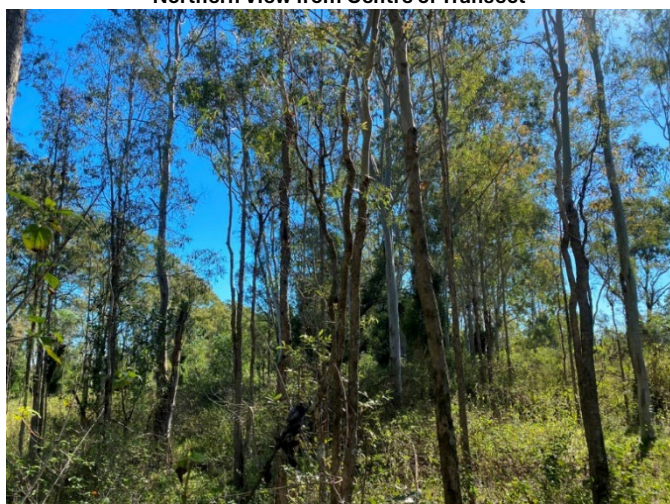
End of Transect



Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23.06.2026	Collector:	CM, JA, AF, AD				Site: BCI09
Time:	-	Job No.	2026-100 Greenbank Rd North Maclean				
Mapped RE:	Non Remnant	Description:					
Field RE:	12.9-10.7	Description:	<i>Eucalyptus tereticornis</i> dominated open woodland with <i>Blakella tessellaris</i> in canopy. Thick <i>Blakella tessellaris</i> recruiting heavily with very little shrub cover; mostly invasive ground stratum. <i>Melaleuca irbyana</i> away from the plot (NE)				
Pre-clear RE:	12.9-10.2/ 12.9-10.12/ 12.9-10.7	Description:	12.9-10.2 <i>Corymbia citriodora</i> subsp. <i>variegata</i> +/- <i>Eucalyptus crebra</i> open forest on sedimentary rocks 12.9-10.7 <i>Eucalyptus crebra</i> +/- <i>E. tereticornis</i> , <i>Corymbia tessellaris</i> , <i>Angophora</i> spp. and <i>E. melanophloia</i> woodland on sedimentary rocks 12.9-10.12 Mixed woodland usually containing <i>Corymbia intermedia</i> , <i>Angophora leiocarpa</i> and at least the presence of <i>Eucalyptus seeana</i> on sedimentary rocks				
Plot size:	50x25	Photos	N	E	S	W	Pano
Slope:	Aspect:	Landform (local):			Landform (broad):		
2.5	-	9-10			9-10		
Slope Shape:	-						

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary		
	Site Total:	0	
	Per ha Total: (*10)	0	
50x25m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: <i>Eucalyptus tereticornis</i> *	Associated / Suppressed: <i>Blakella tessellaris</i> * <i>Eucalyptus siderophloia</i>
T1	20, 22, 18, 20, 25	Proportion of EDL species with evidence of recruitment (<i>Recruitment is expressed as the proportion of dominant species present at a site that are regenerating</i>)	100%
T2	10, 12, 7, 8, 5		
T3	-	Total Native Tree Spp. Richness	3
50x10m area			
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)			Total
Shrub	<i>Blakella tessellaris</i> , <i>Eucalyptus tereticornis</i> , <i>Alphitonia excelsa</i> , <i>Acacia maidenii</i>		4
Grass	-		0
Forb	<i>Sauropus hirtellus</i> , <i>Fimbristylis</i> sp., <i>Cyperus gracilis</i> , <i>Cheilanthes sieberi</i> , <i>Dianella</i> sp., <i>Blakella tessellaris</i> , <i>Lobelia purpurascens</i> , <i>Murdannia graminea</i> , <i>Dianella brevipedunculata</i> , <i>Rumex brownii</i> , <i>Acacia maidenii</i> , <i>Hypericum gramineum</i>		12
Non-native plant cover (List all species)	<i>Sida cordifolia</i> , <i>Sporobolus pyramidalis</i> , <i>Macroptilium lathyroides</i> , <i>Megathyrsus maximus</i> , <i>Bidens pilosa</i> , <i>Sida rhombifolia</i> , <i>Cynodon dactylon</i> , <i>Praxelis clematidea</i> , <i>Gomphrena</i> sp., <i>Scoparia dulcis</i> , <i>Conyza bonariensis</i> , <i>Lantana camara</i> , <i>Cyperus brevifolius</i> , <i>Emilia sonchifolia</i> , <i>Macroptilium atropurpureum</i> , <i>Senecio madagascariensis</i> , <i>Ambrosia artemisiifolia</i> , <i>Commelina benghalensis</i> , <i>Portulaca</i> sp., <i>Gomphocarpus</i> , <i>Asparagus africanus</i> , <i>Desmodium uncinatum</i> , <i>Melinis repens</i> , <i>Crotalaria</i> sp., <i>Neonotonia wightii</i> , <i>Solanum nigrum</i> , <i>Unknown</i> sp. <i>Passiflora suberosa</i> , <i>Oxalis corniculata</i> , <i>Unknown</i> exotic grass		31 78.2% cover

50 x 25m Area:	*from benchmark doc				
Eucalypt large tree DBH:	390	No. of large eucalypt trees in plot:	4	Total Large Trees (ha):	32
Non-eucalypt large tree DBH:	na	No. of large non-eucalypt trees in plot:	0		

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)		
Species	DBH in mm		
<i>Eucalyptus tereticornis</i>	560, 610, 580, 600		

HABITAT QUALITY ASSESSMENT

canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Eucalyptus siderophloia</i>	0	0	1	2
<i>Blakella tessellaris</i>	0	4	6	3
<i>Eucalyptus tereticornis</i>	1	2	6	0

*Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 1	<i>Blakella tessellaris</i> – 0
<i>Eucalyptus tereticornis</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Blakella tessellaris</i> – 0	<i>Eucalyptus tereticornis</i> – 0	<i>Blakella tessellaris</i> – 0
<i>Blakella tessellaris</i> – 0	-	-
No other trees were suitable for Koala Spot Assessment Techniques (SATs)		

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ("decreaser") grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	5	25	0	0	6
Native shrubs (<1m in height)	0	0	0	0	0	1
Non-native grass	65	35	0	5	0	21
Non-native forbs and shrubs	2	40	25	80	90	47
Litter	30	20	40	15	10	23
Rock	0	0	0	0	0	0
Bare ground	3	0	0	0	0	1
Other (e.g. timber, inorganic refuse)	0	0	10	0	0	2
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Sida cordifolia</i>	5	5	5	5	15	7
<i>Lantana camara</i>	50	30	5	15	5	21
<i>Cynodon dactylon</i>	5	15	20	20	5	13
<i>Sporobolus sp.</i>	0	6	10	25	45	17.2
<i>Megathyrsus maximus</i>	25	5	20	5	10	13
<i>Commelina benghalensis</i>	0	0	25	0	0	5
<i>Asparagus africanus</i>	10	0	0	0	0	2
Total plot cover	95	61	85	70	80	78.2

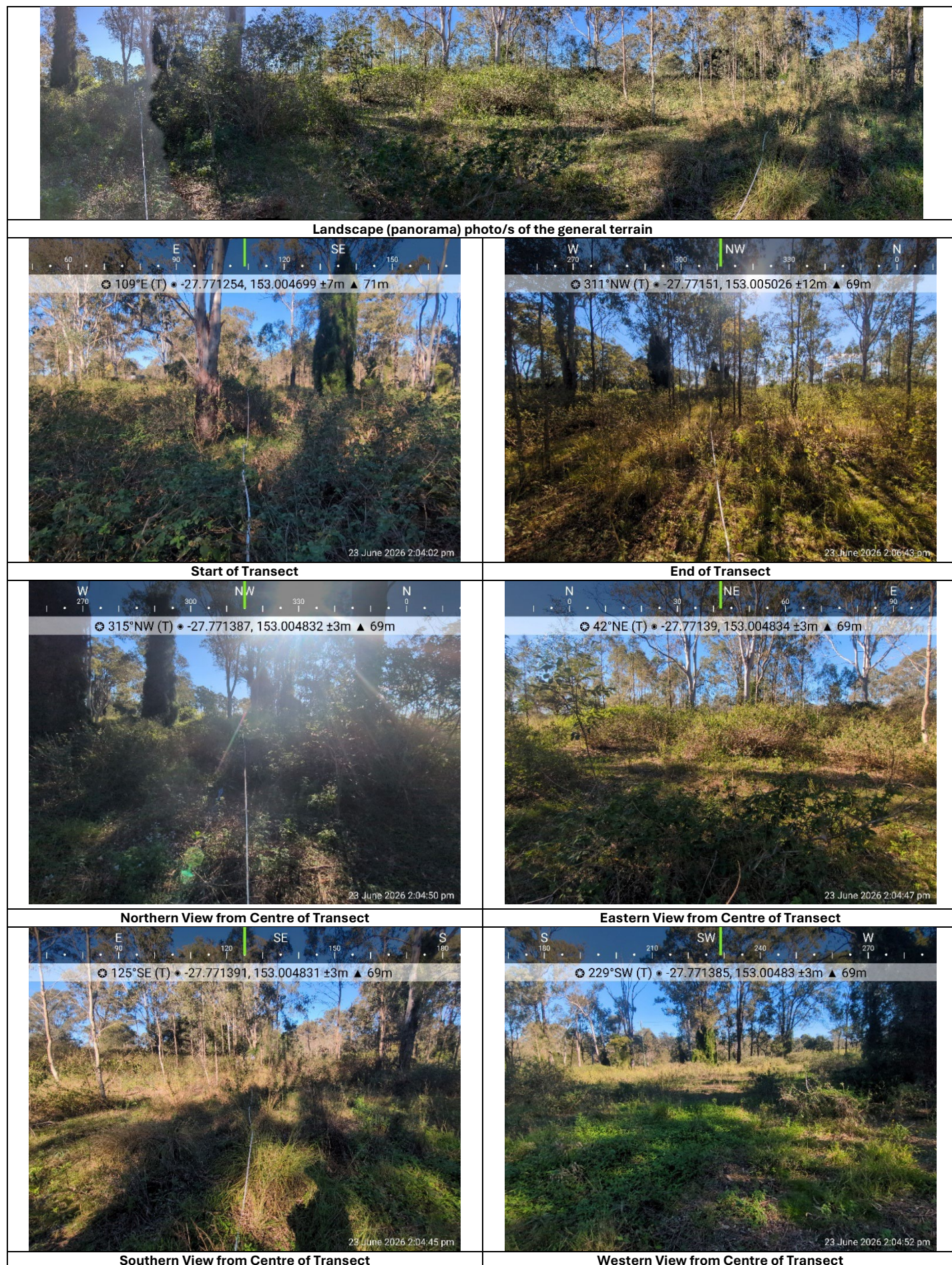
HABITAT QUALITY ASSESSMENT

100m Transect Tree Canopy Cover Intercept		(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.				
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Eucalyptus tereticornis</i>	T1	18	0	5.5	5.5	5.5
<i>Eucalyptus tereticornis</i>	T1	16	6	12.9	6.9	6.9
<i>Eucalyptus tereticornis</i>	T1	15	19.5	23	3.5	8
<i>Eucalyptus tereticornis</i>	T1	16	16.2	27.5	11.3	
<i>Eucalyptus siderophloia</i>	T2	6	39.6	41.3	1.7	4.6
<i>Blakella tessellaris</i>	T2	5	40.1	41.7	1.6	
<i>Blakella tessellaris</i>	T2	7	39.6	43	3.4	
<i>Eucalyptus tereticornis</i>	T2	6	41.8	44.2	2.4	
Total Canopy (T1) Cover					20.4 m (40.8 %) Med ht: 16 m	
Total Canopy (T2) Cover					4.6 m (9.2%) Med ht:6 m	
Average Canopy (T1) and Canopy (T2) Cover					12.5m (25 %) Med ht: 11 m	

100m Transect Shrub canopy cover		* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall				
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Blakella tessellaris</i>	S	2	33.7	35.4	1.7	1.7
<i>Lantana camara</i>	S*	1.5	0	4.4	4.4	4.4
<i>Lantana camara</i>	S*	2	6.8	11	4.2	4.2
<i>Lantana camara</i>	S*	1.5	16.2	21	4.8	4.8
<i>Lantana camara</i>	S*	1.5	24.3	26	1.7	1.7
Total Native Shrub Cover					1.7 m (3.4 %) Med ht: 2m	
Total Non-native Shrub Cover					15.1 m (30.2%) Med ht: 1.5 m	

HABITAT QUALITY ASSESSMENT

Site Photos



HABITAT QUALITY ASSESSMENT

Date:	23/06/2026	Collector:	CM, JA, AF, AD				Site: BCI10
Time:	15:00	Job No.	2026-100 Greenbank Rd North Maclean				
Mapped RE:	Non-Remnant	Description:	-				
Field RE:	Non-Remnant	Description:	Open area with Exotic grasses.				
Pre-clear RE:	12.9-10.2 / 12.9-10.7 / 12.9-10.12	Description:	12.9-10.2 <i>Corymbia citriodora subsp. variegata</i> +/- <i>Eucalyptus crebra</i> open forest on sedimentary rocks 12.9-10.7 <i>Eucalyptus crebra</i> +/- <i>E. tereticornis</i> , <i>Corymbia tessellaris</i> , <i>Angophora spp.</i> and <i>E. melanophloia</i> woodland on sedimentary rocks 12.9-10.12 Mixed woodland usually containing <i>Corymbia intermedia</i> , <i>Angophora leiocarpa</i> and at least the presence of <i>Eucalyptus seeana</i> on sedimentary rocks				
Plot size:	100 x 50	Photos	N	E	S	W	Pano
Slope:	Aspect:	Landform (local):			Landform (broad):		
3%	East	Low hills			Old sand plains		
Slope Shape:	Convex						

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary						
	Site Total:	0					
	Per ha Total: (*10)	0					

100x50m Area				
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)		
Emergent	n/a	Dominant / Codominant: <i>Blakella tessellaris</i>		Associated / Suppressed: N/A
T1	Nil	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>		N/A
T2	Nil			
T3	Nil	Total Native Tree Spp. Richness		Nil

50x10m area							
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)						Total	
Shrub	-					0	
Grass	-					0	
Forb	<i>Dianella brevipedunculata</i> , <i>Cyperus gracilis</i>					2	
Non-native plant cover (List all species)	<i>Ambrosia artemisiifolia</i> , <i>Sida rhombifolia</i> , <i>Gomphocarpus physocarpus</i> , <i>Chloris gayana</i> , <i>Verbena bonariensis</i> , <i>Lantana camara</i> , <i>Macroptilium lathyroides</i> , <i>Oxalis sp.</i> , <i>Cynodon dactylon</i> , <i>Portulaca pilosa</i> , <i>Erigeron bonariensis</i> , <i>Cirsium vulgare</i> , <i>Sporobolus natalensis</i> , <i>Bidens pilosa</i> , <i>Sida cordifolia</i> , <i>Bidens pilosa</i> , <i>Megathyrus maximus</i>					17 species 99% cover	

100x50m Area:	*from benchmark doc					
Eucalypt large tree DBH:	380	No. of large eucalypt trees in plot:	Nil	Total Large Trees (ha):	Nil	
Non-eucalypt large tree DBH:	Nil	No. of large non-eucalypt trees in plot:	Nil			

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts >300mm dbh – record multiple stems in parentheses this way (230, 250, 190)					
Species	DBH in mm					
N/A	No suitable trees in the plot.					

Canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
<i>Blakella tessellaris</i>	0	0	0	1

HABITAT QUALITY ASSESSMENT

*Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.	
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded	
<i>Blakella tessellaris</i> - 0		
No additional trees in plot		

Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	0	0	0	0	0
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	0	0	0	0	0
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	85	40	0	60	0	37
Non-native forbs and shrubs	10	50	90	35	95	56
Litter	5	0	5	5	5	4
Rock	0	0	0	0	0	0
Bare ground	0	5	5	0	0	2
Other (e.g. timber, inorganic refuse)	0	5	0	0	0	1
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Bidens pilosa</i>	20	30	15	5	30	20
<i>Sida rhombifolia</i>	0	5	0	5	35	9
<i>Sida cordifolia</i>	20	0	5	10	5	8
<i>Macroptilium lathyroides</i>	5	25	30	5	5	14
<i>Gomphocarpus physocarpus</i>	0	0	5	5	5	3
<i>Bidens pilosa</i>	0	0	0	0	5	1
<i>Ambrosia artemisiifolia</i>	0	0	0	5	15	4
<i>Verbena bonariensis</i>	5	5	5	15	0	6
<i>Megathyrus maximus</i>	0	30	10	45	0	17
<i>Oxalis</i> sp.	0	0	25	0	0	5
<i>Sporobolus natalensis</i>	50	5	0	0	0	11
<i>Lantana camara</i>	0	0	5	0	0	1
Total plot cover	100	100	100	95	100	99

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
Nil	-	-	-	-	-	-

100m Transect Shrub canopy cover	* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall					
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
Nil	-	-	-	-	-	-

HABITAT QUALITY ASSESSMENT
Site Photos



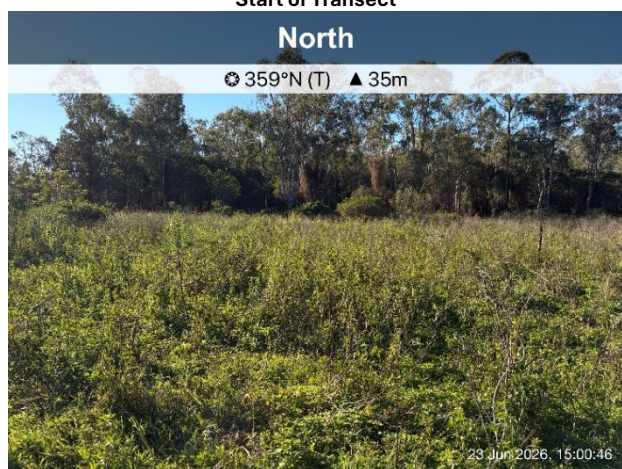
Landscape (panorama) photo/s of the general terrain



Start of Transect



End of Transect



North



East



South



West

Northern View from Centre of Transect

Eastern View from Centre of Transect

Southern View from Centre of Transect

Western View from Centre of Transect

HABITAT QUALITY ASSESSMENT

Date:	23/06/2026	Collector:	CM, JA, AF, AD				Site: BCI11	
Time:	15:30	Job No.	2026-100 Greenbank Rd North Maclean					
Mapped RE:	Non-Remnant	Description:	Non Remnant					
Field RE:	Non-Remnant	Description:	Open area with Exotic grasses. No trees or Shrubs.					
Pre-clear RE:	12.3.18	Description:	12.3.18 <i>Melaleuca irbyana</i> low open forest on alluvial plains					
Plot size:	100 x 50	Photos	N	E	S	W	Pano	
Slope:	Aspect:	Landform (local):			Landform (broad):			
0%	Flat	Flood plain			Flood plain			
Slope Shape:	Flat							

Coarse Woody Debris (50x20m Area)	All logs >10cm, >0.5m with 50 x 20m plot boundary						
	Site Total:	0					
	Per ha Total: (*10)	0					

100x50m Area			
Strata and Height (record the height of up to 5 individual trees, where available). Take height measurements outside of plot where suitable e.g. emergent layer		(NB: *Ecologically Dominant Layer. Tree defined as single stemmed over 2m. All tree species in the 100 x 50m (not just EDL species) – Specify species (* indicates a recruiting species)	
Emergent	n/a	Dominant / Codominant: N/A	Associated / Suppressed:
T1	Nil	Proportion of EDL species with evidence of recruitment <i>(Recruitment is expressed as the proportion of dominant species present at a site that are regenerating)</i>	N/A
T2	Nil		
T3	Nil	Total Native Tree Spp. Richness	Nil

50x10m area							
Native plant species richness - (NB: List species if known or count if unknown. Shrub is defined as single stemmed below 2m or multi-stemmed from base or below 20cm)						Total	
Shrub	Nil					0	
Grass	<i>Eriochloa sp.</i> , <i>Astrebula sp.</i>					2	
Forb	<i>Cyperus gracilis</i> , <i>Rumex brownii</i> , <i>Juncus usitatus</i> , <i>Einadia trigonos</i> , <i>Brassicaceae sp.</i>					5	
Non-native plant cover (List all species)	<i>Baccharis halimifolia</i> , <i>Macroptilium lathyroides</i> , <i>Verbena bonariensis</i> , <i>Bidens Pilosa</i> , <i>Megathyrsus maximus</i> , <i>Sida rhombifolia</i> , <i>Aster sp.</i> , <i>Bothriochloa pertusa</i> , <i>Oxalis sp.</i> , <i>Chloris gayana</i> , <i>Senecio madagascariensis</i> , <i>Setaria sphacelata</i> , <i>Axonopus sp.</i> , <i>Ageratum houstonianum</i> , <i>Sporobolus natalensis</i> , <i>Erigeron bonariensis</i> , <i>Commelina benghalensis</i>					17 98% cover	

100x50m Area:	*from benchmark doc					
Eucalypt large tree DBH:	370	No. of large eucalypt trees in plot:	Nil	Total Large Trees (ha):	Nil	
Non-eucalypt large tree DBH:	250	No. of large non-eucalypt trees in plot:	Nil			

Plot based tree data	Record DBH and all species within the 100 x 50m plot ; non-eucalypts >200mm dbh and all eucalypts > 300mm dbh – record multiple stems in parentheses this way (230, 250, 190)					
Species	DBH in mm					
N/A	No trees in the plot					

canopy species regeneration and number of stems	Record species and count all seedlings, saplings and young trees within the 50 x 20 m (1,000m ²)			
Species:	<10 mm DBH	10-<50mm DBH	50-<100mm DBH	100-<300 mm DBH
Nil	-	-	-	-

HABITAT QUALITY ASSESSMENT

*Derived Koala Spot Assessment Technique (SAT)	Record species and all koala scats at the base of eucalypts >100 mm DBH and taller than 4 m height.
Number of trees assessed (record number – target is 30)	Record each tree; species and number of Scats recorded
No trees suitable for Koala Spot Assessment Techniques (SATs)	

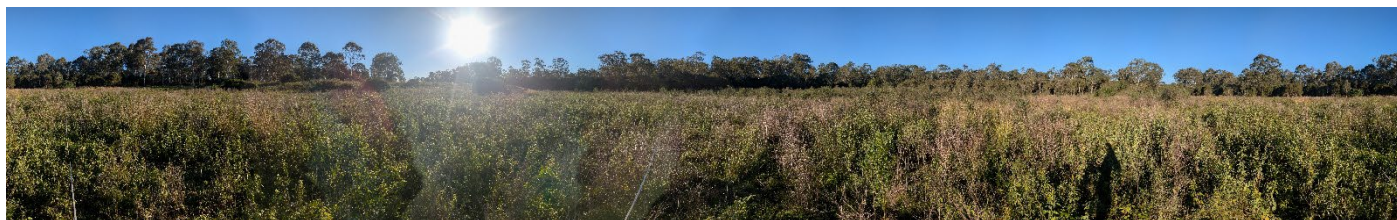
Five 1x1m plots	*attributes are essential to assess as used in scoring, however assessment of all attributes improves your ability to more accurately visualise proportions of each of the attributes					
Ground Cover type	1	2	3	4	5	Ave.
Native perennial ('decreaser') grass cover*	0	0	0	0	5	1
Native other grass (if relevant)*	0	0	0	0	0	0
Native forbs and other species (non-grass)	0	10	5	25	0	8
Native shrubs (<1m in height)	0	0	0	0	0	0
Non-native grass	80	10	30	5	15	28
Non-native forbs and shrubs	20	80	65	70	80	63
Litter	0	0	0	0	0	0
Rock	0	0	0	0	0	0
Bare ground	0	0	0	0	0	0
Other (e.g. timber, inorganic refuse)	0	0	0	0	0	0
TOTAL	100%	100%	100%	100%	100%	100%

Plot based weed data	Record all weed species within the 50 x 10m plot , which have greater than an overall 5% contribution to the total estimated plot cover. Assess 5 sub-plots (each 10x10m) and estimate individual weed cover (%). Sum weed cover for each of the 5 sub-plots. Find the average of sub-plot total weed cover, to provide the 50x10m plot cover estimate.					
Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Average
<i>Macroptilium lathyroides</i>	40	30	40	40	45	39
<i>Baccharis halimifolia</i>	10	20	15	15	10	14
<i>Megathyrsus maximus</i>	25	10	5	10	5	11
<i>Bidens pilosa</i>	15	10	10	15	25	15
<i>Chloris gayana</i>	0	30	0	0	0	6
<i>Ambrosia artemisiifolia</i>	5	0	30	15	15	16.25
Total plot cover	95	100	100	95	100	98

100m Transect Tree Canopy Cover Intercept	(Only assess Emergent (E) or Subcanopy (S) layers if the benchmark document stipulates that layers are present. *If trees are in the same layer and continuous along the transect group them). Canopy layer includes T1 and T2 layers, but not T3. Record height of each tree.					
Species	Strata (C or S or E)	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
Nil	-	-	-	-	-	-

100m Transect Shrub canopy cover	* denote as native or exotic. Only native shrub cover is used in the scoring. Shrub - Woody plant that is multi-stemmed from the base (or within 200 mm from ground level) <8 m tall , or if single stemmed, less than 2 m tall					
Species	Strata: Shrub	Height (m)	Intercept Range (m)		Cover (m)	Corrected Cover (m)
			start:	end:		
<i>Baccharis halimifolia</i> *	S*	1.5	4.7	5.7	1	1
<i>Baccharis halimifolia</i> *	S*	1.5	14.5	15.2	0.7	0.7
Total Native Shrub Cover						0m (0%) Med ht: 0m
Total Non-native Shrub Cover						1.7m (1.7%) Med ht: 1.5m

Site Photos



Landscape (panorama) photo/s of the general terrain



Start of Transect



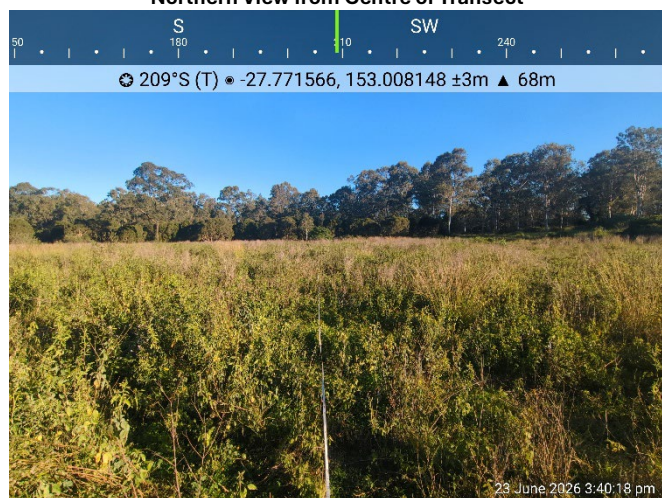
End of Transect



Northern View from Centre of Transect



Eastern View from Centre of Transect



Southern View from Centre of Transect



Western View from Centre of Transect

Attachment 18 – Amphibian List (5 km)

Amphibian species of the locality

The WildNet search returned 21 frog taxa from the locality, including the introduced Cane Toad. One species, the Tusked Frog, is listed as Vulnerable under the NC Act and is therefore a threatened species and MSES. Table below presents all amphibian species returned by the WildNet 5 km search, while the 28 South Records column identifies species recorded during the field surveys.

Table 1: Amphibian species of the locality (WildNet, 5 km) and the 28 South field survey

#	Common name	Scientific name	NCA	EPBC Act	Records	28South Survey
1	Striped Marshfrog	<i>Limnodynastes peronii</i>	C		86	
2	Graceful Treefrog	<i>Litoria gracilentia</i>	C		82	
3	Ornate Burrowing Frog	<i>Platyplectrum ornatum</i>	C		66	
4	Common Green Treefrog	<i>Litoria caerulea</i>	C		60	
5	Broad-Palmed Rocketfrog	<i>Litoria latopalmata</i>	C		53	Y
6	Eastern Sedgefrog	<i>Litoria fallax</i>	C		50	
7	Dusky Gungan	<i>Uperoleia fusca</i>	C		30	
8	Cane Toad	<i>Rhinella marina</i>			21	Y
9	Slender Bleating Treefrog	<i>Litoria balatus</i>	C		18	
10	Spotted Grassfrog	<i>Limnodynastes tasmaniensis</i>	C		15	Y
11	Beeping Froglet	<i>Crinia parinsignifera</i>	C		7	
12	Striped Rocketfrog	<i>Litoria nasuta</i>	C		3	
13	Ruddy Treefrog	<i>Litoria rubella</i>	C		3	
14	Eastern Stony Creek Frog	<i>Litoria wilcoxii</i>	C		3	
15	Scarlet-Sided Pobblebonk	<i>Limnodynastes terraereginae</i>	C		3	
16	Tusked Frog	<i>Adelotus brevis</i>	V		2	0
17	Great Barred Frog	<i>Mixophyes fasciolatus</i>	C		2	
18	Green-Thighed Frog	<i>Litoria brevipalmata</i>	C		1	
19	Emerald-Spotted Treefrog	<i>Litoria peronii</i>	C		1	

20	Southern Laughing Treefrog	<i>Litoria taylori</i>	C		1	
21	Chubby Gungan	<i>Uperoleia rugosa</i>	C		1	

NC Act codes: C = Least Concern; V = Vulnerable. No amphibian recorded in the locality is listed under the EPBC Act. The Tusked frog (*Adelotus brevis*), Vulnerable under the NC Act, is the only conservation-significant amphibian and is shown in bold. "WildNet Records" = number of WildNet records within 5 km of the Site; "28 South Survey" = species recorded during the 28 South field survey

Source: WildNet database, Queensland Department of the Environment, Tourism, Science and Innovation

Attachment 19 – Reptile List (5 km)

Reptilian species of the locality

The WildNet search returned 24 reptile taxa from the locality (**Table 1**). All species are listed as Least Concern under the NC Act, and none are listed under the EPBC Act. Reptile use of the Site is largely influenced by the regenerating vegetation structure, limited leaf litter and coarse woody debris (CWD), and the absence of natural waterways. These conditions favour open-country and disturbance-tolerant species, while habitat suitability for litter-dependent and water-associated reptiles is more restricted.

Table 1: Reptile species of the locality (WildNet, 5 km) and the 28 South field survey

#	Common name	Scientific name	NCA	EPBC Act	WildNet Records	28S Records
1	Bearded Dragon	<i>Pogona barbata</i>	C		14	
2	Green Tree Snake	<i>Dendrelaphis punctulatus</i>	C		5	
3	Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>	C		5	
4	Eastern Water Dragon	<i>Intellagama lesueurii</i>	C		3	Yes
5	Carpet Python	<i>Morelia spilota</i>	C		3	
6	Eastern Brown Snake	<i>Pseudonaja textilis</i>	C		3	
7	Lace Monitor	<i>Varanus varius</i>	C		3	
8	Yellow-faced Whipsnake	<i>Demansia psammophis</i>	C		2	
9	Three-clawed worm-Skink	<i>Anomalopus verreauxii</i>	C		2	
10	Straight-browed Ctenotus	<i>Ctenotus spaldingi</i>	C		2	
11	Eastern Water Skink	<i>Eulamprus quoyii</i>	C		2	
12	Eastern Blue-tongue	<i>Tiliqua scincoides scincoides</i>	C		2	
13	Jacky Lizard	<i>Amphibolurus muricatus</i>	C		1	
14	Tommy Roundhead	<i>Diporiphora australis</i>	C		1	
15	Eastern Snake-necked Turtle	<i>Chelodina longicollis</i>	C		1	
16	Snake-necked Turtle	<i>Chelodina sp.</i>	C		1	
17	Freshwater Snake	<i>Tropidonophis mairii</i>	C		1	
18	White-crowned Snake	<i>Cacophis harriettae</i>	C		1	
19	Golden-crowned Snake	<i>Cacophis squamulosus</i>	C		1	
20	Eastern Small-eyed Snake	<i>Cryptophis nigrescens</i>	C		1	
21	Red-naped Snake	<i>Furina diadema</i>	C		1	
22	Bandy-bandy	<i>Vermicella annulata</i>	C		1	

#	Common name	Scientific name	NCA	EPBC Act	WildNet Records	28S Records
23	Dark-flecked Garden Sunskink	<i>Lampropholis delicata</i>	C		1	
24	Sand Monitor	<i>Varanus gouldii</i>	C		1	

NC Act codes: C = Least Concern. No reptile recorded in the locality is listed under the EPBC Act or as conservation significant under the NC Act. "WildNet Records" = number of WildNet records within 5 km of the Site; "28 South Records" = species recorded during the 28S field survey.

Source: WildNet database, Queensland Department of the Environment, Tourism, Science and Innovation.

Attachment 20 – Birds List (5 km)

Bird species of the locality

The following table lists the bird taxa of the locality. The WildNet database search returned 122 taxa within five kilometres of the Site, ranked below by number of records; a further four species were recorded during the 28 South field survey but not returned by the search, and are listed at the end with a dash in the WildNet Records column. The great majority are common and widespread species listed as Least Concern under the *Nature Conservation Act 1992*. Three are conservation-significant and are shown in bold: the Powerful owl (*Ninox strenua*, Vulnerable under the NCA), the White-throated needletail (*Hirundapus caudacutus*) and the South-eastern glossy black-cockatoo (*Calyptrorhynchus lathami lathami*), the latter two Vulnerable under both the NCA and the EPBC Act. The “28 South Records” column marks the 41 species recorded during the 28 South field survey.

Table 1: Bird species of the locality (WildNet, 5 km) and the 28 South field survey

#	Common name	Scientific name	NC Act	EPBC Act	WildNet Records	28 South Records
1	Australian Magpie	<i>Gymnorhina tibicen</i>	C		40	Y
2	Rainbow Lorikeet	<i>Trichoglossus moluccanus</i>	C		39	Y
3	Torresian Crow	<i>Corvus orru</i>	C		36	Y
4	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	C		33	Y
5	Scaly-breasted Lorikeet	<i>Trichoglossus chlorolepidotus</i>	C		29	Y
6	Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>	C		27	Y
7	Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	C		24	
8	Noisy Miner	<i>Manorina melanocephala</i>	C		24	Y
9	Noisy Friarbird	<i>Philemon corniculatus</i>	C		24	Y
10	Pale-headed Rosella	<i>Platycercus adscitus</i>	C		23	
11	Australian Wood Duck	<i>Chenonetta jubata</i>	C		22	
12	Pied Butcherbird	<i>Cracticus nigrogularis</i>	C		22	Y
13	Galah	<i>Eolophus roseicapilla</i>	C		22	Y
14	Crested Pigeon	<i>Ocyphaps lophotes</i>	C		21	
15	Grey Butcherbird	<i>Cracticus torquatus</i>	C		20	
16	Willie Wagtail	<i>Rhipidura leucophrys</i>	C		20	
17	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	C		19	
18	Masked Lapwing	<i>Vanellus miles novaehollandiae</i>	C		17	

19	Superb Fairy-wren	<i>Malurus cyaneus</i>	C		15	Y
20	Magpie-lark	<i>Grallina cyanoleuca</i>	C		14	Y
21	Grey Fantail	<i>Rhipidura albiscapa</i>	C		13	Y
22	Striated Pardalote	<i>Pardalotus striatus</i>	C		12	Y
23	Tawny Frogmouth	<i>Podargus strigoides</i>	C		11	Y
24	Sacred Kingfisher	<i>Todiramphus sanctus</i>	C		11	
25	Brown Honeyeater	<i>Lichmera indistincta</i>	C		10	Y
26	Straw-necked Ibis	<i>Threskiornis spinicollis</i>	C		10	
27	Australian King-parrot	<i>Alisterus scapularis</i>	C		9	
28	Cattle Egret	<i>Bubulcus ibis</i>	C		9	
29	Dollarbird	<i>Eurystomus orientalis</i>	C		9	
30	Scarlet Honeyeater	<i>Myzomela sanguinolenta</i>	C		9	Y
31	Pacific Black Duck	<i>Anas superciliosa</i>	C		8	
32	Pheasant Coucal	<i>Centropus phasianinus</i>	C		8	
33	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>	C		8	Y
34	Rainbow Bee-eater	<i>Merops ornatus</i>	C		8	Y
35	Golden Whistler	<i>Pachycephala pectoralis</i>	C		8	Y
36	Spotted Pardalote	<i>Pardalotus punctatus</i>	C		7	Y
37	Australasian Figbird	<i>Sphecotheres vieilloti</i>	C		7	
38	White-faced Heron	<i>Egretta novaehollandiae</i>	C		6	
39	Welcome Swallow	<i>Hirundo neoxena</i>	C		6	
40	Powerful Owl	<i>Ninox strenua</i>	V		6	
41	Olive-backed Oriole	<i>Oriolus sagittatus</i>	C		6	
42	Rufous Whistler	<i>Pachycephala rufiventris</i>	C		6	Y
43	Little Lorikeet	<i>Parvipsitta pusilla</i>	C		6	
44	Rose Robin	<i>Petroica rosea</i>	C		6	
45	Common Bronzewing	<i>Phaps chalcoptera</i>	C		6	
46	Little Friarbird	<i>Philemon citreogularis</i>	C		6	
47	Grey-crowned babbler	<i>Pomatostomus temporalis</i>	C		6	

48	Silvereye	<i>Zosterops lateralis</i>	C		6	Y
49	Common Myna	<i>Acridotheres tristis</i>			5	
50	Yellow-faced Honeyeater	<i>Caligavis chrysops</i>	C		5	Y
51	Eastern Koel	<i>Eudynamys orientalis</i>	C		5	
52	Peaceful Dove	<i>Geopelia placida</i>	C		5	
53	Forest Kingfisher	<i>Todiramphus macleayii</i>	C		5	
54	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	C		4	
55	Mistletoebird	<i>Dicaeum hirundinaceum</i>	C		4	
56	Spangled Drongo	<i>Dicrurus bracteatus</i>	C		4	Y
57	Eastern Yellow Robin	<i>Eopsaltria australis</i>	C		4	
58	White-throated Honeyeater	<i>Melithreptus albogularis</i>	C		4	
59	Spotted Dove	<i>Spilopelia chinensis</i>			4	
60	Brown Quail	<i>Synoicus ypsilophorus</i>	C		4	Y
61	Australian White Ibis	<i>Threskiornis molucca</i>	C		4	
62	Wedge-tailed Eagle	<i>Aquila audax</i>	C		3	
63	Pacific Baza	<i>Aviceda subcristata</i>	C		3	
64	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	C		3	
65	Red-browed Finch	<i>Neochmia temporalis</i>	C		3	Y
66	Yellow-billed Spoonbill	<i>Platalea flavipes</i>	C		3	
67	Eastern Whipbird	<i>Psophodes olivaceus</i>	C		3	
68	White-browed Scrubwren	<i>Sericornis frontalis</i>	C		3	
69	Pied Currawong	<i>Strepera graculina</i>	C		3	Y
70	Brown Thornbill	<i>Acanthiza pusilla</i>	C		2	
71	Eastern Spinebill	<i>Acanthorhynchus tenuirostris</i>	C		2	
72	Northern Mallard	<i>Anas platyrhynchos</i>			2	
73	Eastern Great Egret	<i>Ardea alba modesta</i>	C		2	
74	Azure Kingfisher	<i>Ceyx azureus</i>	C		2	

75	Varied Sittella	<i>Daphoenositta chrysoptera</i>	C		2	
76	Plumed Whistling-duck	<i>Dendrocygna eytoni</i>	C		2	
77	Bar-shouldered Dove	<i>Geopelia humeralis</i>	C		2	
78	Black Bittern	<i>Ixobrychus flavicollis</i>	C		2	
79	Variegated Fairy-wren	<i>Malurus lamberti</i>	C		2	Y
80	Lewin's Honeyeater	<i>Meliphaga lewinii</i>	C		2	
81	Double-barred Finch	<i>Taeniopygia bichenovii</i>	C		2	Y
82	Masked Lapwing	<i>Vanellus miles</i>	C		2	Y
83	Banded Lapwing	<i>Vanellus tricolor</i>	C		2	
84	Yellow Thornbill	<i>Acanthiza nana</i>	C		1	
85	Collared Sparrowhawk	<i>Accipiter cirrocephalus</i>	C		1	
86	Grey Goshawk	<i>Accipiter novaehollandiae</i>	C		1	
87	Green Catbird	<i>Ailuroedus crassirostris</i>	C		1	
88	Australian Brush-turkey	<i>Alectura lathamii</i>	C		1	
89	Australasian Darter	<i>Anhinga novaehollandiae</i>	C		1	
90	Red-winged Parrot	<i>Aprosmictus erythropterus</i>	C		1	
91	Hardhead	<i>Aythya australis</i>	C		1	
92	Glossy Black-cockatoo (eastern)	<i>Calyptorhynchus lathamii lathamii</i>	V	V	1	
93	Shining Bronze-cuckoo	<i>Chalcites lucidus</i>	C		1	
94	Tawny Grassbird	<i>Cincloramphus timoriensis</i>	C		1	
95	Little Shrike-thrush	<i>Colluricincla megarhyncha</i>	C		1	
96	White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>	C		1	
97	White-throated Treecreeper	<i>Cormobates leucophaea</i>	C		1	
98	Black Swan	<i>Cygnus atratus</i>	C		1	

99	Black-shouldered Kite	<i>Elanus axillaris</i>	C		1	
100	Black-fronted Dotterel	<i>Euseyornis melanops</i>	C		1	
101	Black-necked Stork	<i>Ephippiorhynchus asiaticus</i>	C		1	
102	Brown Falcon	<i>Falco berigora</i>	C		1	
103	Dusky Moorhen	<i>Gallinula tenebrosa</i>	C		1	Y
104	White-throated Gerygone	<i>Gerygone olivacea</i>	C		1	Y
105	Pied Stilt	<i>Himantopus leucocephalus</i>	C		1	
106	White-throated Needletail	<i>Hirundapus caudacutus</i>	V	V	1	
107	Comb-crested Jacana	<i>Irediparra gallinacea</i>	C		1	Y
108	Lewin's Rail	<i>Lewinia pectoralis</i>	C		1	
109	Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>	C		1	
110	Brown Cuckoo-dove	<i>Macropygia phasianella</i>	C		1	
111	Little Pied Cormorant	<i>Microcarbo melanoleucos</i>	C		1	Y
112	Jacky Winter	<i>Microeca fascinans</i>	C		1	
113	Southern Boobook	<i>Ninox boobook</i>	C		1	Y
114	Australian Pelican	<i>Pelecanus conspicillatus</i>	C		1	
115	Scarlet Robin	<i>Petroica boodang</i>	C		1	
116	Little Black Cormorant	<i>Phalacrocorax sulcirostris</i>	C		1	
117	Royal Spoonbill	<i>Platalea regia</i>	C		1	
118	Rufous Fantail	<i>Rhipidura rufifrons</i>	C		1	
119	Channel-billed Cuckoo	<i>Scythrops novaehollandiae</i>	C		1	
120	Weebill	<i>Smicromnis brevirostris</i>	C		1	
121	Australasian Shoveler	<i>Spatula rhynchotis</i>	C		1	
122	Australasian Grebe	<i>Tachybaptus novaehollandiae</i>	C		1	Y

123	Intermediate Egret	<i>Ardea intermedia</i>	C		—	Y
124	Whistling Kite	<i>Haliastur sphenurus</i>	C		—	Y
125	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	C		—	Y
126	Yellow-tailed Black-cockatoo	<i>Zanda funerea</i>	C		—	Y

NC Act codes: C = Least Concern; V = Vulnerable.

EPBC codes: V = Vulnerable. Conservation-significant birds are shown in bold. "WildNet Records" = number of WildNet records (sighting and specimen) within 5 km of the Site; a dash (—) denotes a species recorded during the 28 South field survey but not returned by the WildNet search. "Last record" = date of the most recent WildNet record; conservation-significant species are suppressed from the per-sighting export and are shown without a date. "28 South Records": "Y" indicates the species was recorded during the 28 South field survey. Sources: WildNet database, Queensland Department of the Environment, Tourism, Science and Innovation; 28 South field survey (Composite Fauna Species List).

Attachment 21 – Mammal List (5 km)

Mammalian species of the locality

The WildNet database search returned 28 mammal taxa from the locality (**Table 1**). The assemblage is typical of a modified rural landscape and is dominated by grazing macropods, common arboreal marsupials and a range of established introduced species. Six threatened mammals were identified separately, with the Koala representing the key conservation matter for the Site.

Table 1: Mammal species of the locality (WildNet, 5 km) and the 28 South field survey

#	Common name	Scientific name	NCA	EPBC	WildNet Records	28 South Survey
1	Koala	<i>Phascolarctos cinereus</i>	E	E	330	Yes
2	Eastern Grey Kangaroo	<i>Macropus giganteus</i>	C		22	
3	Red-necked Wallaby	<i>Notamacropus rufogriseus</i>	C		17	
4	Spotted-tailed Quoll (Southern Subspecies)	<i>Dasyurus maculatus maculatus</i>	E	E	8	
5	Common Brushtail Possum	<i>Trichosurus vulpecula</i>	C		8	
6	Red Fox	<i>Vulpes vulpes</i>			7	
7	European Brown Hare	<i>Lepus europaeus</i>			6	
8	Sugar Glider	<i>Petaurus breviceps sensulato</i>			5	
9	Common Ringtail Possum	<i>Pseudocheirus peregrinus</i>	C		5	
10	Swamp Wallaby	<i>Wallabia bicolor</i>	C		3	
11	Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	C	V	3	Yes
12	Flying-fox	<i>Pteropus sp.</i>	C		3	
13	Short-beaked Echidna	<i>Tachyglossus aculeatus</i>	SL		3	
14	Squirrel Glider	<i>Petaurus norfolcensis</i>	C		2	
15	Glider	<i>Petaurus sp.</i>	C		2	
16	Brushtail Possum	<i>Trichosurus sp.</i>	C		2	
17	Black Flying-fox	<i>Pteropus alecto</i>	C		2	
18	House Mouse	<i>Mus musculus</i>			2	
19	Brush-tailed Phascogale	<i>Phascogale tapoatafa tapoatafa</i>	C		1	
20	Northern Brown Bandicoot	<i>Isodon macrourus</i>	C		1	

21	Agile Wallaby	<i>Notamacropus agilis</i>	C		1	
22	Cat	<i>Felis catus</i>			1	
23	Rabbit	<i>Oryctolagus cuniculus</i>			1	
24	Brown Rat	<i>Rattus norvegicus</i>			1	
25	Black Rat	<i>Rattus rattus</i>			1	
26	Platypus	<i>Ornithorhynchus anatinus</i>	SL		1	
27	Yellow-bellied Glider (Southern Subspecies)	<i>Petaurus australis australis</i>	V	V	1	
28	Southern Greater Glider	<i>Petauroides volans volans</i>	E	E	1	

NC Act codes: C = Least Concern; SL = Special Least Concern; V = Vulnerable; E = Endangered. EPBC Act codes: V = Vulnerable; E = Endangered. Conservation-significant species (koala, southern greater glider, spotted-tailed quoll, yellow-bellied glider, grey-headed flying-fox and the Special Least Concern short-beaked echidna and platypus) are shown in bold. The Red fox, European brown hare, Cat, Rabbit, House mouse, Brown rat and Black rat are introduced and carry no NC Act listing. "WildNet Records" = number of WildNet records within 5 km of the Site; "28 South Survey" = species recorded during the 28 South field survey.

Source: WildNet database, Queensland Department of the Environment, Tourism, Science and Innovation.

Attachment 22 – Fauna List

Table 1: Composite Fauna Species List Greenbank Road North Maclean (2026-100)

Family	Scientific name	Common name	Detection Method	NCA status	EPBC status	Establishment
Amphibians						
Bufo	Rhinella marina	Cane Toad	O			II
Limnodynastidae	Limnodynastes tasmaniensis	Spotted Grassfrog	O	C		QA
Reptiles						
Agamidae	Intellagama lesueurii	Eastern Water Dragon	O	C		QA
Birds						
Acanthizidae	Gerygone olivacea	White-Throated Gerygone	C	C		QAI
Accipitridae	Haliastur sphenurus	Whistling Kite	O	C		QAI
Accipitridae	Haliaeetus leucogaster	White-Bellied Sea-Eagle	O	C		QAI
Alcedinidae	Dacelo novaeguineae	Laughing Kookaburra	O,C	C		QA
Ardeidae	Ardea intermedia	Intermediate Egret	O	C		QAI
Artamidae	Cracticus nigrogularis	Pied Butcherbird	O,C	C		QA
Artamidae	Gymnorhina tibicen	Australian Magpie	O,C	C		QAI
Artamidae	Strepera graculina	Pied Currawong	O,C	C		QA
Cacatuidae	Zanda funerea	Yellow-Tailed Black-Cockatoo	O,C	C		QA
Cacatuidae	Eolophus roseicapilla	Galah	O,C	C		QA
Charadriidae	Vanellus miles	Masked Lapwing	O,C	C		QAI
Corvidae	Corvus orru	Torresian Crow	O,C	C		QAI
Dicruridae	Dicrurus bracteatus	Spangled Drongo	O	C		QAI
Estrildidae	Neochmia temporalis	Red-Browed Finch	O	C		QA
Estrildidae	Taeniopygia bichenovii	Double-Barred Finch	O,C	C		QA
Jacanidae	Irediparra gallinacea	Comb-Crested Jacana	O	C		QAI
Maluridae	Malurus lamberti	Variegated Fairy-Wren	O,C	C		QA
Maluridae	Malurus cyaneus	Superb Fairy-Wren	O,C	C		QA
Maluridae	Malurus melanocephalus	Red-Backed Fairy-Wren	O,C	C		QA
Meliphagidae	Caligavis chrysops	Yellow-Faced Honeyeater	O,C	C		QA
Meliphagidae	Manorina melanocephala	Noisy Miner	O,C	C		QA
Meliphagidae	Myzomela sanguinolenta	Scarlet Honeyeater	C	C		QA
Meliphagidae	Lichmera indistincta	Brown Honeyeater	O,C	C		QA
Meliphagidae	Entomyzon cyanotis	Blue-Faced Honeyeater	O,C	C		QAI
Meliphagidae	Philemon corniculatus	Noisy Friarbird	O,C	C		QAI
Meropidae	Merops ornatus	Rainbow Bee-Eater	O,C	C		QAI
Monarchidae	Grallina cyanoleuca	Magpie-Lark	O,C	C		QAI
Pachycephalidae	Pachycephala pectoralis	Golden Whistler	O,C	C		QAI
Pachycephalidae	Pachycephala rufiventris	Rufous Whistler	O,C	C		QAI
Pardalotidae	Pardalotus punctatus	Spotted Pardalote	C	C		QA
Pardalotidae	Pardalotus striatus	Striated Pardalote	C	C		QA
Phalacrocoracidae	Microcarbo melanoleucos	Little Pied Cormorant	O	C		QAI
Phasianidae	Synoicus ypsilophorus	Brown Quail	O	C		QAI
Podargidae	Podargus strigoides	Tawny Frogmouth	O	C		QA
Podicipedidae	Tachybaptus novaehollandiae	Australasian Grebe	O	C		QAI
Psittaculidae	Trichoglossus chlorolepidotus	Scaly-Breasted Lorikeet	O,C	C		QA
Psittaculidae	Trichoglossus moluccanus	Rainbow Lorikeet	O,C	C		QA
Rallidae	Gallinula tenebrosa	Dusky Moorhen	O,C	C		QAI
Rhipiduridae	Rhipidura albiscapa	Grey Fantail	O,C	C		QAI
Strigidae	Ninox boobook	Southern Boobook	O	C		QAI
Zosteropidae	Zosterops lateralis	Silvereye	O,C	C		QAI
Mammals						

Family	Scientific name	Common name	Detection Method	NCA status	EPBC status	Establishment
Leporidae	<i>Lepus europaeus</i>	European Brown Hare	O			II
Macropodidae	<i>Macropus giganteus</i>	Eastern Grey Kangaroo	O	C		QA
Macropodidae	<i>Notamacropus rufogriseus</i>	Red-Necked Wallaby	O	C		QA
Petauridae	<i>Petaurus breviceps</i>	Sugar Glider	O	C		QA
Phalangeridae	<i>Trichosurus vulpecula</i>	Common Brushtail Possum	O	C		QA
Phascolarctidae	<i>Phascolarctos cinereus</i>	Koala	O,S	E		QA
Pteropodidae	<i>Pteropus poliocephalus</i>	Grey-Headed Flying-Fox	O,C	C	V	QA

Notes:

Detection Method: Observation (O), Calls (C), Tracks, Scats and other traces (S), Electronic audio detection (A), Ultrasonic audio detection (U)

Nature Conservation Act (NC Act) Status: Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C)

Environment Protection and Biodiversity Conservation Act (EPBC Act) Status: Endangered (E), Vulnerable (V)

Establishment: Queensland Endemic (Q), Intranational (QA), Not Endemic to Australia (QAI), Introduced (II)

Attachment 23 – Arborist Assessment



Tree ID - 5562



Tree ID - 5563



Tree ID – 5500, 5501, 5502, 5503



Tree ID – 5493, 5482, 5492



Tree ID - 1



Tree ID - 5481



Tree ID - 5490



Tree ID - 5480



Tree ID - 5471



Tree ID - 5470



Tree ID - 5469



Tree ID - 5462



Tree ID - 5341



Tree ID - 5537



Tree ID - 5336



Tree ID – 5534



Tree ID – 5333



Tree ID – 5332



Tree ID – 5312



Tree ID – 5315



Tree ID – 5310



Tree ID – 5309



Tree ID – 5296



Tree ID – 5361



Tree ID – 5287



Tree ID – 5286



Tree ID – 5282



Tree ID – 5281



Tree ID – 5542



Tree ID – 5541



Tree ID – 5543



Tree ID – 5544



Tree ID – 5545



Tree ID – 5546



Tree ID – 5548



Tree ID – 5529



Tree ID – 5334



Tree ID - 5530



Tree ID - 5531



Tree ID - 5550



Tree ID - 5279



Tree ID - 5378



Tree ID – 5377



Tree ID – 5373



Tree ID - 5261



Tree ID - 5291



Tree ID - 5260



Tree ID - 5247



Tree ID - 5246



Tree ID - 5250



Tree ID - 5251



Tree ID - 5200



Tree ID - 5561



Tree ID - 5025



Tree ID - 5169



Tree ID - 5117



Tree ID - 5133



Tree ID - 5129



Tree ID - 5147



Tree ID - 5145



Tree ID – 5233, 5232



Tree ID - 5227



Tree ID - 5208



Tree ID - 5212



Tree ID - 5374



Tree ID - 5375



Tree ID - 5274



Tree ID - 5275



Tree ID - 5277



Tree ID - 5534



Tree ID - 5535



Tree ID – 5536

Attachment 24 – Tree Schedule

Tree ID	Spcies	DBH (mm)	Multi Stem	Tree Height	Crown Width	Tree Health	Health Condition	Tree Structure	Structure	Habitat	Status	Comments	TPZ (m)	Accuracy (m)
5560	Blakella tessellaris	140		6	2	Fair	Typical	Fair	Typical		Retain		2	30.1
11	Melaleuca irbyana	194	90 100 90 80 70	5	3	Fair	Typical	Fair	Typical		Retain		2.32	30.2
5259	Eucalyptus tereticornis	480		25	10	Fair	Typical	Fair	Typical		Retain		5.76	30.1
5333	Eucalyptus siderophloia	590		25	10	Fair	Typical	Fair	Typical		Remove		7.08	58
5270	Eucalyptus tereticornis	180		9	3	Fair	Typical	Fair	Typical		Retain		2.16	30.1
5487	Blakella tessellaris	122	70 100	6	2	Fair	Typical	Fair	Typical		Remove		2	30.4
5049	Eucalyptus tereticornis	180		9	2	Fair	Typical	Fair	Typical		Retain		2.16	46.9
5366	Blakella tessellaris	347	250 240	19	8	Fair	Typical	Fair	Typical		Retain		4.16	58
5454	Blakella tessellaris	140		10	2	Fair	Typical	Fair	Typical		Remove		2	42
5469	Eucalyptus tereticornis	520		21	12	Fair	Typical	Fair	Typical		Remove		6.24	32.7
5466	Eucalyptus tereticornis	230		15	5	Fair	Typical	Fair	Typical		Remove		2.76	103
5351	Eucalyptus tereticornis	250		18	8	Fair	Typical	Fair	Typical		Remove		3	167.5
5202	Eucalyptus moluccana	180		9	2	Fair	Typical	Fair	Typical		Retain		2.16	40.5
5252	Eucalyptus siderophloia	130		7	2	Fair	Typical	Fair	Typical		Retain		2	103.3
47	Melaleuca irbyana	243	120 140 130 90	5	3	Fair	Typical	Fair	Typical		Retain		2.91	60.1
5471	Eucalyptus siderophloia	580		17	10	Fair	Typical	Fair	Typical		Remove		6.96	30.1
5024	Eucalyptus tereticornis	180		12	4	Fair	Typical	Fair	Typical		Retain		2.16	114.9
5279	Eucalyptus tereticornis	570		26	12	Fair	Typical	Fair	Typical		Retain		6.84	30.3
5357	Eucalyptus tereticornis	220		13	6	Fair	Typical	Fair	Typical		Remove		2.64	34.3
5462	Eucalyptus tereticornis	590		22	10	Fair	Typical	Fair	Typical		Remove		7.08	56.9
5559	Melaleuca irbyana	260		8	4	Fair	Typical	Fair	Typical		Retain		3.12	30.2
5474	Petalostigma pubescens	230		6	4	Fair	Typical	Fair	Typical		Remove		2.76	39.4
60	Melaleuca irbyana	184	120 140	5	2	Fair	Typical	Fair	Typical		Retain		2.21	33.2
5274	Eucalyptus tereticornis	540		25	12	Fair	Typical	Fair	Typical		Retain		6.48	30.2
5506	Eucalyptus tereticornis	150		4	2	Fair	Typical	Fair	Typical		Remove		2	30.1
58	Melaleuca irbyana	200		5	3	Fair	Typical	Fair	Typical		Retain		2.4	42.4
5135	Eucalyptus tereticornis	400		18	10	Fair	Typical	Fair	Typical		Retain		4.8	35.5
5141	Eucalyptus tereticornis	190		13	4	Fair	Typical	Fair	Typical		Retain		2.28	31.3
5452	Blakella tessellaris	200		12	4	Fair	Typical	Fair	Typical		Remove		2.4	30.6
5099	Eucalyptus tereticornis	500		28	13	Fair	Typical	Fair	Typical		Retain		6	100.3
54	Melaleuca irbyana	248	180 170	4	3	Fair	Typical	Fair	Typical		Retain		2.97	40
5062	Eucalyptus tereticornis	320		18	8	Fair	Typical	Fair	Typical		Retain		3.84	42.1
5298	Eucalyptus tereticornis	300		18	8	Fair	Typical	Fair	Typical		Retain		3.6	30.6
5476	Eucalyptus seeana	590		16	10	Fair	Typical	Fair	Typical		Remove		7.08	32.3
5342	Eucalyptus tereticornis	430		18	8	Fair	Typical	Fair	Typical		Remove		5.16	32
5172	Eucalyptus tereticornis	480		15	7	Fair	Typical	Fair	Typical		Retain		5.76	30.3
5224	Eucalyptus tereticornis	100		6	1	Fair	Typical	Fair	Typical		Retain		2	30
4	Melaleuca irbyana	139	90 80 70	4	2	Fair	Typical	Fair	Typical		Retain		2	30.2
5246	Eucalyptus siderophloia	540		16	8	Fair	Typical	Fair	Typical		Retain		6.48	30.3
33	Melaleuca irbyana	339	120 x8	5	3	Fair	Typical	Fair	Typical		Retain		4.07	31.6
75	Melaleuca irbyana	120		3	1	Fair	Typical	Fair	Typical		Retain		2	73
96	Melaleuca irbyana	122	100 70	2	1	Fair	Typical	Fair	Typical		Retain		2	30.4
5531	Eucalyptus tereticornis	960		24	15	Fair	Typical	Fair	Typical		Remove		11.52	30.1
5372	Blakella tessellaris	160		8	3	Fair	Typical	Fair	Typical		Retain		2	30.4
1	Melaleuca irbyana	540		6	8	Fair	Typical	Fair	Typical		Remove		6.48	30.1
5255	Angophora leiocarpa	219	150 160	7	3	Fair	Typical	Fair	Typical		Retain		2.63	30.1
38	Melaleuca irbyana	157	70 x5	4	2	Fair	Typical	Fair	Typical		Retain		2	31
5391	Eucalyptus tereticornis	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.4
5190	Eucalyptus tereticornis	60		5	1	Fair	Typical	Fair	Typical		Retain		2	30.1
5455	Blakella tessellaris	121	110 50	6	2	Fair	Typical	Fair	Typical		Remove		2	30.2
5341	Eucalyptus tereticornis	570		20	12	Fair	Typical	Fair	Typical		Remove		6.84	30.7
5329	Blakella tessellaris	110		7	1	Fair	Typical	Fair	Typical		Remove		2	34.8
5121	Eucalyptus tereticornis	230		10	4	Fair	Typical	Fair	Typical		Retain		2.76	30.2
5038	Blakella tessellaris	300		12	6	Fair	Typical	Fair	Typical		Retain		3.6	30.9
5547	Eucalyptus tereticornis	200		8	3	Fair	Typical	Fair	Typical		Retain		2.4	30.1
5134	Eucalyptus tereticornis	290		15	6	Fair	Typical	Fair	Typical		Retain		3.48	34.5
5413	Blakella tessellaris	140		7	1	Fair	Typical	Fair	Typical		Remove		2	30.4
5529	Eucalyptus tereticornis	846	690 490	20	10	Fair	Typical	Fair	Typical		Remove		10.16	30.2
5050	Eucalyptus tereticornis	130		8	2	Fair	Typical	Fair	Typical		Retain		2	49.8
5040	Eucalyptus tereticornis	500		23	12	Fair	Typical	Fair	Typical		Retain		6	40.6
104	Melaleuca irbyana	198	130 150	5	3	Fair	Typical	Fair	Typical		Retain		2.38	53
5237	Eucalyptus tereticornis	150		9	2	Fair	Typical	Fair	Typical		Retain		2	30.6

5495	Eucalyptus tereticornis	400		15	7	Fair	Typical	Fair	Typical		Remove		4.8	30.3
102	Melaleuca irbyana	200		5	3	Fair	Typical	Fair	Typical		Retain		2.4	124
5410	Blakella tessellaris	130		9	1	Fair	Typical	Fair	Typical		Remove		2	30.6
5320	Blakella tessellaris	206	150 90 90 60	7	4	Fair	Typical	Fair	Typical		Remove		2.47	31
5082	Eucalyptus tereticornis	140		9	2	Fair	Typical	Fair	Typical		Retain		2	30.9
5280	Blakella tessellaris	330		14	6	Fair	Typical	Fair	Typical		Retain		3.96	31
5146	Eucalyptus tereticornis	390		24	9	Fair	Typical	Fair	Typical		Retain		4.68	59.1
5142	Eucalyptus tereticornis	180		8	3	Fair	Typical	Fair	Typical		Retain		2.16	38.8
5245	Eucalyptus moluccana	320		13	5	Fair	Typical	Fair	Typical		Retain		3.84	30.6
5032	Eucalyptus tereticornis	340		15	8	Fair	Typical	Fair	Typical		Retain		4.08	150.5
5518	Eucalyptus tereticornis	150		7	2	Fair	Typical	Fair	Typical		Remove		2	30.2
9	Melaleuca irbyana	285	130 90 120 140 150	5	3	Fair	Typical	Fair	Typical		Retain		3.43	30.8
5343	Blakella tessellaris	210		12	6	Fair	Typical	Fair	Typical		Remove		2.52	44
5358	Eucalyptus tereticornis	340		15	6	Fair	Typical	Fair	Typical		Remove		4.08	35.9
5420	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5117	Eucalyptus tereticornis	596	550 230	18	14	Fair	Typical	Fair	Typical		Retain		7.15	44.4
5230	Eucalyptus moluccana	160		8	2	Fair	Typical	Fair	Typical		Retain		2	30.2
95	Melaleuca irbyana	177	120 130	4	2	Fair	Typical	Fair	Typical		Retain		2.12	38.5
5383	Blakella tessellaris	80		7	2	Fair	Typical	Fair	Typical		Retain		2	32.7
5046	Eucalyptus tereticornis	130		7	1	Fair	Typical	Fair	Typical		Retain		2	105.4
5294	Blakella tessellaris	90		6	1	Fair	Typical	Fair	Typical		Retain		2	30.4
5350	Eucalyptus tereticornis	310		19	9	Fair	Typical	Fair	Typical		Remove		3.72	147.8
5268	Eucalyptus tereticornis	190		8	3	Fair	Typical	Fair	Typical		Retain		2.28	30.6
7	Melaleuca irbyana	222	100 130 150	5	4	Fair	Typical	Fair	Typical		Retain		2.67	34
5220	Eucalyptus tereticornis	150		9	2	Fair	Typical	Fair	Typical		Retain		2	29.9
37	Melaleuca irbyana	150	90 80 90	5	2	Fair	Typical	Fair	Typical		Retain		2	30.3
5362	Corymbia intermedia	240		10	4	Fair	Typical	Fair	Typical		Retain		2.88	38.4
5503	Eucalyptus tereticornis	600		13	5	Fair	Typical	Fair	Typical		Remove		7.2	65.8
5265	Eucalyptus tereticornis	80		7	2	Fair	Typical	Fair	Typical		Retain		2	33.3
5174	Eucalyptus tereticornis	80		5	1	Fair	Typical	Fair	Typical		Retain		2	30.1
5562	Eucalyptus tereticornis	616	420 450	16	10	Fair	Typical	Fair	Typical		Remove		7.39	30.1
5035	Eucalyptus siderophloia	80		6	1	Fair	Typical	Fair	Typical		Retain		2	30.2
5206	Eucalyptus siderophloia	120		7	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5359	Blakella tessellaris	230		14	6	Fair	Typical	Fair	Typical		Retain		2.76	32.3
5272	Eucalyptus tereticornis	450		25	10	Fair	Typical	Fair	Typical		Retain		5.4	31.2
31	Melaleuca irbyana	239	180 100 100 70	4	3	Fair	Typical	Fair	Typical		Retain		2.87	30.9
5385	Blakella tessellaris	100		8	2	Fair	Typical	Fair	Typical		Remove		2	30.2
5104	Blakella tessellaris	120		7	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5508	Eucalyptus tereticornis	120		6	2	Fair	Typical	Fair	Typical		Remove		2	30.2
71	Melaleuca irbyana	163	120 110	3	2	Fair	Typical	Fair	Typical		Retain		2	32.4
5457	Blakella tessellaris	70		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5066	Eucalyptus moluccana	100		5	2	Fair	Typical	Fair	Typical		Retain		2	32.4
5386	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.3
76	Melaleuca irbyana	203	120 100 130	5	3	Fair	Typical	Fair	Typical		Retain		2.44	111.6
5292	Eucalyptus siderophloia	440		23	10	Fair	Typical	Fair	Typical		Retain		5.28	30.1
5504	Eucalyptus tereticornis	520		15	8	Fair	Typical	Fair	Typical		Remove		6.24	76.4
5544	Eucalyptus tereticornis	600		17	9	Fair	Typical	Fair	Typical		Retain		7.2	30.2
5058	Eucalyptus tereticornis	270		14	7	Fair	Typical	Fair	Typical		Retain		3.24	41.2
5325	Blakella tessellaris	292	230 180	16	8	Fair	Typical	Fair	Typical		Remove		3.5	42.4
5318	Blakella tessellaris	200		13	5	Fair	Typical	Fair	Typical		Remove		2.4	30.4
5375	Eucalyptus tereticornis	570		18	8	Fair	Typical	Fair	Typical		Retain		6.84	32.5
5102	Eucalyptus tereticornis	110		4	1	Fair	Typical	Fair	Typical		Retain		2	34
93	Melaleuca irbyana	255	150 130 160	4	2	Fair	Typical	Fair	Typical		Retain		3.06	39.6
5253	Eucalyptus siderophloia	70		5	3	Fair	Typical	Fair	Typical		Retain		2	30.4
5492	Eucalyptus tereticornis	600		20	9	Fair	Typical	Fair	Typical		Remove		7.2	30.3
5412	Blakella tessellaris	70		6	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5317	Blakella tessellaris	314	270 140 80	14	6	Fair	Typical	Fair	Typical		Remove		3.77	30.6
5053	Eucalyptus tereticornis	120		6	2	Fair	Typical	Fair	Typical		Retain		2	32
50	Melaleuca irbyana	206	160 130	4	3	Fair	Typical	Fair	Typical		Retain		2.47	30.2
5312	Eucalyptus tereticornis	870		27	13	Fair	Typical	Fair	Typical		Remove		10.44	30.2
5017	Eucalyptus tereticornis	320		13	6	Fair	Typical	Fair	Typical		Retain		3.84	37.6
5501	Eucalyptus tereticornis	690		17	8	Fair	Typical	Fair	Typical		Remove		8.28	32.1
5249	Eucalyptus siderophloia	500		19	8	Fair	Typical	Fair	Typical		Retain		6	31.1
5545	Eucalyptus tereticornis	823	610 360 420	24	9	Fair	Typical	Fair	Typical		TBC		9.88	30.4

5555	Melaleuca irbyana	407	360 190	6	5	Fair	Typical	Fair	Typical		Retain		4.88	30.8
5313	Eucalyptus tereticornis	300		14	7	Fair	Typical	Fair	Typical		TBC		3.6	30.1
65	Melaleuca irbyana	172	140 100	4	2	Fair	Typical	Fair	Typical		Retain		2.06	118.5
5380	Eucalyptus tereticornis	430		17	8	Fair	Typical	Fair	Typical		Retain		5.16	30.8
5095	Eucalyptus tereticornis	230		15	6	Fair	Typical	Fair	Typical		Retain		2.76	30.7
5398	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5507	Eucalyptus tereticornis	220		8	3	Fair	Typical	Fair	Typical		Remove		2.64	30.1
5015	Eucalyptus moluccana	100		9	3	Fair	Typical	Fair	Typical		Retain		2	30.6
5399	Blakella tessellaris	70		6	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5303	Blakella tessellaris	340		15	7	Fair	Typical	Fair	Typical		Retain		4.08	33.9
28	Melaleuca irbyana	212	80 x7	6	3	Fair	Typical	Fair	Typical		Retain		2.54	37.5
46	Melaleuca irbyana	203	90 130 80 70 70	4	2	Fair	Typical	Fair	Typical		Retain		2.44	58.9
5012	Eucalyptus moluccana	70		6	2	Fair	Typical	Fair	Typical		Retain		2	30.3
5465	Eucalyptus tereticornis	230		10	5	Fair	Typical	Fair	Typical		Remove		2.76	83.3
5154	Eucalyptus tereticornis	150		8	3	Fair	Typical	Fair	Typical		Retain		2	30.3
5217	Eucalyptus tereticornis	170		8	2	Fair	Typical	Fair	Typical		Retain		2.04	29.9
5159	Eucalyptus tereticornis	180		11	4	Fair	Typical	Fair	Typical		Retain		2.16	30.6
36	Melaleuca irbyana	190	90 90 70 70 100	4	2	Fair	Typical	Fair	Typical		Retain		2.28	30.1
12	Melaleuca irbyana	201	90 x5	4	3	Fair	Typical	Fair	Typical		Retain		2.41	31.3
5435	Blakella tessellaris	300		9	5	Fair	Typical	Fair	Typical		Remove		3.6	30.1
5076	Eucalyptus tereticornis	320		18	8	Fair	Typical	Fair	Typical		Retain		3.84	75.1
5439	Eucalyptus tereticornis	420		15	6	Fair	Typical	Fair	Typical		Remove		5.04	30.2
5118	Eucalyptus moluccana	180		11	3	Fair	Typical	Fair	Typical		Retain		2.16	78.3
86	Melaleuca irbyana	214	170 130	4	2	Fair	Typical	Fair	Typical		Retain		2.57	47.4
5011	Eucalyptus moluccana	50		6	1	Fair	Typical	Fair	Typical		Retain		2	115.9
5332	Eucalyptus siderophloia	630		17	8	Fair	Typical	Fair	Typical		Remove		7.56	48.1
5177	Eucalyptus tereticornis	70		5	1	Fair	Typical	Fair	Typical		Retain		2	30.2
5243	Eucalyptus tereticornis	160		6	2	Fair	Typical	Fair	Typical		Retain		2	49.6
5500	Eucalyptus tereticornis	560		17	9	Fair	Typical	Fair	Typical		Remove		6.72	31.6
5070	Eucalyptus tereticornis	224	180 80 70 80	9	4	Fair	Typical	Fair	Typical		Retain		2.69	82.2
5022	Eucalyptus moluccana	460		15	7	Fair	Typical	Fair	Typical		Retain		5.52	93.8
5211	Eucalyptus tereticornis	340		15	7	Fair	Typical	Fair	Typical		Retain		4.08	56.1
89	Melaleuca irbyana	180		6	3	Fair	Typical	Fair	Typical		Retain		2.16	48.5
5437	Eucalyptus tereticornis	440		20	10	Fair	Typical	Fair	Typical		Remove		5.28	30.2
5128	Eucalyptus moluccana	100		6	2	Fair	Typical	Fair	Typical		Retain		2	30.7
5381	Eucalyptus tereticornis	450		23	8	Fair	Typical	Fair	Typical		Retain		5.4	30.1
14	Melaleuca irbyana	268	90 130 120 150 100	4	3	Fair	Typical	Fair	Typical		Retain		3.22	33
5489	Blakella tessellaris	100		7	1	Fair	Typical	Fair	Typical		Remove		2	30.6
20	Melaleuca irbyana	175	130 100 60	4	3	Fair	Typical	Fair	Typical		Retain		2.1	31.9
98	Melaleuca irbyana	230		5	3	Fair	Typical	Fair	Typical		Retain		2.76	32.9
5133	Eucalyptus moluccana	740		30	14	Fair	Typical	Fair	Typical		Retain		8.88	55.5
5063	Eucalyptus tereticornis	270		12	5	Fair	Typical	Fair	Typical		Retain		3.24	50
5401	Blakella tessellaris	50		5	2	Fair	Typical	Fair	Typical		Remove		2	31
97	Melaleuca irbyana	342	180 180 140 180	6	4	Fair	Typical	Fair	Typical		Retain		4.1	39.5
5091	Eucalyptus tereticornis	140		7	2	Fair	Typical	Fair	Typical		Retain		2	56.1
5071	Eucalyptus siderophloia	120		6	1	Fair	Typical	Fair	Typical		Retain		2	74.6
5254	Blakella tessellaris	90		7	2	Fair	Typical	Fair	Typical		Retain		2	30.6
5515	Blakella tessellaris	150		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
48	Melaleuca irbyana	301	80 80 120 130 130 140 70 70	4	3	Fair	Typical	Fair	Typical		Retain		3.61	61.1
5078	Eucalyptus tereticornis	80		6	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5160	Eucalyptus tereticornis	90		8	2	Fair	Typical	Fair	Typical		Retain		2	30.5
5089	Eucalyptus tereticornis	140		7	2	Fair	Typical	Fair	Typical		Retain		2	114.3
5283	Eucalyptus tereticornis	420		23	10	Fair	Typical	Fair	Typical		TBC		5.04	30.2
23	Melaleuca irbyana	241	160 120 100 90	5	3	Fair	Typical	Fair	Typical		Retain		2.89	32.9
5344	Blakella tessellaris	220		15	6	Fair	Typical	Fair	Typical		Remove		2.64	49.4
5156	Eucalyptus tereticornis	170		11	4	Fair	Typical	Fair	Typical		Retain		2.04	32.4
5520	Eucalyptus tereticornis	191	140 130	6	2	Fair	Typical	Fair	Typical		Remove		2.29	30.3
5543	Eucalyptus tereticornis	650		20	9	Fair	Typical	Fair	Typical		Retain		7.8	31
5009	Eucalyptus moluccana	80		6	1	Fair	Typical	Fair	Typical		Retain		2	103.6
5165	Eucalyptus siderophloia	500		17	10	Fair	Typical	Fair	Typical		Retain		6	36.6
5241	Eucalyptus moluccana	140		7	3	Fair	Typical	Fair	Typical		Retain		2	30.9
5527	Eucalyptus tereticornis	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5209	Eucalyptus tereticornis	400		17	8	Fair	Typical	Fair	Typical		Retain		4.8	30.3
5195	Eucalyptus moluccana	130		7	2	Fair	Typical	Fair	Typical		Retain		2	30.6

5287	Eucalyptus tereticornis	577	480 320	22	13	Fair	Typical	Fair	Typical		Remove		6.92	30.1
29	Melaleuca irbyana	212	90 170 90	4	2	Fair	Typical	Fair	Typical		Retain		2.55	30.7
68	Melaleuca irbyana	240	120 x4	4	3	Fair	Typical	Fair	Typical		Retain		2.88	43.7
69	Melaleuca irbyana	362	230 280	5	4	Fair	Typical	Fair	Typical		Retain		4.35	30.6
5060	Blakella tessellaris	70		5	1	Fair	Typical	Fair	Typical		Retain		2	31.9
5000	Eucalyptus tereticornis	330		24	6	Fair	Typical	Fair	Typical		Retain		3.96	30.1
5182	Eucalyptus tereticornis	190		9	3	Fair	Typical	Fair	Typical		Retain		2.28	30.1
5112	Eucalyptus tereticornis	360		21	8	Fair	Typical	Fair	Typical		Retain		4.32	31.5
5248	Eucalyptus tereticornis	170		10	4	Fair	Typical	Fair	Typical		Retain		2.04	30.1
5026	Eucalyptus tereticornis	320		21	19	Fair	Typical	Fair	Typical		Retain		3.84	141.2
5191	Blakella tessellaris	70		6	1	Fair	Typical	Fair	Typical		Retain		2	30.1
5497	Eucalyptus tereticornis	150		9	2	Fair	Typical	Fair	Typical		Remove		2	30.1
5428	Eucalyptus tereticornis	250		13	6	Fair	Typical	Fair	Typical		Remove		3	30.6
77	Melaleuca irbyana	150	80 90 90	3	2	Fair	Typical	Fair	Typical		Retain		2	122.5
5004	Eucalyptus moluccana	180		10	3	Fair	Typical	Fair	Typical		Retain		2.16	33.1
80	Melaleuca irbyana	140		4	2	Fair	Typical	Fair	Typical		Retain		2	50.2
5345	Eucalyptus tereticornis	410		21	10	Fair	Typical	Fair	Typical		Remove		4.92	30.3
5152	Eucalyptus siderophloia	460		14	9	Fair	Typical	Fair	Typical		Retain		5.52	48.7
63	Melaleuca irbyana	219	160 150	2	2	Fair	Typical	Fair	Typical		Retain		2.63	77.7
5150	Blakella tessellaris	370		16	7	Fair	Typical	Fair	Typical		Retain		4.44	30
5549	Eucalyptus siderophloia	170		6	4	Fair	Typical	Fair	Typical		Retain		2.04	30.2
5388	Blakella tessellaris	64	50 40	6	1	Fair	Typical	Fair	Typical		Remove		2	30.3
61	Melaleuca irbyana	184	120 140	3	2	Fair	Typical	Fair	Typical		Retain		2.21	43
5326	Blakella tessellaris	220		13	6	Fair	Typical	Fair	Typical		Remove		2.64	30.9
5244	Eucalyptus moluccana	70		5	1	Fair	Typical	Fair	Typical		Retain		2	199.3
5044	Eucalyptus tereticornis	120		6	1	Fair	Typical	Fair	Typical		Retain		2	93
5216	Eucalyptus siderophloia	170		10	2	Fair	Typical	Fair	Typical		Retain		2.04	31.2
5422	Eucalyptus tereticornis	350		21	8	Fair	Typical	Fair	Typical		Remove		4.2	30.2
5232	Eucalyptus tereticornis	510		28	13	Fair	Typical	Fair	Typical		Retain		6.12	34.6
5240	Eucalyptus moluccana	140		7	2	Fair	Typical	Fair	Typical		Retain		2	31
5147	Eucalyptus siderophloia	520		15	8	Fair	Typical	Fair	Typical		Retain		6.24	38.4
5271	Eucalyptus tereticornis	297	210 210	13	5	Fair	Typical	Fair	Typical		Retain		3.56	30.1
5139	Eucalyptus moluccana	90		5	1	Fair	Typical	Fair	Typical		Retain		2	30.5
5563	Eucalyptus tereticornis	560		18	9	Fair	Typical	Fair	Typical		Remove		6.72	30.2
5258	Eucalyptus siderophloia	140		7	3	Fair	Typical	Fair	Typical		Retain		2	30.4
5340	Eucalyptus tereticornis	380		16	7	Fair	Typical	Fair	Typical		Remove		4.56	30.2
5042	Eucalyptus tereticornis	170		8	2	Fair	Typical	Fair	Typical		Retain		2.04	63.6
5438	Eucalyptus tereticornis	360		22	10	Fair	Typical	Fair	Typical		Remove		4.32	30.6
5480	Eucalyptus tereticornis	650		2412	12	Fair	Typical	Fair	Typical		Remove		7.8	30.1
5554	Melaleuca irbyana	417	290 300	7	5	Fair	Typical	Fair	Typical		Retain		5.01	32.1
5516	Eucalyptus tereticornis	420		14	7	Fair	Typical	Fair	Typical		Remove		5.04	30.4
5552	Eucalyptus tereticornis	260		10	5	Fair	Typical	Fair	Typical		Retain		3.12	30.1
5418	Blakella tessellaris	90		8	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5431	Blakella tessellaris	205	150 140	9	3	Fair	Typical	Fair	Typical		Remove		2.46	30.3
5423	Blakella tessellaris	114	70 90	8	2	Fair	Typical	Fair	Typical		Remove		2	30.3
5201	Eucalyptus moluccana	120		6	2	Fair	Typical	Fair	Typical		Retain		2	30.5
5339	Eucalyptus tereticornis	410		14	7	Fair	Typical	Fair	Typical		Remove		4.92	30.2
85	Melaleuca irbyana	222	130 180	5	3	Fair	Typical	Fair	Typical		Retain		2.66	87
5029	Eucalyptus tereticornis	200		13	5	Fair	Typical	Fair	Typical		Retain		2.4	30.1
5334	Eucalyptus siderophloia	710		30	15	Fair	Typical	Fair	Typical		Remove		8.52	73.9
30	Melaleuca irbyana	360	120 x9	5	4	Fair	Typical	Fair	Typical		Retain		4.32	31.2
5352	Blakella tessellaris	290		20	8	Fair	Typical	Fair	Typical		Remove		3.48	187.9
5453	Blakella tessellaris	70		7	1	Fair	Typical	Fair	Typical		Remove		2	34
5185	Eucalyptus siderophloia	244	200 140	7	4	Fair	Typical	Fair	Typical		Retain		2.93	30.3
5369	Eucalyptus tereticornis	260		14	7	Fair	Typical	Fair	Typical		Retain		3.12	30.4
5260	Eucalyptus moluccana	700		33	15	Fair	Typical	Fair	Typical		Retain		8.4	29.9
5556	Melaleuca irbyana	230		5	3	Fair	Typical	Fair	Typical		Retain		2.76	47.8
5234	Eucalyptus siderophloia	210		12	4	Fair	Typical	Fair	Typical		Retain		2.52	48.8
5277	Eucalyptus tereticornis	520		22	11	Fair	Typical	Fair	Typical		Retain		6.24	30.2
5490	Eucalyptus tereticornis	590		19	12	Fair	Typical	Fair	Typical		Remove		7.08	30.7
67	Melaleuca irbyana	248	170 150 100	3	3	Fair	Typical	Fair	Typical		Retain		2.97	32.3
5505	Eucalyptus tereticornis	450		13	7	Fair	Typical	Fair	Typical		Remove		5.4	30.6
5328	Blakella tessellaris	130		8	2	Fair	Typical	Fair	Typical		Remove		2	30.4
5394	Blakella tessellaris	80		6	1	Fair	Typical	Fair	Typical		Remove		2	39.2

5442	Corymbia intermedia	220		7	4	Fair	Typical	Fair	Typical		Remove		2.64	30.8
13	Melaleuca irbyana	156	120 70 70	5	3	Fair	Typical	Fair	Typical		Retain		2	30.8
5144	Eucalyptus tereticornis	190		9	4	Fair	Typical	Fair	Typical		Retain		2.28	40.4
5235	Eucalyptus tereticornis	160		10	3	Fair	Typical	Fair	Typical		Retain		2	30.1
35	Melaleuca irbyana	334	180 100 150 180 120	6	3	Fair	Typical	Fair	Typical		Retain		4.01	32.7
5111	Lophostemon suaveolens	130		6	2	Fair	Typical	Fair	Typical		Retain		2	61.4
5290	Eucalyptus tereticornis	130		8	3	Fair	Typical	Fair	Typical		Retain		2	30.6
5080	Eucalyptus tereticornis	120		8	1	Fair	Typical	Fair	Typical		Retain		2	31
5155	Eucalyptus siderophloia	210		21	8	Fair	Typical	Fair	Typical		Retain		2.52	30.3
5284	Eucalyptus tereticornis	403	290 280	18	10	Fair	Typical	Fair	Typical		Remove		4.84	31.2
5475	Petalostigma pubescens	280		8	7	Fair	Typical	Fair	Typical		Remove		3.36	66.6
74	Melaleuca irbyana	172	80 80 130	4	1	Fair	Typical	Fair	Typical		Retain		2.07	54.6
5374	Eucalyptus tereticornis	590		25	12	Fair	Typical	Fair	Typical		Retain		7.08	31.1
5541	Eucalyptus tereticornis	707	590 390	16	8	Fair	Typical	Fair	Typical		Retain		8.49	30.8
52	Melaleuca irbyana	253	120 130 120 90 100	4	2	Fair	Typical	Fair	Typical		Retain		3.03	30.3
5425	Blakella tessellaris	110		7	2	Fair	Typical	Fair	Typical		Remove		2	30
5013	Eucalyptus tereticornis	420		19	9	Fair	Typical	Fair	Typical		Retain		5.04	34
5511	Eucalyptus tereticornis	220		7	2	Fair	Typical	Fair	Typical		Remove		2.64	30.1
5429	Blakella tessellaris	80		6	1	Fair	Typical	Fair	Typical		Remove		2	30.3
101	Melaleuca irbyana	297	170 160 130 130	5	4	Fair	Typical	Fair	Typical		Retain		3.57	71.2
5510	Lophostemon suaveolens	90		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5311	Eucalyptus tereticornis	180		8	4	Fair	Typical	Fair	Typical		Retain		2.16	30.3
5336	Eucalyptus siderophloia	830		26	12	Fair	Typical	Fair	Typical		Remove		9.96	42.5
5528	Eucalyptus tereticornis	100		7	1	Fair	Typical	Fair	Typical		Remove		2	30.4
5175	Lophostemon suaveolens	353	210 220 180	7	4	Fair	Typical	Fair	Typical		Retain		4.24	30.1
5199	Eucalyptus moluccana	170		7	3	Fair	Typical	Fair	Typical		Retain		2.04	30.8
5051	Eucalyptus tereticornis	240		14	6	Fair	Typical	Fair	Typical		Retain		2.88	71.5
83	Melaleuca irbyana	175	150 90	6	3	Fair	Typical	Fair	Typical		Retain		2.1	60
5037	Eucalyptus tereticornis	420		16	10	Fair	Typical	Fair	Typical		Retain		5.04	30.8
5288	Eucalyptus tereticornis	320		14	6	Fair	Typical	Fair	Typical		Retain		3.84	86.9
5167	Eucalyptus siderophloia	490		20	10	Fair	Typical	Fair	Typical		Retain		5.88	82.4
5382	Eucalyptus siderophloia	300		16	8	Fair	Typical	Fair	Typical		Retain		3.6	30.4
5122	Eucalyptus tereticornis	170		8	2	Fair	Typical	Fair	Typical		Retain		2.04	30.1
5081	Eucalyptus tereticornis	269	200 180	13	5	Fair	Typical	Fair	Typical		Retain		3.23	31.2
5494	Blakella tessellaris	180		11	3	Fair	Typical	Fair	Typical		Remove		2.16	30.1
42	Melaleuca irbyana	183	60 70 80 100 60 70	4	3	Fair	Typical	Fair	Typical		Retain		2.19	48.7
5402	Blakella tessellaris	160		10	3	Fair	Typical	Fair	Typical		Remove		2	30.3
5409	Eucalyptus tereticornis	230		10	5	Fair	Typical	Fair	Typical		Remove		2.76	49.7
5368	Eucalyptus tereticornis	360		13	6	Fair	Typical	Fair	Typical		Retain		4.32	39.2
5148	Eucalyptus moluccana	460		22	8	Fair	Typical	Fair	Typical		Retain		5.52	30.4
5219	Eucalyptus tereticornis	150		8	2	Fair	Typical	Fair	Typical		Retain		2	30.2
5267	Eucalyptus tereticornis	210		12	4	Fair	Typical	Fair	Typical		Retain		2.52	30.3
5114	Eucalyptus tereticornis	500		17	10	Fair	Typical	Fair	Typical		Retain		6	95.5
5304	Blakella tessellaris	210		9	3	Fair	Typical	Fair	Typical		Retain		2.52	30.6
5276	Eucalyptus tereticornis	110		5	2	Fair	Typical	Fair	Typical		Retain		2	30.2
32	Melaleuca irbyana	236	130 130 100 110	4	3	Fair	Typical	Fair	Typical		Retain		2.84	36.9
5458	Eucalyptus tereticornis	400		16	8	Fair	Typical	Fair	Typical		Remove		4.8	30.1
5085	Eucalyptus tereticornis	430		18	10	Fair	Typical	Fair	Typical		Retain		5.16	78.2
103	Melaleuca irbyana	224	1 x5	6	4	Fair	Typical	Fair	Typical		Retain		2.68	34.3
5536	Eucalyptus siderophloia	800		16	8	Fair	Typical	Fair	Typical		Remove		9.6	30.3
5020	Eucalyptus tereticornis	260		14	6	Fair	Typical	Fair	Typical		Retain		3.12	31.7
5108	Blakella tessellaris	340		13	6	Fair	Typical	Fair	Typical		Retain		4.08	77.5
5389	Blakella tessellaris	100		7	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5360	Blakella tessellaris	230		12	5	Fair	Typical	Fair	Typical		Retain		2.76	32.8
5045	Eucalyptus tereticornis	240		10	3	Fair	Typical	Fair	Typical		Retain		2.88	96.8
5323	Eucalyptus tereticornis	430		21	9	Fair	Typical	Fair	Typical		Remove		5.16	57.2
5286	Eucalyptus siderophloia	539	350 410	16	8	Fair	Typical	Fair	Typical		Remove		6.47	31
5397	Blakella tessellaris	100		8	2	Fair	Typical	Fair	Typical		Remove		2	32
5229	Eucalyptus tereticornis	7		5	1	Fair	Typical	Fair	Typical		Retain		2	39
5405	Blakella tessellaris	120		8	2	Fair	Typical	Fair	Typical		Remove		2	30.5
5056	Eucalyptus tereticornis	250		14	6	Fair	Typical	Fair	Typical		Retain		3	31.2
5213	Eucalyptus tereticornis	60		5	1	Fair	Typical	Fair	Typical		Retain		2	30.7
5223	Eucalyptus tereticornis	140		8	2	Fair	Typical	Fair	Typical		Retain		2	30.2
5039	Eucalyptus tereticornis	290		21	8	Fair	Typical	Fair	Typical		Retain		3.48	32.3

5054	Eucalyptus tereticornis	330		24	8	Fair	Typical	Fair	Typical		Retain		3.96	31.6
5456	Blakella tessellaris	100		6	1	Fair	Typical	Fair	Typical		Remove		2	30.9
5079	Eucalyptus tereticornis	270		21	8	Fair	Typical	Fair	Typical		Retain		3.24	30.2
27	Melaleuca irbyana	297	160 140 170 120	6	4	Fair	Typical	Fair	Typical		Retain		3.57	31.2
5196	Eucalyptus moluccana	150		7	2	Fair	Typical	Fair	Typical		Retain		2	32.6
5316	Blakella tessellaris	260		13	5	Fair	Typical	Fair	Typical		Remove		3.12	31.6
5540	Eucalyptus tereticornis	355	190 300	8	5	Fair	Typical	Fair	Typical		Remove		4.26	30.4
5365	Eucalyptus siderophloia	420		21	10	Fair	Typical	Fair	Typical		Retain		5.04	34.4
5030	Eucalyptus crebra	450		19	10	Fair	Typical	Fair	Typical		Retain		5.4	33.9
5538	Blakella tessellaris	140		7	3	Fair	Typical	Fair	Typical		Remove		2	30.1
5514	Eucalyptus tereticornis	60		5	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5207	Eucalyptus tereticornis	480		23	12	Fair	Typical	Fair	Typical		Retain		5.76	34.4
5129	Eucalyptus tereticornis	610		27	12	Fair	Typical	Fair	Typical		Retain		7.32	39.4
5273	Eucalyptus tereticornis	380		15	7	Fair	Typical	Fair	Typical		Retain		4.56	35.6
5171	Eucalyptus tereticornis	270		13	5	Fair	Typical	Fair	Typical		Retain		3.24	30.8
5119	Eucalyptus tereticornis	120		8	2	Fair	Typical	Fair	Typical		Retain		2	37.7
5222	Eucalyptus tereticornis	70		5	1	Fair	Typical	Fair	Typical		Retain		2	30.2
5407	Blakella tessellaris	100		8	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5028	Eucalyptus crebra	360		15	8	Fair	Typical	Fair	Typical		Retain		4.32	30.1
5404	Blakella tessellaris	130		8	2	Fair	Typical	Fair	Typical		Remove		2	30.1
90	Melaleuca irbyana	222	180 130	5	3	Fair	Typical	Fair	Typical		Retain		2.66	73.7
5264	Eucalyptus tereticornis	180		7	3	Fair	Typical	Fair	Typical		Retain		2.16	31.7
78	Melaleuca irbyana	206	100 100 120 90	3	2	Fair	Typical	Fair	Typical		Retain		2.47	152.7
51	Melaleuca irbyana	397	180 170 150 120 100 100 130 90 90 80	5	4	Fair	Typical	Fair	Typical		Retain		4.77	30.5
5269	Blakella tessellaris	90		6	1	Fair	Typical	Fair	Typical		Retain		2	30.5
5131	Eucalyptus tereticornis	240		12	4	Fair	Typical	Fair	Typical		Retain		2.88	30.3
5179	Eucalyptus tereticornis	160		7	2	Fair	Typical	Fair	Typical		Retain		2	30.6
5010	Eucalyptus tereticornis	90		7	2	Fair	Typical	Fair	Typical		Retain		2	108.7
5321	Blakella tessellaris	320		15	6	Fair	Typical	Fair	Typical		Remove		3.84	37.9
5193	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Retain		2	30.1
5166	Blakella citriodora	160		8	4	Fair	Typical	Fair	Typical		Retain		2	73.5
5228	Eucalyptus moluccana	180		11	3	Fair	Typical	Fair	Typical		Retain		2.16	30.8
5416	Lophostemon suaveolens	270		8	3	Fair	Typical	Fair	Typical		Remove		3.24	30.9
5473	Petalostigma pubescens	341	260 220	7	6	Fair	Typical	Fair	Typical		Remove		4.09	31.8
5031	Eucalyptus moluccana	430		20	10	Fair	Typical	Fair	Typical		Retain		5.16	78.2
5019	Eucalyptus moluccana	480		18	9	Fair	Typical	Fair	Typical		Retain		5.76	31.3
5426	Eucalyptus tereticornis	260		14	6	Fair	Typical	Fair	Typical		Remove		3.12	30.6
5210	Eucalyptus tereticornis	470		15	8	Fair	Typical	Fair	Typical		Retain		5.64	40
5331	Blakella tessellaris	100		8	1	Fair	Typical	Fair	Typical		Remove		2	59.9
5218	Blakella tessellaris	80		5	2	Fair	Typical	Fair	Typical		Retain		2	30
5027	Eucalyptus moluccana	460		24	10	Fair	Typical	Fair	Typical		Retain		5.52	30.3
5523	Eucalyptus tereticornis	160		7	2	Fair	Typical	Fair	Typical		Remove		2	30.1
5096	Eucalyptus moluccana	450		25	12	Fair	Typical	Fair	Typical		Retain		5.4	30.2
5103	Eucalyptus tereticornis	470		20	10	Fair	Typical	Fair	Typical		Retain		5.64	34.6
5247	Eucalyptus moluccana	710		32	15	Fair	Typical	Fair	Typical		Retain		8.52	34.2
5061	Eucalyptus tereticornis	280		14	6	Fair	Typical	Fair	Typical		Retain		3.36	35.9
5441	Eucalyptus tereticornis	290		13	5	Fair	Typical	Fair	Typical		Remove		3.48	30.8
5406	Blakella tessellaris	100		7	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5214	Eucalyptus tereticornis	120		7	1	Fair	Typical	Fair	Typical		Retain		2	30.1
5278	Eucalyptus tereticornis	500		21	12	Fair	Typical	Fair	Typical		Retain		6	30.2
5557	Melaleuca irbyana	449	380 240	6	6	Fair	Typical	Fair	Typical		Retain		5.39	31.9
5168	Eucalyptus tereticornis	170		13	5	Fair	Typical	Fair	Typical		Retain		2.04	30.3
5379	Eucalyptus tereticornis	450		28	14	Fair	Typical	Fair	Typical		Retain		5.4	30.1
5443	Eucalyptus siderophloia	450		10	6	Fair	Typical	Fair	Typical		Remove		5.4	30.1
5346	Blakella tessellaris	230		12	5	Fair	Typical	Fair	Typical		Remove		2.76	35.1
5445	Blakella tessellaris	170		8	3	Fair	Typical	Fair	Typical		Remove		2.04	34.3
5212	Eucalyptus tereticornis	570		25	13	Fair	Typical	Fair	Typical		Retain		6.84	37.9
88	Melaleuca irbyana	283	170 150 170	6	3	Fair	Typical	Fair	Typical		Retain		3.4	32.4
5309	Eucalyptus tereticornis	600		17	9	Fair	Typical	Fair	Typical		Remove		7.2	30.5
5275	Eucalyptus tereticornis	520		24	10	Fair	Typical	Fair	Typical		Retain		6.24	30.5
5561	Eucalyptus moluccana	950		28	14	Fair	Typical	Fair	Typical		Retain		11.4	31.5
5291	Eucalyptus tereticornis	540		25	13	Fair	Typical	Fair	Typical		Retain		6.48	30.3
5378	Eucalyptus tereticornis	600		25	10	Fair	Typical	Fair	Typical		Retain		7.2	30.4

72	Melaleuca irbyana	122	100 70	2	1	Fair	Typical	Fair	Typical		Retain		2	73.2
5392	Blakella tessellaris	40		5	1	Fair	Typical	Fair	Typical		Remove		2	35.3
5178	Lophostemon suaveolens	120		5	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5132	Eucalyptus moluccana	300		17	7	Fair	Typical	Fair	Typical		Retain		3.6	32.5
94	Melaleuca irbyana	248	170 180	4	3	Fair	Typical	Fair	Typical		Retain		2.97	31
5239	Eucalyptus moluccana	180		8	3	Fair	Typical	Fair	Typical		Retain		2.16	30.4
5173	Eucalyptus tereticornis	470		17	7	Fair	Typical	Fair	Typical		Retain		5.64	30.3
100	Melaleuca irbyana	231	170 140 70	5	3	Fair	Typical	Fair	Typical		Retain		2.77	48.6
5306	Eucalyptus tereticornis	310		14	6	Fair	Typical	Fair	Typical		Remove		3.72	32.3
84	Melaleuca irbyana	100		5	2	Fair	Typical	Fair	Typical		Retain		2	73.9
5023	Eucalyptus tereticornis	190		8	3	Fair	Typical	Fair	Typical		Retain		2.28	107.2
5387	Eucalyptus tereticornis	300		13	6	Fair	Typical	Fair	Typical		Remove		3.6	30.3
55	Melaleuca irbyana	192	170 90	5	3	Fair	Typical	Fair	Typical		Retain		2.31	40.5
26	Melaleuca irbyana	245	90 140 90 100 120	5	4	Fair	Typical	Fair	Typical		Retain		2.94	30.6
5400	Blakella tessellaris	220		9	3	Fair	Typical	Fair	Typical		Remove		2.64	30.4
5302	Eucalyptus tereticornis	290		14	6	Fair	Typical	Fair	Typical		Retain		3.48	32.3
5415	Blakella tessellaris	160		9	3	Fair	Typical	Fair	Typical		Remove		2	30.9
5558	Melaleuca irbyana	300		6	4	Fair	Typical	Fair	Typical		Retain		3.6	30.3
99	Melaleuca irbyana	287	120 130 100 100 120 130	5	3	Fair	Typical	Fair	Typical		Retain		3.45	35.3
5373	Eucalyptus tereticornis	580		25	13	Fair	Typical	Fair	Typical		Retain		6.96	30.1
5363	Eucalyptus siderophloia	390		20	8	Fair	Typical	Fair	Typical		Retain		4.68	33.8
5447	Eucalyptus tereticornis	260		8	2	Fair	Typical	Fair	Typical		Remove		3.12	42.6
5403	Blakella tessellaris	100		8	3	Fair	Typical	Fair	Typical		Remove		2	30.2
5310	Eucalyptus tereticornis	540		21	10	Fair	Typical	Fair	Typical		TBC		6.48	30.3
5517	Eucalyptus tereticornis	120		6	2	Fair	Typical	Fair	Typical		Remove		2	30.1
5266	Eucalyptus tereticornis	90		7	2	Fair	Typical	Fair	Typical		Retain		2	30.3
5371	Eucalyptus tereticornis	460		27	9	Fair	Typical	Fair	Typical		Remove		5.52	30.7
5301	Blakella tessellaris	330		17	8	Fair	Typical	Fair	Typical		Retain		3.96	70.9
5285	Eucalyptus tereticornis	430		17	9	Fair	Typical	Fair	Typical		Remove		5.16	46.4
5225	Eucalyptus tereticornis	190		7	3	Fair	Typical	Fair	Typical		Retain		2.28	29.9
5319	Blakella tessellaris	140		8	2	Fair	Typical	Fair	Typical		Remove		2	30.6
5151	Blakella tessellaris	480		18	8	Fair	Typical	Fair	Typical		Retain		5.76	39
40	Melaleuca irbyana	289	230 150 90	4	2	Fair	Typical	Fair	Typical		Retain		3.47	106.5
5513	Lophostemon suaveolens	110		4	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5110	Eucalyptus tereticornis	380		17	8	Fair	Typical	Fair	Typical		Retain		4.56	31.7
49	Melaleuca irbyana	283	140 130 130 110 90 80	4	3	Fair	Typical	Fair	Typical		Retain		3.39	30.7
5461	Eucalyptus tereticornis	380		19	7	Fair	Typical	Fair	Typical		Remove		4.56	38
5450	Eucalyptus tereticornis	440		22	10	Fair	Typical	Fair	Typical		Remove		5.28	34.5
15	Melaleuca irbyana	257	170 150 120	5	4	Fair	Typical	Fair	Typical		Retain		3.08	33.7
5083	Eucalyptus tereticornis	180		10	3	Fair	Typical	Fair	Typical		Retain		2.16	31.2
5377	Eucalyptus tereticornis	620		24	10	Fair	Typical	Fair	Typical		Retain		7.44	30.4
5198	Eucalyptus moluccana	460		22	10	Fair	Typical	Fair	Typical		Retain		5.52	30.1
87	Melaleuca irbyana	100		4	2	Fair	Typical	Fair	Typical		Retain		2	48
5068	Eucalyptus tereticornis	160		7	2	Fair	Typical	Fair	Typical		Retain		2	51.9
5396	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.5
5353	Blakella tessellaris	260		10	5	Fair	Typical	Fair	Typical		Remove		3.12	49.6
5250	Eucalyptus moluccana	550		18	8	Fair	Typical	Fair	Typical		Retain		6.6	70.4
5512	Eucalyptus tereticornis	70		5	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5525	Eucalyptus tereticornis	130		7	2	Fair	Typical	Fair	Typical		Remove		2	30.3
5289	Eucalyptus tereticornis	340		20	8	Fair	Typical	Fair	Typical		Retain		4.08	30.2
5008	Eucalyptus tereticornis	150		7	3	Fair	Typical	Fair	Typical		Retain		2	67.5
5299	Blakella tessellaris	290		16	7	Fair	Typical	Fair	Typical		Retain		3.48	31.1
5094	Eucalyptus tereticornis	330		13	4	Fair	Typical	Fair	Typical		Retain		3.96	30.7
5417	Blakella tessellaris	90		7	2	Fair	Typical	Fair	Typical		Remove		2	30.2
59	Melaleuca irbyana	70		2	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5047	Eucalyptus tereticornis	400		15	8	Fair	Typical	Fair	Typical		Retain		4.8	42.3
5084	Eucalyptus tereticornis	270		16	8	Fair	Typical	Fair	Typical		Retain		3.24	40.2
5524	Eucalyptus tereticornis	130		7	2	Fair	Typical	Fair	Typical		Remove		2	30.3
5124	Eucalyptus tereticornis	150		8	2	Fair	Typical	Fair	Typical		Retain		2	30.4
5002	Eucalyptus moluccana	90		5	1	Fair	Typical	Fair	Typical		Retain		2	40.9
82	Melaleuca irbyana	237	130 150 130	5	3	Fair	Typical	Fair	Typical		Retain		2.85	34.2
5485	Blakella tessellaris	110		6	1	Fair	Typical	Fair	Typical		Remove		2	30.8
34	Melaleuca irbyana	249	150 120 100 100 70	4	2	Fair	Typical	Fair	Typical		Retain		2.98	48
5014	Eucalyptus moluccana	70		5	1	Fair	Typical	Fair	Typical		Retain		2	30.4

5478	Eucalyptus tereticornis	310		13	6	Fair	Typical	Fair	Typical		Remove		3.72	30.8
5101	Eucalyptus tereticornis	210		20	6	Fair	Typical	Fair	Typical		Retain		2.52	95.9
5098	Eucalyptus tereticornis	380		28	10	Fair	Typical	Fair	Typical		Retain		4.56	34.5
5411	Blakella tessellaris	60		6	2	Fair	Typical	Fair	Typical		Remove		2	30.3
5065	Lophostemon suaveolens	270		7	4	Fair	Typical	Fair	Typical		Retain		3.24	57
5188	Eucalyptus siderophloia	460		18	8	Fair	Typical	Fair	Typical		Retain		5.52	30.1
5149	Eucalyptus siderophloia	420		13	6	Fair	Typical	Fair	Typical		Retain		5.04	30.2
5324	Eucalyptus tereticornis	320		16	6	Fair	Typical	Fair	Typical		Remove		3.84	30.5
5221	Eucalyptus tereticornis	130		8	2	Fair	Typical	Fair	Typical		Retain		2	29.9
5481	Blakella tessellaris	530		24	14	Fair	Typical	Fair	Typical		Remove		6.36	30.7
3	Melaleuca irbyana	337	220 170 190	6	4	Fair	Typical	Fair	Typical		Remove		4.04	127
5449	Blakella tessellaris	70		6	1	Fair	Typical	Fair	Typical		Remove		2	32.1
5005	Eucalyptus moluccana	100		7	3	Fair	Typical	Fair	Typical		Retain		2	50.5
5472	Eucalyptus siderophloia	100		6	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5257	Eucalyptus moluccana	170		6	2	Fair	Typical	Fair	Typical		Retain		2.04	30.1
5395	Eucalyptus seeana	430		16	7	Fair	Typical	Fair	Typical		Remove		5.16	31.4
5	Melaleuca irbyana	218	130 150 90	6	4	Fair	Typical	Fair	Typical		Retain		2.62	30.4
64	Melaleuca irbyana	218	170 130 40	4	3	Fair	Typical	Fair	Typical		Retain		2.61	93
5459	Blakella tessellaris	230		17	5	Fair	Typical	Fair	Typical		Remove		2.76	30.5
17	Melaleuca irbyana	141	90 90 60	4	3	Fair	Typical	Fair	Typical		Retain		2	34.8
5205	Eucalyptus siderophloia	460		22	10	Fair	Typical	Fair	Typical		Retain		5.52	30.4
5059	Eucalyptus tereticornis	460		25	12	Fair	Typical	Fair	Typical		Retain		5.52	72.2
5088	Eucalyptus tereticornis	170		12	4	Fair	Typical	Fair	Typical		Retain		2.04	109.9
5482	Eucalyptus tereticornis	500		25	10	Fair	Typical	Fair	Typical		Remove		6	30.2
43	Melaleuca irbyana	134	120 60	5	2	Fair	Typical	Fair	Typical		Retain		2	51.1
5330	Blakella tessellaris	130		8	2	Fair	Typical	Fair	Typical		Remove		2	40.8
56	Melaleuca irbyana	120		2	1	Fair	Typical	Fair	Typical		Retain		2	30.7
6	Melaleuca irbyana	265	100 x7	5	3	Fair	Typical	Fair	Typical		Retain		3.17	31.1
5016	Eucalyptus tereticornis	460		18	8	Fair	Typical	Fair	Typical		Retain		5.52	29.9
5157	Eucalyptus tereticornis	320		12	5	Fair	Typical	Fair	Typical		Retain		3.84	31.2
5460	Eucalyptus tereticornis	350		20	6	Fair	Typical	Fair	Typical		Remove		4.2	32.3
70	Melaleuca irbyana	295	170 160 180	6	4	Fair	Typical	Fair	Typical		Retain		3.54	33.9
5021	Eucalyptus moluccana	480		22	12	Fair	Typical	Fair	Typical		Retain		5.76	40.2
5327	Blakella tessellaris	240		15	6	Fair	Typical	Fair	Typical		Remove		2.88	30.5
5414	Blakella tessellaris	70		5	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5390	Blakella tessellaris	108	90 60	7	1	Fair	Typical	Fair	Typical		Remove		2	30
5293	Eucalyptus tereticornis	380	340 170	19	8	Fair	Typical	Fair	Typical		Retain		4.56	30.1
45	Melaleuca irbyana	349	90 x15	4	3	Fair	Typical	Fair	Typical		Retain		4.18	57.3
5184	Eucalyptus tereticornis	160		7	2	Fair	Typical	Fair	Typical		Retain		2	30.2
5338	Eucalyptus siderophloia	700		28	13	Fair	Typical	Fair	Typical		Remove		8.4	63.1
5355	Eucalyptus siderophloia	320		16	7	Fair	Typical	Fair	Typical		Remove		3.84	30.6
5364	Blakella tessellaris	240		14	5	Fair	Typical	Fair	Typical		Retain		2.88	53.3
5526	Eucalyptus tereticornis	130		7	2	Fair	Typical	Fair	Typical		Remove		2	30.1
5090	Eucalyptus tereticornis	166	150 70	6	3	Fair	Typical	Fair	Typical		Retain		2	159.8
5315	Eucalyptus tereticornis	530		24	12	Fair	Typical	Fair	Typical		Remove		6.36	30.2
5548	Eucalyptus tereticornis	850		19	13	Fair	Typical	Fair	Typical		Remove		10.2	30.1
5125	Blakella tessellaris	110		8	2	Fair	Typical	Fair	Typical		Retain		2	30.1
16	Melaleuca irbyana	180	90 100 120	4	3	Fair	Typical	Fair	Typical		Retain		2.16	31.1
5006	Eucalyptus moluccana	130		7	2	Fair	Typical	Fair	Typical		Retain		2	31.9
5376	Eucalyptus tereticornis	100		7	2	Fair	Typical	Fair	Typical		Retain		2	31
5105	Eucalyptus tereticornis	160		12	4	Fair	Typical	Fair	Typical		Retain		2	30.7
18	Melaleuca irbyana	254	160 100 150 80	4	3	Fair	Typical	Fair	Typical		Retain		3.05	30.2
5187	Eucalyptus tereticornis	320		10	4	Fair	Typical	Fair	Typical		Retain		3.84	30.1
5018	Eucalyptus moluccana	80		7	3	Fair	Typical	Fair	Typical		Retain		2	30.3
5300	Blakella tessellaris	190		9	4	Fair	Typical	Fair	Typical		Retain		2.28	36.6
5176	Eucalyptus tereticornis	220		8	4	Fair	Typical	Fair	Typical		Retain		2.64	30.1
5356	Eucalyptus tereticornis	320		17	8	Fair	Typical	Fair	Typical		Remove		3.84	35.6
5436	Blakella tessellaris	280		9	5	Fair	Typical	Fair	Typical		Remove		3.36	30.1
5169	Eucalyptus moluccana	570		28	12	Fair	Typical	Fair	Typical		Retain		6.84	33.4
5542	Eucalyptus tereticornis	810		19	10	Fair	Typical	Fair	Typical		Retain		9.72	31
5483	Blakella tessellaris	230		9	4	Fair	Typical	Fair	Typical		Remove		2.76	30.3
5143	Eucalyptus siderophloia	490		25	13	Fair	Typical	Fair	Typical		Retain		5.88	34.4
57	Melaleuca irbyana	193	90 160 60	4	2	Fair	Typical	Fair	Typical		Retain		2.32	33.5
5136	Blakella tessellaris	170		8	3	Fair	Typical	Fair	Typical		Retain		2.04	36.2

5314	Blakella tessellaris	270		13	5	Fair	Typical	Fair	Typical		Remove		3.24	30.3
5261	Eucalyptus siderophloia	600		26	12	Fair	Typical	Fair	Typical		Retain		7.2	30.3
5498	Eucalyptus tereticornis	500		14	5	Fair	Typical	Fair	Typical		Remove		6	30.2
5256	Eucalyptus siderophloia	350		14	7	Fair	Typical	Fair	Typical		Retain		4.2	30.3
5025	Eucalyptus moluccana	550		24	12	Fair	Typical	Fair	Typical		Retain		6.6	126.1
5367	Corymbia intermedia	310		14	7	Fair	Typical	Fair	Typical		Retain		3.72	95.2
5322	Blakella tessellaris	130		8	2	Fair	Typical	Fair	Typical		Remove		2	42.9
21	Melaleuca irbyana	390	9 x130	5	4	Fair	Typical	Fair	Typical		Retain		4.68	31.3
5231	Eucalyptus siderophloia	80		7	1	Fair	Typical	Fair	Typical		Retain		2	30.9
5305	Eucalyptus tereticornis	470		24	13	Fair	Typical	Fair	Typical		Retain		5.64	30.3
5116	Eucalyptus tereticornis	330		24	9	Fair	Typical	Fair	Typical		Retain		3.96	99
81	Melaleuca irbyana	90		6	2	Fair	Typical	Fair	Typical		Retain		2	70.7
5446	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	37.1
5033	Eucalyptus tereticornis	270		16	7	Fair	Typical	Fair	Typical		Retain		3.24	45.4
5349	Eucalyptus tereticornis	310		14	6	Fair	Typical	Fair	Typical		Remove		3.72	120.5
5194	Eucalyptus moluccana	90		7	2	Fair	Typical	Fair	Typical		Retain		2	30.3
5550	Eucalyptus tereticornis	560		14	8	Fair	Typical	Fair	Typical		Retain		6.72	30.2
5092	Eucalyptus tereticornis	180		9	2	Fair	Typical	Fair	Typical		Retain		2.16	30.8
5233	Eucalyptus tereticornis	570		24	8	Fair	Typical	Fair	Typical		Retain		6.84	56.5
5451	Blakella tessellaris	140		8	2	Fair	Typical	Fair	Typical		Remove		2	31.7
5113	Eucalyptus tereticornis	450		16	7	Fair	Typical	Fair	Typical		Retain		5.4	76.6
22	Melaleuca irbyana	284	120 130 120 100 110 70 90	5	4	Fair	Typical	Fair	Typical		Retain		3.41	31.8
5361	Eucalyptus siderophloia	800		30	15	Fair	Typical	Fair	Typical		Retain		9.6	43.5
5107	Eucalyptus tereticornis	389	270 280	25	13	Fair	Typical	Fair	Typical		Retain		4.67	34.7
5262	Blakella tessellaris	239	200 130	9	4	Fair	Typical	Fair	Typical		Retain		2.86	30.2
5470	Eucalyptus tereticornis	707	630 320	25	13	Fair	Typical	Fair	Typical		Remove		8.48	30.3
5003	Eucalyptus moluccana	120		6	3	Fair	Typical	Fair	Typical		Retain		2	56
5197	Eucalyptus siderophloia	340		18	8	Fair	Typical	Fair	Typical		Retain		4.08	30.3
5162	Eucalyptus tereticornis	240		14	7	Fair	Typical	Fair	Typical		Retain		2.88	30.4
5109	Eucalyptus tereticornis	230		15	6	Fair	Typical	Fair	Typical		Retain		2.76	85.2
5521	Eucalyptus tereticornis	70		6	1	Fair	Typical	Fair	Typical		Remove		2	30.1
19	Melaleuca irbyana	180	100 120 90	4	2	Fair	Typical	Fair	Typical		Retain		2.16	30.8
5468	Eucalyptus tereticornis	360		23	10	Fair	Typical	Fair	Typical		Remove		4.32	30.6
5127	Eucalyptus moluccana	220		12	4	Fair	Typical	Fair	Typical		Retain		2.64	30.3
5502	Eucalyptus tereticornis	580		15	6	Fair	Typical	Fair	Typical		Remove		6.96	48.3
5432	Eucalyptus tereticornis	390		15	6	Fair	Typical	Fair	Typical		Remove		4.68	42.1
5419	Blakella tessellaris	50		5	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5308	Eucalyptus tereticornis	380		8	5	Fair	Typical	Fair	Typical		Remove		4.56	30.1
5052	Lophostemon suaveolens	250		8	4	Fair	Typical	Fair	Typical		Retain		3	77.9
5048	Eucalyptus tereticornis	360		15	7	Fair	Typical	Fair	Typical		Retain		4.32	38.3
5509	Blakella tessellaris	120		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5335	Corymbia intermedia	380		14	7	Fair	Typical	Fair	Typical		Remove		4.56	30.3
5208	Eucalyptus tereticornis	660		28	13	Fair	Typical	Fair	Typical		Retain		7.92	30.1
5282	Eucalyptus tereticornis	570		28	14	Fair	Typical	Fair	Typical		Retain		6.84	30.2
5200	Eucalyptus moluccana	600		25	12	Fair	Typical	Fair	Typical		Retain		7.2	33.3
41	Melaleuca irbyana	190	80 100 70 70 70 70	3	2	Fair	Typical	Fair	Typical		Retain		2.28	99.6
5347	Eucalyptus tereticornis	480		24	12	Fair	Typical	Fair	Typical		Remove		5.76	74.4
91	Melaleuca irbyana	140		5	2	Fair	Typical	Fair	Typical		Retain		2	64.7
5393	Blakella tessellaris	127	90 90	8	2	Fair	Typical	Fair	Typical		Remove		2	43.8
5537	Eucalyptus siderophloia	318	220 230	9	3	Fair	Typical	Fair	Typical		Remove		3.82	30.1
5263	Eucalyptus tereticornis	390		15	7	Fair	Typical	Fair	Typical		Retain		4.68	30.2
92	Melaleuca irbyana	150		6	3	Fair	Typical	Fair	Typical		Retain		2	179.6
5180	Eucalyptus tereticornis	180		7	3	Fair	Typical	Fair	Typical		Retain		2.16	30.3
5034	Eucalyptus tereticornis	70		5	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5186	Eucalyptus tereticornis	190		8	3	Fair	Typical	Fair	Typical		Retain		2.28	30.4
5189	Eucalyptus siderophloia	230		8	3	Fair	Typical	Fair	Typical		Retain		2.76	30.1
5434	Eucalyptus tereticornis	330		17	8	Fair	Typical	Fair	Typical		Remove		3.96	30.7
5539	Eucalyptus tereticornis	242	220 100	7	3	Fair	Typical	Fair	Typical		Remove		2.9	30.3
2	Melaleuca irbyana	487	330 290 210	6	7	Fair	Typical	Fair	Typical		Remove		5.84	55.4
5467	Eucalyptus tereticornis	400		13	5	Fair	Typical	Fair	Typical		Remove		4.8	129.4
5479	Blakella tessellaris	210		13	5	Fair	Typical	Fair	Typical		Remove		2.52	32.5
5337	Eucalyptus siderophloia	640		15	8	Fair	Typical	Fair	Typical		Remove		7.68	51.6
5137	Eucalyptus tereticornis	300		16	8	Fair	Typical	Fair	Typical		Retain		3.6	30.1
5430	Blakella tessellaris	211	130 140 90	9	3	Fair	Typical	Fair	Typical		Remove		2.53	31.3

5036	Eucalyptus tereticornis	390		17	8	Fair	Typical	Fair	Typical		Retain		4.68	30.7
5077	Eucalyptus tereticornis	170		9	2	Fair	Typical	Fair	Typical		Retain		2.04	31.2
5493	Eucalyptus tereticornis	600		23	10	Fair	Typical	Fair	Typical		Remove		7.2	30.3
5433	Eucalyptus tereticornis	450		17	8	Fair	Typical	Fair	Typical		Remove		5.4	30.1
5158	Eucalyptus tereticornis	430		24	10	Fair	Typical	Fair	Typical		Retain		5.16	30.2
5281	Eucalyptus tereticornis	780		27	12	Fair	Typical	Fair	Typical		Retain		9.36	33.4
5496	Eucalyptus tereticornis	540		16	8	Fair	Typical	Fair	Typical		Remove		6.48	30.1
5093	Eucalyptus tereticornis	170		13	3	Fair	Typical	Fair	Typical		Retain		2.04	30.3
5464	Blakella tessellaris	100		6	2	Fair	Typical	Fair	Typical		Remove		2	70.3
5064	Eucalyptus tereticornis	160		7	3	Fair	Typical	Fair	Typical		Retain		2	53.5
53	Melaleuca irbyana	263	100 120 130 140 90	3	2	Fair	Typical	Fair	Typical		Retain		3.15	32
5123	Eucalyptus tereticornis	70		7	1	Fair	Typical	Fair	Typical		Retain		2	30.3
5183	Eucalyptus tereticornis	150		7	3	Fair	Typical	Fair	Typical		Retain		2	30.3
5170	Blakella tessellaris	200		9	2	Fair	Typical	Fair	Typical		Retain		2.4	47
5295	Blakella tessellaris	220		12	4	Fair	Typical	Fair	Typical		Retain		2.64	31
5140	Blakella tessellaris	140		7	2	Fair	Typical	Fair	Typical		Retain		2	30.4
5242	Eucalyptus moluccana	140		7	2	Fair	Typical	Fair	Typical		Retain		2	31.2
5203	Eucalyptus moluccana	160		7	2	Fair	Typical	Fair	Typical		Retain		2	30.3
73	Melaleuca irbyana	139	70 120	3	2	Fair	Typical	Fair	Typical		Retain		2	39.3
10	Melaleuca irbyana	250		6	3	Fair	Typical	Fair	Typical		Retain		3	32.1
5192	Blakella tessellaris	70		6	2	Fair	Typical	Fair	Typical		Retain		2	30.1
5427	Eucalyptus tereticornis	310		19	8	Fair	Typical	Fair	Typical		Remove		3.72	30.2
5164	Eucalyptus tereticornis	410		25	10	Fair	Typical	Fair	Typical		Retain		4.92	31.2
5130	Eucalyptus tereticornis	190		8	3	Fair	Typical	Fair	Typical		Retain		2.28	55.6
5534	Eucalyptus siderophloia	810		17	9	Fair	Typical	Fair	Typical		Remove		9.72	30.8
66	Melaleuca irbyana	318	130 x6	5	4	Fair	Typical	Fair	Typical		Retain		3.82	30.6
5546	Eucalyptus tereticornis	620		18	12	Fair	Typical	Fair	Typical		Remove		7.44	30.1
5043	Eucalyptus tereticornis	380	350 100 110	19	9	Fair	Typical	Fair	Typical		Retain		4.56	82.7
5073	Eucalyptus siderophloia	100		7	1	Fair	Typical	Fair	Typical		Retain		2	30.8
5215	Eucalyptus tereticornis	130		7	2	Fair	Typical	Fair	Typical		Retain		2	30.3
79	Melaleuca irbyana	40		2	1	Fair	Typical	Fair	Typical		Retain		2	42.8
5074	Eucalyptus tereticornis	430		26	12	Fair	Typical	Fair	Typical		Retain		5.16	30.3
5532	Blakella tessellaris	190		7	3	Fair	Typical	Fair	Typical		Remove		2.28	30.1
5296	Eucalyptus tereticornis	520		23	9	Fair	Typical	Fair	Typical		Retain		6.24	30.7
5251	Eucalyptus moluccana	660		25	14	Fair	Typical	Fair	Typical		Retain		7.92	31.1
5057	Eucalyptus tereticornis	300		15	6	Fair	Typical	Fair	Typical		Retain		3.6	32
5491	Eucalyptus tereticornis	500		18	10	Fair	Typical	Fair	Typical		Remove		6	30.2
5087	Eucalyptus tereticornis	100		6	1	Fair	Typical	Fair	Typical		Retain		2	100.2
44	Melaleuca irbyana	244	90 120 90 80 120 90	5	3	Fair	Typical	Fair	Typical		Retain		2.93	53.5
5354	Eucalyptus tereticornis	310		19	8	Fair	Typical	Fair	Typical		Remove		3.72	90.1
5086	Eucalyptus moluccana	440		27	12	Fair	Typical	Fair	Typical		Retain		5.28	88
5055	Eucalyptus tereticornis	160		10	3	Fair	Typical	Fair	Typical		Retain		2	31.3
5297	Blakella tessellaris	180		8	3	Fair	Typical	Fair	Typical		Retain		2.16	30
5126	Eucalyptus moluccana	210		10	3	Fair	Typical	Fair	Typical		Retain		2.52	31.5
5067	Eucalyptus tereticornis	120		6	2	Fair	Typical	Fair	Typical		Retain		2	40.7
5484	Blakella tessellaris	70		6	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5138	Eucalyptus tereticornis	430		17	9	Fair	Typical	Fair	Typical		Retain		5.16	30.2
5120	Eucalyptus moluccana	140		7	2	Fair	Typical	Fair	Typical		Retain		2	32.1
5463	Blakella tessellaris	90		8	1	Fair	Typical	Fair	Typical		Remove		2	61.3
5408	Blakella tessellaris	80		7	1	Fair	Typical	Fair	Typical		Remove		2	33
5519	Eucalyptus tereticornis	120		6	2	Fair	Typical	Fair	Typical		Remove		2	30.2
5444	Eucalyptus tereticornis	420		17	8	Fair	Typical	Fair	Typical		Remove		5.04	31.6
5424	Eucalyptus tereticornis	300		14	6	Fair	Typical	Fair	Typical		Remove		3.6	30.6
5307	Eucalyptus tereticornis	500		24	9	Fair	Typical	Fair	Typical		Remove		6	38.1
5041	Blakella tessellaris	300		14	6	Fair	Typical	Fair	Typical		Retain		3.6	47.4
5553	Melaleuca irbyana	240		7	5	Fair	Typical	Fair	Typical		Retain		2.88	30.1
5226	Eucalyptus tereticornis	460		20	9	Fair	Typical	Fair	Typical		Retain		5.52	30
5204	Eucalyptus tereticornis	430		21	10	Fair	Typical	Fair	Typical		Retain		5.16	30.1
5499	Eucalyptus tereticornis	360		13	6	Fair	Typical	Fair	Typical		Remove		4.32	30.3
5530	Eucalyptus tereticornis	1063	360 1000	22	12	Fair	Typical	Fair	Typical		Remove		12.75	31.3
5100	Eucalyptus tereticornis	149	110 100	7	3	Fair	Typical	Fair	Typical		Retain		2	97
5488	Blakella tessellaris	90		7	1	Fair	Typical	Fair	Typical		Remove		2	30.3
5227	Eucalyptus tereticornis	640		20	9	Fair	Typical	Fair	Typical		Retain		7.68	31.7
5448	Blakella tessellaris	100		7	2	Fair	Typical	Fair	Typical		Remove		2	30.3

8	Melaleuca irbyana	257	170 170 90	5	4	Fair	Typical	Fair	Typical		Retain		3.08	34.4
5236	Eucalyptus tereticornis	380		17	6	Fair	Typical	Fair	Typical		Retain		4.56	30
5238	Eucalyptus tereticornis	90		6	2	Fair	Typical	Fair	Typical		Retain		2	30.4
5145	Eucalyptus siderophloia	550		21	10	Fair	Typical	Fair	Typical		Retain		6.6	45.7
5163	Eucalyptus siderophloia	290		13	7	Fair	Typical	Fair	Typical		Retain		3.48	30.2
5115	Eucalyptus tereticornis	270		17	7	Fair	Typical	Fair	Typical		Retain		3.24	118.1
25	Melaleuca irbyana	364	160 170 170 120 100 100 120	6	4	Fair	Typical	Fair	Typical		Retain		4.36	31
5421	Eucalyptus tereticornis	320		18	6	Fair	Typical	Fair	Typical		Remove		3.84	30.2
5072	Eucalyptus siderophloia	90		9	1	Fair	Typical	Fair	Typical		Retain		2	31.4
105	Melaleuca irbyana	258	210 120 90	6	3	Fair	Typical	Fair	Typical		Retain		3.1	84.7
5001	Eucalyptus moluccana	100		6	1	Fair	Typical	Fair	Typical		Retain		2	33.8
5384	Blakella tessellaris	110		8	3	Fair	Typical	Fair	Typical		Retain		2	30.2
5097	Lophostemon suaveolens	180		8	3	Fair	Typical	Fair	Typical		Retain		2.16	31
5106	Eucalyptus tereticornis	350		27	9	Fair	Typical	Fair	Typical		Retain		4.2	33.2
5477	Eucalyptus tereticornis	170		9	4	Fair	Typical	Fair	Typical		Remove		2.04	30.2
62	Melaleuca irbyana	170		4	2	Fair	Typical	Fair	Typical		Retain		2.04	53.5
5486	Blakella tessellaris	120		8	1	Fair	Typical	Fair	Typical		Remove		2	30.1
5007	Eucalyptus moluccana	120		6	3	Fair	Typical	Fair	Typical		Retain		2	38.6
5161	Eucalyptus tereticornis	200		12	4	Fair	Typical	Fair	Typical		Retain		2.4	30.3
5522	Eucalyptus tereticornis	80		6	1	Fair	Typical	Fair	Typical		Remove		2	30.1
24	Melaleuca irbyana	254	140 150 120 90	5	3	Fair	Typical	Fair	Typical		Retain		3.05	35.9
5348	Blakella tessellaris	350		18	8	Fair	Typical	Fair	Typical		Remove		4.2	85
5551	Eucalyptus tereticornis	480		16	9	Fair	Typical	Fair	Typical		Retain		5.76	30.7
5440	Eucalyptus tereticornis	380		13	6	Fair	Typical	Fair	Typical		Remove		4.56	30.7
39	Melaleuca irbyana	282	120 90 80 80 100 100 120 100	3	3	Fair	Typical	Fair	Typical		Retain		3.39	101.5
5153	Blakella tessellaris	280		12	6	Fair	Typical	Fair	Typical		Retain		3.36	30.3
5533	Eucalyptus siderophloia	120		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5533	Eucalyptus siderophloia	120		5	1	Fair	Typical	Fair	Typical		Remove		2	30.2
5069	Eucalyptus tereticornis	170		11	3	Fair	Typical	Fair	Typical		Retain		2.04	64.9
5075	Eucalyptus tereticornis	400		14	7	Fair	Typical	Fair	Typical		Retain		4.8	32.2
5181	Eucalyptus tereticornis	136	110 80	7	2	Fair	Typical	Fair	Typical		Retain		2	30.2
5370	Eucalyptus tereticornis	340		16	8	Fair	Typical	Fair	Typical		Retain		4.08	30.5