Preliminary Documentation Report (Part B)

Residential Development, Queensland, EPBC Act (2025/10110)

Prepared for HB QLD Pty Ltd
19 May 2026

Ref: 12186 E

Saunders Havill

PATHWAYS TO SUCCESS

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Referral Lodgement Report

Attachment 1 – 12186_MNES Report

Referral lodgement report

Residential Development Project

Application Number: **02760** Commencement Date: **29/01/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Residential Development Project

1.1.2 Project industry type *

Residential Development

1.1.3 Project industry sub-type

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1.1.4 Estimated start date *

01/01/2026

1.1.4 Estimated end date *

31/12/2029

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

HB QLD Pty Ltd (‘the Proponent’), is proposing a residential development on land located at 103 – 175 Bayliss Road, South Ripley, described as Lot 7 on RP836942 and Lot 78 on SP308008. The referral area is situated within the suburb of South Ripley approximately 14.5km south-east of Ipswich and 34km south-west of Brisbane. The land holding is centrally located within the Queensland Government’s Ripley Valley Priority Development Area (RVPDA) adjacent to existing residential developments and land zoned as the same. The RVPDA is supported by significant Queensland Government investment in roads, sewer and

water purposefully designed to enable projects to commence and alleviate housing pressure in the South East Queensland region (Site context, the referral area, and the proposed development layout are shown on *Att 1 MNES Report, Figure 1, 2,* and *3* respectively.

Activities necessary to deliver this project include direct impacts including vegetation clearing followed by bulk earthworks, construction of residential dwellings and associated roads, pathways, and infrastructure including for stormwater and drainage, and ongoing standard maintenance of the associate roads, pathways, and infrastructure. The entire referral area (21.9 ha) is proposed to be impacted and was assessed on-ground as:

1. Non-remnant vegetation indicative of RE12.9-10.7 – 5.5 ha
2. Non-remnant vegetation indicative of RE12.9-10.2 – 10.4 ha
3. Cleared areas – 5.8 ha

A number of small, constructed dams are also present within the referral area (0.3ha).

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

No

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

The proposed action is being referred under the *Environmental Protection and Biodiversity Conservation Act 1999* for potential impacts to Matters of National Environmental Significance. Refer to *Att 1 MNES Report pp. 58*

Under the *Vegetation Management Act 1999*, the referral area is mapped wholly as Category X (non-remnant) vegetation as a result of historical clearing. Pre-clear vegetation mapping shows that most of the site would have comprised of ‘Of Concern’ RE12.9-10.7 with small pockets of RE12.9-10.2/12.9-10.19 and RE12.3.3 refer in *Att 1 MNES Report, Figure 4*. Category X (non-remnant) vegetation is exempt to clear.

The development proposal occurs within the former Ripley Valley Urban Development Area (UDA), declared under the Urban Land Development Authority Act 2007 (ULDA Act). This legislation supersedes the requirements of Local Government planning provisions (in this case, the Ipswich City Council Planning Scheme) and selective other state legislation (e.g., Vegetation Management Act 1999, and others). Development applications referred to EDQ for assessment against the Ripley Valley UDA Development Scheme will be assessed by ICC against EDQ's Implementation Guidelines

Under the *Nature Conservation Act 1992* (NCA) Protected Plants Flora Trigger Survey Map, the referral area is partly mapped as ‘High Risk’. Prior to clearing, a flora survey and associated report will be completed in accordance with the Flora Survey Guidelines – Protected Plants provided by the Department of Environment, Science, and Innovation.

The Proponent is advised to ensure that any development obligations pursuant to the provisions of the *Aboriginal Cultural Heritage Act 2003* and the *Planning Act 2016* are complied with in respect to the proposed development. Applicants, developers and landowners have a duty of care under the legislation where items of cultural heritage significance are located, even if those items have not been previously recorded in a database.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

The proponent has commenced a Cultural and Heritage Management Plan with local Indigenous group, Yuggera Ugarapul People (YUP). They have also undertaken Council planning approval, as well as consultation with owners of the adjoining land.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

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☑ **Confirm that you have read and understand this Privacy Notice ***

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details

ABN/ACN	24144972949
Organisation name	Saunders Havill Group Pty Ltd
Organisation address	4006 QLD

Referring party details

Name	Liam Brzezinski
Job title	Senior Ecologist
Phone	0431173273
Email	liambrzezinski@saundershavill.com
Address	9 Thompson Street, Bowen Hills, 4006 QLD

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details

ABN/ACN	26638077415

Organisation name	HB QLD PTY LTD
Organisation address	3008 VIC

Person proposing to take the action details

Name	Peter Johnson
Job title	National Development Director
Phone	0400661594
Email	pj@hbland.com.au
Address	Suite 323, Oracle South, Level 3, 17 Elizabeth Avenue, Broadbeach, QLD, 4218

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

HB QLD Pty Ltd has a history of delivering projects with a satisfactory record of responsible environmental management. HB QLD Pty Ltd delivers land estates in both SEQ and Victoria to a high standard. HB QLD Pty Ltd has received and delivered on two EPBC approvals and offsets on sites in both Ripley Valley and Collingwood Park QLD. HB QLD Pty Ltd does not have any present proceedings under Commonwealth, State or territory law for the protection of the environment or the conservation and sustainable use of natural resources.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

HB QLD Pty Ltd do not currently have an Environmental Policy. However, HB QLD Pty Ltd are committed to delivering projects that comply with legislative and regulatory requirements as a minimum. HB QLD Pty Ltd endeavour to continually improve on environmentally responsible actions through cooperation with their suppliers and contractors. This project specifically includes a significant biodiversity assessment report which outlines site specific management plans under local legislation.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details

ABN/ACN	26638077415
Organisation name	HB QLD PTY LTD
Organisation address	3008 VIC

Proposed designated proponent details

Name	Peter Johnson
Job title	National Development Director
Phone	0400661594
Email	pj@hbland.com.au

Address	Suite 323, Oracle South, Level 3, 17 Elizabeth Avenue, Broadbeach, QLD, 4218

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	24144972949
Organisation name	Saunders Havill Group Pty Ltd
Organisation address	4006 QLD
Representative's name	Liam Brzezinski
Representative's job title	Senior Ecologist
Phone	0431173273
Email	liambrzezinski@saundershavill.com
Address	9 Thompson Street, Bowen Hills, 4006 QLD

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	26638077415
Organisation name	HB QLD PTY LTD
Organisation address	3008 VIC
Representative's name	Peter Johnson
Representative's job title	National Development Director
Phone	0400661594
Email	pj@hbland.com.au

Address	Suite 323, Oracle South, Level 3, 17 Elizabeth Avenue, Broadbeach, QLD, 4218

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

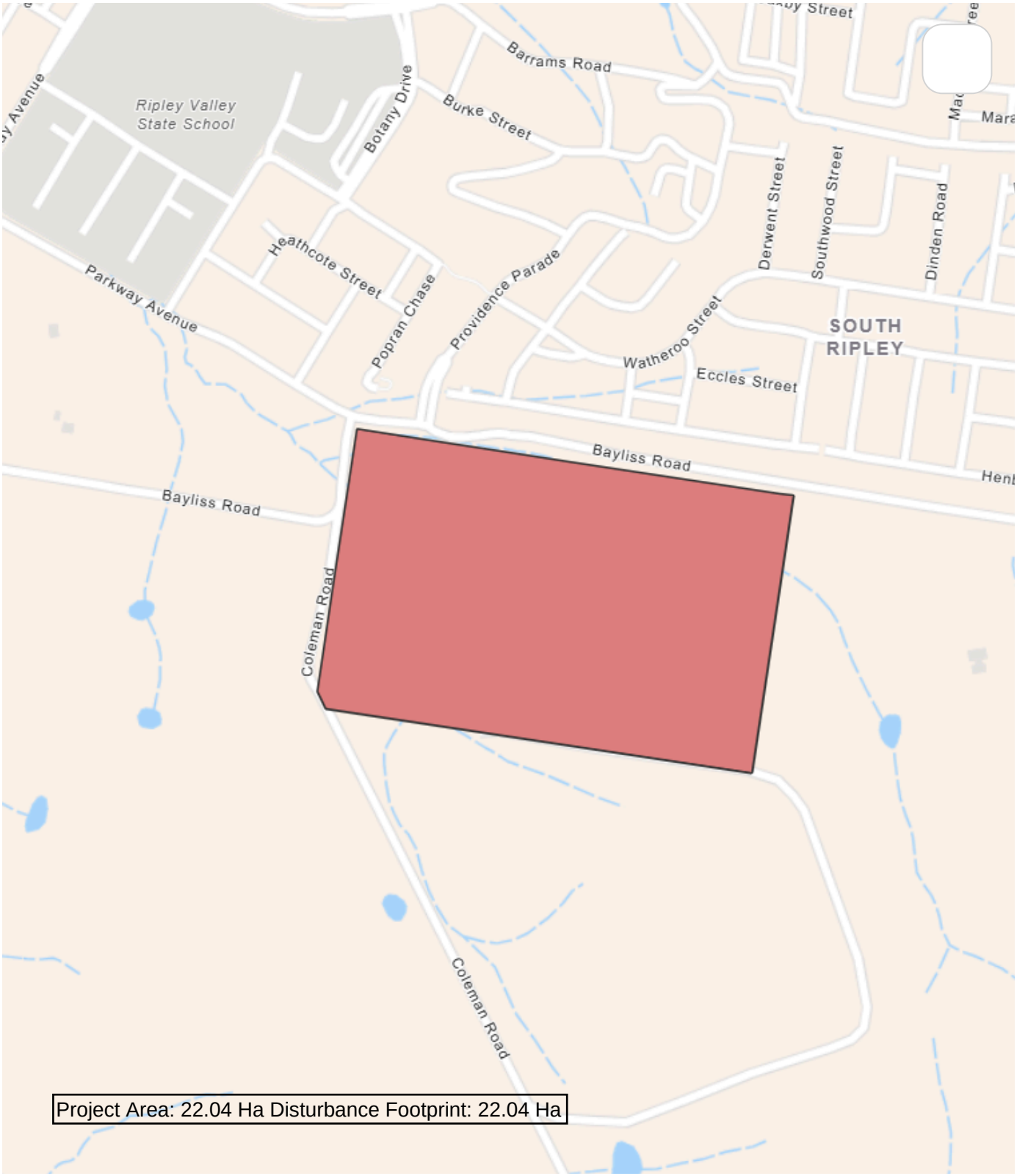
1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Person proposing to take the action

2. Location

2.1 Project footprint



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2.2 Footprint details

2.2.1 What is the address of the proposed action? *

103-175 Bayliss Road, South Ripley, Queensland 4306

2.2.2 Where is the primary jurisdiction of the proposed action? *

Queensland

2.2.3 Is there a secondary jurisdiction for this proposed action? *

No

2.2.5 What is the tenure of the action area relevant to the project area? *

The project site is freehold

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The referral area is located in a landscape that has seen extensive modification for pastoral and agricultural uses. Since the designation of the Ripley Valley Priority Development Area (RVPDA) in 2011, rapid urbanisation has occurred across the local landscape particularly to the north. Contextually the site is bound by rural properties varying in size. To the north of the site is 'Providence Central' which is a largely completed development in the centre of RVPDA. To the north-west of the referral area is a development site under construction (the 'Alcove') with roads and lot parcels completed. To the west of the referral area is a partially vegetated land parcel that is zoned wholly as 'urban living' and has a local planning approval (7193/2017/PDA). To the east is another similar sized rural lot. South-west of the referral area is a large rural property that is almost completely cleared paddocks. This site is currently being assessed under the EPBC Act (EPBC 2023/09690) for a master planned community. To the south of the referral area is another site under assessment with the EPBC Act (EPBC 2021/9061).

The site was predominantly cleared from at least the 1960's with a dominance of grass paddocks maintained through the 1980s and 1990s. The promotion of grass paddocks is likely to have been to facilitate rural land uses such as cattle agistment. Some regrowth vegetation has occurred in the 2010s indicating juvenile aged vegetation. Historic land-uses on the referral area are consistent with the broader landscape where surrounding properties have also been historically cleared and maintained for >40 years (refer to *Att 1 MNES Report Plan 1*).

The site is mapped as entirely Category X (non-remnant) vegetation under the Queensland Government's *Vegetation Management Act 1999* (VMA) as a result of on-going maintenance and an approved Property Map of Assessable Vegetation (PMAV 20018/001633). Surrounding properties are similarly mapped as predominantly Category X (non-remnant) with some areas of Category C (high-value Regrowth) and patches of Category B (remnant) vegetation further east (refer *Att 1 MNES Report Figure 4*). The lack of remnant vegetation and dominance of Category X (non-remnant) vegetation is reflective of rural areas where continued slashing and grazing has occurred to promote pasture uses.

This site has been historically cleared and highly modified for rural uses. Scattered vegetation values are present including cleared open areas, regrowth and scattered larger trees. Pre-clear RE mapping indicates the site was historically comprised of predominantly Of Concern RE12.9-10.7 with composite RE12.9-10.2/12.9-10.7/12.9-10.19 in the east. A small polygon of pre-clear RE12.3.3 is mapped along a cleared portion of the western boundary.

Field surveys identified the majority of the referral area as containing tree species, where present, indicative of 'Of Concern' RE12.9-10.7 being *Eucalyptus crebra* (Narrow-leaved Ironbark), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia tessellaris* (Moreton Bay Ash) and *Eucalyptus melanophloia* (Silver-leaf Ironbark). As a result of historical and continued rural pursuits, the understory consisted of predominantly regrowth acacia species and dense patches of exotic *Lantana camara* (Lantana). Native and exotic grasses were present throughout.

In the south-east of the referral area *Corymbia citriodora* (Spotted Gum) was observed as being the dominant canopy species and therefore vegetation in this area was more reflective of 'Least Concern' RE 12.9-10.2. The understory was similarly disturbed in this area with *Lantana camara* (Lantana) dominant and acacia regrowth.

As the entire referral area is mapped as Category X (non-remnant) vegetation, on-ground vegetation characteristics were utilised to delineate vegetation communities. Field surveys identified three (3) vegetation communities within the referral area defined as: (refer *Att 1 MNES Report Plan 5*).

1. Non-remnant vegetation indicative of RE12.9-10.7
2. Non-remnant vegetation indicative of RE12.9-10.2
3. Cleared areas

Two historical stockpiles are present within the referral area which were identified on-ground as being almost completely devoid of vegetation, instead consisting of only exposed ground, weeds and some acacia regrowth. No elements of 'Least Concern' RE12.9-10.19 or 'Endangered' RE12.3.3 were observed within the referral area.

A review of the Australian Soil Resource Information System (ASRIS) soil mapping shows that the referral area and surrounding properties are mapped as containing solely Sodosols (refer *Att 1 MNES Report Figure 5*). Sodosols are defined as texture-contrast soils with impermeable subsoils due to the concentration of sodium. These soils occupy a large area of inland Queensland. Generally, Sodosols have low-nutrient status and are vulnerable to erosion.

Two drainage features are present within the referral area in the south-west and along the northern boundary. These drainage features were identified on-ground as modified flowpaths with minimal waterway features. No riparian vegetation or specific habitat types associated with waterways were observed. Several small, constructed dams were observed across the site refer *Att 1 MNES Report Section 4.2*.

3.1.2 Describe any existing or proposed uses for the project area.

The proposed use of the referral area is for residential development, as aligns with the 'Urban Living' zoning under the Ripley Valley Priority Development Area. The project is proposed to provide housing in an urbanised area and help alleviate housing pressures in SEQ.

The referral area is a vacant 21.9 hectare property consisting of cleared areas and regrowth vegetation. The site is situated immediately south of 'Providence Central' and Bayliss Road with neighbouring properties of various sizes. Notably, the majority of land holdings in close proximity to the project site have EPBC approval or applications reflecting the planning intent of the region refer *Att 1 MNES Report*, *Plan 2*.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

The referral has been historically cleared with on-going rural uses resulting in vegetation on-site largely reflecting regrowth. Therefore, the referral area does not contain any outstanding natural features or unique values. Field surveys of the referral area did not observe any unique or important habitat, nor any direct evidence of threatened species.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

The referral area is lowest in the north-west at around 54m AHD and rises to a high point in the south-east at approximately 94m AHD. The referral area itself is mapped as land zone 9-10. Land Zone 9-10 includes undulating country on sedimentary rocks. The referral area is mapped as having Sodosol soils under the Australian Soil Classification (ASC), refer *Att 1 MNES Report Figure 5,* which are generally low fertile soils found in poorly drained sites.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Flora

A total of eighty-four (84) flora species were recorded across the referral area during field surveys, as listed in *Att 1 MNES Report*, *Appendix E*. Of the eighty-four (84) flora species recorded, thirty-seven (37) are native and forty-seven (47) species are considered to be non-native / introduced species. No flora species listed under the EPBC Act and NCA were recorded in or adjoining the referral area.

Field surveys confirmed the entire referral area as Category X (non-remnant) vegetation reflective of historical rural uses. Native canopy species are present across the referral area which generally reflect RE12.9-10.7 being *Eucalyptus crebra* (Narrow-leaved Ironbark), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia tessellaris* (Moreton Bay Ash) and *Eucalyptus melanophloia* (Silver-leaf Ironbark). Vegetation in the south-east of the referral area showed a dominance of *Corymbia citridora* (Spotted Gum) which more closely reflects RE12.9-10.2. The subcanopy and shrub layer were sparse and included some regrowth native species and exotic Lantana camara (Lantana). The ground layer consists of a mixture of native and exotic pasture grasses. Notably, large portions of the site have been completed cleared for historical stockpiles and consisted of exposed ground and some regrowth acacia species *Att 1 MNES Report, Plan 5*.

Two drainage features are present within the referral area in the south-west and along the northern boundary. These drainage features were identified on-ground as modified flowpaths with minimal waterway features. No riparian vegetation or specific habitat types associated with waterways were observed. Several small, constructed dams were observed across the site.

Desktop analysis of vegetation communities indicates that no REs representative of Threatened Ecological Communities (TEC) are mapped on-site. Field surveys confirmed that no TECs are present on or adjacent to the site. Full details of field survey findings are presented within *Att 1 MNES Report, Section 4, pp 15-53*.

Fauna

Multiple targeted fauna survey methods completed in accordance with relevant Commonwealth and State survey methodologies were implemented during the field survey period to target presence of potential MNES. This included spotlighting, motion-triggered camera detection, crepuscular and diurnal meander surveys, active searches for signs of fauna usage (*i.e.,* Koala SAT surveys), and searches and assessment of foraging values and habitat suitability. Details of the methodology and survey dates are provided in summary of fauna survey techniques and effort is provided in *Att 1 MNES Report, Table 1 and Table 2*.

A total of fifty-eight (58) fauna species were recorded during field surveys, inclusive of motion sensor camera traps, nocturnal targeted surveys and incidental observations, including forty-eight (48) birds, seven (7) mammals, four (4) amphibians and two (2) reptiles. No conservation significant fauna species were directly recorded during the field survey. However, SAT surveys detected indirect evidence of Koala in the form of scats at 1 of the 6 SAT locations (low use). Motion sensor camera traps also detected the presence of at least one European Red Fox which are known to pose a significant threat to native fauna, including the Koala. A complete fauna species list is provided in *Att 1 MNES Report, Table 9,* and the full SAT survey results are provided in *Att 1 MNES Report, Appendix D.*

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Field surveys confirmed the entire referral area as Category X (non-remnant) vegetation reflective of historical rural uses. Native canopy species are present across the referral area which generally reflect RE12.9-10.7 being *Eucalyptus crebra* (Narrow-leaved Ironbark), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia tessellaris* (Moreton Bay Ash) and *Eucalyptus melanophloia* (Silver-leaf Ironbark). Vegetation in the south-east of the referral area showed a dominance of *Corymbia citridora* (Spotted Gum) which more closely reflects RE12.9-10.2. The subcanopy and shrub layer were sparse and included some regrowth native species and exotic *Lantana camara* (Lantana). The ground layer consists of a mixture of native and exotic pasture grasses. Notably, large portions of the site have been completely cleared for historical stockpiles and consisted of exposed ground and some regrowth acacia species.

Three vegetation communities were identified on-ground being:

1. Non-remnant vegetation indicative of RE12.9-10.7

2. Non-remnant vegetation indicative of RE12.9-10.2
3. Cleared areas

All communities present within and adjacent to the referral area are described below and displayed on *Att 1 MNES Report, Plan 5*.

A review of the Australian Soil Resource Information System (ASRIS) soil mapping shows that the referral area and surrounding properties are mapped as containing solely Sodosols (refer *Att 1 MNES Report, Figure 5*). Sodosols are defined as texture-contrast soils with impermeable subsoils due to the concentration of sodium. These soils occupy a large area of inland Queensland. Generally, Sodosols have low-nutrient status and are vulnerable to erosion.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

No Commonwealth Heritage Places are known to be located within or adjacent to the referral area.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

No Indigenous heritage values are known to occur within the referral area. The proponent is progressing the Cultural Heritage Management Plan (CHMP) for the area. The proponent is aware of their duty of care obligations and will engage with the traditional owners prior to the commencement of work.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The referral area contains drainage flowpaths on-site. Flow paths on-site travel downstream to the north-west to merge with Bundamba Creek. Bundamba Creek meanders north through high density residential, industrial and rural land to merge with the Bremer River, onto the Brisbane River and ultimately into Moreton Bay at the Port of Brisbane. This is a distance of at least 100km.

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision	Impacted	Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	No	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	No	Yes
S21	Nuclear	No	Yes

EPBC Act section	Controlling provision	Impacted	Reviewed
S23	Commonwealth Marine Area	No	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

No World Heritage Sites exist within or near to the referral area. The closest World Heritage Site is the Gondwanan Rainforests of Australia (Main Range National Park) of which is approximately 44 km south-west of the referral area. Due to the distance of the project site away from this area, it is unlikely that it will have an impact on any World Heritage places.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

No.

There is no potential for the proposed action to impact on a National Heritage Place.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
Yes		Moreton Bay

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.3.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Flow paths on-site travel downstream to the north-west to merge with Bundamba Creek. Bundamba Creek meanders north through high density residential, industrial and rural land to merge with the Bremer River, onto the Brisbane River and ultimately into Moreton Bay at the Port of Brisbane. This is a distance of at least 100km.

The referral area is significantly far from the nearest point of the Moreton Bay RAMSAR Wetland. Furthermore, the proposed development will implement the necessary stormwater management plans during the construction and operation phases of the project.

There is no potential for the proposed action to impact on a Wetland of International Importance (Ramsar).

No other wetlands of international importance occur within close proximity of the project extent. No direct impacts on the wetland are anticipated to occur as a result of the project construction and operation.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species	Common name
No	No	Anthochaera phrygia	Regent Honeyeater
No	No	Argynnis hyperbius inconstans	Australian Fritillary
No	No	Arthraxon hispidus	Hairy-joint Grass
No	No	Bosistoa transversa	Three-leaved Bosistoa, Yellow Satinheart
No	No	Botaurus poiciloptilus	Australasian Bittern
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo
No	No	Chalinolobus dwyeri	Large-eared Pied Bat, Large Pied Bat
No	No	Climacteris picumnus victoriae	Brown Treecreeper (south-eastern)
No	No	Coleus habrophyllus	

Direct impact	Indirect impact	Species	Common name
No	No	Cupaniopsis shirleyana	Wedge-leaf Tuckeroo
No	No	Cupaniopsis tomentella	Boonah Tuckeroo
No	No	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot
No	No	Dasyurus hallucatus	Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu]
No	No	Dasyurus maculatus maculatus (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)
No	No	Delma torquata	Adorned Delma, Collared Delma
No	No	Dichanthium setosum	bluegrass
No	No	Erythrotriorchis radiatus	Red Goshawk
No	No	Falco hypoleucos	Grey Falcon
No	No	Fontainea venosa	
No	No	Furina dunmalli	Dunmall's Snake
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Geophaps scripta scripta	Squatter Pigeon (southern)
No	No	Grantiella picta	Painted Honeyeater
No	No	Hemiaspis damelii	Grey Snake
No	No	Hirundapus caudacutus	White-throated Needletail
No	No	Lathamus discolor	Swift Parrot
No	No	Leuzea australis	Austral Cornflower, Native Thistle
No	No	Macroderma gigas	Ghost Bat
No	No	Notelaea lloydii	Lloyd's Olive
No	No	Notelaea x ipsviciensis	Cooneana Olive
No	No	Petauroides volans	Greater Glider (southern and central)
No	No	Petaurus australis australis	Yellow-bellied Glider (south-eastern)
No	No	Petrogale penicillata	Brush-tailed Rock-wallaby
Yes	No	Phascolarctos cinereus (combined populations of Qld, NSW and the	Koala (combined populations of Queensland, New South Wales and the

Direct impact	Indirect impact	Species	Common name
		ACT)	Australian Capital Territory)
No	No	Picris evae	Hawkweed
No	No	Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple
Yes	No	Pteropus poliocephalus	Grey-headed Flying-fox
No	No	Rhodamnia rubescens	Scrub Turpentine, Brown Malletwood
No	No	Rhodomyrtus psidioides	Native Guava
No	No	Rostratula australis	Australian Painted Snipe
No	No	Samadera bidwillii	Quassia
No	No	Stagonopleura guttata	Diamond Firetail
No	No	Thesium australe	Austral Toadflax, Toadflax
No	No	Tringa nebularia	Common Greenshank, Greenshank
No	No	Turnix melanogaster	Black-breasted Button-quail

Ecological communities

Direct impact	Indirect impact	Ecological community
No	No	Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community
No	No	Grey box-grey gum wet forest of subtropical eastern Australia
No	No	Lowland Rainforest of Subtropical Australia
No	No	Poplar Box Grassy Woodland on Alluvial Plains
No	No	Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions
No	No	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

The referral area does contain native trees of the Eucalyptus and Corymbia genus that may provide potential habitat for threatened fauna species. However, the highly modified nature of the site has resulted in a dominance of cleared areas and regrowth vegetation which limits the suitability of potential habitat. Several species highlighted as potentially occurring as part of the desktop assessment were subsequently downgraded to a 'low' likelihood of occurrence following field surveys, owing to a lack of records, lack of evidence and lack of suitable habitat. However, the project will directly impact habitat to Koala and Grey-headed Flying-fox.

Phascolarctos cinereus (Koala)

The Koala occurs in a range of environments containing eucalypt forest or woodland. Despite historical clearing occurring over the entire referral area and Category X (non-remnant) status, Non-juvenile Koala Habitat Trees (NJKHTs) are present including *Eucalyptus tereticornis* (Forest Red Gum), Eucalyptus siderophloia (Grey Ironbark), *Corymbia citriodora* (Spotted Gum) and *Corymbia tessellaris* (Moreton Bay Ash). Several detailed surveys were completed including spotlighting and SAT assessments. SAT assessments were utilised to detect indirect evidence of Koala activity across the referral area, to determine the likelihood of occurrence on-site. A total of six (6) SAT assessments were completed as well as incidental surveys occurring across the site. Detailed surveys failed to directly detect Koala however indirect evidence in the form of scats were recorded only at 'SAT 1' which indicates 'low' usage. This evidence suggests that the referral area is not currently occupied by a population of Koala and is more likely to be used by transient individuals.

Koalas are known to occur within the local area with several sightings recorded on publicly available databases (ALA and biomaps). Notably, no sightings of the species have been recorded on-site with the majority of records west of Ripley Road, north of the Centenary Highway and in White Rock Conservation Park to the east (*refer Att 1 MNES, Plan 6*). The referral area is located within a highly modified landscape that has been subject to extensive historical modification for rural purposes and more recent residential and infrastructure developments. The strategic planning of the site has resulted in 100% 'urban living' zoning with much of the surrounding land zoned the same. The referral area does retain some local level connectivity in an east-west direction and the referral area does contain vegetation that would be considered Koala habitat.

Grey-headed flying-fox (*Pteropus poliocephalus*)

Pteropus poliocephalus (Grey-headed Flying-fox) requires foraging resources and roosting sites to persist. The species is known to use a wide variety of habitats including subtropical and temperate rainforests, tall sclerophyll forest and woodlands, heaths, swamps and also urban and agricultural areas where food trees have been cultivated.

The species is highly adaptive with its diverse native diet, which it can supplement with introduced species. It is known to forage within a variety of habitat areas as each resource does not produce food throughout the entire year. There are no observed roosts on-site, with the nearest roost located 8.6 km north-west of the site in Yamanto (479). This roost was last surveyed in 2020 where GHFF were present.

There are several scattered sightings within the broader locality with most records observed close to the Yamanto camp. Notably, two recent records (2023) are present approximately 5km east of the site within White Rock Conservation Park (refer *refer Att 1 MNES, Plan 7*). The referral area does contain potential foraging species however, given the extensive historical clearing, vegetation is largely of regrowth value and does not contain vegetation density reflective or remnant vegetation. Additionally, the referral area

contains larger cleared areas that do not provide any foraging resources for the species. Therefore, foraging habitat within the referral area is considered low value, particularly given the availability of large areas of suitable habitat within White Rock Conservation Park to the east.

Refer Att 1 MNES, Section 4.3.2 for fauna assessment results.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

Yes

4.1.4.5 Describe why you consider this to be a Significant Impact. *

Koala (*Phascolarctos cinereus*)

A full assessment against the Significant Impact Guidelines 1.1 is provided in *Att 1 MNES Report, Section 7.2, pp. 70-78.*

The proposed action will require the removal of 15.9 ha of vegetation including recognised Koala habitat trees. The species is known to be present in the local area, according to Queensland Wildnet Data, which dates back to the 1980s, twenty-one (21) Koalas have been recorded within a 5 km radius of the site. A review of ALA and Biomaps indicated that these records vary from relatively recent (2020) to historical (1987). The closest recorded sighting of Koala to the referral area is from 2007 adjacent to Ripley Road. More recent records of Koala (within 7 years) are located in White Rock Conservation Park 4.5 km east of the site; Deebing Heights 5km west and Goolman, forming part of Goolman Conservation Estate to the south. A number of referrals have been made within the vicinity of the project site and Koala scats, typically of a low level activity, are noted in the local context. Several targeted surveys were completed across the referral area including SATs and nocturnal searches. No direct evidence of the species was observed. Indirect evidence in the form of scats were recorded at only 1 of the 6 SAT locations indicating 'low' usage. The proposed action will remove 15.9 ha of vegetation on-site that provides potential foraging/dispersal habitat for the Koala. Therefore, there is potential that the proposed action will reduce the area of occupancy of the species

Grey-headed Flying-fox (*Pteropus poliocephalus*)

A full assessment against the Significant Impact Guidelines 1.1 is provided in *Att 1 MNES Report, Section 7.3, pp. 78-86.* This assessment determined the proposed action is unlikely to result in a Significant Impact to Grey-headed Flying-fox (GHFF).

Field surveys identified native trees across the referral area including *Corymbia citriodora* (Spotted Gum), *Corymbia intermedia* (Pink Bloodwood), *Corymbia tessellaris* (Moreton Bay Ash), *Eucalyptus melanophloia* (Silver-leaf Ironbark), and *Eucalyptus crebra* (Narrow-leaved Ironbark). A review of the National Flying-fox monitoring viewer identified a GHFF roost approximately 8km north-west of the site (Yamanto (851)), while the nearest roost of national significance is Inala (1219) approximately 20 km north-east.

While native trees are present across the referral area, historical land clearing and on-going rural uses has resulted in dominance of regrowth vegetation and cleared areas. Trees on-site include species of an age, size and type which qualify as potential foraging trees. While it is plausible that from time to time these trees maybe foraged by GHFF, in line with smaller acreage or larger lot residential areas, removal of these trees would result in an immeasurably low reduction of available habitat within the immediate area and an imperceptible reduction in the local region.

Given the dominance of regrowth vegetation and cleared areas, locality and distance from known roost sites, the site is not considered to provide critical habitat supporting an important population of the species. The proposed action is unlikely to lead to a long-term decrease in the size of any local GHFF populations. No roosts were observed within, or adjacent to, the referral area, nor have they been reported in the ecological reporting for any adjoining land holdings.

No roosts are present on/or adjacent to the site. The site retains limited ecological value for the species, confined to regrowth vegetation. The proposed action will not reduce the area of occupancy of an important population of GHFF as no roost was observed on-site and recently active roost of national significance is present approximately 20km north-east of the site. Furthermore, there is an abundance of suitable habitat associated with White Rock Conservation Park.

The high mobility of the species, lack of evidence of usage and availability of suitable habitat in the broader landscape indicates the impact to foraging habitat within the referral is unlikely to have a significant impact on the species.

4.1.4.7 Do you think your proposed action is a controlled action? *

Yes

4.1.4.8 Please elaborate why you think your proposed action is a controlled action. *

Contextually the referral area is located within an area allocated for urban development which is reflected in the several approved and under assessment developments. The referral area does contain 15.9 ha of vegetation including recognised Koala habitat trees. Despite field survey not directly observing the species with only limited indirect evidence indicating low usage, the project will reduce the availability of habitat in the area and therefore there is potential for a significant impact.

The significant impact assessment for Grey-headed Flying Fox concluded that it is unlikely that the proposed action will have a significant impact on the species. While potential foraging habitat for the species is present within the referral area, the high mobility of the species, lack of evidence of occurrence, and abundance of suitable habitat in the locality indicates that removal of vegetation on-site will not significantly reduce the availability of habitat for the species.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

Construction Phase

General mitigation measures to be implemented during the construction phase of the Project are outlined below. It is understood that the impact area will be securely fenced for security purposes and to mitigate potential threats to fauna during construction

Vegetation Clearing and Management Plan

A Vegetation Clearing and Management Plan (VC&MP) should form part of the broader management document submitted as part of the operational works application for the development site. The VC&MP should cover clearing of all vegetation listed in this report and include details on:

- Clearly show trees to be removed
- All civil works likely to impact on existing vegetation
- Temporary and permanent exclusion and protection fencing
- Roles and responsibilities for site contractors, the developer and the consultant group
- Stockpiling and site access locations
- A clearing sequence plan showing the commencement of clearing and direction of removal (this should be in conjunction with the Fauna Management Plan to allow for the appropriate flushing of fauna towards safe havens and/or the application of an appropriate relocation program)
- Links to weed management and revegetation proposals
- The stock piling and reuse of cleared vegetation

Fauna Management Plan

A Fauna Management Plan (FMP) should be prepared for potential impacts of the construction phase covering the loss of vegetated areas, isolated trees and likely barriers and impediments to local dispersal.

The FMP should link closely with the VC&MP and include details on:

- Species surveyed as using the site with a focus on those most likely impacted by development works
- A list of relevant State and Commonwealth legislation constraints and controls for the above listed fauna
- A plan showing existing habitat opportunities and locations
- Details of the threats to existing fauna species
- Clearing sequence plan from the VC&MP
- Management and mitigation measures i.e. temporary use of fauna exclusion fencing
- Fauna spotter role, contacts and certification
- Specific fauna management procedures for potential or known habitat trees

Fauna Spotter Catcher

A registered and suitability qualified fauna spotter catcher/ecologist will need to be employed for the construction phase of the project to implement a protocol of best management practises. Significant habitat features, should any be identified on site, will be flagged prior to clearing events and these areas supervised by an appropriately experienced Ecologist. Identified within the clearing supervision protocol should be flagging of hollow bearing trees, if present, followed by the removal of vegetation surrounding them. After 24 to 72 hours, these trees should then be removed. Trees must be directionally felled into open or already cleared areas.

The objective of this is to enable hollow dependant fauna an opportunity to move on their own accord as many species utilise multiple den/roost sites within a given home range should they occur. Certain areas could be identified and flagged as significant, such as old-growth trees with hollow resources and on-site identification to construction personnel will help reduce/avoid clearing. Where required, native fauna situated within areas to be cleared will be relocated to a secure area of similar habitat prior to the commencement of vegetation clearance works by a registered fauna spotter/catcher. Should any removal and relocation of nests be required, it is to be undertaken by a suitably qualified and experienced person and advice sought where necessary.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

It is anticipated that in seeking an EPBC approval, offsets will be detailed in future assessments/reporting

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species	Common name
Yes		Actitis hypoleucos	Common Sandpiper
No	No	Apus pacificus	Fork-tailed Swift
No	No	Calidris acuminata	Sharp-tailed Sandpiper
No	No	Calidris ferruginea	Curlew Sandpiper
No	No	Calidris melanotos	Pectoral Sandpiper
No	No	Cuculus optatus	Oriental Cuckoo, Horsfield's Cuckoo
No	No	Gallinago hardwickii	Latham's Snipe, Japanese Snipe
No	No	Hirundapus caudacutus	White-throated Needletail
Yes		Motacilla flava	Yellow Wagtail
No	No	Tringa nebularia	Common Greenshank, Greenshank

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.5.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Database searches returned eleven (11) migratory fauna species listed as threatened under the EPBC Act and/or NC Act, as having been previously recorded or predicted to occur within 5 km of the referral area.

The desktop assessment highlighted *Gallinago hardwickii* (Latham's Snipe) and *Rostratula australis* (Australian Painted Snipe) as having potential to occur within the referral area.

The Latham's Snipe and Australian Painted Snipe are wetland birds that occur in permanent and ephemeral wetlands. They usually inhabit open, freshwater wetlands with low, dense vegetation.

The referral area does not contain true wetland environments favoured by the species with potentially suitable habitat confined to a series of constructed farm dams. These dams were dominated by pasture grasses as a result of historic and contemporary cattle grazing. While the species has been observed utilising constructed dams in the local area, they are more frequently observed within the vicinity of Bundamba Lagoon, a large waterbody with dense native wetland vegetation, providing suitable habitat approximately 4 km south-east of the referral area. Following detailed field surveys over multiple days, the Latham's Snipe and Australian Painted Snipe was not observed utilising dams on-site. It is considered unlikely that the species would utilise dams on-site given the suitability of habitat associated with Bundamaba Lagoon to the south-east. The removal of low-value habitat within the referral areal is not considered to significantly reduce the availability of habitat within the local area as the size of Bundamba lagoon is capable of supporting a high number of individuals.

Following field surveys and the likelihood of occurrence assessment, no species were identified as having a moderate or greater likelihood of occurring on-site.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action does not comprise a nuclear action, and therefore a direct and / or indirect impact is not predicted.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.7.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is not being undertaken in or adjacent to a Commonwealth marine area.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is more than 360km south of the Great Barrier Reef Marine Park, and is not considered to directly and / or indirectly impact upon it.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project will not have a direct nor indirect impact on a water resource in relation to large coal mining development or coal seam gas

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Mapping indicates commonwealth lands approximately 5km form the referral area, however the lands are separated from the referral area by a highly modified landscape inclusive of large-scale developments and major roads. Therefore, it is considered highly unlikely that the proposed action will have any direct or indirect impacts on these lands.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

—

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The proposed action is not to occur on or adjacent to Commonwealth heritage places overseas.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

- Threatened Species and Ecological Communities (S18)

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)
- Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

The proposed action is for a residential development that will provide residential dwellings within the 'Urban Living' zone of the Ripley Valley Priority Development Area (RVPDA), to cater for the increasing housing demands in South-East Queensland (SEQ). Since this development is proposed specifically to meet the need and designated Priority Development Area, alternative locations are not relevant. Given the zoning of the referral area and surrounds as 'Urban Living' under a priority development designation, the referral area is not intended to be retained. Therefore, potential alternatives are both unnecessary and ineffective at meeting the needs this proposed action seeks to satisfy.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Att 1 MNES Report.pdf Technical report relating to Matters of National Environmental Significance	27/01/2026	No	High

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN	24144972949
Organisation name	Saunders Havill Group Pty Ltd

Organisation address	4006 QLD
Representative's name	Liam Brzezinski
Representative's job title	Senior Ecologist
Phone	0431173273
Email	liambrzezinski@saundershavill.com
Address	9 Thompson Street, Bowen Hills, 4006 QLD

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ By checking this box, I, **Liam Brzezinski of Saunders Havill Group Pty Ltd**, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	26638077415
Organisation name	HB QLD PTY LTD
Organisation address	3008 VIC
Representative's name	Peter Johnson
Representative's job title	National Development Director
Phone	0400661594
Email	pj@hbland.com.au
Address	Suite 323, Oracle South, Level 3, 17 Elizabeth Avenue, Broadbeach, QLD, 4218

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Peter Johnson of HB QLD PTY LTD**, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

✔ Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

☑ Check this box to indicate you have read the referral form. *

☑ I would like to receive notifications and track the referral progress through the EPBC portal. *

☑ I, **Peter Johnson of HB QLD PTY LTD**, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

☐ I would like to receive notifications and track the referral progress through the EPBC portal. *

Attachment 1 – 12186_MNES Report

Technical Report - Matters of National Environmental Significance

103 – 175 Bayliss Road, South Ripley, Queensland, 4306
Prepared for HB QLD Pty Ltd
28 January 2025

saunders havill group

Job 12186

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1. Introduction

Saunders Havill Group (SHG) was engaged by HB QLD Pty Ltd to carry out an ecological assessment of Matters of National Environmental Significance (MNES) to support a referral under the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The purpose of this report is to identify potential MNES, specifically listed threatened species and communities that may be impacted by the proposed development ('the action') of land located at 103 – 175 Bayliss Road, South Ripley, Queensland, 4306.

1.1. Description of the Action

HB QLD Pty Ltd ('the Proponent'), is proposing a residential development on land located at 103 – 175 Bayliss Road, South Ripley, described as Lot 7 on RP836942 and Lot 78 on SP308008 (refer **Figure 1** and **Figure 2** for Site Context and Site Aerial). The referral area is situated within the suburb of South Ripley approximately 14.5km south-east of Ipswich and 34km south-west of Brisbane. The land holding is centrally located within the Queensland Government's Ripley Valley Priority Development Area (RVPDA) adjacent to existing residential developments and land zoned as the same. The RVPDA is supported by significant Queensland Government investment in roads, sewer and water purposefully designed to enable projects to commence and alleviate housing pressure in the South-East Queensland region (refer **Figure 3** for Proposed Development).

The referral area accounts for a total of 21.9 hectares (ha) zoned as 'Urban Living' within the RVPDA Development Scheme and as 'Secondary Urban Centre East Neighbourhoods on the Structure Plan.

1.2. Areas of Investigation

The areas of investigation for this ecological assessment include:

- Referral area – Lot 7 on RP836942 and Lot 78 on SP308008 totalling approximately 21.9 ha.
- Locality – the extent of the 5 km radius database searches of the referral area.

1.3. Purpose

When a person proposes to take an action (*i.e.,* a project) under the EPBC Act, a decision must be made on whether or not to make a referral to the Australian Government Environment Minister. The Australian Government's Department of Climate Change, Energy, the Environment and Water (DCCEEW) ('the Department') administers the EPBC Act and referral process.

This ecological assessment has been prepared to support a referral to the DCCEEW for assessment against the EPBC Act. The purpose is to:

- Identify biodiversity values within or near the project area with a specific focus on MNES

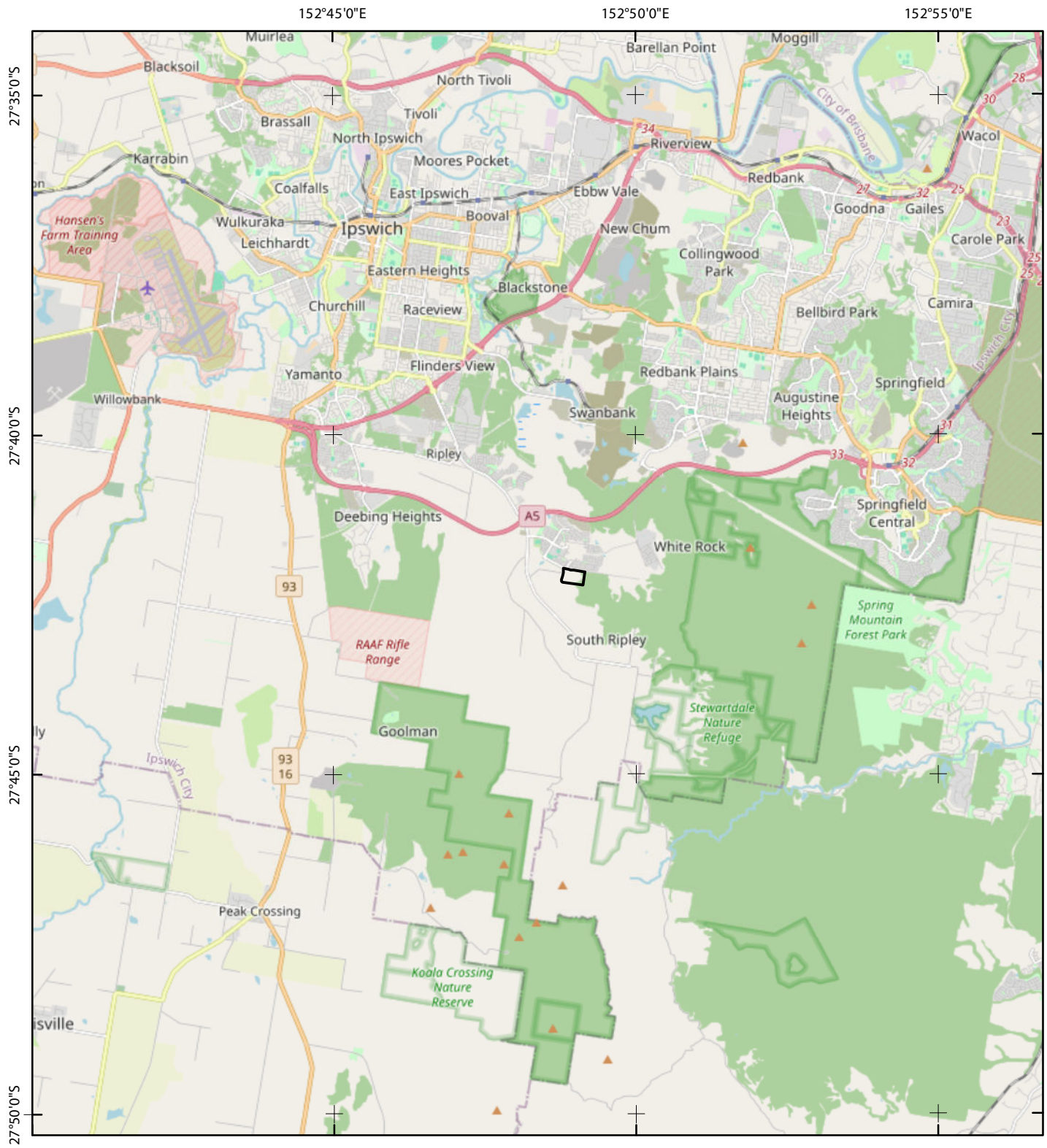
- Identify potential impacts of the proposed action on MNES via analysis and assessment against published Department Conservation Advice, Significant Impact Criteria and other policies and guidelines.
- Demonstrate measures incorporated within the acquisition, design and construction of the project to avoid, minimise and / or mitigate any potential identified impacts; and
- Provide an assessment against the *Significant Impact Guideline 1.1* for MNES and or any other specific species criteria assessment identified as having the potential to be impacted by the action, at its broadest scope.

Nine MNES are protected under the EPBC Act, being:

- world heritage properties;
- national heritage places;
- wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed);
- nationally threatened species and ecological communities;
- migratory species;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mining); and
- a water resource, in relation to coal seam gas development and large coal mining development.

An assessment has been completed to identify the potential for the development to impact each of the nine MNES. Where a potential impact was identified, a more detailed evaluation was undertaken to determine the scale and type of impact. The Department has published additional referral guidelines for some MNES species and communities, and these were considered, where relevant, as part of this review.

The purpose of the referral is to determine whether or not a proposed action is a 'controlled action' and thereby requires approval under the EPBC Act. If the Minister determines that a proposed action is a 'controlled action', it would then proceed through the EPBC assessment and approval process.



Legend

Surveyed Referral Area

Figure 1

Site Context

HB QLD Pty Ltd

File ref. 12186 E Figure 1 Site Context A
Date 10/01/2025
Project Bayliss Road, South Ripley

N

0 1 2 3 4 5 km

Scale (A4): 1:150,000 [GDA 2020 MGA Z56]

saunders havill group

Legend

- Surveyed Referral Area
- Qld DCDB

Figure 2

Site Aerial

HB QLD Pty Ltd

File ref. 12186 E Figure 2 Site Aerial A
Date 10/01/2025
Project Bayliss Road, South Ripley

N

0 50 100 150 200 m

Scale (A4): 1:4,000 [GDA 2020 MGA Z56]

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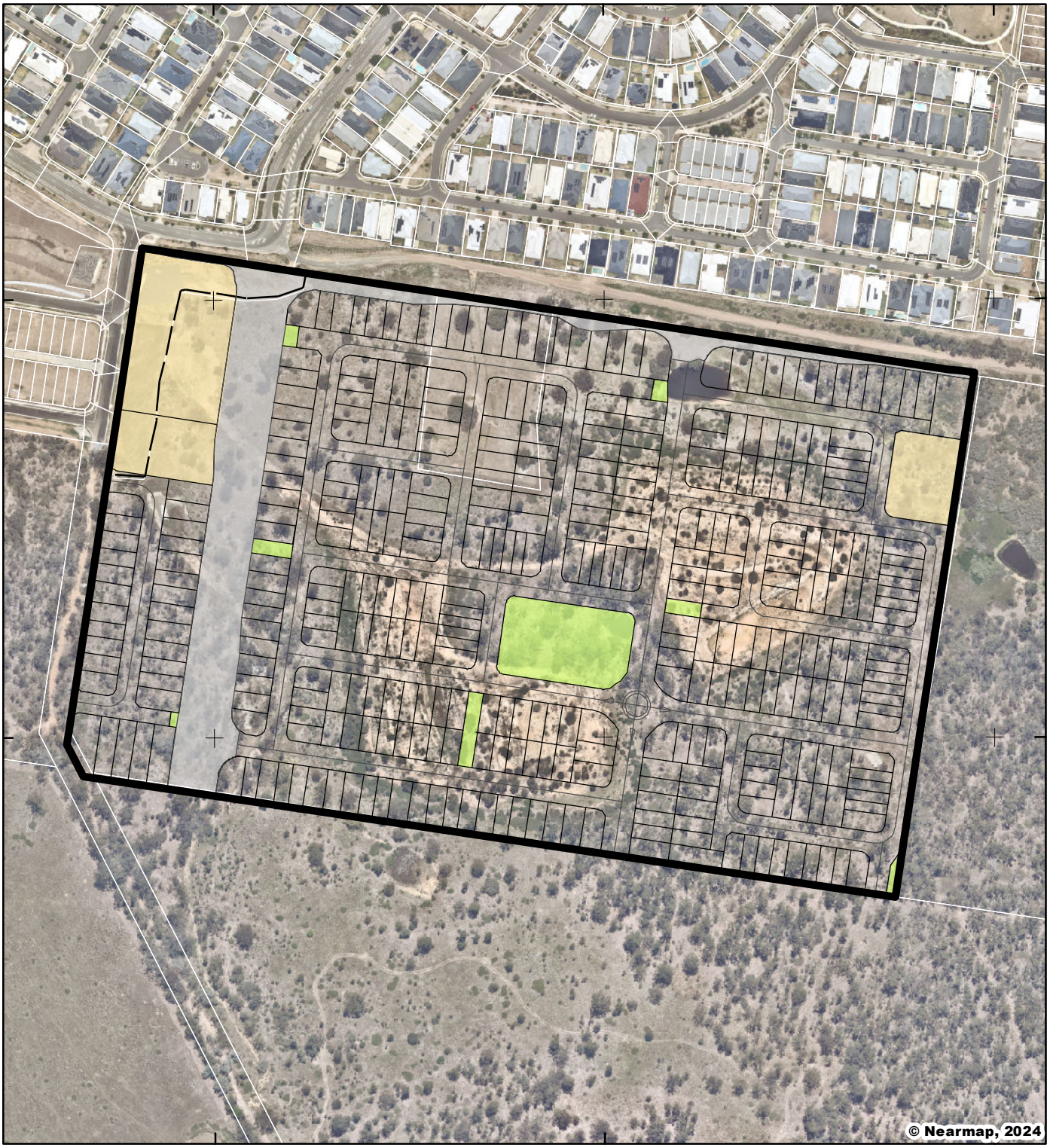
Layer Source: © State of Queensland 2025



Legend

- Surveyed Referral Area [22 ha]
- Qld DCDB

Proposed Layout

- Proposed Lots
- Proposed Roads
- Easements
- Proposed Parks
- Detention Basins
- Ultimate Road Resumption

Figure 3

Proposed Development

HB QLD Pty Ltd

File ref. 12186 E Figure 3 Development A
Date 16/01/2025
Project Bayliss Road, South Ripley

N

0 50 100 150 200 m

Scale (A4): 1:4,000 [GDA 2020 MGA Z56]

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Layer Source: © State of Queensland 2025

2. Commonwealth Legislation and Policy

2.1. *Environment Protection and Biodiversity Conservation Act 1999*

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) establishes a requirement for Commonwealth environmental assessment and approval for actions that are likely to have a significant impact on any MNES protected under the EPBC Act, including:

- World heritage properties;
- National heritage places;
- Wetlands of international importance (listed under the Ramsar Convention);
- Listed threatened species and ecological communities;
- Migratory species protected under international agreements;
- Commonwealth marine areas;
- The Great Barrier Reef;
- Nuclear actions (including uranium mines); and
- A water resource, in relation to coal seam gas development and large coal mining development.

Other matters protected under the EPBC Act, include:

- The environment, where actions proposed are on, or will affect Commonwealth land and the environment; and
- The environment, where Commonwealth agencies are proposing to take an action.

2.1.1 Significant Impact Guidelines 1.1.

The purpose of these guidelines is to assist any person who proposes to take an action to decide whether or not they should submit a referral to the Department for a decision by the Minister on whether assessment and approval is required under the EPBC Act.

3. Assessment Methodology and Process

3.1. Desktop analysis

Prior to the commencement of field surveys, a desktop analysis was conducted of Commonwealth, State and Local environmental databases and overlay mapping to identify potential MNES and included the following:

- Commonwealth MNES protected under the EPBC Act on and around the site using the protected matters search tool with a 5 km radius (**Appendix A**);
- *Nature Conservation Act 1992* (NCA) listed threatened species on and around the site using the wildlife online database search tool with a 5 km radius (**Appendix B**);
- Public environmental databases including Atlas of Living Australia and BioMaps;
- State regulated vegetation management and vegetation supporting maps under the *Vegetation Management Act 1999* (VMA) including essential habitat mapping; and
- Local government records where MNES threatened species and communities are known to occur in the area. Where available this includes Ecological Assessment Reports, Fauna Spotter Catcher pre-clearance reports and return of operations reports from surrounding projects.

Additionally, a review of historical aerial photography was undertaken via QImagery to assist with the broad delineation of vegetation communities and to determine historical patterns to local vegetation communities. This approach mirrors the early phases of the Queensland Government's *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland*

Initial desktop assessment identified seven (7) threatened ecological communities (TECs), seventeen (17) threatened flora species, thirty-three (33) threatened fauna species and eleven (11) migratory species as having the potential to occur within 5 km of the referral area (refer **Appendix A**). An initial assessment for the likelihood of occurrence was undertaken based on desktop survey to inform field survey methodology for target flora and fauna species and communities.

3.2. Field survey methodology

A field survey utilising the methods outlined in the following subsections was conducted to describe ecological values at and surrounding the referral area. Field surveys were undertaken during seasonal conditions generally favourable to the detection and identification of flora and fauna species. Field survey methods were determined based on target species and communities and EPBC Act listed species guidelines.

Field surveys were carried out over several days in 2024 by suitably qualified field ecologists (refer **Table 1** and **Table 2**)

Table 1: Field Survey Methods Summary

Date	Weather Conditions	Methods
28.05.2024	Clear, 9.0°C min - 23.9°C max, 0 mm rainfall	- Preliminary surveys - Incidental diurnal surveys - Habitat quality transects
03.09.2024	Clear, 5.1°C min – 26.7°C max, 0 mm rainfall	- Tree plotting - incidental diurnal surveys - install motion camera traps
04.09.2024	Overcast, 4.0°C min – 24.0°C max, 0 mm rainfall	- Tree plotting - incidental diurnal surveys
05.09.2024	Clear, 6.5°C min - 24.7°C max, 0 mm rainfall	- Dawn bird surveys - Tree plotting - SATs
16.09.2024	Clear, 8.6°C min – 24.8°C max, 0 mm rainfall	- Habitat quality transects - SATs - Incidental diurnal surveys
17.09.2024	Clear, 5.4°C min – 25.3°C max, 0 mm rainfall	- Dawn bird surveys
18.09.2024	Clear, 9.4°C min – 27.5°C max, 0 mm rainfall	- Collect motion cameras - Incidental diurnal surveys - Dusk bird surveys - Spotlighting

Bureau of Meteorology (Station Number 040004) (BOM 2024)

Table 2: Field survey personnel and methods

Survey guidelines	Techniques Implemented and survey effort	Field personnel qualifications
Survey guidelines for Australia's threatened mammals Phillips and Callaghan (2011)	• Six (6) Spot Assessment Technique surveys • Assessment of foraging and breeding values (habitat suitability) • Spotlighting (4 person hours) • Motion fauna camera (15 nights) • Incidental diurnal surveys (91 person hours)	**Principle Ecologist** • 15 years of relevant experience • Bachelor of Applied Science (Natural Systems and Wildlife Management) **Senior Ecologist** • 4 years of relevant experience • Bachelor of Science (Ecology and Conservation Biology)
Survey Guidelines for Australia's threatened bats	• Spotlighting (4 person hours)	**Ecologist** • 13 years of relevant experience • Bachelor of Science (Ecology and Conservation Biology)
Survey Guidelines for Australia's threatened birds	• Crepuscular bird surveys (12 person hours) • Incidental diurnal surveys (91 person hours)	**Ecologist** • 2 years of relevant experience • Bachelor of Environmental Science (Ecology and Conservation) **Graduate Ecologist** • 1 year of relevant experience • Bachelor of Environmental Science

3.2.1 Spot Assessment Technique (SAT) and Koala habitat surveys

Spot Assessment Technique (SAT) surveys follow the methodology designed by Phillips and Callaghan (2011). It involves a single ecologist combing the ground under Koala food plant trees (or non-food plant trees if necessary) for a 1-metre radius around the trunk searching for scats. Each tree searched must be greater or equal to 100 mm diameter at breast height (DBH) and search of each tree continues for up to 2 minutes. The search can cease prior to the 2-minute limit if scats are detected. Thirty trees meeting the specifications are analysed during each SAT survey.

A total of 6 SATs were completed across the referral area where Koala habitat trees were present.

3.2.2 Incidental diurnal surveys for significant flora and fauna, habitat trees and biodiversity values

The entire referral area was walked on multiple occasions to ensure all species (flora and fauna) were recorded and identified. Particular attention was paid to any threatened species that were listed as possibly occurring on or within the vicinity of the referral area and specific micro-assemblages which may support these threatened species. This included observations for vertebrate fauna present on or that may utilise the referral area, including faunal lists and significance status of species under the Commonwealth's EPBC Act including the JAMBA, CAMBA, ROKAMBA and the Bonn Convention, and Queensland's NCA.

The incidental survey included identification of ecological features and values such as broad vegetation communities, fauna habitats, and ecological corridors. Identification and description of the fauna habitats present within the area included any habitat trees. Specific attention was paid to threatened flora and fauna species.

For the purposes of this report, a significant flora and fauna species has been defined as a species that is scheduled as 'critically endangered', 'endangered', 'vulnerable' or conservation dependent under the Commonwealth EPBC Act.

3.2.3 Scats, tracks and other traces search

Surveys for scats, tracks and other fauna traces were conducted throughout field surveys. Both predator and non-predator scats were sought during all searches. Specific search efforts were made to locate the presence of Koalas or evidence of their occurrence on the referral area. In addition, particular attention was paid to the identification of potential dens, scats and tracks for invasive species, such as European Red Fox, to identify predator-prey interactions and understand existing impacts within the referral area.

3.2.4 GPS tree Plot

A tree plot survey was conducted across the referral site on 3, 4 and 5 September 2024 to locate and describe the vegetation values, namely the native mature tree specimens (≥500mm DBH and/or containing hollows). A handheld GPS device (Trimble) was used to record locations (accuracy ±1 m), and the following parameters of each tree specimen were recorded:

- tree species, via a combination of observations of the gum nuts, buds, leaves, bark and growth form;
- diameter of the trunk of the tree measured using the standard method of Diameter at Breast Height (DBH);

- height of the tree measured using a laser rangefinder with three-point measurement capability (inclinometer);
- canopy spread;
- health assessment (canopy, trunk); and
- habitat values (for example, presence and/or number of hollows, nests, termites, scratches and scats).

3.2.5 Fauna movement barrier and contextual assessment

A combination of contemporary aerial imagery, locality knowledge and field inspection can assist in understanding if there are barriers to fauna movement in the landscape. Once the aerial imagery is interrogated, location(s) for inspection are selected (typically roads) and barriers identified.

3.2.6 Bird surveys

Specific crepuscular bird surveys were carried out during dawn and dusk where bird activity is typically high. Surveys were completed across the referral area utilsing a combination of static point assessments and line transects focusing on threatened bird species, all bird species were then recorded. These surveys totalled 12 person hours over three days.

3.2.7 Motion sensor camera traps

Camera trapping involves setting up a fixed digital camera to capture images or video of animals that pass in front of a camera with an infrared trigger. It is a non-invasive technique designed to detect medium to large sized animals as they pass, although it is possible to detect smaller animals depending on the set-up. This method identifies fauna activity beyond the scope of direct observational studies and with the absence of potential observer impacts. Five (5) camera traps were set up across the referral area and remained active for 15 days. Cameras were attached 30-100 cm from the ground on a tree trunk and directed towards landscape features. Traps targeted mammals and were baited with chicken.

3.2.8 Spotlighting

This non-intrusive survey technique is the most effective method to obtain estimates of nocturnal arboreal mammal incidence and abundance in wooded habitats. Spotlighting also targets medium to large terrestrial nocturnal mammals, and can detect other nocturnal taxon groups (e.g., frogs, geckoes, nocturnal snakes, nocturnal birds, spiders).

A combination of high-powered spotlights and head torches were used to sample for nocturnal mammals, birds, reptiles and frogs across the proposed action area. This technique involved detecting eye shine, and a record of vegetation density was taken. Additional information recorded included the prevailing conditions and search effort. This survey method is particularly successful at observing sedentary arboreal mammals such as Koala and Greater Glider. This method was completed on 18 September 2024

3.3. Likelihood of Occurrence Assessment

The likelihood of occurrence assessment was based upon publicly available species records and/or other information sources, such as field guides and web-based species profiles, including but not limited to:

- Australian Government's *Species Profile and Threats Database* (SPRAT) for the threatened species and ecological communities listed under the EPBC Act; and
- Queensland Government's *Department of Environment and Science* (DES) threatened species website.

The likelihood of occurrence assessment was informed by desktop assessment and field survey results, including an appreciation and understanding of the species habitats within the referral area. The assessment adopts a two-tiered approach; the first based on desktop analysis and the potential of occurrence and the second based on a combination of desktop and field survey to determine the likelihood of occurrence.

The likelihood of threatened species and ecological communities occurring in the referral area has been assessed against the criteria outlined in **Table 3**.

Table 3: Likelihood of occurrence assessment criteria

Likelihood of occurrence	Assessment criteria
Unlikely	No previous records of the species within the locality and one or more of the following criteria is met: • Not previously recorded on the referral area and surrounds and the referral area is beyond the current known geographic range; or • Dependent on specific habitat types or resources that are not present on the referral area; or • Considered extinct in the wild.
Low	No previous records of the species within the locality and one or more of the following criteria is met: • Site and local connectivity contains marginal habitat excluding suitable/critical habitat attributes; • Lack of recent records exist in a regional context (use 1980 as a delineation); or • Potential for vagrant or individual of the species to survive short-term;
Moderate	Species previously recorded within the locality and one or more of the following criteria is met: • Previously recorded in proximity to the referral area (*i.e.,* vagrant individuals); or • Potential habitat typologies or resources are present on the referral area.
High	Species previously recorded within the locality and one or more of the following criteria is met: • Previously recorded on the referral area; • Dependent on habitats or habitat resources that are available on the referral area; or • Suitable habitats are available on the referral area that are capable of supporting a resident population or individuals of the species.
Known	Flora species or ecological community positively identified during field surveys within the referral area. Fauna species positively recorded during field surveys within the referral area or adjacent habitats.

3.4. Study Limitations

The ecological assessment involves a combination of desktop assessments and field investigations. The likelihood of occurrence assessment has relied upon database searches and publicly available information that relates to the referral area and broader locality. This information was cross-checked and verified by internal experts at Saunders Havill Group who have an abundance of ecological knowledge in the SEQ region. Saunders Havill Group has directly completed field surveys, reporting and EPBC Act assessments on multiple projects within the local region and is able to consider contemporary changes to species listings and conservation advice in making this determination. Field surveys focussed on verifying the vegetation and essential habitat mapped by the State Government and flora and fauna surveys targeting threatened species identified by database searches.

The field surveys targeted those threatened species or communities which have either been previously recorded or predicted to occur in the locality, and as such were assessed as having a moderate or high likelihood of occurring on the referral area.

Fauna surveys utilised a combination of passive and active methods for detection, including, SATs, nocturnal surveys, visual identification and inferential evidence of habitat usage (e.g. scratches, scats, burrows, active nests etc). No physical trapping was conducted as part of the fauna surveys, as the target species and degraded habitat values in the referral area did not justify the need for such surveys.

4. Results

4.1. Desktop Assessment Results

4.1.1 Landscape Context and Historical Aerial Imagery

The referral area is located in a landscape that has seen extensive modification for pastoral and agricultural uses. Since the designation of the RVPDA in 2011, rapid urbanisation has occurred across the local landscape particularly to the north. Contextually the site is bound by rural properties varying in size. To the north of the site is 'Providence Central' which is a largely completed development centrally located in RVPDA. To the north-west of the referral area is a development site under construction (the 'Alcove') with roads and lot parcels completed. To the west of the referral area is a partially vegetated land parcel that is zoned wholly as 'urban living' and has a local planning approval (7193/2017/PDA) proposing complete development over the lot. To the east is another similar sized rural lot. South-west of the referral area is a large rural property that consists of almost completely cleared paddocks. This site is currently being assessed under the EPBC Act (EPBC 2023/09690) for a master planned community. To the south of the referral area is another large lot under assessment with the EPBC Act (EPBC 2021/9061).

The site was predominantly cleared from at least the 1960's with a dominance of grass paddocks maintained through the 1980s and 1990s. The promotion of grass paddocks is likely to have been to facilitate rural land uses such as cattle agistment. Some regrowth vegetation has occurred in the 2010s indicating juvenile aged vegetation. Historic land-uses on the referral area are consistent with the broader landscape where surrounding properties have also been historically cleared and maintained for >40 years (refer to **Plan 1** for historical aerial imagery analysis).

The site is mapped as entirely Category X (non-remnant) vegetation under the Queensland Government's *Vegetation Management Act 1999* (VMA) as a result of on-going maintenance and holds an approved Property Map of Assessable Vegetation (PMAV 20018/001633). Surrounding properties are similarly mapped as predominantly Category X (non-remnant) with some areas of Category C (high-value Regrowth) and patches of Category B (remnant) vegetation further east (refer **Figure 4)**. The lack of remnant vegetation and dominance of Category X (non-remnant) vegetation is reflective of rural areas where continued slashing and grazing has occurred to promote pasture uses.

Connectivity value in the broader landscape is limited by existing developments and planned future developments. In a north-south direction, connectivity is limited by 'Providence Central' immediately north while to the south, two larger properties hold current EPBC applications (2023/09690 and 2021/9061). The referral area offers some limited site level connectivity potential to the east and west, however connectivity is limited by major roads including Ripley Road, due to be upgraded following catalyst funding from Queensland Government, providing significant transport connection within the RVPDA by linking approved developments to the north and east. While the site retains some connectivity value to a small, partially vegetated lot to the west, this property is bound by roads and developments, is completely zoned as 'urban living' under the RVPDA development scheme and holds a live development application with ICC proposing full residential development over the land (7193/2017/PDA). Therefore, this property offers limited landscape level connectivity at present or in the future. To the east of the referral area is a land parcel zoned as 'environmental

protection' under the RVPDA development scheme and adjoins approved and under assessment developments to the south/south-east. The 'environmental protection' zoning of RVDPA development scheme strategically links areas of high ecological value (remnant vegetation and waterways) and promotes large functional corridors to be established across the region. Approved developments (EPBC 20118/8347) and under assessment developments align with this zoning and provide connection to White Rock Conservation Park further east (refer **Plan 2** for context assessment and **Plan 3** for RVPDA zoning).

4.1.2 Vegetation and soil mapping

The referral area is mapped as Category X (non-remnant) vegetation under an approved PMAV (20018/001633) (refer **Figure 4**). The referral area site has been historically cleared and highly modified for rural uses. Pre-clear RE mapping indicates the site was historically comprised of predominantly Of Concern RE12.9-10.7 with composite RE12.9-10.2/12.9-10.7/12.9-10.19 in the east. A small polygon of pre-clear RE12.3.3 is present along the western boundary. The technical descriptions of these RE communities are:

- *RE12.9-10.2: Corymbia citriodora subsp. variegata open forest or woodland usually with Eucalyptus crebra. Other species such as Eucalyptus tereticornis, E. moluccana, E. acmenoides and E. siderophloia may be present in scattered patches or in low densities. Understorey can be grassy or shrubby. Shrubby understorey of Lophostemon confertus (whipstick form) often present in northern parts of bioregion. Occurs on Cainozoic and Mesozoic sediments. Not a Wetland. (BVG1M: 10b).*

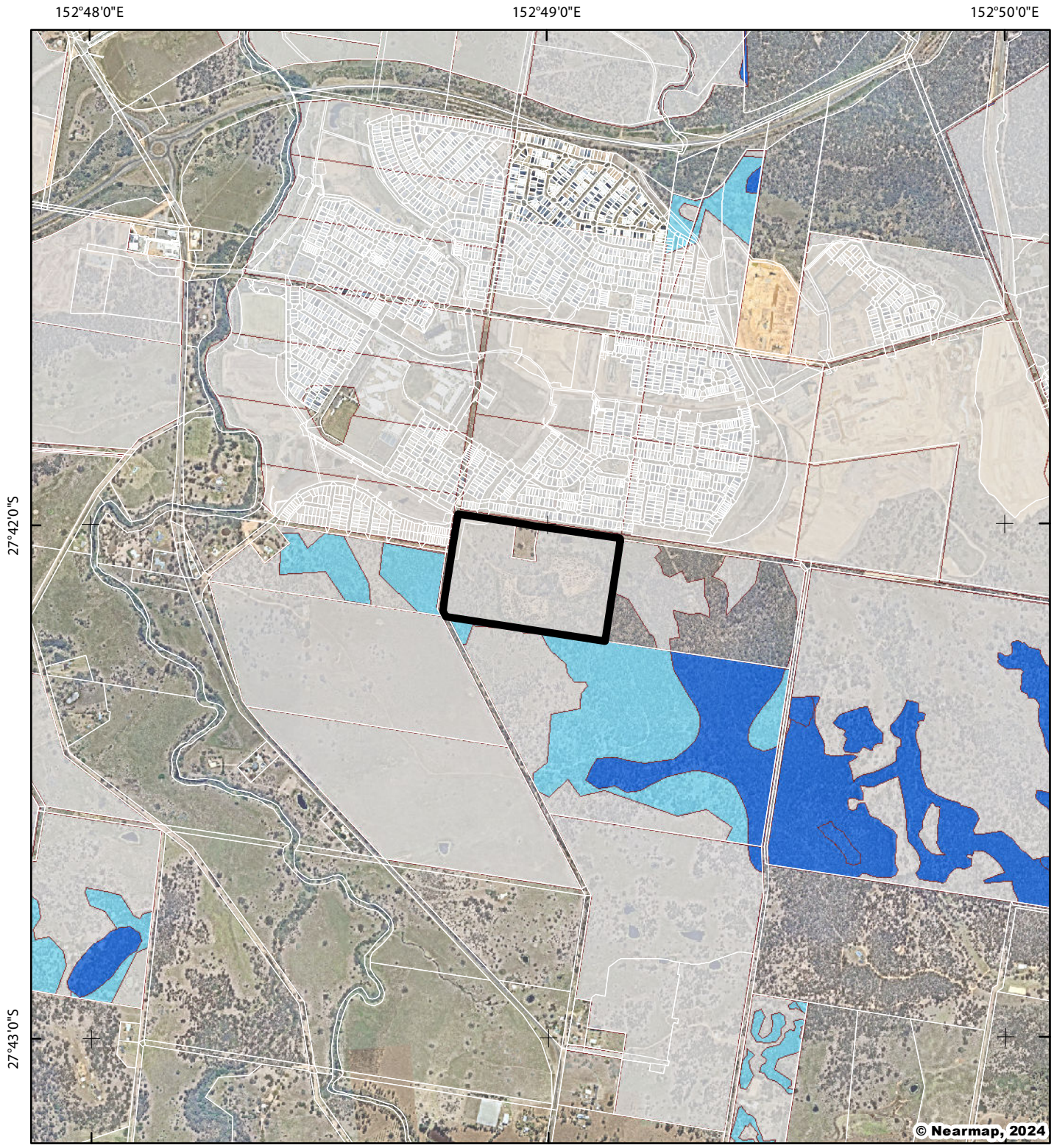
- *RE12.9-10.7: Eucalyptus crebra +/- E. tereticornis, Corymbia tessellaris, Angophora leiocarpa, E. melanophloia woodland. Occurs on Cainozoic and Mesozoic sediments. (BVG1M: 13c) Vegetation communities in this regional ecosystem include: 12.9-10.7a: Eucalyptus siderophloia, Corymbia intermedia +/- E. tereticornis and Lophostemon confertus open forest. Occurs on Cainozoic and Mesozoic sediments in near coastal areas. Not a Wetland (BVG1M: 12a)*

- *RE12.9-10.19: Eucalyptus fibrosa subsp. fibrosa woodland +/- Corymbia citriodora subsp. variegata, E. acmenoides or E. portuensis, Angophora leiocarpa, E. major. Understorey often sparse. Localised occurrences of Eucalyptus sideroxylon. Occurs on Cainozoic and Mesozoic sediments. Not a Wetland. (BVG1M: 12a).*

- *RE12.3.3: Eucalyptus tereticornis +/- E. siderophloia and Corymbia intermedia open forest to woodland. Corymbia tessellaris, Lophostemon suaveolens and Melaleuca quinquenervia frequently occur and often form a low tree layer. Other species present in scattered patches or low densities include Angophora leiocarpa, E. exserta, E. grandis, E. latisinensis, E. tindaliae, E. racemosa and Melaleuca sieberi. Corymbia trachyphloia and/or C. citriodora subsp. Variegata may dominate on areas of Pleistocene alluvia. Eucalyptus seeana may be present south of Landsborough and Livistona decora may occur in scattered patches or low densities in the Glenbar SF and Wongi SF areas. Occurs on Quaternary alluvial plains and drainage lines along coastal lowlands. Rainfall usually exceeds 1000mm/y. (BVG1M: 16c)*

A review of the Australian Soil Resource Information System (ASRIS) soil mapping shows that the referral area and surrounding properties are mapped as containing solely Sodosols (refer **Figure 5**). Sodosols are defined

as texture-contrast soils with impermeable subsoils due to the concentration of sodium. These soils occupy a large area of inland Queensland. Generally, Sodosols have low-nutrient status and are vulnerable to erosion.



Legend

- Surveyed Referral Area
- Qld DCDB

PMAV Category

- Category A
- Category B
- Category C
- Category R
- Water
- Category X

Figure 4

Property Maps
Assessable Vegetation

HB QLD Pty Ltd

File ref. 12186 E Figure 4 PMAV A
Date 21/01/2025
Project Bayliss Road, South Ripley

N

0 200 400 600 800 1,000 m

Scale (A4): 1:20,000 [GDA 2020 MGA Z56]

saunders havill group

Layer Source: © State of Queensland, 2025.

Legend

- Surveyed Referral Area
- Qld DCDB

Australian Soil Classification

- Anthroposols
- Calcarosols
- Chromosols
- Dermosols
- Ferrosols
- Hydrosols
- Kandosols
- Kurosols
- Organosols
- Podosols
- Rudosols
- Sodosols
- Tenosols
- Vertosols

Figure 5

ASIRIS Soil Classification
(Level 5)

HB QLD Pty Ltd

File ref. 12186 E Figure 5 ASRIS Soils A
Date 10/01/2025
Project Bayliss Road, South Ripley

N

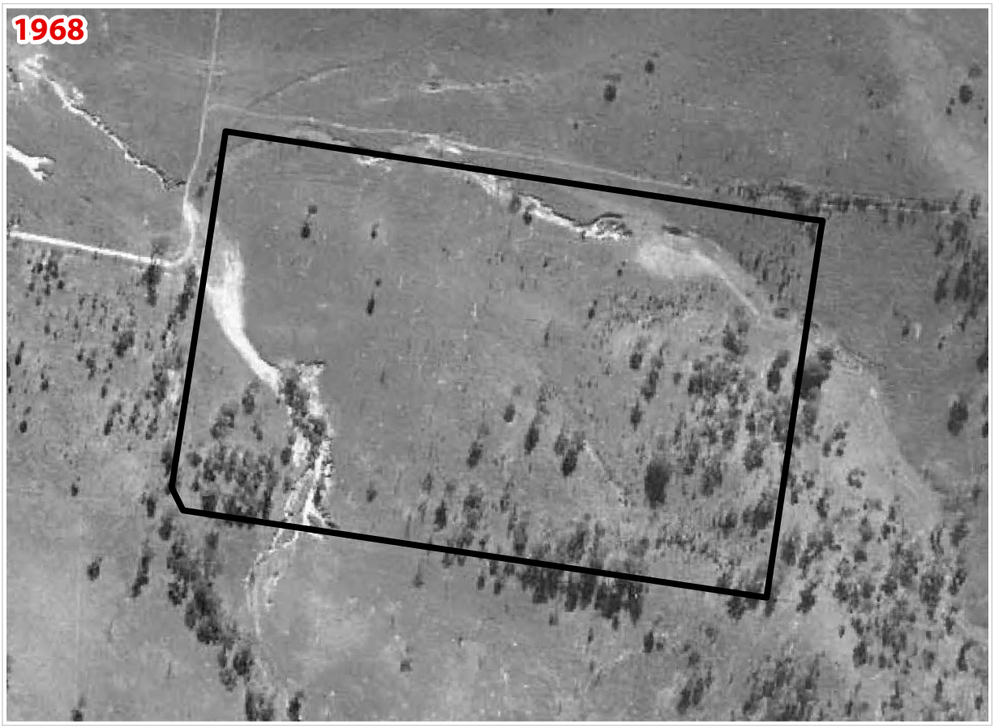
0 50 100 150 200 m

Scale (A4): 1:4,000 [GDA 2020 MGA Z56]

saunders havill group

Layer Source: © State of Queensland, 2025. Federal Government of Australia, 2024.

01. Aerial History



Notes:
This plan was prepared as a desktop assessment tool. The information on this plan is not suitable for any other purpose. Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.

Layer Sources:

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

Surveyed Referral Area

saunders havill group

HB QLD Pty Ltd

Bayliss Road, South Ripley

0 50 100 m

Transverse Mercator
GDA 2020 | Zone 56

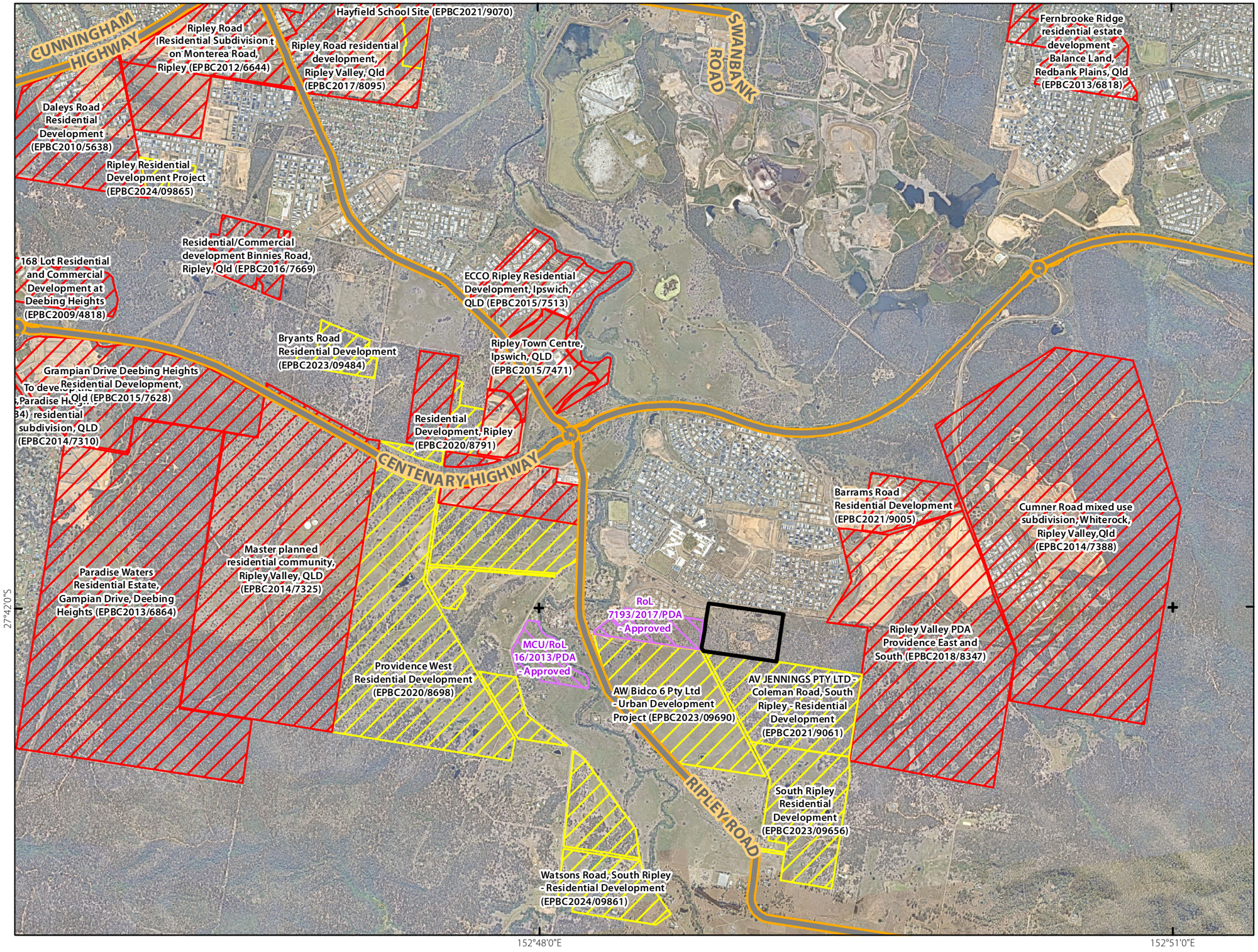
1:6,000
@ A3

Address: Bayliss Road, South Ripley

J12186 E 01 PD Aerial History A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

02. Context Analysis



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Layer Sources:
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Legend

- Surveyed Referral Area
- Major & Arterial Roads
- Ipswich City Council Development Applications

EPBC Referrals Context

- EPBC Referrals (Decision Made)
- EPBC Referrals (Decision Pending)

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Bayliss Road, South Ripley

0 500 1,000 m

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GDA 2020 | Zone 56

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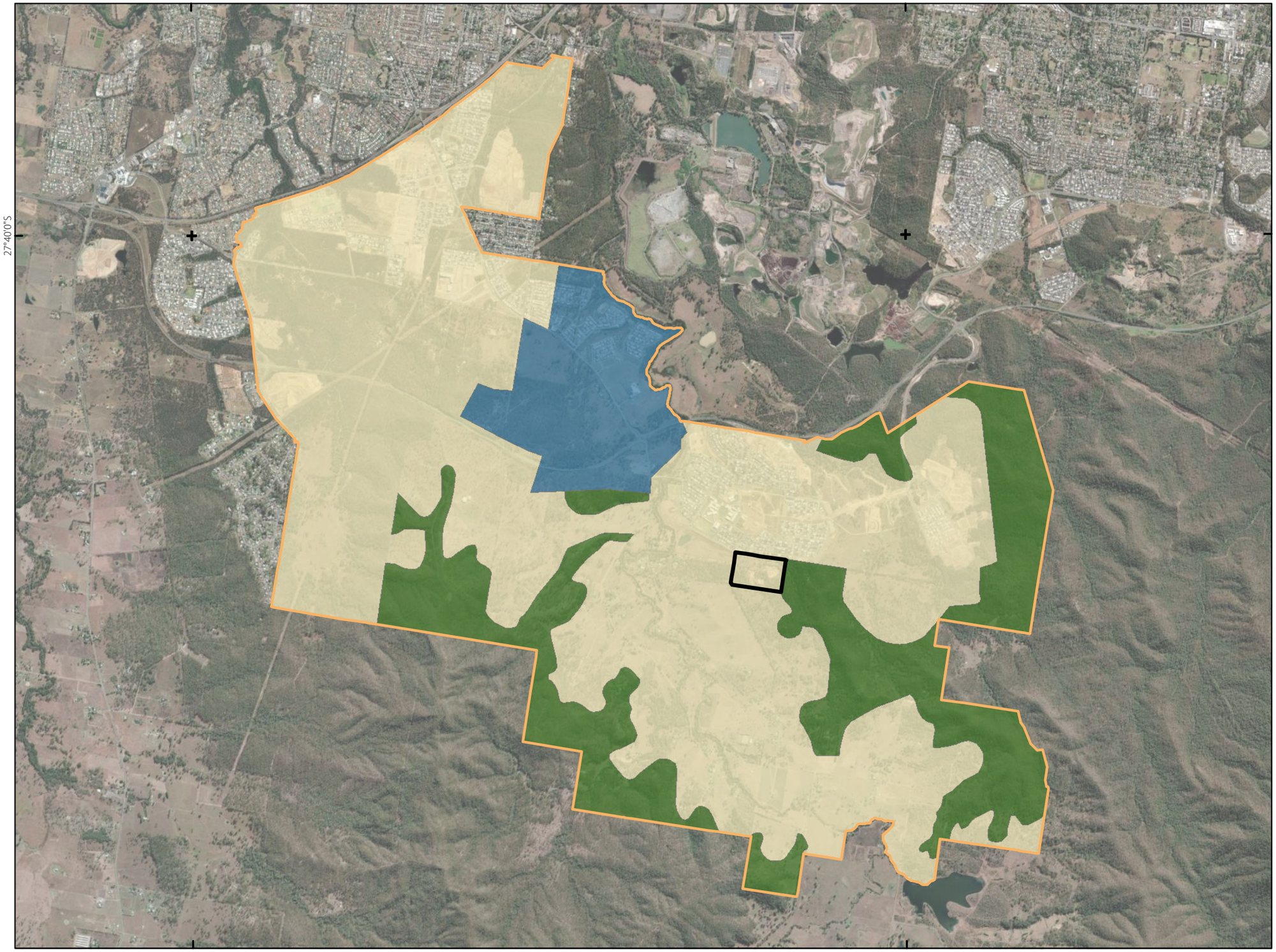
Address: Bayliss Road, South Ripley

J12186 E 02 PD Context Analysis A

Issue	Date	Drawn	Checked
A	16/01/2025	TF	LB

03. Ripley Valley PDA Zoning



Notes:
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Layer Sources:

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Legend

- Surveyed Referral Area
- Ripley Priority Development Area

Ripley PDA Zoning

- Urban Living
- Urban Core
- Environmental Protection

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Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

4.1.3 Matters of National Environmental Significance

Based upon the database searches and the findings of the desktop assessment, MNES identified as being of potential relevance to the project include threatened flora and fauna species and migratory fauna species.

4.1.4 EPBC Act Threatened Ecological Communities

The Protected Matters Search Tool (PMST) (refer **Appendix A)** returned the following seven (7) threatened ecological communities (TEC), listed under the EPBC Act as having potential to occur within 5 km of the referral area:

- Coastal Swamp Oak (*Casuarina glauca)* Forest of New South Wales and South East Queensland ecological community
- Grey box-grey gum wet forest of subtropical eastern Australia
- Lowland Rainforest of Subtropical Australia
- Poplar Box Grassy Woodland on Alluvial Plains
- Subtropical eucalypt floodplain forest and woodland of the New South Wales and South East Queensland Bioregions
- Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

The likelihood of occurrence for each TEC within the referral area, as presented in **Table 4**, referred to State Government Regional Ecosystem mapping within the locality and known distributions of the TECs, to identify those TECs with potential to occur in the referral area or recorded during field surveys. All TECs were identified as having low potential to occur based on site characteristics and vegetation mapping.

Table 4: Likelihood of occurrence of TECs within referral area

TEC	EPBC Act status	Desktop Potential of Occurrence
Coastal Swamp Oak (*Casuarina glauca)* Forest of New South Wales and South East Queensland ecological community	Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.
Grey box-grey gum wet forest of subtropical eastern Australia	Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.
Lowland Rainforest of Subtropical Australia	Critically Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.
Poplar Box Grassy Woodland on Alluvial Plains	Critically Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community. Pre-clear mapping shows RE12.3.3 mapped over a small cleared portion of the western boundary.
Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland	Critically Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	**Low** The site is not mapped as containing any regional ecosystems associated with this threatened ecological community.

4.1.5 Threatened Flora Species

Database searches returned seventeen (17) flora species, listed as threatened under the EPBC Act and/or NCA, as having been previously recorded or predicted to occur within 5 km of the referral area, as presented in **Appendix A** and **Appendix B.**

Based on the presence of species records within the locality and the habitats within the referral area, an assessment was conducted to determine those threatened flora species with potential to occur within the referral area. The desktop assessment identified one (1) threatened flora species as having a 'moderate' potential to occur on the referral area (refer **Table 5**). The detailed likelihood of occurrence assessment is presented in **Appendix C**.

Table 5: Likelihood of occurrence of flora species within referral area

Scientific Name	EPBC Act	NC Act	Desktop Potential of Occurrence
Coleus habrophyllus *Listed as Plectranthus habrophyllus* (Shaggy-leaved Plectranthus)	Endangered	Endangered	**Moderate** The referral area is mapped entirely as Category X (non-remnant) vegetation under the Queensland *Vegetation Management Act 1999*. There are records of the species within 5km of the site with a known population existing within White Rock Conservation Park, approximately 5km to the east. Potentially suitable habitat in the form of open eucalypt woodland is potentially present on-site, therefore the desktop likelihood of the species to be present on-site has been assigned 'moderate.'

4.1.6 Threatened Fauna Species

Database searches returned thirty-three (33) fauna species listened as threatened under the EPBC Act and/or NCA as having been previously recorded or predicted to occur within 5 km of the referral area.

Based on the presence of species records within the locality and mapped habitats identified within the referral area, a likelihood of occurrence assessment was conducted to determine those threatened species with potential to occur within the referral area and therefore requiring further consideration. This assessment determined six (6) threatened fauna species listed under the EPBC Act and/or NCA as having 'moderate' or higher potential to occur on or near the referral area. These species are outlined in **Table 6** below. All other threatened and/or migratory fauna species were assessed as having a 'low' potential to occur.

Table 6: Likelihood of occurrence of fauna species within referral area

Scientific Name	EPBC Act	NC Act	Desktop Potential of Occurrence
Anthochaera phrygia (Regent Honeyeater)	Critically Endangered	Endangered	**Moderate** The referral area is mapped as containing entirely Category X (non-remnant) vegetation under the Queensland *Vegetation Management Act 1999*. Pre-clear regional ecosystem mapping

Scientific Name	EPBC Act	NC Act	Desktop Potential of Occurrence
			indicates the site contains vegetation indicative of open Eucalypt woodland. Neighbouring properties contain a mixture of vegetated and cleared areas. There is only one (1) confirmed record of the Regent Honeyeater from 2019 within 5km of the site according to Atlas of Living Australia (ALA). However, as this species is listed as Critically Endangered the record is assigned a spatial uncertainty of 10km, therefore the exact location is not known. Queensland Wildnet does not record any sightings of this species within 5 km of the site. Regardless of limited records of this species in the area, potentially suitable habitat in the form of Eucalypt Woodland is potentially present within the referral area, therefore the likelihood of the species to utilise the site opportunistically or as fly-over has been assigned 'moderate.'
Calyptorhynchus lathami lathami (South-eastern Glossy Black-Cockatoo)	Vulnerable	Vulnerable	**Moderate** The referral area is mapped as containing entirely Category X (non-remnant) vegetation under the Queensland *Vegetation Management Act 1999*. Pre-clear regional ecosystem mapping indicates the site contains vegetation indicative of open Eucalypt woodland. There are several records of the species within 5km of the site. The majority of records in the area are associated with White Rock Conservation Park >5 km to the east. The potential for suitable habitat and presence of records results in a desktop likelihood of occurrence of 'moderate.'
Hirundapus caudacutus (White- throated Needletail)	Vulnerable	Vulnerable	**Moderate** The referral area is mapped as containing entirely Category X (non-remnant) vegetation under the Queensland *Vegetation Management Act 1999*. Pre-clear regional ecosystem mapping indicates the site contains vegetation indicative of open Eucalypt woodland. According to ALA there are several records of this species within 5km radius of the site. However, a review of these records indicate that the majority of these sightings are historical records (> 20 years old) from White Rock Conservation Park. Notable sightings include two records to the west from 2020 and 2021. The species is highly mobile and recorded across a variety of habitat types. As the species has been recorded in the area, the likelihood of the species to utilise the site or as fly-over has been assigned 'moderate.'
Petauroides volans *NCA listed Petauroides armillatus* (Greater Glider)	Endangered	Endangered	**Moderate** The referral area is mapped as containing entirely non-remnant vegetation. Pre-clear RE mapping indicates vegetation reflects open eucalypt woodland including vegetation communities associated with Greater Glider habitat. However, there are no records of the species within the locality, with the closest record approximately 8.5km south-east of the site within vegetation adjacent to White Rock Conservation Park. As there is potential for

Scientific Name	EPBC Act	NC Act	Desktop Potential of Occurrence
			eucalypt habitat within the referral area, the likelihood of occurrence has been assigned 'moderate.'
Phascolarctos cinereus (Koala)	Endangered	Endangered	**Moderate** The referral area is mapped as Category X (non-remnant) vegetation. Pre-clear mapping of the area indicates RE12.9-10.7/RE12.9-10.2 across the majority of the referral area. Regional ecosystem 12.9-10.7/12.9-10.2 are comprised of species known as Koala habitat trees such as *Eucalyptus crebra* (Narrow-leaved Ironbark), *Eucalyptus tereticornis* (Forest Red Gum) and *Corymbia citriodora* (Spotted Gum). According to Queensland Wildnet Data, which dates back to the 1980s, twenty-one (21) Koalas have been recorded within a 5 km radius of the site. A review of ALA and Biomaps indicated that these records vary from relatively recent (2020) to historical (1987). The closest recorded sighting of Koala to the referral area is from 2007 adjacent to Ripley Road. More recent records of Koala (within 7 years) are located within White Rock Conservation Park 4.5 km east of the site; Deebing Heights 5km west and Goolman, forming part of Goolman Conservation Estate to the south. As the species is known to occur within the broader landscape as well as the presence of potential habitat within the referral area, the likelihood of occurrence has been assigned 'moderate.'
Pteropus poliocephalus (Grey-headed Flying-fox)	Vulnerable	-	**Moderate** The referral area is mapped as Category X (non-remnant) vegetation. Pre-clear mapping of the area indicates RE12.9-10.7/12.9-10.2 across the majority of the referral area. Both of these vegetation communities indicate potential foraging habitat may be present. The nearest roost is located 8.5 km north-west of the site in Yamanto, (479), with recent surveys in 2020 confirming GHFF present at the camp. The nearest roost of national significance is Inala (1219) approximately 20km north-east. As the species is known to forage in a variety of habitats, a desktop assessment of the likelihood of occurrence has been assigned 'moderate.'

The detailed likelihood of occurrence assessment is presented in **Appendix C**.

4.1.7 Migratory Species

Database searches returned thirteen (11) migratory/marine fauna species listened as threatened under the EPBC Act and/or NCA as having been previously recorded or predicted to occur within 5 km of the Referral area.

Based on the presence of species records within the locality and the habitats identified within the referral area, an assessment was conducted to determine those threatened species with potential to occur within the referral area. The assessment determined that two (2) species, the Australian Painted Snipe and the Latham's

Snip had a 'moderate' likelihood of occurrence based on desktop assessment (refer **Table 7**). No other threatened migratory fauna species listed under the EPBC Act and/or NCA were identified as having moderate or greater potential to occur in the referral area.

Table 7: Likelihood of occurrence of migratory fauna species within referral area

Scientific Name	Category	Desktop Potential of Occurrence
Latham's Snipe (Gallinago hardwickii)	Migratory Wetland Species	**Moderate** The species has been recorded within the locality of the referral area, most notably to the north and south-east. The species favours freshwater wetlands with areas of dense ground vegetation. Based on aerial imagery, the referral area contains several constructed dams and relatively recent, local records. The likelihood of occurrence assessments based on the desktop assessment has been assigned 'moderate.'
Rostratula australis (Australian Painted Snipe)	Listed Marine Species	**Moderate** There are multiple records of the species in the locality which are generally associated with extensive wetland habitats such as Bundamba Lagoon. The referral area contains several dams which may provide suitable habitat and therefore the likelihood of occurrence assessments based on the desktop assessment has been assigned 'moderate.'

The detailed likelihood of occurrence assessment is presented in **Appendix C**.

4.2. Ecological Survey Results

The results of the flora and fauna surveys, and the potential of occurrence, enables an understanding of the ecological constraints and potential impacts to MNES associated with the Project.

The results of the targeted vegetation, flora and fauna surveys is presented within the following sections. Refer to **Plan 4** for the field survey effort undertaken across the referral area and surrounding locality.

4.2.1 Habitat Assessment and Vegetation Communities

The following section discusses the results of the field verification surveys of vegetation communities within the referral area.

As the entire referral area is mapped as Category X (non-remnant) vegetation, on-ground vegetation characteristics were utilised to delineate vegetation communities. Field surveys identified three (3) vegetation communities within the referral area defined as: (refer **Plan 5**).

1. Non-remnant vegetation indicative of RE12.9-10.7
2. Non-remnant vegetation indicative of RE12.9-10.2

3. Cleared areas

This site has been historically cleared and highly modified for rural uses. Scattered vegetation values are present including cleared open areas, regrowth and scattered larger trees. Pre-clear RE mapping indicates the site was historically comprised of predominantly Of Concern RE12.9-10.7 with composite RE12.9-10.2/12.9-10.7/12.9-10.19 in the east. A small polygon of pre-clear RE12.3.3 is mapped along a cleared portion of the western boundary.

Field surveys identified the majority of the referral area as containing tree species, where present, indicative of 'Of Concern' RE12.9-10.7 being *Eucalyptus crebra* (Narrow-leaved Ironbark), *Eucalyptus tereticornis* (Forest Red Gum), *Corymbia tessellaris* (Moreton Bay Ash) and *Eucalyptus melanophloia* (Silver-leaf Ironbark). As a result of historical and continued rural pursuits, the understory consisted of predominantly regrowth acacia species and dense patches of exotic *Lantana camara* (Lantana). Native and exotic grasses were present throughout.

In the south-east of the referral area *Corymbia citriodora* (Spotted Gum) was observed as being the dominant canopy species and therefore vegetation in this area was more reflective of 'Least Concern' RE 12.9-10.2. The understory was similarly disturbed in this area with *Lantana camara* (Lantana) dominant and acacia regrowth.

Two historical stockpiles are present within the referral area which were identified on-ground as being almost completely devoid of vegetation, instead consisting of only exposed ground, weeds and some acacia regrowth. No elements of 'Least Concern' RE12.9-10.19 or 'Endangered' RE12.3.3 were observed within the referral area.

Two drainage features are present within the referral area in the south-west and along the northern boundary. These drainage features were identified on-ground as modified flowpaths with minimal waterway features. No riparian vegetation or specific habitat types associated with waterways were observed. Several small, constructed dams were observed across the site.

Detailed site surveys include the recording and documenting of individual trees across the referral area. The purpose of this assessment was to record large mature trees and/or those containing specific habitat features (hollows) as these specimens provide the habitat requirements for a range of potential MNES fauna species. During the site survey only 4 trees were observed as containing hollows. These are scattered around the property and near the cadastral boundary lines. Large trees were also recorded utilising a ≥500mm DBH threshold. This threshold is a consistently utilised and recognised measurement for large trees within Eucalypt woodland vegetation. A total of 41 large trees were recorded across the referral area which were predominantly in the northern extent of the site adjacent to 'Providence Central' (refer **Plan 5**).

Tree plot data shows that the referral area lacks and abundance of large and hollow bearing trees that would be typical of a community that provides suitable habitat for hollow-bearing species, such as Gliders and Cockatoos.

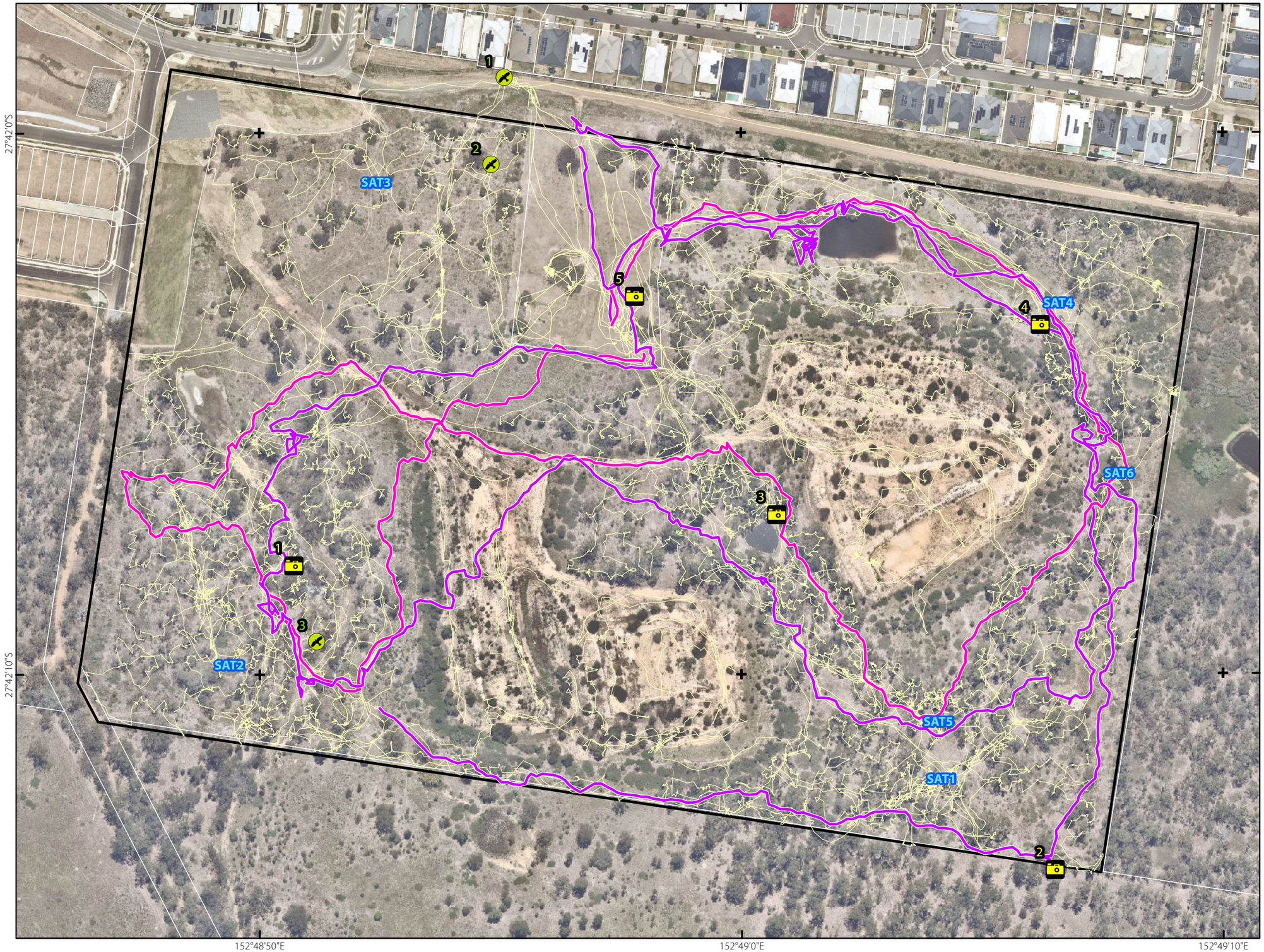
Photo set 1: Vegetation across the majority of the referral area reflective of historically cleared RE12.9-10.7

Photo set 2: Vegetation in the south-east of the site is indicative of historically cleared RE12.9-10.2

Photo set 3: Historical stockpiles on-site with only regrowth present

Photo set 4: Constructed dams across the referral area

04. Field Survey Effort



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Legend

- Qld DCDB
- Surveyed Referral Area

Field Survey Effort

- Incidental Surveys
- Crepuscular Bird Surveys
- Spotlighting Effort
- SAT Survey Locations
- Static Bird Survey Locations
- Camera Trap Locations

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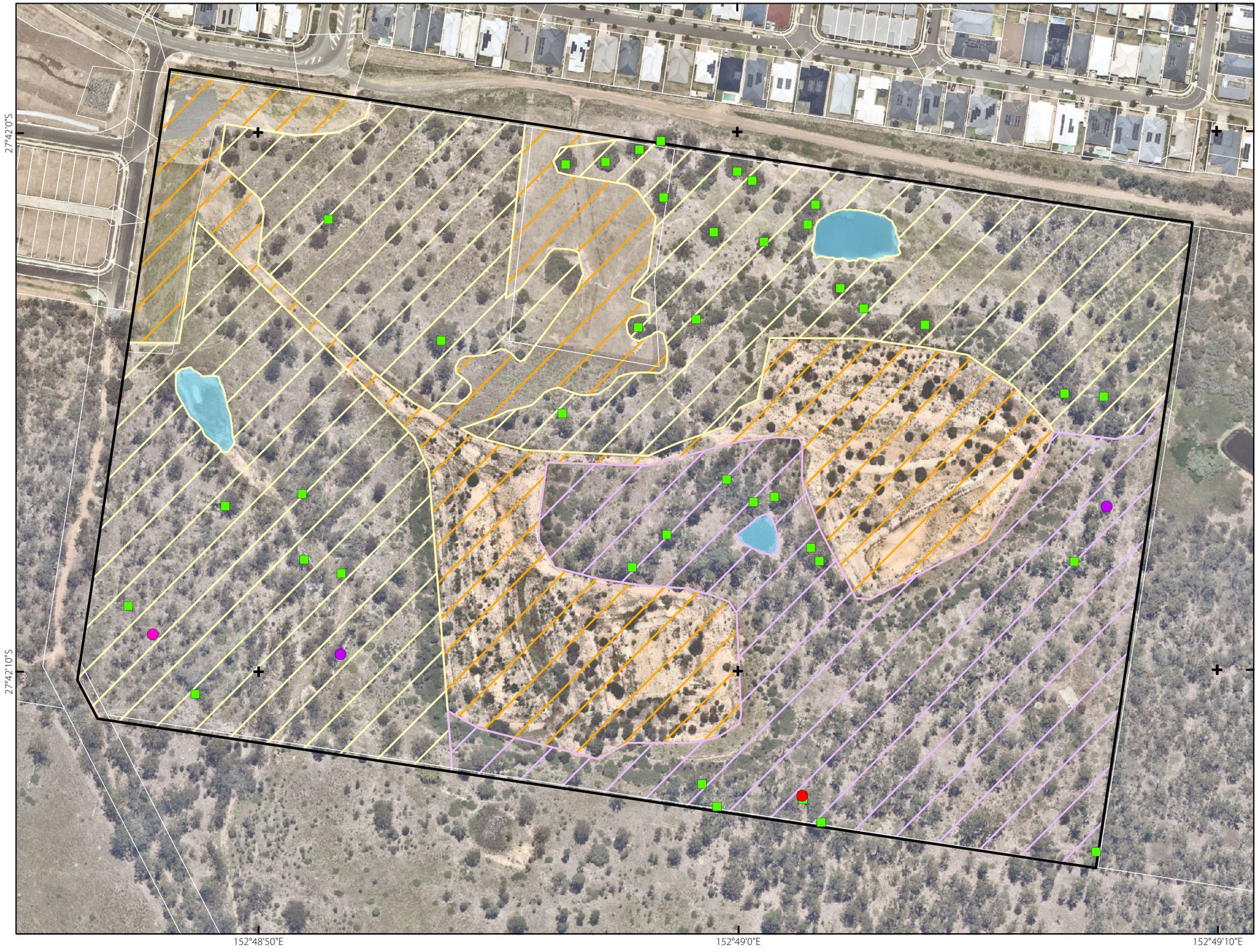
05. Field Survey Results



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Legend

- Qld DCDB
- Surveyed Referral Area
- LiDAR Delineated Waterbodies [0.3 ha]

Vegetation Communities

- Vegetation Community 1: Non-remnant vegetation (RE 12.9-10.2) [5.5 ha]
- Vegetation Community 2: Non-remnant vegetation (RE 12.9-10.7) [10.4 ha]
- Vegetation Community 3: Cleared Areas [5.8 ha]

GPS Tree Plot (Significant Trees)

- Tree with a DBH ≥ 500mm [41]
- Tree with small hollows (<100mm) [2]
- Tree with medium hollows (>100mm) [1]
- Tree with small & medium hollows [1]

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Bayliss Road, South Ripley

0 10 20 30 40 50 m

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Address: Bayliss Road, South Ripley

J12186 E 05 PD Field Survey Results A

Issue	Date	Drawn	Checked
A	28/01/2025	TF	LB

4.2.2 Connectivity

At present, vegetation cover within the broader landscape varies from high cover in east and west to very low in the south and north. The site is bordered by 'Providence Central' to the north which is completely treeless and large cleared properties to the south-west. More vegetated lots are present to he east and south-east.

The referral are does contain native vegetation including trees of the Eucalyptus and Corymbia genus. However, historic clearing and on-going rural land-uses has resulted in large areas devoid of vegetation. The on-going modification of the site has resulted in a dominance of cleared areas and regrowth vegetation which significantly limits the connectivity potential of the site to surrounds. Additionally, vegetation to the west of the site is bound by roads, developments and future developments and offers minimal landscape level connectivity. Vegetation to the east of the site provides larger areas of intact remnant vegetation that provides significantly movement opportunity. The functionality of this area would not be impacted by the proposed development.

4.2.3 Koala survey results

Six (6) SAT surveys to assess Koala activity within the referral area were completed in accordance with Philips and Callaghan (2011) (Refer to **Plan 4** for locations). SAT survey 1 scored a 2/30 while all other SATs scored 0/30 (refer to **Table 8** and **Appendix D** for full SAT results). No direct observations of Koala occurred within the referral area during these targeted surveys.

Table 8: SAT survey results across the referral area

SAT ID	Occurrence percentage	East Coast (med-high) Activity Category
SAT 1	6.67% (2/30)	Low
SAT 2	0% (0/30)	Low
SAT 3	0% (0/30)	Low
SAT 4	0% (0/30)	Low
SAT 5	0% (0/30)	Low
SAT 6	0% (0/30)	Low

4.2.4 Flora Results

A total of eighty-four (84) flora species were recorded within the vegetation communities within the referral area during field surveys, as listed in **Appendix E.** Of the eighty-four (84) flora species recorded, thirty-seven (37) are native and forty-seven (47) species are considered to be non-native / introduced species.

Refer to **Appendix E** for the complete flora list and native / non-native designation.

No flora species listed under the EPBC Act nor NCA were recorded in or adjoining the referral area.

4.2.5 Fauna Results

A total of fifty-eight (58) fauna species were recorded during field surveys, including forty-eight (48) birds, seven (7) mammals, four (4) amphibians and two (2) reptiles.

A complete fauna species list and method of detection is provided in **Table 9**

No fauna species listed under the EPBC Act nor NCA were directly recorded in or adjoining the referral area. Indirect evidence in the form of Koala scats were recorded.

Several invasive fauna species were recorded across the referral area including *Vulpes vulpes* (red Fox) and *Lepus europaeus* (European Hare) (refer **Photo set 5**).

Photo set 5: Invasive *Vulpes vulpes* (Red Fox) recorded across the referral area

Table 9: Fauna detected within the referral area or as fly-over

Scientific Name	Species Common Name	Native/Introduced	Status	Observations Incidental 04.09.2024	Incidental 16.09.2024	Cameras 03 - 18.09.2024	Spotlighting 18.09.2024	Dusk bird survey 18.09.2024	Dawn bird survey 17.09.2024
BIRDS									
Acridotheres tristis	Common Myna	Introduced	N/A	x					x
Alisterus scapularis	Australian King-Parrot	Native	Least Concern	x	x			x	
Anas superciliosa	Pacific Black Duck	Native	Least Concern	x	x	x	x		
Apus nipalensis	House Swift	Native	Least Concern		x				
Aquila audax	Wedge-tail Eagle	Native	Least Concern	x					
Ardea intermedia	Intermediate Egret	Native	Least Concern		x				
Cacatua galerita	Sulphur-crested Cockatoo	Native	Least Concern		x	x		x	x
Cacatua sanguinea	Little Corella	Native	Least Concern		x				
Chenonetta jubata	Australian Wood Duck	Native	Least Concern			x	x	x	x
Chrysococcyx basalis	Horsefield's Bronze Cuckoo	Native	Least Concern						x

Scientific Name	Species Common Name	Native/Introduced	Status	Observations Incidental 04.09.2024	Incidental 16.09.2024	Cameras 03 - 18.09.2024	Spotlighting 18.09.2024	Dusk bird survey 18.09.2024	Dawn bird survey 17.09.2024
Cisticola exilis	Golden-headed cisticola	Native	Least Concern		x				
Coracina novaehollandiae	Black-faced Cuckoo-shrike	Native	Least Concern	x	x				x
Corvus orru	Torresian Crow	Native	Least Concern	x	x	x		x	x
Cracticus nigrogularis	Pied Butcherbird	Native	Least Concern		x				x
Cracticus tibicen	Australian Magpie	Native	Least Concern	x	x	x		x	x
Cracticus torquatus	Grey Butcherbird	Native	Least Concern				x	x	x
Cuculus variolosus	Brush Cuckoo	Native	Least Concern						x
Dacelo novaeguineae	Laughing Kookaburra	Native	Least Concern	x	x	x	x		x
Egretta novaehollandiae	White-faced Heron	Native	Least Concern			x			
Entomyzon cyanotis	Blue-faced Honeyeater	Native	Least Concern	x	x			x	
Eolophus roseicapilla	Galah	Native	Least Concern		x				
Eopsaltria australis	Eastern Yellow Robin	Native	Least Concern	x					

Species				Observations					
Scientific Name	**Common Name**	**Native/Introduced**	**Status**	**Incidental 04.09.2024**	**Incidental 16.09.2024**	**Cameras 03 - 18.09.2024**	**Spotlighting 18.09.2024**	**Dusk bird survey 18.09.2024**	**Dawn bird survey 17.09.2024**
Gerygone olivacea	White-throated Gerygone	Native	Least Concern	x	x				
Grallina cyanoleuca	Magpie-lark	Native	Least Concern				x	x	x
Hirundo neoxena	Welcome Swallow	Native	Least Concern	x					x
Lichmera indistincta	Brown Honeyeater	Native	Least Concern	x				x	x
Malurus cyaneus	Superb Fairy-wren	Native	Least Concern			x			x
Malurus melanocephalus	Red-backed Fairy Wren	Native	Least Concern	x	x			x	x
Manorina melanocephala	Noisy Miner	Native	Least Concern	x	x				x
Meliphaga lewinii	Lewin's Honeyeater	Native	Least Concern	x					
Merops ornatus	Rainbow Bee-eater	Native	Least Concern					x	
Ocyphaps lophotes	Crested Pigeon	Native	Least Concern		x				x
Pardalotus striatus	Striated Paradalote	Native	Least Concern	x	x			x	x

Scientific Name	Species Common Name	Native/Introduced	Status	Observations Incidental 04.09.2024	Incidental 16.09.2024	Cameras 03 - 18.09.2024	Spotlighting 18.09.2024	Dusk bird survey 18.09.2024	Dawn bird survey 17.09.2024
Phalacrocorax varius	Pied Cormorant	Native	Least Concern		x				
Phaps chalcoptera	Common Bronzewing	Native	Least Concern			x			x
Philemon citreogularis	Little Friarbird	Native	Least Concern		x			x	
Philemon corniculatus	Noisy Friarbird	Native	Least Concern		x				x
Platycercus adscitus	Pale-headed Rosella	Native	Least Concern	x	x	x			
Podargus strigoides	Tawny Frogmouth	Native	Least Concern			x			
Rhipidura leucophrys	Willie Wagtail	Native	Least Concern	x	x			x	x
Streptopelia chinensis	Spotted Turtle-dove	Introduced	N/A						x
Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet	Native	Least Concern		x				x
Trichoglossus haematodus moluccanus	Rainbow Lorikeet	Native	Least Concern		x			x	x
Vanellus miles	Masked Lapwing	Native	Least Concern	x					

Scientific Name	Species Common Name	Native/Introduced	Status	Observations Incidental 04.09.2024	Incidental 16.09.2024	Cameras 03 - 18.09.2024	Spotlighting 18.09.2024	Dusk bird survey 18.09.2024	Dawn bird survey 17.09.2024
Porphyrio melanotus	Australasian Swamp Hen	Native	Least Concern			x			
MAMMALS									
Lepus europaeus	European Hare	Introduced	N/A			x			
Macropus giganteus	Eastern Grey Kangaroo	Native	Least Concern	x	x	x			
Macropus rufogriseus	Red-necked Wallaby	Native	Least Concern			x	x		
Mus musculus	House Mouse	Introduced	N/A			x			
Rattus rattus	Black Rat	Introduced	N/A			x			
Trichosurus vulpecula	Common Brushtail Possum	Native	Least Concern			x	x		
Vulpes vulpes	Fox	Introduced	N/A			x			
REPTILES									
Pogona barbata	Bearded Dragon	Native	Least Concern			x			
Lampropholis delicata	Grass Skink	Native	Least Concern	x					
AMPHIBIANS									
Rhinella marina	Cane Toad	Invasive	N/A		x		x		
Limnodynastes peronii	Striped Marsh Frog	Native	Least Concern				x		

Scientific Name	Species Common Name	Native/Introduced	Status	Observations Incidental 04.09.2024	Incidental 16.09.2024	Cameras 03 - 18.09.2024	Spotlighting 18.09.2024	Dusk bird survey 18.09.2024	Dawn bird survey 17.09.2024
Litoria fallax	Eastern Sedgefrog	Native	Least Concern				x		
Litoria nasuta	Striped Rocket Frog	Native	Least Concern				x		

4.3. Threatened species and communities

A potential of occurrence assessment was initially conducted prior to conducting field surveys to identify the MNES (threatened ecological communities and threatened and/or migratory species) of potential relevance to the referral area. The identified MNES were then the focus of the field survey program and effort.

After completing the field survey, a likelihood of occurrence (*i.e.,* a revised version of the potential of occurrence assessment) was undertaken based on field survey results and the confirmed vegetation communities and associated habitats contained with the referral area. The outcome of this two-staged likelihood of occurrence is presented in the following sections.

Those matters with a moderate or high likelihood of occurrence proceed to the impact assessment presented in **Section 5.**

4.3.1 EPBC Act Threatened Ecological Communities

The likelihood of occurrence for each TEC within the referral area, as presented in **Appendix C**, referred to State Government Regional Ecosystem mapping within the locality and known distributions of the TECs, to identify those TEC's with potential to occur in the referral area or recorded during field surveys.

The Protected Matters Search Tool (PMST) (refer **Appendix A**) returned the following seven (7) threatened ecological communities (TEC), listed under the EPBC Act, as having potential to occur within 5 km of the referral area:

- Coastal Swamp Oak (*Casuarina glauca)* Forest of New South Wales and South East Queensland ecological community
- Grey box-grey gum wet forest of subtropical eastern Australia
- Lowland Rainforest of Subtropical Australia
- Poplar Box Grassy Woodland on Alluvial Plains
- Swamp Tea-tree (Melaleuca irbyana) Forest of South-east Queensland
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

The results of the likelihood of occurrence assessment determined that none of the above-mentioned TECs were likely to occur due to the absence of indicative Regional Ecosystems and species or habitat values on site typically associated with these TECs.

Field surveys confirmed no TECs were present within the referral area.

4.3.2 Threatened Fauna Assessment

Database searches returned thirty-three (33) fauna species listened as threatened under the EPBC Act and/or NCA as having been previously recorded or predicted to occur within 5 km of the referral area. The desktop assessment determined seven (7) threatened fauna species listed under the EPBC Act and/or NCA as having

moderate or higher potential to occur on or near the referral area. A summary of targeted field assessments is found below.

Phascolarctos cinereus (Koala)

The Koala occurs in a range of environments containing eucalypt forest or woodland. Despite historical clearing occurring over the entire referral area and Category X (non-remnant) status, Non-juvenile Koala Habitat Trees (NJKHTs) are present including *Eucalyptus tereticornis* (Forest Red Gum), *Eucalyptus siderophloia* (Grey Ironbark), *Corymbia citriodora* (Spotted Gum) and *Corymbia tessellaris* (Moreton Bay Ash). Several detailed surveys were completed including spotlighting and SAT assessments. SAT assessments were utilised to detect indirect evidence of Koala activity across the referral area, to determine the likelihood of occurrence on-site. A total of six (6) SAT assessments were completed as well as incidental surveys occurring across the site. Detailed surveys failed to directly detect Koala however indirect evidence in the form of scats were recorded only at 'SAT 1' which indicates 'low' usage. This evidence suggests that the referral area is not currently occupied by a population of Koala and is more likely to be used sporadically by transient individuals.

Koalas are known to occur within the local area with several sightings recorded on publicly available databases (ALA and biomaps). Notably, no sightings of the species have been recorded on-site with the majority of records west of Ripley Road, north of the Centenary Highway and in White Rock Conservation Park to the east (refer **Plan 6**). The referral area is located within a highly modified landscape that has been subject to extensive historical modification for rural purposes and more recent residential and infrastructure developments. The strategic planning of the site has resulted in 100% 'urban living' zoning with much of the surrounding land zoned the same. The referral area does retain some local level connectivity in an east-west direction and the referral area does contain vegetation that would be considered Koala habitat.

No sightings of Koala were recorded within the referral area. Indirect evidence was recorded indicating 'low' usage. Vegetation on-site does include trees which are consistent with Koala habitat. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, is required.

Pteropus poliocephalus (Grey-headed Flying-fox)

Pteropus poliocephalus (Grey-headed Flying-fox) requires foraging resources and roosting sites to persist. The species is known to use a wide variety of habitats including subtropical and temperate rainforests, tall sclerophyll forest and woodlands, heaths, swamps and also urban and agricultural areas where food trees have been cultivated.

The species is highly adaptive with its diverse native diet, which it can supplement with introduced species. It is known to forage within a variety of habitat areas as each resource does not produce food throughout the entire year. There are no observed roosts on-site, with the nearest roost located 8.6 km north-west of the site in Yamanto (479). This roost was last surveyed in 2020 where GHFF were present.

There are several scattered sightings within the broader locality with most records observed close to the Yamanto camp. Notably, two recent records (2023) are present approximately 5km east of the site within White Rock Conservation Park (refer **Plan 7**). The referral area does contain potential foraging species however, given the extensive historical clearing, vegetation is largely of regrowth value and does not contain

vegetation density reflective or remnant vegetation. Additionally, the referral area contains larger cleared areas that do not provide any foraging resources for the species. Therefore, foraging habitat within the referral area is considered low value, particularly given the availability of large areas of suitable habitat within White Rock Conservation Park to the east.

No Grey-headed Flying-fox individuals or roosts were recorded during field surveys. Vegetation within the referral area is considered potential foraging habitat. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, is required.

Petauroides volans (Greater Glider)

The Greater Glider is largely restricted to eucalypt forests and woodlands of eastern Australia. It is typically found in highest abundance in taller, montane, moist eucalypt forests on fertile soils, with old trees and abundant hollows associated with Category B (remnant) vegetation. The referral area is entirely mapped as Category X (non-remnant) vegetation as a result of historical clearing. On-ground surveys identified largely regrowth vegetation and a lack of large mature hollow bearing trees. A detailed tree plot across the site recorded only four (4) trees containing hollows and only 2 hollows considered of a suitable size for the species (≥100 mm diameter). This represents a hollow density of approximately 0.09 hollows per ha, far below the 2-4 hollows per ha required by the species as stated in the Conservation Advice for *Petauroides volans (greater glider (southern and central)) (2022)*.

The site is also situated adjacent to established and emerging residential developments and high levels of disturbance. Nocturnal surveys (spotlighting) were conducted across the referral area, with no sighting of the species recorded. The Greater Glider's distinctive bright eye shine and inactive nature means that the likelihood of detecting the species during spotlighting is high. Furthermore, no sightings of Greater Glider have been recorded by ALA within 5 km of the referral area. The evidence suggests that the referral area is not currently utilised by Greater Glider and is considered poor habitat for the species (refer **Plan 8**).

As stated in the Conservation Advice for *Petauroides volans* (Greater Glider (southern and central)) 2022, the species is particularly sensitive to disturbance associated with forest clearance and fragmentation and disperse poorly. The referral area has been subject to modification for past and on-going land-uses resulting in a highly disturbed environment. The referral area lacks suitable habitat for the species and is located adjacent to highly modified areas.

No sightings of Greater Glider were recorded within the referral area, and it is not expected to provide sufficient foraging or breeding habitat for the species. However, the species has been recorded approximately 8.2km east of the site. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, has been provided.

Anthochaera phrygia (Regent honeyeater)

The Regent Honeyeater mostly inhabits slopes of the Great Dividing Range, in areas of low to moderate relief with moist, fertile soils. It is most commonly associated with box-ironbark eucalypt woodland and dry sclerophyll forest, but also inhabits riparian vegetation such as She-oak (Casuarina spp.) where it feeds on needle-leaved mistletoe and sometimes breeds. Principally a canopy bird, it is reliant on select species of

eucalypt and mistletoe which provide rich nectar flows. It sometimes utilises lowland coastal forest which may act as refuge when its usual habitat is affected by drought. It also uses a range of other habitats including remnant patches in farmland and urban areas, roadside reserves and travelling stock routes.

The site was confirmed to contain winter flowering tree species, including *Corymbia citriodora* (Spotted Gum) and *Eucalyptus crebra* (Narrow-leaved Ironbark). However, the site has been historically cleared and predominantly consists of regrowth vegetation values as reflected in the non-remnant vegetation mapping. The referral area therefore lacks large mature trees which are considered suitable habitat for the species. A detailed tree plot showed that the site lacks large mature trees (≥ 500mm DBH) with only 41 specimens recorded across the site with the majority in the north of the site adjacent to major development 'Providence Central.' Furthermore, the referral area lacks high canopy cover and an abundance of mistletoes resulting in limited foraging habitat.

During surveys, aggressive honeyeater species *Philemon corniculatus* (Noisy Friarbird) were recorded which further reduces the overall suitability of the site. Additionally, the species was not observed on-site, and there are no records within 5km, despite targeted surveys at dawn and dusk where bird activity is high (refer **Plan 9**).

Given the lack of suitable habitat on-site, it is considered unlikely that the species would utilise immature, modified vegetation across the referral area, therefore a further response to the significant impact guidelines for the species is not required.

No Regent Honeyeater individuals were recorded during field surveys. The lack of suitable habitat and records indicates a low likelihood of occurrence. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, is not required.

Hirundapus caudacutus (White-throated Needletail)

The White-throated Needletail is a migratory species and is almost exclusively aerial which affects the ease of conventional habitat descriptions. Although they occur over most types of habitats, they are probably recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy. They also commonly occur over heathland, but less often over treeless areas, such as grassland or swamps. White-throated Needletails almost always forage aerially, primarily on insects, at heights up to 'cloud level', above a wide variety of habitats ranging from heavily treed forests to open habitats, such as farmland, heathland or mudflats. White-throated Needletails are known to roost in woodland and forest habitat, amongst canopy or in hollows. The species breeds in the northern hemisphere in wooded lowlands and sparsely vegetated hills, as well as mountains covered with coniferous forests.

The site is mapped entirely as Category X (non-remnant) vegetation with on-ground surveys identifying historical clearing across the site. Historical clearing and contemporary rural land-uses has resulted in limited mature trees and hollows required by the species. Only four (4) hollow bearing trees were reocred cross the entire referral area and only 41 trees were considered 'mature' specimens (i.e ≥ 500mm DBH) Additionally, the species was not observed on-site despite several targeted surveys during dusk and dawn were bird activity is high.

While there are several records of the species within 5km of the site, the high mobility of the species and lack of suitable habitat on-site indicates it is unlikely for the species to utilise the referral area, particularly given he availability of suitable habitat in the broader locality (refer **Plan 10**). A further response to the significant impact guidelines for the species is not required.

No White-throated Needletail individuals were recorded during field surveys. The lack of suitable habitat and records indicates a low likelihood of occurrence. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, is not required.

Calyptorhynchus lathami lathami (South-eastern Glossy Black-Cockatoo)

The Glossy Black Cockatoo relies on two specific habitat types for foraging and breeding. Foraging habitat is defined as vegetation containing Casuarina or Allocasuarina species. In South-east Queensland these are usually *Allocasuarina littoralis* (Black She-oak) and *Allocasuarina torulosa* (Forest She-oak). The Glossy Black Cockatoo is known to be highly selective of individual feed trees, and a dense subcanopy of Casuarina or Allocasuarina species is required to provide suitable foraging habitat. Breeding habitat is understood to be equally selective with a preference for specific hollow characteristics, notably a minimum entrance diameter >15cm.

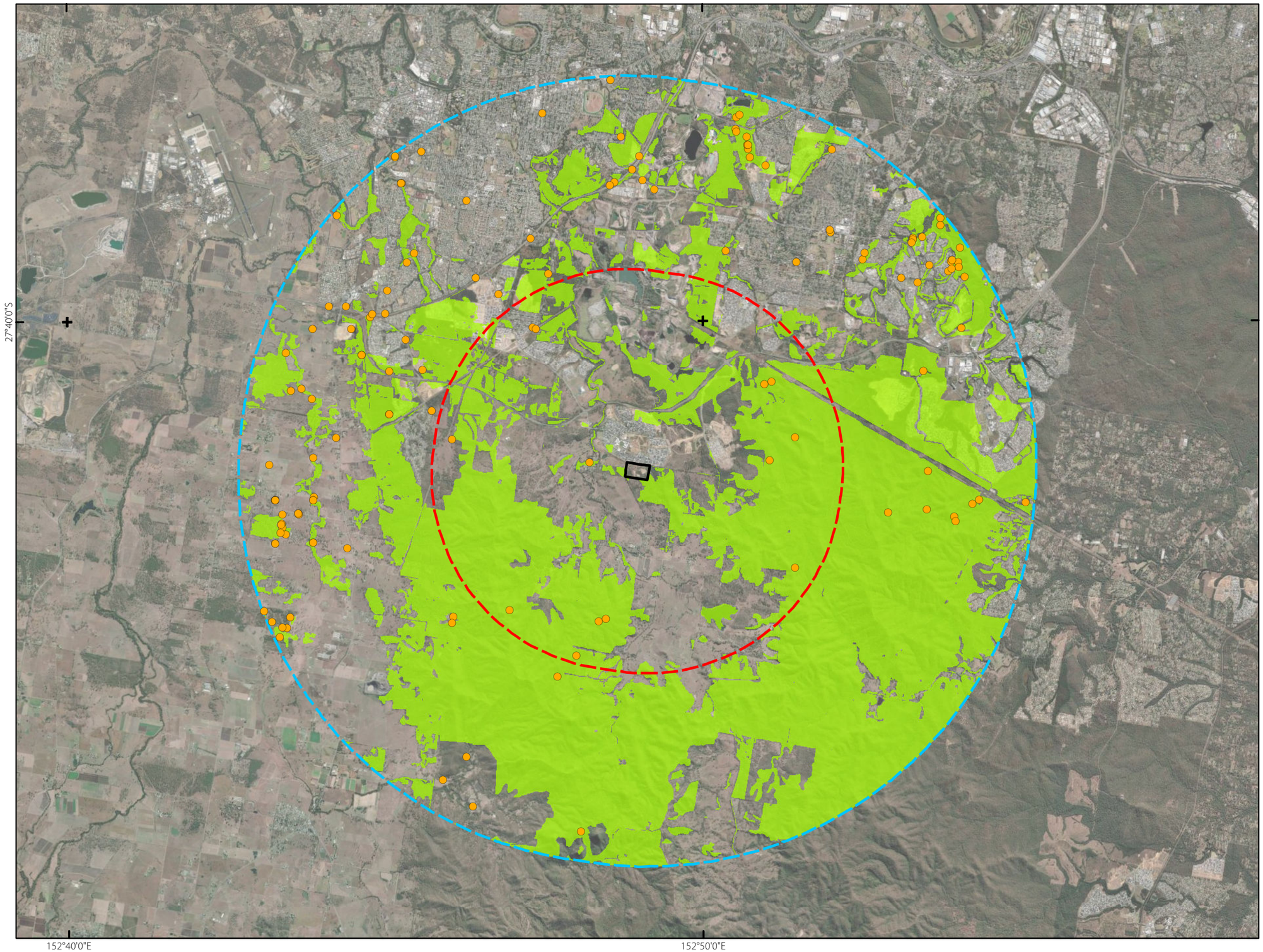
The referral area has been historically cleared and continually modified for rural uses. As a result, vegetation on-site is reflective of non-remnant mapping and dominated by regrowth vegetation and scattered larger trees. Trees species present include by *Corymbia citriodora* (Spotted Gum) with *Eucalyptus crebra* (Narrow-leaved Ironbark) and *Eucalyptus tereticornis* (Forest Red Gum) however the sub-canopy was sparse as a result of on-going rural uses. Therefore, Allocasuarina specimens were confined to only a handful of scattered individuals. The species is highly selective of individual food trees and therefore require a dense stand of Allocasuarina. Given the lack of individual specimens and overall small area, the referral area is unlikely to provide adequate foraging habitat for the species. Furthermore, the ample availability of large areas of foraging habitat within White Rock Conservation Park, where the species is known to occur, is far more likely to be utilised than low-value habitat within the referral area. Field surveys recorded all hollow-bearing trees across the referral area with only four (4) hollow bearing trees observed. Of these trees, only two hollows were identified as providing the minimum size requirement (>15cm diameter) for the species.

While there are records of the species within 5km of the site with the nearest records being approximately 4.5km east. This record is dated (1975) with the nearest contemporary records approximately12km east, associated with White Rock Conservation Park (refer **Plan 11**). It is considered highly unlikely that the species would utilise extremely limited foraging or breeding habitat.

No sightings of Glossy Black Cockatoo were recorded within the referral area, and it is not expected to provide sufficient foraging or breeding habitat for the species. Further consideration of impacts to the species from the action, including assessment against the EPBC Act significant impact criteria, is not required.

Plan 6: Koala habitat and records

06. Koala Records and Habitat



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Legend

- Surveyed Referral Area
- Site 5km Buffer
- Site 10km Buffer
- Potential and known Koala habitat within 10km of site - 47.5%
- Koala records within 10km of site recorded within the past 20 years (ALA, 2025) - 143

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Bayliss Road, South Ripley

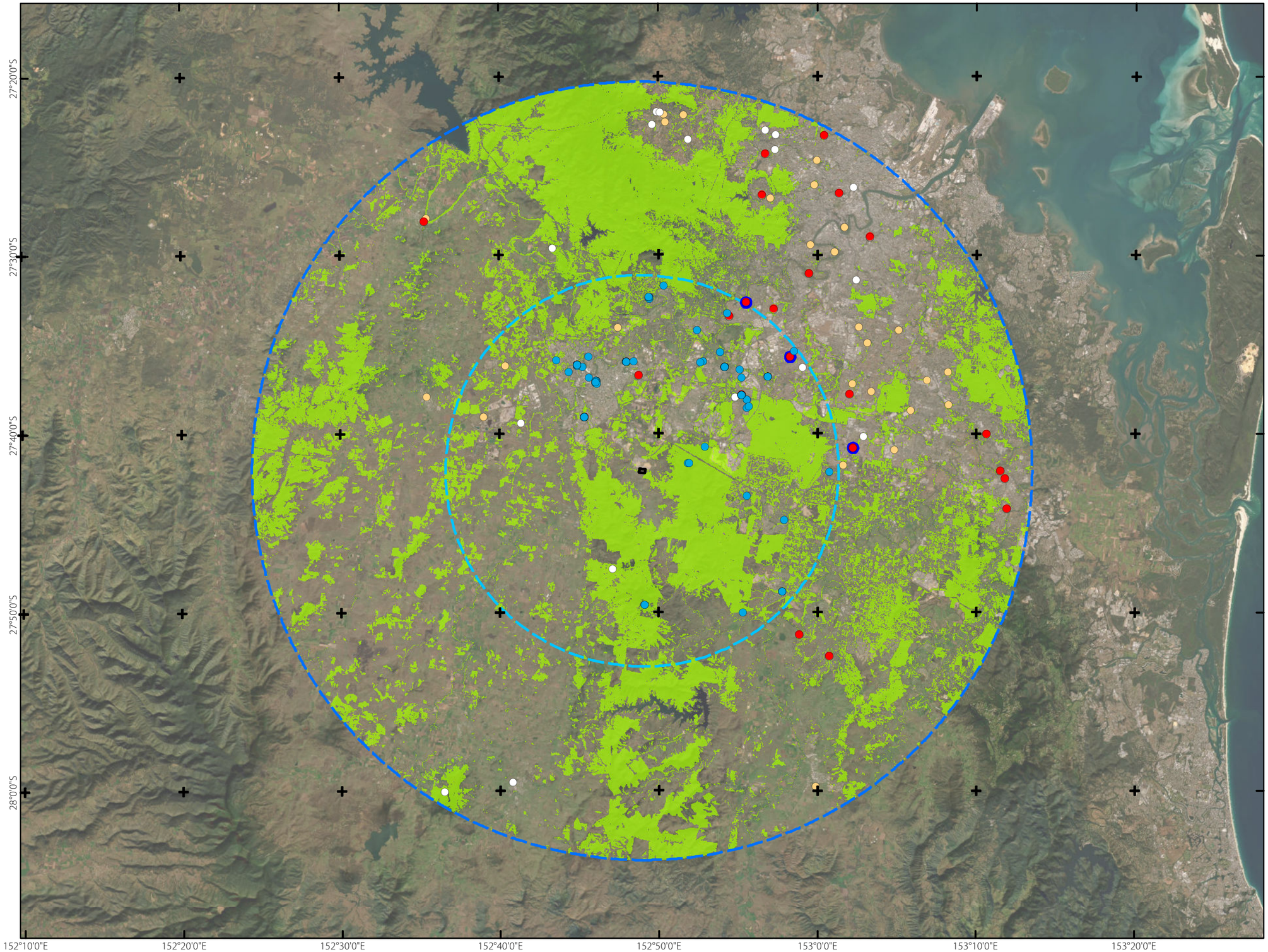
0 1 2 3 km
Transverse Mercator
GDA 2020 | Zone 56
1:100,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 06 PD Koala Records Habitat A

Issue	Date	Drawn	Checked
A	16/01/2025	TF	LB

07. Grey-headed Flying-fox Records and Habitat



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Legend

- Surveyed Referral Area
- Site 20km Buffer
- Site 40km Buffer
- Grey-headed Flying-fox records within 20km of site recorded within the past 20 years (ALA, 2025) - 231

Fed GHFF. Monitoring Program (2025)

- Grey-headed Flying-fox roost inactive within recent surveys - 20
- Grey-headed Flying-fox roost active within recent surveys - 29
- Grey-headed Flying-fox roost active within recent surveys with a population level of 3 or above - 21
- Nationally significant Grey-headed Flying-fox roost active within recent surveys - 0
- Nationally significant Grey-headed Flying-fox roost active within recent surveys with a population level of 3 or above - 3
- Potential and known Grey-headed Flying-fox habitat within 20km of site - 37.8 %

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Bayliss Road, South Ripley

0 2 4 6 8 10 km

Transverse Mercator
GDA 2020 | Zone 56

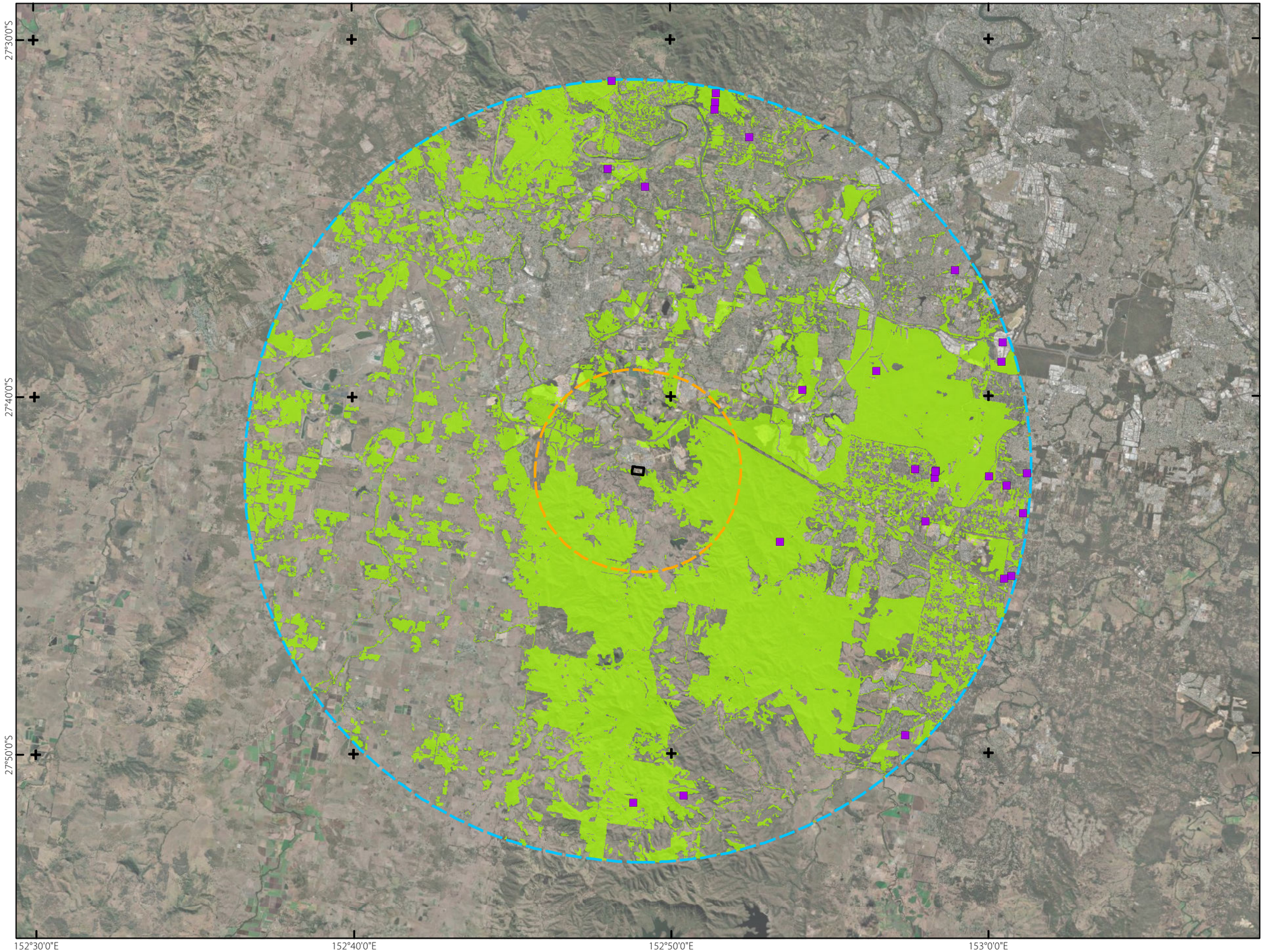
1:400,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 07 PD GHFF Records Habitat A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

08. Greater Glider Records and Habitat



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Legend

- Surveyed Referral Area
- Site 5km Buffer
- Site 20km Buffer
- Potential and known Greater Glider habitat within 20km of site - 37.4%
- Southern Greater Glider records within 20km of site recorded within the past 20 years (ALA, 2025) - 27
- Northern Greater Glider records within 20km of site recorded within the past 20 years (ALA, 2025) - 0

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Bayliss Road, South Ripley

0 1 2 3 4 5 km

Transverse Mercator
GDA 2020 | Zone 56

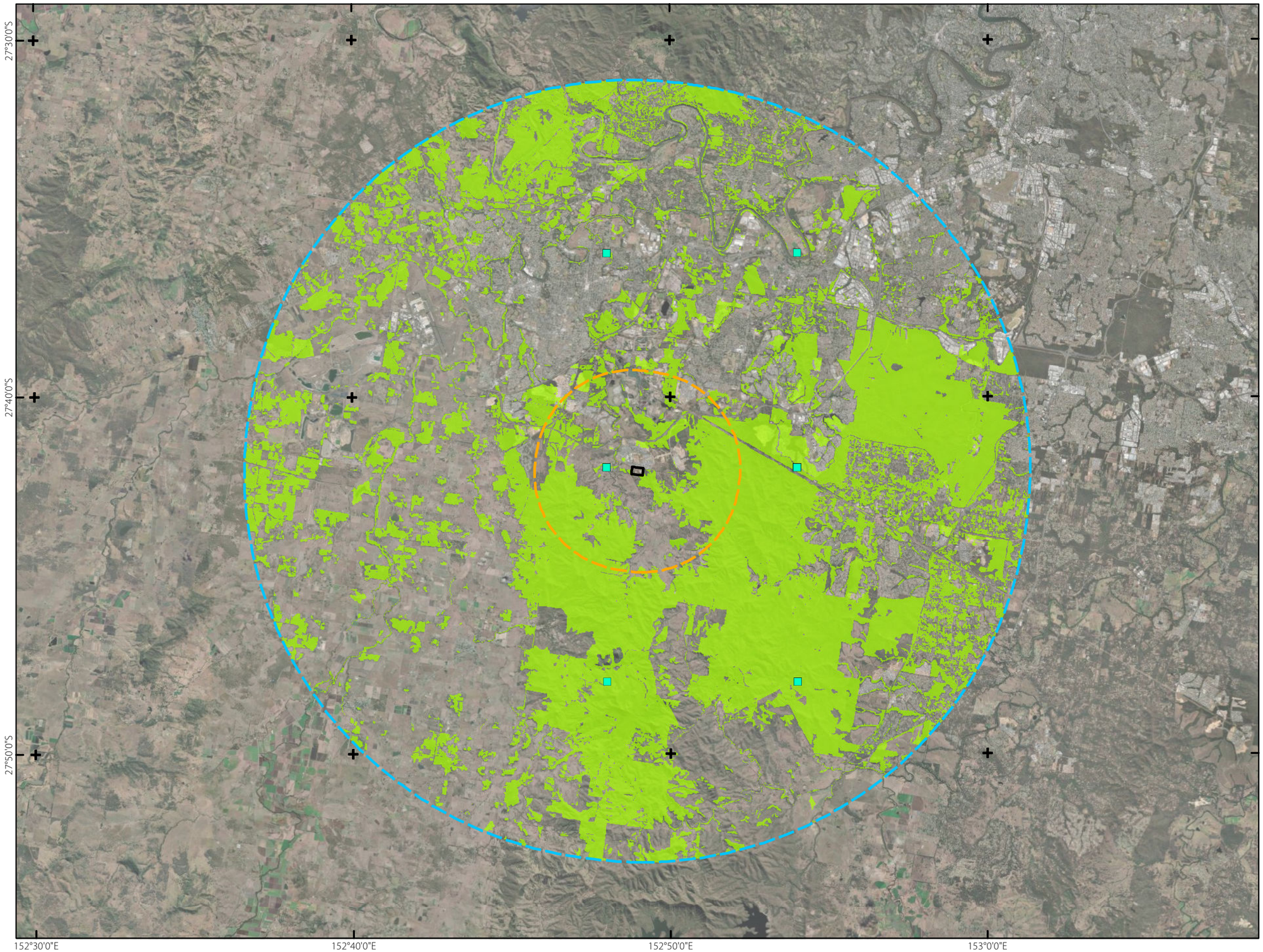
1:200,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 08 PD GG Records Habitat A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

09. Regent Honeyeater Records and Habitat



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Legend

- Surveyed Referral Area
- Site 5km Buffer
- Site 20km Buffer
- Potential and known Regent Honeyeater/ Swift Parrot habitat within 20km of site - 37.8%
- Regent Honeyeater records within 20km of site recorded within the past 20 years (ALA, 2025) - 182
  Note: Records shown are generalised on a grid for the purposes of species protection.

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Bayliss Road, South Ripley

0 1 2 3 4 5 km

Transverse Mercator
GDA 2020 | Zone 56

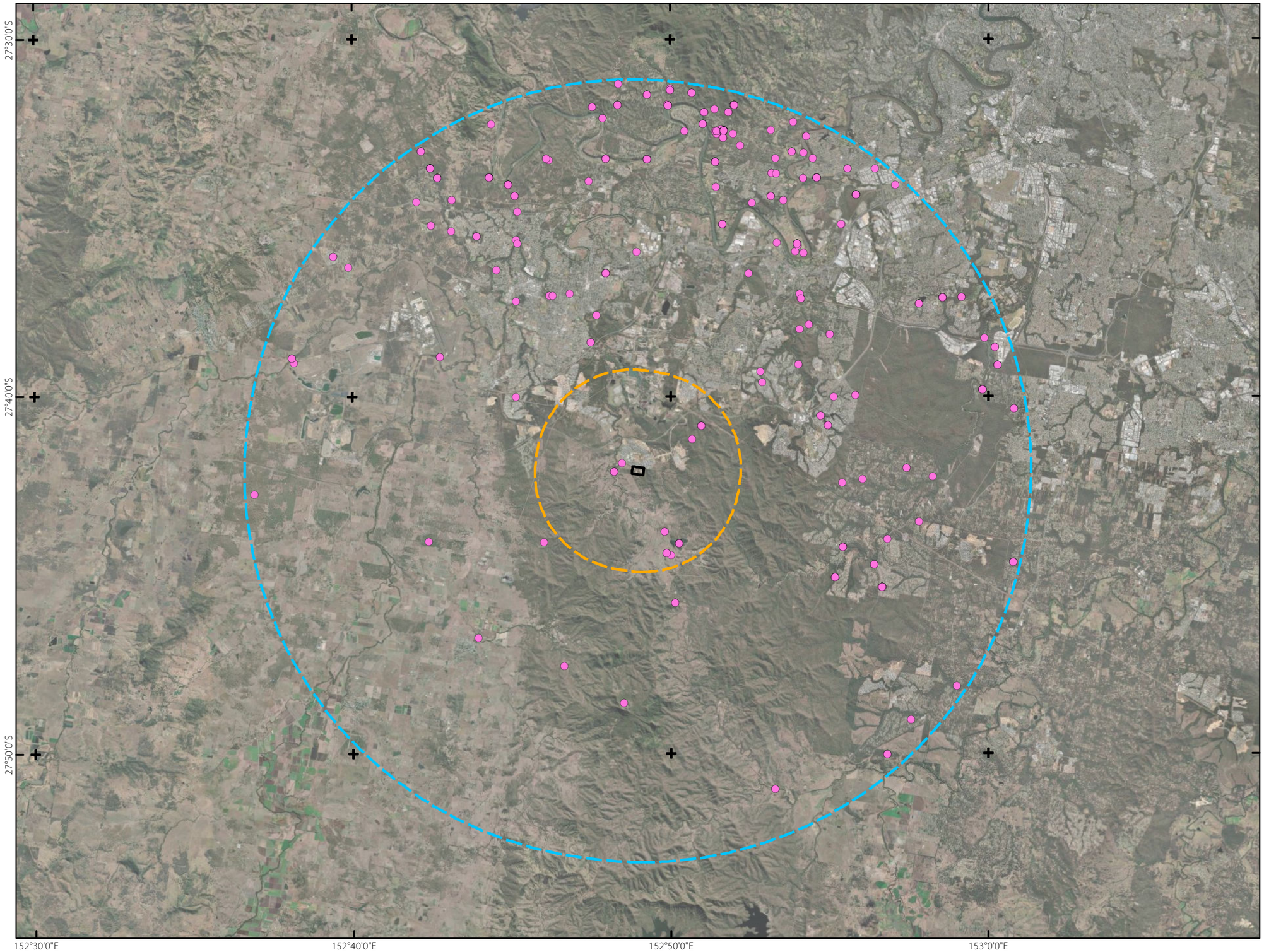
1:200,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 09 PD RH SP Records Habitat A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

10. White-throated Needletail Records



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Legend

- Surveyed Referral Area
- Site 5km Buffer
- Site 20km Buffer
- White-throated Needletail records within 20km of site recorded within the past 20 years (ALA, 2025) - 748

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Bayliss Road, South Ripley

0 1 2 3 4 5 km

Transverse Mercator
GDA 2020 | Zone 56

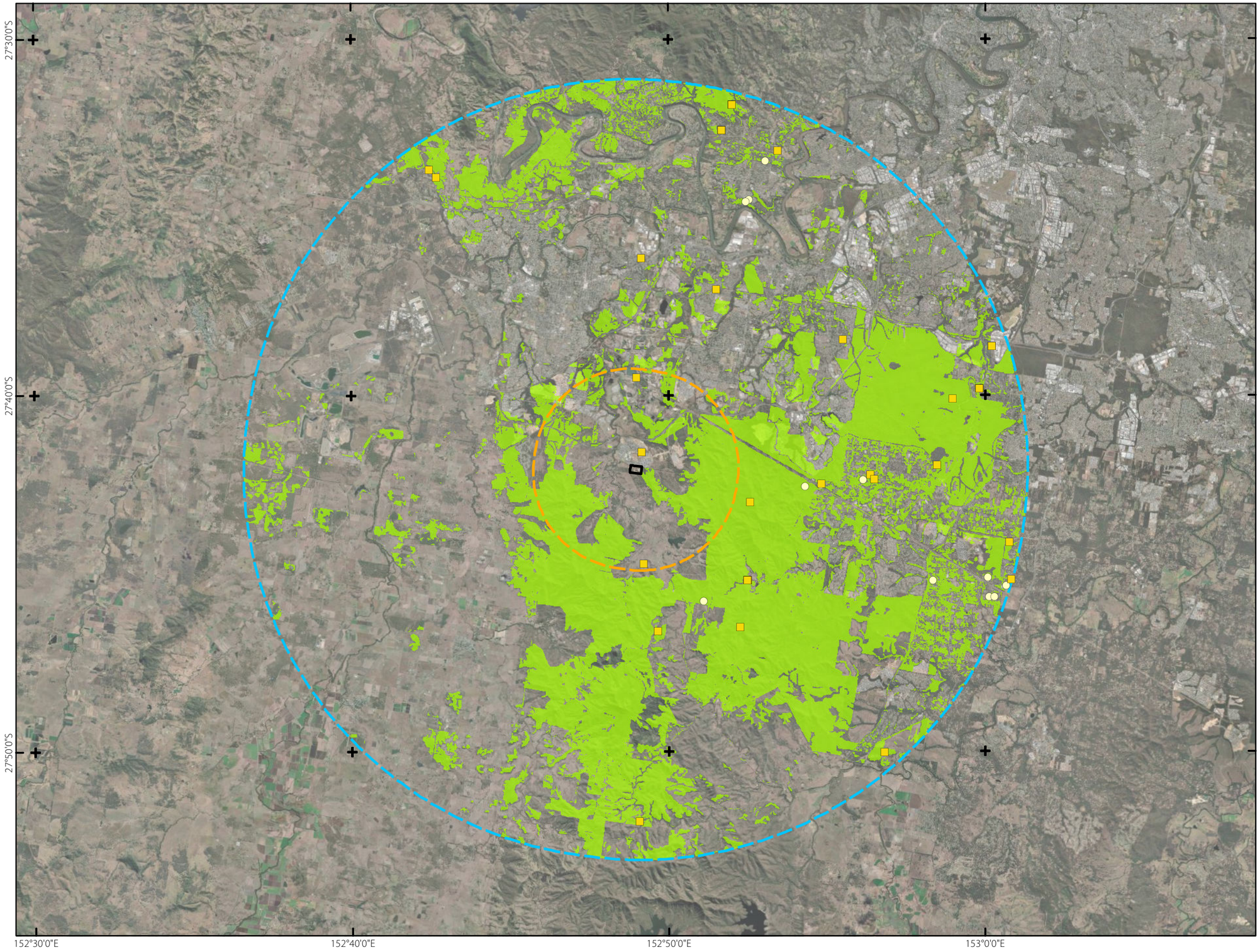
1:200,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 10 PD WTN Records A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

11. Glossy Black-cockatoo Records and Habitat



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Legend

- Surveyed Referral Area
- Site 5km Buffer
- Site 20km Buffer
- Potential and known Glossy Black-cockatoo habitat within 20km of site - 29.8%
- Glossy Black-cockatoo records within 20km of site recorded within the past 20 years (ALA, 2025) - 37
- South-Eastern Glossy Black-cockatoo records within 20km of site recorded within the past 20 years (ALA, 2025) - 12

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Bayliss Road, South Ripley

0 1 2 3 4 5 km

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Address: Bayliss Road, South Ripley

J12186 E 11 PD GBC Records Habitat A

Issue	Date	Drawn	Checked
A	13/01/2025	TF	LB

4.3.3 Migratory Species Assessment

Database searches returned eleven (11) migratory fauna species listed as threatened under the EPBC Act and/or NC Act, as having been previously recorded or predicted to occur within 5 km of the referral area. Following field surveys and the likelihood of occurrence assessment, no species were identified as having a moderate or greater likelihood of occurring on-site.

Gallinago hardwickii (Latham's Snipe) and *Rostratula australis* (Australian Painted Snipe)

The Latham's Snipe and Australian Painted Snipe are wetland birds that occur in permanent and ephemeral wetlands. They usually inhabit open, freshwater wetlands with low, dense vegetation.

The referral area does not contain true wetland environments favoured by the species with potentially suitable habitat confined to a series of constructed farm dams. These dams were dominated by pasture grasses as a result of historic and contemporary cattle grazing. While the species has been observed utilising constructed dams in the local area, they are more frequently observed within the vicinity of Bundamba Lagoon, a large waterbody with dense native wetland vegetation, providing suitable habitat approximately 4 km south-east of the referral area. Following detailed field surveys over multiple days, the Latham's Snipe and Australian Painted Snipe was not observed utilising dams on-site. It is considered unlikely that the species would utilise dams on-site given the suitability of habitat associated with Bundamaba Lagoon to the south-east. The removal of low-value habitat within the referral areal is not considered to significantly reduce the availability of habitat within the local area as the size of Bundamba lagoon is capable of supporting a high number of individuals.

No migratory fauna species of conservation significance were recorded during the field survey.

Table 10 provides a summary of potential impacts to MNES as part of the development.

Table 10: Potential for the proposed action to impact MNES

MNES	Description	Relevance to Site	Assessment
World Heritage Properties	A 'declared World Heritage property' is an area that has been included in the World Heritage list or declared by the minister to be a World Heritage property. World Heritage properties are places with natural or cultural heritage values which are recognised to have outstanding universal value.	The closest World Heritage Site is the Gondwanan Rainforests of Australia of which is more than 120 km south of the site.	There is no potential for the proposed action to impact on a World Heritage Property. **Further assessment is not required.**
National Heritage Places	The National Heritage List contains places or groups of places with outstanding heritage value to Australia – whether natural, Indigenous or historic or a combination of these.	The closest National Heritage Place is Glass House Mountains National Landscape of which is approximately 90 km to the north of the site. Several 'Commonwealth lands' are present approximately 6km from the site.	There is no potential for the proposed action to impact on a National Heritage Place. Given highly modified areas between the site and Commonwealth lands, it is highly unlikely the site will have a direct or indirect impact on these areas **Further assessment is not required.**
Wetlands of international importance (Ramsar)	A 'declared Ramsar wetland' is an area that has been designated under Article 2 of the Ramsar Convention or declared by the minister to be a declared Ramsar wetland under section 16 of the EPBC Act.	Moreton Bay is approximately 50 km east of the site.	The referral area contains drainage features which travels downstream to the north-west, to merge with Bundamba Creek. Bundamba Creek meanders north through high density residential, industrial and rural land to merge with the Bremer River, onto the Brisbane River and ultimately into Moreton Bay at the Port of Brisbane. This is a distance of at least 100km.

MNES	Description	Relevance to Site	Assessment
			The referral area is significantly far from the nearest point of the Moreton Bay RAMSAR Wetland. Furthermore, the proposed development will implement the necessary stormwater management plans during the construction and operation phases of the project. There is no potential for the proposed action to impact on a Wetland of International Importance (Ramsar). **Further assessment is not required.**
Nationally threatened species and ecological communities	An action will require approval if the action has, will have, or is likely to have a significant impact on a species listed in any of the following categories: ▪ extinct in the wild ▪ critically endangered ▪ endangered, or ▪ vulnerable. An action will also require approval if the action has, will have, or is likely to have a significant impact on an ecological community listed in any of the following categories: ▪ critically endangered, or ▪ endangered.	The PMR identified 50 listed threatened species and seven (7) TECs with the potential to occur in the development area or within 5 km of the proposed action.	Based on the survey results, the following species are discussed further in this assessment to ascertain if there will be a significant impact resulting from the action: 1. Koala 2. Grey-Headed Flying Fox 3. Greater Glider **Further assessment against the significant impact criteria has been provided for these MNES, refer Section 7. All other nationally threatened species and ecological communities were considered and concluded as unlikely to undergo a significant impact as a result of the proposed development.**
Migratory species	An action will require approval if the action has, will have, or is likely to have a significant impact on a listed migratory species.	The PMR identified 11 listed migratory species with the potential to occur in the	It is considered unlikely that the development area has habitat critical for any migratory species. The nearest known habitat for migratory species is located approximately 4 km south-east in association with Bundamba Lagoon. Bundamba Lagoon contains

MNES	Description	Relevance to Site	Assessment
		development area or within 5 km of the proposed action.	Category B (remnant) RE 12.3.8 vegetation. RE 12.3.8 is described as a swamp community with characteristic species including Cyperus spp., Schoenoplectus pp. and Philydrum spp., with a wide range of sedges, grasses and forbs. The referral area does not contain habitat consistent with that found at Bundamba Lagoon. While the Latham's Snipe (*Gallinago hardwickii*) has been recorded within the local area and has been recorded utilising constructed dams, it is considered unlikely the species would utilise the referral area followed field surveys. **Further assessment against the significant impact criteria is not required – justification is detailed in Sections 4.3.3**
Commonwealth marine areas	Marine protected areas are marine areas which are recognised to have high conservation value. Actions in or near marine protected areas, or other areas with high conservation value, have a greater likelihood of significant impacts on the Commonwealth marine environment.	The action is not being undertaken in or adjacent to a Commonwealth marine area. The proposed action development area is located 50km, from the nearest Commonwealth marine area.	There is no potential for the proposed action to impact on Commonwealth Marine Areas **Further assessment is not required.**
The Great Barrier Reef Marine Park	The Great Barrier Reef Marine Park is established under the *Great Barrier Reef Marine Park Act 1975*. The GBRMP is an area recognised to have high conservation value and an action will require approval if it is likely to impact the environment.	The GBRMP is more than 340 km north of the site	There is no potential for the proposed action to impact on the GBRMP. **Further assessment is not required.**
Nuclear actions	A nuclear action (including uranium mining) will require approval if it has, will	The proposed action does not comprise a nuclear action.	**This MNES does not apply.**

MNES	Description	Relevance to Site	Assessment
	have, or is likely to have a significant impact on the environment.		
A water resource, in relation to coal seam gas development and large coal mining development	Under the EPBC Act, an action which involves a CSG development or a large coal mining development requires approval from the Australian Government if the action has, will have, or is likely to have a significant impact on a water resource.	The proposed action does not comprise a CSG development or large coal mine.	**This MNES does not apply.**

5. Impact Assessment

5.1. Potential Project Related Impacts

The proposed development involves the establishment of an residential development across the referral area in line with the zoning intent of the RVPDA development scheme. This will involve removal of all remaining vegetation on the site, earthworks and the creation of new local infrastructure in support of land for housing.

5.1.1 Impact Avoidance

The proposed development has followed the avoid, minimise and mitigate hierarchy when developing the site layout. A combination of historical aerial imagery and on-ground assessments have identified the referral area as having been historically cleared and maintained for at least 40 years. Present day values are reflective of historical clearing, being predominantly regrowth vegetation/juvenile vegetation and cleared areas. The referral area offers low value habitat in the form of native regrowth and some scattered larger trees. The site does not provide specific habitat values that are considered necessary to support a wide range of threatened species, including large mature trees, abundance of hollows and mistletoes, waterways and riparian vegetation or rocky outcrops.

The lack of environmental features historically and at present has contributed to the land being centrally earmarked within the RVPDA and zoned 100% for housing. The greater volume of housing achieved on this allotment, the less pressure placed on vegetated areas surrounding the PDA and other areas of the South East Queensland Regional Plan to take up defrayed housing stock. The land contains gentle topography and serviced via the existing Bayliss Road to the north. Bayliss road also serves the existing 'Providence Central' development which is a major central development of RVPDA as well as new developments under construction to the east of the site. Land adjacent to the western and southern boundaries of the referral area is also zoned as 'urban living' under the RVPDA development scheme with active local (ICC) and federal EPBC applications. A review of these proposals shows housing and drainage infrastructure up to the boundary of the site aligning with the planning intent and zoning of the area.

The neighbouring land parcel to the east of the site is zoned completely as 'environmental protection' under the RVPDA development scheme owing to being largely vegetated and forming part of a logical broad-scale retention area that includes the retained area of approved development (2018/8347) further east. Additionally, the property to the south is under assessment with EPBC act with the project proposing to retain the eastern extent of the lot to further strengthen ecologically valuable areas. Retaining any vegetation within the referral area is considered unsuitable because of several factors. Firstly, vegetation on-site is of low-value and confined to regrowth native trees. High ecological value areas (remnant vegetation, hollow bearing trees, mature trees, high tree species richness) are significantly lacking. Land to the north, south and west is zoned as 'urban living' which have either commenced development or hold current development applications, indicating the high likelihood of delivery. Therefore, the retention of any vegetation along the northern, southern and western boundary would be futile given the current and expected delivery of housing in these areas. To the east of the site, vegetation is likely to be retained as per the RVPDA zoning and approved developments. The 'environmental protection' zoning terminates at 'Providence Central' directly north. Proposing the retention of vegetation along the eastern boundary of the referral area is not considered likely

to improve the functionality of the retained area in the broader location given the presence of developments to the north. Furthermore, indirect impacts on retained areas to the east are not considered likely to increase given highly modified land currently present on and adjacent to the referral area. Any additional avoidance achieved at the referral area would have no meaningful role for threatened species in the future developed scenario of this and adjoining sites. Thus, any additional avoidance would be at the expense of housing supply forced to be located elsewhere without any benefit to MNES habitat for species.

The proponent (HB QLD Pty Ltd) acquired this site due to its lack of environmental overlays following detailed due diligence. The site directly reflects the type of land holding which should be targeted for development based on both on-ground values and context.

5.1.2 Potential Direct Impacts

Vegetation Clearing

The project proposes to directly impact all 21.9 ha of the referral area with 15.9 ha recognised as providing Koala and GHFF foraging habitat.

Habitat Loss

The project will result in impacts to the entire 21.9 ha referral area which includes scattered trees, regrowth vegetation and cleared areas.

While 15.9 ha of this area is defined as Koala habitat, as well as providing foraging habitat for GHFF, a lack of evidence indicates that this habitat is not currently utilised by the species (refer **Plan 12** and **Plan 13**). Vegetation communities 1 and 2 (non-remnant vegetation indicative of RE12.9-10.2 and RE12.9-10.7) contained Koala habitat trees, albeit dominated by juvenile specimens, and is therefore considered to provide Koala habitat and GHFF foraging habitat. Vegetation community 3 (Cleared Areas) was considered to be 'not habitat' for Koala and GHFF given the complete lack of Koala trees. Furthermore, these areas are highly modified and dominated by exposed ground that is unlikely to provide a dispersal role for the species.

The MNES identified as having a moderate and higher likelihood of occurrence based on a desktop and field assessments include Koala and Grey-headed Flying-fox. Greater Glider is considered to have a low likelihood of occurrence however given the increased scrutiny of the species and known record approximately 8.2km east of the site, a further assessment of potential project related impacts in the form of EPBC Act significant impact assessments has been completed for all three species, as presented in **Table 12, 13** and **14**.

The risk of impact assessment is qualitative and based upon the potential extent of habitat loss resulting from the construction phase of the project and to a lesser degree the operational phase of the project. It considered, but was not limited to the following:

- The value of the impacted habitat to each respective matter;
- The amount of habitat to be directly impacted (lost) against that to be retained;
- Potential indirect impacts (e.g. dust, noise and soil erosion);
- Potential fragmentation of a population into two or more populations;

- Increased fragmentation of wildlife corridors in the Referral area;
- Risk of operational impacts (e.g. noise); and
- Each species ability (e.g. fauna) or inability (e.g. flora) to move away from areas of direct impact into retained habitat.

5.1.3 Potential Indirect Impacts

Indirect impacts occur when project related activities affect vegetation or habitats in a manner other than a direct loss or clearing. Examples of indirect impacts include; promotion of soil erosion, sedimentation of waterways, dust inhibiting plant pollination, provision of suitable seed bed for invasive plants, or increased noise activity within of directly adjacent to sensitive habitat areas.

The potential indirect impacts that may result from construction activities and/or the operational phase of the project have been identified below.

Weeds

Increased vehicle movement during the construction phase has the potential to increase the spread of weeds in the area, particularly during the vegetation clearing phase, however, weeds are already present across much of the site including *Lantana camara* (Lantana) and exotic grasses. With implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the potential introduction/spread of weeds.

Vehicle Movement

During construction, a number of vehicles will be required on the referral area. Direct impacts from vehicle movements on threatened species and vegetation communities could include:

- damage or destruction of vegetation or fauna habitat by vehicles traversing these areas; and
- fauna strike.

Indirect impacts include:

- interference of fauna through visual and noise impacts. This in turn can affect feeding, roosting, breeding or nesting behaviour;
- introducing and/or spreading weeds or feral animals carried on or in vehicles, resulting in deterioration or loss of vegetation and important fauna habitat; and
- damage or destruction of vegetation and fauna habitat through smothering by dust generated by vehicles traversing the project area.

Given the lack of evidence of MNES species occurring at the site and low value habitat, these impacts are considered highly unlikely and easily mitigated with standard construction management protocols required by both State and Local Governments. With implementation of standard mitigation measures, such as exclusions fencing, the project is likely to result in a temporary and minor impact to ecological values due to vehicular movements. Further, ecological field survey directly observed only common and highly mobile fauna are present on the site through several targeted searches.

Earthworks

Construction activities have the potential to generate dust emissions. Dust emissions during construction will be temporary. The main sources of dust will be generated via:

- wheel-generated dust from the haul roads created for the construction phase;
- dust lift-off from exposed surfaces (e.g. construction roads and pads);

- earthworks, including construction of the embankments, and moving, dumping and shaping material; and
- vegetation and soil clearing of the land.

Excessive deposition of dust on leaves of plants can suppress their growth and photosynthesis, resulting in reduced habitat quality for fauna. High levels of airborne dust can irritate the respiratory systems of fauna and potentially result in ingestion of dust-coated seeds and other foods. Excessive deposition of dust on open water bodies may also degrade water quality and overall habitat quality for fauna. Notably the referral area exists within a highly urbanised environment with surrounding areas utilised for development. Presence of heavy vehicle movement already incurs dust emissions within the locality. Regardless, with implementation of standard mitigation measures, the project is likely to result in a temporary and minor impact to ecological values due to the generation of dust.

Light Emissions During Construction

Artificial light can affect both nocturnal and diurnal animals by disrupting behavioural patterns, with quality of light (e.g. wavelength, colour), intensity and duration potentially evoking different faunal responses. Impacts from increased light levels include disorientation from, or attraction toward, artificial sources of light; mortality from collisions with structures, and effects on light-sensitive cycles of species (e.g. breeding and migration for fauna and flowering in plants). An artificial increase in lighting can also affect abundance of predators.

Presence and intensity of artificial light in the project area will temporarily increase during the construction phase; however, night works will not be common. Lighting will be directed to construction areas within the project site. Some light spillage will be inevitable and is likely to be contained. Potential impacts associated with light emissions will be temporary and are unlikely to be significant.

Noise and Vibration

Noise levels greater than existing ambient noise levels are expected during the construction within the project area. Sources of noise are likely to consist of short, intense pulses from mobile plant equipment, and more prolonged noise, with consistent vibration, pitch and volume from generators, excavators and pumps, in addition from noise from vehicles.

Both steady continuous and single noise events have the potential to lead to ecological impacts. Construction noise is expected to elicit some avoidance response from fauna using the surrounding vegetation though, with consideration of the extent of habitat available in and adjoining the referral area and species mobility, this is likely to be a temporary and negligible to minor impact. It's noted that developments are under construction at present immediately west of the referral area.

Waste Disposal

Inappropriate disposal of non-hazardous wastes can attract vermin and other wildlife to site. This may exacerbate potential impacts (e.g. road mortality). Litter may also enter surrounding environments. With implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the generation and handling of waste.

Hazardous and Dangerous Goods

Spills and leaks from transfers (e.g. fuel and/or chemicals) and inadequate storage of dangerous goods and hazardous wastes could result in point-source contamination of surrounding land. Direct adverse impacts could include toxic impacts on vegetation (resulting in degradation or loss of vegetation and habitats), direct toxic impacts on fauna (from contact, inhalation or ingestion) or indirect impacts on threatened and migratory species from habitat loss. Direct adverse impacts on surface and groundwater quality are also possible.

With the application of standard mitigation and management measures, impacts from liquid and solid waste disposal will be avoided or localised and small in scale. Further to this, the likelihood of significant spillages is considered extremely low. Therefore, the project is likely to result in a negligible impact to ecological values due to potential spills and leaks.

Increased Human Presence

Increased human activity during construction has the potential to disturb fauna within adjacent habitat areas. Resulting impacts to fauna include heightened vigilance and predator avoidance, which can disrupt foraging and roosting efficiency or deter wildlife from using particular areas. Impacts essentially represent a reduction in habitat availability due to edge effects. The project is likely to result in a temporary and minor impact to ecological values due to increased human presence on site during the construction and operational period.

5.2. Potential Impacts to Matters of National Environmental Significance

As detailed in the previous sections, field surveys confirmed that, with the exception of Koala, Grey-headed Flying-fox and Greater Glider, the following are unlikely to occur or have a low likelihood of occurrence on the referral area.

- EPBC Act listed TECs;
- EPBC Act and NC Act listed flora species;
- EPBC Act and NC Act listed fauna species;
- EPBC Act Migratory fauna species.

12. Koala Habitat Impact

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Legend

- Qld DCDB
- Surveyed Referral Area

Non-habitat Areas

- LiDAR Delineated Waterbodies
- Cleared Areas

Koala Habitat Impacted

- Vegetation Community 1 Impacted: Non-remnant vegetation (RE 12.9-10.2) [5.5 ha]
- Vegetation Community 2 Impacted: Non-remnant vegetation impacted (RE 12.9-10.7) [10.4 ha]

Total Habitat Impact: 15.9 ha

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Bayliss Road, South Ripley

0 10 20 30 40 50 m

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1:2,200 @ A3

Address: Bayliss Road, South Ripley

J12186 E 12 PD Koala Habitat Impact A

Issue	Date	Drawn	Checked
A	28/01/2025	TF	LB

13. Grey-headed Flying-fox Habitat Impact

Notes:
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Legend

- Qld DCDB
- Surveyed Referral Area

Non-habitat Areas

- LiDAR Delineated Waterbodies
- Cleared Areas

Grey-headed Flying-fox Habitat Impacted

- Vegetation Community 1 Impacted: Non-remnant vegetation (RE 12.9-10.2) [5.5 ha]
- Vegetation Community 2 Impacted: Non-remnant vegetation impacted (RE 12.9-10.7) [10.4 ha]

Total Habitat Impact: 15.9 ha

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J12186 E 13 PD GHFF Habitat Impact A

Issue	Date	Drawn	Checked
A	28/01/2025	TF	LB

6. Avoidance, Mitigation and Management Measures

6.1. Construction Phase

General mitigation measures to be implemented during the construction phase of the Project are outlined below. It is understood that the impact area will be securely fenced for security purposes and to mitigate potential threats to fauna during construction

6.1.1 Vegetation Clearing and Management Plan

A Vegetation Clearing and Management Plan (VC&MP) should form part of the broader management document submitted as part of the operational works application for the development site. The VC&MP should cover clearing of all vegetation listed in this report and include details on:

- Clearly show trees to be removed
- All civil works likely to impact on existing vegetation
- Temporary and permanent exclusion and protection fencing
- Roles and responsibilities for site contractors, the developer and the consultant group
- Stockpiling and site access locations
- A clearing sequence plan showing the commencement of clearing and direction of removal (this should be in conjunction with the Fauna Management Plan to allow for the appropriate flushing of fauna towards safe havens and/or the application of an appropriate relocation program)
- Links to weed management and revegetation proposals
- The stock piling and reuse of cleared vegetation

6.1.2 Fauna Management Plan

A Fauna Management Plan (FMP) should be prepared for potential impacts of the construction phase covering the loss of vegetated areas, isolated trees and likely barriers and impediments to local dispersal.

The FMP should link closely with the VC&MP and include details on:

- Species surveyed as using the site with a focus on those most likely impacted by development works
- A list of relevant State and Commonwealth legislation constraints and controls for the above listed fauna
- A plan showing existing habitat opportunities and locations
- Details of the threats to existing fauna species
- Clearing sequence plan from the VC&MP
- Management and mitigation measures i.e. temporary use of fauna exclusion fencing

- Fauna spotter role, contacts and certification
- Specific fauna management procedures for potential or known habitat trees

6.1.3 Fauna Spotter Catcher

A registered and suitability qualified fauna spotter catcher/ecologist will need to be employed for the construction phase of the project to implement a protocol of best management practises. Significant habitat features, should any be identified on site, will be flagged prior to clearing events and these areas supervised by an appropriately experienced Ecologist. Identified within the clearing supervision protocol should be flagging of hollow bearing trees, if present, followed by the removal of vegetation surrounding them. After 24 to 72 hours, these trees should then be removed. Trees must be directionally felled into open or already cleared areas.

The objective of this is to enable hollow dependant fauna an opportunity to move on their own accord as many species utilise multiple den/roost sites within a given home range should they occur. Certain areas could be identified and flagged as significant, such as old-growth trees with hollow resources and on-site identification to construction personnel will help reduce/avoid clearing. Where required, native fauna situated within areas to be cleared will be relocated to a secure area of similar habitat prior to the commencement of vegetation clearance works by a registered fauna spotter/catcher. Should any removal and relocation of nests be required, it is to be undertaken by a suitably qualified and experienced person and advice sought where necessary.

7. Significant Impact Assessment

7.1. Significant Impact Assessment Definitions

The Significant Impact Guidelines 1.1 provides specific definitions for '*a population of a species*' and '*habitat critical to the survival of a species or ecological community*'. This definition is a key consideration when conducting significant impact assessments for a threatened species or ecological community listed under the EPBC Act. The definitions are presented below.

Table 11: Significant Impact Guidelines 1.1 definitions

Definition	Species applicable for this assessment
Vulnerable Species 'Important population': An 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and / or that are: • key source populations either for breeding or dispersal • populations that are necessary for maintaining genetic diversity, and/or • populations that are near the limit of the species range.	• Grey-headed Flying -fox
Endangered Species 'Population of a species': A 'population of a species' is defined under the EPBC Act as an occurrence of the species in a particular area. In relation to critically endangered, endangered or vulnerable threatened species, occurrences include but are not limited to: • a geographically distinct regional population, or collection of local populations, or • a population, or collection of local populations, that occurs within a particular bioregion.	• Koala • Greater Glider
Habitat Critical to the survival of a species or ecological community The Significant Impact Guidelines provide the following definition for '*habitat critical to the survival of a species*' *"Habitat critical to the survival of a species or ecological community"* refers to areas that are necessary: • For activities such as foraging, breeding, roosting or dispersal • For the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators)	• Koala • Grey-headed Flying-fox • Greater Glider

- To maintain genetic diversity and long-term evolutionary development
- For the reintroduction of populations or recovery of the species or ecological community.

Such habitat may be, but is not limited to:

- Habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community
- Habitat listed on the Register of Critical Habitat maintained by the minister under the EPBC Act.

7.2. *Phascolarctos cinereus* (Koala)

7.2.1 Conservation Status

The Koala is listed as Endangered under the EPBC Act.

7.2.2 Description

Koalas (*Phascolarctos cinereus*) are native Australian tree-dwelling marsupials with predominantly grey coloured fur.

7.2.3 Distribution

The Koala is found from north-east Queensland to the south-east corner of South Australia. As a consequence of translocations, the Koala are found outside their historic range, for example, Kangaroo Island. The distribution of the Koala is influenced by altitude, temperature and leaf moisture. The density of the Koala population in coastal regions is generally greater than inland areas. Koalas are known to naturally inhabit a range of temperate, sub-tropical and tropical forest, woodland and semi-arid communities dominated by *Eucalyptus* sp.

7.2.4 Habitat

Koala habitat can be broadly defined as any forest or woodland containing species that are known Koala food trees, or shrubland and emergent food trees. Preferred food and shelter trees are naturally abundant on fertile clay soils. Along the Great Dividing Range and the coastal belt throughout the species' range, Koalas inhabit moist forests and woodlands mostly dominated by *Eucalyptus* sp.

Koalas are highly territorial, and individuals maintain their own home range which may overlap with other individuals. Home ranges are variable depending on the location, with those in "poorer" habitats being larger than in higher quality habitats. There is little evidence for longer movements in most cases, though dispersing individuals, mostly young males, may occasionally cover distances of several kilometres over land with little vegetation. In SEQ, the average distance between natal and breeding home ranges was similar for males and females, at approximately 3.5 km. Maximum dispersal distances were up to approximately 10 km for males and females. Other studies have reported movement of up to 16 km in rural SEQ.

7.2.5 Threats

Habitat loss and fragmentation, vehicle strike and predation by domestic or feral dogs are the main threats to the Koala. Extreme environmental events, such as drought, can also cause significant mortality.

7.2.6 Significant Impact Assessment

As of 12 February 2022, the EPBC Act referral guidelines for the vulnerable Koala have been redacted following the elevation of the Koala listing status under the EPBC Act to Endangered. As such, the Federal Significant Impact Guidelines are to be utilised in the interim to determine if a significant impact on Koala may occur as a result of the proposed action. The assessment methodology included site surveys and consideration of Commonwealth, State and Local Government environmental database searches.

To determine whether the proposed action is likely to have a significant impact on the Koala, an assessment against the *EPBC Significant Impact Guidelines 1.1* is provided in **Table 12**

Table 12: EPBC Significant impact criteria for critically endangered and endangered species - Koala

Significant Impact Criteria	Assessment	Impact
An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:		
1. Lead to a long-term decrease in the size of a population	Despite the referral area being completely mapped as Category X (non-remnant) vegetation, Koala habitat trees are present across the referral area. The site has been historically cleared with on-going maintenance for rural uses. Native trees including *Corymbia citriodora* (Spotted Gum) and *Eucalyptus crebra* (Narrow-leaved Ironbark) with scattered *Eucalyptus tereticornis* (Forest Red Gum) are present however largely reflect regrowth vegetation. Large portions of the site remain completely cleared including historical stockpile areas and maintained lawns. Understory vegetation is largely absent with the shrub layer consisting of predominantly exotic *Lantana camara* (Lantana). The species is known to be present in the local area, according to Queensland Wildnet Data, which dates back to the 1980s, twenty-one (21) Koalas have been recorded within a 5 km radius of the site. A review of ALA and Biomaps indicated that these records vary from relatively recent (2020) to historical (1987). The closest recorded sighting of Koala to the referral area is from 2007 adjacent to Ripley Road. More recent records of Koala (within 7 years) are located in White Rock Conservation Park 4.5 km east of the site; Deebing Heights 5km west and Goolman, forming part of Goolman Conservation Estate to the south. A number of referrals have been made within the vicinity of the project site and Koala scats, typically of a low level activity, are noted in the local context. Several targeted surveys were completed across the referral area including SATs and nocturnal searches. No direct evidence of the species was observed. Indirect evidence in the form of scats were recorded at only 1 of the 6 SAT locations indicating 'low' usage. Connectivity value to the north and south is limited by large residential developments, cleared rural properties and roads. To the south, a large land-parcel with a mixture of vegetation values, is under assessment with the EPBC act. Notably, this project does not propose to retain trees adjacent to the referral area boundary as aligned with the RVPDA zoning. Properties to the east and west provide some local level connectivity. However, it should be noted that the property to the west	**A significant impact is not likely**

	holds a local approval with ICC. Furthermore, this lot is 100% zoned as urban living and does not propose any tree retention. The lack of evidence on-site despite several targeted surveys indicates the site is not currently utilised by a population of the species. Furthermore, the location of the site amongst cleared areas, roads, and developments limits connectivity value. Large areas of intact vegetation with known records are present further east. It is considered highly unlikely the project will lead to a long-term decrease in the South East Queensland Koala population.	
2. Reduce the area of occupancy of the species	Detailed studies did not directly observe the species on-site. Indirect evidence was recorded at 1 (2/30 trees) of the 6 SAT locations indicating 'low' usage. In addition, recorded sightings of the species in the local area are all relatively dated (over ten years) with contemporary records (within 7 years) located in White Rock Conservation Park 4.5 km east of the site; Deebing Heights 5km west and Goolman, forming part of Goolman Conservation Estate to the south. The presence of regrowth vegetation and large cleared areas limits the suitability of the habitat on-site for the Koala. However, Koala habitat trees are present within the referral area which does retain some connectivity, particularly to the east. The proposed action will remove 15.9 ha of vegetation on-site that provides potential foraging habitat for the Koala. Therefore, there is potential that the proposed action will reduce the area of occupancy of the species	**Potential for a significant impact**
3. Fragment an existing population into two or more populations	Detailed studies utilising both direct and indirect survey methods recorded only indirect evidence at 1 of the 6 SAT surveys completed suggesting the vegetation on-site is not utilised by a population of Koalas. Koalas in the Greater Ripley area are unlikely to utilise the referral area for foraging or breeding when considering the available options for this in the broader area. The proposed development is positioned to utilise and existing major road system and current developments. The proposed development will not significantly impact exiting movement given the high levels of modification within the locality of the site. As shown in **Plan 3** the RVPDA includes a strategic volume of land within the environmental protection zoning which builds on and supports the large areas of National Park surrounding the Priority Development Area. This	**A significant impact is not likely**

	development will not influence the operational and function of these existing and proposed conservation areas. It is considered unlikely that a population of Koala utilise the site, therefore unlikely to fragment an existing population of the species.	
4. Adversely affect habitat critical to the survival of a species	The proposed action results in the removal of tree species known to be used by the Koala such as *Corymbia citriodora* (Spotted Gum), *Eucalyptus crebra* (Narrow-leaved Ironbark) and *Eucalyptus tereticornis* (Forest Red Gum). Vegetation within the referral area achieves the definition of Habitat Critical to the Survival of the species and will be removed by the development. Habitat attributes for the Koala include places that contain the resources necessary for individual foraging, survival (including predator avoidance), growth, reproduction and movement. Several targeted surveys failed to directly record the species within the referral area. Indirect evidence was recorded at only 1 of the 6 SAT locations. Indirect evidence indicated low usage (2/30 trees with scats). Given the historical clearing of the site, location adjacent to roads and major developments, and lack of evidence, it is considered unlikely that the site is utilised by a population of Koala. Despite a lack of evidence of species occurrence, the referral area contains vegetation that may provide a dispersal role for the species. As a result, there is potential for the development to have a significant impact on habitat critical to the survival of the species.	**Potential for a significant impact**
5. Disrupt the breeding cycle of a population	Detailed studies utilising both direct and indirect survey methods detected minimal indirect evidence within the referral area, suggesting the vegetation on-site is not utilised by a population of Koalas. In addition, recorded sightings of the species in the local area are all relatively dated (over 10 years) with relatively contemporary records (past 7 years) greater than 3.5 km from the referral area. As a result, it is not considered that the proposed action would disrupt the breeding cycle of a population of Koala as there is a lack of indication of breeding population on-site.	

6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	The proposed action will impact the 21.9 ha referral area including 15.9 ha of recognised Koala habitat which will no longer be available for future koala usage. Evidence of Koala usage was extremely limited with only indirect evidence recorded at 1 of the 6 SAT locations and no direct sightings was detected on-site during targeted surveys nor incidental surveys. This suggests that a local Koala population does not utilise the site presently with usage confined to one off transient individuals, it is not considered that removal of the Koala trees will result in species decline, particularly given the vast areas of protected, retained and suitable habitat to the east.	**A significant impact is not likely**
7. Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	The proposed development will contribute to a surrounding environment known to support a number of major threats to the Koala species including roads and vehicle traffic. The project will not introduce these threats as they already occur within proximity of the referral area and broader landscape. **Vehicles / Roads** The site is accessed via the existing Bayliss Road which flanks the entire Northern boundary and will be upgraded to facilitate current and under construction developments to the north and east. **Domestic Dogs** Creation of land for future house construction will result in an increase in pet ownership over the property. This is occurring over every site under construction with the Ripley Valley. Dog ownership was already occurring at high rates on the rural and rural residential land uses occurring through the valley. Dogs which escape backyards within residential developments are more readily observed and reported when compared with rural areas. While the volume of dogs in the region would be predicted to increase within the context of this project, the presence of existing residential developments to the north suggests that the risk of domestic dogs is unlikely to increase In addition, invasive flora species that may impact the quality of suitable Koala habitat are currently present within the referral area. The proposed development will not result in the introduction or increase of invasive species that are harmful to the Koala being established within any areas of Koala habitat.	**A significant impact is not likely**

8. Introduce disease that may cause the species to decline, or	Diseases including chlamydial disease and Koala retrovirus (KoRV) are prevalent among Koala populations in South East Queensland. It is unlikely that the proposed action will introduce or increase the prevalence of disease in Koalas particularly as the action is not considered to impact a local population.	
9. Interfere substantially with the recovery of the species.	Several targeted surveys for Koala detected limited indirect evidence of usage at 1 of the 6 SAT assessments completed. No direct observations of the species were recorded. These results suggest the vegetation on-site is not currently or recently utilised by a population of Koalas. In addition, recorded sightings of the species in the local area are all relatively dated (over 10 years) with relatively contemporary records (past 7 years) greater than 3.5 km from the referral area. The Action is unlikely to interfere substantially with the recovery of the Koala. The removal of vegetation across the referral area will reduce the availability of Koala habitat trees. However, the site is located within a highly modified locality adjacent to existing and future developments. The land is 100% zoned for development and centrally located within one of the largest development areas of South East Queensland with Queensland Government funding and support to create housing supply. The proposed actions will not interfere with areas zoned as environmental protection which continue to provide large areas of intact suitable habitat for the species. Refer below for an assessment against the EPBC Act Recovery Plan for the Koala.	**A significant impact is not likely**

The EPBC Act National Recovery Plan for the Koala was published in March 2022. This recovery plan for the listed Koala replaces the National Koala Conservation and Management Strategy (2009-2014) (NRM Ministerial Council 2009). It has been developed with relevant State and Territory Governments to provide an overarching national conservation framework for the listed Koala that aligns with local, state and territory government plans, programs and strategies. However, it does not replace Local, State and Territory Government plans, programs and strategies. It is the first recovery plan for the nationally listed Koala.

The overall goal of the National Recovery Plan is 'to stop the trend of decline in population size of the listed Koala, by having resilient, connected, and genetically healthy metapopulations across its range, and to increase the extent, quality and connectivity of habitat occupied'.

Three (3) key objectives of the Draft National Recovery Plan are provided below with responses relevant to the proposed action:

- **The area of occupancy and estimated size of populations that are declining, suspected to be declining, or predicted to decline are instead stabilised and then increased. The area of occupancy and estimated size of populations that are suspected and predicted to be stable are maintained or increased.**

The referral area comprises of entirely non-remnant, historically cleared vegetation and mostly described as regrowth and cleared areas. The entire referral area was walked several times including targeted nocturnal surveys and incidental diurnal surveys. No Koalas were identified during survey efforts, with only limited indirect evidence in the form of scats at 1 of the 6 SAT survey locations.

The proposed action will reduce an area of vegetation defined as Koala habitat for foraging or dispersal. However, the location of the site adjacent to roads and residential developments and lack of evidence of Koala occurrence suggests the referral area is not currently utilised by a population of Koala.

The proposed action will not influence the size of any current koala populations or sub populations.

- **Metapopulation processes are maintained of improved**

Limited evidence of Koala activity was recorded on-site, and there are limited contemporary records in the immediate area. The referral area is surrounded by under construction and completed residential developments, rural residential properties and roads on all sides. Surrounding vegetation consists of a mixture of cleared open areas and regrowth vegetation. At present, it is considered unlikely that vegetation on-site contributes significantly to the connectivity value of the area, therefore the proposed action is unlikely to fragment any population of Koala.

- **Partners, communities and individuals have a greater role and capability in listed Koala monitoring, conservation and management**

Limited evidence of Koala activity was recorded on-site, and there are limited contemporary records in the immediate area.

Low vehicle speeds and slow points are inherent in residential developments, minimising the risk of vehicle strike. Although the proposed action will involve the removal koala habitat, the location of the site adjacent to roads, and current/future developments suggests habitat on-site.

Development is proposed on three sides of the referral area and already commenced to the north and north-west. The functionality of retained areas to the east will not be affected by the delivery of this action.

The results of the significant impact assessment determined that there is potential that the proposed action will have a significant impact on Koala

7.3. *Pteropus poliocephalus* (Grey-headed Flying-fox)

7.3.1 Conservation Status

The GHFF is listed as Vulnerable under the EPBC Act.

7.3.2 Description

The GHFF is the largest Australian bat with a wingspan of up to one metre. It has dark-grey body fur, a grey head, and a distinctive reddish-brown collar. It is also the only flying-fox with hairy legs right down to its ankles.

7.3.3 Distribution

The GHFF occurs along the south-east coast of Australia, from Rockhampton in central Queensland through New South Wales to western Victoria. During the last few years, the GHFF has also been recorded from Adelaide.

7.3.4 Habitat

The GHFF is heavily dependent on the availability of foraging resources and roost sites. As canopy feeding frugivores and nectarivores, GHFFs frequent fruiting and flowering trees in rainforests, open eucalypt forests, woodlands, *Melaleuca sp.* swamps and Banksia woodlands (Duncan *et al*. 1999). The GHFF is also known to forage in fruit crops and introduced tree species within urban environments. Roost sites for the GHFF are commonly within dense vegetation close to water, primarily rainforest patches, stands of *Melaleuca sp.*, mangroves or riparian vegetation.

7.3.5 Recovery Actions

There is now an adopted Recovery Plan for this species at the federal level. It focuses mainly on managing adverse impacts to roosting sites, culling controls, fenced entanglement and public awareness, with reference to foraging habitat. From the recovery guidelines:

Where the existence of important winter and spring flowering vegetation communities is verified in the field, they are considered habitat critical to the survival of the Grey-headed Flying-fox. Back yard fruit trees, orchards or non-native trees that may be used for foraging are not considered to be habitat critical to the survival of the Grey-Headed Flying-Fox. Habitat critical to the survival of the Grey-headed Flying-fox may also be vegetation communities which:

- contain native species that are known to be productive as foraging habitat during the final weeks of gestation, and during the weeks of birth, lactation and conception (August to May)
- contain native species used for foraging and occur within 20 km of a nationally important camp as identified on the Department's interactive flying-fox web viewer, or
- contain native and or exotic species used for roosting at the site of a nationally important Grey-Headed Flying-Fox camp as identified on the Department's interactive flying-fox web viewer.

Habitat critical to the survival of the Grey-headed Flying-fox should be the focus for protection and any revegetation initiatives aimed to support the species.

Notably, the recovery plan lists habitat loss as a key threat to the Grey-headed Flying-fox. It is understood that mapping of habitat critical to the survival of the grey-headed Flying-fox is an initiative of the recovery plan. The site is not considered to maintain important foraging habitat for the Grey-headed Flying-fox (refer below).

The Queensland Government identifies the following recovery actions:

- Identify and map important foraging and roosting habitats
- Prevent the destruction and degradation of important forested habitat, through: identifying guidelines to protect habitat; appropriate zoning; identifying development alternatives and incentives to retain habitat and educating communities.
- Encourage community partnerships and initiatives that protect important habitats, and where possible re-vegetate with foraging trees for GHFF
- Work with orchardists to improve the image of GHFF, and to identify and implement non-destructive methods to protect fruit crops, such as: appropriate netting (not monofilament netting) that is not hung loose over trees (which can entangle bats and birds)
- Reduce negative public attitudes and conflict with humans
- Develop accurate methods for monitoring population size

While the national Grey-headed Flying-Fox (GHFF) population was thought to be in decline, counts carried out by CSIRO since 2012 as part of the National Flying-fox Monitoring Program (NFFMP) have shown GHFF numbers have been stable over that period. A recent paper published by Vanderduys et. al. (2024) noted 'Despite the general perception that the species is in decline, our raw data and the modelled population trend suggest the grey-headed flying-fox population has remained stable during the NFFMP period, with the range also stable. These results indicate that the species' extreme mobility and broad diet bestow it with a high level of resilience to various disturbance events'. Counts suggest a stable or slightly increasing national GHFF population of between 622,000 and 692,000 individuals.

In addition to the positive count numbers, the study suggest surveys may have missed populations between central and northern Queensland as count data has been provided for sites near Rockhampton and Ingham but nothing in between. There is potential that populations may exist in remote or difficult to access areas, such as mangrove forests, that have not been included in the national survey.

Listing information for the GHFF was based on an inferred population decline to 467,000 GHFF in 2019. Vanderduys et. al. (2024) suggests the listing should be reconsidered based on more than a decade worth of data from the NFFMP.

7.3.6 Significant Impact Assessment

EPBC Act, Grey-headed Flying-fox populations are listed as Vulnerable. The species is not specifically listed under Queensland's *Nature Conservation Act 1992* (Qld) (NCA), however, retains a Least Concern status for the purposes of the Act. The *Referral guideline for management actions in grey-headed and spectacled flying-fox camps* summarise the decision process in considering the likelihood of a significant impact on the Grey-headed Flying-fox or Spectacled Flying-fox schematically. The Guidelines are specifically for the assessment of impacts on Flying-fox camps.

GHFFs are heavily dependent on the availability of foraging resources and roost sites. As canopy feeding frugivores and nectivores, GHFFs frequent fruiting and flowering trees in rainforests, open eucalypt forests, woodlands, Melaleuca sp. swamps and Banksia woodlands (Duncan et al. 1999). The GHFF is also known to forage in fruit crops and introduced tree species within urban environments. Roost sites for the GHFF are commonly within dense vegetation close to water, primarily rainforest patches, stands of Melaleuca sp., mangroves or riparian vegetation. The value of vegetation to the grey-headed flying fox is difficult to assess due to the high mobility of the species in conjunction with timing of flowering of tree species within the assessment area. The maximum nightly foraging distance of GHFF is estimated at 50 kilometres, while most forage within a 15 km radius of daytime roost sites (Tidemann 1998).

Grey-headed Flying-foxes were not observed foraging or roosting within the assessment area at Bayliss Road, Ripley during field survey efforts, nor were they observed as fly-over species. Suitable individual foraging trees exists across the referral, therefore the GHFF has the potential to utilise the site for foraging purposes.

The Referral guideline for management actions in grey-headed and spectacled flying-fox camps states that the guideline does not apply to the following relevant points:

- Actions in the vicinity of camps, such as development actions, firework displays or concerts, which may indirectly affect camps of EPBC Act-listed flying-fox species.
- Actions which may impact on the foraging habitat of EPBC Act-listed flying-fox species. Proponents of actions of this kind should refer to the significant impact guideline 1.1. (4.1.5).

To determine whether the proposed action is likely to have a significant impact on the Grey-headed Flying-fox, an assessment against the *EPBC Significant Impact Guidelines 1.1* is provided in **Table 13**.

Table 13: GHFF significant impact assessment

Significant Impact Criteria	Description	Impact
An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:		
1. Lead to a long-term decrease in the size of an important population of a species	Field surveys identified native trees across the referral area including *Corymbia citriodora* (Spotted Gum), *Corymbia intermedia* (Pink Bloodwood), *Corymbia tessellaris* (Moreton Bay Ash), *Eucalyptus melanophloia* (Silver-leaf Ironbark), and *Eucalyptus crebra* (Narrow-leaved Ironbark). A review of the National Flying-fox monitoring viewer identified a GHFF roost approximately 8km north-west of the site (Yamanto (851)), while the nearest roost of national significance is Inala (1219) approximately 20 km north-east. While native trees are present across the referral area, historical land clearing and on-going rural uses has resulted in dominance of regrowth vegetation and cleared areas. Trees on-site include species of an age, size and type which qualify as potential foraging trees. While it is plausible that from time to time these trees maybe foraged by GHFF, in line with smaller acreage or larger lot residential areas, removal of these trees would result in an immeasurably low reduction of available habitat within the immediate area and an imperceptible reduction in the local region. Given the dominance of regrowth vegetation and cleared areas, locality and distance from known roost sites, the site is not considered to provide critical habitat supporting an important population of the species. The proposed action is unlikely to lead to a long-term decrease in the size of any local GHFF populations. No roosts were observed within, or adjacent to, the referral area, nor have they been reported in the ecological reporting for any adjoining land holdings.	**A significant impact is not likely**
2. Reduce the area of occupancy of an important population	No roosts are present on/or adjacent to the site. The site retains limited ecological value for the species, confined to regrowth vegetation. The proposed action will not reduce the area of occupancy of an important population of GHFF as no roost was observed on-site and recently active roost of national significance is present approximately 20km north-east of the site. Furthermore, there is an abundance of suitable habitat associated with White Rock Conservation Park	**A significant impact is not likely**

Significant Impact Criteria	Description	Impact
3. Fragment an existing important population into two or more	The SPRAT species profile outlines that while there are spatially structured colonies of GHFF, there are no separate or distinct populations due to the constant genetic exchange and movement between camps throughout the species' geographic range. In addition, given the high mobility of the species, and dominance of regrowth and cleared areas offering limited suitable roosting or foraging habitat on-site, the proposed action is unlikely to fragment a population into two or more populations.	**A significant impact is not likely**
4. Adversely affect habitat critical to the survival of a species	No roosts are present on/or adjacent to the site. Vegetation on-site consists of predominantly regrowth and cleared areas. Furthermore, due to the location of the site proximal to White Rock Conservation Park, and the GHFF's high mobility, the habitat on-site is not considered of a size which could contribute to habitat critical to the survival of this species.	**A significant impact is not likely**
5. Disrupt the breeding cycle of an important population	Mating normally occurs within autumn, and females generally give birth in October, where they carry their young to feeding sites for four to five weeks after giving birth. No roosting camps were observed on or near the site, and it is considered unlikely that the proposed development will disrupt the breeding cycle of an important population	**A significant impact is not likely**
6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.	While the site does contain potential foraging habitat for the species its removal is unlikely to have a significant impact on the availability of habitat in the landscape as White Rock Conservation Park to the east would be available to this highly mobile species.	**A significant impact is not likely**
7. Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	The site shows high levels of disturbance and modification as a result of long term and current rural uses with several invasive plants and pest rural animal species observed. The proposed action is unlikely to result in the introduction of further invasive species for the GHFF.	**A significant impact is not likely**
8. Introduce disease that may cause the species to decline	The project is unlikely to introduce disease into the area.	**A significant impact is not likely**

Significant Impact Criteria	Description	Impact
9. Interfere substantially with the recovery of the species	Recovery of the species has specifically targeted the broad scale culling of the species. In addition, conservation efforts have led to the protection of known roosting sites and important habitat. The site has not been identified as an important habitat nor roost site and the action is unlikely to interfere with the recovery of the species.	**A significant impact is not likely**

The purpose of the National Recovery Plan for the Grey-headed Flying-fox is to set out the management and research actions necessary to stop the decline of, and support the recovery of the Grey-headed Flying-fox over the next 10 years. The overall objectives of this Grey-headed Flying-fox recovery plan are:

- to improve the Grey-headed Flying-foxes national population trend by reducing the impact of the threats outlined in this plan on Grey-headed Flying-foxes through habitat identification, protection, restoration and monitoring, and
- to assist communities and Grey-headed Flying-foxes to coexist through better education, stakeholder engagement, research, policy and continued support to fruit growers.

The plan addresses the key threats facing the Grey-headed Flying-fox and recovery objectives which are provided below with responses relevant to the proposed action:

Identify, protect and increase native foraging habitat that is critical to the survival of the Grey-headed Flying-fox

Although no roosts were identified on-site, the referral area is located in proximity to a known Grey-headed Flying-fox roost, 8km north-west of the site (Yamanto (479)). The nearest roost of national significance (Inala (1219)) is located approximately 20 km north-east of the site. Habitat critical to the survival of the species is considered important winter and spring flowering vegetation communities. Important winter and spring vegetation communities are those that contain *Eucalyptus tereticornis, E. albens, E. crebra, E. fibrosa, E. melliodora, E. paniculata, E. pilularis, E. robusta, E. seeana, E. sideroxylon, E. siderophloia, Banksia integrifolia, Castanospermum australe, Corymbia citriodora citriodora, C. eximia, C. maculata, Grevillea robusta, Melaleuca quinquenervia or Syncarpia glomulifer*a (Eby and Law 2008; Eby 2016; Eby *et al*. 2019).

Of the species listed above, *Corymbia citriodora* (Spotted Gum), *Eucalyptus crebra* (Narrow-leaved Ironbark) and *Eucalyptus tereticornis* (Forest Red Gum) were recorded within the referral area. Potential foraging habitat for the species includes regrowth vegetation within the referral area. While it is plausible that from time to time these trees maybe foraged by GHFF, removal of these trees would result in an immeasurably low reduction of available habitat within the immediate area and an imperceptible reduction in the local region.

Identify, protect and increase roosting habitat of Grey-headed Flying-fox camps.
No roosts were identified during surveys of the referral area in 2022 and the nearest known active roost site located approximately, 8km north-west of the site. No roost sites have been observed within the locality or identified on surrounding land holdings. Preferred roosting habitat for the Grey-headed Flying-fox is poorly understood, therefore it is difficult to preserve potential roosting habitat for the species. Additionally, given the absence of intact habitat, the centrally located infill development nature of the land holding strategically this location would not suite any attempts for roost establishment.

Determine trends in the Grey-headed Flying-fox population so as to monitor the species' national distribution, habitat use and conservation status.
Not applicable. Mitigation measures will be implemented during construction and operation of the proposed action to reduce threats.

Build community capacity to coexist with flying-foxes and minimise the impacts on urban settlements from new and existing camps while avoiding interventions to move on or relocate entire camps.
Not applicable. There are no observed roosts on-site, with the nearest known roost site located approximately 8 km north-west of the site.

Increase public awareness and understanding of Grey-headed Flying-foxes and the recovery program, and involve the community in the recovery program where appropriate.
Not applicable.

Improve the management of Grey-headed Flying-fox camps in areas where interaction with humans is likely.
Not Applicable. There are no observed roosts on-site, with the nearest known active roost site located approximately 8 km north-west of the site.

Significantly reduce levels of licenced harm to Grey-headed Flying-foxes associated with commercial horticulture.
Not applicable.

Support research activities that will improve the conservation status and management of Grey-headed Flying-foxes.
Not applicable.

Reduce the impact on Grey-headed Flying-foxes of electrocution on power lines, and entanglement in netting and on barbed-wire.
No roosts were identified on-site and the nearest known roost site located approximately 8 km north-west of the site. The vegetation on-site contains three (3) of the nineteen (19) important winter and spring foraging species for the Grey-headed Flying-fox. As such, it is considered that the referral area vegetation provides potential foraging habitat for this species.

The proposed action will involve the removal of potential foraging trees from within the referral area. Entanglement in netting and on barbed wire is considered highly unlikely to be located on-site during construction and operation of the proposed action and can be managed through the implementation of mitigation measures and procedures outlined within future management documents including the VC&MP and FMP. New power infrastructure within the project will be located underground. As such, the proposed action is not considered likely to impact the recovery of this species.

The results of this assessment determined that the proposed action is unlikely to have a significant impact on Grey-headed Flying-fox

7.4. *Petauroides Volans* (Greater Glider)

7.4.1 Conservation Status

The Greater Glider is listed as Endangered under the EPBC Act and NCA as of July 2022.

7.4.2 Description

The greater glider (southern and central) is the largest gliding possum in eastern Australia. It has a head and body length of 35–46 cm, tail length of 45–60 cm, and a weight range of 900–1700 g, with females being larger than males. The greater glider (southern and central) has thick fur that increases its apparent size. Its fur colour is white or cream below and varies from dark grey, dusky brown through to light mottled grey and cream above. It has a long furry tail, large furry ears and a short snout. Its tail is not prehensile, and the gliding membrane extends from the forearm to the tibia.

7.4.3 Distribution

The Greater Glider is restricted to eastern Australia, occurring from the Windsor Tableland in north Queensland through to central Victoria (Wombat State Forest), with an elevational range from sea level to 1200 m above sea level.

7.4.4 Habitat

The Greater Glider is largely restricted to eucalypt forest and woodlands. It is primarily folivorous with a diet mostly comprising of eucalypt leaves and occasionally flowers. It is typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows. The species favours forests with a diversity of eucalypt species, due to seasonal variation in its preferred tree species.

During the day it shelters in tree hollows, with a particular preference for large hollows in large, old growth trees (Smith et al., 2007). The presence of live, hollow-bearing trees is thought to be a limiting factor within otherwise suitable habitat. Large, continuous tracts of mature woodland and forest with a minimum of 2-4 suitable hollows per 2 ha is considered essential for sustaining a population (Eyre, 2002). The species is considered to be particularly sensitive to forest clearance and intensive logging practices (Kavanagh and Wheeler, 2004). Subsequently, Greater Gliders have relatively low persistence in small forest fragments and disperse poorly across vegetation that is not native forest. Modelling suggest that they require native forest patches of at least 160 km^2 to maintain viable populations (Eyre, 2002).

7.4.5 Threats

Key threats to the greater glider (southern and central) are frequent and intense bushfires, inappropriate prescribed burning, climate change, land clearing and timber harvesting (DCCEEW. 2022). In particular is the loss of breeding habitat (hollows) and loss and fragmentation of old-growth forests.

7.4.6 Significant Impact Assessment

To determine whether the proposed action is likely to have a significant impact on the Greater Glider, an assessment against the *EPBC Significant Impact Guidelines 1.1* is provided in **Table 14**. The results of this assessment determined that a significant impact on the Greater Glider is not likely.

Table 14: EPBC Significant impact criteria for critically endangered and endangered species – Greater Glider

Significant Impact Criteria	Assessment	Impact
An action is likely to have a significant impact on a critically endangered or endangered species if there is a real chance or possibility that it will:		
1. Lead to a long-term decrease in the size of a population	The referral area of 21.9 ha is mapped as entirely Category X (non-remnant) vegetation. Historical clearing and ongoing land management has resulted in predominantly regrowth vegetation with larger areas devoid of trees. Native canopy trees are present including *Corymbia citriodora* (Spotted Gum*), Corymbia intermedia* (Pink Bloodwood), *Corymbia tessellaris* (Moreton Bay Ash), *Eucalyptus crebra* (Narrow-leaved Ironbark) and *Eucalyptus melanophloia* (Silver-leaf Ironbark) The species was not observed on-site despite targeted nocturnal surveys. The species is known to have a preference for large, mature trees for foraging and hollows for denning with species occurrence directly correlated to abundance and availability of hollows. The referral area is not considered to provide suitable habitat for the species given the lack of large mature trees and hollows. All large, mature trees and hollow-bearing trees were plotted within the referral area. Only four (4) trees containing hollows and only 2 hollows considered of a suitable size for the species (≥100 mm diameter) were recorded. This represents a hollow density of approximately 0.09 hollows per ha, far below the 2-4 hollows per ha required by the species as stated in the *Conservation Advice for Petauroides volans (greater glider (southern and central)) (2022)*. Furthermore, large mature trees were also limited with only 41 trees recorded (≥ 500mm DBH) across the referral area. Notably, the majority of these specimens were located in the northern extent of the site adjacent to existing developments. It is considered highly unlikely that the site supports a population of the species. Vegetation on-site provides limited connectivity potential as a result of historical rural land-uses and the recent shift to urban developments. The species is known to be particularly sensitive to area of high disturbance and are unlikely to utilise vegetation close to these areas. The referral area is located adjacent to a major residential development and highly modified areas. Furthermore, Bayliss Road runs along the northern boundary which will be further utilised by feeding future approved developments.	**A significant impact is not likely**

Significant Impact Criteria	Assessment	Impact
	According to publicly available databases, sightings of the species have been recorded recently (2023) approximately 8.2km south-east of the referral area. This record exists within White Rock Conservation Park, which along with adjacent bushland, encompasses an area >2000 ha. This area represents mature, suitable vegetation for the species that has seen minimal historical disturbance. The referral area and immediate surrounds are not consistent with this vegetation as broad scale clearing and management has taken place as reflected in the non-remnant mapping across most of the area. Furthermore, the location of this record is within vegetation adjacent to environmental protection zoned under the RVPDA development scheme. It is considered unlikely that Greater Glider would utilise the referral area and immediate surrounds given a lack of suitable vegetation and presence of existing disturbances. It is considered highly unlikely that the removal of vegetation within the referral area would affect the viability or size of any Greater Glider populations in the area given no evidence of the species on-site, low abundance of large and hollow-bearing trees, and level of disturbance likely to deter the species from dispersing through the site.	
2. Reduce the area of occupancy of the species	Targeted surveys did not detect any evidence of Greater Glider within the referral area, suggesting the vegetation is not utilised by Greater Glider. The vegetation within the referral area is reflective of regrowth values as a result of historical clearing and on-going rural pursuits. Large hollow bearing trees, and subsequently hollow bearing trees, were extremely limited across the referral area which is located within a highly modified environment There are no contemporary (<20 years old) records of the species within 5km of the site. The species is known to be present within White Rock Conservation Park and adjacent bushland approximately 8.2 km south-east. Connectivity to the referral area is limited by poor quality vegetation associated with rural uses and urban developments within the RVPDA A study by Griffith (Norman, P. and Mackey, B. 2023) mapped vegetation based on maturity at a more detailed scale than Queensland remnant mapping. This data shows that mature vegetation is present south-east of the site within intact areas that the species has been recorded. This mature vegetation mapping does not include the site or areas immediately adjacent to the site, further indicating a lack of suitable habitat for the species.	**A significant impact is not likely**

Significant Impact Criteria	Assessment	Impact
	No Greater Glider individuals were recorded on-site despite targeted surveys including spotlighting. Therefore, it is anticipated that the removal of two potentially suitable hollows and 41 mature trees on-site will not reduce the area of occupancy for Greater Glider.	
3. Fragment an existing population into two or more populations	There is no evidence that an existing population is present on-site based on detailed contemporary field surveys and historical records. The referral area does not contain suitable habitat for the species given limited mature trees and hollows and high disturbance areas. While there are records of the species within the broader locality, these are associated with large areas of intact mature, remnant vegetation associated with White Rock Conservation Park. It is therefore highly unlikely the removal of vegetation will fragment an existing population, particularly as large areas of intact, mature vegetation are present further south and east in nature reserves and conservation areas where records of the species exist.	**A significant impact is not likely**
4. Adversely affect habitat critical to the survival of a species	Detailed targeted surveys did not detect any evidence of Greater Glider within the referral area, suggesting the vegetation on-site is not utilised by Greater Glider. Recorded sightings of the species occur approximately 8.2km south-east of the referral area within nature reserves, conservation areas and connected vegetation Field surveys identified that the referral area as containing a very low abundance of large and hollow bearing trees (2 suitable sized hollows recorded) which are necessary for the species. The vegetation within the referral is not considered to facilitate dispersal for the species given current developments to the north and north-west and future developments to the west and south which are expected to be completely cleared. The *Petauroides volans* (greater glider (southern and central) Conservation Advice (DCCEEW, 2022) defines habitat critical to the survival of the Greater Glider as: • *large contiguous areas of eucalypt forest, which contain mature hollow-bearing trees and a diverse range of the species' preferred food species in a particular region; and* • *smaller or fragmented habitat patches connected to larger patches of habitat, that can facilitate dispersal of the species and/or that enable recolonization; and*	**A significant impact is not likely**

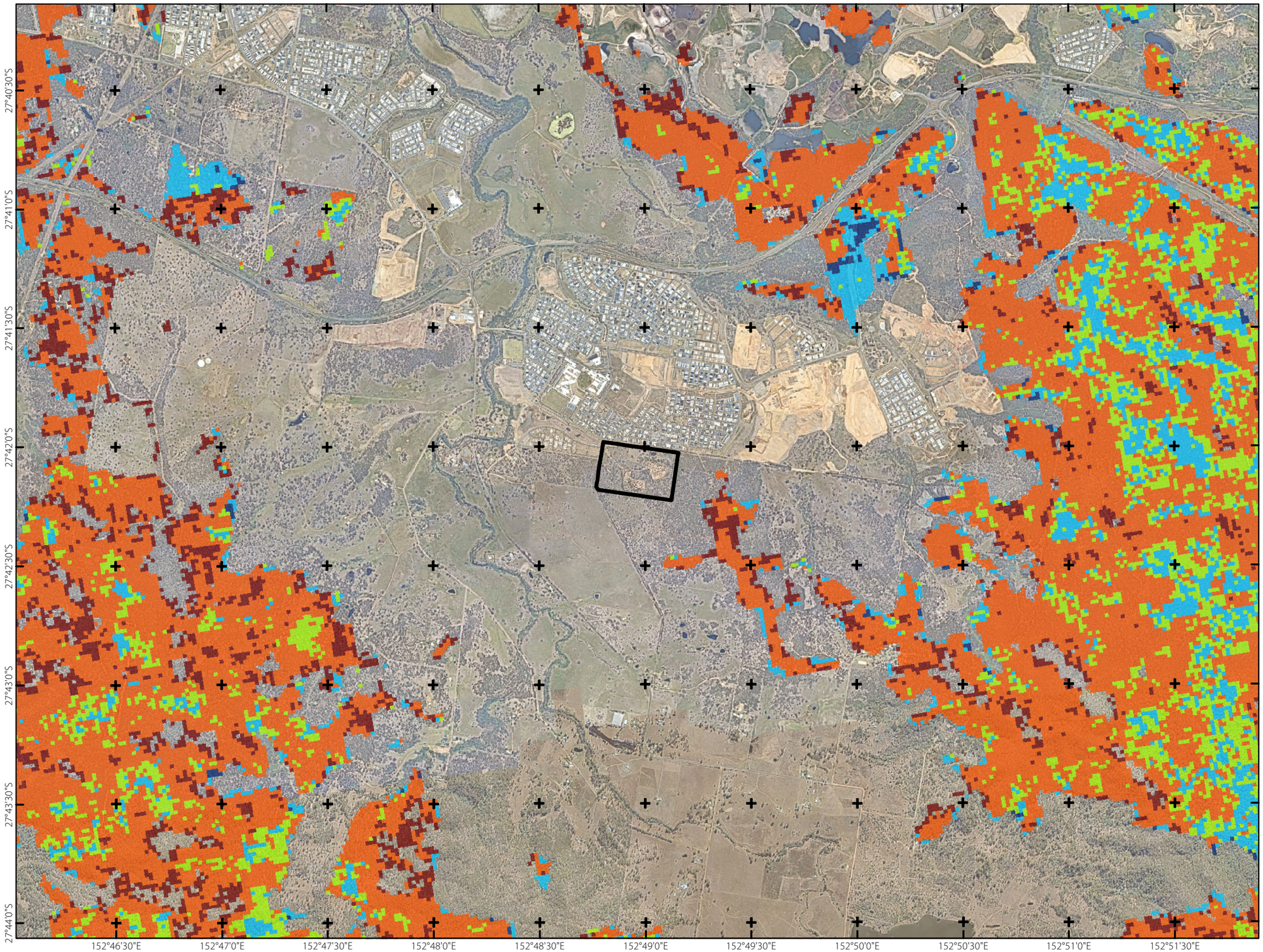
Significant Impact Criteria	Assessment	Impact
	• *cool microclimate forest/woodland areas (e.g. protected gullies, sheltered high elevation areas, coastal lowland areas, southern slopes); and* • *areas identified as refuges under future climate changes scenarios; and* • *short-term or long-term post-fire refuges (i.e. unburnt habitat within or adjacent to recently burnt landscapes) that allow the species to persist, recover and recolonize burnt areas.* The overall referral area contains significantly limited suitable habitat for the species and is located within a highly modified landscape. No evidence of the species and no records are present in close proximity. Records of the species are present large areas of mature, intact vegetation to the south-east which will not be affected by the proposed development. The retention of environmental protection areas in line with the RVPDA development scheme will ensure the continued protection and functionality of suitable habitat in the region. Therefore, it is anticipated that the proposed development will not have any adverse effect on habitat critical to the survival of the species.	
5. Disrupt the breeding cycle of a population	Detailed targeted surveys did not detect any evidence of Greater Glider within the referral area, suggesting the vegetation on-site is not utilised by Greater Glider. Queensland Wildnet returned no sightings of Greater Glider within a 5 km radius of the referral area, however clusters of records occur to the north and east of the site, largely within nature reserves and conservation areas. Vegetation on-site is considered significantly low value for the species given the dominance of regrowth and cleared areas and lack of large mature hollow bearing trees necessary for the species. The proposed development will not significantly impact the functionality and suitability of existing habitat where the species is known to exist. As a result, it is not considered that the proposed action would disrupt the breeding cycle of a population of Greater Glider.	**A significant impact is not likely**
6. Modify, destroy, remove or isolate or decrease the availability or quality of habitat	The referral area has been historically cleared and consistently utilised for rural land uses resulting in entirely non-remnant vegetation that is dominated by regrowth and cleared areas. Furthermore, the site is surrounded by roads and existing residential development which are	**A significant impact is not likely**

Significant Impact Criteria	Assessment	Impact
to the extent that the species is likely to decline	only to become more abundant following the expected delivery of several active application and road upgrades as reflected in the RVPDA development scheme zoning. Records of the species are present approximately 8.2km south-east of the site within intact mature vegetation that forms part of several nature reserves including White Rock Conservation Park. Further west of this area toward RVPDA center and the referral area, the levels of disturbance increase and areas of regrowth and cleared vegetation become more prominent. Therefore, despite the referral area retaining some connectivity to the east, it is considered unlikely that the species would utilis the referral area, particularly given the lack of suitable habitat and no evidence of occurrence. As such, is not considered that the proposed action will impact the availability of habitat to the extent that the species is likely to decline.	
7. Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat	The proposed action is not anticipated to significantly increase threats compared to baseline conditions as the referral area is located in a landscape that has been subject to extensive historical and contemporary modification. A number of major threats to the Greater Glider are present within the local region, including roads and residential housing likely to have domestic dogs. Notably, analysis of motion camera data revealed Red Fox within the referral area, which are a known threat to Greater Glider populations. The proposed action is not anticipated to result in the introduction or increase of invasive species that are harmful to the Greater Glider or Greater Glider habitat as these species are already present within the referral area.	**A significant impact is not likely**
8. Introduce disease that may cause the species to decline, or	The project is unlikely to introduce disease into the area, and therefore no significant impact is considered to result from the proposed action.	**A significant impact is not likely**
9. Interfere substantially with the recovery of the species.	Detailed targeted surveys did not detect any evidence of Greater Glider within the referral area, suggesting the vegetation on-site is not utilised by Greater Glider. Queensland Wildnet returned no sightings of Greater Glider within a 5 km radius of the referral area, however clusters of	**A significant impact is not likely**

Significant Impact Criteria	Assessment	Impact
	records occur to the south-east within intact vegetation that adjoins nature reserves and conservation areas. The recovery actions of the Greater Glider are generally around preventing impacts from fires to the species and the removal and fragmentation of habitat. The proposed action is not considered to interfere with the recovery of the species because the habitat on-site is not considered suitable for the species. The anticipated development of several applications in the RVPDA in line with 'urban living' zoning on-site will not interfere with the recovery of the species. Furthermore, retained areas in the broader landscape are associated with environmental protection zoned areas which include and adjoin areas of mature vegetation where the species is known to exist allowing for continued availability of habitat. Hence, no significant impact is considered to result from the proposed action.	

The results of this assessment determined that it is unlikely that the proposed action will have a significant impact on Greater Glider

14. Forest Maturity Type Map (Griffi th University)



Notes:
This plan was prepared as a desktop assessment tool. The information on this plan is not suitable for any other purpose. Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.
Layer Sources:
© State of Queensland (Department of Resources) 2025. Updated data available at http://qldspatialinformation.qld.gov.au/catalogue/
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

* This note is an integral part of this plan/data. Reproduction of this plan or any part of it without this note being included in full will render the information shown on such reproduction invalid and not suitable for use.

Legend

- Surveyed Referral Area

Forest Maturity

- Mature Vegetation
- "" (Intermediate to Mature Aged Vegetation)
- Intermediate Aged Vegetation
- "" (Young to Intermediate Aged Vegetation)
- Young Vegetation

saunders havill group

HB QLD Pty Ltd

Bayliss Road, South Ripley

0 500 1,000 m

Transverse Mercator
GDA 2020 | Zone 56

1:30,000 @ A3

Address: Bayliss Road, South Ripley

J12186 E 14 PD GG Forest Maturity A

Issue	Date	Drawn	Checked
A	21/01/2025	TF	LB

7.5. Conclusion / Determination Advice

The referral area is a relatively small rural lot centrally located within RVPDA. The lot is zoned 100% as 'urban living' and is surrounded by several active and approved applications under the EPBC act, most notably 'Providence Central' to the north. The referral area itself has been historically cleared and maintained to ensure rural pursuits are maximised. The resulting vegetation value is confined to regrowth, cleared areas and scattered larger trees. No remnant vegetation is present on-site and specific habitat values (hollow bearing trees) are extremely limited.

The land holding is completely proposed for development and vegetation will be removed to facilitate the supply of new housing in accordance with the Queensland Government requirements for the RVPDA.

As part of considering the impacts of this action, several detailed surveys were completed. Additional Significant Impact Criteria Assessments have been completed for those species that have an increased likelihood of occurrence:

- Koala (*Phascolarctos cinereus*) – Endangered under the EPBC Act
- Grey-headed Flying-fox (*Pteropus poliocephalus)* – Vulnerable under the EPBC Act
- Greater Glider (*Petauroides Volans*) – Endangered under the EPBC Act

Notably, the Greater Glider was considered to have a low likelihood of occurrence based on lack of evidence and lack of suitable habitat. However, given the increased scrutiny of the species and the presence of records in the broader locality, a significant impact assessment was completed. Upon further review the Greater Glider is not considered relevant for the site impacts given lack of evidence and suitable habitat.

Vegetation on-site was observed to contain habitat for both Grey-headed Flying-fox and Koala. Neither of these species were directly observed, and only limited indirect evidence of Koala was recorded at 1 of the 6 SAT locations. Following the significant impact assessment, it was concluded that given cleared areas, lack of nearby roosts, and high mobility of the species, a significant impact on GHFF from the proposed action is unlikely. The removal of Koala habitat trees within the referral has the potential to impact dispersal habitat for the Koala and reduce the area of occupancy for the species. Therefore, there is potential for the proposed action to have a significant impact on the Koala.

Overall, this report concludes that the proposed action has **potential to have a significant impact on Koala as defined under significant impact guidelines** and therefore the proposed action is recommended as a 'Controlled Action.'

8. References

DAWE 2021, National Recovery Plan for the Grey-headed Flying-fox 'Pteropus poliocephalus', Department of Agriculture, Water and the Environment, Canberra, March.

Department of Sustainability, Environment, Water, Population and Communities, 2011, 'Survey guidelines for Australia's threatened reptiles'.

Department of Sustainability, Environment, Water, Population and Communities, 2011, 'Draft Referral guidelines for the nationally listed Brigalow Belt reptiles'.

Eby, P. and Law, B. 2008. Ranking the feeding habitats of grey-headed flying foxes for conservation management. NSW Department of Environment and Climate Change and Commonwealth Department of Environment, Water, Heritage and the Arts.

Ferguson, D. and Mathieson, M. 2014. Yakka skink, Egernia rugosa. Targeted species survey guidelines. Queensland Herbarium, Department of Environment and Science, Brisbane.

Norman, P. and Mackey, B. 2023. Priority areas for conserving greater gliders in Queensland, Australia Pacific Conservation Biology – Giffith University

Phillips, S & Callaghan, J 2011, 'The Spot Assessment Technique: a tool for determining localised levels of habitat use by Koala Phascolarctos cinereus', Australian Zoologist, 35:3.

Eyre T.J. Smith G.C, Venz M.F., Mathieson M.T., Hogan L.D., Starr, C., Winter. J. and McDonald, K. 2022, Guide to greater glider habitat in Queensland, report prepared for the Department of Agriculture, Water and the Environment, Canberra. Department of Environment and Science, Queensland Government. Brisabne. Guide to greater glider habitat in Queensland - DCCEEW

9. Appendices

Appendix A

EPBC Protected Matters Report

Appendix B

NCA Wildlife Online Search Results

Appendix C

Likelihood of Occurrence Assessment -
Matters of National Environmental Significance (MNES)

Appendix D

SAT results

Appendix E

Flora and Fauna species list

Appendix A

EPBC Protected Matters Report

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: 05-Dec-2024

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:	7
Listed Threatened Species:	50
Listed Migratory Species:	11

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:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	21
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:	41
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	30 - 40km 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
Grey box-grey gum wet forest of subtropical eastern Australia	Endangered	Community likely to occur within area	In feature area
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 buffer area only
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 [Resource Information]

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
BIRD			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat likely to 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
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
Erythrotriorchis 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 known to occur within area	In feature area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[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 known 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
[Rostratula australis](#) Australian Painted Snipe [77037]	Endangered	Species or species habitat known 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
INSECT			
[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 hallucatus](#) Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat may occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macroderma gigas			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Petauroides volans			
Greater Glider (southern and central) [254]	Endangered	Species or species habitat known 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
Petrogale penicillata			
Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may 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 known 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 buffer area only
Pseudomys novaehollandiae			
New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In buffer area only
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
Bosistoa transversa			
Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Coleus habrophyllus listed as Plectranthus habrophyllus			
[91378]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 feature area
Cupaniopsis tomentella Boonah Tuckeroo [3322]	Vulnerable	Species or species habitat likely to occur within area	In feature area
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 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
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 may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[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 may occur within area	In feature area
REPTILE			
[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			
[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 known 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			

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 likely to 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
Gallinago hardwickii			
Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pandion haliaetus			
Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
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

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - AMBERLEY - AP90 SMALL ARMS RANGE (PURGA) [31817]	QLD	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 likely to 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
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 known 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 known to occur within area overfly marine area	In feature area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area	In buffer area only
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 known 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 known to occur within area overfly marine area	In feature area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
Mount Perry	Conservation Park	QLD	In buffer area only
Stewartdale	Nature Refuge	QLD	In buffer area only
White Rock	Conservation Park	QLD	In buffer area only

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
AW Bidco 6 Pty Ltd - Urban Development Project	2023/09690		Referral Decision	In feature area
Barrams Road Residential Development	2021/9005		Post-Approval	In buffer area only
Bryants Road Residential Development	2023/09484		Assessment	In buffer area only
Ripley Residential Development Project	2024/09865		Assessment	In buffer area only
Ripley Valley PDA Providence East and South	2018/8347		Post-Approval	In buffer area only
Ripley View Residential Subdivision	2020/8615		Post-Approval	In buffer area only
South Ripley Residential Development	2023/09656		Assessment	In feature area
Watsons Road, South Ripley - Residential Development	2024/09861		Assessment	In buffer area only
Controlled action				
AV JENNINGS PTY LTD - Coleman Road, South Ripley - Residential Development	2021/9061	Controlled Action	Assessment Approach	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Casino Ipswich Pipeline	2007/3877	Controlled Action	Completed	In feature area
CROCODILE 03 Military Training Exercise	2002/888	Controlled Action	Post-Approval	In buffer area only
Cumner Road mixed use subdivision, Whiterock,Ripley Valley,Qld	2014/7388	Controlled Action	Post-Approval	In buffer area only
ECCO Ripley Residential Development, Ipswich, QLD	2015/7513	Controlled Action	Post-Approval	In buffer area only
Grampian Drive Deebing Heights Residential Development, Qld	2015/7628	Controlled Action	Post-Approval	In buffer area only
Hayfield School Site	2021/9070	Controlled Action	Assessment Approach	In buffer area only
Paradise Waters Residential Estate, Gampian Drive, Deebing Heights	2013/6864	Controlled Action	Post-Approval	In buffer area only
Providence West Residential Development	2020/8698	Controlled Action	Further Information Request	In buffer area only
Residential Development, Ripley	2020/8791	Controlled Action	Assessment Approach	In buffer area only
Ripley Road Residential Development	2019/8539	Controlled Action	Post-Approval	In buffer area only
Ripley Road residential development, Ripley Valley, Qld	2017/8095	Controlled Action	Post-Approval	In buffer area only
Southern Regional Water Pipeline	2006/2593	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Blackstone Power Station	2012/6252	Not Controlled Action	Completed	In buffer area only
Daleys Road Residential Development	2010/5638	Not Controlled Action	Completed	In buffer area only
Fernbrooke Ridge residential estate development - Balance Land, Redbank Plains, Qld	2013/6818	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
Inland Rail Gowrie to Kagaru Geotechnical Project, QLD	2018/8263	Not Controlled Action	Completed	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Master planned residential community, Ripley Valley, QLD	2014/7325	Not Controlled Action	Completed	In buffer area only
Northern Link Parallel Road Tunnels Project	2007/3824	Not Controlled Action	Completed	In buffer area only
REMONDIS Waste to Energy Facility	2020/8806	Not Controlled Action	Completed	In buffer area only
Removal of Grey-headed Flying-fox Habitat	2005/2137	Not Controlled Action	Completed	In buffer area only
Residential/Commercial development Binnies Road, Ripley, Qld	2016/7669	Not Controlled Action	Completed	In buffer area only
Residential Subdivision on Monterea Road, Ripley	2012/6644	Not Controlled Action	Completed	In buffer area only
Ripley Town Centre,Ipswich, QLD	2015/7471	Not Controlled Action	Completed	In buffer area only
South West Transport Corridor	2006/2547	Not Controlled Action	Completed	In feature area
Swanbank Gas Fired Combined Cycle Plant	2008/4087	Not Controlled Action	Completed	In buffer area only
Swanbank Waste Management Facility Stage 1B extension Area, Qld	2015/7581	Not Controlled Action	Completed	In buffer area only
Underground Bus and Train Project, Brisbane	2013/7106	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
168 Lot Residential and Commercial Development at Deebing Heights	2009/4818	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construction & Operation 275/330kV Transmission Line	2006/2820	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
Cross River Rail	2010/5427	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Paper Mill	2003/915	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.

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Appendix B

NCA Wildlife Online Search Results

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.7007
Longitude: 152.8158
Distance: 5
Email: harrisoncormack@saundershavill.com
Date submitted: Thursday 05 Dec 2024 13:12:44
Date extracted: Thursday 05 Dec 2024 13:20:02

The number of records retrieved = 13

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	3
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		V	V	2
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		V	V	5
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		E	E	1
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		6
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	21
plants	land plants	Apocynaceae	*Leichhardtia coronata*			V		3/3
plants	land plants	Cupressaceae	*Callitris baileyi*	Bailey's cypress		NT		1/1
plants	land plants	Lamiaceae	*Coleus habrophyllus*			E	E	7/7
plants	land plants	Myrtaceae	*Eucalyptus curtisii*	Plunkett mallee		NT		2/2
plants	land plants	Myrtaceae	*Melaleuca irbyana*			E		7/2
plants	land plants	Poaceae	*Calyptochloa gracillima subsp. ipsviciensis*			CR		2/2

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

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

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

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).
This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Appendix C

Likelihood of Occurrence Assessment - Matters of National Environmental Significance (MNES)

Likelihood of occurrence	Assessment criteria
Unlikely	No previous records of the species within the locality and one or more of the following criteria is met: • Not previously recorded on the referral area and surrounds and the referral area is beyond the current known geographic range; or • Dependent on specific habitat types or resources that are not present on the referral area; or • Considered extinct in the wild.
Low	No previous records of the species within the locality and one or more of the following criteria is met: • Site and local connectivity contains marginal habitat excluding suitable/critical habitat attributes; • Lack of recent records exist in a regional context (use 1980 as a delineation); or • Potential for vagrant or individual of the species to survive short-term;
Moderate	Species previously recorded within the locality and one or more of the following criteria is met: • Previously recorded in proximity to the referral area (*i.e.,* vagrant individuals); or • Potential habitat typologies or resources are present on the referral area.
High	Species previously recorded within the locality and one or more of the following criteria is met: • Previously recorded on the referral area; • Dependent on habitats or habitat resources that are available on the referral area; or • Suitable habitats are available on the referral area that are capable of supporting a resident population or individuals of the species.
Known	Flora species or ecological community positively identified during field surveys within the referral area. Fauna species positively recorded during field surveys within the referral area or adjacent habitats.

Matters of National Environmental Significance						
Name	**Status**	**Type of presence**	**Description of the community/preferred habitat**	**Likelihood of Occurrence Analysis**	**Desktop Likelihood of occurrence (on-site)**	**Field Survey Confirmed Likelihood of occurrence (on-site)**
Wetlands of International Importance (Ramsar)						
Moreton Bay			The site is located approximately 30-40 kilometres upstream of Moreton Bay.	There will be no measurable affect to Moreton Bay.	Unlikely	Unlikely
Threatened Ecological Communities						
Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community	E	Community may occur within area	In Queensland, this ecological community coincides with two regional ecosystem communities including Of Concern RE12.1.1 (*Casuarina glauca* +/- mangroves woodland) as well as areas where the canopy is dominated by *Casuarina glauca* within 12.3.20 (*Melaleuca quinquenervia, Casuarina glauca +/- Eucalyptus tereticornis, Eucalyptus siderophloia* open forest on low coastal alluvial plains).	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely
Grey box-grey gum wet forest of subtropical eastern Australia	E	Community may occur within area	The Grey box-grey gum wet forest at maturity typically has a tall to very tall open canopy dominated by its characteristic Eucalyptus species with or without hoop pine *(Araucaria cunninghammii)*. It can have a simple to structurally complex understorey which typically includes flora with drier vine-forest (rainforest) affliations, with vines often prominent. The canopy of this TEC always contains *Eucalyptus moluccana* (grey box) and/ or a grey gum species (*E. propinqua* (small-fruited grow gum) and/or	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely

Name	Status	Type of presence	Description of the community/preferred habitat	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
			less commonly *E. punctata* (grey gum)). Other canopy species often present include *E. siderophloia* (grey ironbark) and/or *Araucaria cunninghammii* (hoop pine).			
Lowland rainforest of subtropical Australia	CE	Community may occur within area	This TEC occurs mainly on basalt and alluvial soils and is characteristic of a low abundance of *Eucalyptus, Melaleuca* and *Casuarina* species. Specimens with buttress roots and a diversity of vines are common throughout this TEC. This community is usually associated with REs 12.3.1 (more recently mapped as 12.3.16), 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.10, 12.12.1, and 12.12.16.	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely
Poplar Box Grassy Woodland on Alluvial Plains	E	Community may occur within area	The Poplar Box Grassy Woodland on Alluvial Plains ecological community is typically a grassy woodland with a canopy dominated by *Eucalyptus populnea* and understorey mostly of grasses and other herbs. The ecological community mostly occurs in gently undulating to flat landscapes and occasionally on gentle slopes on a wide range of soil types of alluvial and depositional origin. In Queensland, this TEC corresponds with 11.3.2, 11.3.17, 11.3.7, 11.4.12 and 12.3.10.	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely
Subtropical eucalypt floodplain forest and woodland of the New South Wales	E	Community likely to occur within area	This ecological community is found on alluvial landforms, including floodplains, the riparian zones of parent rivers and other order tributaries, alluvial flats, floodplain/alluvial terraces and periodically flooded depressions. The structure of this TEC varies from tall open forest to woodland. The canopy is dominated by eucalypts and/or other myrtaceous trees, (specifically from Angophora, Corymbia, Lophostemon and Syncarpia genera).	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC. A small polygon of Pre-clear	Unlikely	Unlikely

Name	Status	Type of presence	Description of the community/preferred habitat	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
North Coast and South East Queensland bioregions			A mid-layer or sub-canopy of small trees may be present – with scattered to dense shrubs. For example, Melaleuca, Leptospermum and related genera may form dense thickets beneath the main canopy, or in gaps between canopy trees. Typical examples of tree species include Corymbia intermedia (Pink Bloodwood), Eucalyptus bancroftii (Bancroft's Red Gum), E. moluccana (Grey Box), E. grandis (Flooded Gum), E. siderophloia (Grey Ironbark), and E. tereticornis (Forest Red Gum). In Queensland Syncarpia glomulifera (Turpentine) may also dominate, or co-dominate. Regional Ecosystems generally associated with this TEC where key diagnostic characteristics are met include RE 12.3.2, 12.3.2a, 12.3.3, 12.3.3a, 12.3.3b, 12.3.3d, 12.3.4a, 12.3.7, 12.3.7c, 12.3.7d, 12.3.10, 12.3.11, 12.3.11a, 12.3.11b, 12.3.12, 12.3.14a, 12.3.15, 12.3.19.	RE12.3.3 is present along the western boundary. However, this area has been cleared.		
Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland	CE	Community likely to occur within area	Low open forest dominated by dense thickets of Swamp Teatree, usually growing to about 8-12 m high. In south-east Queensland, Swamp Tea-tree occurs in monotypic stands uniquely linked to Tea Tree Clay soils which drain slowly after heavy rains, becoming waterlogged and forming temporary ponds. This ecological community comprises Queensland regional ecosystems 12.9-10.11 (Land Zone 9-10) and 12.3.3c (Land Zone 3) which are listed as endangered under the VMA.	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely

Name	Status	Type of presence	Description of the community/preferred habitat	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CE	Community may occur within area	Box – Gum Grassy Woodlands and Derived Grasslands are characterised by a species-rich understorey of native tussock grasses, herbs and scattered shrubs, and the dominance, or prior dominance, of White Box, Yellow Box or Blakely's Red Gum trees. In Queensland the ecological community is a primary component of the following Regional Ecosystems: 11.8.2a, 11.8.8, 11.9.9a, 13.3.1, 13.11.8, 13.12.8 and 13.12.9. It can also be a smaller component of the following regional ecosystems: 11.3.23, 12.8.16 (only at the far western edge of the bioregion), 13.3.4, 13.11.3 and 13.11.4. These regional ecosystems range in conservation status from 'not of concern at present' to 'endangered'.	The whole site is mapped as Category X vegetation and preclear mapping indicates the majority of the site as RE12.9-10.7/RE12.9-10.2. These REs are not associated with this TEC.	Unlikely	Unlikely

Scientific name	**Common name**	**Listing Status***		**EPBC code**	**Habitat and Distribution**	**Likelihood of Occurrence Analysis**	**Desktop Likelihood of occurrence (on-site)**	**Field Survey Confirmed Likelihood of occurrence (on-site)**
		EPBC Act	**NC Act**					
Birds								
Anthochaera phrygia	Regent Honeyeater	CE	CE	82338	Regent Honeyeaters mostly occur in dry Box-Ironbark Eucalypt woodland and dry sclerophyll forest associations in areas of low to moderate relief, wherein they prefer moister, more fertile sites. These areas are generally associated with creek flats and river valleys and foothills. These woodlands have significantly large numbers of mature trees, high canopy cover and abundance of mistletoes. They are a generalist forager, which mainly feed on nectar from a wide range of eucalypts and mistletoes.	Desktop surveys confirmed recent records with 5km of the site with pre-clear mapping indicating potentially suitable vegetation. Field surveys determined that the vegetation on-site was considered low value for the species as a result of regrowth dominance and lack of large mature species which are favoured by the species. Furthermore, the site is relatively small and there are vast areas of suitable habitat within White Rock Conservation Park to the east. The species was not observed on-site despite targeted surveys. Therefore, it is considered a low likelihood that the species would occur on-site	Moderate	Low
Botaurus poiciloptilus	Australasian Bittern	E	E	1001	The Australasian Bittern occurs in terrestrial wetlands and, rarely, estuarine habitats, mainly in the temperate south-east and south-west. It favours wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or	No suitable foraging or breeding habitat is present on-site and no records have been found within the locality (10km). Therefore, it is unlikely the site is utilised by the species.	Unlikely	Unlikely

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
					waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and / or reeds or cutting grass growing over muddy or peaty substrate. The Australasian Bittern occurs in the far south-east of Queensland; it has been reported North to Baralaba and West to Wyandra, although in most years it is probably confined to a few coastal swamps. It is rarely recorded in Queensland, and possibly survives only in protected areas such as the Cooloola and Fraser regions.			
Calidris acuminata	Sharp-tailed Sandpiper	V	V	874	The Sharp-tailed Sandpiper typically inhabits freshwater wetlands such as swamps, lagoons, marshes, floodplains and rivers. This species is also found in coastal estuaries, mudflats and saltmarshes.	There are records of the species within 5k of the site, predominantly located at Bundamba Lagoon. However, no suitable habitat in the form of freshwater wetlands such as swamps, lagoons, marshes, floodplains and river is present on-site.	Low	Low
Calidris ferruginea	Curlew Sandpiper	CE	CE	856	Curlew Sandpipers mainly occur on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes and lagoons	No suitable foraging or breeding habitat is present on-site. Therefore, it is unlikely the site is utilised by the species.	Unlikely	Unlikely

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					near the coast, and ponds in saltworks and sewage farms. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. In Queensland, scattered records occur in the Gulf of Carpentaria, with widespread records along the coast south of Cairns.			
Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	V	V	67036	This species prefers woodland areas dominated by she-oak Allocasuarina, or open sclerophyll forests and woodlands with a stratum of Allocasuarina beneath Eucalyptus, Corymbia or Angophora. Glossy black-cockatoos have also been observed in mixed Allocasaurina, Casuarina, cypress Callitris and brigalow Acacia harpophylla woodland assemblages. In SEQ west of the Great Dividing Range, they have been observed feeding in remnant belah Casuarina cristata and bulloak Allocasuarina luehmannii forests. This species is also known to utilise appropriate remnant woodlands, and individual or small pockets of Allocasuarina and Casuarina feed trees in urban areas.	Records of Glossy Black Cockatoo have been seen ~4-5km east of Site in White Rock Conservation estate within the past 20 years. Field surveys confirmed the absences of the necessary foraging and habitat trees (Allocasuarina, Casuarina,) as a result of historical and on-going rural uses. Furthermore, there is a lack of large hollow bearing trees which are a key habitat requirement for the species.	Moderate	Low
Climacteris picumnus victoriae	Brown Treecreeper	V	V	67062	Brown treecreepers (south-eastern) occupy dry open eucalypt forests and woodlands	There is a distinct lack of stringybark eucalypts on site and a no observations	Unlikely	Unlikely

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	(south-eastern)				dominated by stringybarks or other rough-barked eucalypts, usually with an open grassy understorey, sometimes with one or more shrub species. They also occur in mallee, forests and woodlands subject to periodic inundation. The subspecies is not usually found in woodlands with a dense shrub layer.	of the species have been made in the locality (within 10km). Due to this it is unlikely the species utilises the site.		
Cyclopsitta diophthalma coxeni	Coxen's Fig Parrot	CE	CE	59714	The Coxen's Fig Parrot occurs in rainforest habitats including subtropical rainforest, dry rainforest, littoral and developing littoral rainforest, and vine forest. Food is mainly taken from figs however other species fruit have been recorded in their diet including *Elaeocarpus grandis, Syzygium corynanthum, Litsea reticulata* and *Grevillea robusta.*	The vegetation present on site is not indicative of a rainforest i.e. no suitable breeding or foraging habitat occurs on site. No records of the species have been seen in the locality therefore it is unlikely the species utilises the site.	Unlikely	Unlikely
Erythrotriorchis radiatus	Red Goshawk	E	E	942	A wide ranging and highly mobile species generally observed over eucalypt habitats. This species prefers forest and woodland with a mosaic of vegetation types, large prey populations (birds) and permanent water. The vegetation types include eucalypt woodland, open forest, tall open forest, gallery rainforest, swamp sclerophyll forest and rainforest margins. Habitat has to be open enough for fast attack and manoeuvring in flight, but provide cover for ambushing of prey.	The Red Goshawk is a highly mobile species and the mosaic of habitat types that it prefers is absent from the site. Due to this and a lack of local records it is considered unlikely the species occurs on site.	Low	Unlikely

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Falco hypoleucos	Grey Falcon	V	V	929	The Grey Falcon usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. Also occurs near wetlands where surface water attracts prey. Like other falcons it utilises old nests of other birds of prey and ravens, usually high in a living eucalypt near water or a watercourse; peak laying season is in late winter and early spring. The nests chosen are usually in the tallest trees along watercourses, particularly River Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*E. coolabah*).	The preferred habitat types of the Grey Falcon are absent from site and no occurrence records were found in the locality. Due to this it is considered unlikely the species occurs on site.	Unlikely	Unlikely
Gallinago hardwickii	Latham's Snipe	V	V	863	The Latham's Snipe is predominantly found in wetland habitats, these include swamps, wet grasslands, flooded meadows, mangroves, and the edges of freshwater lakes and rivers. The species is often found in areas with dense cover, such as reeds or sedges, where it can feed and roost.	Several records of the species have been observed within the locality being seen ~1km west of the site at a dam and multiple at Bundamba Lagoon ~3km south of the site. While there are several constructed dams on-site, these dams are small and highly modified. Furthermore, the species was not observed on-site despite several targeted surveys.	Moderate	Low
Geophaps scripta scripta	Squatter Pigeon (southern)	V	V	64440	This species inhabits open grasslands and woodlands typically with a native understorey although may occur in artificial pasture.	The site is indicative of Squatter Pigeon habitat however, most records of the species have been seen in the Lockyer	Low	Unlikely

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						Valley and Somerset areas. Due to the lack of records within the locality (10km) is it considered unlikely the species occurs on site.		
Grantiella picta	Painted Honeyeater	V	V	470	The species inhabits mistletoes in eucalypt forests/woodlands, riparian woodlands of black box and river red gum, box-ironbark-yellow gum woodlands, acacia-dominated woodlands, paperbarks, casuarinas, callitris, and trees on farmland or gardens. The species prefers woodlands which contain a higher number of mature trees, as these host more mistletoes. It is more common in wider blocks of remnant woodland than in narrower strips.	There are no records of the species within 10km of the site. Furthermore, given historical and contemporary rural land-uses, the site lacks large mature trees which are favoured by the species	Low	Low
Hirundapus caudacutus	White-throated Needletail	V	V	682	Although they occur over most types of habitat, they are probably recorded most often above wooded areas, including open forest and rainforest, and may also fly between trees or in clearings, below the canopy, but they are less commonly recorded flying above woodland. They also commonly occur over heathland, but less often over treeless areas, such as grassland or swamps.	Due the highly mobile nature of the species, sightings have been recorded across a range of habitat types. While no records of the species have been found above the site, multiple records have been seen within 5km of the site mainly associated with proximal White Rock Conservation Estate. The species was not observed on-site and is considered a low likelihood of occurrence given the disturbed nature of	Moderate	Low

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						the site and the availability of higher quality habitat to the east.		
Lathamus discolor	Swift Parrot	CE	E	744	The Swift Parrot breeds in Tasmania during spring to early summer. During autumn and winter the species migrates to the mainland where it follows a nomadic existence linked to the availability and timing of flowering of trees in various locations.	No recent records of the species were found in the proximity to site. Moreover, flowering Eucalypts were observed on site during dawn bird surveys and no Swift Parrots were observed foraging in these trees. Due to the combined field and desktop surveys, it is considered unlikely the species occurs on site.	Low	Low
Ninox strenua	Powerful Owl	-	V	-	Found in open forests and woodlands, as well as along sheltered gullies in wet forests with dense understoreys, especially along watercourses. Will sometimes be found in open areas near forests such as farmland, parks and suburban areas, as well as in remnant bushland patches. Needs old growth trees to nest.	Records of the Powerful Owl have been seen within 5km of site within White Rock Conservation Estate and Goolman Conservation Estate. While local records of the species have been seen, the vegetation on site is not indicative of preferred breeding and foraging habitat. The site lacks old growth trees as well as a dense understory (which is seen in White Rock). Additionally, no individuals were observed during dusk bird surveys.	Low	Unlikely

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		EPBC Act	NC Act					
						Due to the lack of suitable conditions, it is considered unlikely the species occurs on site.		
Rostratula australis	Australian Painted-snipe	E	E	77037	The Australian Painted Snipe is usually found in shallow inland wetlands, either freshwater or brackish, that are either permanently or temporarily filled. The species has a scattered distribution throughout many parts of Australia, with a single record from Tasmania.	There are multiple records of the species in the locality however these records are associated with extensive wetland habitats such as Bundamba Lagoon. The site lacks suitable wetland habitat confined to small constructed dams.	Moderate	Low
Stagonopleura guttata	Diamond Firetail	V	V	59398	Diamond firetails occur in eucalypt, acacia or casuarina woodlands, open forests and other lightly timbered habitats, including farmland and grassland with scattered trees. They prefer areas with relatively low tree density, few large logs, and little litter cover but high grass cover	The site varies in terms of tree density with some areas seeing historical clearing and others are more vegetated. Similar observations are seen in the grass cover however most of the site has medium to low grass cover due to historical maintenance. While the site is generally suitable for the species there is a lack of records in the locality (10km). This indicates that the species has a low likelihood to occur on site.	Low	Low
Tringa nebularia	Common Greenshank	E	E	832	The Common Greenshank inhabits a variety of wetland environments both coastal and inland. This includes estuaries, mudflats, salt marshes,	While there are some records of the species present at Bundamba Lagoon (~3km south), no suitable wetland	Unlikely	Unlikely

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					mangroves and sandy shores within coastal environments. Within inland environments this species can be found in lakes, swamps, rivers, floodplains and sewage ponds.	habitat is present on site to support the species. Therefore, the species is unlikely to occur on site.		
Turnix melanogaster	Black-breasted Button Quail	V	V	923	Typical habitat occurs in dry rainforest and vegetation immediately adjacent to rainforest. However, the species has also been recorded in a variety of low coastal heathlands around Fraser Island and nearby mainland. Deep leaf litter in which the species can forage appears to be particularly favoured.	Suitable habitat is absent from site as the area lacks Rainforest and heath areas.	Unlikely	Unlikely
Argynnis hyperbius inconstans	Australian Fritillary	CE	E	88056	Most specimens have been collected from river estuaries or swampy coastal areas at or near sea level. The Australian fritillary butterfly is restricted to open, swampy, coastal areas where the larval food plant, *Viola betonicifolia*, grows as a small, insignificant ground herb in association with *Lomandra longifolia* (Long Leaved Matrush) and grasses, especially the grass *Imperata cylindrica* (Blady Grass). This habitat is called *Melaleuca* wetlands, although the larval food plant does not occur in all sub-types of this plant community.	There are no Melaleuca wetlands present on site.	Unlikely	Unlikely
Mammals								

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Chalinolobus dwyeri	Large-eared Pied Bat	E	E	183	The Large-eared Pied Bat roosts on sandstone cliffs and fertile woodland valley habitat within close proximity of each other. However, in South East Queensland habitat includes rainforest and moist eucalypt forest habitats at high elevations.	No suitable breeding or foraging habitat is found on site. It is considered unlikely that the species occurs on site.	Unlikely	Unlikely
Dasyurus hallucatus	Northern Quoll	E	LC	331	The Northern Quoll occupies a diversity of habitats across its range which includes rocky areas, eucalypt forests and woodlands, rainforests, sandy lowlands and beaches, shrubland, grassland and desert. Northern Quoll habitat generally encompasses some form of rocky area for denning purposes with surrounding vegetated habitats used for foraging and dispersal. Eucalypt forest or woodland habitats usually have a high structural diversity containing large diameter trees, termite mounds or hollow logs for denning purposes. Dens are made in rock crevices, tree holes or occasionally termite mounds. Surveys in Queensland suggest that Northern Quolls are more likely to be present in high relief areas that have shallower soils, greater cover of boulders, less fire impact and were closer to permanent water.	No rocky areas are present on site that would be suitable for denning purposes. Due to this it is considered unlikely the species occurs on site.	Unlikely	Unlikely

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Dasyurus maculatus maculatus	Spot-tailed Quoll	E	E	75184	The Spot-tailed Quoll has a preference for mature wet forest habitat. Unlogged forest or forest that has been less disturbed by timber harvesting is also preferable. This predominantly nocturnal species rests during the day in dens. Habitat requirements include suitable den sites such as hollow logs, tree hollows, rock outcrops or caves. Individuals require an abundance of food such as birds and small mammals, and large areas of relatively intact vegetation through which to forage.	Suitable undisturbed vegetation does not occur on site due to historical land clearing and surrounding development. Combined with a lack of denning areas it is considered unlikely for the species to occur on site.	Unlikely	Unlikely
Macroderma gigas	Ghost Bat	V	E	174	Ghost bats are known to inhabit large complex caves and old mineshafts.	No caves exist on site.	Unlikely	Unlikely
Petauroides volans NCA listed *Petauroides armillatus*	Greater Glider	E	E	254	The Greater Glider is an arboreal nocturnal marsupial that is mostly restricted to eucalypt forests and woodlands, although it occurs in highest abundance in taller, montane, moist eucalypt forests with abundant (large) hollow-bearing trees for shelter and a variety of eucalypt species for feeding. Diet consists of eucalypt leaves, and occasionally flowers. Small home ranges and low dispersibility make this species sensitive to clearing and fragmentation, with low persistence in small forest fragments.	Two recent public records have been seen within White Rock while confirmed WildNet sightings have been seen in White Rock over the past 20 years (approximately 8.5km east of the referral area). The site is highly modified and does not contain any remnant vegetation or abundance of hollows. Due to the Gliders sensitivity to disturbance, it is unlikely the species	Moderate	Low

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						would utilise the site when more favourable/suitable habitat is present in the broader locality. Additionally, the species was not observed on-site despite targeted searches.		
Petaurus australis australis	Yellow-bellied Glider	V	V	87600	Occur in tall mature eucalypt forest generally in areas with high rainfall and nutrient rich soils. Forest type preferences vary with latitude and elevation; mixed coastal forests to dry escarpment forests in the north; moist coastal gullies and creek flats to tall montane forests in the south. Den, often in family groups, in hollows of large trees. Very mobile and occupy large home ranges between 20 to 85 ha to encompass dispersed and seasonally variable food resources.	Evidence of the species has been seen within 5km of the site at Swanbank and 9km from site at Spring Mountain Forest Park. The site lacks high species richness for foraging and abundance of hollows for denning. Additional, the species was not observed despite targeted surveys.	Low	Low
Petrogale penicillata	Brush-tailed Rock Wallaby	V	V	225	This species prefers rocky habitats, including loose boulder-piles, rocky outcrops, steep rocky slopes, cliffs, gorges and isolated rock stacks. It also utilises tree limbs. While it appears that most Brush-tailed Rock-wallaby colonies are on north-facing slopes and cliff lines, colonies have been found on south-facing cliffs in Kangaroo Valley, in the Macleay River Gorge, in the Warrumbungles and at Mt Kaputar, although usually in lower densities.	There is no rocky habitats indicative of foraging and denning behaviours of the Rock Wallaby. Therefore, it is considered unlikely the species occurs on site.	Unlikely	Unlikely

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Phascolarctos cinereus	Koala	E	E	85104	The Koala is found in a range of habitats, from coastal islands and tall eucalypt forests to low woodlands inland.	There are various records of Koala's within 5km of the site notably within the south Ripley area in 2020 as well as various records in White Rock. Desktop surveys identified the whole site as non-remnant however Koala habitat trees are present on-site. No direct observations of Koala were recorded on-site during site surveys, however, indirect evidence in the form of scats were observed. As a result, the likelihood of occurrence has been considered as moderate	Moderate	Moderate
Potorous tridactylus tridactylus	Long-nosed Potoroo	V	V	66645	The Long-nosed Potoroo inhabits coastal heaths and dry and wet sclerophyll forests. Dense understorey with occasional open areas is an essential part of habitat, and may consist of grass-trees, sedges, ferns or heath, or of low shrub of tea-trees or melaleucas. A sandy loam soil is also a common feature.	Most recent records of the Long-nosed Potoroo in SEQ are found within intact vegetation refuges such as D'Aguilar National Park and the various parks surrounding the border ranges. Combined with a lack of dense understory for foraging purposes , it is considered unlikely the species occurs on site.	Unlikely	Unlikely

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Pseudomys novaehollandiae	New Holland Mouse	V	V	96	Across the species' range the New Holland Mouse is known to inhabit open heathlands, open woodlands with a heathland understorey and vegetated sand dunes. The New Holland Mouse is a social animal, living predominantly in burrows shared with other individuals. The home range of the New Holland Mouse ranges from 0.44 ha to 1.4 ha. The species peaks in abundance during early to mid stages of vegetation succession typically induced by fire.	The site is not a heathland and does not contain a heath understory. Paired with the lack of records within the area it is considered unlikely the species occurs on site.	Low	Unlikely
Pteropus poliocephalus	Grey-headed Flying-fox	V	LC	186	Species generally roosts in camps in trees adjacent to larger permanent watercourse. The Grey-headed flying fox requires foraging resources and roosting sites. It is a canopy-feeding frugivore and nectarivore, which utilises vegetation communities including rainforests, open forests, closed and open woodlands, Melaleuca swamps and Banksia woodlands. It also feeds on commercial fruit crops. The primary food source is blossom from Eucalyptus and related genera.	While there are no recorded GHFF camps on site present in the National Flying-fox monitor, there are camps within 10km namely at Yamanto (camp 479), Ipswich Nature Centre (camp 595) and Bundamba (camp 574). GHFF are known to travel 40km within the same night when foraging for food and as there were flowering eucalyptus species present on site during field surveys, there is potential the site is used as foraging habitat. Vagrant records of GHFF have been seen within 5km of the site however, these were within White Rock Conservation	Moderate	Moderate

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						estate which has an extreme abundance of flowering species. While there is potential for the species to utilise the site no individuals were identified during the field surveys therefore the likelihood the species will occur on site will be determined as moderate.		
Plants								
Arthraxon hispidus	Hairy-joint Grass	V	V	9338	Hairy-joint grass is found in or on the edges of rainforest and in wet eucalypt forest, often near creeks or swamps, as well as woodland.	Suitable vegetation communities that support the species are absent from site. Therefore, it is considered unlikely the species occurs on site.	Unlikely	Unlikely
Bosistoa transversa	Three-leaved Bosistoa	V	LC	16091	The Three-leaved Bosistoa is conserved within Mt Warning National Park, Numbinbah Nature Reserve, Limpinwood Nature Reserve and Whian Whian State Forest. While population information is unavailable, it is thought to be common in its range. It generally grows in wet sclerophyll forest, dry sclerophyll forest and rainforest up to 300 metres in altitude. It is commonly associated with *Argyrodendron trifoliolatum, Syzygium hodgkinsoniae, Endiandra pubens, Dendrocnide photinophylla,*	The site lies outside the species typical range and all associated species are absent from site. Therefore, it is considered unlikely the species occurs on site.	Unlikely	Unlikely

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					Acmena ingens, Diploglottis australis and Diospyros mabacea.			
Callitris baileyi	Bailey's Cypress	-	NT	-	*Callitris baileyi* grows on rocky slopes, hilly or mountainous areas, in shallow and often clay soils. It is found in eucalypt woodland, commonly associated with ironbark, blue gum and spotted gum. The New South Wales population occurs in an open grassy eucalypt forest near a creek	The area does not reflect the typical habitat suited to Bailey's Cypress however, two records of the pine have been seen ~5.2km west of the site at Deebing heights. While the general area is not indicative of the typical habitat of the Cypress the presences indicate a possibility for the species to occur. No individuals were observed during the various field surveys.	Moderate	Low
Calyptochloa gracillima subsp. ipsviciensis		-	CR	-	*Calyptochloa gracillima subsp. ipsviciensis* is endemic to southeast Queensland in the vicinity of Ipswich where it is known from a few small areas. It is an uncommon to dominant species in woodlands dominated by Eucalyptus spp. including E. crebra and E. moluccana and/or Corymbia citriodora subsp. variegate.	Two records of the species have been seen within 5km of the site however, no individuals were observed during field surveys.	Moderate	Low
Coleus habrophyllus Listed as *Plectranthus habrophyllus*	Shaggy-leaved Plectranthus	E	E	91378	Plants have been recorded growing on chert or sandstone outcrops, in open woodlands often in shaded situations near vine forest. Seven populations are known including: Oxley Creek, Greenbank; Opposum Creek, Springfield; Woogaroo Creek, Goodna; three populations	While there are records of the species seen in the locality, these are associated with known populations. No individuals were observed during the field surveys. As the populations are within proximity	Moderate	Low

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					within White Rock Conservation Park, incorporating Six Mile Creek and near Ormeau (south of Beenleigh).	to site, there is a low likelihood the species is present on site.		
Cryptostylis hunteriana	Leafless Tongue-orchid	V	SL	19533	Leafless tongue-orchid habitats include wet heath, sedgeland, grasstree plains and in woodland with scribbly gum, silvertop ash, red bloodwood and black she-oak.	No suitable habitat to support the species is found on site.	Unlikely	Unlikely
Cupaniopsis shirleyana	Wedge-leaf Tuckeroo	V	V	3205	The Wedge-leaf Tuckeroo occurs in a variety of dry rainforest vegetation types, including vine thicket communities on hillsides, stream beds and along riverbanks at altitudes up to 550 m above sea level. This species is also likely to occur on the margins of native vegetation in scrubby urbanised areas. Predominately found on dark brown sandy loams and sandy clay loams (pH 5-7.5) and rocky scree slopes. Generally, these soils have formed from volcanic parent materials (mainly granites and granodiorites, basalt and andesitic flows, and pyroclastics).	The habitat is not indicative of the preferred habitat of the Wedge-leaf Tuckeroo. A lack of local records as well as absence of identification during field surveys indicates the species is unlikely to occur on site.	Unlikely	Unlikely
Cupaniopsis tomentella	Boonah Tuckeroo	V	V	3322	Limited information of Boonah Tuckeroos is available. The species can be described as a small tree to 10m tall that occur in the drier rainforests of the Boonah District.	The site lies outside the occurrence area of the species.	Unlikely	Unlikely

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Dichanthium setosum	Bluegrass	V	-	14159	In Queensland, bluegrass has been reported from the Leichhardt, Morton, North Kennedy and Port Curtis regions. *Dichanthium setosum* is associated with heavy basaltic black soils and stony red-brown hardsetting loam with clay. It can be found in moderately disturbed areas such as cleared woodland, grassy roadside remnants, grazed land and highly disturbed pasture. The extent to which this species tolerates disturbance is unknown.	No records of the species can be found in the locality of the site and no specimens were observed during the various field surveys. Therefore, it is unlikely the species occurs on the site.	Unlikely	Unlikely
Eucalyptus curtisii	Plunkett mallee	-	NT		*Eucalyptus curtisii* has two growth forms that occur in different habitats. The shorter mallee form is more likely to occur as the only eucalypt species on poorly drained lowland sites in shrubland dominated by banksia, with an understorey of heath plants, and sometimes *E.conglomerata* may also be present. The larger growth form occurs as scattered individuals on better drained soils in the more open areas of mixed eucalypt forests. Commonly associated species include *Corymbiacitriodora* subsp.*variegata*, *C.trachyphloia* and *Callitris endlicheri*, less commonly associated with *E. fibrosa*, *E.planchoniana* and *E. acmenoides*. *E. curtisii* occurs on sandy podsoils with impeded	Confirmed Records of Plunkett Mallee have been found within 5km of site in the White Rock Conservation Estate. No specimen was observed during the various field surveys. Therefore, it is considered unlikely the species occurs on site.	Unlikely	Unlikely

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					drainage, shallow stony soils, clay loams and stony clays with a surface layer of loose stones			
Fontainea venosa		V	V	24040	Occurs in notophyll vine forest and vine thicket with a mean annual rainfall of 1000-1100 mm on soils derived from and containing abundant andesitic rocks, often on rocky outcrops or along creeks.	Habitat in which the species occurs is absent from site therefore it is unlikely the species occurs on site.	Unlikely	Unlikely
Leuzea australis Listed as *Rhaponticum australe*	Austral Cornflower	V	V	22647	Austral Cornflower is known from Mt Moffat to Gatton in Queensland, a distance of 600 km. Austral Cornflower grows in eucalypt open forest with grassy understory on roadsides and on road reserves with Chloris gayana, Cirsium vulgare, Eucalyptus tereticornis and Angophora floribunda on black clay soil.	The typical range of this species in SEQ is further west than the site (around Laidley and Toowoomba). As there are no records of the species it is considered unlikely the species occurs on site.	Unlikely	Unlikely
Notelaea ipsviciensis	Cooneana Olive	CE	E	81858	The Cooneana Olive survives as an understorey plant in degraded, eucalypt dominated dry sclerophyll vegetation communities. Soils in the area are of low fertility, depauperate and sandstone-based. This species prefers open woodland communities with open canopies. The known population is adjacent to subdivided, modified and developed land.	The site is outside the known populations range however the site displays similar habitat characteristics. Individuals were not observed during field surveys, so it is considered a low likelihood the species occurs on site.	Low	Low
Notelaea lloydii	Lloyd's Olive	V	V	15002	The species occurs on undulating to hilly terrain either in moist gullies or on gentle to steep dry slopes, but is rarely found on rocky outcrops.	No records occur within proximity to site and the area however some have been seen within Goolman Conservation	Low	Low

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
					Soil types are mostly shallow, well drained and stony to very rocky in texture. Found in the ecotone between eucalypt open forests and vine thickets at 80-480 m above sea level (asl).	Estate. While potential habitat occurs on site the lack of local records suggests a low likelihood of occurrence.		
Leichhardtia coronata	Slender Milkvine	-	V	-	Most commonly found in open eucalypt forest and woodland communities on hillslopes and ridge tops at altitudes of 40–780 m above sea level. The soils are generally well drained, shallow, vary in texture from sandy, gravelly sand, loam to clay loam and are derived from sandstone or acid volcanic rocks. It has also been found on rocky outcrops along clifflines. Most commonly recorded with Eucalyptus fibrosa (red ironbark), E. carnea (white mahogany), Corymbia citriodora (lemon scented gum), C. henryi (large-leaved spotted gum), Eucalyptus acmenoides (yellow stringybark) and E. propinqua (grey gum) (Halford, 1998)	The site lacks the desired hillslope environments in which the species preferred. Proximal specimens have been observed in White Rock Conservation Estate however this area has much higher relief than site. These factors combined with the fact that no specimen was observed during field survey determines that the species is unlikely to occur on site.	Low	Low
Picris evae	Hawkweed	V	V	10839	Hawkweed occurs in Eucalyptus open woodland with a grassy understorey composed of Dichanthium spp. Upper stratum species include Eucalyptus melliodora, E. crebra, E. populnea, E. albens, Angophora subvelutina, Allocasuarina torulosa, and Casuarina cunninghamiana	Associated species are absent from site and majority of records occur within the Darling Downs area. Therefore it is considered unlikely the species occurs on site.	Unlikely	Unlikely

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple	E	E	17340	The species prefers subtropical rainforest, dry rainforest and *Araucaria cunninghamii* vine scrub.	The site does not contain suitable rainforest habitat to support the species.	Unlikely	Unlikely
Rhodamnia rubescens	Scrub Turpentine	CE	CE	15763	Known to occur from coastal districts of NSW north from Batemans Bay to Bundaberg in Queensland. The distribution occasionally extends inland onto the escarpment up to 600 m ASL in areas with rainfall of 1000-1600 mm. Commonly occurs in all rain forest subforms except cool temperate rainforest. Species occupies a range of volcanically derived and sedimentary soils and is a common pioneer species in Eucalypt forests. Often found in wet sclerophyll associations in rainforest transition zones and Creekside riparian associations. Flowers from late winter through spring, with a peak in October and fruits appear in December in the Sydney region. Habitat is likely to include subtropical rainforests, northern warm temperate rainforests, littoral rainforest, for example.	The site lacks suitable rainforest vegetation the species is associated with. Combined with a lack of records within the locality it is determined the species is unlikely to occur on site.	Unlikely	Unlikely
Rhodomyrtus psidioides	Native Guava	CE	CE	19162	Known to occur from coastal districts of NSW north from Gosford to Maryborough in Queensland. Occurrence records are typically restricted to coastal and sub-coastal areas of	Desktop surveys identified two records of the species within 5km of the site At Swanbank and off Wardis Road in South Ripley. The species was not identified on	Low	Low

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
					low elevation however the species does occur up to c. 120 km inland in the Hunter and Clarence River catchments and along the Border Ranges. The species flowers in late spring to early summer, producing fruits in summer. Habitat is likely to include subtropical rainforests, warm temperate rainforests, littoral rainforest, and wet sclerophyll forests.	site therefore it is considered a low likelihood to occur.		
Samadera bidwillii	Quassia	V	V	29708	Quassia commonly occurs in lowland rainforest or on rainforest margins, but it can also be found in other forest types, such as open forest and woodland. Quassia is commonly found in areas adjacent to both temporary and permanent watercourses in locations up to 510 m altitude. The species occurs on lithosols, skeletal soils, loam soils, sands, silts and sands with clay subsoils.	The site lacks the suitable rainforest habitat to support the species. Paired with the lack of records it is determined to be unlikely to occur on site.	Unlikely	Unlikely
Thesium australe	Austral Toadflax	V	V	22467	Austral Toadflax is semi-parasitic on the roots of a range of grass species, notably *Themeda triandra* (Kangaroo Grass). It occurs in shrubland, grassland or woodland, often on damp sites.	Kangaroo grass was identified to occur on site which is the species in which Austral Toadflax relies. No records of the species have been found in the locality of the site but the presence of Kangaroo grass presents to potential for the species to occur. However, due to the lack of records it is considered a low likelihood to the species to occur on site.	Low	Low

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
Reptiles								
Delma torquata	Collared Delma	V	V	1656	In general, the species occurs on rocky hillsides on basalt and lateritic soils supporting open eucalypt and Acacia woodland with a sparse understorey of shrubs and tussocks or semi-evergreen vine thicket.	A recent record of the species was observed in the northern area of White Rock Conservation estate. The site lacks the rocky hillsides the Delma favours (like in white rock). As no supporting habitat is present on site it is considered unlikely the species occurs on site.	Unlikely	Unlikely
Furina dunmalli	Dunmall's Snake	V	V	59254	Dunmall's Snake has been found in a broad range of habitats, including forests and woodlands on black alluvial cracking clay and clay loams dominated by Brigalow other Wattles, native Cypress or Bull-oak, and various Blue Spotted Gum, Ironbark, White Cypress Pine and Bull oak open forest and woodland associations on sandstone derived soils. Dunmall's Snake occurs primarily in the Brigalow Belt region in the south-eastern interior of Queensland. Records indicate sites at elevations between 200–500 m above sea level. The snake is very rare or secretive with limited records existing. It has been recorded at Archokoora, Oakey, Miles, Glenmorgan, Wallaville, Gladstone, Lake Broadwater, Mount Archer, Exhibition Range National Park, roadside reserves between Inglewood and	The species primarily occurs within the Brigalow Belt. As the Site is within SEQ it is considered unlikely the species occurs on site.	Unlikely	Unlikely

Scientific name	Common name	Listing Status*		EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of occurrence (on-site)	Field Survey Confirmed Likelihood of occurrence (on-site)
		EPBC Act	NC Act					
					Texas, Rosedale, Yeppoon and Lake Broadwater Conservation Park.			
Hemiaspis damelii	Grey Snake	E	E	1179	The grey snake is a relatively small, venomous, front-fanged (proteroglyphous) snake. In Queensland, grey snake habitat is Brigalow *Acacia harpophylla* and Belah *Casuarina cristata* woodlands on heavy, dark brown to black cracking clay soils, particularly in association with water bodies, areas with small gullies and ditches, and floodplain environments where the species shelters beneath logs, rocks and soil cracks.	Brigalow and Belah are wholly absent from site and the preferred habit of the snake is not found in proximity. Therefore it is considered unlikely the species occurs on site.	Unlikely	Unlikely

**Status abbreviations are as follows: CE = Critically Endangered, E = Endangered, V = Vulnerable, NT = Near Threatened, C = Least Concern, SL = Special Least Concern, - = Not Listed.*

Listed migratory species (not listed above)

Scientific name	**Common name**	**EPBC code**	**Habitat and Distribution**	**Likelihood of Occurrence Analysis**	**Desktop Likelihood of Occurrence (on-site)**	**Field Survey Confirmed Likelihood of Occurrence (on-site)**
Migratory marine birds						
Apus pacificus	Fork-tailed Swift	678	This species is almost exclusively aerial and mostly occur over inland plains but sometimes above foothills or in coastal areas.	The species is considered almost exclusively aerial and is unlikely to rely on the Highly disturbed subject site.	Unlikely	Unlikely
Migratory terrestrial species						
Cuculus optatus	Oriental Cuckoo	86651	Non-breeding habitat only: monsoonal rainforest, vine thickets, wet sclerophyll forest or open Casuarina, Acacia or Eucalyptus woodlands. Frequently at edges or ecotones between habitat types	The site has seen historical disturbance as well as high levels of surrounding development degrading the suitability of habitat on the site. Recent records have observed only one specimen at Bundamba Lagoon ~4km south of site. Due to the lack of suitable vegetation on site.	Unlikely	Unlikely
Motacilla flava	Yellow Wagtail	644	This species occupies a range of damp or wet habitats with low vegetation, from damp meadows, marshes, waterside pastures, sewage farms and bogs to damp steppe and grassy tundra.	Preferred habitat for the species is minimal, limited to several constructed dams and surrounding pasture.	Unlikely	Unlikely
Migratory wetland species						
Actitis hypoleucos	Common Sandpiper	59309	The Common Sandpiper utilises a wide range of coastal wetlands and some inland wetlands, including estuaries and deltas of streams, banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and clay pans, and occasionally piers and jetties. They are mostly found in shallow water, around muddy margins or rocky shores and sometimes in muddy areas littered with rocks or snags. The	The site contains one constructed dam and an ephemeral waterway. However, due to the level of modification and limited habitat the species is unlikely to utilise the site.	Unlikely	Unlikely

Scientific name	Common name	EPBC code	Habitat and Distribution	Likelihood of Occurrence Analysis	Desktop Likelihood of Occurrence (on-site)	Field Survey Confirmed Likelihood of Occurrence (on-site)
			species commonly utilises mangroves for foraging and roosting but is rarely seen on mudflats.			
Calidris melanotos	Pectoral Sandpiper	858	The Pectoral Sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands. Occasionally found further inland.	The site contains one constructed dam and an ephemeral waterway. However, due to the level of modification and limited habitat the species is unlikely to utilise the site.	Unlikely	Unlikely
Pandion haliaetus	Osprey	952	Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. They are mostly found in coastal areas but occasionally travel inland along major rivers.	The site contains one constructed dam and an ephemeral waterway. However, due to the level of modification and limited habitat the species is unlikely to utilise the site.	Unlikely	Unlikely

Appendix D

SAT results

Spot Assessment Technique (SAT)				
Date:	25.05.2024	**Site: 12186**	**SAT ID: 1**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Corymbia tesselaris*	Moreton Bay Ash	220	N
2	*Eucalyptus tereticornis*	Forest Red Gum	230	N
3	*Eucalyptus crebra*	Narrow-leaved Ironbark	400	N
4	*Corymbia citriodora*	Spotted Gum	560	N
5	*Corymbia citriodora*	Spotted Gum	160	N
6	*Eucayltus crebra*	Narrow-leaved Ironbark	100	N
7	*Corymbia citriodora*	Spotted Gum	180	N
8	*Corymbia citriodora*	Spotted Gum	220	N
9	*Corymbia citriodora*	Spotted Gum	260	N
10	*Corymbia citriodora*	Spotted Gum	240	N
11	*Corymbia citriodora*	Spotted Gum	220	N
12	*Corymbia citriodora*	Spotted Gum	140	N
13	*Corymbia citriodora*	Spotted Gum	210	N
14	*Corymbia citriodora*	Spotted Gum	170	N
15	*Corymbia citriodora*	Spotted Gum	220	N
16	*Corymbia citriodora*	Spotted Gum	220	N
17	*Corymbia citriodora*	Spotted Gum	190	N
18	*Corymbia citriodora*	Spotted Gum	290	Y
19	*Corymbia citriodora*	Spotted Gum	280	N
20	*Corymbia citriodora*	Spotted Gum	300	N
21	*Corymbia tesselaris*	Moreton Bay Ash	290	N
22	*Corymbia tesselaris*	Moreton Bay Ash	200	N
23	*Corymbia tesselaris*	Moreton Bay Ash	280	N
24	*Corymbia tesselaris*	Moreton Bay Ash	160	N
25	*Corymbia citriodra*	Spotted Gum	340	Y
26	*Corymbia tesselaris*	Moreton Bay Ash	180	N
27	*Corymbia citriodora*	Spotted Gum	160	N
28	*Corymbia citriodora*	Spotted Gum	160	N
29	*Corymbia citriodora*	Spotted Gum	180	N
30	*Corymbia citriodora*	Spotted Gum	440	N
		Total Scats	2	
		Percentage	6.67	
		East Coast (med-high) Activity Category	Low	

Spot Assessment Technique (SAT)				
Date:	05.09.2024	**Site: 12186**	**SAT ID: 2**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Eucayltus crebra*	Narrow-leaved Ironbark	155	N
2	*Corymbia intermedia*	Pink Bloodwood	230	N
3	*Corymbia intermedia*	Pink Bloodwood	220	N
4	*Eucalyptus melanophloia*	Silver-leaf Ironbark	130	N
5	*Eucalyptus melanophloia*	Silver-leaf Ironbark	180	N
6	*Eucalyptus tereticornis*	Forest Red Gum	250	N
7	*Eucalyptus tereticornis*	Forest Red Gum	250	N
8	*Eucalyptus tereticornis*	Forest Red Gum	260	N
9	*Eucalyptus melanophloia*	Silver-leaf Ironbark	170	N
10	*Eucalyptus tereticornis*	Forest Red Gum	300	N
11	*Eucalyptus tereticornis*	Forest Red Gum	210	N
12	*Eucalyptus melanophloia*	Silver-leaf Ironbark	165	N
13	*Eucalyptus tereticornis*	Forest Red Gum	160	N
14	*Eucalyptus melanophloia*	Silver-leaf Ironbark	120	N
15	*Eucalyptus melanophloia*	Silver-leaf Ironbark	170	N
16	*Eucalyptus melanophloia*	Silver-leaf Ironbark	190	N
17	*Eucalyptus melanophloia*	Silver-leaf Ironbark	185	N
18	*Eucalyptus melanophloia*	Silver-leaf Ironbark	180	N
19	*Eucalyptus melanophloia*	Silver-leaf Ironbark	140	N
20	*Eucalyptus melanophloia*	Silver-leaf Ironbark	150	N
21	*Eucalyptus melanophloia*	Silver-leaf Ironbark	170	N
22	*Eucalyptus melanophloia*	Silver-leaf Ironbark	210	N
23	*Eucalyptus melanophloia*	Silver-leaf Ironbark	210	N
24	*Eucalyptus melanophloia*	Silver-leaf Ironbark	180	N
25	*Eucalyptus melanophloia*	Silver-leaf Ironbark	190	N
26	*Eucalyptus melanophloia*	Silver-leaf Ironbark	160	N
27	*Eucalyptus melanophloia*	Silver-leaf Ironbark	180	N
28	*Eucalyptus melanophloia*	Silver-leaf Ironbark	175	N
29	*Acacia concurrens*	Black Wattle	200	N
30	*Eucalyptus melanophloia*	Silver-leaf Ironbark	130	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Spot Assessment Technique (SAT)				
Date:	05.09.2024	**Site: 12186**	**SAT ID: 3**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Corymbia tessellaris*	Moreton Bay Ash	150	N
2	*Corymbia tessellaris*	Moreton Bay Ash	150	N
3	*Eucalyptus tereticornis*	Forest Red Gum	160	N
4	*Corymbia tessellaris*	Moreton Bay Ash	570	N
5	*Eucalyptus tereticornis*	Forest Red Gum	300	N
6	*Corymbia tessellaris*	Moreton Bay Ash	340	N
7	*Eucalyptus tereticornis*	Forest Red Gum	195	N
8	*Eucalyptus tereticornis*	Forest Red Gum	220	N
9	*Eucayltus crebra*	Narrow-leaved Ironbark	280	N
10	*Eucalyptus tereticornis*	Forest Red Gum	300	N
11	*Corymbia tessellaris*	Moreton Bay Ash	150	N
12	*Eucayltus crebra*	Narrow-leaved Ironbark	230	N
13	*Corymbia tessellaris*	Moreton Bay Ash	110	N
14	*Corymbia tessellaris*	Moreton Bay Ash	175	N
15	*Corymbia tessellaris*	Moreton Bay Ash	155	N
16	*Eucalyptus tereticornis*	Forest Red Gum	220	N
17	*Eucalyptus tereticornis*	Forest Red Gum	320	N
18	*Corymbia tessellaris*	Moreton Bay Ash	160	N
19	*Corymbia tessellaris*	Moreton Bay Ash	210	N
20	*Eucalyptus tereticornis*	Forest Red Gum	160	N
21	*Corymbia tessellaris*	Moreton Bay Ash	200	N
22	*Corymbia tessellaris*	Moreton Bay Ash	130	N
23	*Eucalyptus tereticornis*	Forest Red Gum	160	N
24	*Eucalyptus tereticornis*	Forest Red Gum	205	N
25	*Corymbia tessellaris*	Moreton Bay Ash	160	N
26	*Eucalyptus tereticornis*	Forest Red Gum	160	N
27	*Eucalyptus tereticornis*	Forest Red Gum	290	N
28	*Eucalyptus tereticornis*	Forest Red Gum	380	N
29	*Eucalyptus tereticornis*	Forest Red Gum	370	N
30	*Eucalyptus tereticornis*	Forest Red Gum	170	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Spot Assessment Technique (SAT)				
Date:	28.05.2024	**Site: 12186**	**SAT ID: 4**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Eucalyptus tereticornis*	Forest Red Gum	240	N
2	*Corymbia tesselaris*	Moreton Bay Ash	180	N
3	*Corymbia citriodora*	Spotted Gum	410	N
4	*Eucalyptus tereticornis*	Forest Red Gum	170	N
5	*Corymbia citriodra*	Spotted Gum	300	N
6	*Ecualyptus tereticornis*	Forest Red Gum	10	N
7	*Ecualyptus tereticornis*	Forest Red Gum	310	N
8	*Ecualyptus tereticornis*	Forest Red Gum	320	N
9	*Corymbia tesselaris*	Moreton Bay Ash	190	N
10	*Corymbia tesselaris*	Moreton Bay Ash	220	N
11	*Corymbia tesselaris*	Moreton Bay Ash	220	N
12	*Corymbia tesselaris*	Moreton Bay Ash	180	N
13	*Eucalyptus tereticornis*	Forest Red Gum	420	N
14	*Corymbia tesselaris*	Moreton Bay Ash	180	N
15	*Eucalyptus tereticornis*	Forest Red Gum	180	N
16	*Eucalyptus tereticornis*	Forest Red Gum	280	N
17	*Cormbia tesselaris*	Moreton Bay Ash	160	N
18	*Cormbia tesselaris*	Moreton Bay Ash	160	N
19	*Cormbia tesselaris*	Moreton Bay Ash	180	N
20	*Cormbia tesselaris*	Moreton Bay Ash	170	N
21	*Cormbia tesselaris*	Moreton Bay Ash	160	N
22	*Cormbia tesselaris*	Moreton Bay Ash	180	N
23	*Cormbia tesselaris*	Moreton Bay Ash	160	N
24	*Cormbia tesselaris*	Moreton Bay Ash	150	N
25	*Eucalyptus tereticornis*	Forest Red Gum	620	N
26	*Corymbia tesselaris*	Moreton Bay Ash	180	N
27	*Corymbia tesselaris*	Moreton Bay Ash	160	N
28	*Acacia disparama*	Brush Ironbark Wattle	180	N
29	*Corymbia tesselaris*	Moreton Bay Ash	180	N
30	*Corymbia tesselaris*	Moreton Bay Ash	300	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Spot Assessment Technique (SAT)				
Date:	18.09.2024	**Site: 12186**	**SAT ID: 5**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Corymbia citridora*	Spotted Gum	350	N
2	*Corymbia citridora*	Spotted Gum	170	N
3	*Corymbia citridora*	Spotted Gum	240	N
4	*Corymbia citridora*	Spotted Gum	180	N
5	*Corymbia citridora*	Spotted Gum	190	N
6	*Corymbia citridora*	Spotted Gum	210	N
7	*Corymbia citridora*	Spotted Gum	260	N
8	*Corymbia citridora*	Spotted Gum	200	N
9	*Corymbia citridora*	Spotted Gum	230	N
10	*Corymbia citridora*	Spotted Gum	160	N
11	*Corymbia citridora*	Spotted Gum	150	N
12	*Corymbia citridora*	Spotted Gum	160	N
13	*Corymbia citridora*	Spotted Gum	140	N
14	*Corymbia citridora*	Spotted Gum	170	N
15	*Corymbia citridora*	Spotted Gum	190	N
16	*Corymbia citridora*	Spotted Gum	120	N
17	*Corymbia citridora*	Spotted Gum	160	N
18	*Corymbia citridora*	Spotted Gum	240	N
19	*Eucalyptus melinophloia*	Silver Leaved Ironbark	170	N
20	*Corymbia citridora*	Spotted Gum	210	N
21	*Corymbia citridora*	Spotted Gum	170	N
22	*Corymbia citridora*	Spotted Gum	120	N
23	*Corymbia citridora*	Spotted Gum	150	N
24	*Corymbia citridora*	Spotted Gum	200	N
25	*Corymbia citridora*	Spotted Gum	200	N
26	*Corymbia citridora*	Spotted Gum	190	N
27	*Corymbia citridora*	Spotted Gum	130	N
28	*Corymbia citridora*	Spotted Gum	180	N
29	*Corymbia citridora*	Spotted Gum	200	N
30	*Corymbia citridora*	Spotted Gum	330	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Spot Assessment Technique (SAT)				
Date:	18.09.2024	**Site: 12186**	**SAT ID: 6**	
Tree No.	**Scientific Name**	**Common Name**	**DBH**	**Scats**
1	*Corymbia citriodora*	Spotted Gum	180	N
2	*Corymbia citriodora*	Spotted Gum	240	N
3	*Corymbia citriodora*	Spotted Gum	260	N
4	*Corymbia citriodora*	Spotted Gum	220	N
5	*Corymbia citriodora*	Spotted Gum	120	N
6	*Corymbia citriodora*	Spotted Gum	220	N
7	*Corymbia citriodora*	Spotted Gum	250	N
8	*Eucalyptus crebra*	Narrow Leaf Ironbark	310	N
9	*Corymbia citriodora*	Spotted Gum	180	N
10	*Corymbia citriodora*	Spotted Gum	280	N
11	*Eucalyptus crebra*	Narrow Leaf Ironbark	100	N
12	*Eucalyptus crebra*	Narrow Leaf Ironbark	120	N
13	*Corymbia citriodora*	Spotted Gum	160	N
14	*Corymbia citriodora*	Spotted Gum	200	N
15	*Corymbia citriodora*	Spotted Gum	230	N
16	*Corymbia citriodora*	Spotted Gum	250	N
17	*Eucalyptus crebra*	Narrow Leaf Ironbark	300	N
18	*Eucalyptus crebra*	Narrow Leaf Ironbark	230	N
19	*Acacia disparrima*	Hickory Wattle	100	N
20	*Corymbia citriodora*	Spotted Gum	220	N
21	*Corymbia citriodora*	Spotted Gum	230	N
22	*Corymbia citriodora*	Spotted Gum	150	N
23	*Corymbia citriodora*	Spotted Gum	440	N
24	*Corymbia citriodora*	Spotted Gum	220	N
25	*Corymbia citriodora*	Spotted Gum	160	N
26	*Corymbia citriodora*	Spotted Gum	180	N
27	*Corymbia citriodora*	Spotted Gum	170	N
28	*Corymbia citriodora*	Spotted Gum	260	N
29	*Corymbia citriodora*	Spotted Gum	230	N
30	*Eucalyptus melanophloia*	Silver Leaf Ironbark	180	N
		Total Scats	0	
		Percentage	0.00	
		East Coast (med-high) Activity Category	Low	

Appendix E

Flora list

Species Name	Common Name	Native/exotic
Asclepias curassavica	Red-headed Cotton Bush	Exotic
Asparagus aethiopicus	Ground Asparagus Fern	Exotic
Asparagus aethiopicus	Asparagus Fern	Exotic
Baccharis halimifolia	Groundsel	Exotic
Bidens pilosa	Cobbler's pegs	Exotic
Calyptocarpus vialis	Creeping Cinderella Weed	Exotic
Calystegia marginata	Forest Bindweed	Exotic
Chamaesyce hirta	Asthma Plant	Exotic
Chloris gayana	Rhodes Grass	Exotic
Cortaderia selloana	Pampas Grass	Exotic
Corymbia torelliana	Cadaghi	Exotic
Crassocephalum crepidioides	Thickhead	Exotic
Cyperus rotundus	Nutgrass	Exotic
Duranta erecta	Duranta	Exotic
Emilia sonchifolia	Emilia	Exotic
Glandularia aristigera	Maynes Pest	Exotic
Glycine clandestina	Bush Glycine	Exotic
Gomphocarpus physocarpus	Balloon Cotton Bush	Exotic
Gomphrena celosioides	Gomphrena Weed	Exotic
Heliotropium amplexicaule	Blue Heliotrope	Exotic
Hypochaeris radicata	Flatweed	Exotic
Jacaranda mimosifolia	Jacaranda	Exotic
Lantana camara	Lantana	Exotic
Lantana montevidensis	Creeping Lantana	Exotic
Leucaena leucocephala	Leucaena	Exotic
Lotus corniculatus	Birdsfoot	Exotic
Megathyrsus maximus	Guinea Grass	Exotic
Melinis repens	Red Natal Grass	Exotic
Monstera deliciosa	Monstera	Exotic
Onopordum acanthium	Scotch Thistle	Exotic
Paspalum dilatatum	Paspalum	Exotic
Passiflora suberosa	Corky Passion Vine	Exotic
Persicaria decipiens	Slender Knotweed	Exotic
Phoenix roebelenii	Dwarf Date Palm	Exotic
Phyllanthus cuscutiflorus	Pink Phylanthus	Exotic
Phytolacca octandra	Inkweed	Exotic
Senecio madagascariensis	Fireweed	Exotic
Senna pendula	Easter Cassia	Exotic
Sida cordifolia	Madeira vine	Exotic
Sida rhombifolia	Common Sida	Exotic
Sporobolus pyramidalis / S. natalensis	Giant Rat's Tail Grass	Exotic
Syagrus romanzoffiana	Cocos Palm	Exotic
Tagetes minuta	Stinking Roger	Exotic
Tipuana tipu	Racehorse Tree	Exotic
Typha latifolia	Cumbungi	Exotic
Urochloa decumbens	Signal Grass	Exotic
Yucca gigantea	Spineless Yucca	Exotic
Cynodon dactylon	Green Couch	Native

Dianella caerulea	Blue Flax Lily	Native
Dianella rara	Flax Lily	Native
Eragrostis brownii	Brown's love grass	Native
Eremophila debilis	Winter Apple	Native
Eucalyptus crebra	Narrow-leaved Ironbark	Native
Eucalyptus melanophloia	Silver-leaved Ironbark	Native
Eucalyptus tereticornis	Forest Red Gum	Native
Ficus benjamina	Weeping Fig	Native
Ficus rubiginosa	Port Jackson Fig	Native
Heteropogon contortus	Black Speargrass	Native
Imperata cylindrica	Blady Grass	Native
Jacksonia scoparia	Dogwood	Native
Juncus usitatus	Common Rush	Native
Lobelia purpurascens	Whiteroot	Native
Lomandra longifolia	Spiny-headed Matrush	Native
Melaleuca viminalis	Weeping Bottlebrush	Native
Panicum decompositum	Native Millet	Native
Parsonsia straminea	Monkey Rope	Native
Pomax umbellata	Pomax	Native
Themeda triandra	Kangaroo grass	Native
Wahlenbergia stricta	Australian Blue Bell	Native
Acacia concurrens	Black Wattle	Native
Acacia disparrima	Hickory Wattle	Native
Acacia leiocalyx	Early-flowering Black Wattle	Native
Ageratum houstonianum	Blue billygoat weed	Native
Allocasuarina littoralis	Black She-oak	Native
Alphitonia excelsa	Soap Tree	Native
Aristida calycina	Dark Wire Grass	Native
Cheilanthes distans	Bristle Cloak Fern	Native
Chrysocephalum apiculatum	Yellow Buttons	Native
Corymbia citriodora	Spotted Gum	Native
Corymbia intermedia	Pink Bloodwood	Native
Corymbia tessellaris	Moreton Bay Ash	Native
Cymbopogon refractus	Barbed Wire Grass	Native
Cyperus polystachyos	Bunchy Sedge	Native
Melaleuca bracteata	Black Tea Tree	Native