Ripley Road and Fischer Road Upgrade

Application Number: **03171** Commencement Date: **02/10/2025** Status: **Locked**

1. About the project

1.1 Project details

1.1.1 Project title *

Ripley Road and Fischer Road Upgrade

1.1.2 Project industry type *

Transport - Land

1.1.3 Project industry sub-type

Road

1.1.4 Estimated start date *

02/01/2026

1.1.4 Estimated end date *

31/12/2028

1.2 Proposed Action details

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

The Proposed Action is the construction for the widening and use of sections of two roads. BG&E Pty Limited (BG&E) & Bielby Holdings Pty Ltd (Bielby) on behalf of Ipswich City Council (ICC) seek to upgrade a 2,105 m long section of Ripley Road and a 700 m long section of Fischer Road in Ripley, south of Ipswich central business district, Queensland (the Proposed Action). The proposed upgrade of Ripley Road will consist of widening the road from just north of Monterea Road to a point 200m beyond Brooking Rise to the south east. The upgrade will increase the width of the road from a single lane in either direction to a four lane divided road, two lanes in either direction, with provision for up to six lanes in the future to accommodate traffic over the next 20 years. The proposed upgrade of Fischer Road extends from the Fischer Road / Nevis Road intersection to the Fischer Road / Monterea Road intersection plus approximately 200 m of footpath. The proposed upgrade of Fischer Road will create a two-lane, two-way, sub-arterial section of road between Nevis Road and Monterea Road.

The Proposed Action will be established over the existing Ripley Road and Fischer Road formation, adjoining road easement and freehold properties, totalling 15.04 ha (Action Area). The following land parcels are included in the Action Area.

Stage 2:

- Ripley Road and Fischer Road
- Lilium Street
- Lot 273 RP24410, 400 Ripley Road
- Lot 27 RP24410, 1 Scotts Road
- Lot 41 RP24410, 432 Ripley Road
- Lot 42 RP24410, 434 Ripley Road
- Lot 43 RP24410, 436 Ripley Road
- Lot 45 RP24410, 440 Ripley Road
- Lot 46 RP24410, 442 Ripley Road
- Lot 140 RP24410, 420 Ripley Road
- Lot 141 RP24410, 422 Ripley Road
- Lot 142 RP24410, 424 Ripley Road
- Lot 183 RP24410, 2 Clarke Street
- Lot 275 RP24410, 404 Ripley Road
- Lot 6 RP848627, 33 Jackson Court
- Lot 3 RP892012, 39 Jackson Court
- Lot 348 S3173, 433 Ripley Road
- Lot 359 S3173, 2 Jackson Court
- Lot 191 SL18, 54 Wensley Road
- Lot 600 SP265858
- Lot 800 SP265917, 13 Tuckeroo Street
- Lot 67 SP293716, 2 Rhea De Wit Drive
- Lot 68 SP293716, 1 Trevorrow Way
- Lot 801 SP308509, 35 Amber Circuit
- Lot 101 SP317384, 1 Lilium Street
- Lot 9001 SP319185, 99 Binnies Road
- Lot 91 SP343557
- Lot 91 SP343557
- Lot 91 SP343557
- Lot 1600 SP343557, 1 Binnies Road
- Lot 912 SP346159
- Lot 1 SP352294

Stage 3:

- Fischer Road

- Lot 178 SP141675, Lot 178 Fischer Road
- Lot 173 SP197412, 226 Fischer Road
- Lot 174 SP197412, 240 Fischer Road
- Lot 175 SP197412, 246 Fischer Road
- Lot 176 SP197412, 214 Fischer Road

The location of the proposed action is shown on the maps in Att A Locality Map.

The proposed action is anticipated to start construction in January 2026 and forms Stage 2 and 3 of three distinct stages that constitute the wider Ripley Road and Fischer Road upgrade project. The proposed action (Stage 2 and 3 of the wider project) is anticipated to be constructed within 36 months (subject to detailed design, weather and other external factors). The wider project is anticipated to be completed by December 2028.

Ripley Valley was declared an Urban Development Area by the State Government in October 2010 and transitioned to a priority development area (PDA) in 2013. The PDA is expected to ultimately house 131,000 people within approximately 48,750 dwellings. New infrastructure, including arterial and sub arterial roads, regional bikeways and open spaces are required to support the population growth in the area. This PDA is one of the largest urban growth areas in South East Queensland, with 649 new dwellings being added in 2025. Ripley Road and Fischer Road are key arterial roads to sustain the development and population growth of the area. Ripley Road is an essential transport corridor as it connects the Cunningham Highway in the north to the Centenary Highway in the south. Fischer Road connects Ripley Road to Flinders View and the Swanbank Industrial Area to the east. ICC have identified that the continued growth and development of the area surrounding Ripley Road and Fischer Road is expected to exceed the transport network’s capacity and safety of its users.

The development and construction of the Proposed Action will include the following, subject to detailed design.

Stage 2:

- Widening of existing Ripley Road to four lanes (two each way)
- New drainage system consisting of reinforced concrete box culvert (RCBC) to convey stormwater from Satterly retention basin to Scotts Park drainage easement, crossing Ripley Road south of McHales Basin
- Replacement of existing culvert near Jackson Court with new major RCBC which includes provisions for fish passage
- New continuous active transport facilities including a 1.5 m pedestrian path and 2.5 m cycle path
- New bus stops
- New signalised intersection at Monterea Road - including stub for future development
- New service roads to existing residential areas to limit direct access to Ripley Road
- New signalised intersection at Scotts Road - including stub for future development
- New signalised intersection at Fischer Road
- New retaining wall at Monterea Road service road
- Upgrade of existing Parkview Parade intersection to include dedicated right turn
- Public utility plant relocations to facilitate road works
- New feature landscaping
- Works to accommodate access to adjacent private properties.

Stage 3:

- Straightening of Fischer Road maintaining current two lane (one each way) arrangement
- New continuous active transport facilities including a 3.0 m shared path with raised crossings
- 100 m long retaining wall north of Nevis Street to reduce project footprint
- Replacement of existing culvert near Nevis Road with new major RCBC
- Public utility plant relocations to facilitate road works

- New feature landscaping
- Works to accommodate access to adjacent private properties.

Plans of the works involved, including alignment and cross sections, are provided in Att B Proposed Action Plans.

The activities for the Proposed Action that may have a direct or indirect impact on the environment include:

- Demolition works including removal of existing kerb and channel, footpaths and signage
- Construction work adjacent to native vegetation
- Clearing areas of vegetation
- Earthworks to achieve required road footprint areas and grade
- Works within or impacting on drainage lines.
- Widening of the constructed area of Ripley Road from one to two lanes in both direction
- Upgrading Fischer Road
- Drainage works including modification and installation of culverts and other stormwater management infrastructure
- Installation of green waterway and fish passage devices.

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

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

No

1.2.4 Related referral(s)

EPBC Number	Project Title
2025/10309	Ripley Road and Fischer Road Upgrade

1.2.5 Provide information about the staged development (or relevant larger project).

The Proposed Action forms Stages 2 and 3 of the wider Ripley Road and Fischer Road upgrade project which encompasses 17.93 ha in total. Stage 2 has an area of 12.84 ha and Stage 3 has an area of 2.20 ha. A referral was lodged for Stage 1 on 25/09/2025 (EPBC 2025/10309) and approval for a split referral requested. Stage 1 was referred separately as the works involved in that stage of the wider project are not considered likely to have a significant impact on matters of national environmental significance (MNES). Stages 2 and 3 are being referred together as MNES were identified within the project footprint of each stage and potential impacts are best considered holistically.

The wider project incorporates three stages, each to be constructed independently of each other.

The proposed stages of the wider project are:

- Stage 1 –EPBC Referral 2025/10309 - Ripley Road upgrade from Cunningham Highway interchange to 50 m north of Ripley Road / Monterea Road intersection (840 m)
- Stage 2 – the proposed action - Ripley Road widening to a four-lane, two-way divided road from Ripley Road / Monterea Road intersection to a point 200 m beyond Brooking Rise (2,105 m)
- Stage 3 – the proposed action - Fischer Road upgrade from Ripley Road / Fischer Road intersection to Fischer Road / Monterea Road intersection plus approximately 200 m of footpath, to create a two-lane, two-way, sub-arterial section of road between Nevis Road and Monterea Road (700 m).

The location of the stages comprising the wider action is shown on the maps in Att C Wider Project Location and Staging.

Ripley Road and Fischer Road are essential transport corridors within the Ripley Valley PDA. They connect the Cunningham Highway in the north to the Centenary Highway in the south and the Swanbank Industrial Area to the east. The upgrade of these roads is part of a strategic intent to manage traffic flows within the PDA over the next 20 years. Works will be conducted progressively with Stage 1 identified as an immediate priority to managing traffic flows at the northern end of Ripley Road. Land to the east and west of Ripley Road has been developed for residential purposes, or is in the process of development/approvals, placing significant pressure on the local road network. Development pressure is progressing to the south east, increasing the demand for road network upgrades south along Ripley Road and along Fischer Road.

Each stage of the wider project is being completed by ICC and each has been structured so it can be delivered as a standalone package of work determined by funding and construction capacity. The stages are spatially connected but none is dependent upon an adjacent stage for functionality or constructability. All stages are subject to the same approvals pathway.

The wider project is strategically funded through two complementary, but different mechanisms designed to unlock growth, accelerate housing delivery, and support our community’s future needs.

Stages 2 and 3 have been awarded grant funding under the State Government’s Residential Activation Fund (RAF) - a competitive program designed to tackle Queensland’s housing crisis by removing infrastructure barriers to residential development. This significant investment allows council to deliver essential trunk infrastructure that will service future neighbourhoods, create capacity for thousands of new homes, and provide certainty for developers and the community.

Stage 1 is funded through a Catalyst Loan provided by Economic Development Queensland (EDQ). This type of funding is specifically targeted at bringing forward the construction of critical “catalyst” infrastructure within the PDA. By delivering this infrastructure early, Council is helping to unlock development potential sooner, enabling the timely and coordinated delivery of new housing and supporting the state’s growth and economic priorities.

Staging of the wider project provides Council with the flexibility to move ahead with construction of Stage 1 and bring forward housing supply without waiting for future funding or design processes to be finalised. This independent staging approach reduces risk, avoids delays, and ensures the community begins to see the benefits of investment as soon as possible.

Relevant considerations when determining whether splitting a project will reduce the ability to achieve the objectives of the EPBC Act are outlined in the Policy Statement Staged Developments—Split referrals: Section 74A of the EPBC Act and include the following matters.

- Can the impacts of Part 3 matters only be assessed through the consideration of a larger action?

Part 3 matters identified as relevant to the wider project include threatened species, koala (*Phascolarctos cinereus*) and grey-headed flying-fox (*Pteropus poliocephalus*). The potential for the occurrence of MNES across the wider project area was considered in a Terrestrial Ecological Assessment Report (TEAR; SLR 2025) provided in Att D Terrestrial Ecological Assessment Report. Grey-headed flying-fox was recorded within the Stage 2 and Stage 3 action areas. It was concluded (Att D Terrestrial Ecological Assessment Report, Section 4.3, Table 4-11) that there is a high likelihood of koala occurring within the Stage 2 and 3 action areas.

Field assessments confirmed there is no potential habitat for grey-headed flying-fox or koala within the Stage 1 action area due to the absence of vegetation meeting habitat criteria (Att D Terrestrial Ecological Assessment Report, Section 7, Tables 4-1 to 4-3 which identify vegetation communities within the wider project area). Additional field assessment was completed for land adjacent the Stage 1 action area, to assess vegetation type and condition and to establish wider habitat context for the Stage 1 proposed action. That assessment also reviewed potential fauna movement corridor locations across the wider proposed action area for suitability for use by koalas. These assessments determined the adjoining areas provided limited poor quality dispersal habitat for koala and limited individual trees that may provide foraging habitat for grey-headed flying-fox (Att E TEAR Addendum, Section 3, Tables 1 to 5). This habitat will not be directly or indirectly impacted by the Stage 1 works due to the separation from the proposed works. The potential for koala to use general fauna movement corridors is considered in this Stage 2 and Stage 3 referral.

Att D Terrestrial Ecological Assessment Report, Section 7, Figure 7-3 identifies suitable habitat for koala within the wider project area, although none is present with the Stage 1 action area.

No impacts on Part 3 matters are expected to occur as a result of the development of Stage 1 of the wider project. All relevant habitats and impacts on Part 3 matters are associated with the development of Stages 2 and 3 of the wider project (the Proposed Action). The ability to adequately assess impacts on koala and grey-headed flying-fox does not alter as a consequence of considering Stage 1 in isolation or by considering Stages 2 and 3 combined and the intent of the EPBC Act in this regard is achieved.

- Will the referral of a series of single actions result in the larger action being effectively taken without the need for an approval?

Grey-headed flying-fox was identified within the Stage 2 and Stage 3 action areas. Assessment of habitats on site and records in the locality indicate that there is a high likelihood of koala occurring within the Stage 2 and 3 action areas (Att D Terrestrial Ecological Assessment Report, Section 4.3, Table 4-11). Stages 2 and 3 (the proposed action) will impact the habitat critical to the survival of grey-headed flying-fox and koala and those impacts are considered in this referral. Consideration of this referral separately to the Stage 1 referral will not result in any components of the wider action being undertaken without approval. There are no additional works beyond the Stage 1 and Stages 2 and 3 referrals.

The objectives of the EPBC Act will not be undermined by the consideration of Stage 1 works independently of Stages 2 and 3.

- Is it preferable to assess and approve the larger action as a whole?

An assessment of the significance of impacts on MNES was undertaken in the TEAR (Att D Terrestrial Ecology Assessment Report, Section 7) which concluded that Stage 1 works were unlikely to have a significant impact on koala and grey-headed flying-fox or other MNES and did not contain habitat critical to the survival of MNES species or communities.

Stage 2 and Stage 3 will potentially impact MNES and are being considered together to ensure a full assessment of the cumulative impacts of these stages is undertaken. The ability to assess impacts resulting from the wider project will not be impeded by the assessment of Stage 1 separately, as no impacts to MNES are associated with those works.

The road upgrades are part of a strategic management intent to deliver a suitable road network within the PDA. The works proposed will be required in the short term (next two to three years) and it is unlikely that the wider project design or impacts will change over the course of the project due to the short timeframe involved. Given that no impacts are associated with Stage 1 works, and the assessment process for Stage 2 and Stage 3 is proceeding as a priority, it is considered the assessment of all three stages together is not considered necessary to achieve the intent of the EPBC Act.

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 following legislation, planning frameworks and policies are considered relevant to the proposed action including:

1. Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) – the EPBC Act provides a legal framework to protect and manage unique plants, animals, habitats and places – called 'protected matters'. Ecological surveys undertaken within the proposed action area (Att D Terrestrial Ecological Assessment Report, Section 4.3, Table 4-11) have confirmed the presence of one protected matter, the grey-headed flying-fox *(Pteropus poliocephalus).* An additional protected matter, the koala *(Phascolarctos cinereus*), has been identified as highly likely to occur within the Proposed Action area, although not confirmed. No other protected matters are considered relevant to the proposed action.
2. Queensland *Economic Development Act 2012* (ED Act) – the Ripley Valley PDA Development Scheme commenced on 8 October 2011 and has been administered under the ED Act since 2013. The main purpose of the ED Act is to facilitate economic development, and development for community purposes, the provision of diverse housing, and provision for commercial and industrial uses. PDA related development is exempt development for the purposes of the Queensland *Planning Act 2016,* and no development approval is required for the proposed road upgrade works.
3. *Nature Conservation Act 1992* (NC Act)– the NC Act provides the framework for the declaration and management of protected areas, and protection of wildlife listed under the Nature Conservation (Plants) Regulation 2020 or Nature Conservation (Animals) Regulation 2020. All native flora and fauna species are protected under the NC Act and permits 'to take' protected wildlife are required from the Department of Environment, Tourism, Science and Innovation (DETSI) and in order to collect specimens of, or otherwise interfere with, native wildlife. An approved species management program is required to interfere with the breeding place of protected wildlife, however koala is exempt from this requirement. Koala clearing guidance is intended to manage impacts on breeding koalas. There is no flying-fox camp within the Proposed Action area.
4. *Vegetation Management Act 1999* (VM Act) - the VM Act and its subordinate regulation (Vegetation Management Regulation 2023) are part of the Queensland vegetation management framework and, in conjunction with the *Planning Act 2016*, seeks to regulate the clearing of vegetation to prevent land degradation, prevent the loss of biodiversity and maintain ecological processes. Vegetation across Queensland has been mapped to identify regulated vegetation, which helps determine what can be cleared. This identifies vegetation as category A (offset areas and other areas set aside for management that can't be cleared), category B (remnant vegetation), category C (high value regrowth), category R (reef regrowth watercourse vegetation) and category X (generally exempt clearing). Field surveys confirmed 2.158 ha of category B vegetation within the Stages 2 and 3 action area and 0.121 ha of high value regrowth adjacent to Stage
5. *Biosecurity Act 2014* (the Biosecurity Act) – the Biosecurity Act ensures a consistent, modern, risk-based and less prescriptive approach to biosecurity in Queensland. Under the Biosecurity Act, there are three types of invasive plant species including prohibited invasive plants, restricted invasive plants, and invasive plants. Everyone has a general biosecurity obligation to manage risks on land associated with introduced species. This is in addition to requirements to manage restricted species under the Biosecurity Act.

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. *

Public consultation was undertaken for the wider project between 23 January 2024 and 23 January 2025, Project information was viewed 2,619 times and 15 submissions were received. Key issues raised by the community were:

Ripley Road:

- 54% prioritised traffic management, road safety, and alternative travel solutions.
- 38% highlighted accessibility improvements.
- •additional suggestions included tree planting and improving the Cunningham Highway offramp (not within Council scope).

Fischer Road:

- 46% prioritised alternative travel solutions.
- 38% focused on traffic management; 31% on accessibility.
- other feedback included the need for a bridge to prevent flooding and more greenery.

Themes from general feedback:

1. Public and active transport – requests for protected bike/bus lanes, safe pathways, and improved walkability.
2. Safety – concerns about current road conditions and traffic speeds.
3. Communication – desire for more project updates and engagement opportunities.

Whilst the feedback for that round of engagement has closed and received a limited number of responses, Council is continually seeking feedback and engagement through its Shape Your Ipswich page. Throughout the duration of the project Council and Bielby have a number of community engagement sessions to ensure the community is aware of the project and can voice any concerns directly to the project team.

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.

Personal information may be disclosed to other Australian government agencies, persons or organisations where necessary for the above purposes, provided the disclosure is consistent with relevant laws, in particular the Privacy Act 1988 (Privacy Act). Your personal information will be used and stored in accordance with the Australian Privacy Principles.

See our Privacy Policy to learn more about accessing or correcting personal information or making a complaint.

Alternatively, email us at privacy@dcceew.gov.au.

☑ **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	29001584612
Organisation name	SLR CONSULTING AUSTRALIA PTY LTD
Organisation address	2060 NSW

Referring party details

Name	Leigh Knight
Job title	Principal Consultant - Ecology and Biodiversity
Phone	07 3858 4800
Email	leigh.knight@slrconsulting.com
Address	Level 16/175 Eagle St, Brisbane City QLD 4000

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	61461981077
Organisation name	IPSWICH CITY COUNCIL
Organisation address	4305 QLD

Person proposing to take the action details

Name	Jason Messado
Job title	Senior Project Manager - Ripley Road and Fischer Road Project
Phone	07 3810 7255
Email	jason.messado@ipswich.qld.gov.au
Address	1 Nicholas Street, Ipswich QLD 4305

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. *

ICC manages land within its jurisdiction and associated biodiversity values in accordance with relevant legislative and policy documents. It enforces the environmental protection objectives of the *Planning Act 2016* as required and has recently amended its local planning scheme to incorporate provisions specific to biodiversity. Council has acquired large areas of land for biodiversity conservation with a focus on the protection of habitats for koala within the LGA. Council has been involved in one matter involving the clearing of vegetation within a threatened ecological community listed under the EPBC Act (reference CAS4093). That matter was responded to by ICC and has been resolved.

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

Council operates under an extensive environmental management framework which includes the following documents (Att F ICC Environmental framework documents):

- Natural Environment Policy (and underpinning Natural Environment Strategy)
- Environmental Protection Policy
- Environmental Offsets Policy
- Ipswich City Council Planning Scheme which includes planning scheme policies relating to conservation of biodiversity, assessment and offsets).

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	61461981077
Organisation name	IPSWICH CITY COUNCIL
Organisation address	4305 QLD

Proposed designated proponent details

Name	Jason Messado
Job title	Senior Project Manager - Ripley Road and Fischer Road Project
Phone	07 3810 7255
Email	jason.messado@ipswich.qld.gov.au
Address	1 Nicholas Street, Ipswich QLD 4305

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	29001584612
Organisation name	SLR CONSULTING AUSTRALIA PTY LTD
Organisation address	2060 NSW
Representative's name	Leigh Knight
Representative's job title	Principal Consultant - Ecology and Biodiversity
Phone	07 3858 4800
Email	leigh.knight@slrconsulting.com
Address	Level 16/175 Eagle St, Brisbane City QLD 4000

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	61461981077
Organisation name	IPSWICH CITY COUNCIL
Organisation address	4305 QLD
Representative's name	Jason Messado
Representative's job title	Senior Project Manager - Ripley Road and Fischer Road Project
Phone	07 3810 7255
Email	jason.messado@ipswich.qld.gov.au
Address	1 Nicholas Street, Ipswich QLD 4305

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? *

Third party

1.4.12 Is the third party an organisation? *

Yes

1.4.13 Do they have an existing ABN or ACN? *

Yes

1.4.14 ABN/ACN *

67150804603

1.4.16 Organisation name *

BG&E PTY LIMITED

1.4.17 Organisation's primary address *

NSW 2000

1.4.18 First name *

Nathan

1.4.19 Last name *

Ford

1.4.20 Job title *

Senior Engineer - Transport

1.4.21 Phone *

+61 7 3167 3364

1.4.22 Email *

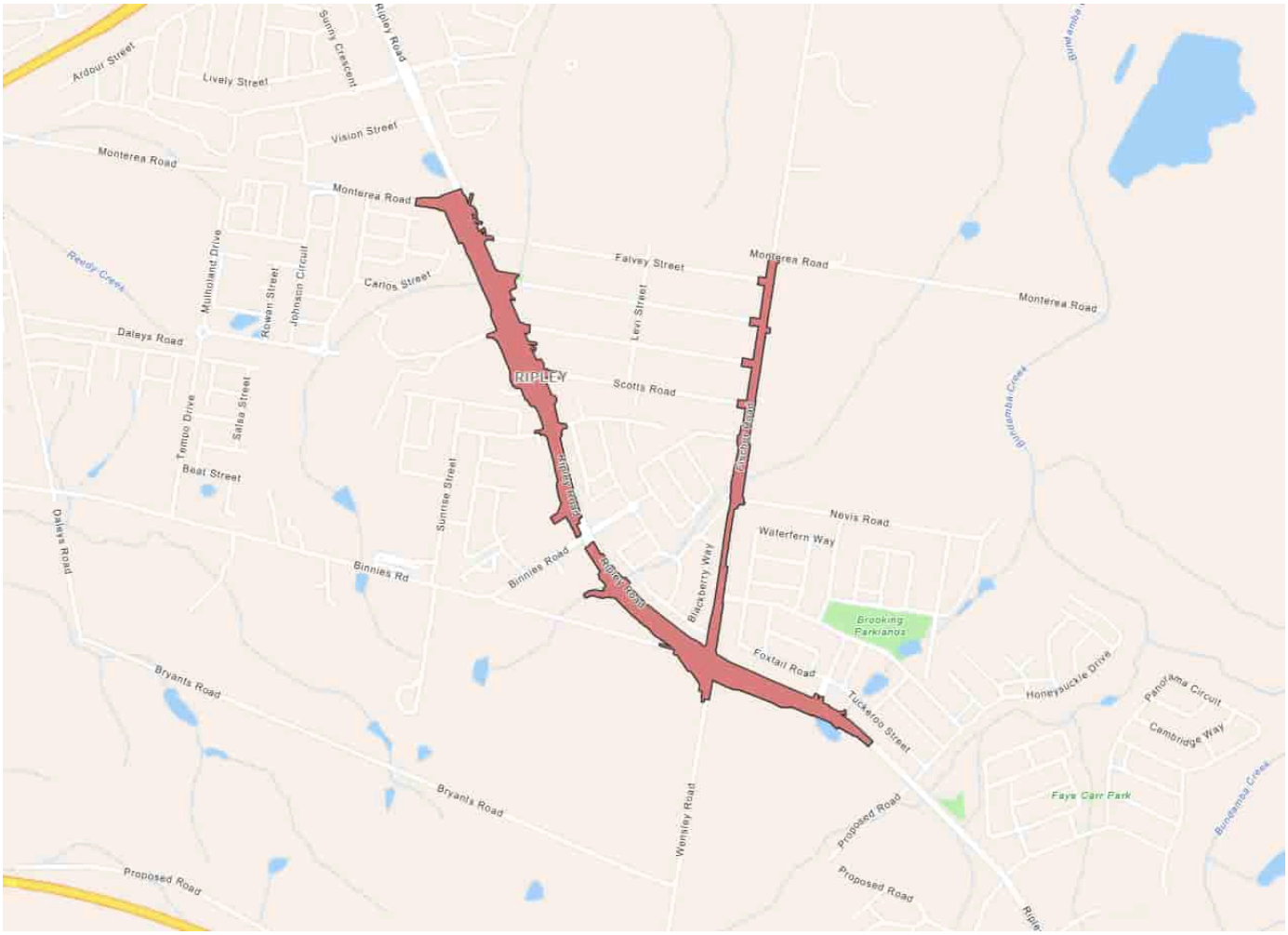
nathan.ford@bgeeng.com

1.4.23 Address *

Level 5, 180 Ann Street, Brisbane Qld 4000, Australia

2. Location

2.1 Project footprint



Project Area: 15.04 Ha **Disturbance Footprint:** 15.04 Ha

2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Ripley Road, Ripley, Queensland, 4306 and Fischer Road, 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 tenure within the Proposed Action area is predominately road parcel with some land designated as freehold and the remainder as easement tenure.

3. Existing environment

3.1 Physical description

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

The proposed action (Stage 2 and 3) involves approximately 2,105 m of Ripley Road and adjacent land and 700 m of Fischer Road and adjacent land located within the suburb of Ripley in the ICC LGA. The proposed action area is approximately 15.04 ha and lies primarily within existing road parcel but also incorporates freehold and easement tenures.

1. Ripley Valley was declared an urban development area by the state government in October 2010 and transitioned to a PDA in 2013. The proposed action does not require planning approval or rezoning. The PDA is expected to ultimately house 131,000 people within approximately 48,750 dwellings. Ripley Road and Fischer Road are key transport routes within the PDA and provide access to urban core, secondary urban centre and general residential neighbourhoods. Land either side of the proposed action area has been extensively developed for residential land uses and associated facilities. Land within the proposed action area is occupied primarily by Ripley Road and Fischer Road as well as adjoining drainage, traffic and pedestrian infrastructure and has been extensively cleared with some remaining patches of remnant and regrowth native vegetation.
2. The TEAR (Att D Terrestrial Ecological Assessment Report, Section 7.1) identified habitat within the proposed action area for two MNES species, koala and grey-headed flying-fox. The proposed action area contains 3.334 ha of suitable koala habitat (2.278 ha of foraging/breeding habitat and 1.0568 ha of dispersal habitat). Mapped dispersal habitat for koalas included areas containing suitable refuge trees and open areas that may be utilised by koala when moving between patches of habitat. Mapped koala breeding and foraging habitat corresponds to the 2.278 ha of grey-headed flying fox foraging habitat.
3. The TEAR identified potential fauna movement corridors in the landscape surrounding the proposed action area (Att D Terrestrial Ecological Assessment Report, Section 5-2, Figure 5-1B). The TEAR Addendum report (Att E TEAR Addendum, Section 3, Tables 6 and Table 7) further investigated these potential corridors and noted that although they may be used by koala due to the highly fragmented environment and lack of preferrable options, use of the corridors in their current state would expose koalas to threats such as vehicle strike (required to cross the existing two lane Ripley and Fischer Road) and dog attack (traversing through urban areas and along waterway corridors that adjoin urban areas).

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

The Proposed Action area is currently used for transport infrastructure servicing community uses such as parks and residential uses. The use will not change as a result of the Proposed Action.

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

The proposed action is situated within existing road, degraded road verges and remnant and regrowth eucalypt woodland (Att D Terrestrial Ecological Assessment Report, Section 4.1.1, Table 4-1 to Table 4-3). The proposed action area contains 3.334 ha of suitable koala habitat (2.278 ha of foraging/breeding habitat and 1.0568 ha of dispersal habitat) and 2.278 ha of grey-headed flying-fox foraging habitat.

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

Elevation within the proposed action area ranges from 45 to 65 m in elevation and the overarching project area ranges from 45 to 70 m above sea level. The proposed action area generally slopes towards two drainage lines, through Scotts Park on the northern end of the proposed action area and a drainage line that intersects Sable Street on the southern end of the proposed action area.

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.

An assessment of potential presence of MNES was completed (Att D Terrestrial Ecological Assessment Report, Section 5.1). This report assessed the environmental values present across the overall project area, as informed by desktop assessment and detailed flora and fauna surveys. The overall project area was revised several times following consultation between the Environmental Consultant (SLR), BG&E, Bielby and the Proponent (ICC). Revisions to the project area took into consideration options to minimise impacts on identified MNES, other environmental matters and planning and engineering factors.

Survey effort

Field surveys were conducted over three days between 26-28 May 2025 by two SLR Senior Ecologists (Att D Terrestrial Ecological Assessment Report, Section 2.2). An additional one-day survey was conducted within areas adjacent to the overarching project area on 16 September 2025 (Att E TEAR Addendum). The field surveys aimed to verify the extent and composition of vegetation communities and habitats within the overall project area and included targeted surveys for conservation significant flora, fauna and ecological communities likely to be present.

Flora

The assessment concluded that the proposed action will clear 2.158 ha of remnant vegetation and 0.121 ha of regrowth vegetation (Att D Terrestrial Ecological Assessment Report, Section 4.1.1, Figure 4-1). The assessment concluded that there are no MNES flora species known or highly likely to occur within the proposed action area (Att D Terrestrial Ecological Assessment Report, Section 5.1.1.3). Field surveys identified Regional Ecosystem (RE) 12.3.3, a component RE of the Subtropical Eucalypt Floodplain Forest and Woodland of New South Wales North Coast and South East Queensland Bioregions Threatened Ecological Community (TEC) within the proposed action area. Surveys did not detect any patches of RE 12.3.3 that met the key diagnostics criteria and minimum condition threshold of the TEC. There were no other vegetation communities associated with TECs recorded within the overarching project area (Att D Terrestrial Ecological Assessment Report, Section 4.1.3).

Fauna

The desktop assessment identified threatened and migratory species with a moderate or high likelihood of occurring within the wider action area (Att D Terrestrial Ecological Assessment Report Appendix B). Field surveys conducted between 26-28 May 2025 included habitat assessments and targeted surveys for these species within the overarching project area. The proposed action area contains four broad categories of fauna habitat, artificial wetlands and/or drainage lines, non-remnant cleared areas, non-remnant drainage lines and eucalypt open woodland.

Grey-headed flying-fox (listed as Vulnerable under the EPBC Act) was confirmed present foraging in vegetation within the proposed action area. Koala (listed as Endangered under the EPBC Act) was considered highly likely to occur within the proposed action area on the basis of suitable habitat and records present within the study area (5 km buffer around the overarching project area). The habitats for both these species are considered to comprise the same vegetation for the purposes of habitat assessment and mapping. The proposed action area contains 2.278 ha of suitable koala foraging/breeding and 1.057 ha of koala dispersal habitat and 2.278 ha of grey-headed flying-fox foraging habitat (Att D Terrestrial Ecological Assessment Report, Section 7.1 and Figure 7-3).

The TEAR identified potential fauna movement corridors in the landscape surrounding the proposed action area (Att D Terrestrial Ecological Assessment Report, Section 5-2, Figure 5-1B). The TEAR Addendum report (Att E TEAR Addendum, Section 3, Tables 6 and Table 7) further investigated these potential fauna movement corridors and noted that although they may be used by koala, use of the corridors would expose koalas to threats such as vehicle strike (when crossing the existing roads, as there is limited dry passage connectivity through existing low-lying wet culverts) and dog attack (when traversing through urban environments).

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

The proposed action area is within a moderately disturbed environment where vegetation has historically been cleared for the existing road network, and residential and commercial development. The overall project area intersects patches of field verified remnant and regrowth vegetation (Att D Terrestrial Ecological Assessment Report, Section 4.1.1 and Figure 4-1), including REs:

- 12.9-10.2: *Corymbia [Blakella] citriodora* subsp. *variegata* +/- *Eucalyptus crebra* open forest on sedimentary rocks
- 12.9-10.7: *Eucalyptus crebra* +/- *E. tereticornis, Corymbia [Blakella] tessellaris, Angophora* spp. and *E. melanophloia* woodland on sedimentary rocks
- 12.3.3: *Eucalyptus tereticornis* woodland on quaternary alluvium.

RE 12.3.3 is a component RE of the EPBC Act listed TEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (endangered) (Threatened Species Scientific Committee 2021). Field surveys confirmed the patch of regrowth RE 12.3.3 within the proposed action area did not meet the diagnostic criteria and the minimum condition thresholds to be considered a TEC.

The balance of the wider project area (Stage 1) does not contain any remnant or regrowth vegetation.

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.

Searches of the Australian Heritage Database and Queensland Heritage Register indicate that there are no national or state heritage listings within the Proposed Action area.

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

No indigenous cultural heritage areas are identified on the PDA Development Scheme values mapping.

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 Proposed Action area is located within the Bundamba Creek catchment. The Proposed Action area and wider project area crosses several small ephemeral drainage channels which are unnamed tributaries of Bundamba Creek and are typically dry throughout most of the year. Runoff flows generally in an easterly direction.

Minor watercourses (consisting of unnamed tributaries) that intersect the Proposed Action area are shown on Att A Locality Map. These tributaries join other tributaries to the north east and eventually join Bundamba Creek 2-3 km downstream. The catchment area upstream of Ripley Road is approximately 160 ha, consisting predominantly of urban development which has occurred in the last five years and is ongoing. Detention basins associated with existing urban development are located adjacent to and upstream of the road alignment in the proposed action area and wider project area. These detention basins are located South of Monterea Road (McHales basin), south of Lilium Street and north of Jackson Court. These basins temporarily detain water after rainfall events and control flows downstream of Ripley Road.

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
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. *

The Proposed Action area is not located in proximity to any World Heritage properties (Att D Terrestrial Ecological Assessment Report, Section 3.1, Table 3-1), therefore the action is unlikely to have a direct and/or indirect impact.

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. *

There are no National Heritage places within or in proximity to the project area (Att D Terrestrial Ecological Assessment Report, Section 3.1, Table 3-1), therefore the action is unlikely to have a direct and/or indirect impact.

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. *

The Project is located 30-40 km upstream from the Moreton Bay RAMSAR wetlands (Att D Terrestrial Ecological Assessment Report, Section 3.1, Table 3-1). The Project does not take water nor discharge water that will impact the downstream catchment. In addition, the project will not affect the hydrology of the catchment. There are no considered direct or indirect impacts to the Moreton Bay RAMSAR wetlands.

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	
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

Direct impact	Indirect impact	Species	Common name
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	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	Yes	Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)
No	No	Planchonella eerwah	Shiny-leaved Condoo, Black Plum, Wild Apple
No	No	Potorous tridactylus tridactylus	Long-nosed Potoroo (northern)
Yes	Yes	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	Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland
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 potential for the occurrence of MNES across the proposed action area is presented in Att D Terrestrial Ecological Assessment Report, Section 4.3, Table 4-11. Grey-headed flying-fox was recorded within the Stage 2 and Stage 3 proposed action areas. It was also concluded that there is a high likelihood of koala occurring within the Stage 2 and 3 proposed action areas. For mapping purposes foraging habitat for grey-headed flying-fox and koala (potential foraging and breeding habitat) are considered to be the same and is shown on maps in Att D Terrestrial Ecological Assessment Report, Section 7, Figure 7-3. Potential dispersal habitat for koala is also shown on this map (in Att D Terrestrial Ecological Assessment Report, Section 7, Figure 7-3). Some breeding/foraging and dispersal habitat for both species will be cleared to allow construction of the proposed road works and will have a direct impact on habitat for threatened species.

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 (significant impact likely)

No individuals or evidence of presence of koala was observed during targeted koala surveys within the proposed action area. However, numerous records of koala occur within the wider locality (Att D Terrestrial Ecological Assessment Report, Section 7.1.2 and Figure 7-2). Recent records within the study area for the TEAR include records between 2015 and 2025, with older records also shown for context. Queensland government mapped core koala habitat area occurs within the proposed action area (Att D Terrestrial Ecological Assessment Report, Section 7-2 and Figure 7-3).

Suitable koala habitat trees, including locally important koala trees (LIKT) *Eucalyptus tereticornis, Eucalyptus crebra* and *Corymbia citriodora* and ancillary koala habitat trees *Corymbia intermedia* (Youngentob et al., 2021) were abundant throughout the proposed action area and could provide suitable breeding and foraging habitat for koala. The limited evidence of koala within the project area could indicate that if koalas remain within the broader region, any individuals would most likely be using the area in a transient nature. However, the project site does contain suitable foraging and possible breeding habitat in the remnant areas (2.278 ha) of the project and 1.0568 ha of dispersal habitat between these remnant areas (Att D Terrestrial Ecological Assessment Report, Figure 7-3). One property was unable to be accessed and as such surveys were conducted from the road verge, based on the observations from the edge of the patch the vegetation appears to be consistent with koala breeding and foraging habitat and has been mapped as such.

The conservation advice for koala (DAWE 2022) identifies koala habitat as areas with resources for koala including:

- forests or woodlands
- roadside and rail vegetation and paddock trees
- safe intervening ground matrix for travelling between trees and patches to forage, shelter and reproduce
- access to vegetated corridors or paddock trees to facilitate movement between patches.

Connectivity between habitat patches does not require continuity of vegetation, as koalas can move large distances on the ground. The ground itself forms an essential component of koala habitat (Youngentob, Marsh and Skewes, 2021).

Based on the above defining factors and the distribution of records across the wider landscape, potential biodiversity corridors providing for the movement of fauna, including koala, were identified (Att D Terrestrial Ecological Assessment Report, Figure 5-1). Detailed inspection of these potential corridors (Att E TEAR Addendum, Section 3, Table 6 and Table 7) indicated that most of these provided unsafe passage for koala. One corridor that crosses Ripley Road was considered as providing a potential movement corridor for koala. This aligns with the current vegetated corridor provided within the residential development to the north east of the Monterea Road-Ripley Road intersection (Hayfields EPBC 2017/8095) and the roadside areas and electricity easement to the south east. Review of the detailed designs of the Hayfields EPBC 2017/8095 development have identified this vegetated corridor will be maintained.

A formal impact assessment against the MNES Significant Impact Guidelines 1.1 was completed for koala (Att D Terrestrial Ecological Assessment Report, Table 7 2). This concluded that the proposed action is likely to have a significant impact on koala for the following reasons:

- The project area is located within a regional corridor for fauna movement and records on adjacent land suggest that koala move between this area and another fauna corridor to the east. The duplication of the road will increase the distance individuals must travel to move between local habitat areas. Investigation of options for koala crossing infrastructure on Ripley Road concluded that this is not possible given the topographical, spatial and engineering constraints of the action and the action area. Increased traffic due to urban development and a wider crossing distance for koala on

Ripley Road will likely result in an increase in vehicle strike risk which would lead to a long term decrease in the population.

- The proposed action will clear up to 3.334 ha of potential foraging, breeding and dispersal habitat considered habitat critical to the survival of koala. The majority of the vegetation within the project area will be removed and while no signs of koala were recorded there is a high likelihood of the species occurring. The proposed works are likely to reduce the local area of occupancy of the koala population. This will be exacerbated by impacts on movement of individuals.
- The action area provides a source of food trees and shelter for koalas and the proposed action will have an adverse effect on up to 3.334 ha of habitat resources considered critical to the survival of the species (2.278 ha of foraging and potential breeding habitat and 1.056 ha of dispersal areas containing refuge trees). Some low grade dispersal habitat occurs within the project footprint, however, this is degraded without suitable refuge trees and this habitat's ecological function will not be impacted by the proposed action.
- The proposed action is likely to increase the fragmentation of the landscape, by widening Ripley Road and hindering koala movement. The update to Fischer Road (Stage 3) will have minimal effects to fragmentation. Overall, the proposed clearing and subsequent road works are likely to fragment koala populations in the area.
- The action area provides limited potential breeding habitat, however the works propose to widen the road significantly which is likely to fragment the landscape, reduce potential breeding habitat by up to 2.278 ha, impact breeding movements of individuals and dispersal of sub-adults. The action occurs within a highly disturbed environment, surrounded by urban development and alongside existing roads and the project area is considered likely to support low quality breeding habitat only. It is concluded that the action will likely disrupt a breeding population.
- Approximately, 3.334 ha of suitable koala foraging, breeding and dispersal habitat is proposed to be cleared and while not observed, the project will likely increase fragmentation of habitats and impede movement of individuals, potentially resulting in increased vehicle strike and koala mortality. This is likely to be significant at a local scale and likely to cause substantial interference with the species recovery.

Grey-headed flying-fox (significant impact unlikely)

Grey-headed flying-fox was observed foraging on flowering eucalypts during the field survey. The project area contains approximately 2.278 ha of foraging habitat for the grey-headed flying-fox (including 2.158 ha of mapped remnant vegetation and 0.121 ha of regrowth vegetation).

The National recovery plan for the grey-headed flying-fox (DEW 2021) defines habitat critical to the survival of the species and inlcudes areas containing important winter and spring flowering vegetation (including *Eucalyptus tereticornis, E. crebra, Corymbia citriodora citriodora* and *C. intermedia* which were recorded during survey). It also includes:

- areas which contain important foraging habitat during late gestation, birth, lactation, and conception
- areas which contain native foraging species within 20 km of a nationally important camp as identified on the national flying-fox monitoring viewer (DCCEEW, 2025a)
- areas of native and/or exotic species used for roosting at nationally important grey-headed flying-fox camps identified on the national flying-fox monitoring viewer (DCCEEW, 2025a).

The current design may remove up to 2.278 ha of potential habitat critical for the survival of the grey-headed flying-fox. This includes important winter and spring flowering vegetation and represents 0.08% of suitable mapped remnant and regrowth vegetation within the study area (5 km from the project footprint). To avoid overestimating available habitat, recently cleared areas were excluded by cross-checking the vegetation mapping against current aerial imagery. This identified approximately 2,818 ha of potential grey-headed flying-fox habitat within the study area (based on the presence of REs known to contain the species

identified above and proximity to known camps). Grey-headed flying-fox habitat has been mapped using the foraging and breeding habitat criteria for koala and the extent of grey-headed flying-fox habitat aligns with koala breeding and foraging habitat mapped in Att D Terrestrial Ecological Assessment Report, Figure 7-3.

An important population of grey-headed flying-fox does not occur within the project area, as there are no known camps within the project area, it is a highly mobile species, ranging up to 50 km a night from camps, and the project area is not at the limit of the species' range. It is likely however, that the foraging habitat identified within the project area is used by individuals from the local Yamanto camp (approximately 2.5 km from the project area) and the nationally significant camp located at Inala (approximately 20 km from the project area) (Att D Terrestrial Ecological Assessment Report, Figure 7.1) which accommodates a key breeding/dispersal population. Grey-headed flying-fox in the Inala camp could be considered an important population and confirmed foraging within the proposed action area reinforces the status of the mapped habitat as habitat critical to the survival of the species.

A formal impact assessment against the MNES Significant Impact Guidelines 1.1 was completed for grey-headed flying-fox (Att D Terrestrial Ecological Assessment Report, Table 7.1). This concluded that although it was likely there would be an impact on habitat critical to the survival of the species, a loss of 2.278 ha, given the availability of large tracts of suitable habitat within the wider landscape, the proposed project is unlikely to have a significant impact on grey-headed flying-fox.

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. *

Impacts to koala as a result of the proposed action are related to direct loss of habitat, fragmentation of habitat and the creation of barriers to movement.

The proposed action will result in the clearing of 2.278 ha of potential foraging and breeding habitat and 1.0568 ha of dispersal habitat for koala across Stage 2 and Stage 3 combined. Due to the linear nature of the proposed works (approximately 20-60 m wide) the majority of the vegetation within the proposed action area will be removed. While no signs of koala were recorded during survey, and the areas impacted are relatively small, there are koala records in areas adjacent to the proposed action (extending from prior to 2014 to 2019) and an additional area of potentially suitable habitat is present immediately next to the area of proposed works. Many of the records are older, and while some more recent ones exist, the extent of urban development is likely to have impacted the occurrence of any surveys and the frequency of koala sightings. This suggests the proposed action area is part of a wider population. Adopting a precautionary approach, it is considered that the proposed action area is likely to provide breeding, foraging and dispersal habitat for koala and the proposed action is likely to reduce the local area of occupancy of the wider population.

Impacts associated with habitat fragmentation and movement of individuals are considered across the wider project area, including the Stage 1 referral. Stage 2 of the proposed action involves the widening of Ripley Road from the current two-way, two-lane configuration to four lanes plus a centre median with potential for six lanes in the future. Stage 3 involves an upgrade of Fischer Road to accommodate increased traffic volumes due to surrounding development, however, does not involve significant widening. The number of records adjacent the existing road suggests there is movement between the project area and habitat to the south west and north east, involving both the Stage 2 and Stage 3 project areas. The proposed action area is located within a regional corridor for fauna movement and there are records on adjacent land suggesting that koala move between this area and another fauna corridor to the east. The duplication of Ripley Road as proposed will increase the distance individuals must travel to move between local habitat areas. The proposed action will likely increase fragmentation of habitats and impede movement of individuals, potentially resulting in increased vehicle strike and koala mortality. This is likely to be significant at a local scale and is therefore likely to cause substantial interference with the species recovery.

Options for koala dry passage crossing infrastructure on Ripley Road were assessed and it was concluded that this is not possible given the topographical, spatial and engineering constraints of the proposed action and the action area. The most likely point of crossing for koala is considered to be adjacent the Monterea Road / Ripley Road intersection. This connects land south west of Ripley Road within a wide transmission line easement with development approved to the north east. That development, approved under EPBC 2017/8095, retained land for drainage and open space purposes which incorporates fauna passage infrastructure to connect to land further to the north east. The area retained within that development site aligns with land identified as riparian corridor and identified for open space in the Structure Plan for the Ripley Valley PDA. That corridor is shown as crossing Ripley Road near Monterea Road.

The Monterea Road intersection location was assessed for suitability for installation of koala crossing infrastructure. Installation of koala crossing is not possible at this location for the following reasons:

- There is no land available on either side for the construction of an above ground crossing (land bridge). This would also be an excessive proposal in an area with limited dispersal as outlined below.
- The location is at the crest of a hill and a culvert style crossing was considered. Due to the required alignment and the preferred height of a culvert (2400 mm), a corridor over 250 m in length would be necessary. This would be excessively long and located at depth making it unattractive to fauna. There is limited land available for planting koala habitat trees to make the entry and exit locations more secure.
- A shorter corridor, using a more direct route, would not have sufficient height with only 300-400 mm able to be achieved.

- The efficiency and use of the crossing would be limited by gaps in connectivity to substantive habitat areas to the south west requiring significant planting of koala habitat trees to encourage koala movement to this point.

Other potential crossing locations were too low in elevation to allow the construction of culverts with suitable height and flood protection to provide safe dry passage for koala. Increased traffic due to urban development and a wider crossing distance for koala on Ripley Road will likely result in an increase in vehicle strike risk which would lead to a long term decrease in the population.

No crossing infrastructure options were considered for Stage 3 along Fischer Road however koala could utilise roadside habitats for movement.

The design has avoided koala habitat as far as practical in Stages 2 and 3 to reduce the overall impact on local koala habitats. Offsets will be provided for cleared koala habitat areas. Given that there is no ability to mitigate impacts associated with lost connectivity through the implementation of suitable crossing infrastructure, and adopting the precautionary principle, the proposed action is considered a controlled action.

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. *

The proposed action has been refined to avoid potential habitats where possible. This includes substantial reductions in footprint since the preliminary design phase and the replacement of an embankment along Fischer Road (north of Nevis ROAD with a 100 m retaining wall to reduce impacts on habitat).

The following measures will be implemented as part of the proposed action to minimise impacts on MNES:

- A Flora and Fauna Management Plan, a subplan of the overarching Construction Environmental Management Plan (CEMP) and incorporating vegetation and tree management measures, will be prepared to ensure the protection of the remaining vegetation. All vegetation to be retained will be clearly defined onsite. This includes all No-Go zones and areas not subject to clearing. Excavation works within the root zone or the tree protection zone of retained trees must be undertaken under the advice of a qualified arborist. An arborist will be consulted prior to the construction commencing to ensure impacts on vegetation to be retained are minimised
- No go zones are to be established to ensure adjacent vegetation to be retained and the adjacent wetland and associated native vegetation is protected.
- Clearly demarcate clearing areas before works commence to prevent unnecessary clearing of vegetation and minimise accidental damage.
- A koala spotter qualified fauna spotter catcher (FSC) must be present for all vegetation clearing activities within the project area. A pre-clearance survey shall be conducted prior to clearing. Vegetation clearing must adhere to sequential clearing conditions.
- Engage a suitably qualified person (e.g., ecologist, FSC) to undertake pre-clearance surveys in areas where habitat removal is required to identify new fauna habitat values and potential breeding sites. If tampering with active breeding sites is unavoidable, a species management program is required to be approved by the Queensland department of environment, tourism, science and innovation.
- Pre-clear surveys are to be completed at the following timeframes:
    - Within two weeks of clearing within each clearing area
    - Immediately prior to clearing.
- For all activities where potential fauna habitat and breeding sites are to be removed or disturbed (e.g. Vegetation clearing, culvert works), a FSC will be present to relocate fauna and take eggs, young and injured animals to a qualified carer (in accordance with an approved relevant species management program).
- Where possible, the works should avoid the removal of habitat trees. If removal is required, hollows should be retained and used as ground resources in adjacent habitat.
- Weed hygiene measures will be included in the CEMP to minimise the introduction and dispersal of weeds listed as restricted matter.
- Significant weed species (Restricted or Prohibited invasive plants under the Queensland Biosecurity Act 2014) will be treated prior to, during and post construction at designated intervals (treatment intervals to be determined by proposed activities and size and invasiveness of weed infestations) with waterway friendly herbicides. Weed management will be completed in accordance with a Biosecurity Management Plan which is a subplan of the CEMP.
- Known fire ant nests have been treated prior to construction to prevent spreading of this species.
- Interference with present wetland structure and continuity of drainage lines will be minimised.
- During construction, appropriate erosion and sediment controls will be installed and maintained to minimise impacts to the drainage channels and existing wetland areas.
- Measures to reduce sediment runoff causing increased turbidity will be implemented.

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

An offset will likely be required for the loss of 2.278 ha of koala foraging/breeding habitat and 1.0568 ha of koala dispersal habitat. If required an offset proposal will be prepared outlining the proposed offset liabilities and identifying a potential offset site. This site will be chosen to ensure it meets the criteria for a suitable offset and that it can be managed to achieve the required ecological improvement to offset impacts form the proposed action.

ICC has acquired an area of land within the Ripley Valley which is may to be suitable as an offset site for the proposed action. If required an offset management plan will be prepared to detail how the required ecological gain will be achieved and maintained.

The significant impact assessment for grey-headed flying-fox determined that no significant impact on this species is likely. As such no offsets are proposed, however any offset for koala would also be suitable for the Vulnerable grey-headed flying-fox.

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
No	No	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
No	No	Motacilla flava	Yellow Wagtail
No	No	Pandion haliaetus	Osprey
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. *

The likelihood of occurrence assessment (Att D Terrestrial Ecological Assessment Report, Appendix B) did not identify any species listed as migratory under the EPBC Act as highly likely or known to occur, therefore the Project is unlikely to have a direct or indirect impact on any of these species.

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 involves upgrades to roads and does not involve any nuclear actions or impacts to nuclear actions.

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 within or in proximity to any Commonwealth Marine Areas.

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 not within or within the catchment of the Great Barrier Reef.

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 Proposed Action does not involve large coal mining development or coal seam gas and is not within or in proximity to any water resources relevant 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. *

The Proposed Action is not within or in proximity to the Commonwealth Land.

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 within or in proximity to any 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. *

Alternative timeline

The proposed action relates to upgrades of existing roads in response to increased development within the PDA and anticipated traffic volumes. Stages 2 and 3 have been awarded State Government RAF grant funding - a competitive program designed to tackle Queensland's housing crisis by removing infrastructure barriers to residential development. The road upgrades are part of a strategic management intent to deliver a suitable road network within the PDA and will be required in the short term (next two to three years). An alternative timeline for the Proposed Action is not available and is unlikely to influence the significance of the potential impacts.

Alternative location

The Proposed Action relates to upgrades to an existing road network. These works cannot be carried out elsewhere and there is no land available for alternative road corridors to be established.

Alternative activities

An alternative activity for the Proposed Action was not possible, as the works proposed relate to the upgrade of an existing road. Ripley Road is a key transport route within the PDA and the Proposed Action forms part of a wider strategic management intent for the economically feasible upgrade of the transport networks within the PDA and the wider region. Ripley Road is an essential transport corridor as it connects the Cunningham Highway in the north to the Centenary Highway in the south. There is no land or funding allocated for the establishment of replacement or alternative road networks in this locality.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A Locality Map.pdf Map depicting the location of the Proposed Action	23/09/2025	No	High
#2.	Document	Attachment B Proposed Action Plans.pdf Plans of the works involved, including alignment and cross sections for the Proposed Action	04/09/2025	No	High

1.2.5 Information about the staged development

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment C Wider Project Location and Staging.pdf Map depicting the wider project location and staging	22/08/2025	No	High
#2.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High
#3.	Document	Attachment E TEAR Addendum.pdf Addendum to the Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	22/09/2025	No	High

1.2.6 Commonwealth or state legislation, planning frameworks or policy documents that are relevant to the proposed action

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	28/08/2025	No	High

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

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment F ICC Environmental Framework Documents.pdf Ipswich City Council Environmental Framework Documents	27/02/2025	No	High

3.1.1 Current condition of the project area's environment

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High
#2.	Document	Attachment E TEAR Addendum.pdf Addendum to the Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	21/09/2025	No	High

3.1.3 Natural features, important or unique values that applies to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

3.2.1 Flora and fauna within the affected area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High
#2.	Document	Attachment E TEAR Addendum.pdf Addendum to the Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	21/09/2025	No	High

3.2.2 Vegetation within the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment A Locality Map.pdf Map depicting the location of the	22/09/2025	No	High

Proposed Action

4.1.1.3 (World Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

4.1.2.3 (National Heritage) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

4.1.3.3 (Ramsar Wetland) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

4.1.4.2 (Threatened Species and Ecological Communities) Why your action has a direct and/or indirect impact on the identified protected matters

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High
#2.	Link	National Flying-fox monitoring viewer https://www.environment.gov.au/webgis-framework/..			High

4.1.4.5 (Threatened Species and Ecological Communities) Why you consider the direct and/or indirect impact to be a Significant Impact

	Type	Name	Date	Sensitivity	Confidence

#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High
#2.	Document	Attachment E TEAR Addendum.pdf Addendum to the Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	21/09/2025	No	High
#3.	Link	A review of koala habitat assessment criteria and methods https://www.agriculture.gov.au/sites/default/fil..	01/01/2021		High
#4.	Link	Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South https://www.environment.gov.au/biodiversity/thre..	12/02/2022		High

4.1.5.3 (Migratory Species) Why your action is unlikely to have a direct and/or indirect impact

	Type	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment D Terrestrial Ecological Assessment Report.pdf Terrestrial Ecological Assessment Report for the Ripley Road & Fischer Road Upgrade	27/08/2025	No	High

5.2 Declarations

Completed Referring party's declaration

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

ABN/ACN	29001584612
Organisation name	SLR CONSULTING AUSTRALIA PTY LTD
Organisation address	2060 NSW
Representative's name	Leigh Knight
Representative's job title	Principal Consultant - Ecology and Biodiversity
Phone	07 3858 4800
Email	leigh.knight@slrconsulting.com
Address	Level 16/175 Eagle St, Brisbane City QLD 4000

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

☑ Check this box to confirm these are the correct identification details. *

☑ By checking this box, I, **Leigh Knight of SLR CONSULTING AUSTRALIA 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

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	61461981077
Organisation name	IPSWICH CITY COUNCIL
Organisation address	4305 QLD
Representative's name	Jason Messado

Representative's job title	Senior Project Manager - Ripley Road and Fischer Road Project
Phone	07 3810 7255
Email	jason.messado@ipswich.qld.gov.au
Address	1 Nicholas Street, Ipswich QLD 4305

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

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Jason Messado of IPSWICH CITY COUNCIL**, 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

✔ 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. *

☑ Check this box to confirm these are the correct identification details. *

☑ I, **Jason Messado of IPSWICH CITY COUNCIL**, 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. *

You may receive automated notifications that aim to assist you in tracking the progress of your project. You can opt out of these notifications by updating your communication preferences on your profile.

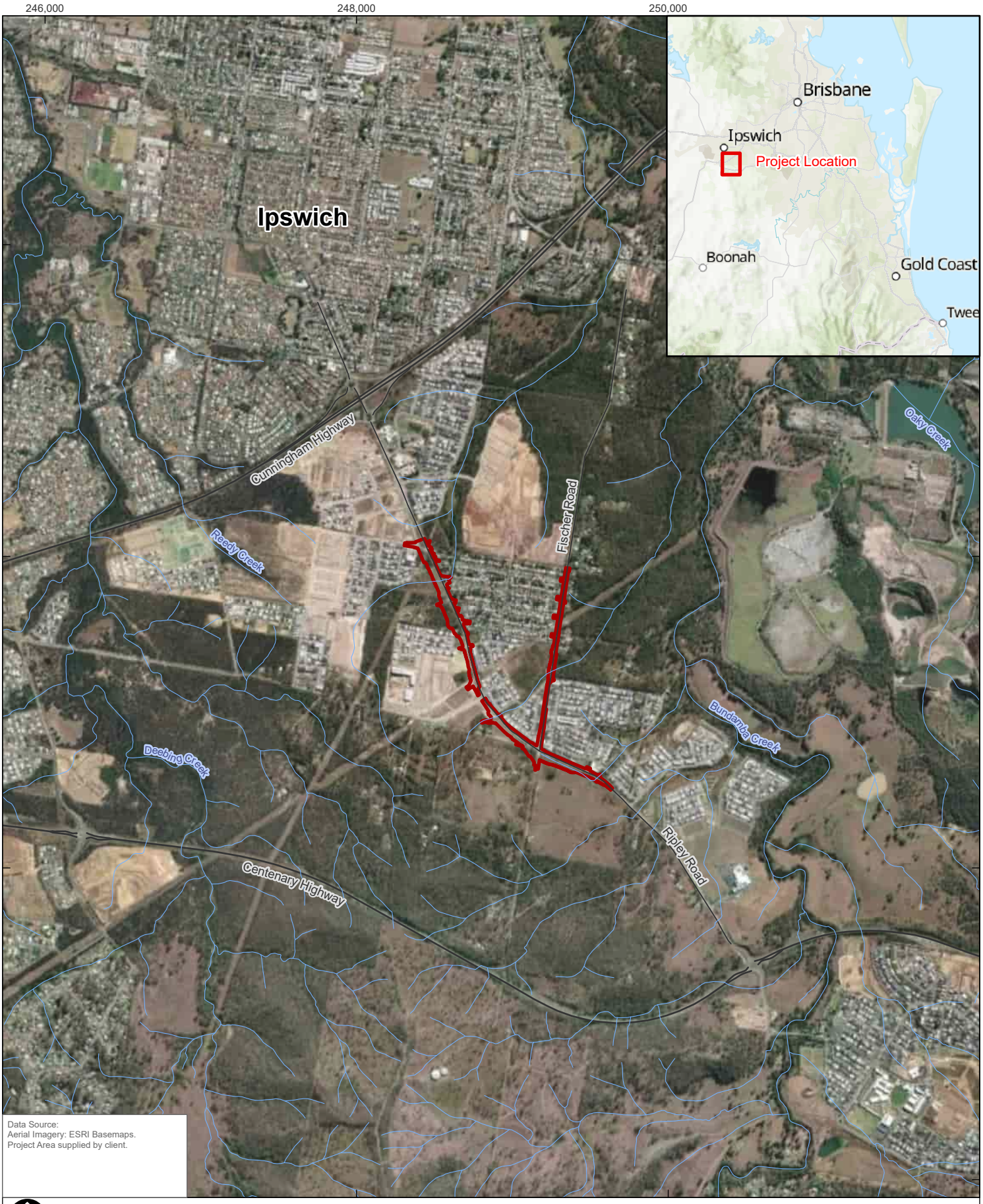
Attachment A Locality Map

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR



Data Source:
Aerial Imagery: ESRI Basemaps.
Project Area supplied by client.

0 0.5 1 km

Coordinate System:	ICC Terrain 2001
Scale:	1:32,000 at A4
Project Number:	620.041764
Date Drawn:	24-Sep-2025
Drawn by:	RB

LEGEND

- Road
- Minor Watercourse
- Proposed Action Area

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE EPBC REFERRAL

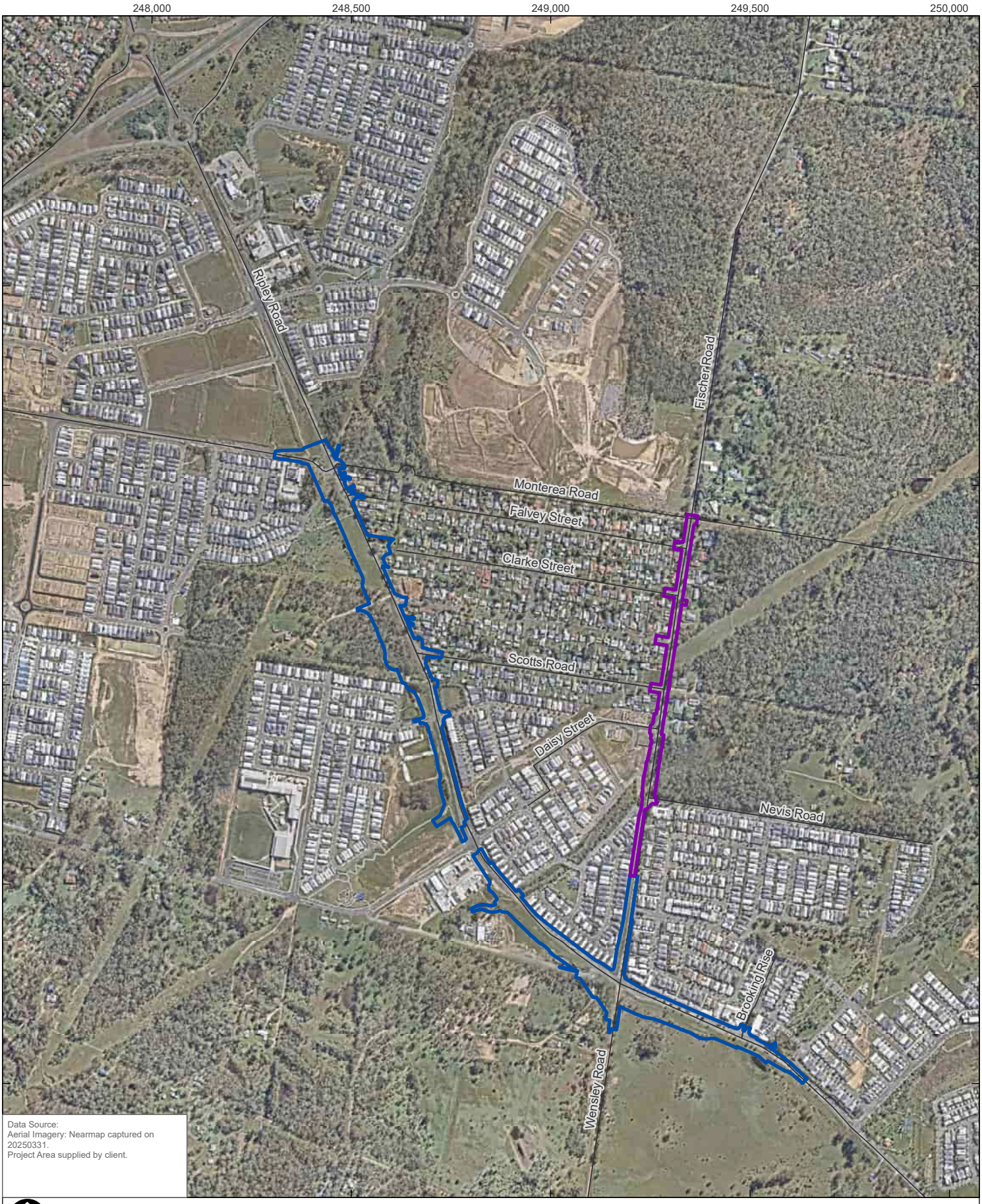
LOCALITY MAP

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

ATTACHMENT A

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_EPBC_F01-01_Locality Map - Stage 2 and 3



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	23-Sep-2025
Drawn by:	RB

LEGEND

- Road
- Stage 2
- Stage 3

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE EPBC REFERRAL

LOCALITY MAP

SLR

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ATTACHMENT A

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_EPBC_F01-04_Locality Map - Stage 2 and 3

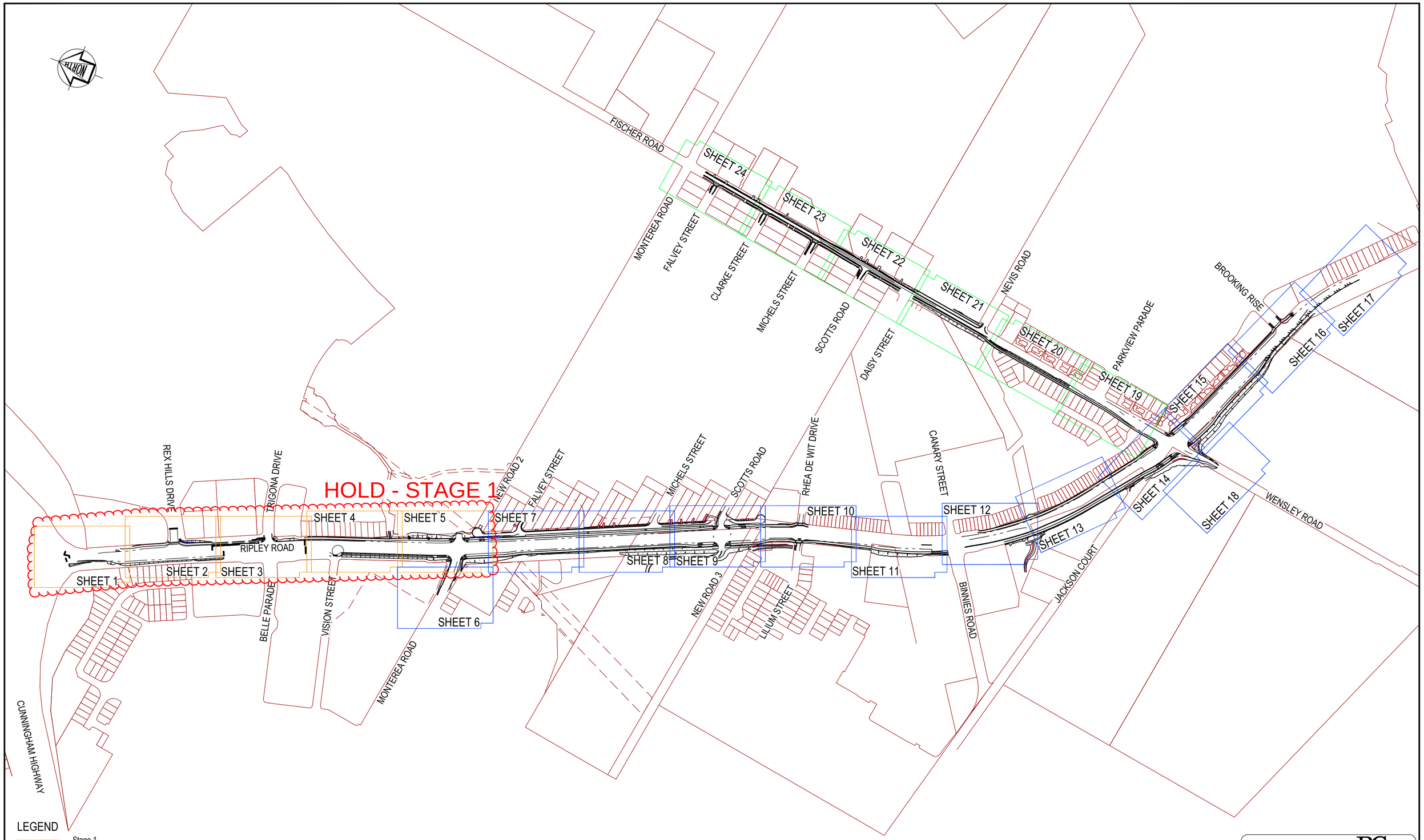
Attachment B Proposed Action Plans

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR



LEGEND

- Stage 1
- Stage 2
- Stage 3

NOTE

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021.

Bielby

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
A	Issued for Construction	J.C	31.07.25
B	Stage 2 Updates	J.C	04.09.25

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	CIVIL
Certifier Name	Saud Shamsodien
Certifier No.	19631
Date	31.07.25
Signature:	Saud Shamsodien

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: ISSUED FOR CONSTRUCTION

City of Ipswich

TECHNICAL SERVICES

P.O. Box 191 Ipswich QLD 4305 Australia
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Project

RIPLEY ROAD UPGRADE
STAGE 1, 2 & 3

Drawing Title

DRAWING KEY DIAGRAM

	Name	Date
Drawn	J.C	31.07.25
Designed	B.J	31.07.25
Checked	S.S	31.07.25

Project No.	Sheet No.	Rev.
INF04658	00005	B

LEGEND

EXISTING SERVICES

- C(A) — Communication - Quality Level A
- C(B) — Communication - Quality Level B
- C(C) — Communication - Quality Level C
- C(D) — Communication - Quality Level D
- E(A) — Electricity - Underground - Quality Level A
- E(B) — Electricity - Underground - Quality Level B
- E(C) — Electricity - Underground - Quality Level C
- E(D) — Electricity - Underground - Quality Level D
- EOH — Electricity - Overhead
- G(A) — Gas Main - Quality Level A
- G(B) — Gas Main - Quality Level B
- G(C) — Gas Main - Quality Level C
- G(D) — Gas Main - Quality Level D
- S(A) — Sewer Main - Quality Level A
- S(B) — Sewer Main - Quality Level B
- S(C) — Sewer Main - Quality Level C
- S(D) — Sewer Main - Quality Level D
- W(A) — Water Main - Quality Level A
- W(B) — Water Main - Quality Level B
- W(C) — Water Main - Quality Level C
- W(D) — Water Main - Quality Level D
- D(A) — Drainage Pipe - Quality Level A
- D(B) — Drainage Pipe - Quality Level B
- D(C) — Drainage Pipe - Quality Level C
- D(D) — Drainage Pipe - Quality Level D
- x x — Service to be removed

EXISTING FEATURES

- Building Line
- Drainage Open Channel
- Drainage Pipe
- Property Boundary
- Fence Guardrail
- Fence Hand Rail
- Fence Line
- Kerb and Channel
- Kerb Only Island
- Park Garden Edge
- Path
- Road Edge of Bitumen
- Road Edge Unsealed
- Surface Toe of Bank
- Surface Top of Bank
- Tree Spread of Canopy
- Retaining wall

EXISTING SYMBOLS

- Communication Pit
- TPIL — Communication Pillar
- TP — Communication Pole
- Communication Manhole
- +DPO — Drainage Down Pipe Outlet
- Drainage GIP
- SW — Drainage Manhole
- Drainage Culvert
- LP — Electricity Light Pole
- PPL — Electricity Power Pole with Light
- PP — Electricity Power Pole
- EM — Electricity Manhole
- Electricity Pit
- Electricity Stay Wire
- Fence Gate
- Fence Post
- Traffic Sign

PROPOSED SERVICES

- (C) — Communication
- (CBS) (CBS) — Communication - Bore Shot
- (OH) — Electricity Overhead
- (G) — Gas Main
- (S) — Sewer Main
- (W) — Water Main
- (C) — Communication - Enveloper
- (E) — Electricity - Underground - Enveloper
- (G) — Gas Main - Enveloper
- (S) — Sewer Main - Enveloper
- (W) — Water Main - Enveloper

PROPOSED FEATURES

- Control Line
- Retaining wall
- Kerb & Channel
- Kerb Face Only
- Road Crown - Change of Grade
- Road Edge of Bitumen
- Road Shoulder
- Road Unsealed Edge
- Path
- Toe of Bank
- Top of Bank
- Resumption
- Fence Guard Rail
- 1.35m High Tubular Fence with Chain Wire
- Fence Lean Rail

PROPOSED SYMBOLS

- Electricity Power Pole
- Communication Pit
- Thrust Block
- Fence Gate
- Fence Post
- Single Post Traffic Sign
- Multiple Post Traffic Sign
- Mounted Traffic Sign
- Existing traffic sign to be removed
- 1 — Pole Station Number

PROPOSED STORMWATER

- Stormwater GIP
- Stormwater FIP
- Stormwater Headwall
- Stormwater Manhole
- Pipe/Box Culvert
- ACO KerbDrain/SlabDrain (or approved equivalent)
- Median Subsoil Drainage
- Kerb and Channel Subsoil Drainage
- Cycle Path Subsoil Drainage
- Road Crossing Subsoil Drainage
- Rock protection

LANDSCAPE FEATURES

- Drainage Open Channel
- GE GE — Concrete Garden Bed Edge
- Proposed Seat
- Proposed Rubbish Bin
- Proposed Bubbler
- Proposed Linear Bike Stand
- Proposed Sandstone Blocks
- Existing Tree to be retained
- Existing Tree to be removed
- Mass Planting Type A
- Mass Planting Type B
- Mass Planting Type C
- Mass Planting Type D
- Mass Planting Type E
- Mass Planting Type F
- Mass Planting Type G
- Mass Planting Type H
- Turf
- Existing Landscaping to be retained and protected
- Proposed Median

EARTHWORKS HATCH LEGEND

- Fill Volume
- Cut Volume

PROPOSED STREET TREE

- Residential Street Tree
- Dry Rainforest Tree
- Feature Tree
- Frame West Street Tree
- Inner Gateway Street Tree
- Frame East Street Tree

ROAD LIGHTING & ITS

- Proposed LED Luminaire
- Existing LED Luminaire
- Existing Removed LED Luminaire
- Existing Removed HPS Luminaire
- New Type 4 Pit
- Existing Type 4 Pit
- New T60 Pit
- Existing Circular T60 Pit
- Proposed 1X100 Elec Conduit
- Proposed 2X100 Elec Conduit
- Proposed 3X100 Elec Conduit
- (2C) (2C) — Traffic Signal Communication Conduit

PAVEMENT HATCH LEGEND

- Pavement Type 1A
- Pavement Type 1B
- Pavement Type 1C
- Pavement Type 2
- Pavement Type 3
- Pavement Type 4
- Pavement Type 5
- Pavement Type 6
- Pavement Type 7
- Pavement Type 8A
- Pavement Type 8B
- Pavement Type 9A
- Pavement Type 9B
- Pavement Type P1
- Pavement Type P2
- Pavement Type P3
- Pavement Type P4
- Pavement Type P5
- Pavement Type P6
- Pavement Type M1
- Pavement Type M2
- Pavement Type M3

GENERAL HATCH LEGEND

- Road pavement
- Foot Path pavement
- Cycle Path pavement
- Median pavement
- Driveway pavement
- Resumption Area

DEMOLITION LEGEND

- Existing AC pavement to be removed
- Existing concrete paths, driveways, retaining walls and traffic islands to be removed
- Existing kerb/kerb and channel to be removed
- Stormwater pipe or culvert to be removed
- Stormwater gully unit to be removed

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Tel: +61 7 3167 3300
Email: projects.qld@bgeeng.com

REVISIONS

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COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

City of Ipswich

TECHNICAL SERVICES

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Project

RIPLEY ROAD UPGRADE
STAGE 1, 2 & 3

Drawing Title

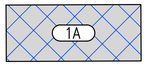
LEGEND
SHEET 1

	Name	Date
Drawn	J.C	31.07.25
Designed	B.J	31.07.25
Checked	S.S	31.07.25

Project No.	Sheet No.	Rev.
INF04658	00011	B

PAVEMENT TYPE 1A
RIPLEY ROAD

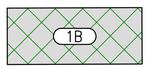
New pavement to be constructed:
- 450mm Total thickness
- Design CBR - 5.0%
- Design Traffic 9.11 x 10^6 ESA
- NHVAG (NDT) - 1.25 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 50mm Intermediate - Asphalt AC14H (A15E)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 200mm Lightly Bound Base (Type 2.1)
- 150mm Lightly Bound Subbase (Type 2.3)

PAVEMENT TYPE 1B
RIPLEY ROAD

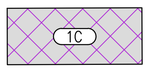
New pavement to be constructed:
- 550mm Total thickness
- Design CBR - 4.0%
- Design Traffic 9.11 x 10^6 ESA
- NHVAG (NDT) - 1.25 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 50mm Intermediate - Asphalt AC14H (A15E)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 200mm Lightly Bound Base (Type 2.1)
- 150mm Lightly Bound Subbase (Type 2.3)
- 100mm Unbound granular Improved Layer (Type 2.5)

PAVEMENT TYPE 1C
RIPLEY ROAD

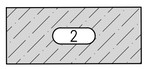
New pavement to be constructed:
- 650mm Total thickness
- Design CBR - 3.0%
- Design Traffic 9.11 x 10^6 ESA
- NHVAG (NDT) - 1.25 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 50mm Intermediate - Asphalt AC14H (A15E)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 200mm Lightly Bound Base (Type 2.1)
- 150mm Lightly Bound Subbase (Type 2.3)
- 200mm Unbound granular Improved Layer (Type 2.5)

PAVEMENT TYPE 2
RIPLEY ROAD AND MONTEREA ROAD INTERSECTION

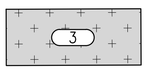
New pavement to be constructed:
- 325mm Total thickness
- Design CBR - 7.0%
- Design Traffic 1.07 x 10^7 ESA
- NHVAG (NDT) - 1.46 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 125mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 150mm Lightly Bound Improved Layer (Type 2.3)

PAVEMENT TYPE 3
RIPLEY ROAD AND SCOTTS ROAD INTERSECTION

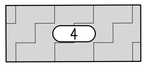
New pavement to be constructed:
- 560mm Total thickness
- Design CBR - 3.0%
- Design Traffic 8.74 x 10^6 ESA
- NHVAG (NDT) - 1.20 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 130mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 230mm Lightly Bound (Type 2.3)
- 150mm Granular unbound material (Type 2.5)

PAVEMENT TYPE 4
RIPLEY ROAD AND FISCHER ROAD/WENSLEY ROAD INTERSECTION

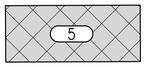
New pavement to be constructed:
- 630mm Total thickness Min.
- Design CBR - 3.0%
- Design Traffic 1.18 x 10^7 ESA
- NHVAG (NDT) - 1.62 x 10^7



- 50mm Surfacing - Asphalt AC14H (A15E)
- 130mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 300mm Lightly Bound (Type 2.3)
- 150mm Unbound granular (Type 2.5)

PAVEMENT TYPE 5
MONTEREA ROAD

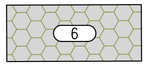
New pavement to be constructed:
- 285mm Total thickness
- Design CBR - 7.0%
- Design Traffic 1.60 x 10^6 ESA
- NHVAG (NDT) - 2.15 x 10^6



- 50mm Surfacing - Asphalt AC14H (A15E)
- 85mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 150mm Lightly Bound Improved Layer (Type 2.3)

PAVEMENT TYPE 6
WENSLEY ROAD

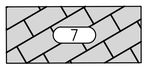
New pavement to be constructed:
- 475mm Total thickness Min.
- Design CBR - 3.0%
- Design Traffic 4.30 x 10^6 ESA
- NHVAG (NDT) - 5.87 x 10^6



- 50mm Surfacing - Asphalt AC14H (A15E)
- 125mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 150mm Lightly Bound (Type 2.3)
- 150mm Unbound granular (Type 2.5)

PAVEMENT TYPE 7
SIDE ROAD TYPE 1

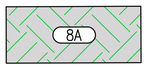
New pavement to be constructed:
- 265mm Total thickness
- Design CBR - 7.0%
- Design Traffic 2.00 x 10^5 ESA



- 35mm Surfacing - Asphalt AC10H (C320)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- 120mm Unbound Granular Base (Type 2.1)
- 110mm Unbound Granular Subbase (Type 2.3)

PAVEMENT TYPE 8A
SIDE ROAD TYPE 1

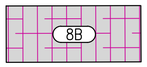
New pavement to be constructed:
- 245mm Total thickness
- Design CBR - 7.0%
- Design Traffic 1.00 x 10^5 ESA



- 35mm Surfacing - Asphalt AC10H (C320)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- 100mm Unbound Granular Base (Type 2.1)
- 110mm Unbound Granular Subbase (Type 2.3)

PAVEMENT TYPE 8B
SIDE ROAD TYPE 2

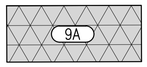
New pavement to be constructed:
- 385mm Total thickness
- Design CBR - 3.0%
- Design Traffic 1.00 x 10^5 ESA



- 35mm Surfacing - Asphalt AC10H (C320)
- 10mm Sprayed seal (C170 at 1.2 L/m^2, spread rate 1000/ALD m^2/m^3)
- 120mm Unbound Granular Base (Type 2.1)
- 230mm Unbound Granular Base (Type 2.3)

PAVEMENT TYPE 9A
FISCHER ROAD (Stage 3)

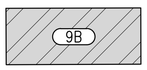
New pavement to be constructed:
- 285mm Total thickness Min.
- Design CBR - 10.0%
- Design Traffic 2.60 x 10^6 ESA
- NHVAG (NDT) - 3.61 x 10^6



- 50mm Surfacing - Asphalt AC14H (A15E)
- 85mm Base - BCC Type 3 Multigrade M1000 Type 3 Asphalt
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 150mm Lightly bound (Type 2.3)

PAVEMENT TYPE 9B
FISCHER ROAD (STAGE 2)

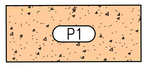
New pavement to be constructed:
- 445mm Total thickness
- Design CBR - 3.0%
- Design Traffic 2.60 x 10^6 ESA
- NHVAG (NDT) - 3.61 x 10^6



- 50mm Surfacing - Asphalt AC14H (A15E)
- 95mm Base - Asphalt EME2
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- Prime - AMC00 at 0.8L/m^2
- 150mm Lightly Bound (Type 2.3)
- 150mm Unbound granular (Type 2.5)

PAVEMENT TYPE P1
CONCRETE MEDIAN INFILL

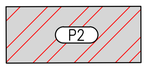
New pavement to be constructed:
- 200mm Total thickness Min.
- Design CBR - N/A
- Design Traffic N/A



- 100mm N25 with SL72 mesh placed centrally for areas greater or equal to 1.5m wide
- 100mm Unbound Granular Subbase (Type 2.3)

PAVEMENT TYPE P2
RAISED PLATFORM

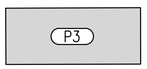
New pavement to be constructed:
- 150mm Total thickness Min.
- Design CBR - 3% Min.
- Design Traffic - Varies



- 50mm Surfacing - Asphalt AC14H (A15E)
- Varies Corrector layer - Asphalt AC10H (C320)
- 100mm Base - Asphalt AC20H (C600)
- Prime (AMC0 at 0.9L/m^2)
- Adjacent side road pavement layers below surfacing

PAVEMENT TYPE P3
ASPHALT CYCLEWAY

New pavement to be constructed:
- 275mm Total thickness Min.
- Design CBR - 7% Min.
- Design Traffic 1.46E+05



- 35mm Surfacing - Asphalt AC10H (C320)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)
- 120 mm Unbound Granular Base (Type 2.1)
- 120 mm Unbound Granular Subbase (Type 2.3) (subject to Subgrade CBR)

PAVEMENT TYPE P4
CONCRETE FOOTPATH

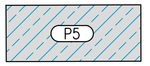
New pavement to be constructed:
- 250mm Total thickness Min.
- Design CBR - 3% Min.
- Design Traffic N/A



- 150mm N32 with SL72 mesh placed centrally
- 100mm Unbound Granular Base - Type 2.3

PAVEMENT TYPE P5
DRIVEWAY TYPE 1

New pavement to be constructed:
- 350mm Total thickness Min.
- Design CBR - 3% Min.
- Design Traffic N/A



- 200mm N32 with SL82 mesh placed centrally
- 150mm Unbound Granular Base - Type 2.3

PAVEMENT TYPE P6
DRIVEWAY TYPE 2

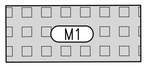
New pavement to be constructed:
- 300mm Total thickness Min.
- Design CBR - 3% Min.
- Design Traffic N/A



- 150mm N32 with SL72 mesh placed centrally
- 150mm Unbound Granular Base - Type 2.3

PAVEMENT TYPE M1
RIPLEY ROAD

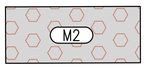
Heavy Patch:
- 150mm Total thickness
- Design CBR - N/A
- Design Traffic N/A



- 50mm Surfacing - Asphalt AC14H (A15E)
- 100mm Base - Asphalt AC20H (C600)
- 10mm Sprayed seal (C170 at 1.2L/m^2, spread rate 1000/ALD m^2/m^3)

PAVEMENT TYPE M2
SIDE ROAD

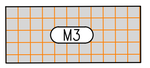
Mill and Fill - Existing Pavement:
- 35mm Total thickness Min.
- Design CBR - 7.0
- Design Traffic 1.0 x 10^5



- 35mm Surfacing - Asphalt AC10H (C320)
- Varies Intermediate - Asphalt Corrector
- 10mm Sprayed seal (C170 with 2% Max. cutter at 1.2L/m^2)
- Min. 225mm Existing granular material

PAVEMENT TYPE M3
RIPLEY ROAD

Mill and Fill - Existing Pavement:
- 50mm Total thickness Min.
- Design CBR - N/A
- Design Traffic - N/A



- 50mm Surfacing - Asphalt AC14H (A15E)
- Existing pavament

NOTES
1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For pavement treatment locations refer to Sheet No. 03001 to 03024.
4. For pavement details refer to Sheet No. 03101.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
A	Issued for Construction	J.C	31.07.25
B	Stage 2 Updates	J.C	04.09.25

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	CIVIL
Certifier Name	Saud Shamsodien
Certifier No.	19631
Date	31.07.25
Signature:	Saud Shamsodien

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: ISSUED FOR CONSTRUCTION

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Project: **RIPLEY ROAD UPGRADE STAGE 1, 2 & 3**

Drawing Title: **LEGEND SHEET 2**

	Name	Date
Drawn	J.C	31.07.25
Designed	B.J	31.07.25
Checked	S.S	31.07.25

Project No.	Sheet No.	Rev.
INF04658	00012	B

PROPOSED MASS PLANTING TYPE A - RESIDENTIAL MEDIAN - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	1	
	GRE 'BR'	Grevillea 'Bronze Rambler'	Bronze Rambler	0.5m	5m	140mm Pot	0.5	
	LOM flu	Lomandra Fluviatilis Shara	River Mat Rush	0.3m - 0.6m	0.3m - 0.6m	140mm Pot	1	
	MYO ell	Myoporum ellipticum	Dwarf Mat Rush	0.25m - 0.5m	1m - 1.5m	140mm Pot	0.5	
	MYO par	Myoporum parvifolium	Coastal Myoporum	0.25m - 0.5m	1m - 1.5m	140mm Pot	0.5	
	OPH jab	Ophiopogon jaburan	Creeping Myoporum	0.3m - 0.5m	0.5m - 1m	140mm Pot	0.5	
	PEN alo	Pennisetum Alopecuroides 'Nafray'	Swamp Foxtail Grass	0.3m - 0.7m	0.6m - 0.8m	Biopot	1	

PROPOSED MASS PLANTING TYPE B - RESIDENTIAL VERGE - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	0.5	
	GRE 'BR'	Grevillea 'Bronze Rambler'	Bronze Rambler	0.5m	5m	140mm Pot	1	
	LIR mus	Liriope muscari 'Evergreen Giant'	Evergreen Giant	0.5m - 0.6m	0.5m - 0.7m	140mm Pot	1	
	LOM flu	Lomandra Fluviatilis Shara	River Mat Rush	0.3m - 0.6m	0.3m - 0.6m	140mm Pot	0.5	
	LOM hys	Lomandra Hystrix	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	0.5	
	OPH jab	Ophiopogon jaburan	Giant Mondo Grass	0.3m - 0.5m	0.5m - 1m	140mm Pot	0.5	
	PEN alo	Pennisetum Alopecuroides 'Nafray	Swamp Foxtail Grass	0.6m - 0.7m	0.6m - 0.8m	Biopot	0.5	
	SCA aem	Scaevola aemula Zephyranthes candida	Fairy Fan-Flower White Indian Crocus	0.3m - 0.5m	0.7m - 1m	140mm Pot	1	

PROPOSED MASS PLANTING TYPE C - BUFFER PLANTING - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	CAL 'LJ'	Callistemon 'Little John'	Dwarf Bottlebrush	0.6m - 1m	0.6m	140mm Pot	0.5	
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	1	
	GRE 'NK'	Grevillea ' Ned Kelly'	Ned Kelly Grevillea	2m - 3.5m	2m - 2.5m	140mm Pot	0.5	
	LIR mus	Liriope muscari 'Evergreen Giant'	Evergreen Giant	0.5m - 0.6m	0.5m - 0.7m	140mm Pot	0.5	
	LOM hys	Lomandra Hystrix	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1	
	LOM lon	Lomandra longifolia	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1	
	SHRUBS							
	MEL 'CT'	Melaleuca 'Claret Tops'	Dwarf Paperbark	1.5m	1m	140mm Pot	0.5	
	SYS cas	Syzygium 'Cascade'	Cascade Lilly Pilly	2m - 3m	1m - 2m	140mm Pot	0.5	
	SYZ lue	Syzygium luehmannii	Small Leaf Lilly Pilly	15m	5m	140mm Pot	0.5	

PROPOSED MASS PLANTING TYPE D - SWALE PLANTING - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	LOM lon	Lomandra longifolia	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1.5	
	LOM hys	Lomandra Hystrix	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1.5	
	JUN usi	Juncus Usitatus	Common Rush	0.6 - 1.2m	0.3 - 0.6m	Biopot	1.5	
	FIC nod	Ficinia nodosa	Knobby Club Rush	0.5m	0.9m	Biopot	1.5	

PROPOSED MASS PLANTING TYPE E - MOUND PLANTING - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	1	
	ANI vel	Anigozanthos velvet	Amber Velvet	0.5m	0.6m	140mm Pot	2	
	CAR gla	Carpobrotus glaucescens	Aussie Rambler	0.2m	2m	140mm Pot	1	
	SCA aem	Scaevola aemula	Fairy Fan-flower	0.4m	0.6	140mm Pot	1	

PROPOSED MASS PLANTING TYPE G - BUFFER PLANTING - STAGE 2

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	ART lud	Artemisia ludoviciana 'Alba'	Silver Artemisia	0.3m - 0.5m	0.5m - 0.8m	140mm Pot	0.5	
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	1	
	LIR mus	Liriope muscari 'Evergreen Giant'	Evergreen Giant	0.5m - 0.6m	0.5m - 0.7m	140mm Pot	1	
	LIR sil	Liriope Silverlawn	Silverlawn	0.35m	0.4m	140mm Pot	0.5	
	MYO ell	Myoporum ellipticum	Coastal Myoporum	0.25m - 0.5m	1m - 1.5m	140mm Pot	0.5	
	MYO par	Myoporum parvifolium	Creeping Myoporum	0.25m - 0.5m	1m - 1.5m	140mm Pot	0.5	
	OPH nig	Ophiopogon nigrescens	Black Mondo	0.3m	0.3m	140mm Pot	0.5	
	SCA aem	Scaevola aemula	Fairy Fan-Flower	0.3m - 0.5m	0.7m - 1m	140mm Pot	0.5	

PROPOSED RESIDENTIAL STREET TREES - STAGE 2

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	SPACING	QTY.
+	LAG ind	Lagerstroemia indica	Crepe Mrytle	8m - 10m	6m - 8m	45L	As shown	
	FLI aus	Flindersia australis	Native teak Ash	8m - 10m	6m - 8m	45L	As shown	
	MEL ell	Mellicope Ellyrana	Weeping Mrytle	8m - 12m	5m - 8m	45L	As shown	
	LOP con	Lophostemon Confertus	Brush Box	10m - 15m	6m - 12m	45L	As shown	
	Mel leu	Melaleuca leucadendron	Weeping Paperbark	10m - 15m	4m - 8m	45L	As shown	

PROPOSED DRY RAINFOREST TREES - STAGE 2

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	SPACING	QTY.
○	CUP par	Cupaniopsis parvifolia	Small-leaved Tuckeroo	4m - 6m	2m - 5m	45L	As shown	
	HAR pen	Harpullia pendula	Tulipwood	10m - 30m	20m	45L	As shown	
	BRA rup	Brachychiton rupestris	Bottle Tree	4m - 7m	4m - 6m	45L	As shown	

MATERIALS SCHEDULE - STAGE 2

ITEM REFERENCE	DESCRIPTION	PREPARATION	TOPSOIL DEPTH	MULCH DEPTH	MATERIAL SUPPLY DETAIL	SPECIES SCHEDULES
Mass Planting Type A	Residential Median Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 Mulch Type - Forest Mulch - AS4454	Refer to Planting Schedules
Mass Planting Type B	Residential Verge Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 Mulch Type - Forest Mulch - AS4454	Refer to Planting Schedules
Mass Planting Type C	Buffer Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 Mulch Type - Forest Mulch - AS4454	Refer to Planting Schedules
Mass Planting Type D	Swale Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 JuteMat Type - 750 GSM	Refer to Planting Schedules
Mass Planting Type E	Mound Planting	Ripping 300mm Cultivating 150mm	400mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 Mulch Type - Forest Mulch - AS4454	Refer to Planting Schedules
Mass Planting Type G	Buffer Planting	Ripping 300mm Cultivating 150mm				Refer to Planting Schedules
Turf	Wintergreen Couch	Ripping 300mm Cultivating 150mm	75mm	NA	Topsoil - MRTS16 Form C / AS4419	Wintergreen Couch

PLANTING SCHEDULE NOTES - STAGE 2

1. Tree and Planting species have been developed from the Economic Development Queensland, Ripley Road Design Guideline (May 2015) and in coordination with Ipswich City Council.
2. Any substitutions or deviations from the above list proposed in the detailed design is required to be coordinated and approved by council.
3. 2000mm setback of all trees from all hardscape including kerb and pathways. Where closer, root barrier will be installed as show on the plans.
4. 500mm setback of all planting where occurring besides pathways.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
2	Issued for 100% Detailed Design	J.C	

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

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Project: RIPLEY ROAD UPGRADE STAGE 2

Drawing Title: NOTES SHEET 8

	Name	Date
Drawn	J.C	
Designed	B.J	
Checked	S.S	

Project No.	Sheet No.	Rev.
INF04658	00028	2

PROPOSED MASS PLANTING TYPE C - BUFFER PLANTING - STAGE 3

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	CAL 'LJ'	Callistemon 'Little John'	Dwarf Bottlebrush	0.6m - 1m	0.6m	140mm Pot	0.25	
	CAL cit	Callistemon citrinus	Crimson Bottlebrush	4m	3m - 4m	140mm Pot	0.125	
	DIA cae	Dianella caerulea	Blue Flax Lily	0.3m - 0.5m	0.5m - 0.7m	Biopot	0.25	
	ERE niv	Eremophila nivea	Emu Bush	2m	2m	Biopot	0.25	
	FIC nod	Ficinia nodosa	Knobby Club Rush	0.5m	0.9m	Biopot	0.5	
	GRE 'NK'	Grevillea ' Ned Kelly'	Ned Kelly Grevillea	2m - 3.5m	2m - 2.5m	140mm Pot	0.125	
	HAR vio	Hardenbergia violacea	Native Sarsaparilla	2m - 3.5m	2m - 3.5m	140mm Pot	0.25	
	LEP lae	Leptospemum laevigatum	Coastal Tea Tree	1.5m - 2m	1.5m	140mm Pot	0.25	
	LOM 'FS'	Lomandra Fluviatilis Shara	River Mat Rush	0.3m - 0.6m	0.3m - 0.6m	140mm Pot	0.25	
	LOM 'JG'	Lomandra Spicata 'Joey Grass'	Dwarf Mat Rush	0.3m	0.5m	Biopot	0.125	
	MEL 'CT'	Melaleuca 'Claret Tops'	Dwarf Paperbark	1.5m	1m	Biopot	0.125	
	Sys 'AS'	Syzygium 'Aussie Southern'	Glossy Lilly Pilly	5m	2m	140mm Pot	0.25	
	SYS cas	Syzygium 'Cascade'	Cascade Lilly Pilly	2m - 3m	1m - 2m	140mm Pot	0.125	
	SYZ lue	Syzygium luehmannii	Small Leaf Lilly Pilly	15m	5m	140mm Pot	0.25	
	THE au	Thermeda Australis	Kangaroo Grass	0.5m	0.5m	Biopot	0.125/m2	
	WES 'FZ'	Westringia fruitcosa 'Zena'	Coastal Rosemary	2m	2m	140mm Pot	0.125/m2	

PROPOSED MASS PLANTING TYPE D - SWALE PLANTING - STAGE 3

HATCH	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	PLANTS PER m^2	QTY.
	GROUND COVERS							
	LOM lon	Lomandra longifolia	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1.5	1264
	LOM hys	Lomandra Hystrix	Matt Rush	1m - 1.2m	1m - 1.5m	Biopot	1.5	1264
	JUN usi	Juncus Usitatus	Common Rush	0.6 - 1.2m	0.3 - 0.6m	Biopot	1.5	1264
	FIC nod	Ficinia nodosa	Knobby Club Rush	0.5m	0.9m	Biopot	1.5	1264

PROPOSED RESIDENTIAL STREET TREES - STAGE 3

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE WIDTH	POT SIZE	SPACING	QTY.
+	FLI aus	Flindersia australis	Native teak Ash	8m - 10m	6m - 8m	45L	As shown	
	MEL ell	Mellicope Ellyrana	Weeping Mrytle	8m - 12m	5m - 8m	45L	As shown	
	ACA ma	Acacia maidenni	Maidens Wattle	5m - 10m	5m	45L	As shown	
	CAL cit	Callistamon citrinus	Crimson Bottlebrush	8m-12m	5m - 8m	45L	As shown	
	LEL pe	Leptospermum petersonii	Lemon-scented Teatree	5m	2m	45L	As shown	
	Mel leu	Melaleuca leucadendron	Weeping Paperbark	10m - 15m	4m - 8m	45L	As shown	

MATERIALS SCHEDULE - STAGE 3

ITEM REFERENCE	DESCRIPTION	PREPARATION	TOPSOIL DEPTH	MULCH DEPTH	MATERIAL SUPPLY DETAIL	SPECIES SCHEDULES
Mass Planting Type C	Buffer Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 Mulch Type - Forest Mulch - AS4454	Refer to Planting Schedules
Mass Planting Type D	Swale Planting	Ripping 300mm Cultivating 150mm	150mm	100mm	Topsoil Type- MRTS16 Form C / AS4419 JuteMat Type - 750 GSM	Refer to Planting Schedules
Turf	Wintergreen Couch	Ripping 300mm Cultivating 150mm	75mm	NA	Topsoil - MRTS16 Form C / AS4419	Wintergreen Couch

PLANTING SCHEDULE NOTES - STAGE 3

1. Tree and Planting species have been developed from the Economic Development Queensland, Ripley Road Design Guideline (May 2015) and in coordination with Ipswich City Council.
2. Any substitutions or deviations from the above list proposed in the detailed design is required to be coordinated and approved by council.
3. 2000mm setback of all trees from all hardscape including kerb and pathways. Where closer, root barrier will be installed as show on the plans.
4. 500mm setback of all planting where occurring besides pathways.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
2	Issued for 100% Detailed Design	J.C	

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

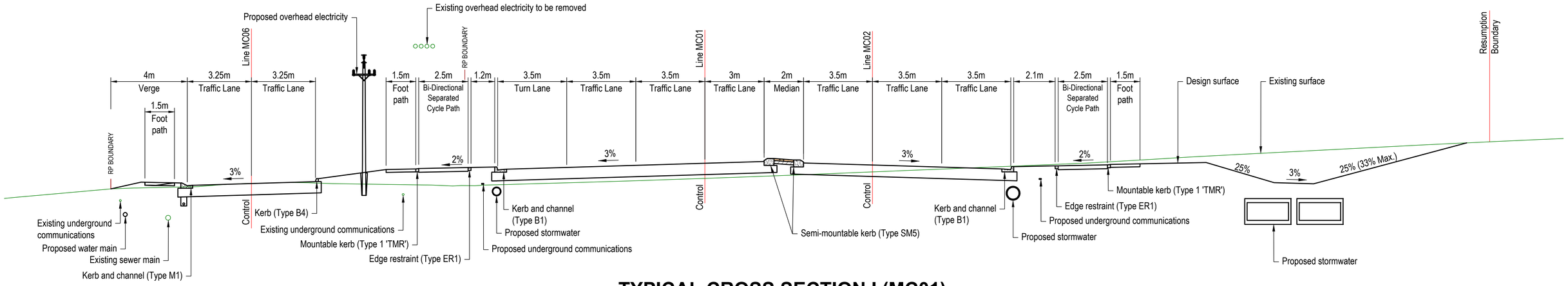
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Project: RIPLEY ROAD UPGRADE STAGE 3

Drawing Title: NOTES SHEET 9

	Name	Date
Drawn	J.C	
Designed	B.J	
Checked	S.S	

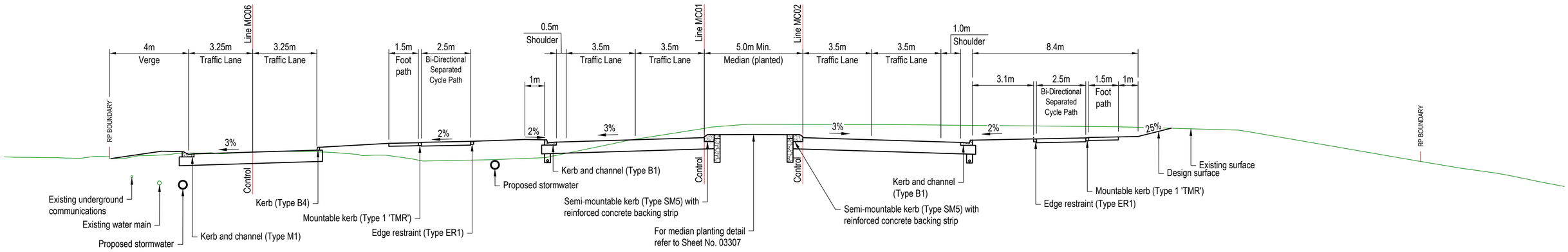
Project No.	Sheet No.	Rev.
INF04658	00029	2



TYPICAL CROSS SECTION I (MC01)

RIPLEY ROAD (CH1360)

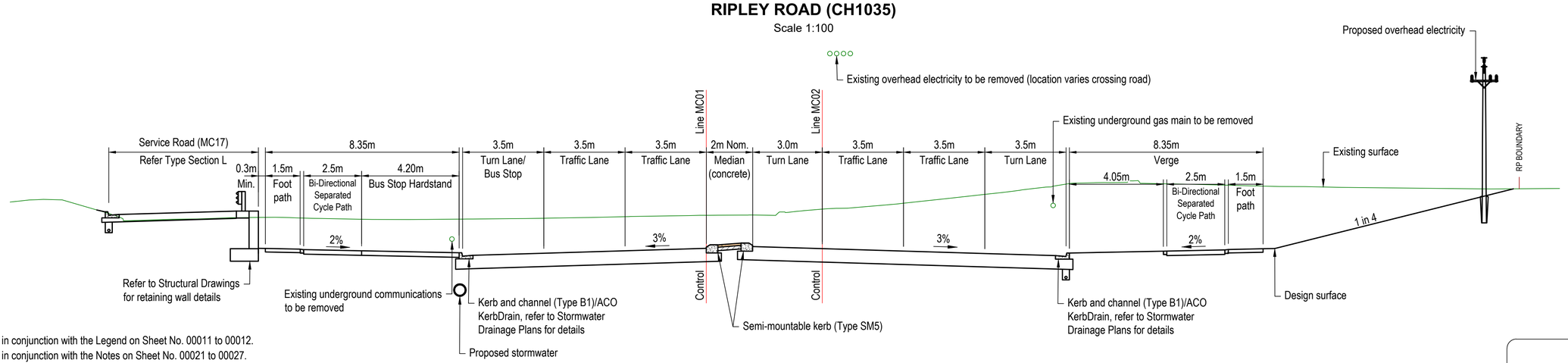
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TYPICAL CROSS SECTION H (MC01)

RIPLEY ROAD (CH1035)

Scale 1:100



NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

TYPE CROSS SECTION G (MC01)

RIPLEY ROAD (CH850 TO CH940)

Scale 1:100

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

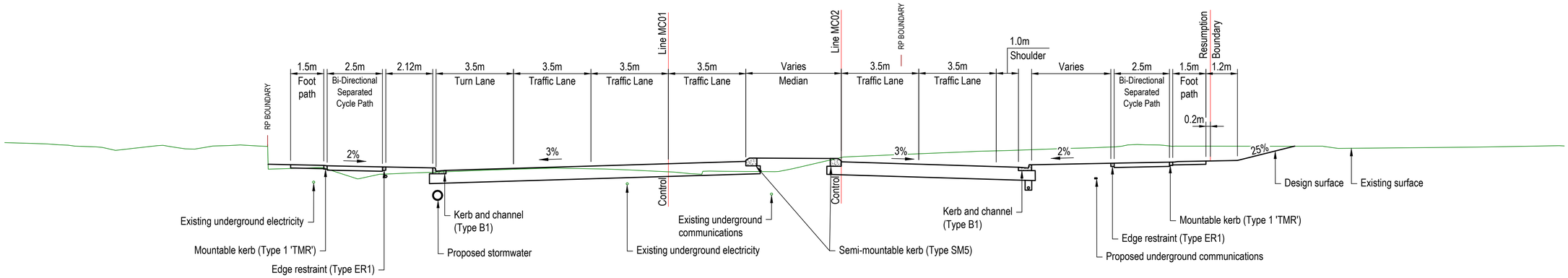
City of Ipswich
TECHNICAL SERVICES
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Project: **RIPLEY ROAD UPGRADE STAGE 2**

Drawing Title: **TYPICAL CROSS SECTIONS SHEET 3**

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

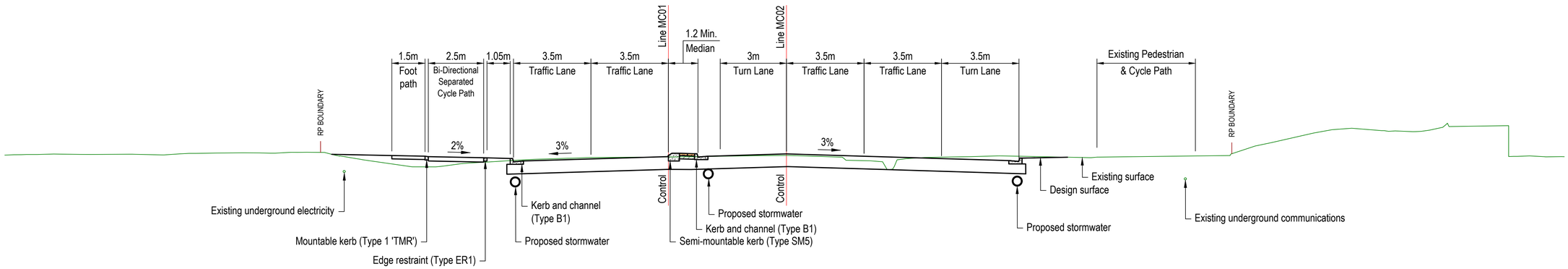
Project No.	Sheet No.	Rev.
INF04658	00103	2



TYPICAL CROSS SECTION L (MC01)

RIPLEY ROAD (CH2310)

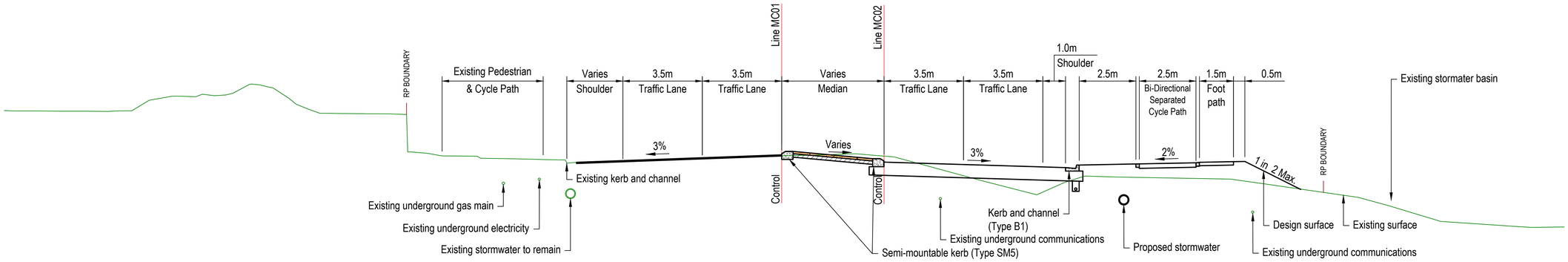
Scale 1:100



TYPICAL CROSS SECTION K (MC01)

RIPLEY ROAD (CH2000)

Scale 1:100



TYPICAL CROSS SECTION J (MC01)

RIPLEY ROAD (CH1680)

Scale 1:100

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

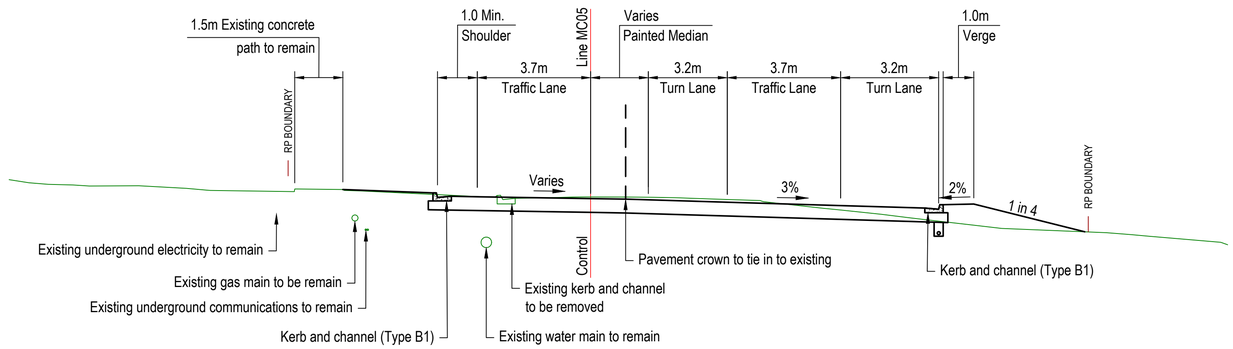
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Project: RIPLEY ROAD UPGRADE STAGE 2

Drawing Title: TYPICAL CROSS SECTIONS SHEET 4

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

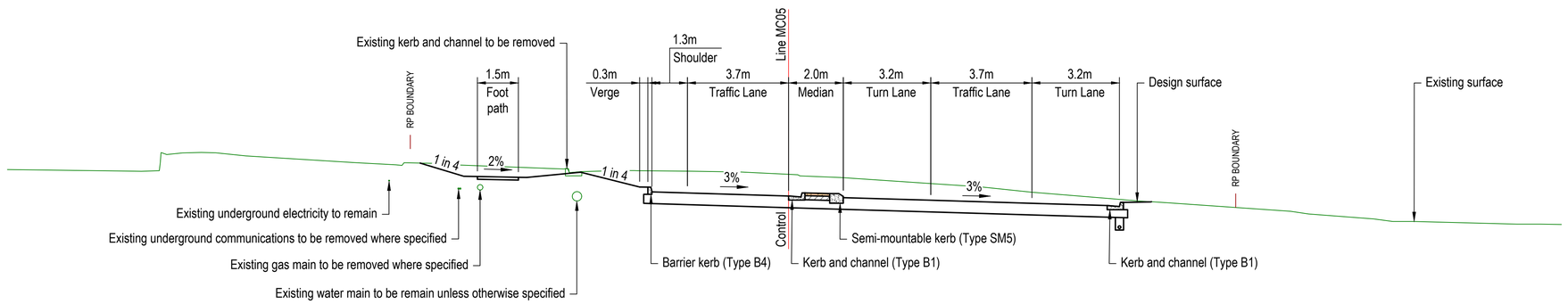
Project No.	Sheet No.	Rev.
INF04658	00104	2



TYPE CROSS SECTION O (MC05)

MONTEREA ROAD WEST (CH50 TO CH105)

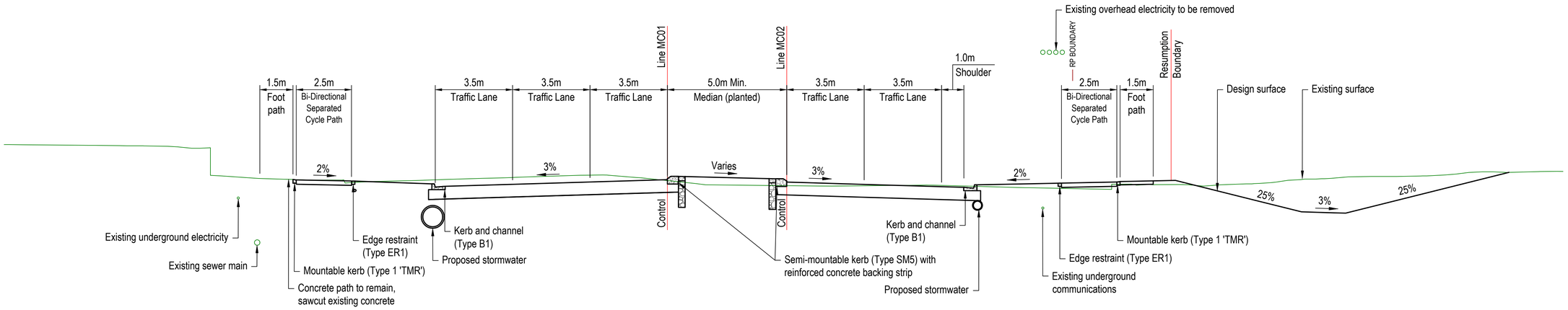
Scale 1:100



TYPE CROSS SECTION N (MC05)

MONTEREA ROAD WEST (CH0 TO CH50)

Scale 1:100



TYPICAL CROSS SECTION M (MC01)

RIPLEY ROAD (CH2600)

Scale 1:100

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL
Approved By
(For) General Manager (I&E)
Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project

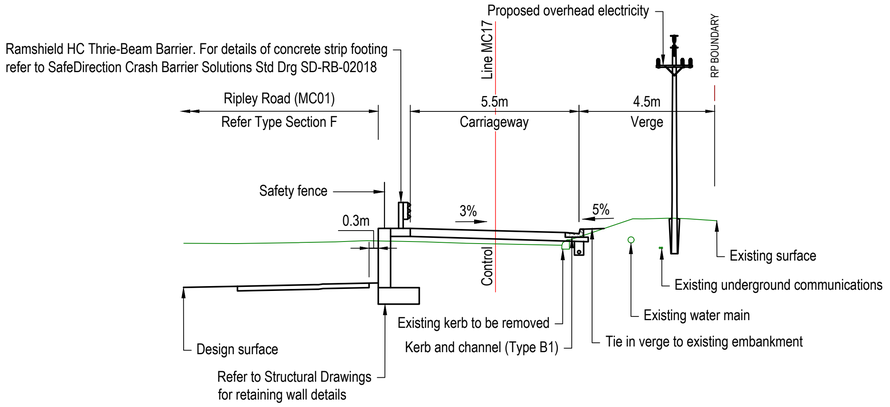
RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

TYPICAL CROSS SECTIONS
SHEET 5

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

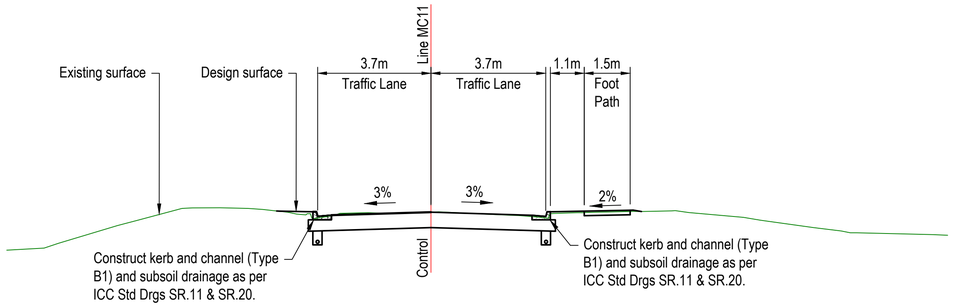
Project No.	Sheet No.	Rev.
INF04658	00105	2



TYPICAL CROSS SECTION R (MC17)

SERVICE ROAD 2 (CH45 TO CH90)

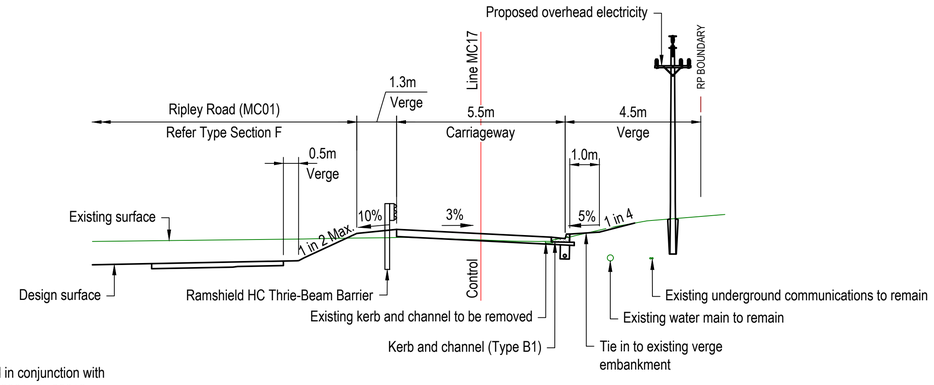
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TYPICAL CROSS SECTION U (MC11)

LILIUM STREET (CH30)

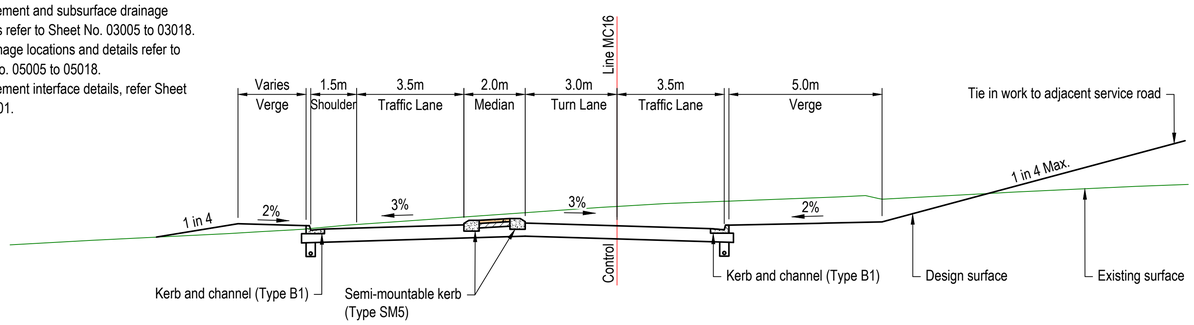
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TYPICAL CROSS SECTION Q (MC17)

SERVICE ROAD 1 (CH21 TO CH45)

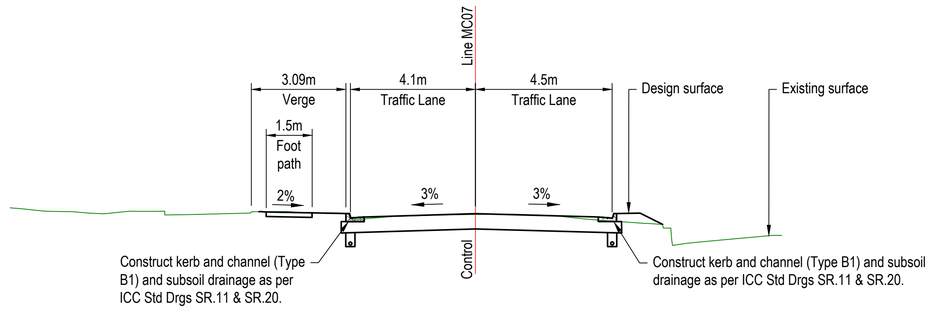
Scale 1:100



TYPE CROSS SECTION P (MC16)

MONTEREA ROAD WEST (CH0 TO CH27)

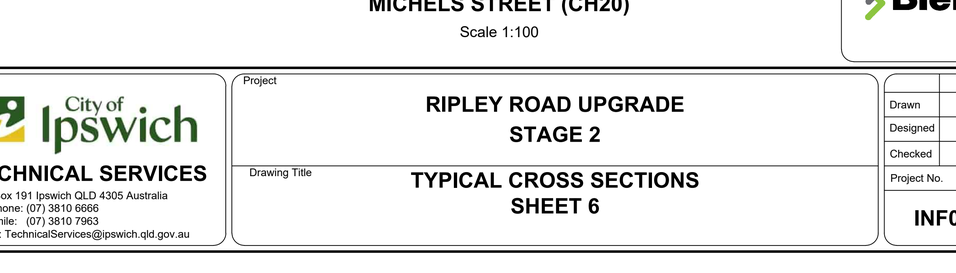
Scale 1:100



TYPICAL CROSS SECTION S (MC07)

MICHELS STREET (CH20)

Scale 1:100



NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project

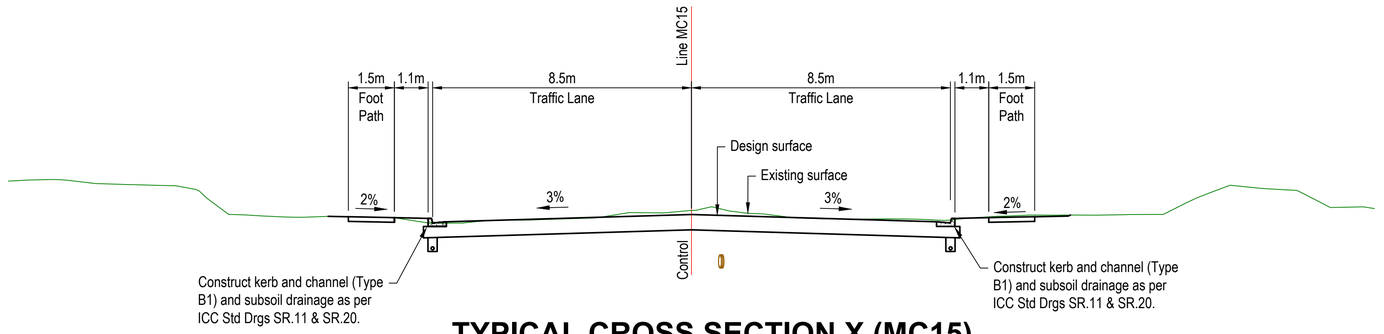
RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

TYPICAL CROSS SECTIONS
SHEET 6

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

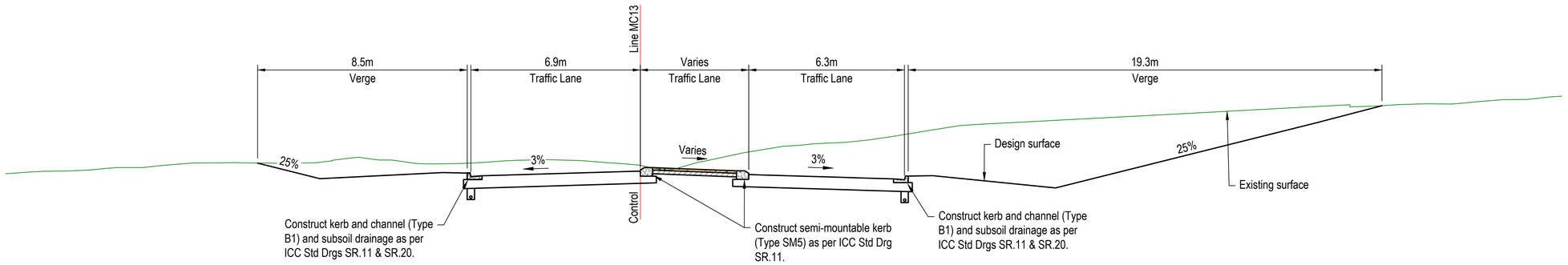
Project No.	Sheet No.	Rev.
INF04658	00106	2



TYPICAL CROSS SECTION X (MC15)

BROOKING RISE (CH30)

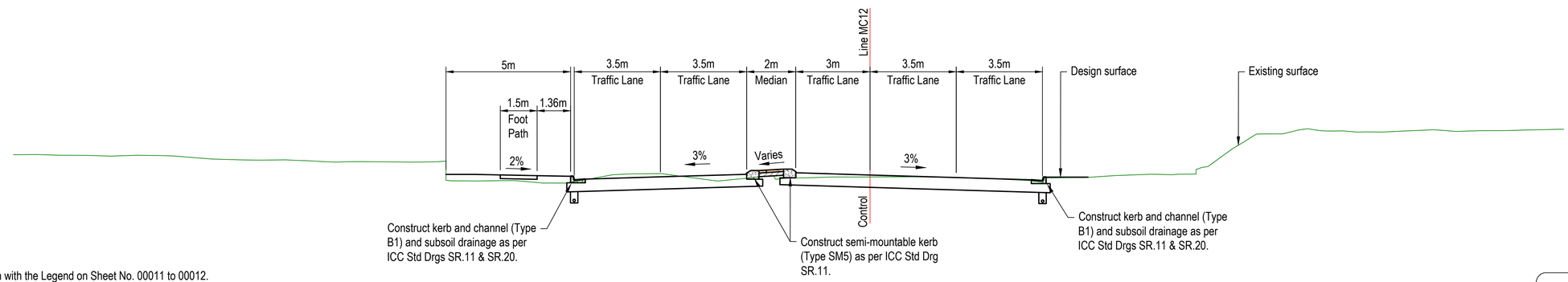
Scale 1:100



TYPICAL CROSS SECTION W (MC13)

WENSLEY ROAD (CH33)

Scale 1:100



TYPICAL CROSS SECTION V (MC12)

FISCHER ROAD (CH50)

Scale 1:100

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project: RIPLEY ROAD UPGRADE STAGE 2

Drawing Title: TYPICAL CROSS SECTIONS SHEET 7

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	00107	2

HOLD - STAGE 1

WARNING!

BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

WARNING!

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Type 1-B Fence to ICC Std Drg No. SR.33 with Std Post

7001 GLASSEY PARADE

TC 787.141

LIMIT OF STAGE 1

LIMIT OF STAGE 2

CT 842.274

NEW ROAD 2

MC16

MC17

CT 80.157

TC 75.816

102.751

27.122

400 RIPLEY RD

SERVICE ROAD 1

CT 11.832

RIPLEY ROAD

CH 904

L10.050

MC01

MC02

CH 828.197

L3

0.000

FOR CONTINUATION REFER SHEET NO. 02004

CH 721.531

FOR CONTINUATION REFER SHEET NO. 02007

373-395 RIPLEY RD

TC 786.747

Tie footpath neatly to existing

MONTEREA ROAD

MC05

140 MONTEREA ROAD

FOR CONTINUATION REFER SHEET NO. 02006

NOTES

1. For referenced notes refer to Sheet No. 03001.

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
A	Issued for Construction	J.C	31.07.25
B	Stage 2 Updates	J.C	04.09.25

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	CIVIL
Certifier Name	Saud Shamsodien
Certifier No.	19631
Date	31.07.25
Signature:	Saud Shamsodien

Drawing Status: ISSUED FOR CONSTRUCTION

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

City of Ipswich

TECHNICAL SERVICES

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Project

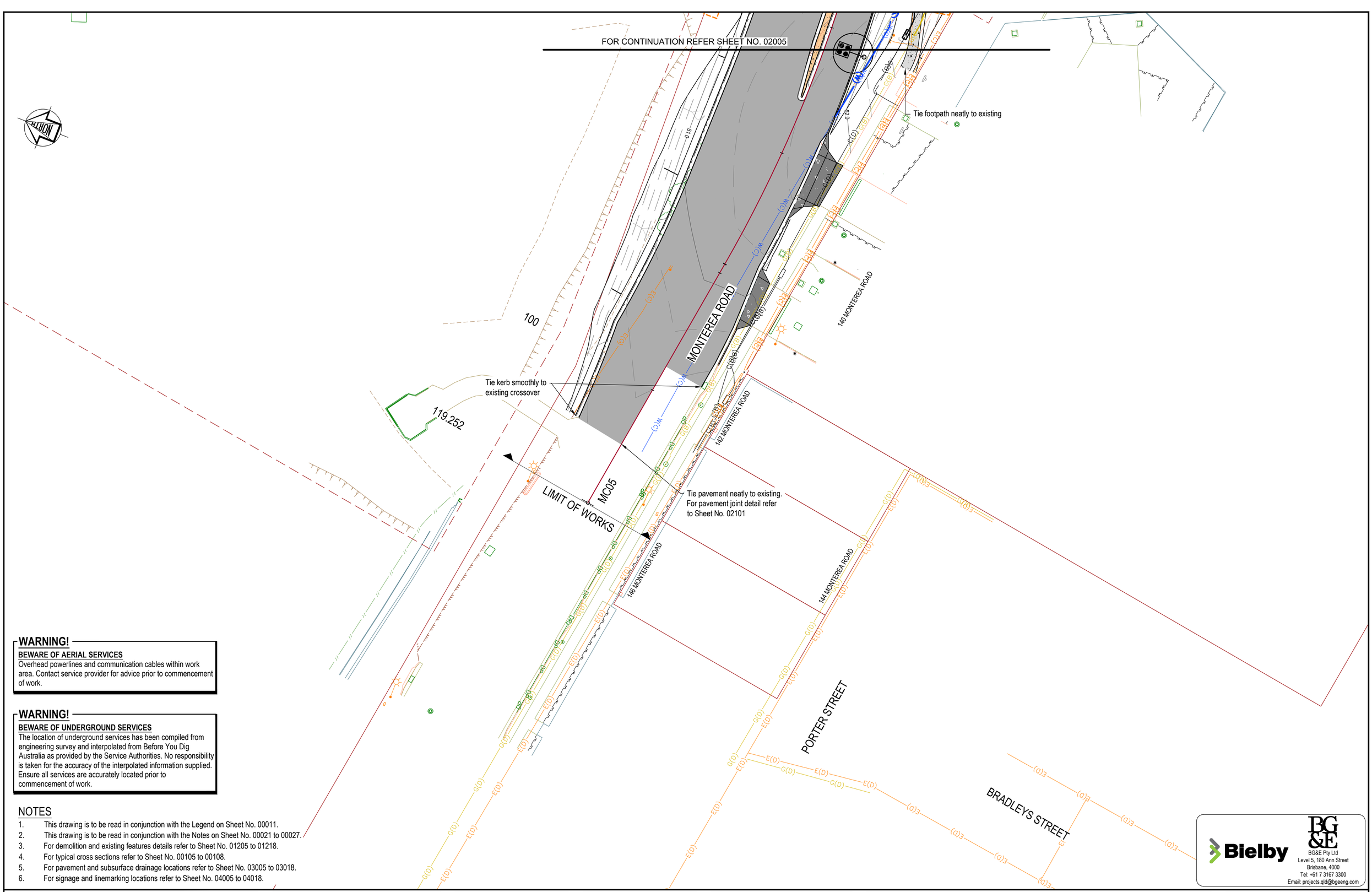
RIPLEY ROAD UPGRADE STAGE 1

Drawing Title

ROADWORKS AND SETOUT PLAN SHEET 5

	Name	Date
Drawn	J.C	31.07.25
Designed	B.J	31.07.25
Checked	S.S	31.07.25

Project No.	Sheet No.	Rev.
INF04658	02005	B



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WARNING!

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NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For demolition and existing features details refer to Sheet No. 01205 to 01218.
4. For typical cross sections refer to Sheet No. 00105 to 00108.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For signage and linemarking locations refer to Sheet No. 04005 to 04018.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	JUN-2025
3	Re-Issued for 100% Detailed Design	J.C	JUL-2025
4	Re-Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

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Project

RIPLEY ROAD UPGRADE
STAGE 2

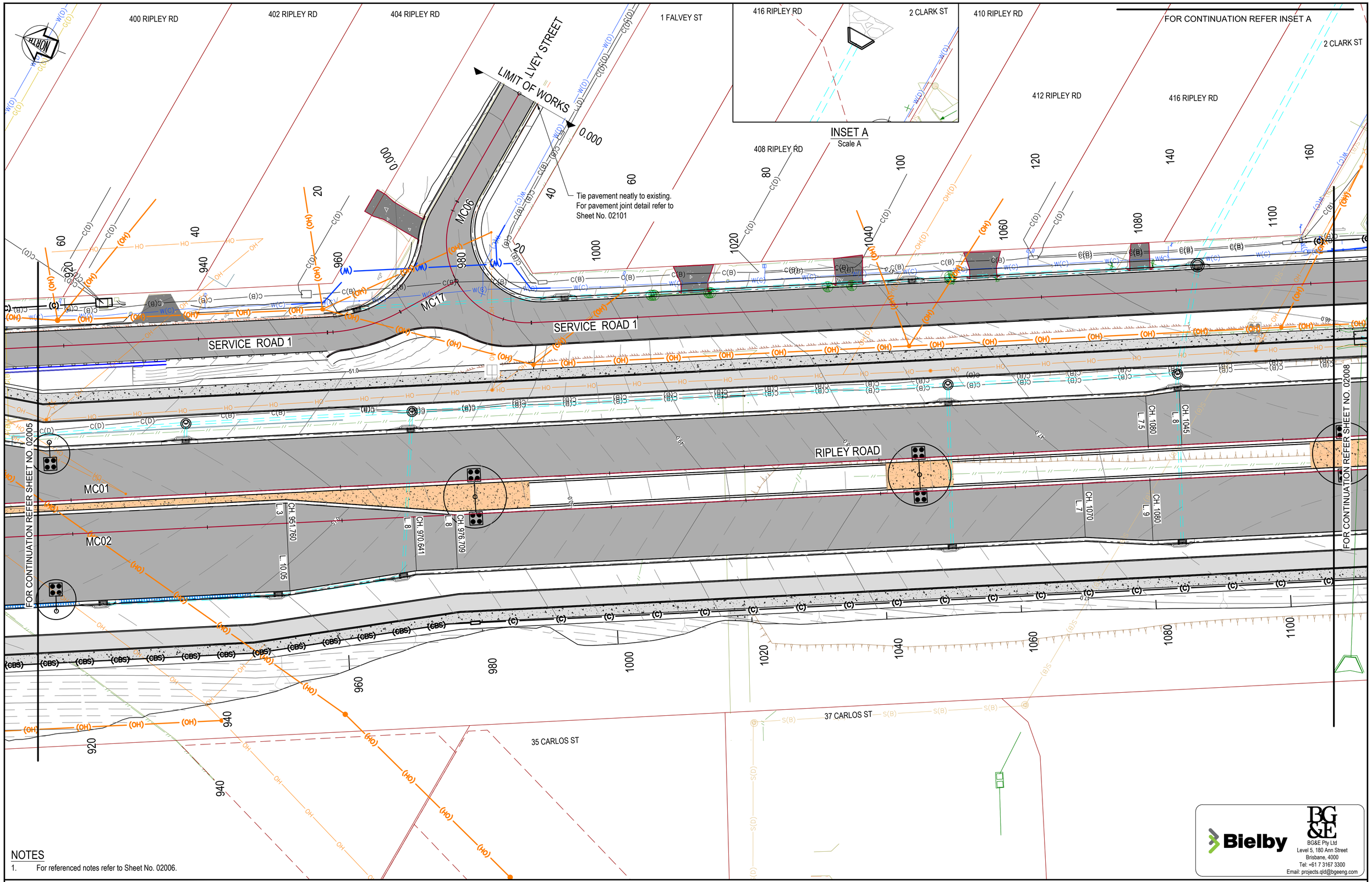
Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 6

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02006	4

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NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	JUN-2025
3	Re-Issued for 100% Detailed Design	J.C	JUL-2025
4	Re-Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich
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Project

RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 7

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02007	4

2 CLARK ST
420 RIPLEY RD
422 RIPLEY RD
424 RIPLEY RD
426-428 RIPLEY RD
2 MICHELS ST
432 RIPLEY RD
LIMIT OF WORKS
MICHELS STREET
MC07
MK07A
MK07B
MC06
SERVICE ROAD 1
RIPLEY ROAD
MC01
MC02
Tie pavement neatly to existing.
For pavement joint detail refer to
Sheet No. 02101
FOR CONTINUATION REFER SHEET NO. 02007
FOR CONTINUATION REFER SHEET NO. 02009
35 CARLOS ST
433 RIPLEY ROAD
For proposed resumption boundary
details refer to Sheet No. 01101
FOR CONTINUATION REFER INSET B
CH. 1277
CH. 1293.188
CH. 1287
L. 8
L. 8
L. 3
MD220

INSET B
Scale A

NOTES
1. For referenced notes refer to Sheet No. 02006.

WARNING!
BEWARE OF UNDERGROUND SERVICES
The location of underground services has been compiled from engineering survey and interpolated from Before You Dig Australia as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

WARNING!
BEWARE OF AERIAL SERVICES
Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NOTES
1. For referenc

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA
Horiz. Datum: Terrain 2001 | Vertical Datum: AHD | Level Book: Grid

Size: A1 - Scales before reduction:
0 2 4 6 8 10 12 1:250
Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL
Approved By
.....
(For) General Manager (I&E)
Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich
TECHNICAL SERVICES
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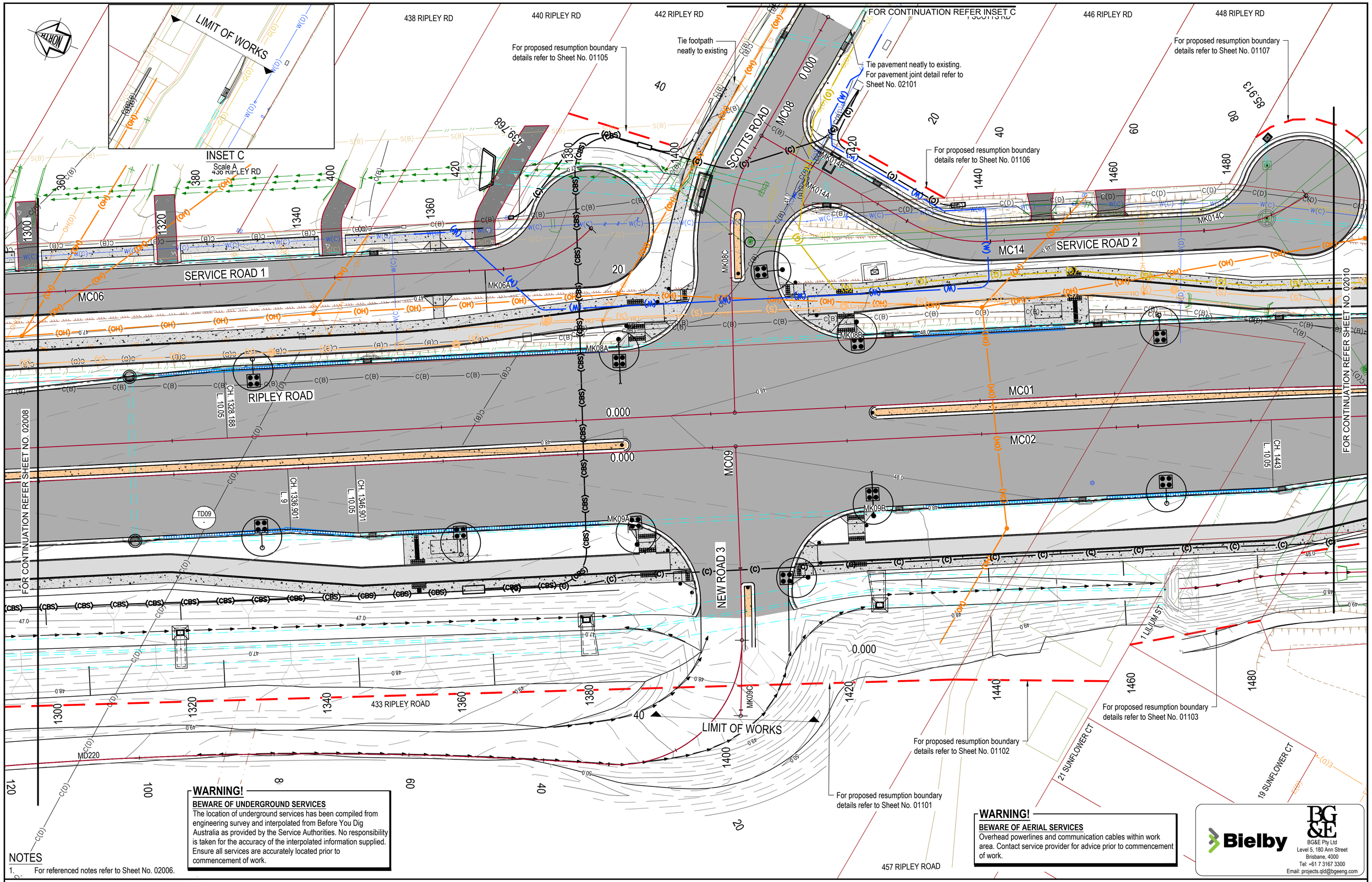
Project
RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title
ROADWORKS AND SETOUT PLAN
SHEET 8

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02008	2

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NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project

RIPLEY ROAD UPGRADE STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN SHEET 9

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02009	2

Bielby

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2 RHEA DE WIT DR

NORTH

Tie footpath neatly to existing

LIMIT OF WORKS

39.664

RHEA DE WIT DR

MC10

For proposed resumption boundary details refer to Sheet No. 01107

Tie pavement neatly to existing. For pavement joint detail refer to Sheet No. 02101

Tie footpath neatly to existing

TREVORROW WAY

3 TREVORROW WAY

5 TREVORROW WAY

7 TREVORROW WAY

9 TREVORROW WAY

11 TREVORROW WAY

13 TREVORROW WAY

15 TREVORROW WAY

17 TREVORROW WAY

19 TREVORROW WAY

21 TREVORROW WAY

23 TREVORROW WAY

25 TREVORROW WAY

1 TREVORROW WAY

FOR CONTINUATION REFER SHEET NO. 02009

MK010A

MK010C

MK010B

RIPLEY ROAD

MC01

MC02

CH 1529.253

L 3

CH 1508

L 7.5

MK011A

MK011C

MK011B

CH 1643.175

L 9.55

CH 1698

L 8.5

FOR CONTINUATION REFER SHEET NO. 02011

1 LILIUM ST

LOT 91 RIPLEY RD

MC11

LIMIT OF WORKS

33.744

Tie pavement neatly to existing. For pavement joint detail refer to Sheet No. 02101

For proposed resumption boundary details refer to Sheet No. 011014

For proposed resumption boundary details refer to Sheet No. 01103

LILIUM STREET

SUNSHINE STREET

12 LILIUM STREET

1500 1520 1540 1560 1580 1600 1620 1640 1660 1680

20

NOTES

1. For referenced notes refer to Sheet No. 02006.

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA			
Horiz. Datum	Terrain 2001	Vertical Datum	AHD
Level Book	Grid		

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

P.O. Box 191 Ipswich QLD 4305 Australia
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Project

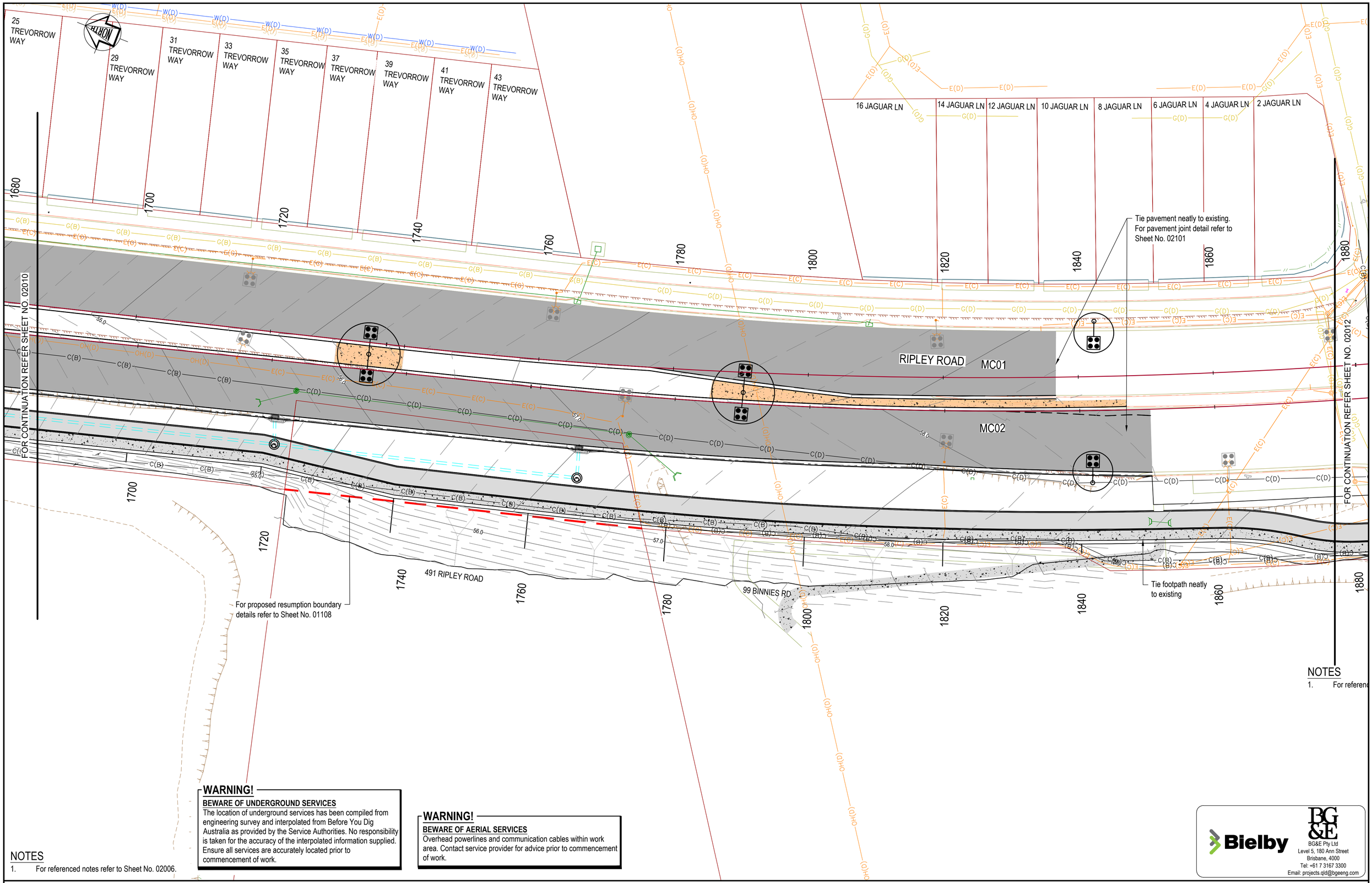
RIPLEY ROAD UPGRADE STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN SHEET 10

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02010	2



NOTES

1. For referenced notes refer to Sheet No. 02006.

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NOTES

1. For reference

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	
Signature:	

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project

RIPLEY ROAD UPGRADE STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN SHEET 11

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02011	2

NORTH

SUNBEAM LANE

AMBER CRESCENT

CANARY STREET

RIPLEY ROAD

BINNIES ROAD

2 BINNIES RD

18 SUNBEAM LN
16 SUNBEAM LN
14 SUNBEAM LN
12 SUNBEAM LN
10 SUNBEAM LN
8 SUNBEAM LN
6 SUNBEAM LN
4 SUNBEAM LN
2 SUNBEAM LN
17 AMBER CCT
19 AMBER CCT
21 AMBER CCT
23 AMBER CCT
25 AMBER CCT
27 AMBER CCT
29 AMBER CCT
31 AMBER CCT
33 AMBER CCT
35 AMBER CCT

MC01

MC02

Tie footpath neatly to existing

Tie pavement neatly to existing. For pavement joint detail refer to Sheet No. 02101

Tie footpath neatly to existing

CH 2055.317
L 10.05

CH 2030.214
L 3.55

FOR CONTINUATION REFER SHEET NO. 02013

FOR CONTINUATION REFER SHEET NO. 02011

For culvert details and section refer to Sheet No. 05103

FOR CONTINUATION REFER INSET D

INSET D
Scale A

NOTES

1. For referenced notes refer to Sheet No. 02006.

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich
TECHNICAL SERVICES
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Facsimile: (07) 3810 7963
e-mail: TechnicalServices@ipswich.qld.gov.au

Project

RIPLEY ROAD UPGRADE
STAGE 2

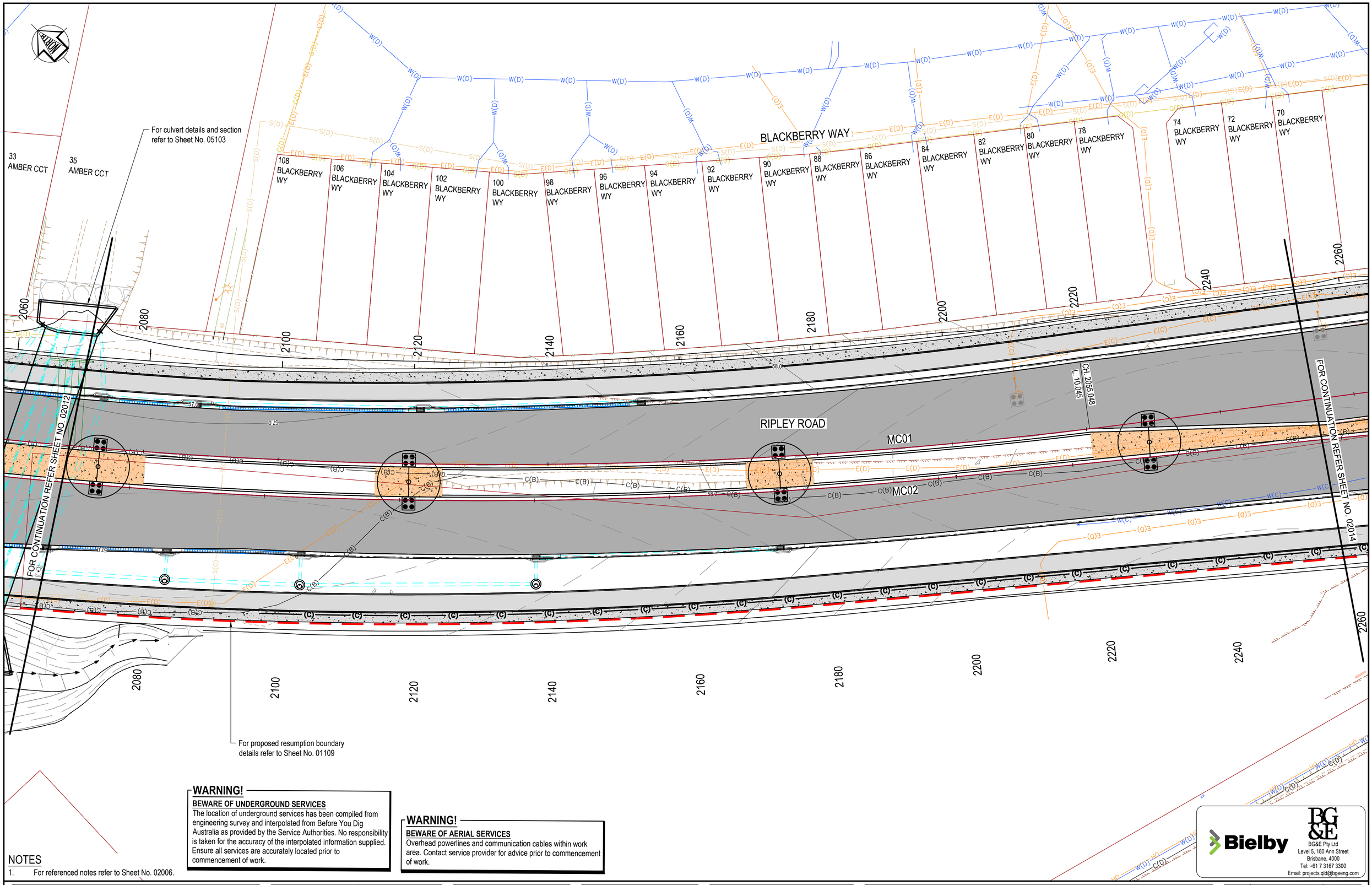
Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 12

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02012	2

Bielby
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WARNING!

BEWARE OF UNDERGROUND SERVICES

The location of underground services has been compiled from engineering survey and interpolated from Before You Dig Australia as provided by the Service Authorities. No responsibility is taken for the accuracy of the interpolated information supplied. Ensure all services are accurately located prior to commencement of work.

WARNING!

BEWARE OF AERIAL SERVICES

Overhead powerlines and communication cables within work area. Contact service provider for advice prior to commencement of work.

NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Bielby

BG&E

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Project

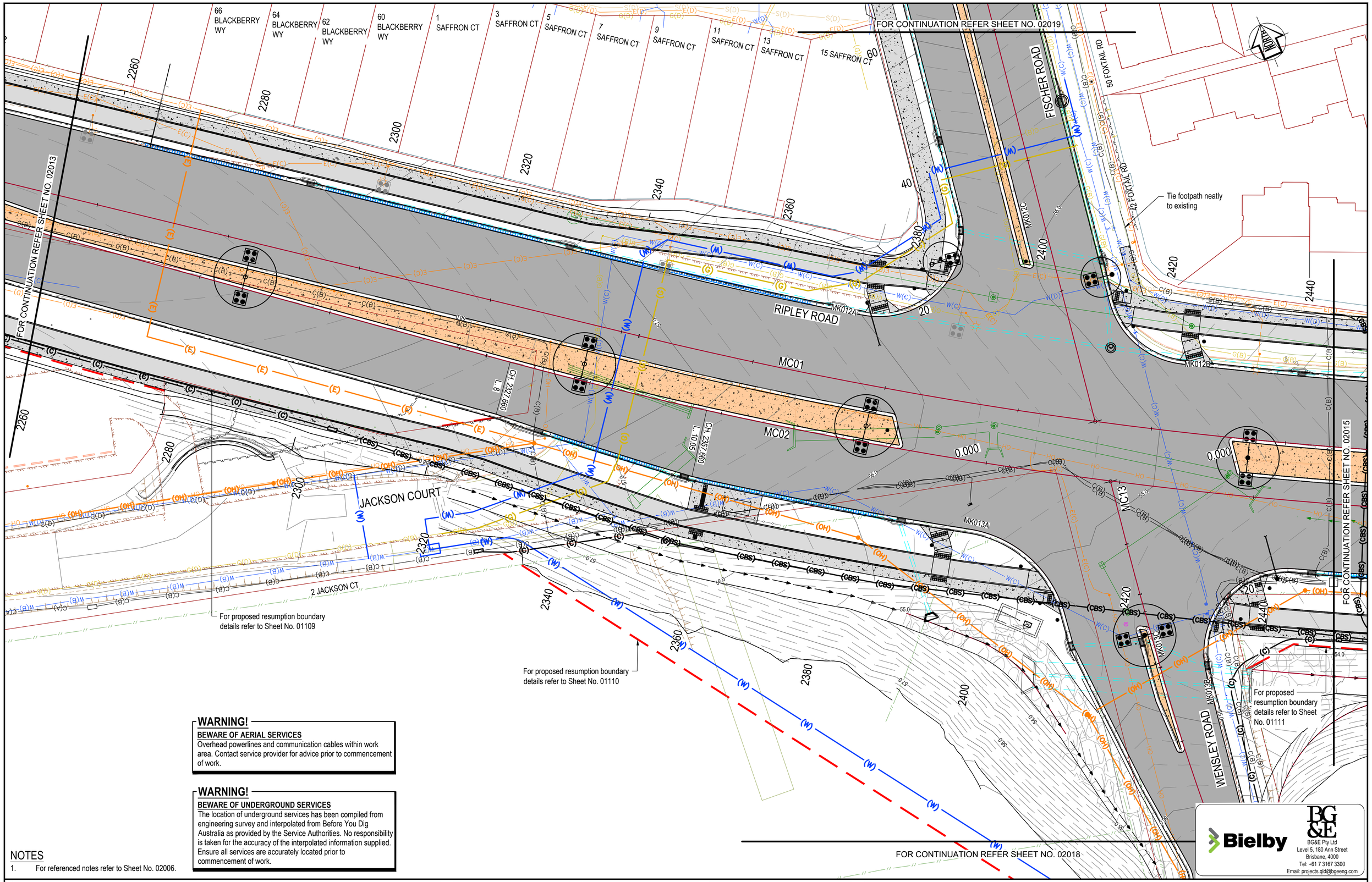
RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 13

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02013	2



WARNING!

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WARNING!

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NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: 100% DETAILED DESIGN ISSUE

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

City of Ipswich

TECHNICAL SERVICES

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Project

RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

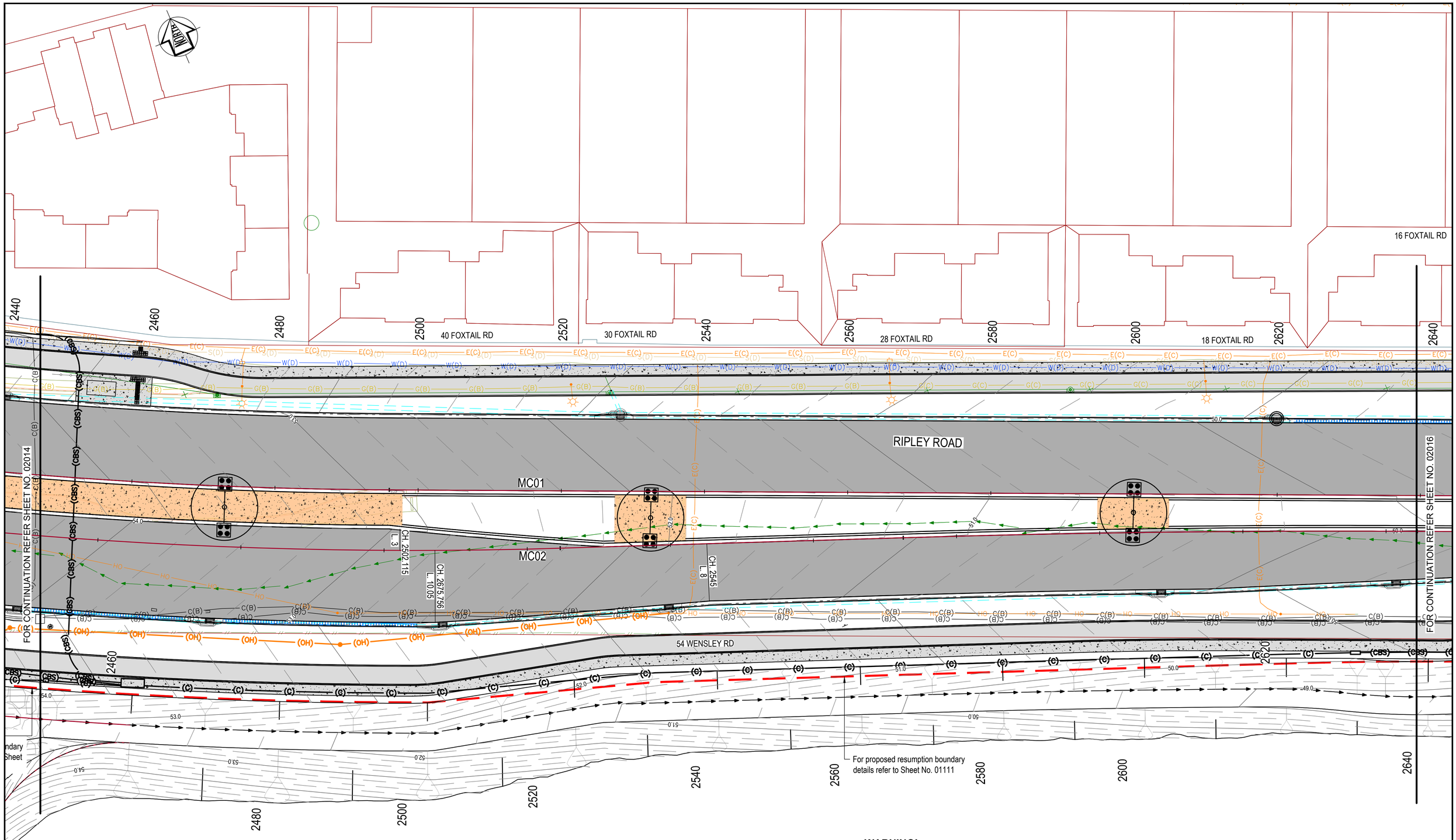
ROADWORKS AND SETOUT PLAN
SHEET 14

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02014	2

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NOTES

1. For referenced notes refer to Sheet No. 02006.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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Project

RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 15

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02015	2

2 BROOKING RISE

1 BROOKING RISE

BROOKING RISE

13 TUCKEROO ST

16 FOXTAIL RD

28.706

LIMIT OF WORKS

Tie footpath neatly to existing

Tie footpath neatly to existing

Tie footpath neatly to existing

20

MC15

2640 2660 2680 2700 2720 2740 2760 2780 2800 2820

MK015B

0.000

MK015B

RIPLEY ROAD

MC01

MC02

CH 2695.988 L 6.55

CH 2700 L 5.5

FOR CONTINUATION REFER SHEET NO. 02015

FOR CONTINUATION REFER SHEET NO. 02017

For proposed resumption boundary details refer to Sheet No. 01111

2640 2660 2680 2700 2720 2740 2760 2780 2800 2820 2840

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NOTES

1. For referenced notes refer to Sheet No. 02006.

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REVISIONS

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2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: 100% DETAILED DESIGN ISSUE

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

City of Ipswich

TECHNICAL SERVICES

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e-mail: TechnicalServices@ipswich.qld.gov.au

Project

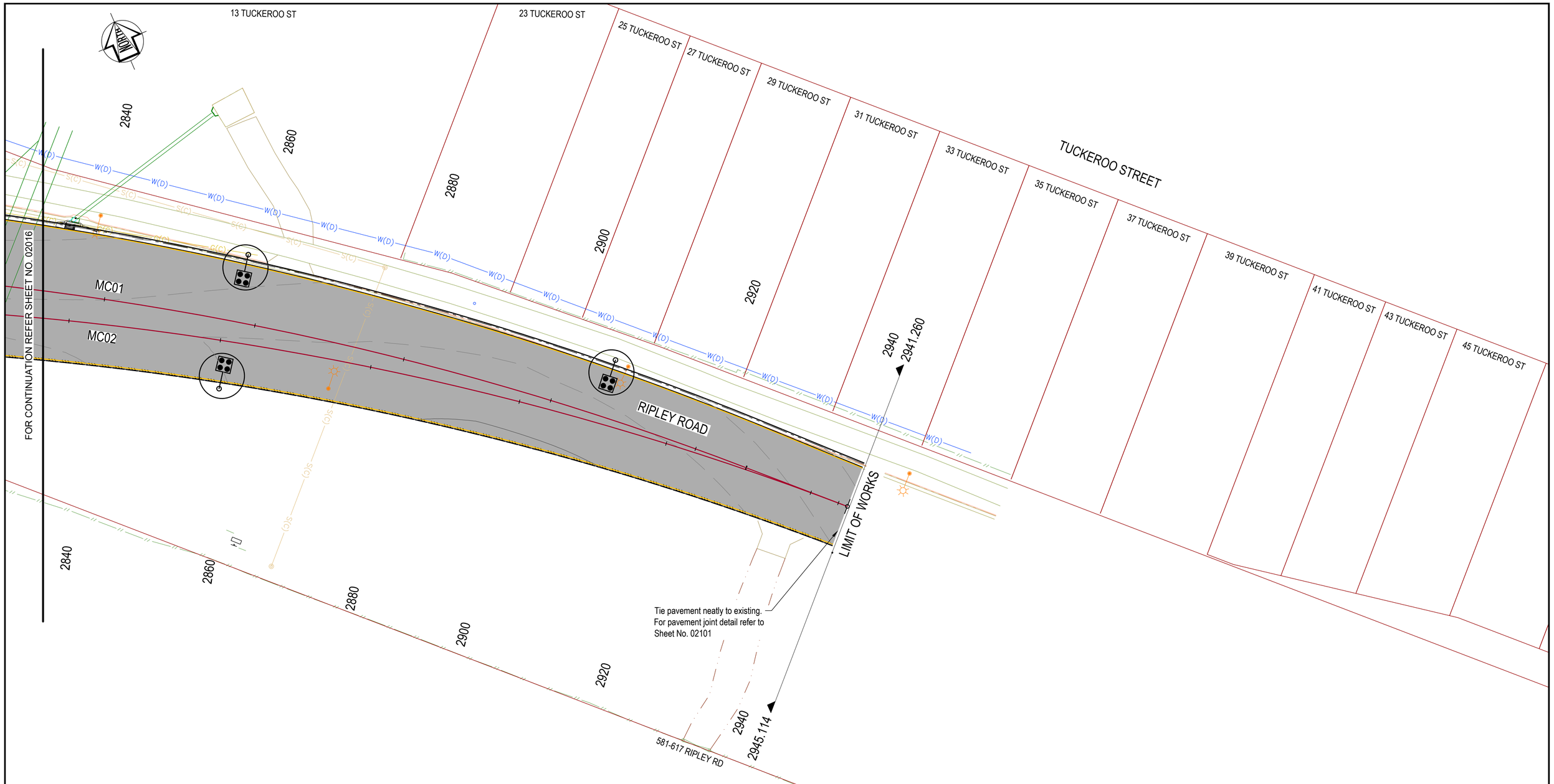
RIPLEY ROAD UPGRADE STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN SHEET 16

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02016	2



WARNING!

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NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: 100% DETAILED DESIGN ISSUE

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

City of Ipswich

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Facsimile: (07) 3810 7963
e-mail: TechnicalServices@ipswich.qld.gov.au

Project

RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

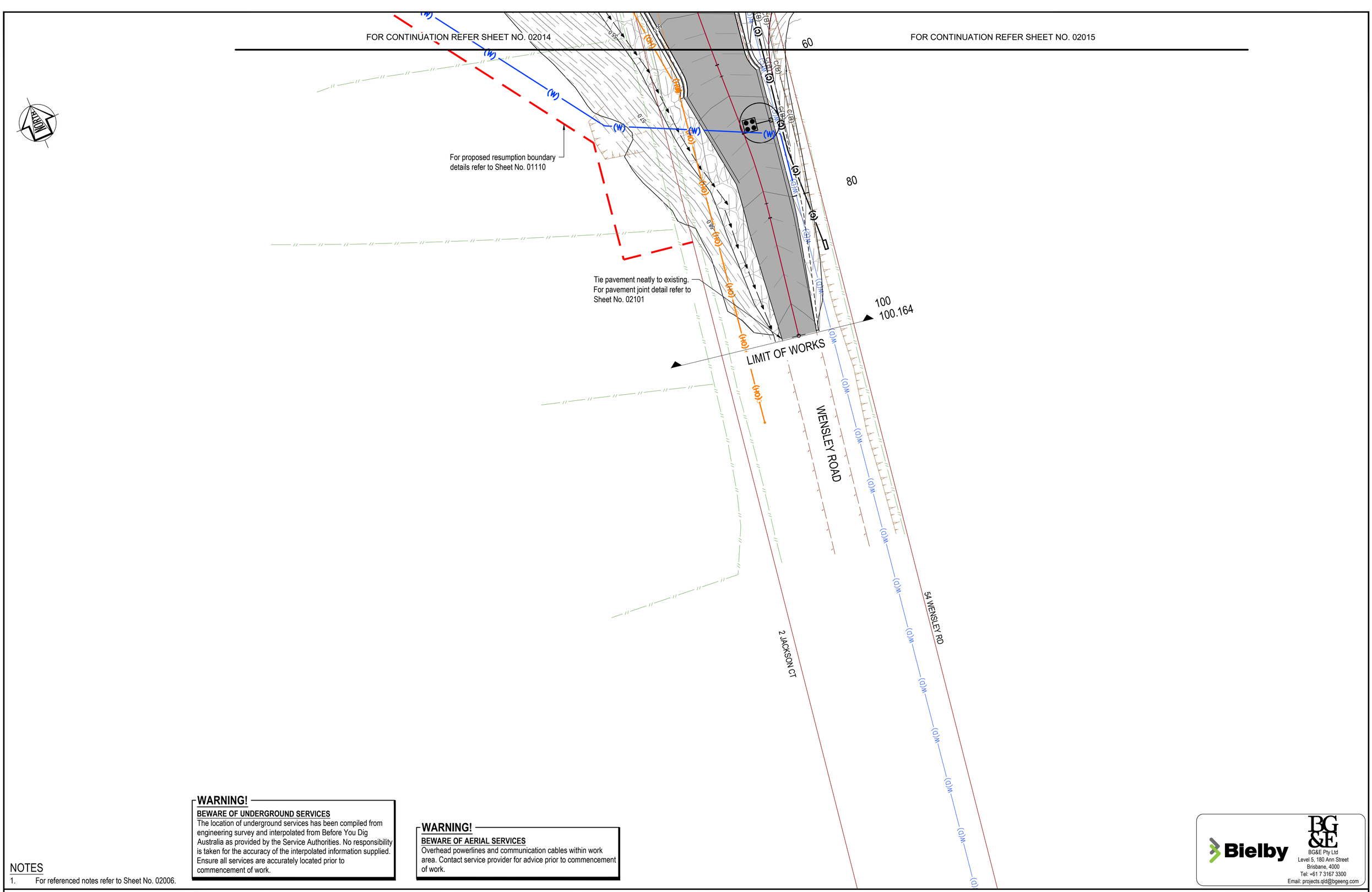
ROADWORKS AND SETOUT PLAN
SHEET 17

	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02017	2

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NOTES

1. For referenced notes refer to Sheet No. 02006.

REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

TECHNICAL SERVICES

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e-mail: TechnicalServices@ipswich.qld.gov.au

Project

RIPLEY ROAD UPGRADE
STAGE 2

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 18

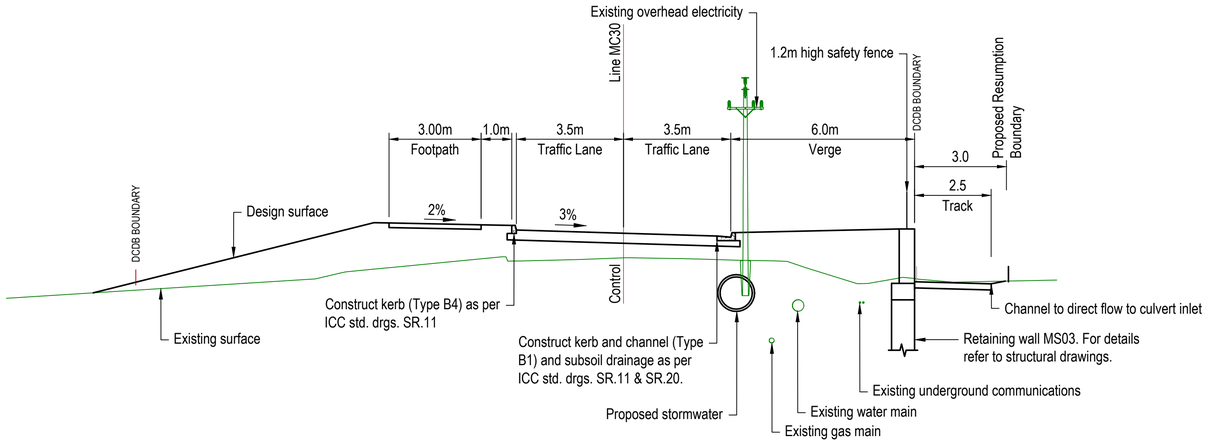
	Name	Date
Drawn	J.C	SEP-2025
Designed	B.J	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02018	2

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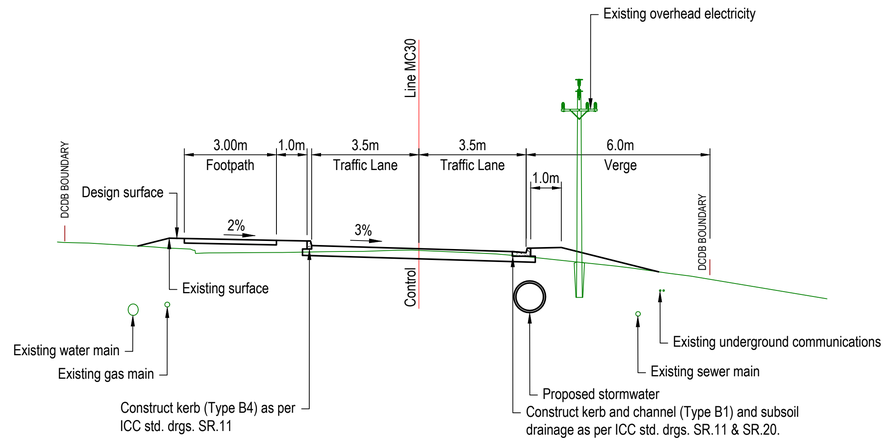
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Email: projects.qld@bgeeng.com



TYPICAL CROSS SECTION Z (MC30)

FISCHER ROAD (CH200 TO CH385)

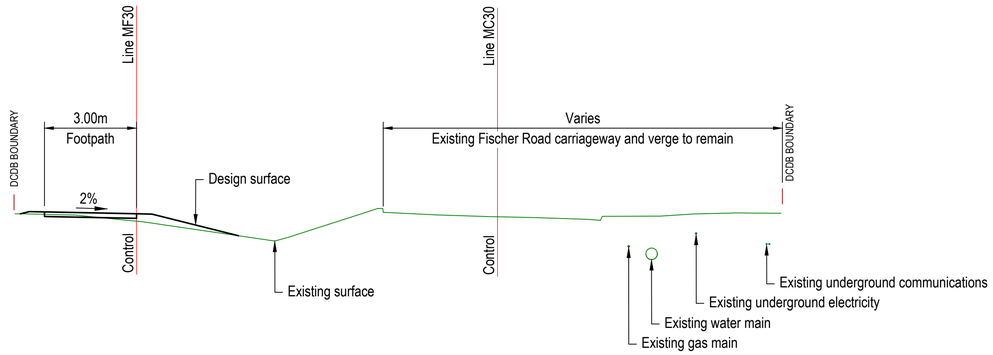
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TYPICAL CROSS SECTION B1 (MC30)

FISCHER ROAD (CH525 TO CH997)

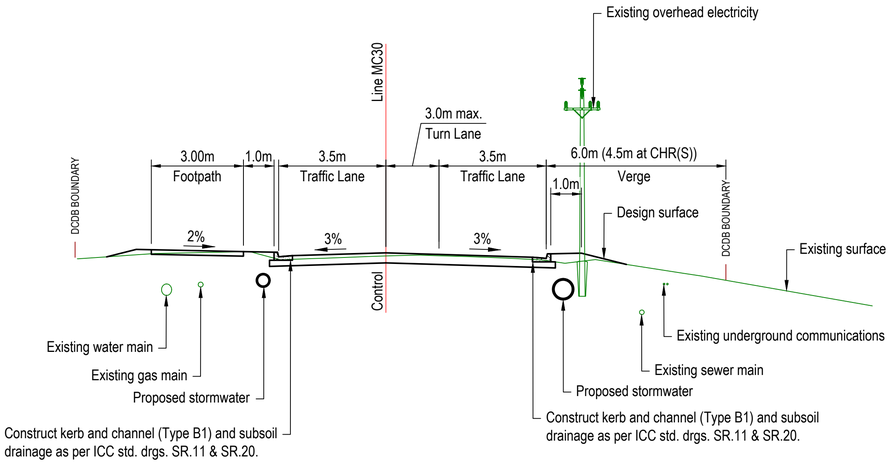
Scale 1:100



TYPICAL CROSS SECTION Y (MC30)

FISCHER ROAD (CH00 TO CH200)

Scale 1:100



TYPICAL CROSS SECTION A1 (MC30)

FISCHER ROAD (CH415 TO CH525)

Scale 1:100

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA					
Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION	
Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

Drawing Status: 100% DETAILED DESIGN ISSUE

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

City of Ipswich

TECHNICAL SERVICES

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Project

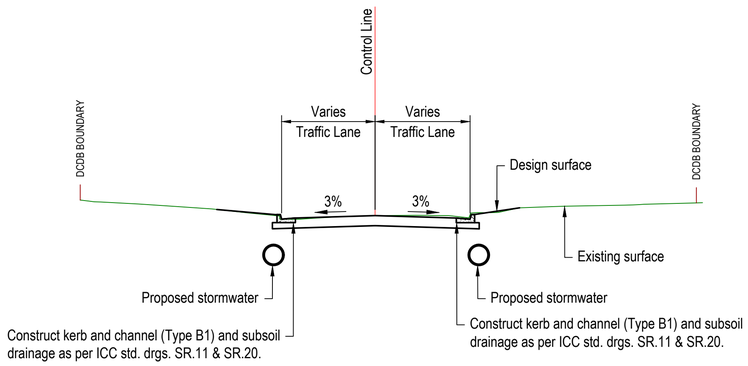
RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

TYPICAL CROSS SECTIONS
SHEET 8

	Name	Date
Drawn	J.C	SEP-2025
Designed	K.S	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	00108	2



TYPICAL CROSS SECTION C1 (MC34 - MC38)

NEVIS ROAD, SCOTTS ROAD, MICHELS ROAD, CLARKE STREET AND FALVEY STREET

Scale 1:100

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011 to 00012.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021 to 00027.
3. For variation in crossfall, widths and batter slopes refer to Sheet No. 02320 to 02371.
4. For landscaping areas and details refer to Sheet No. 03305 to 03318.
5. For pavement and subsurface drainage locations refer to Sheet No. 03005 to 03018.
6. For drainage locations and details refer to Sheet No. 05005 to 05018.
7. For pavement interface details, refer Sheet No. 03101.

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REVISIONS

Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

.....

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich
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Project: RIPLEY ROAD UPGRADE STAGE 3

Drawing Title: TYPICAL CROSS SECTIONS SHEET 9

	Name	Date
Drawn	J.C	SEP-2025
Designed	K.S	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	00109	2

NORTH

5 SAFFRON CT
7 SAFFRON CT
9 SAFFRON CT
11 SAFFRON CT
13 SAFFRON CT
15 SAFFRON CT
2340
54 BLACKBERRY WY
52 BLACKBERRY WY
50 BLACKBERRY WY
4 SAFFRON CT
6 SAFFRON CT
48 BLACKBERRY WY
46 BLACKBERRY WY
39 BLACKBERRY WY
37 BLACKBERRY WY
35 BLACKBERRY WY
33 BLACKBERRY WY
31 BLACKBERRY WY
29 BLACKBERRY WY
27 BLACKBERRY WY
BLACKBERRY WAY
44 BLACKBERRY WY
42 BLACKBERRY WY
40 BLACKBERRY WY
38 BLACKBERRY WY
36 BLACKBERRY WY
34 BLACKBERRY WY
60
80
100
120
140
160
180
200
220
240
000'0
LIMIT OF STAGE 3
LIMIT OF STAGE 2
FOR CONTINUATION REFER SHEET NO. 02014
MC14
FISCHER ROAD
64.0
42 FOXTAIL RD
46 FOXTAIL RD
48 FOXTAIL RD
52 FOXTAIL RD
54 FOXTAIL RD
56 FOXTAIL RD
58 FOXTAIL RD
60 FOXTAIL RD
62 FOXTAIL RD
160 PARKVIEW PDE
158 PARKVIEW PDE
156 PARKVIEW PDE
154 PARKVIEW PDE
152 PARKVIEW PDE
PARKVIEW PARADE
177 PARKVIEW PDE
175 PARKVIEW PDE
173 PARKVIEW PDE
171 PARKVIEW PDE
169 PARKVIEW PDE
294 FISCHER RD
U2/294 FISCHER RD
FOR CONTINUATION REFER SHEET NO. 02020
0.000

NOTES

1. This drawing is to be read in conjunction with the Legend on Sheet No. 00011.
2. This drawing is to be read in conjunction with the Notes on Sheet No. 00021.

WARNING!

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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
1	Issued for 50% Detailed Design	J.C	APL-2025
2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

Signature: .....

COUNCIL APPROVAL

Approved By

(For) General Manager (I&E)

Date:

Drawing Status: 100% DETAILED DESIGN ISSUE

City of Ipswich

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Facsimile: (07) 3810 7963
e-mail: TechnicalServices@ipswich.qld.gov.au

Project

RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

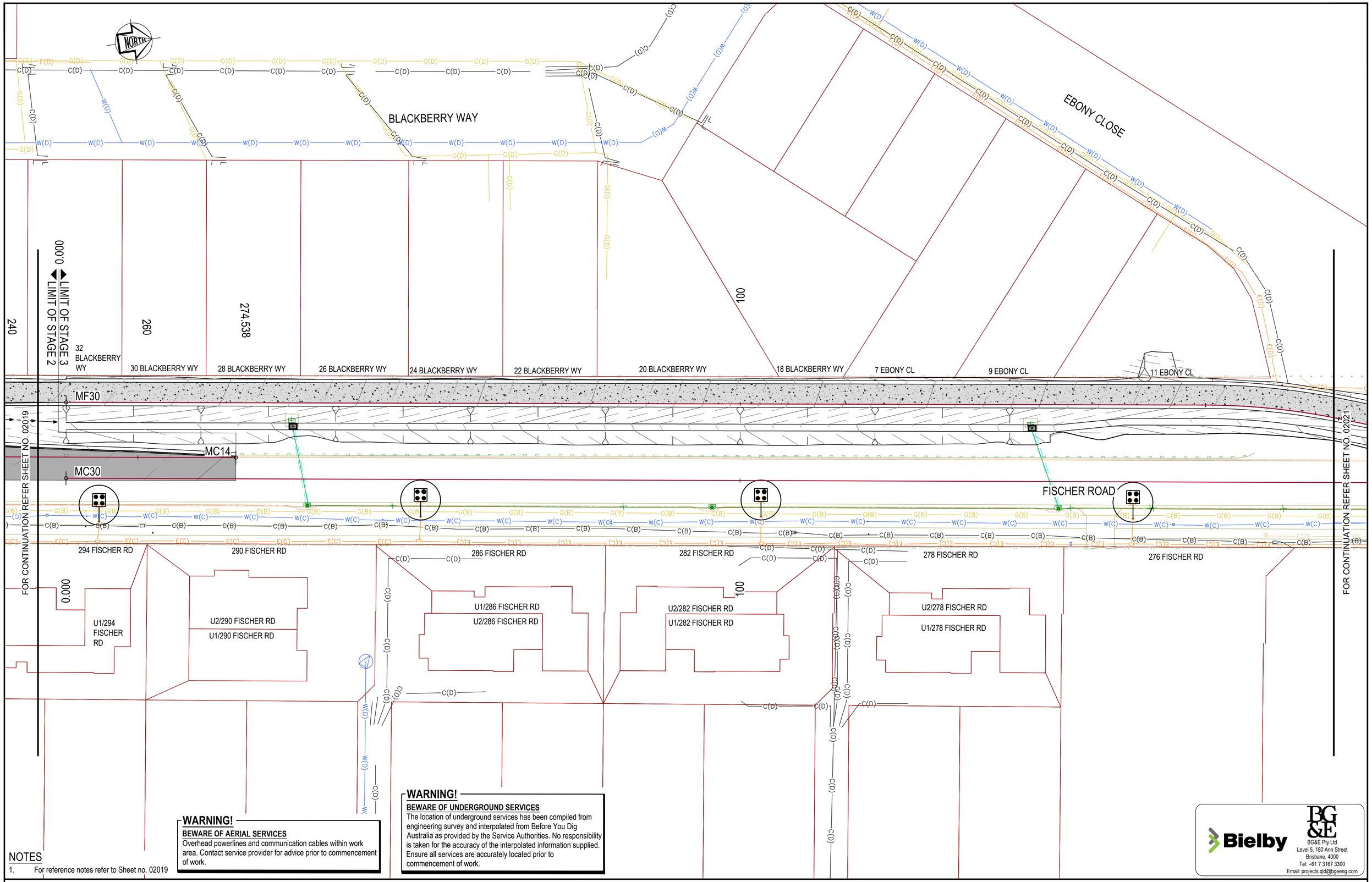
ROADWORKS AND SETOUT PLAN
SHEET 19

	Name	Date
Drawn	J.C	SEP-2025
Designed	K.S	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02019	2

Bielby BG&E

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WARNING!

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NOTES

1. For reference notes refer to Sheet no. 02019

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2	Issued for 100% Detailed Design	J.C	SEP-2025

SURVEY DATA

Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

0 2 4 6 8 10 12 1:250

Dimensions shown in metres except where shown otherwise

DRAWING CERTIFICATION

Classification	
Certifier Name	
Certifier No.	
Date	

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Approved By

.....

(For) General Manager (I&E)

Date:

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City of Ipswich

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Project

RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

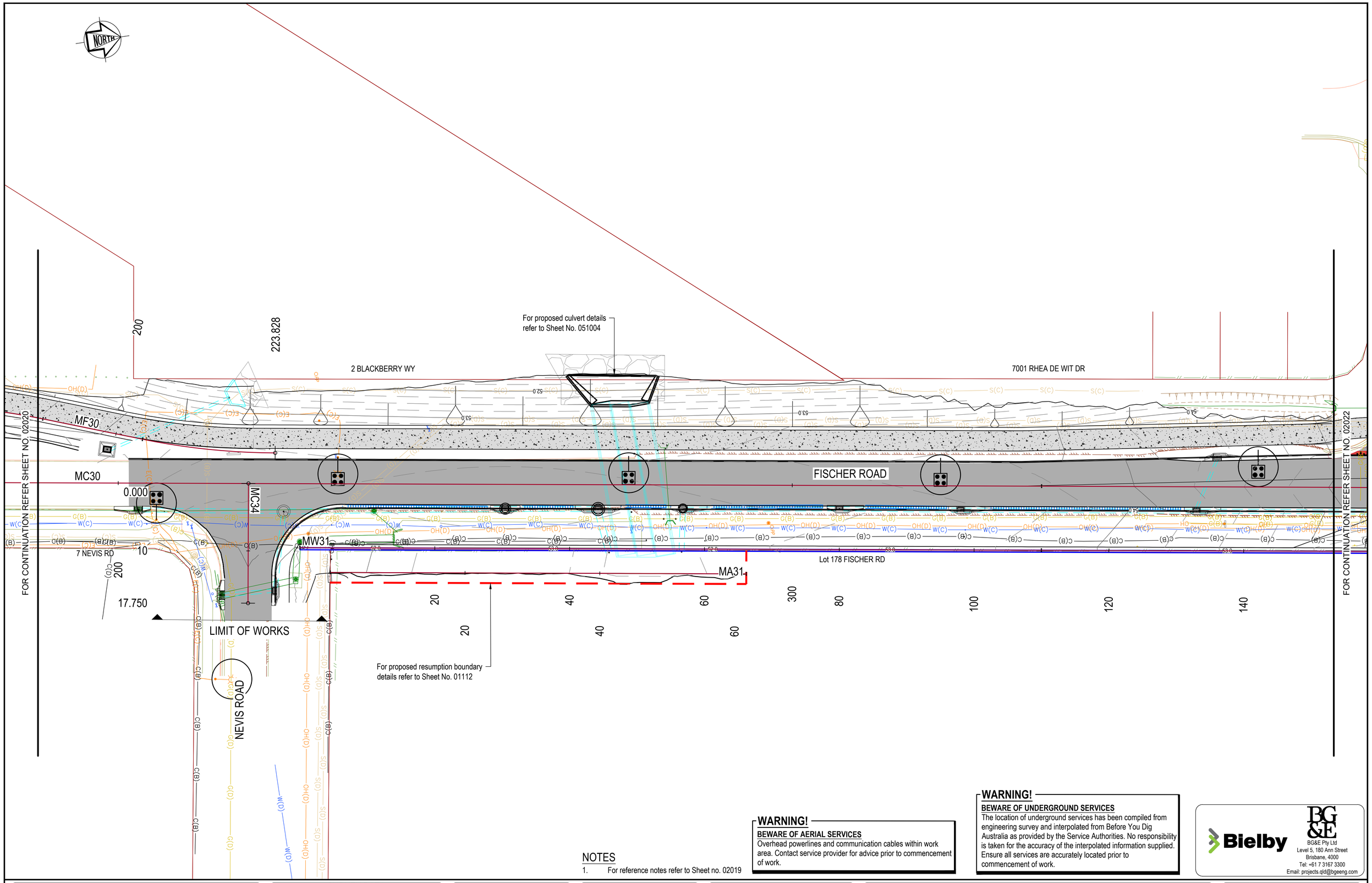
ROADWORKS AND SETOUT PLAN
SHEET 20

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Project No.	Sheet No.	Rev.
INF04658	02020	2

Bielby

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Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

Size: A1 - Scales before reduction:

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Dimensions shown in metres except where shown otherwise

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Project

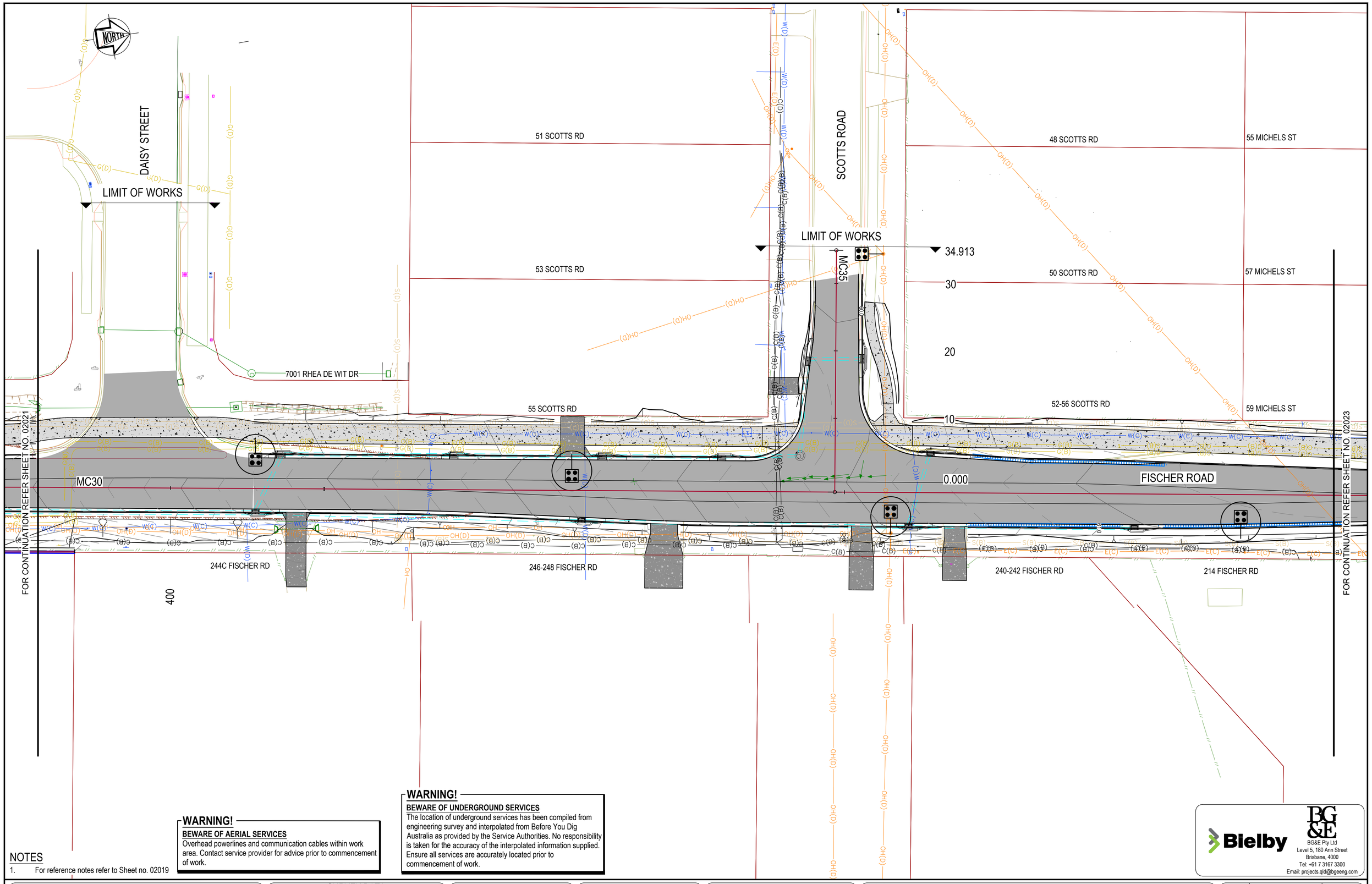
RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 21

	Name	Date
Drawn	J.C	SEP-2025
Designed	K.S	SEP-2025
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1	Issued for 50% Detailed Design	J.C	APL-2025
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Date:

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Project

RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 22

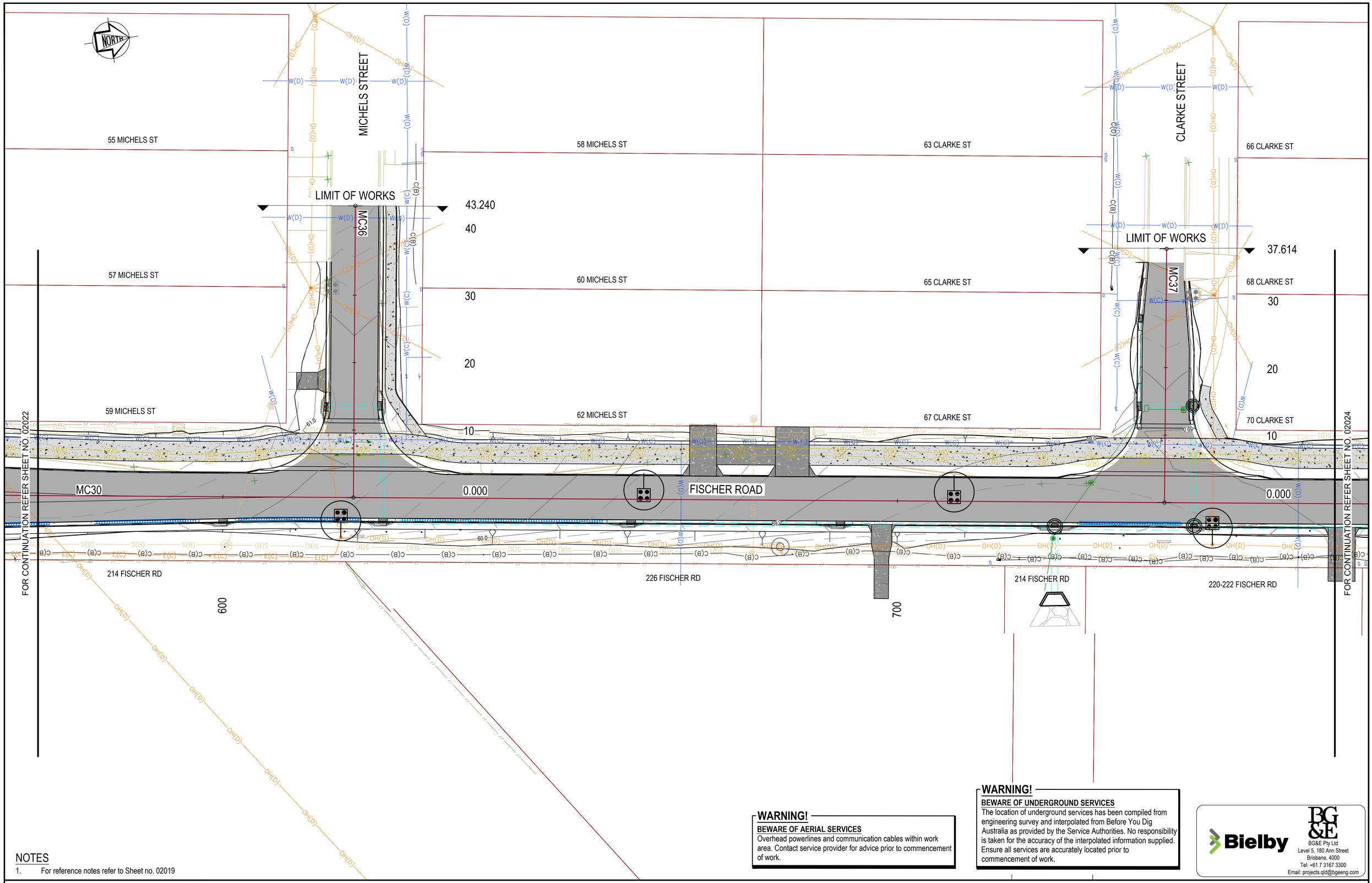
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Project

RIPLEY ROAD UPGRADE
STAGE 3

Drawing Title

ROADWORKS AND SETOUT PLAN
SHEET 23

	Name	Date
Drawn	J.C	SEP-2025
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Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02023	2

NORTH

66 CLARKE ST

71 FALVEY ST

FALVEY STREET

72 FALVEY ST

MONTEREA ROAD

68 CLARKE ST

73 FALVEY ST

LIMIT OF WORKS

30.430

30

MC38

74 FALVEY ST

20

70 CLARKE ST

75 FALVEY ST

10

76-78 FALVEY ST

7001 GLASSEY PARADE

FOR CONTINUATION REFER SHEET NO. 02023

MC30

FISCHER ROAD

0.000

LIMIT OF WORKS

216-218 FISCHER RD

210-212 FISCHER RD

206 FISCHER RD

198 FISCHER RD

800

893.665

MONTEREA ROAD

NOTES

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Horiz. Datum	Terrain 2001	Vertical Datum	AHD	Level Book	Grid

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DRAWING CERTIFICATION

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Project: **RIPLEY ROAD UPGRADE STAGE 3**

Drawing Title: **ROADWORKS AND SETOUT PLAN SHEET 24**

	Name	Date
Drawn	J.C	SEP-2025
Designed	K.S	SEP-2025
Checked	S.S	SEP-2025

Project No.	Sheet No.	Rev.
INF04658	02024	2

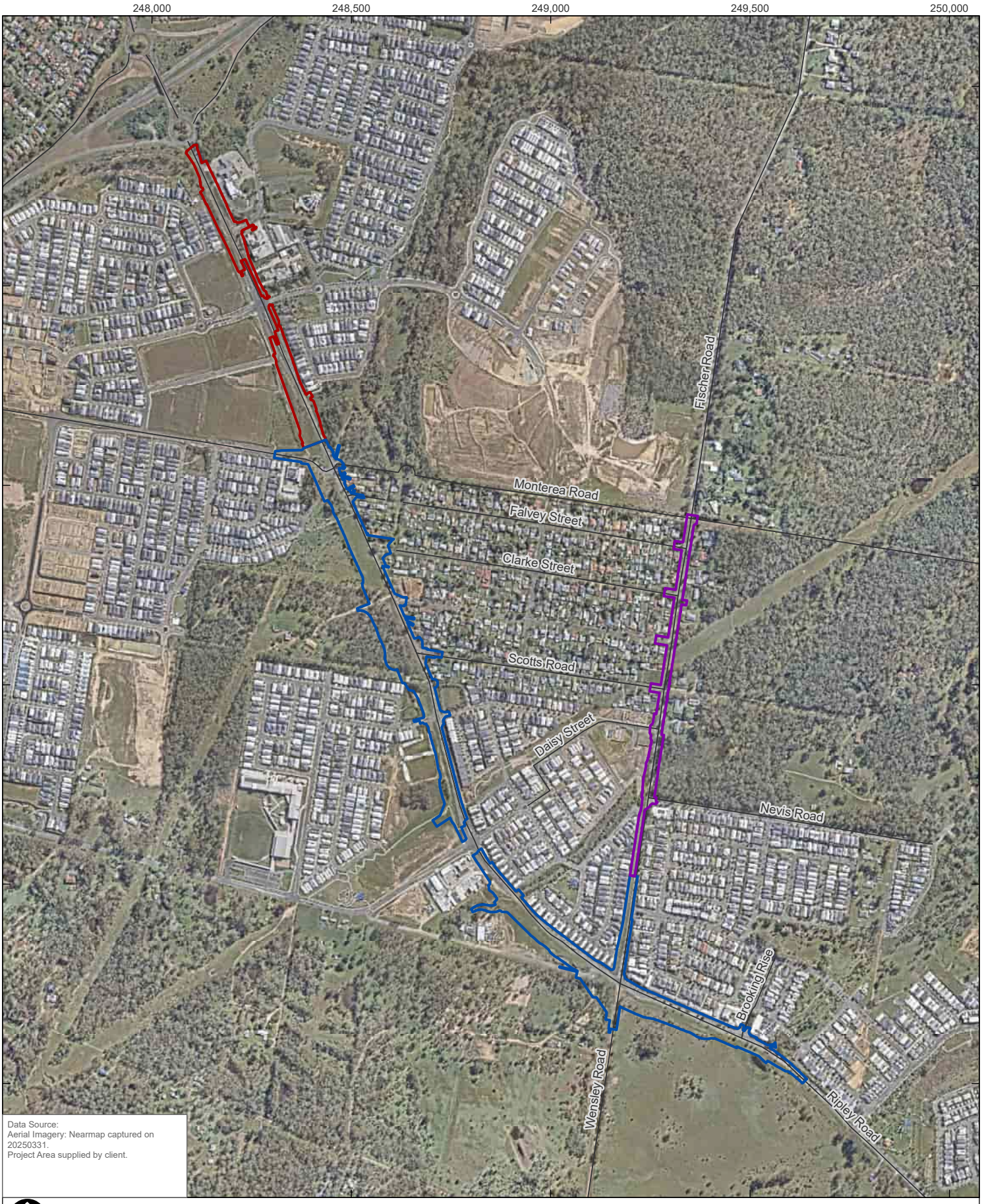
Attachment C Wider Project Location and Staging

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE EPBC REFERRAL

WIDER PROJECT LOCATION AND STAGING

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ATTACHMENT C

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F01-02_Project Location

Attachment D Terrestrial Ecological Assessment Report

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

Prepared by:

SLR Consulting Australia

SLR Project No.: 620.041764.00008

Client Reference No.: Cultural Heritage and Environmental Management: Ripley Road & Fischer Road Upgrade: 27.3.2.1 (b) (i)

28 August 2025

Revision: V3.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
V1.0	24 June 2025	Rachel McBride Dr Natalie Freeman Emily Hancock	Dr Natalie Toon	Leigh Knight
V2.0	22 August 2025	Dr Natalie Freeman Emily Hancock	Leigh Knight	Dr Natalie Toon
V3.0	28 August 2025	Dr Natalie Freeman Emily Hancock	Dave Hall	Luke Bertini

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Ipswich City Council (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

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Appendix C Species Lists
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Appendix E Protected Plant Flora Survey Report
Appendix F Koala SAT tree data

Acronyms and Abbreviations

ALA	Atlas of Living Australia
BG&E	BG&E Pty Limited
CEMP	Construction Environmental Management Plan
DCCEEW`	Department of Climate Change, Energy, the Environment and Water (Cwth)
DETSI	Department of Environment, Tourism, Science, and Innovation (Qld)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwth)
HVR	High value regrowth
ICC	Ipswich City Council
KMA	Koala management area under the Ipswich Koala Conservation and Habitat Management Plan
MLES	Matters of Local Environmental Significance
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
NC Act	*Nature Conservation Act 1992* (Qld)
NCS	Ipswich Nature Conservation Strategy 2015
PDA	Priority development area
PMST	Protected Matters Search Tool
RE	Regional Ecosystem
SDAP	State Development Assessment Provisions
SLC	Special Least Concern
SLR	SLR Consulting Australia Pty Ltd
SMP	Species Management Program
SPRAT	Species Profile and Threats (Database)
TEC	Threatened Ecological Community
WoNS	Weeds of National Significance

1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) have been engaged by BG&E Pty Limited (BG&E) & Bielby Holdings Pty Ltd (Bielby) on behalf of Ipswich City Council (ICC) to prepare a Terrestrial Ecological Assessment Report for the proposed upgrade of Ripley Road and Fischer Road (the Project).

1.1 Scope and objectives

The purpose of the ecological assessment is to confirm the presence/ likely absence of Matters of National Environmental Significance (MNES) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and/ or Matters of State Environmental Significance (MSES) listed under the *Nature Conservation Act 1992* (NC Act). In addition, the ecological assessment assessed the likelihood of the Project impacting any locally significant priority species (as declared by ICC).

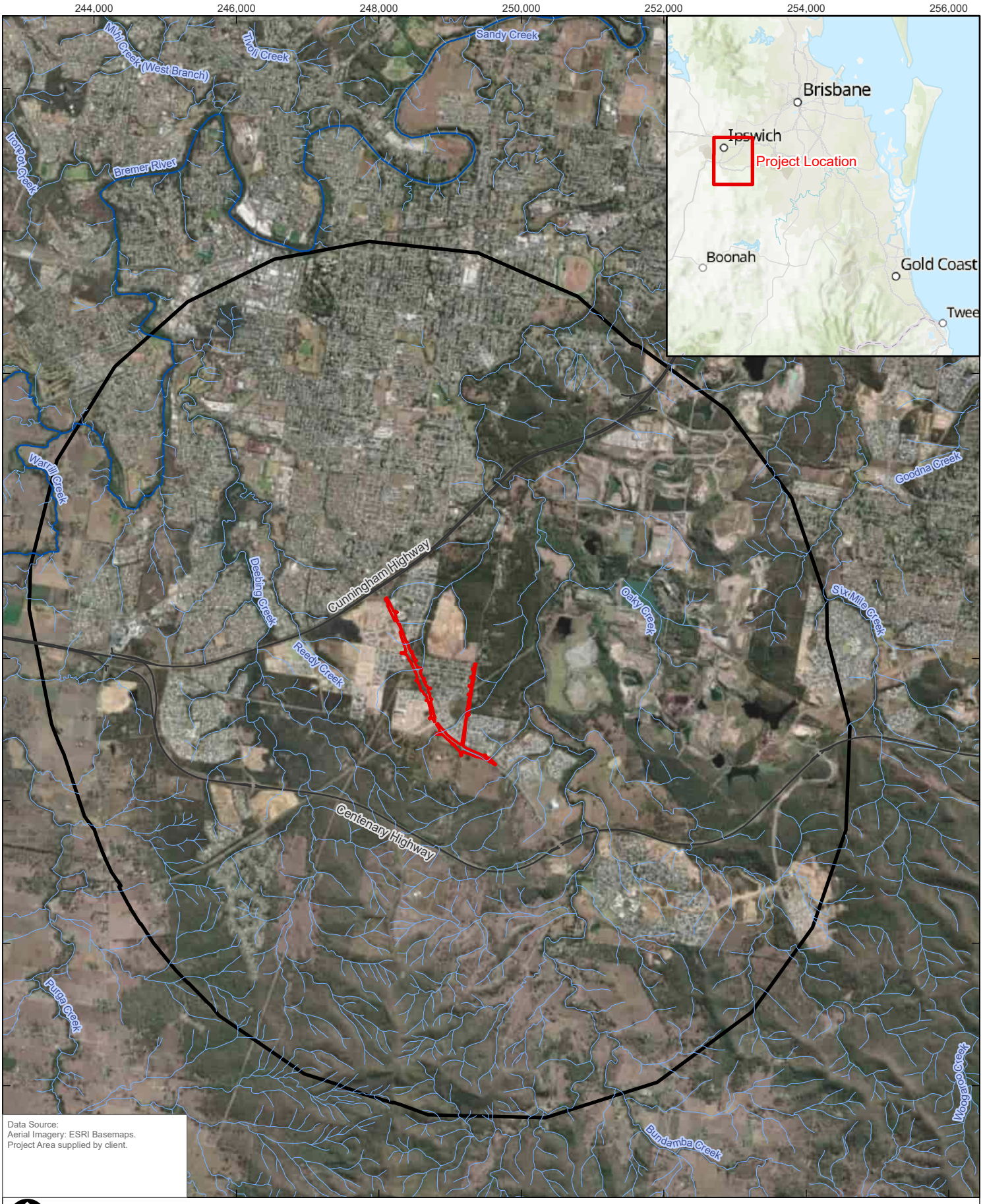
The objective of this ecological assessment is to complete the following:

- undertake desktop assessments to identify any potential ecological constraints related to the design, construction and operation of the Project
- conduct field studies to ground-truth the potential ecological constraints related to the design, construction and operation of the Project
- detail the outcomes of the ecology desktop and field assessments with respect to potential impacts to MNES, MSES and locally significant priority species
- provide recommendations for management and mitigation of potential impacts to matters of environmental significance identified during the assessments.

This assessment evaluates the significance of potential impacts upon matters of environmental relevance to the Project. Recommendations are provided on general mitigation measures which may reduce impacts if implemented. These recommendations are dependent on the suitability of implementation for each mitigation measure for the projects design and operation, to determine how effective they are for this Project. Limitations of the current study extent are examined and where necessary, additional investigation is recommended. A self-assessment of national environmental matters is made to determine if an EPBC Act Referral should be made for the Project.

1.2 Project background

Ripley Valley was declared an Urban Development Area by the State Government in October 2010 and transitioned to a priority development area (PDA) in 2013. The PDA is expected to ultimately house 131,000 people within approximately 48,750 dwellings. New infrastructure, including arterial and sub arterial roads, regional bikeways and open spaces are required to support the population growth in the area. This PDA is one of the largest urban growth areas in South East Queensland, with 649 new dwellings being added in 2025. Ripley Road and Fischer Road are key arterial roads to sustain the development and population growth of the area. Ripley Road and Fischer Road are essential transport corridors as they connect the Cunningham Highway in the north to the Centenary Highway in the south and the Swanbank Industrial Area to the east (Figure 1-1).



Data Source:
Aerial Imagery: ESRI Basemaps.
Project Area supplied by client.

0 1 2 km

Coordinate System:	ICC Terrain 2001
Scale:	1:70,000 at A4
Project Number:	620.041764
Date Drawn:	20-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Major Watercourse
- Minor Watercourse
- Project Area
- Study Area

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

PROJECT LOCATION

SLR

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FIGURE 1-1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F01-01_Project Location

An extract from the Ripley Valley PDA Development Scheme (Economic Development Queensland, 2024) showing the strategic growth planned for this locality is provided in Figure 1-2. This plan shows urban precincts, conservation areas and open space networks within the PDA. Ripley Road provides access to urban core, secondary urban centre and general residential neighbourhoods.

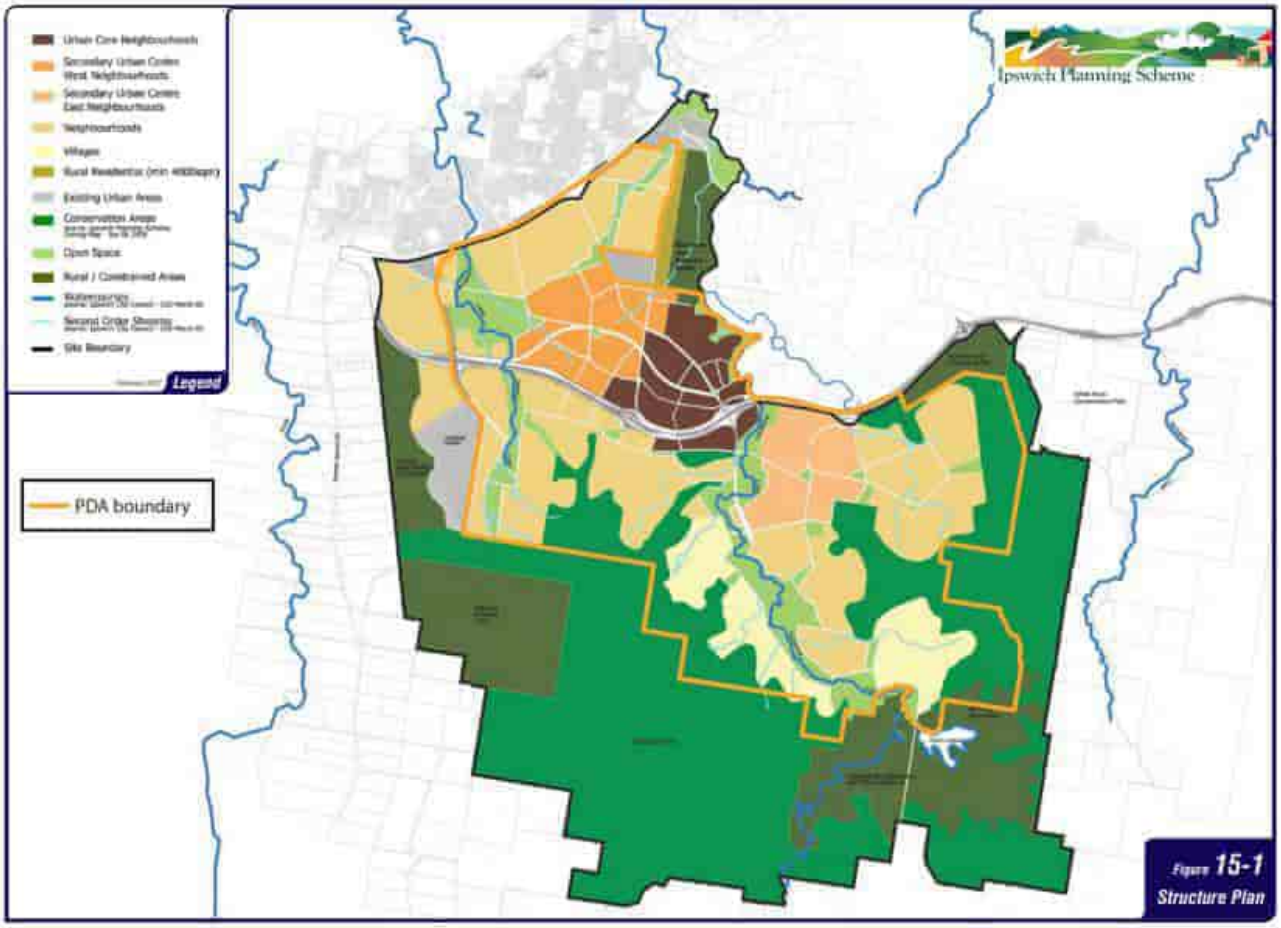


Figure 1-2 Structure Plan for Ripley Valley (source: PDA Development Scheme Amendment No 2)

The koala is one of three fauna species selected as Iconic Species in the Ipswich Nature Conservation Strategy 2015 (NCS). A Koala Conservation and Habitat Management Plan (the Plan, ICC 2017) was developed to help implement the NCS. The Plan outlines a set of guiding principles for koala decision making and identifies for types of Koala Management Areas (KMA), each with differing management priorities. The different KMA types are Urban Consolidated Areas (UCA), Core Habitat Areas (CHA), Priority Rehabilitation Areas (PRA) and Impact Mitigation Areas (IMA) and key management actions for each are outlined in the Plan. An extract from the Plan, indicating KMAs in the vicinity of the Project, is provided in Figure 1-3. There are no KMAs within the Project area or its immediate surrounds.

ICC has made long term investments in koala conservation through the purchase of large tracts of conservation land in koala and wildlife corridors, including 2,600 hectares in White Rock – Spring Mountain Conservation Estate and 2,200 hectares in Flinders – Goolman Conservation Estate. ICC has also purchased over 1,000 hectares at Mt Grandchester / Woolshed in the Little Liverpool Range. The Plan indicates close to 6,500 ha had been acquired for the primary purpose of biodiversity conservation.

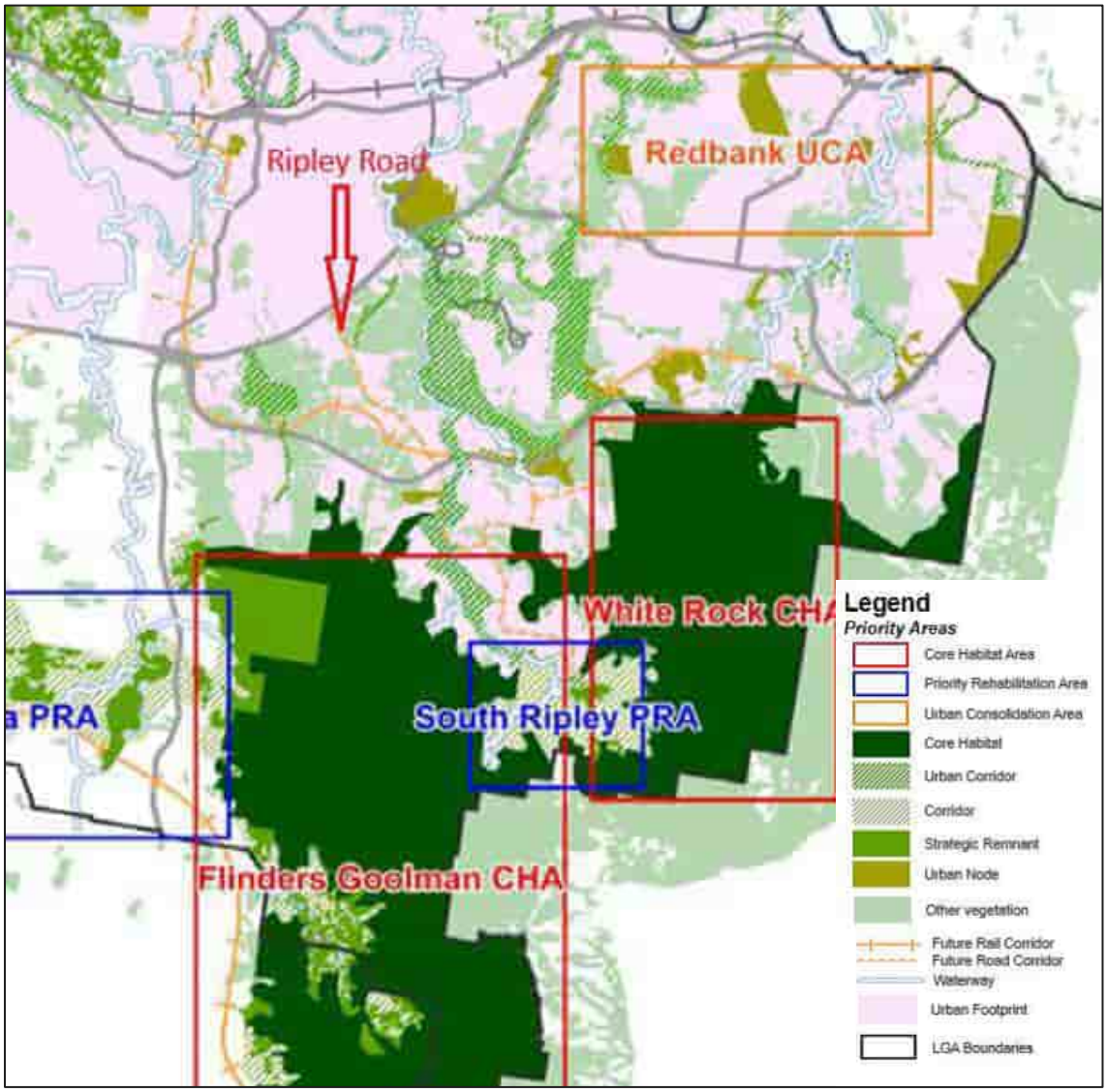


Figure 1-3 Extract from Koala Conservation and Habitat Management Plan (Fig 1)

ICC have identified that the continued growth and development of the area surrounding Ripley Road and Fischer Road are expected to exceed the transport network's capacity and the safety of its users. It is proposed to widen Ripley Road to support four lanes of traffic, with provision for six lanes in the future, and to widen Fischer Road, to accommodate traffic flows over the next 20 years. In addition to significant urban development which has occurred in recent years, there is existing current and planned development in line with the PDA e.g. Hayfields EPBC 2017/8095 (408 dwellings), 357 Ripley Master Plan EPBC 2019/8539 (538 dwellings), and 236-240 Monterea Road 7479/2015/PDA (361 dwellings) which all border Ripley Road. This Project has gone through an iterative design process resulting in the footprint shown in Figure 1-1 and Figure 1-4 as the final design.

1.3 Areas of investigation

The Project incorporates sections of two roads, sections of Ripley Road, connecting the Cunningham Highway and Centenary Highway, and a section of Fischer Road, which extends north from Ripley Road to Flinders View. The Project has been separated into three stages for construction and these are outlined in Figure 1-4 and Table 1-1.

Table 1-1 Project development stages

Stage	Road Name	Start	End	Approximate Length (m)
1	Ripley Road	Ripley Road / Cunningham Highway roundabout	50 m north of Ripley Road / Monterea Road intersection	840
2	Ripley Road	Ripley Road / Monterea Road intersection	Ripley Road (extending 200 m beyond Brooking Rise) (including the Fischer Road / Wensley road intersection and the tie ins)	2105
3	Fischer Road	Fischer Road / Monterea Road intersection (including the connections)	Fischer Road (to Monterea Road intersection) (including Nevis Road intersection and the interchange connection)	700

Currently Ripley Road is a two-lane, two-way, undivided sealed road. The surrounding urban area is heavily modified for a large percentage of its length and characterised by residential dwellings, commercial uses, and community facilities. The Stage 1 and 2 works will upgrade Ripley Road to a four-lane, two-way divided road. Future stages include six lane configurations between the Cunningham Highway and Fischer Road (approximately 2,800 m). The upgrade includes signalising the intersections at Monterea Road, Scotts Road, and Fischer Road.

Stage 3 will upgrade 1 km of Fischer Road and approximately 200 m of footpath between Nevis Road and Daisey Street. Fischer Road will become a two-lane two-way sub-arterial road between Nevis Road and Monterea Road.

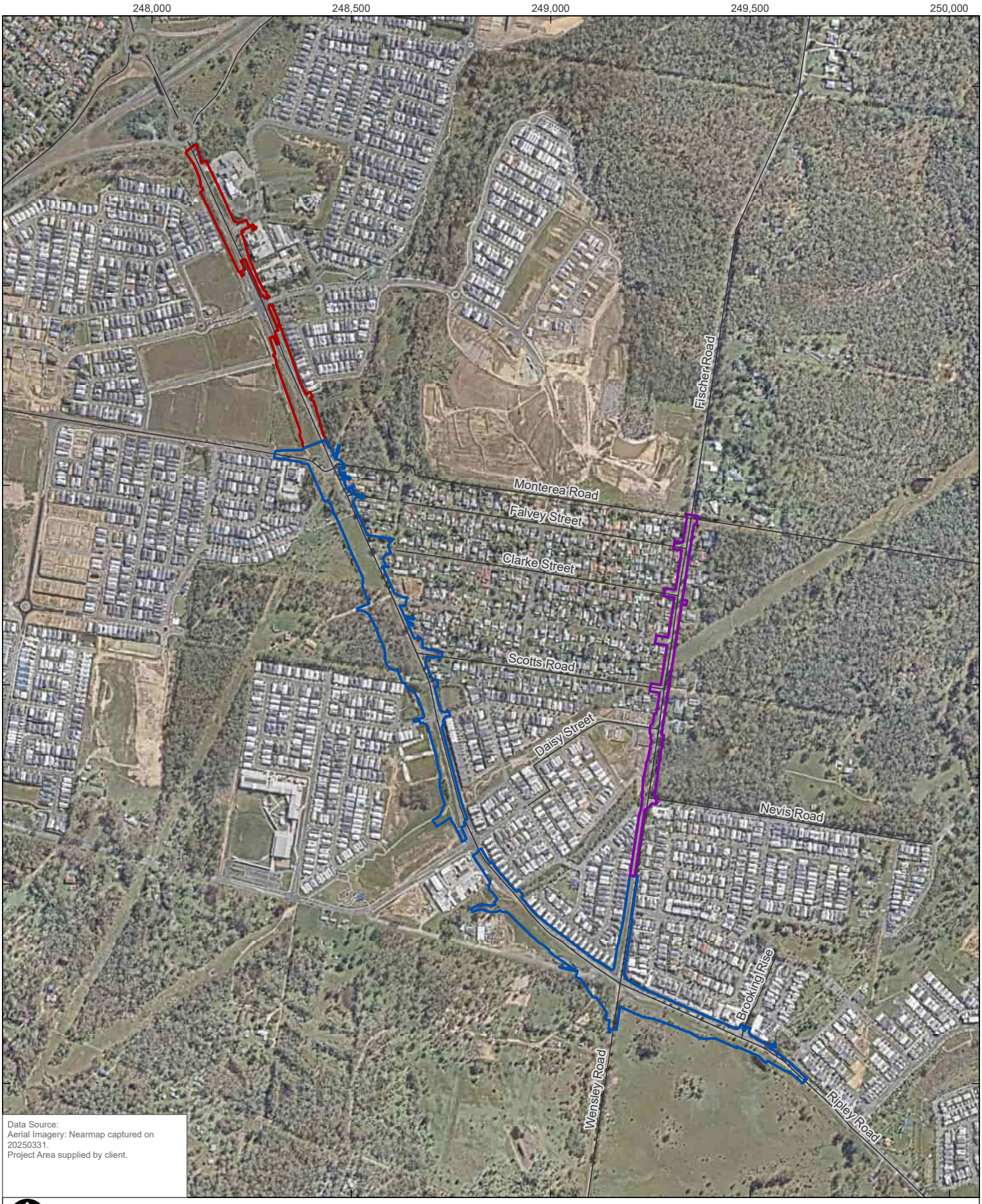
1.4 Report nomenclature

For the purposes of this report, the following nomenclature is used:

- project area – the area of proposed permanent and temporary ground disturbance associated with the Project
- study area – the project area plus a 5 km buffer.

1.5 Study limitations

Several landholders did not give permission for surveys to be conducted on their property. Additionally, drainage design revisions identified the need for drainage works within Scotts Park which fall outside the area surveyed. SLR has reviewed aerial imagery for Scotts Park and incorporated those into Section 4.2.1 The properties with missing data have been noted in Section 4.0. While our general knowledge of the project area allowed for some justification for likelihood of occurrence of conservation significant flora and fauna species, there were some areas of the project area that were unsurveyed due to access.



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

PROJECT LOCATION

SLR

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FIGURE 1-4

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F01-02_Project Location

2.0 Methods

2.1 Desktop assessment

The desktop assessment involved a search of relevant databases and a literature review to establish a robust ecological baseline of the project area.

2.1.1 Database searches

Searches and review of the following databases and web-based information sources were undertaken:

- Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) Protected Matters Search Tool (PMST), to identify threatened (listed as critically endangered, endangered or vulnerable) or migratory species and threatened ecological communities listed under the EPBC Act that are predicted or known to occur in the study area (refer to Appendix A.1)
- Queensland Department of the Environment, Tourism, Science and Innovation (DETSI) WildNet Online search to identify threatened, near-threatened or special least concern (SLC) species of flora and fauna listed under the NC Act and/or EPBC Act that have been previously recorded in the study area (refer Appendix A.2)
- Queensland Government's essential habitat mapping to determine the potential presence of essential habitat for threatened species
- Queensland Government's Protected Plants Flora Survey Trigger Map to determine high-risk areas for protected plants within the study area
- Queensland Government's regulated vegetation mapping to confirm the extent of State mapped regional ecosystems (REs) and potential threatened flora habitat
- Atlas of Living Australia (ALA) to locate threatened species that have been previously recorded in the study area.

2.1.2 Likelihood of occurrence

The information obtained through the desktop assessments was used to characterise the existing ecological values of the project area. For conservation significant species (those listed as threatened, migratory, under the EPBC Act, or threatened, near-threatened, or SLC under the NC Act), a likelihood of occurrence assessment was completed. This assessment considered information relating to species habitat preferences, known or suspected distribution, database records from the region, the occurrence of suitable habitat based on desktop information and field assessments, or confirmed presence of species within the project area (i.e., known records). The ICC locally significant priority species were included in the likelihood of assessment to gain an understanding of their potential presence in the project area.

The likelihood of occurrence assessment and species habitat descriptions was based upon information from, but not limited to the following sources:

- Commonwealth Government's Species Profile and Threats (SPRAT) Database for the threatened species and ecological communities listed under the EPBC Act
- Species descriptions available on the DETSI threatened species website
- ALA

- Cornell Lab of Ornithology online database of bird distribution and abundance, (eBird)
- published field guides
- field assessments and surveys.

The likelihood of threatened flora and fauna species and ecological communities occurring in the project area, has been assessed against the criteria outlined in Table 2-1.

Table 2-1: Key assessment criteria for the likelihood of occurrence of conservation significant species

Likelihood of occurring	Key criteria
Known to occur	Species positively identified during field surveys within the project area.
High	Species previously recorded within the study area and the project area contains habitat that is suitable for the species.
Moderate	Species previously recorded within the study area and the project area contains marginal / low quality habitat for the species OR No previous records of the species within the study area, but the project area contains suitable habitat for the species and is within the known range of the species.
Low	Species previously recorded within the study area, but the project area does not contain suitable habitat for the species OR No previous records of the species within the study area and the project area contains marginal / low quality habitat for the species or there is no suitable habitat in the project area OR No previous records of the species within the study area and the study area is beyond the current known geographic range of the species.

If the likelihood of occurrence assessment identified threatened flora and/or fauna species with a moderate or higher likelihood of occurrence within the project area, potential habitat and species targeted surveys (i.e. animal breeding place surveys) were completed during the survey.

2.2 Field assessment

Field surveys were conducted over three days between 26-28 May 2025 by two SLR Senior Ecologists. The main purpose of the survey was to confirm the extent of field verified vegetation communities and habitats within the project area, to further inform the threatened species and ecological communities that occur or may occur in the project area. The flora survey locations are detailed in Figure 2-1.

The initial desktop-based likelihood of occurrence assessment was updated following the field survey, as informed by field survey results. The likelihood of occurrence assessments for the Project are presented in Appendix B.

The methodologies for the field investigations are presented in the following sections.

2.2.1 Field verification of vegetation communities

The purpose of the field verification survey was to determine the extent and type of vegetation communities and REs within the project area. These surveys were conducted in accordance with the *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland* (Neldner et al., 2022).

Quaternary and tertiary flora surveys were conducted across the project area to ground truth vegetation communities and RE boundaries. For the TECs considered likely to occur within the project area, a modified secondary flora survey was conducted. This included a 100 m transect to measure canopy, subcanopy and shrub crown cover, five 5 x 5 m quadrats to gather native perineal understorey vegetation cover, and a full species list. The diameter at breast height (DBH) of all large trees were measured within each plot.

Field verified vegetation communities and REs were mapped based on the results of the field surveys, using ARC GIS Version 10.4 software, and aerial imagery. The combination of these products was used to trace polygons derived from geological mapping and vegetation extents in accordance with the Neldner et al. (2022).

Any invasive plants listed under the *Biosecurity Act 2014* and Weeds of National Significance (WoNS) identified during site surveys were recorded with GPS locations.

2.2.2 Targeted flora survey

Protected plant flora surveys were completed using a timed meander survey in accordance with the Flora Survey Guidelines – Protected Plants (DETSI, 2025).The timed meander method involved random meander searches for targeted species in each vegetation community within the Clearing Impact Area (i.e. the area to be impacted to the extent it is within the high risk trigger mapping area, plus a 100 m buffer) for a minimum of 30 mins and/ or continuous surveying within each vegetation community until no further threatened plants were located for 30 mins.

Targeted threatened plant species, included those identified as having a moderate or high likelihood of occurrence in the desktop assessment, however any additional threatened flora species were also recorded.

The results of this survey are detailed in Appendix E. Please note the project area was updated post survey and prior to submission of this report to exclude all high risk trigger areas from the project area. As such, the protected plant flora survey report is included here for completeness, although the current footprint does not trigger this requirement.

2.2.3 Fauna habitat assessment

Basic observational habitat assessments were conducted at each site during the field investigations. The purpose was to identify the different habitat types that occur within and adjacent to the project area, and to determine the presence/ likely absence of micro-habitat features and animal breeding places within each habitat type, such as:

- hollow bearing trees and stags
- arboreal termitaria
- fallen woody debris and hollow logs
- waterways, waterbodies, and riparian floodplains
- decorticating bark
- coarse and fine leaf litter

- native grasses
- dense vegetation and thickets
- soil cracks
- surface rock and rocky outcrops.

The habitat assessments also identified any evidence of habitat degradation, such as grazing, weed infestations and soil erosion.

2.2.4 Fauna surveys

Searches for threatened fauna species listed under the EPBC Act and NC Act determined to have a moderate or high likelihood of occurrence, were conducted in identified habitats that are typically known to support the target species. Fauna surveys incorporated guidelines listed in the *Terrestrial Vertebrate Survey Guidelines for Queensland* (Eyre *et al.*, 2022).

Fauna survey methods are detailed in Table 2-2 and survey effort is shown on Figure 2-2.

Table 2-2 Fauna survey methods and survey effort

Survey type	Method	Survey effort
Diurnal bird surveys	30 person minutes per site at dawn plus incidental observations. Vocalisations and sightings recorded using the random meander survey technique.	4 sites
Diurnal active searches	30 person minutes active searches per site during hotter parts of the day to maximize opportunities for reptile sightings. Including raking of leaf litter, opening or turning over of deadfall timber and turning over rocks and other debris. Burrows investigated where safe to do so.	7 sites
Koala Spot Assessment Technique (SAT) surveys	The SAT survey method assesses a central Preferred Koala Food Tree ≥300 mm diameter at breast height (DBH) and the nearest 29 trees. A search for koala faecal pellets was undertaken in an area extending 1 m around the base of each tree trunk for a maximum of two minutes, or until koala faecal pellets are detected.	3 sites
Spotlighting and call playback	Spotlighting was conducted searching for presence of nocturnal fauna (e.g., gliders, koala (*Phascolarctos cinereus*), and frogs). Call playback was conducted for powerful owl (*Ninox strenua*) by calling for two minutes, listening for five minutes and repeating twice.	5 sites

Weather data is presented for the seven days prior to and the three days during the survey period (Table 2-3). Data were obtained from the Bureau of Meteorology (BoM, 2025) Harding Street Alert Queensland weather station (station number 040873). Overall, the weather conditions over the survey period were considered favourable for detecting the most fauna groups with the exception of frogs as it was outside their suitable survey period (summer). Scat detection conditions were favourable as little rain had fallen prior to the survey and no rain during the survey period.

Table 2-3 Weather conditions relevant to the survey period

Period	Date	Rainfall (mm)	Temperature (^{O}C)	
			Minimum	Maximum
Pre-survey	19/5/2025	4.0	14.3	23.7
	20/5/2025	1.0	8.9	25.4
	21/5/2025	0	10.0	27.6
	22/5/2025	0	11.0	26.4
	23/5/2025	0	9.3	26.3
	24/5/2025	0	12.2	27.8
	25/5/2025	0	10.0	28.4
During survey	26/5/2025	0	13.5	29.7
	27/5/2025	0	11.5	23.4
	28/5/2025	0	10.0	21.8

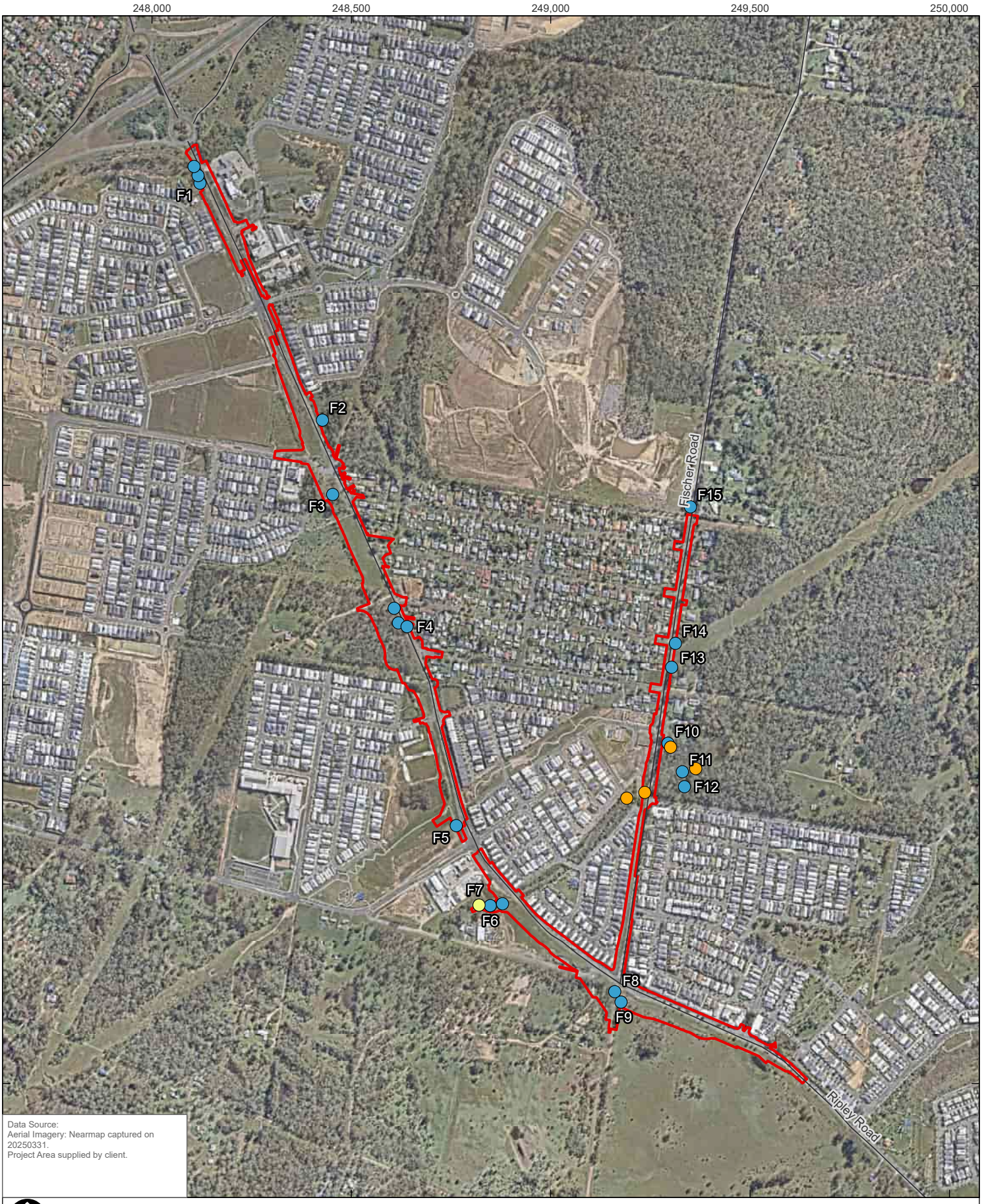
2.2.5 Animal breeding places

Targeted fauna breeding place surveys were completed in habitats within the project area for threatened, near threatened, SLC and colonial breeding least concern species. Examples of animal breeding places include, but are not limited to:

- hollow bearing and/or stag trees that may support colonial breeding or conservation significant microbat species, arboreal mammals, and hollow nesting birds
- hollow logs, burrows, log piles and course woody debris suitable for terrestrial mammals and reptiles
- waterbodies along creeks and drainage lines, including farm dams, that may support bird species that nest along creek banks and frog species
- wetlands and seasonally waterlogged woodlands, swamplands and shrublands that may support amphibian, snake, and wader bird foraging and/or breeding habitat.

2.2.6 Incidental records

Incidental fauna and flora observations were recorded during field assessments, with GPS locations recorded for any conservation significant or invasive species.



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	25-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area

Flora Survey Site

- RE verification
- TEC assessment
- TMS

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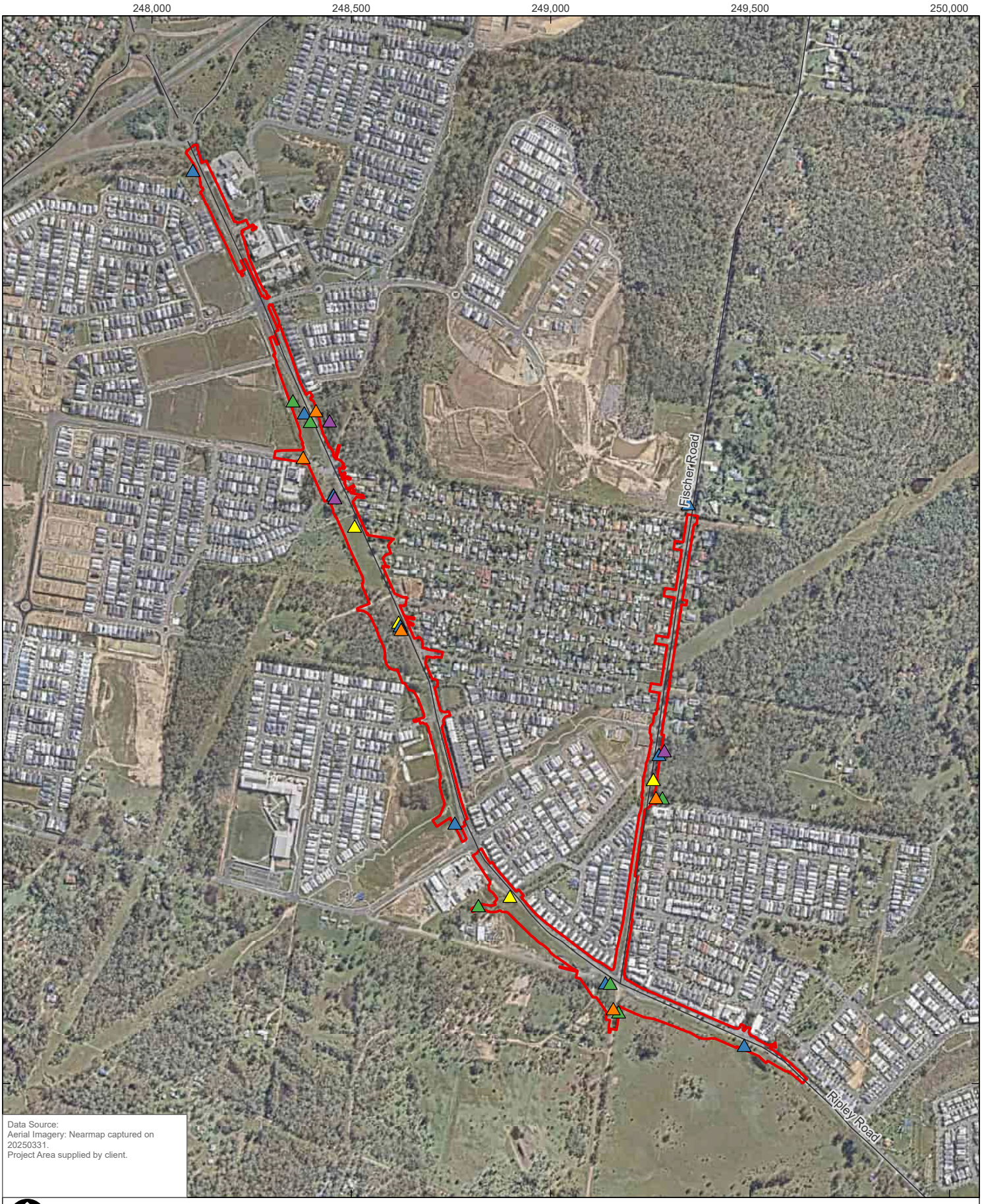
FLORA SURVEY EFFORT

SLR

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FIGURE 2-1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F02-01_Flora Survey Effort



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	20-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area

Fauna Survey Site

- Bird survey
- Habitat assessment and herp search
- Incidental
- SAT survey
- Spotlighting and nocturnal call playback

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FAUNA SURVEY EFFORT

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FIGURE 2-2

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F02-02_Fauna Survey Effort

3.0 Desktop Assessment Results

Results of the desktop searches relevant to terrestrial flora and fauna are presented below. Mapped ecological values are also presented in Figure 3-1.

3.1 Matters of national environmental significance

The PMST search results are summarised in Table 3-1 and the PMST report is available in Appendix A.1.

Table 3-1 PMST summary

MNES	Present within study area
World Heritage Places	None
National Heritage Places	None
Wetlands of International importance	The study area is 30-40 km upstream from the Moreton Bay RAMSAR wetlands.
Great Barrier Reef Marine Park	None
Commonwealth Marine Area	None
TEC	There are seven TECs with potential to occur in the study area. More detail in Section 3.1.1 below.
Threatened Species*	52 threatened species (excluding marine dependant species) have potential to occur in the study area, comprising: • 19 birds • 17plants • 10 mammals • three reptiles • one fish • one frog • one insect.
Migratory Species*	12 migratory bird species have potential to occur in the study area. Six of these are also listed threatened species.

*Threatened and Migratory Species are not mutually exclusive.

3.1.1 Threatened Ecological Communities

The desktop-based likelihood of occurrence assessment for the seven TECs returned in the PMST search is summarised in Table 3-2. The likelihood was determined based on the mapped REs within the study area.

Table 3-2 Desktop likelihood of occurrence assessment for TECs

TEC	Likelihood of occurrence
Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland (critically endangered)	**Moderate** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC:

TEC	Likelihood of occurrence
	• 12.3.3c (which has been superseded by 12.3.18), 12.9-10.11 None of these REs are mapped within the study area.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (critically endangered)	**Low** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 11.3.23, 11.3.26, 11.5.20, 11.8.2, 11.8.2a, 11.8.8, 11.9.9a, 11.9.13, 12.8.16, 13.3.1, 13.3.4, 13.9.2, 13.11.2, 13.11.3, 13.11.4, 13.11.8, 13.11.8a, 13.12.8, 13.12.9 None of these REs are mapped within the study area.
Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community (endangered)	**Low** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 12.1.1, 12.3.20 Neither of these REs are mapped within the study area.
Poplar Box Grassy Woodland on Alluvial Plains (endangered)	**Low** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 11.3.2, 11.3.17,11.4.7, 11.4.12, 12.3.10 None of these REs are mapped within the study area.
Grey box-grey gum wet forest of subtropical eastern Australia (endangered)	**Moderate** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 12.9-10.3, 12.8.14a, 12.8.8a RE 12.9-10.3 is mapped to occur within the study area.
Lowland Rainforest of Subtropical Australia (critically endangered)	**Low** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.10. 12.12.1, 12.12.16 None of these REs are mapped within the study area.
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (endangered)	**Moderate** likelihood of being present based on conservation advice which cited the following REs as corresponding to this TEC: • 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, 12.2.11a, 12.3.11b, 12.3.12, 12.3.14a, 12.3.15, 12.3.19 RE 12.3.3 is mapped to occur within the study area.

3.2 Matters of State Environmental Significance

The summary of MSES either mapped or previously recorded within the study area are presented in Table 3-3 and the database searches are available in Appendix A.2.

Table 3-3 Summary of MSES and other State matters mapped within the study area

MSES	Presence/absence
Protected areas	None mapped within the study area.
Regulated Vegetation and REs	Present

MSES	Presence/absence
	The study area contains mapped Category B (remnant), Category C (regrowth) and Category X (non-remnant) regulated vegetation, including endangered, of concern and least concern REs. The following REs are mapped within and immediately adjacent to the project area (Figure 3-1): • RE 12.3.3 *Eucalyptus tereticornis* woodland on Quaternary alluvium (endangered) • RE 12.9-10.7 *Eucalyptus crebra* +/- *E. tereticornis, Corymbia tessellaris, Angophora* spp. and *E. melanophloia* woodland on sedimentary rocks (of concern) • RE 12.9-10.16 Araucarian microphyll to notophyll vine forest on Cainozoic and Mesozoic sediments (of concern) • RE 12.9-10.2 *Corymbia citriodora* subsp. *variegata* +/- *Eucalyptus crebra* open forest on sedimentary rocks (least concern) RE 12.9-10.7 and RE 12.9-10.16 are only mapped within and adjacent to the project area as components of a mosaic RE with RE 12.9-10.2 (RE 12.9-10.2/12.9-10.7/12.9-10.16).
Vegetation management wetlands	Several wetlands of high ecological significance are mapped as occurring within the study area.
Essential habitat	Several areas of essential habitat are shown to occur within the study area on the essential habitat map (Figure 3-1). Queensland Globe mapping shows the patches mapped within the study area as essential habitat for SLC.
Wildlife habitat	Present for SLC, threatened and core koala habitat, but is not within a Koala Priority Area.
DETSI Protected Plants Flora Trigger map	The project area does not contain trigger mapping, however portions of the study area occur within a high-risk area on the protected plants trigger map (Figure 3-1).
WildNet species	The WildNet search returned a total of 14 conservation significant fauna species (Eight threatened and six SLC) and seven conservation significant flora species, including: • 12 birds • seven plants • two mammals.

3.2.1 State Mapped Regulated Vegetation

State vegetation mapping for the project area shows a mosaic of RE 12.9-10.2/12.9-10.7/12.9-10.16 is mapped as high value regrowth (HVR) and remnant vegetation within the project area. Under the regulated vegetation management map, the project area contains Category X, Category C and Category B vegetation (Figure 3-1).

Descriptions of the mosaic mapped REs are presented in Table 3-4 below.

Table 3-4 Regional ecosystem status and description

RE	*Vegetation Management Act 1999* Status	Biodiversity Status	Short Description
12.9-10.2	Least concern	No concern at present	*Corymbia citriodora* subsp. *variegata* +/- *Eucalyptus crebra* open forest on sedimentary rocks.
12.9-10.7	Of concern	Of concern	*Eucalyptus crebra* +/- *E. tereticornis, Corymbia tessellaris, Angophora* spp. and *E. melanophloia* woodland on sedimentary rocks.
12.9-10.16	Of concern	Of concern	Araucarian microphyll to notophyll vine forest on Cainozoic and Mesozoic sediments.

3.3 Likelihood of occurrence assessment

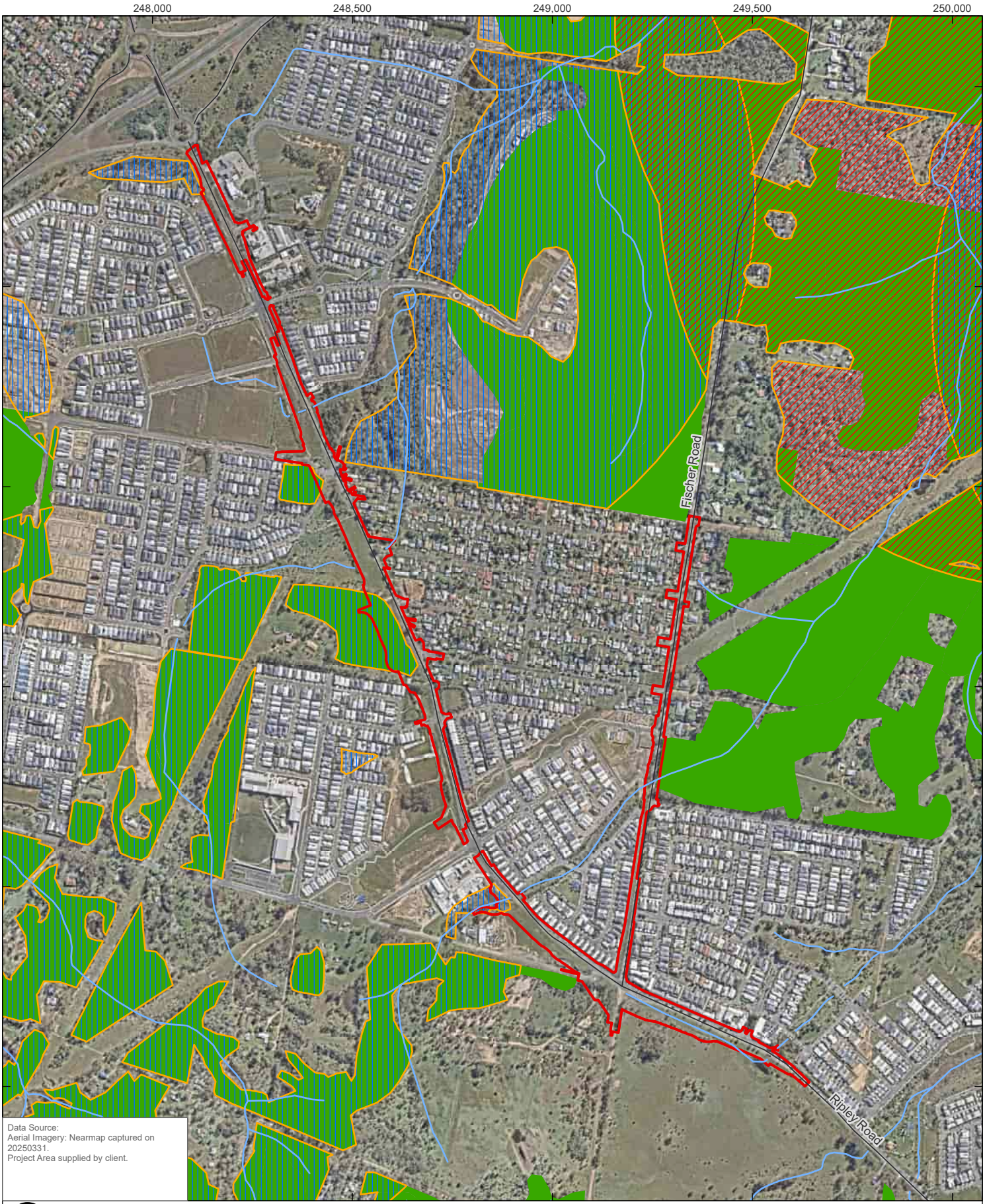
The desktop likelihood of occurrence assessment (Appendix B) identified 29 species with a moderate or high likelihood of occurrence in the study area.

3.4 Matters of Local Environmental Significance

A review of the Ipswich Planning Scheme Mapping showed no environmental mapping applies to the survey area.

Ipswich City Council list 26 locally significant priority species. Nine species were considered likely to occur within the study area. Locally significant priority species include:

- 13 plants
- five amphibians
- four mammals
- four birds.



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	20-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Watercourse
- Project Area
- MSES Wildlife Habitat (endangered or vulnerable)
- MSES Wildlife Habitat (special least concern animal)
- Core Koala Habitat Area

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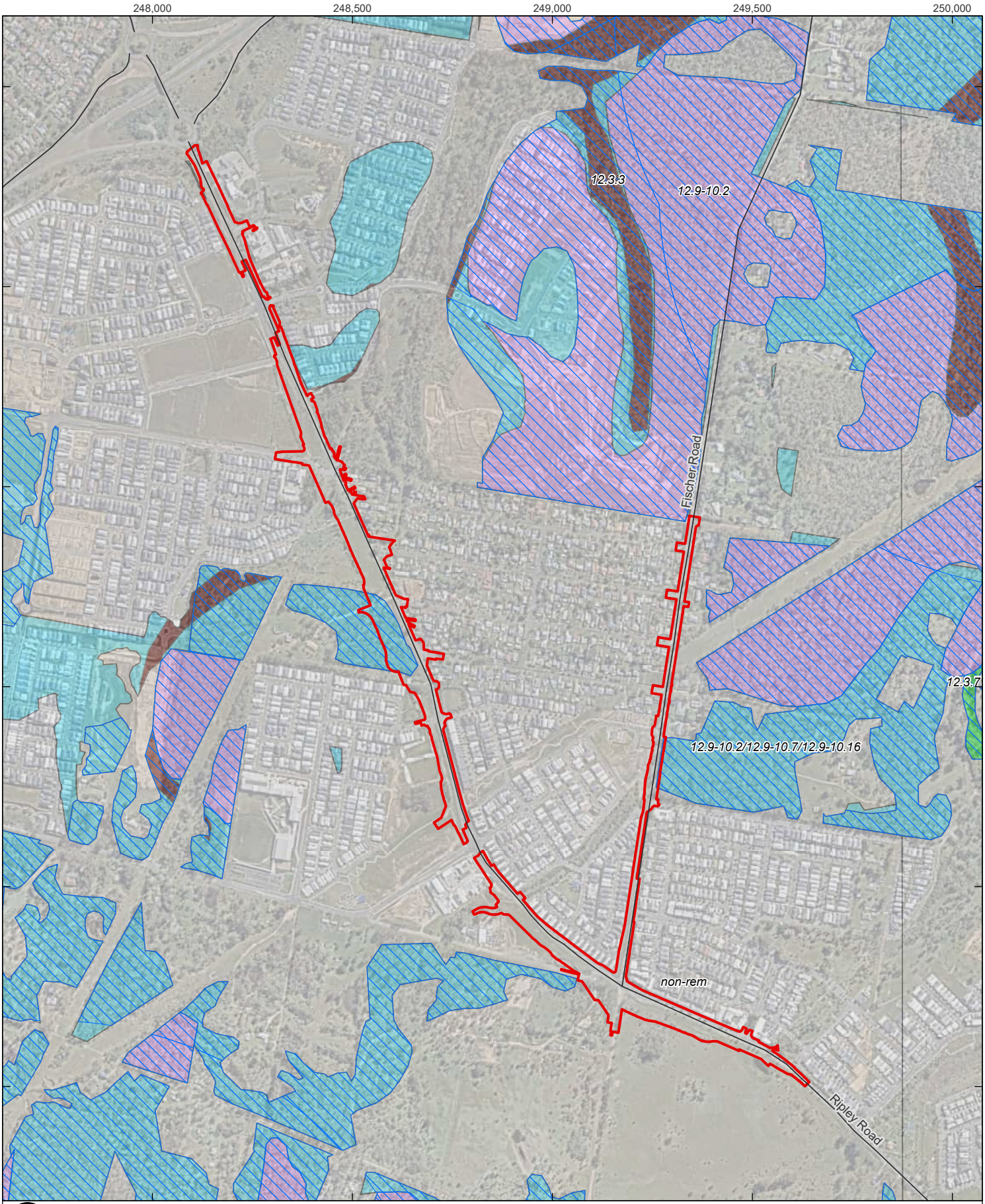
DESKTOP ASSESSMENT RESULTS

SLR

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FIGURE 3-1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F03-01_Desktop Assessment Results - MSES Wildlife Habitat



0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	20-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area
- Essential Habitat

Regional Ecosystem

- 12.3.3
- 12.3.7
- 12.9-10.2
- 12.9-10.2/12.9-10.7/12.9-10.16
- non-rem

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

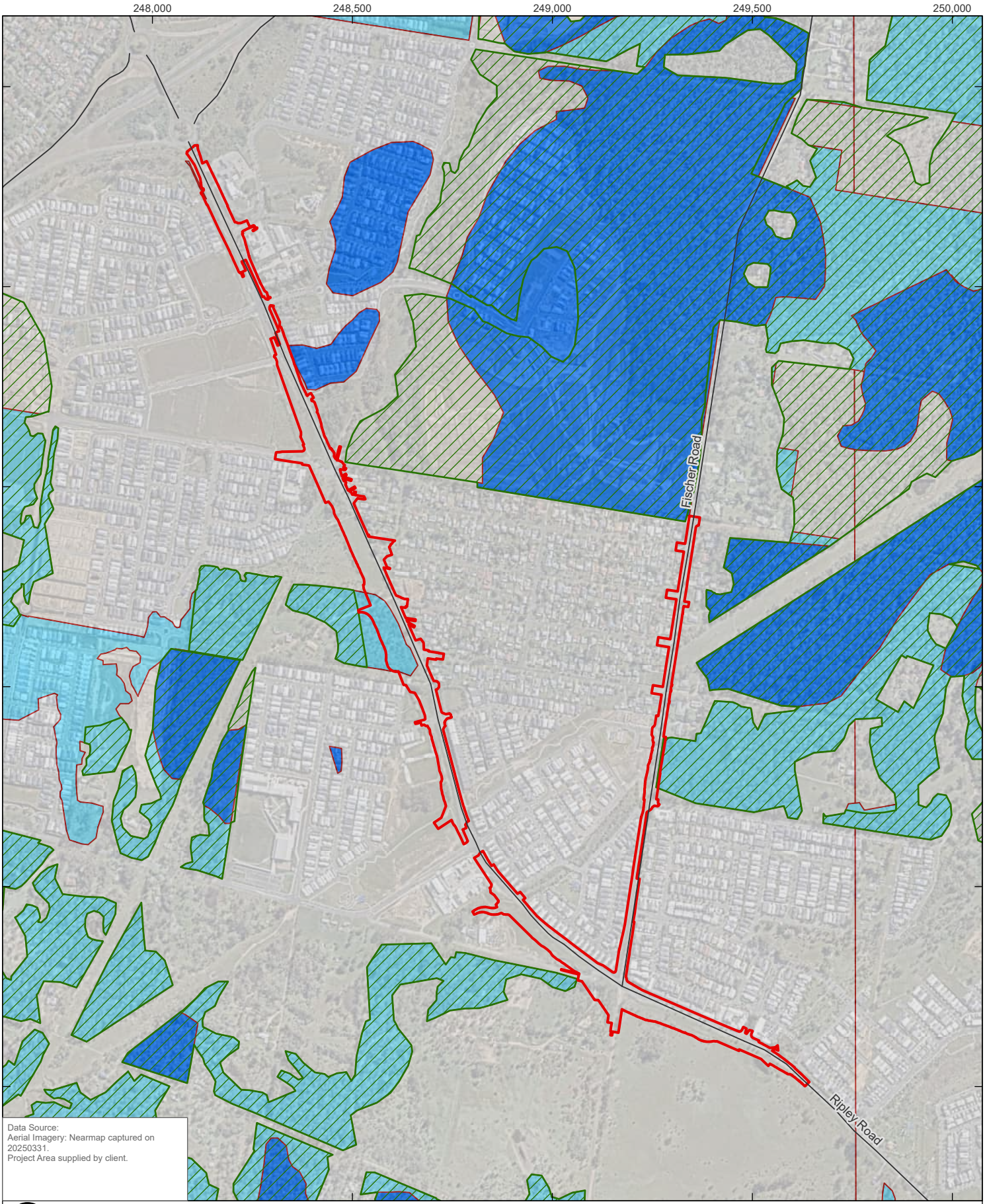
DESKTOP ASSESSMENT RESULTS

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FIGURE 3-2

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F03-02_Desktop Assessment Results - RE and Ehab



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	20-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area
- Protected Plants Trigger Map

Regulated Vegetation

- B
- C
- X

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

DESKTOP ASSESSMENT RESULTS

SLR

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FIGURE 3-3

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F03-03_Desktop Assessment Results - Plant Trigger and RVM

4.0 Field Assessment Results

The results of the field verification, and flora and fauna surveys, and likelihood of occurrence for relevant matters is presented in the following sections.

4.1 Flora results

The flora survey recorded 140 flora species, including 78 native species and 62 exotic species (Appendix C).

4.1.1 Regional ecosystems

The field survey confirmed the presence of two remnant REs and one regrowth RE within the project area. Table 4-1 to Table 4-3 summarises the results of surveys within each RE. Results for each RE verification site are detailed in Appendix D.

Table 4-1 Description of RE 12.9-10.2

Attribute		Description
Locations		Lot 31 RP815608 either side of powerline easement (Stage 2). Lot 178 SP141675 along Fischer Road, near Nevis Road (Stage 3).
Soil, landzone		Sandy soil on coarse sedimentary (sandstone)
Slope		Gentle incline
Landform		Upper slope
Mapped RE		Non-remnant
Ground-truthed RE		Remnant RE 12.9-10.2
VM Act status		Least concern
Ground-truthed area (ha)		0.400
Canopy (T1) layer	Species	*Corymbia citriodora*
	Height (m)	20
Sub canopy (T2) layer	Species	*Eucalyptus tereticornis, Corymbia intermedia, Acacia disparrima*
	Height (m)	15
Shrub layer	Species	*Alphitonia excelsa, Alstonia constricta, Ficus rubiginosa, Celtis sinensis*, Lantana camara**
	Height (m)	4
Ground layer		*Megathyrsus maximus* var. *maximus*, Lantana montevidensis*, Asparagus aethiopicus*, Lomandra filiformis, Passiflora subpeltata*, Dianella caerulea, Lomandra multiflora*

Attribute	Description
 North	 East
 South	 West

*Introduced species.

Table 4-2 Description of RE 12.9-10.7

Attribute		Description
Location		Lot 348S3173, Lot 359S3173 and eastern side of Wensley Rd corridor (Stage 2).
Geology, landzone		Coarse sedimentary (sandstone), landzone 9-10
Slope		Very gentle slope
Landform		Mid to lower slope
Mapped RE		Non-remnant
Ground-truthed RE		Remnant 12.9-10.7
VM Act status		Of concern
Ground-truthed area (ha)		1.758
Canopy (T1) layer	Species	Mid-dense (50-80% crown cover) *Eucalyptus tereticornis, Eucalyptus crebra*
	Height (m)	20
Sub canopy (T2) layer	Species	Mid-dense (50-80% crown cover) *Acacia disparrima, Corymbia tessellaris*
	Height (m)	8
Shrub layer	Species	Sparse (20-50% crown cover) *Lantana camara*, Alphitonia excelsa*

Attribute		Description
	Height (m)	1.75
Ground layer		Sparse (20-50% crown cover) *Imperata cylindrica, Chloris gayana*, Melinis repens**
 North		 East
 South		 West

*Introduced species.

Table 4-3 Description of RE 12.3.3 regrowth

Attribute		Description
Location		Lot 91 SP343557, Site V21 (adjacent to Stage 2).
Geology, landzone		Alluvial, landzone 3
Slope		Very gentle slope to the east
Landform		Stream
Mapped RE		Non-remnant
Ground-truthed RE		Regrowth RE 12.3,3
VM Act status		Endangered
Ground-truthed area (ha)		0.121
Canopy (T1) layer	Species	*Eucalyptus tereticornis*, *Eucalyptus crebra*
	Height (m)	22
Sub canopy (T2) layer	Species	*Eucalyptus tereticornis*, *Angophora leiocarpa*, *Corymbia intermedia*.

Attribute		Description
	Height (m)	10
Shrub layer	Species	*Acacia leiocalyx*, *Lantana camara**, *Lophostemon suaveolens*, *Corymbia tessellaris*, *Alphitonia excelsa*, *Baccharis halimifolia**.
	Height (m)	2
Ground layer		*Megathyrsus maximus* var. *maximus**, *Setaria sphacelata**, *Cynodon dactylon*, *Bidens pilosa**, *Bryophyllum delagoense**, *Chloris gayana**, *Eclipta prostrata**, *Dichanthium aristatum**, *Lomandra confertifolia*, *Cyperus polystachyos**, *Cyperus gracilis*, *Emilia sonchifolia*, *Centella asiatica*, *Dianella caerulea*, *Murdannia graminea*, *Melinis repens**, *Fimbristylis dichotoma*, *Poaceae* sp., *Sporobolus natalensis**, *Poaceae* sp. 2, *Eragrostis* sp., *Verbena bonariensis**, *Lobelia concolor*, *Sida cordifolia**, *Phyllanthus virgatus*, *Ludwigia octovalvis*, *Glycine* sp., *Eleocharis dulcis*, *Lobelia purpurascens*, *Dyschoriste depressa**, *Plantago lanceolata**, *Tephrosia* sp., *Cuphea carthagenensis**, *Ipomoea alba**, *Calyptocarpus vialis**, *Juncus usitatus*, *Macroptilium lathyroides**, *Cyperus distans*, *Apium prostratum*, *Alternanthera* sp., *Glycine* tabacina, *Gomphrena celosioides**, *Cupaniopsis anacardioides*, *Commelina diffusa**, *Carex inversa*, *Symphyotrichum subulatum**, *Aristida* sp., *Sacciolepis indica*
 North		 East
		

Attribute	Description
South	West

*Introduced species.

4.1.2 Threatened ecological communities

The TEC assessment data collected in the field is presented in Table 4-4.

Table 4-4 TEC assessment results

Attribute	Description
Location	Lot 91 SP343557, Site F7 (adjacent to Stage 2).
Soil, landzone	Alluvial, landzone 3
Slope	Very gentle slope to the east
Landform	Stream
Ground-truthed RE	RE 12.3.3
Canopy (T1) layer	*Eucalyptus tereticornis* (D), *Eucalyptus crebra* (O)
Sub canopy (T2) layer	*Eucalyptus tereticornis* (F), *Angophora leiocarpa* (F), *Corymbia intermedia* (F).
Shrub layer	*Acacia leiocalyx* (F), *Lantana camara** (F), *Lophostemon suaveolens* (O), *Corymbia tessellaris* (O), *Alphitonia excelsa* (R), *Baccharis halimifolia** (R).
Ground layer	*Megathyrsus maximus* var. *maximus** (D), *Setaria sphacelata** (O), *Cynodon dactylon* (O), *Bidens pilosa** (O), *Bryophyllum delagoense** (O), *Chloris gayana** (O), *Eclipta prostrata** (O), *Dichanthium aristatum** (O), *Lomandra confertifolia* (R), *Cyperus polystachyos** (R), *Cyperus gracilis* (R), *Emilia sonchifolia* (R), *Centella asiatica* (R), *Dianella caerulea* (R), *Murdannia graminea* (R), *Melinis repens** (R), *Fimbristylis dichotoma* (R), *Poaceae* sp. (R), *Sporobolus natalensis** (R), *Poaceae* sp. 2 (R), *Eragrostis* sp. (R), *Verbena bonariensis** (R), *Lobelia concolor* (R), *Sida cordifolia** (R), *Phyllanthus virgatus* (R), *Ludwigia octovalvis* (R), *Glycine* sp. (R), *Eleocharis dulcis* (R), *Lobelia purpurascens* (R), *Dyschoriste depressa** (R), *Plantago lanceolata** (R), *Tephrosia* sp. (R), *Cuphea carthagenensis** (R), *Ipomoea alba** (R), *Calyptocarpus vialis** (R), *Juncus usitatus* (R), *Macroptilium lathyroides** (R), *Cyperus distans* (R) *Apium prostratum* (R), *Alternanthera* sp. (R), *Glycine* tabacina (R), *Gomphrena celosioides** (R), *Cupaniopsis anacardioides* (R), *Commelina diffusa** (R), *Carex inversa* (R), *Symphyotrichum subulatum** (R), *Aristida* sp. (R), *Sacciolepis indica* (R).
Ground cover native species richness	26
Large native trees per ha	4
Very large native trees per ha	4
Total native perennial understorey vegetation cover	26.25%

Attribute	Description
Patch size	0.51 ha
Canopy cover (%)	17.1
Sub canopy cover (%)	7.6
Shrub cover (%)	3.9

*Introduced species.

Relative abundance (DAFOR scale): D = dominant, A = abundant, F = frequent, O = occasional, R = rare.

As assessment against the listing advice for the Commonwealth listed TEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions (endangered) (DCCEEW, 2022a) indicates the TEC assessment does not meet the canopy cover criteria and is therefore not a MNES TEC (Table 4-5). As the patch does not meet the diagnostic criteria an assessment against the condition thresholds is not required.

The survey recorded four large trees per ha and four very large trees per ha, which is less than the threshold for good or moderate condition and the total native perennial understory vegetation cover was 26.25%, which is less than the moderate condition threshold. The current survey was limited to areas within Lot 91 SP343557. A review of elevation mapping, watercourse mapping and pre-clear RE mapping determined that it was unlikely the patch extends to the southwest of Jackson Court. Therefore, the patch size was determined to be approximately 0.51 ha.

Table 4-5 Diagnostic criteria for Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions

Diagnostic criteria	Meets criteria?	Details
Occurs in the Sout-east Queensland IBRA bioregion	Yes	Located in South-east Queensland bioregion
Occurs in the catchments of the eastern watershed of the Great Dividing Range	Yes	East of the Great Dividing Range
Occurs at elevations up to 250 m above sea level, but usually below 50 m	Yes	Location was at 50 m above sea level
Occurs on alluvial landforms	Yes	On landzone 3 (alluvial)
Occurs on alluvial soils including silts, sand loams, clay loams, cobbles and gravels	Yes	Alluvial soil
Does not occur on marine or aeolian sands	Yes	No marine or aeolian sands
Occurs as tall closed-forest, closed forest, tall open-forest, open forest or woodland with a canopy crown cover of at least 20%	**No**	Open woodland with 17.1% canopy cover
Canopy is dominated by one of a combination of *Angophora, Corymbia, Eucalyptus, Lophostemon* and/or *Syncarpia* species, but NOT dominated by *Eucalyptus robusta*	Yes	Canopy was dominated by *Eucalyptus tereticornis,* and *E. crebra*

Diagnostic criteria	Meets criteria?	Details
Mid-layer may be present, sparse or absent, and fauna may be abundant or rare	Yes	Mid-layer was present

No REs were groundtruthed within the project area that are associated with the other two TECs with a moderate likelihood of occurring including:

- Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland (critically endangered)
- Grey box-grey gum wet forest of subtropical eastern Australia (endangered).

As, such an assessment against diagnostic criteria was not completed for these two TECs.

4.1.3 Threatened flora

A portion of the project area contains areas of protected plant trigger mapping (Figure 3-1). SLR conducted a protected plant survey on 26 May 2025. This survey was completed in accordance with the Queensland Flora Survey Guidelines (DETSI, 2025). The survey did not detect any threatened flora species (SLR, 2025). The Flora Survey Report in included in Appendix E for reference.

4.1.4 Locally significant priority species

Two locally significant priority flora species were recorded within the project area, namely *Eleocharis dulcis* and *Ficus rubiginosa. Melaleuca quinquenervia* was recorded outside the project area during the protected plant survey. Figure 4-1 displays the location of these plants.

4.1.5 Introduced/Non-native flora

A total of 62 exotic flora species were recorded during the field assessment, most of which are common throughout the broader region. Ten species are listed Category 3 restricted invasive plants under the Queensland *Biosecurity Act 2014*, four of which are also WoNS. These species are detailed in Table 4-6.

Table 4-6 Restricted matters under the *Biosecurity Act 2014*

Scientific name	Common name	*Biosecurity Act 2014*	WoNS
Asparagus aethiopicus	ground asparagus	Category 3	WoNS
Asparagus africanus	ornamental asparagus	Category 3	
Baccharis halimifolia	groundsel bush	Category 3	
Bryophyllum delagoense	mother-of-millions	Category 3	
Celtis sinensis	Chinese elm	Category 3	
Lantana camara	lantana	Category 3	WoNS
Lantana montevidensis	creeping lantana	Category 3	

Scientific name	Common name	*Biosecurity Act 2014*	WoNS
Opuntia tomentosa	velvety tree pear	Category 3	WoNS
Senecio madagascariensis	fireweed	Category 3	WoNS
Sporobolus pyramidalis	giant rat's tail grass	Category 3	

4.2 Fauna results

4.2.1 Fauna habitat

Habitat features were recorded at eight locations within the project area (Figure 4-1). The project area contains several habitat values and features providing suitable habitat for a range of fauna species, including shelter, nesting and food resources.

Habitat types observed fall into four broad categories:

- artificial wetlands and/or drainage lines
- non-remnant cleared areas
- non-remnant drainage lines
- eucalypt open woodland.

A description of each habitat type identified within the project area is provided in Table 4-7 to Table 4-10, and includes a summary of the available habitat features for both common and conservation significant fauna. Representative photographs of the four habitat types are found in Plate 1 to Plate 4.

Table 4-7 Artificial wetlands and/or drainage lines

Attribute		Description
Vegetation status		Remnant
Average canopy height (m)		20
Dominant species group		Mixed eucalypt
Soil texture and colour		Sandy light brown loam
Erosion		Absent
Fire extent		Absent
Clearing extent		Widespread
Feral presence		None
Human waste severity		Localised, moderate levels
Hollows	Large (>10 cm)	1 to 5
	Small (<10 cm)	6 to 10
Large logs	Large (>30 cm)	6 to 10
	Small (<30 cm)	6 to 10
Rocks	Large	0

Attribute		Description
	Small	0
Termite mounds	Arboreal	1 to 5
	Ground	0
Weeds	Canopy	Absent
	Mid-storey	Dominant/abundant
	Ground	Dominant/abundant
Exfoliating bark		Uncommon
Cracking soils		No
Leaf litter abundance		Mid-dense (30 – 70%)
Rocky habitat		Absent
Wetland	Type	Artificial drainage channel
	Area	5000 m^2
	Salinity	Fresh
	Seasonality	Perennial
	Water condition	Turbid
	Stream flow	Pool
	Wetland vegetation	Emergent non-woody
	Notes	Mostly stagnant wetland with sedges, typha and grasses, with dieback of woody trees due to inundation.
Koala habitat	Primary koala trees	*Eucalyptus tereticornis*
	Secondary koala trees	*Eucalyptus crebra*
Potential threatened species habitat		Foraging habitat for koala, small hollows being used by rainbow lorikeets (*Trichoglossus moluccanus*). Wetland may provide shelter and breeding habitat for frogs.

Attribute	Description
	
Plate 1 Artificial wetland and/or drainage line	

Table 4-8 Non-remnant cleared area

Attribute		Description
Vegetation status		Exotic
Average canopy height (m)		0.5
Dominant species group		Grass
Soil texture and colour		Black clay
Erosion		Absent
Fire extent		Absent
Clearing extent		Widespread
Feral presence		None
Human waste severity		Widespread, minor levels
Hollows	Large (>10 cm)	0
	Small (<10 cm)	0
Large logs	Large (>30 cm)	0
	Small (<30 cm)	0
Rocks	Large	0
	Small	0
Termite mounds	Arboreal	0

Attribute		Description
	Ground	0
Weeds	Canopy	Absent
	Mid-storey	Frequent/occasional
	Ground	Dominant/abundant
Exfoliating bark		Absent
Cracking soils		No
Leaf litter abundance		Sparse (1-10%)
Rocky habitat		Absent
Wetland	Type	Small dam
	Area	800 m^2
	Salinity	Fresh
	Seasonality	Perennial
	Water condition	Stagnant
	Stream flow	Pool
	Wetland vegetation	Floating
	Notes	Artificial dam just outside clearing footprint draining into paddocks.
Koala habitat		No
Potential threatened species habitat		Small birds utilizing lantana. Dam potential habitat for birds and frogs. Snake skin observed at edge of wetland/lantana.



Plate 2 Non-remnant cleared area

Table 4-9 Non-remnant drainage line (based on aerial imagery)

Attribute	Description
Vegetation status	Non-remnant
Dominant species group	*Melaleuca viminalis*
Erosion	Moderate
Fire extent	Absent
Clearing extent	Widespread
Koala habitat	No
Potential threatened species habitat	Small birds utilizing Melaleuca. Drainage line potential habitat for birds and frogs.



Plate 3 Non-remnant drainage line

Table 4-10 Eucalypt open woodland

Attribute	Description
Vegetation status	Regrowth
Average canopy height (m)	14
Dominant species group	Mixed eucalypt
Soil texture and colour	Light brown loamy sand
Erosion	Absent
Fire extent	Absent

Attribute		Description
Clearing extent		Widespread
Feral presence		None
Human waste severity		Widespread, moderate levels
Hollows	Large (>10 cm)	0
	Small (<10 cm)	1 to 5
Large logs	Large (>30 cm)	0
	Small (<30 cm)	1 to 5
Rocks	Large	1-10%
	Small	1-10%
Termite mounds	Arboreal	0
	Ground	0
Weeds	Canopy	Absent
	Mid-storey	Frequent/occasional
	Ground	Frequent/occasional
Exfoliating bark		Uncommon
Cracking soils		No
Leaf litter abundance		Mid-dense (30 – 70%)
Rocky habitat		Scattered cobbles
Wetland		No
Koala habitat	Primary koala trees	*Eucalyptus crebra*
	Secondary koala trees	*Eucalyptus siderophloia*
Potential threatened species habitat		Foraging habitat for koala.

Attribute	Description
	
Plate 4 Eucalypt open woodland	

4.2.2 Fauna species

Fauna surveys confirmed 39 vertebrate species within the project area, including 37 native and two introduced species. Of the fauna species encountered, 33 birds, four mammals and two reptiles were identified. One further reptile species was detected through skins that could not be identified down to species level.

Several other bird species may occur on site when migrant species arrive in Australia and Queensland during their non-breeding season (e.g. August – February depending on the species). Similarly, amphibians are strongly influenced by weather and many species only call or are detectable during optimal conditions (e.g. during or after rainfall, or during breeding season which is November – February for most species). Consequently, detectability of frog species within the project was impacted due to the timing of the survey and climatic conditions.

A full list of the fauna species recorded during the survey is provided in Appendix C.

4.2.2.1 Biosecurity obligations

Several introduced / non-native fauna species were detected within the project footprint. These included:

- European rabbit (*Oryctolagus cuniculus*), listed as an invasive animal under the Ipswich Biosecurity Plan, and a category 3 restricted matter under the *Biosecurity Act 2014*
- common myna (*Acridotheres tristis*), listed as an invasive animal under the Ipswich Biosecurity Plan

- red imported fire ant (*Solenopsis invicta*), listed as an invasive animal under the Ipswich Biosecurity Plan, and a category 1 restricted matter under the *Biosecurity Act 2014.*

SLR detected two fire ant nests within the project area (Figure 4-1). Under the *Biosecurity Act 2014*, all Queenslanders have an obligation to report fire ants (if detected). SLR has reported the nests to the Queensland Fire Ant Eradication Program (case number ANT-172348-C6H5C0).

4.2.3 Targeted fauna surveys

4.2.3.1 Koala surveys

SAT searches for koala and signs of their presence (i.e. scats or scratches on known food trees) was undertaken at three sites within the project area (Figure 2-1). In total, 90 koala food trees were searched and no presence of koala or their scat was detected. A summary of the koala SAT survey tree data is presented in Appendix E. The scat of common brushtail possum (*Trichosurus vulpecula*) was the only evidence of fauna detected during these surveys (Plate 5).



Plate 5 Common brushtail possum scat

4.2.3.2 Spotlighting and call playback

A total of 228 person minutes of spotlighting was undertaken across five sites within the project area. One conservation significant fauna species was detected as ten grey-headed flying-fox (*Pteropus poliocephalus*, listed as Least Concern under the NC Act and vulnerable under the EPBC Act) observed foraging on *Corymbia citriodora* at three locations within the

project area (Figure 4-1). The closest flying-fox camp is 2.5 km away at Deebing Creek, Yamanto, and the closest nationally important flying-fox camp is 20.2 km away at Lilac Street, Inala (DCCEEW, 2025).

Spotlighting also detected five bird species, including more than 50 cattle egret (*Bubulcus ibis*) roosting outside the project area in a nearby wetland (Plate 6).

Call playback for powerful owl did not elicit any calls or presence of the species.



Plate 6 Cattle egrets roosting in trees at nearby wetland

4.2.3.3 Active searches

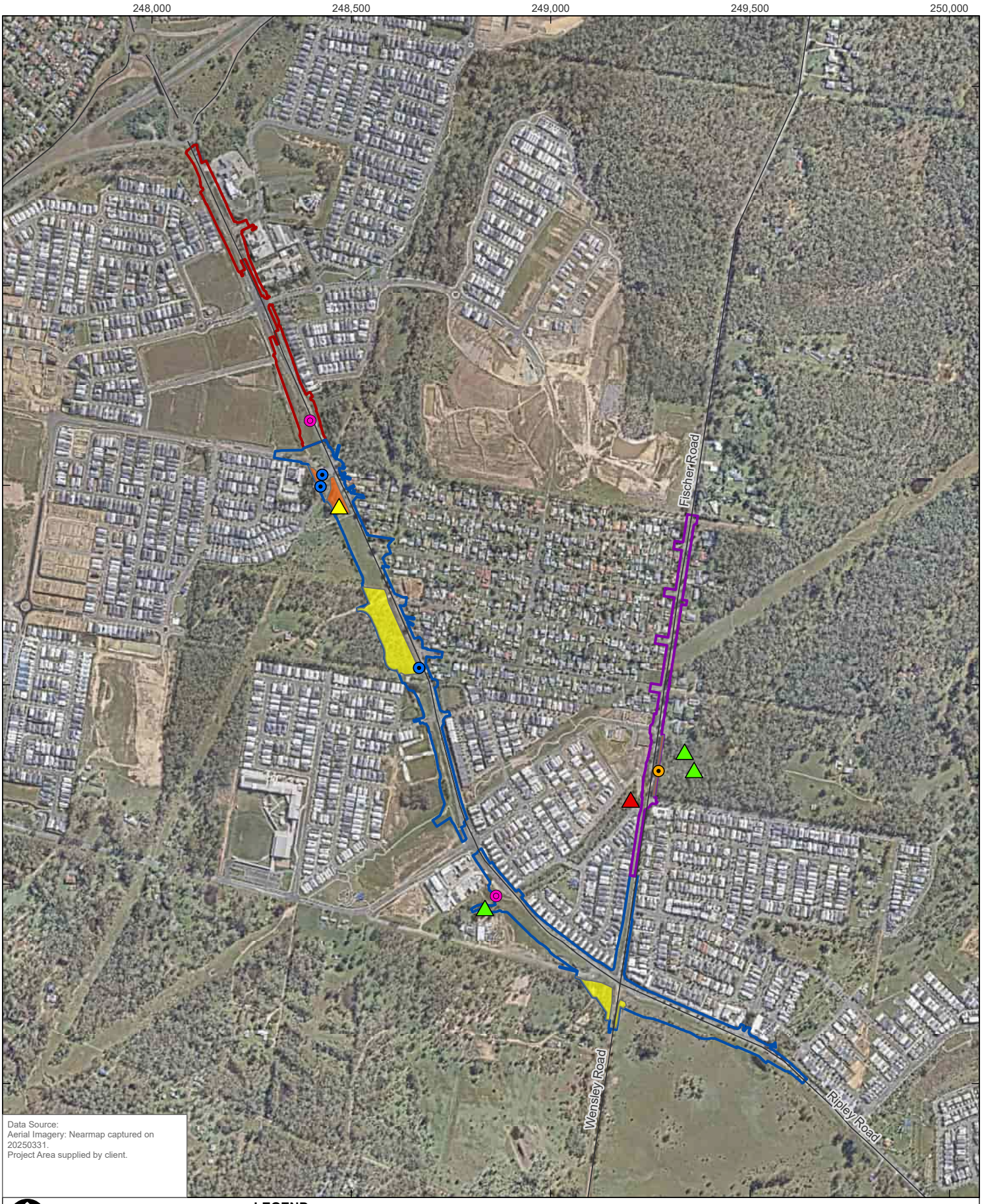
Active searches for signs of fauna were undertaken at seven sites. Of note were the skins of two reptiles, bearded dragon (*Pogona barbata,* Plate 7*)* and an unidentified species of snake (Plate 8).



Plate 7 Bearded dragon skin



Plate 8 Unidentified snake skin



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 100 200 m

Coordinate System:	ICC Terrain 2001
Scale:	1:12,500 at A4
Project Number:	620.041764
Date Drawn:	25-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3

Field Verified Regional Ecosystem

- 12.9-10.2, Remnant
- 12.9-10.7, Remnant

- Fire Ant Nest

MLES Flora

- Eleocharis dulcis
- Ficus rubiginosa
- Melaleuca quinquenervia

Conservation Significant Fauna

- Cattle egret roost
- Grey-headed flying-fox

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

FIELD ASSESSMENT RESULTS

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 4-1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F04_Field Assessment Results

4.3 Likelihood of occurrence

The initial desktop-based likelihood of occurrence assessment was updated based on the field survey results and the habitats identified within the project area.

The updated likelihood of occurrence assessment identified eight conservation species listed under the EPBC Act, NC Act and/or those that are listed as locally significant by Ipswich City Council, detected or assessed as having a high likelihood of occurring in the project area, as presented in Table 4-11.

Table 4-11 Conservation significant species recorded with known presence or a high likelihood of occurrence in project area

Species name	Common name	EPBC Act Status	NC Act Status	ICC	Likelihood of occurrence
Flora					
Ficus rubiginosa forma *rubiginosa*	small leaved fig		LC	Y	**Known** This species was detected within the project area.
Eleocharis dulcis	water chestnut		LC	Y	**Known** This species was detected within the project area.
Calyptochloa gracillima subsp. *ipsviciensis*			CR	-	**High** There were 6 records of this species within the study area. The project area contains suitable habitat for this species.
Fauna					
Pteropus poliocephalus	grey-headed flying-fox	V	LC	-	**Known** Ten individuals of this species were observed foraging within the project area and there are 20 records within the study area.
Tachyglossus aculeatus	short-beaked echidna	-	SLC	-	**High** There were 11 records of this species within the study area and there is suitable habitat within the project area for this species.
Phascolarctos cinereus	koala	E	E	-	**High** There were 211 records of this species returned within the study area (combination of ALA and WildNet (209 records) and two previous EPBC referrals). The project area contains suitable habitat for this species.
Melithreptus gularis	black-chinned honeyeater	-	LC	Y	**High** There were 6 records of this species within the study area. The project area contains suitable habitat for this species.

Species name	Common name	EPBC Act Status	NC Act Status	ICC	Likelihood of occurrence
Macropus dorsalis	black striped wallaby	-	LC	Y	**High** There were 6 records of this species within the study area. The project area contains suitable habitat for this species.

EPBC Act: CE – Critically Endangered, E – Endangered, V – Vulnerable.

NC Act: CR – Critically Endangered, E – Endangered, , SLC – special least concern, LC – Least Concern

ICC: Ipswich City Council strategic or locally significant priority species

5.0 Discussion

5.1 Matters of environmental significance

5.1.1 National

5.1.1.1 TECs

Surveys did not detect any patches of RE 12.3.3 that meet the key diagnostic criteria and minimum threshold conditions of the TEC Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions and no other vegetation communities associated with TECs were recorded within the project area.

5.1.1.2 Threatened and migratory fauna species

Surveys detected grey-headed flying-fox which is listed as vulnerable under the EPBC Act. In addition, koala (listed as endangered under the EPBC Act) has been identified as highly likely to occur based on the likelihood of occurrence assessment. Potential impacts for these species are discussed in Section 6.0 and mitigation measures detailed in Section 7.1.

5.1.1.3 Threatened flora species

Surveys did not detect any flora species listed under the EPBC Act.

5.1.2 State

As the works are proposed within a Priority Development Area no approvals under the state planning framework are required. Secondary approvals such as management of fauna breeding places through a Species Management Program (SMP) may still apply. Proposed activities that will impact active breeding places of protected animals in Queensland (such as the proposed clearing for this Project) require approval and implementation of a SMP.

5.1.2.1 Regulated vegetation

The project area contains:

- 1.758 ha of Of concern remnant RE 12.9-10.7
- 0.400 ha of Least concern remnant RE 12.9-10.2
- 0.121 ha of Endangered regrowth RE 12.3.3.

5.1.2.2 Conservation significant species

Surveys determined the following two species listed as threatened, near-threatened or SLC as likely to occur within the project area:

- koala, listed as endangered under the NC Act
- short-beaked echidna, listed as SLC under the NC Act. A SMP is potentially required for this species.

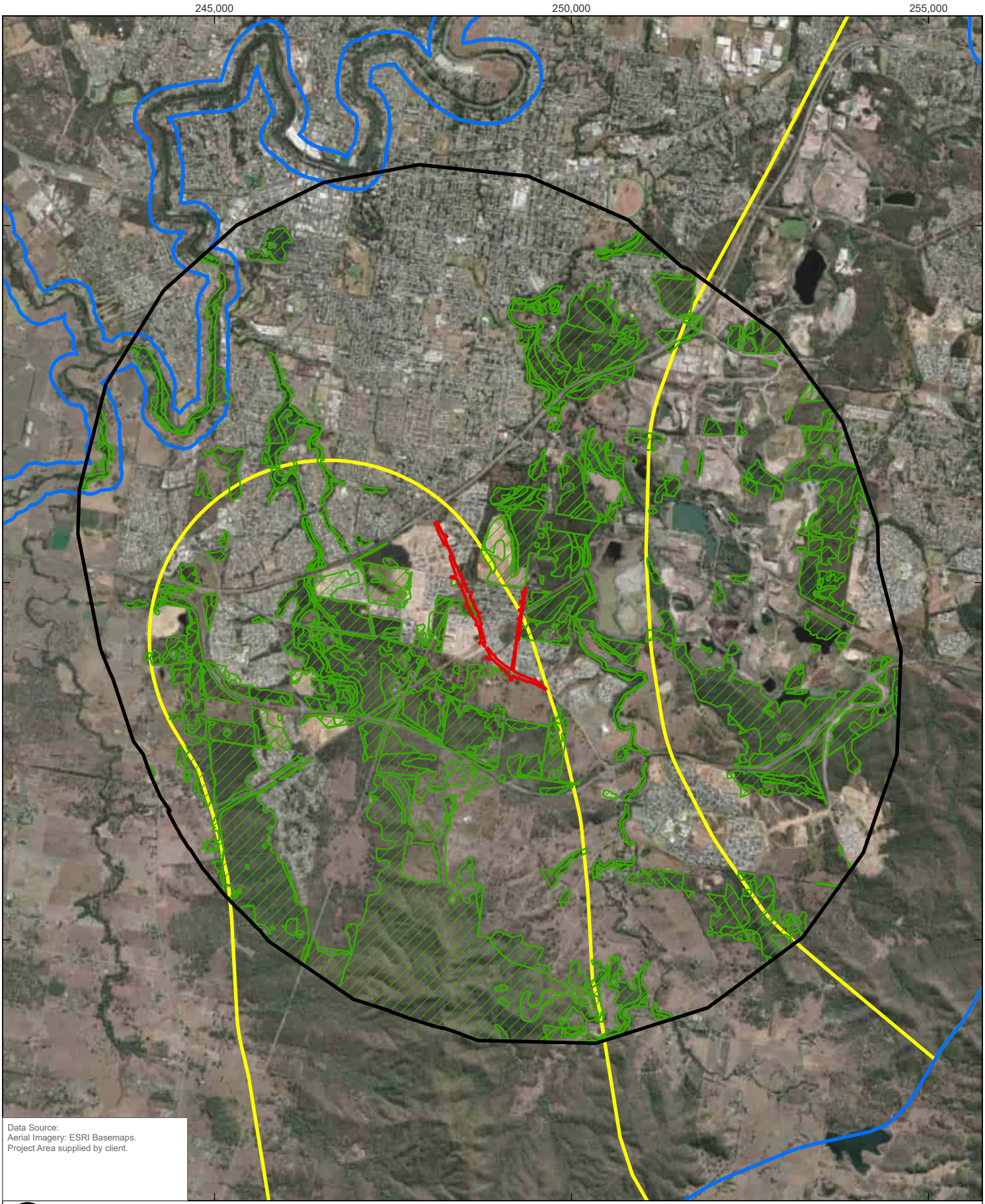
Potential impacts and mitigation measures for koala are detailed in Section 6.0 and Section 7.0 as it is listed under the EPBC Act.

5.1.3 MLES

The water chestnut and small leaved fig were recorded within the project area The black-chinned honeyeater and the black striped wallaby have been identified as likely to occur based on the likelihood of occurrence assessment. The broad-leaved paperbark was identified as moderately likely to occur based on the likelihood of occurrence assessment. There are no local approvals required for the project and no further assessment of these species is provided.

5.2 Biodiversity corridors

The Project area, and the Ripley Valley PDA, are located within a statewide biodiversity corridor. Ripley Road and Fischer Road will be upgraded to become key transport routes within the PDA. The Project area and surrounding areas provide habitat for a range of fauna species, some of which will move within the locality, including crossing these roads. The widening of Ripley Road, and the effects of that upon local fauna movement, is a key consideration in the assessment of potential impacts on fauna known or likely to occur within the Project area. Mapped statewide corridors and potential local scale movement corridors identified within the locality, based on the presence of remnant and other vegetation, drainage lines and fauna records, are shown on Figure 5-1.


245,000
250,000
255,000
735,000
730,000
725,000
Data Source:
Aerial Imagery: ESRI Basemaps.
Project Area supplied by client.
0
1
2
km
LEGEND
Project Area
Study Area
Core Koala Habitat Area
Statewide Biodiversity Corridor
Regional
State
Coordinate System: ICC Terrain 2001
Scale: 1:70,000 at A4
Project Number: 620.041764
Date Drawn: 25-Aug-2025
Drawn by: RB
ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT
BIODIVERSITY CORRIDORS
SLR
DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.
FIGURE 5-1A
Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-03A_Biodiversity Corridors



Data Source:
Aerial Imagery: ESRI Basemaps.
Project Area supplied by client.

0 250 500 m

Coordinate System:	ICC Terrain 2001
Scale:	1:15,000 at A4
Project Number:	620.041764
Date Drawn:	25-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area
- Core Koala Habitat Area
- Potential Fauna Movement Corridor

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BIODIVERSITY CORRIDORS

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FIGURE 5-1B

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-03B_Biodiversity Corridors

6.0 Potential impacts

6.1 Potential direct impacts

Potential direct impacts of the proposed Project in the absence of appropriate mitigation measures (noting that no fauna crossing infrastructure is proposed) include:

- loss of vegetation communities (remnant, high value regrowth and non-remnant)
- fragmentation of local scale biodiversity corridors
- loss of breeding, foraging, roosting and resting habitat for fauna
- loss of habitat for conservation significant flora and fauna species
- unintentional fauna mortality or injury resulting from vegetation clearing and related works
- alteration of wetland / drainage line habitat and flow regime during and post works, with potential loss of woody structure.

6.2 Potential indirect impacts

Potential indirect impacts of the proposed works in the absence of appropriate mitigation measures include:

Flora:

- introduction of new weed species or spread of existing weeds
- contamination of land resulting from proposed works i.e. spills and introduced pathogens
- generation of dust through construction activities
- edge effects and disturbance to adjacent habitats.

Fauna:

- facilitating pest animal movement into new areas
- increased noise, light, vibration, and uncontrolled runoff into waterways
- edge effects and disturbance to adjacent habitats
- introduction of new weed species or spread of existing weeds limiting fauna movement.

6.3 Potential impacts on MNES

MNES values which may be impacted by the proposed upgrade of Ripley Road and Fischer Road include:

- confirmed habitat for grey-headed flying-fox
- possible habitat including foraging/breeding habitat and low-grade dispersal habitat for koala.

6.4 Potential impacts on MSES

MSES values which may be impacted by the proposed upgrade of Ripley Road and Fischer Road include:

- possible habitat for threatened and SLC species, including koala and short-beaked echidna
    - for koalas in SEQ, the removal of a non-juvenile koala habitat tree is a significant impact
- areas of ‘Of concern’ RE 12.9-10.7
- regulated vegetation (Category B and C) and essential habitat.

6.5 Potential impacts on MLES

MLES which may be impacted by the proposed upgrade of Ripley Road and Fischer Road, includes known habitat for the broad-leaved paperbark and water chestnut, and possible habitat for black-chinned honeyeater and black striped wallaby.

7.0 Significant impact assessment

7.1 MNES

Impacts of the proposed Project on each of the MNES known or likely to occur in the project area were assessed against criteria identified in the MNES Significant Impact Guidelines (DoE, 2013b).

7.1.1 Grey-headed flying-fox

A formal impact assessment for the grey-headed flying-fox, listed as vulnerable under the EPBC Act is provided in Table 7-1. The project area contains approximately 2.278 ha of foraging habitat for the grey-headed flying-fox (including 2.157 ha of mapped remnant vegetation and 0.121 ha of regrowth vegetation).

The National recovery plan for the grey-headed flying-fox (DEW, 2021) considers habitat critical to the survival of the species to include the following:

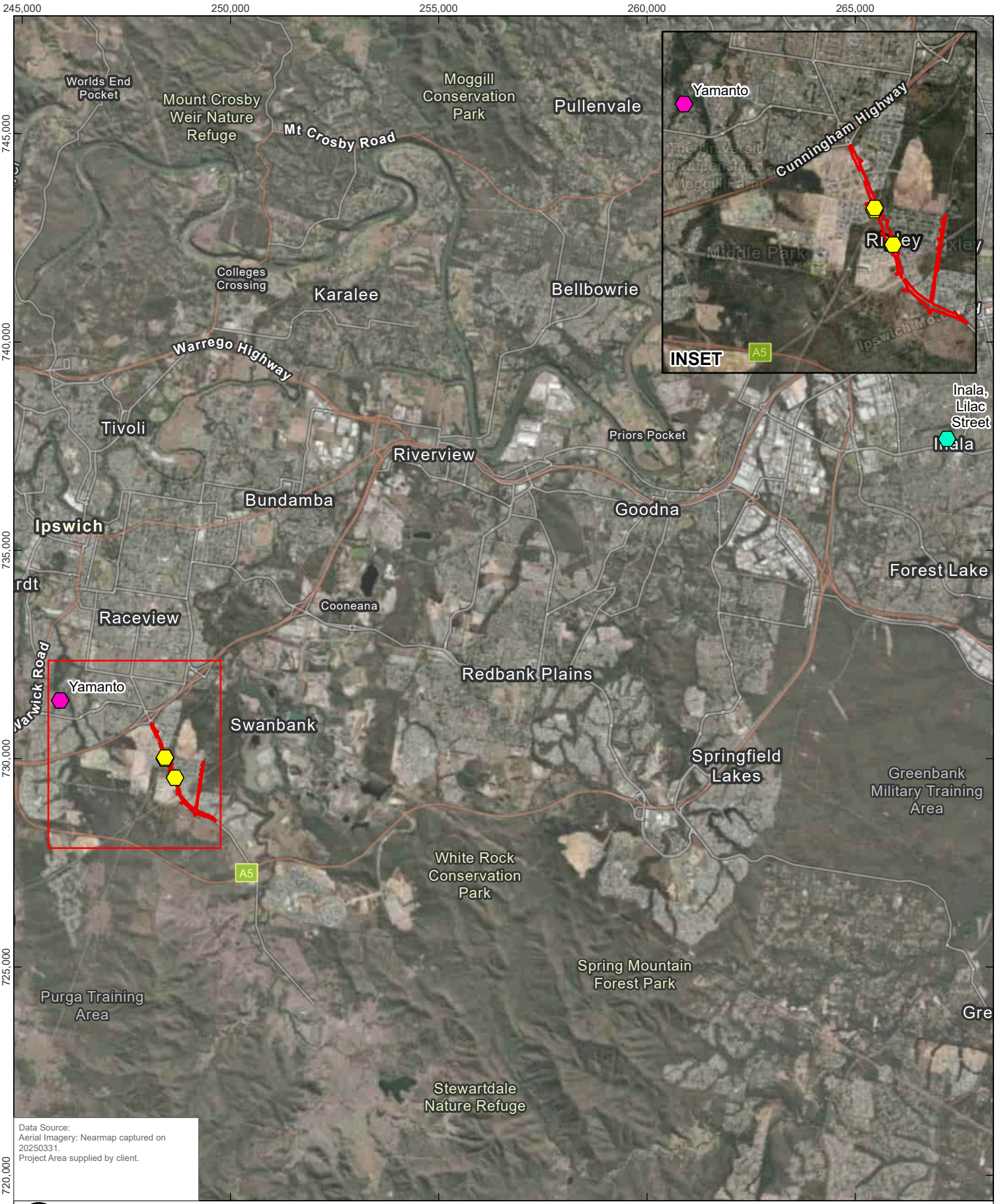
- Areas containing important winter and spring flowering vegetation (including *Eucalyptus tereticornis, E. albens, E. crebra, E. fibrosa, E. melliodora, E. paniculata, E. pilularis, E. robusta, E. seena, E. sideroxylon, E. siderophloia, Banksia integrifolia, Castanospermum australe, Corymbia citriodora citriodora, C. eximia, C. maculata, Grevillea robusta, Melaleuca quinquenervia or Syncarpia glomulifera)*
- Areas 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)
- Areas which contain native species used for foraging and occur within 20 km of a nationally important camp as identified on the national flying-fox monitoring viewer (DCCEEW, 2025a)
- Areas which 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 national flying-fox monitoring viewer (DCCEEW, 2025a).

The current design may remove up to 2.278 ha of potential habitat critical for the survival of the grey-headed flying-fox. This consists of mapped remnant and regrowth vegetation containing important winter and spring flowering vegetation and represents 0.08% of suitable mapped remnant and regrowth vegetation within the study area (5 km from the project footprint). To avoid overestimating available habitat, recently cleared areas were excluded by cross-checking the vegetation mapping against current aerial imagery. This identified approximately 2,818 ha of potential grey-headed flying-fox habitat within the study area (based on the presence of REs known to contain the species identified above and proximity to known camps).

When assessing the significance of an action on a vulnerable species, it is necessary to define whether an ‘important population’ of the species occurs or could potentially occur within the project area. An important population is defined as one 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.

An important population of grey-headed flying-fox does not occur within the project area, as there are no known camps within the project area, it is a highly mobile species, ranging up to 50 km a night from camps, and the project area is not at the limit of the species' range (distributed between Ingham Queensland to Adelaide in South Australia). It is likely however, that the foraging habitat identified within the project area is used by individuals from the Yamanto camp and the nationally significant camp located at Inala (approximately 20 km from the project area) (see Figure 7-1). The nationally significant camp accommodates a key breeding/dispersal population and grey-headed flying-fox in this locality could be considered an important population. The use of foraging resources within the project area by this important population reinforces its status as habitat critical to the survival of the species. Protection of winter and spring foraging resources is the first recovery objective for this species in the National Recovery Plan (Department of Environment and Water, Government of South Australia, 2021). Recent advice provided to SLR by DCCEEW in relation to grey-headed flying-fox states that any vegetation with the potential for use by this species should be considered as habitat critical to the survival of the species.



Coordinate System:	ICC Terrain 2001
Scale:	1:120,000 at A4
Project Number:	620.041764
Date Drawn:	25-Aug-2025
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ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

LOCAL AND NATIONALLY SIGNIFICANT GREY-HEADED FLYING-FOX CAMPS

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FIGURE 7-1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-01_Local and Nationally Significant Grey-headed Flying-fox Camps

Table 7-1 EPBC Act significant impact assessment for the vulnerable grey-headed flying-fox

Significant impact criteria	Assessment of the project area
Lead to a long-term decrease in the size of an important population of a species	**Unlikely.** The grey-headed flying-fox is considered to exist within a single, national population due to its highly mobile and fluid nature between colonies. It is highly nomadic and disperses in response to food availability, which is patchy and depends on the flowering patterns of food species (Eby and Law, 2008), so seasonal and yearly fluctuations in camp sizes occur (DEW, 2021). An important population of grey-headed flying-fox does not occur within the project area however there is a known grey-headed flying-fox camp within 2.5 km and a nationally significant camp within 20.2 km. Individuals from both these camps could potentially forage within the project area. Foraging habitat within the project area is considered habitat critical to the survival of the species due to the presence of winter and spring flowering food resources and the likely use of these resources by an important population. The project may clear up to 2.278 ha of foraging habitat, including 2.157 ha of remnant vegetation and 0.121 ha of regrowth vegetation (representing 0.08% of the 2,818 ha of potential foraging habitat within the 5 km study area). There is approximately 2,818 ha of critical foraging habitat within the study area (including the project area), therefore the impact of removal of up to 2.278 ha of critical foraging habitat (0.08% of available habitat within the study area) is considered minimal. This minimal loss of habitat is considered unlikely to lead to a long-term decrease in the population size of this species.
Reduce the area of occupancy of an important population	**Unlikely.** The project may clear up to 2.278 ha of foraging habitat critical to the survival of the species, including 2.157 ha of remnant vegetation and 0.121 ha of regrowth vegetation (representing 0.08% of the total 2817.90 ha of potential critical foraging habitat within the study area). There is a known grey-headed flying-fox camp within 2.5 km and a nationally significant camp approximately 20 km of the project area. The project will result in the loss of some critical foraging habitat, but large tracts of foraging habitat are present in the surrounding landscape, and there are no roosts present in the project area. Therefore, the impact to this highly mobile species is minimal and unlikely to result in a significant reduction in area of occupancy.
Fragment an existing important population into two or more populations	**Unlikely.** The grey-headed flying-fox is a highly mobile species which occurs as a single national population due to its ability to move between colonies. The project area provides only a small area of foraging habitat with sufficient alternative foraging resources available within 5 km of the project area. No camps were detected within the project area and as such the project is unlikely to fragment an existing important population of grey-headed flying-fox.
Adversely affect habitat critical to the survival of a species	**Likely.** Reliable foraging resources in spring are critical to the survival of grey-headed flying-fox to avoid poor reproductive success (DEW, 2021). The project area contains eucalypt species that provide foraging resources when flowering and grey-headed flying-fox were observed foraging on

Significant impact criteria	Assessment of the project area
	Eucalyptus tereticornis and *E. crebra* in the project site in winter. The project will clear up to 2.278 ha of foraging habitat but large areas of foraging habitat will remain in the surrounding landscape. The project site is approximately 20 km from a nationally significant camp, as such the habitat is considered critical foraging habitat which will be adversely impacted by removal.
Disrupt the breeding cycle of an important population	**Unlikely.** The proposed works will remove foraging habitat, but large areas of foraging habitat will remain within the surrounding landscape. The project area is linear and its clearing will not result in a noticeable increase in travel to foraging resources for grey-headed flying-fox which can travel up to 50 km per night to forage. Given the high mobility of this species and the abundance of flowering eucalypts in the region, and there are no camps supporting breeding individuals within the project footprint, the proposed works will not significantly reduce the availability of foraging resources during the breeding period. Given the retention of food resources within the wider landscape, the project is unlikely to disrupt the breeding cycle of grey-headed flying-fox.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	**Unlikely.** No roosting grey-headed flying-fox have been observed during field surveys. The proposed works will only remove a small area of foraging habitat. Given the amount of foraging habitat remaining within the wider locality, the proposed clearing is unlikely to cause the species' population to decline.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	**Unlikely.** Clearing of any vegetation and earthworks has the potential to allow for weed species to establish in place. Provided appropriate mitigation measures (e.g., adopting effective weed hygiene measures and progressive rehabilitation of disturbed areas) are implemented during the construction and operation of the road, it is highly unlikely an invasive species will impact the adjacent available foraging resources to the point that it would impact grey-headed flying-fox.
Introduce disease that may cause the species to decline	**Unlikely.** The impact of disease on flying-foxes is relatively unknown. Grey-headed flying-foxes generally exist in equilibrium with Lyssavirus, but population impacts have been observed when the species is under significant ecological stress (DEW, 2021). Grey-headed flying-foxes can be susceptible to Angiostrongylosis and a number of other diseases; however, the impact of these diseases at a population level is unknown (DEW, 2021). It is unlikely the proposed project works will result in significant ecological stress to the species causing increased rates of disease through the population.
Interfere substantially with the recovery of the species.	**Unlikely.** National key recovery targets focus on improving the national population trend of grey-headed flying-fox by reducing the impact of threats. Recovery objectives include protecting and increasing foraging habitat, improving management of camps and increasing public awareness (DEW, 2021).

Significant impact criteria	Assessment of the project area
	The project area contains vegetation which provides foraging habitat for the species. Although foraging habitat is proposed to be cleared as part of the works, given the availability of large tracts of suitable alternative habitat within the wider landscape, this is not considered a substantial interference to this species' recovery.
Overall impact assessment	**There will be a loss of up to 2.278 ha of habitat critical to the survival of the species, as a result of the clearing of winter and spring flowering foraging resources. This represents 0.08% of approximately 2,818 ha of available habitat critical to survival of the species within the 5 ha study area. Given the availability of large tracts of suitable habitat within the wider landscape, the proposed project is unlikely to have a significant impact on grey-headed flying-fox.**

7.1.2 Koala

A formal impact assessment for the koala listed as endangered under the EPBC Act was completed as a precautionary approach in Table 7-2. Although no individuals or evidence of presence within the project area was observed during targeted koala surveys, core koala habitat area is mapped within the project area, numerous records occur within the study area and suitable koala habitat was ground-truthed (Figure 7-2). A total of three SAT surveys were undertaken throughout the project area. No koala scats, scratches or physical koalas were observed during the SATs or incidentally, however there was an anecdotal koala observation from a construction worker earlier in the year.

Core koala habitat and state and regional biodiversity corridors have been mapped and are shown on Figure 7-3. A review of koala habitat assessment criteria and methods (Youngentob, Marsh and Skewes, 2021) concluded that the koala is predominantly associated with eucalypt forests containing locally preferred browse tree species, these being defined as trees from a species that is regularly browsed by koalas in a particular koala management bioregion. The species relevant to the project area have been identified on this basis.

The Conservation advice for koala (DAWE 2022c) identifies koala habitat as areas with resources for koala including:

- forests or woodlands
- roadside and rail vegetation and paddock trees
- safe intervening ground matrix for travelling between trees and patches to forage, shelter and reproduce
- access to vegetated corridors or paddock trees to facilitate movement between patches.

Connectivity between habitat patches does not require a continuity of vegetation, as koalas can move large distances on the ground. The ground itself forms an essential component of koala habitat (Youngentob, Marsh and Skewes, 2021).

Based on the above defining factors and the distribution of records across the wider landscape, potential biodiversity corridors providing for the movement of fauna, including koala, were identified and are presented in Figure 5-1. The main corridor that crosses Ripley Road aligns with the current vegetated corridor provided within the residential development to the north east of the Monterea Road-Ripley Road intersection (Hayfields EPBC 2017/8095) and the roadside areas and electricity easement to the south east. Analysis of

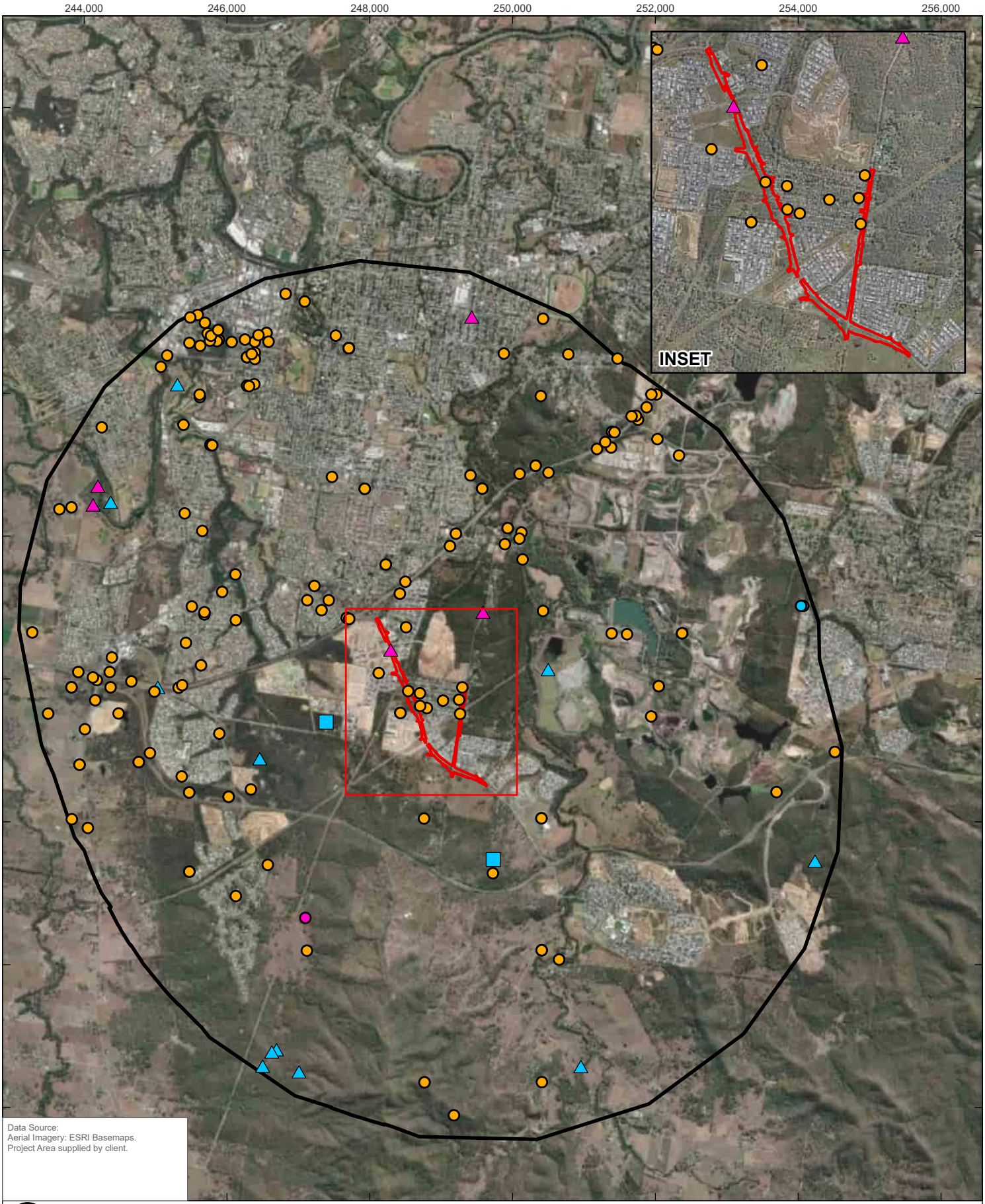
the detailed designs of the Hayfields EPBC 2017/8095 development have identified this vegetated corridor will be maintained.

Suitable koala habitat trees, including locally important koala trees *Eucalyptus tereticornis, Eucalyptus crebra* and *Corymbia citriodora* and ancillary koala habitat trees *Corymbia intermedia* (Youngentob et al., 2021) were abundant throughout vegetated areas of the project area and could provide suitable habitat for koala. The limited evidence of koala presence within the project area could indicate if koalas are remaining in the area, any individuals would most likely be using the project site in a transient nature, primarily as dispersal habitat (1.056 ha). However, the project site does contain suitable foraging and possible breeding habitat in the remnant areas (2.278 ha) of the project (Figure 7-3). One property was unable to be accessed and as such surveys were conducted from the road verge, based on the observations from the edge of the patch the vegetation appears to be consistent with koala breeding and foraging habitat and has been mapped as such.

General measures to mitigate impacts to koala include:

- minimising clearing works within identified koala habitat, including ongoing refinement of infrastructure to avoid habitat
- minimising injury/mortality of koalas during clearing works through pre-clear surveys and sequential clearing
- use of fauna spotter-catchers to identify and temporarily retain any occupied tree to allow koalas to self-relocate
- temporary exclusion fencing around areas of occupied habitat identified by a fauna spotter catcher
- temporary exclusion fencing around immediately adjacent habitat areas if required to prevent accidental damage
- traffic management procedures to minimise collisions during construction including toolbox talks, raising the awareness of workers regarding the potential presence of koala
- weed and pest animal management in accordance with an approved construction environmental management plan (CEMP).

The mitigation measures above are standard during construction and vegetation clearing within potential koala habitat areas to minimise the potential for direct impacts. If these mitigation measures are successfully implemented, there is still the potential that the proposed Project will result in a significant impact to koala through indirect impacts such as habitat loss and loss of connectivity. As such, it is recommended that connectivity across the wider locality be assessed as part of any EPBC Act referral to consider impacts on the maintenance or enhancement of benchmark habitat connectivity values throughout the landscape during the construction and post construction phases of the Project. An assessment of the impacts of each proposed stage is provided in the following sections, as well as an assessment of overall impacts.



Data Source:
Aerial Imagery: ESRI Basemaps.
Project Area supplied by client.

0 1 2 km

Coordinate System:	ICC Terrain 2001
Scale:	1:70,000 at A4
Project Number:	620.041764
Date Drawn:	25-Aug-2025
Drawn by:	RB

LEGEND

- Project Area
- Study Area

Koala Record (WildNet)

- Older than 2014
- 2015 - 2019
- 2020-2025

Additional Koala Record (ALA)

- 2015 - 2019
- 2020 - 2025

Evidence of koala scat detailed in previous EPBC referrals

- 2020 - 2025

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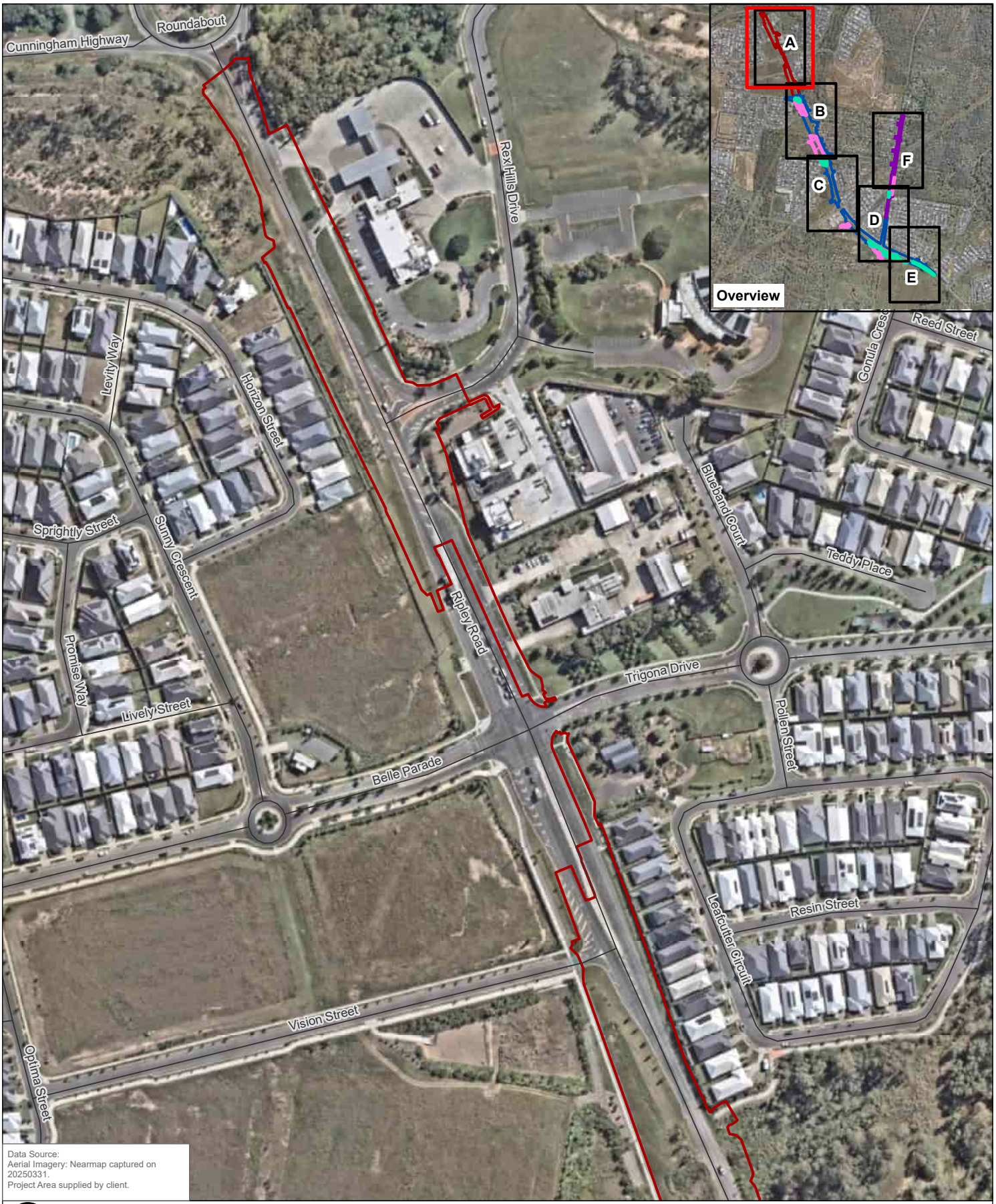
KOALA RECORDS WITHIN STUDY AREA

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FIGURE 7-2

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-02_Koala Records within Study Area



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

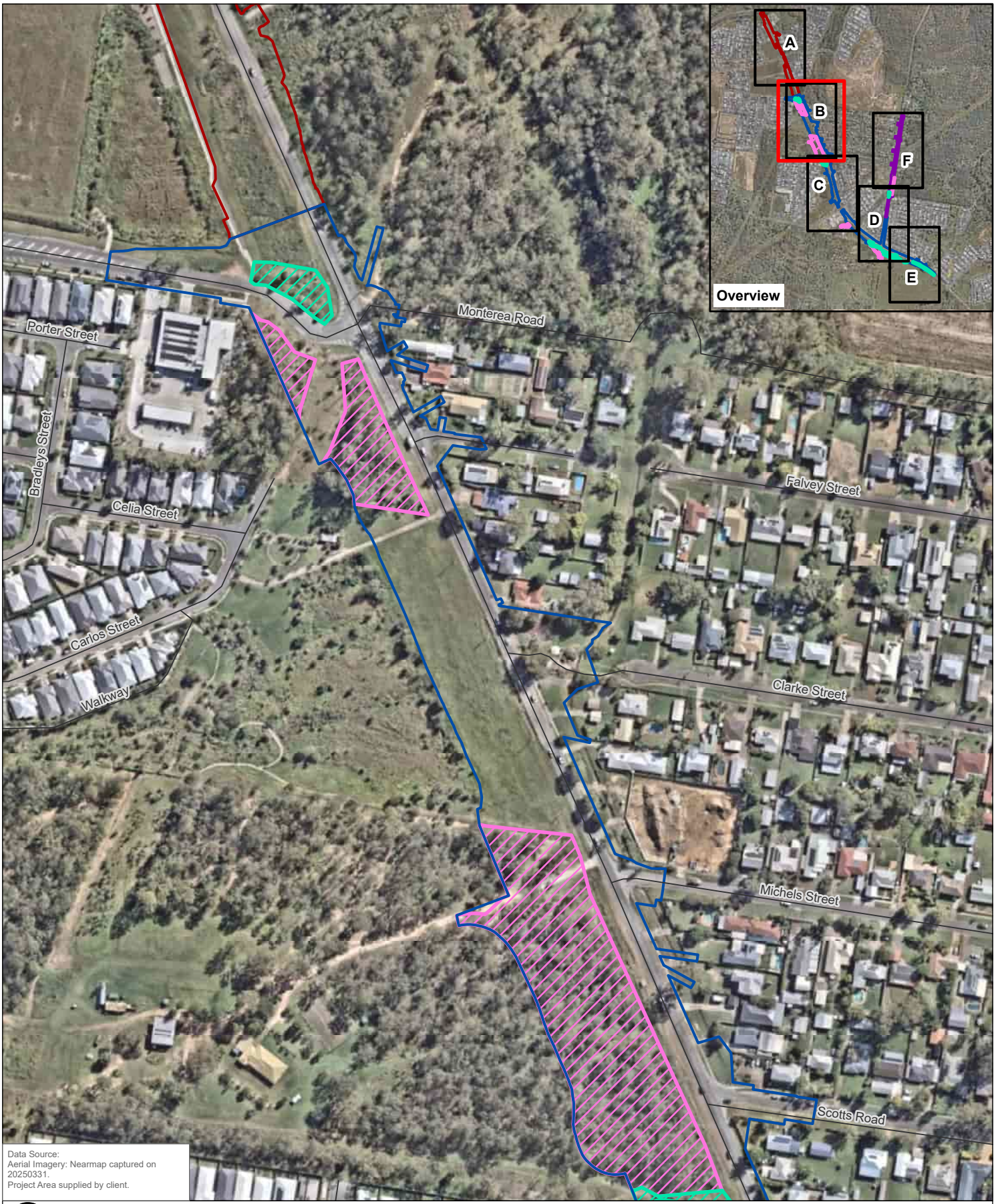
MNES SUITABLE KOALA HABITAT

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FIGURE 7-3A

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-04_Koala Habitat for MNES SIA



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
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LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

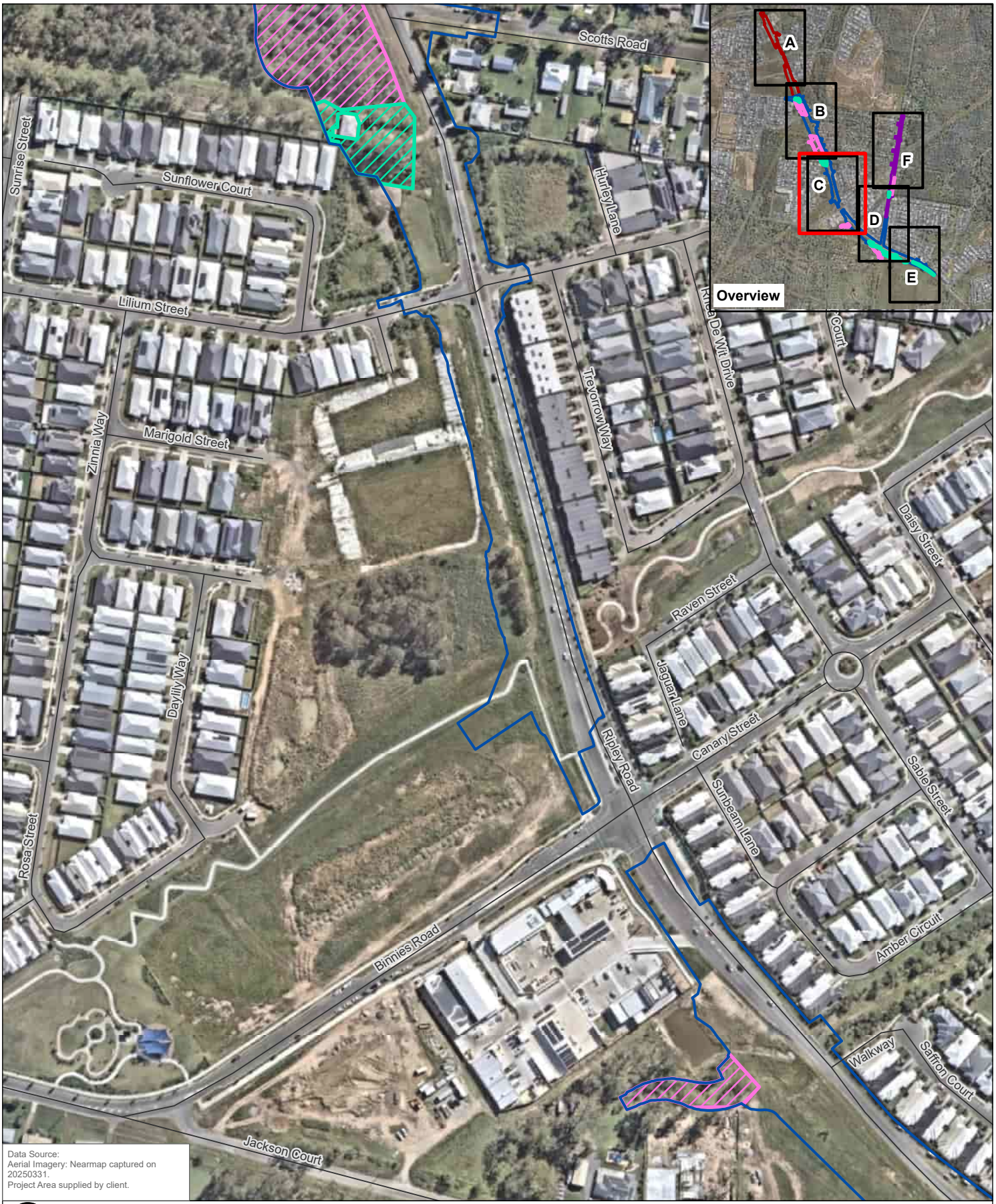
MNES SUITABLE KOALA HABITAT

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FIGURE 7-3B

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Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

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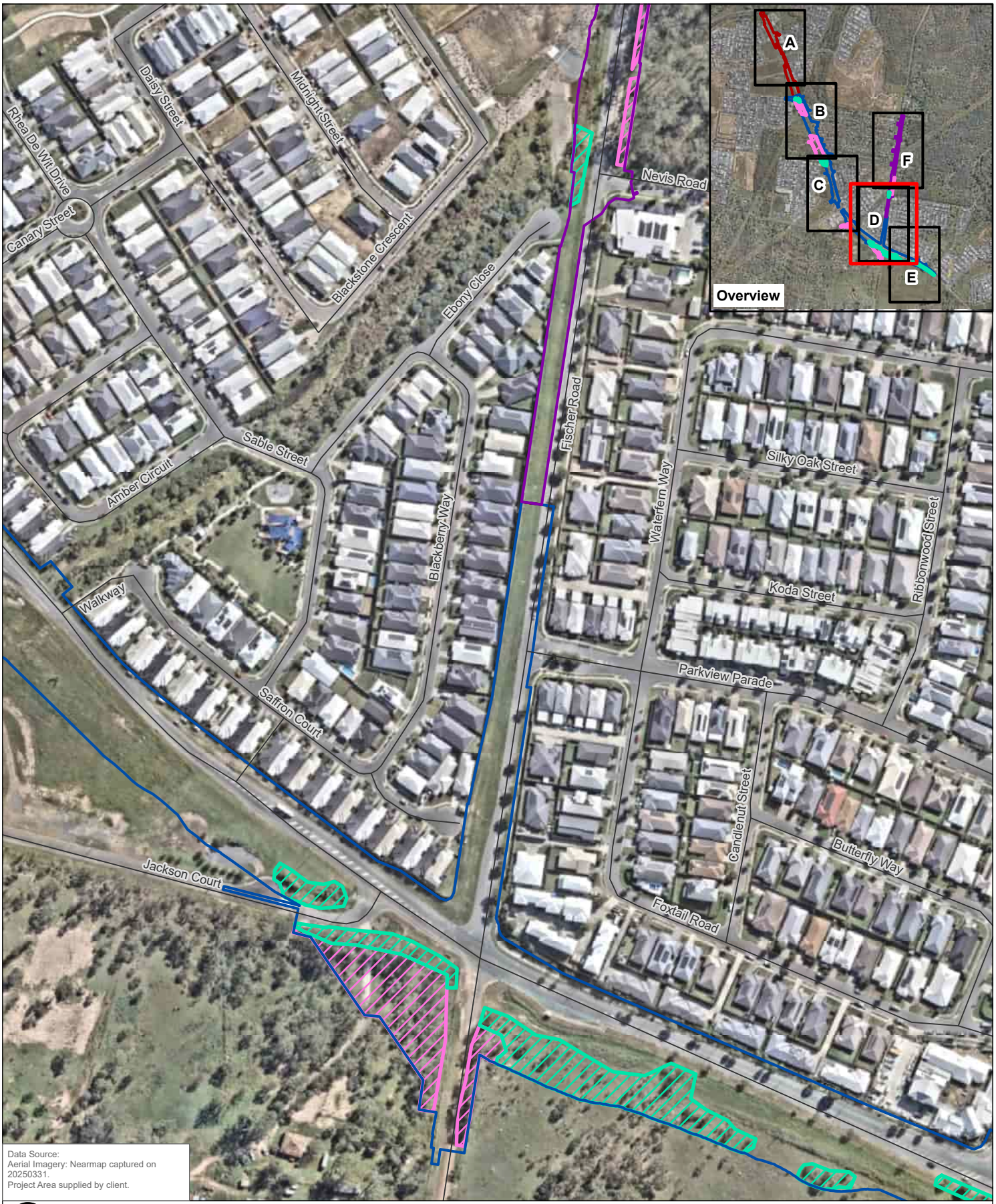
MNES SUITABLE KOALA HABITAT

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FIGURE 7-3C

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-04_Koala Habitat for MNES SIA



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

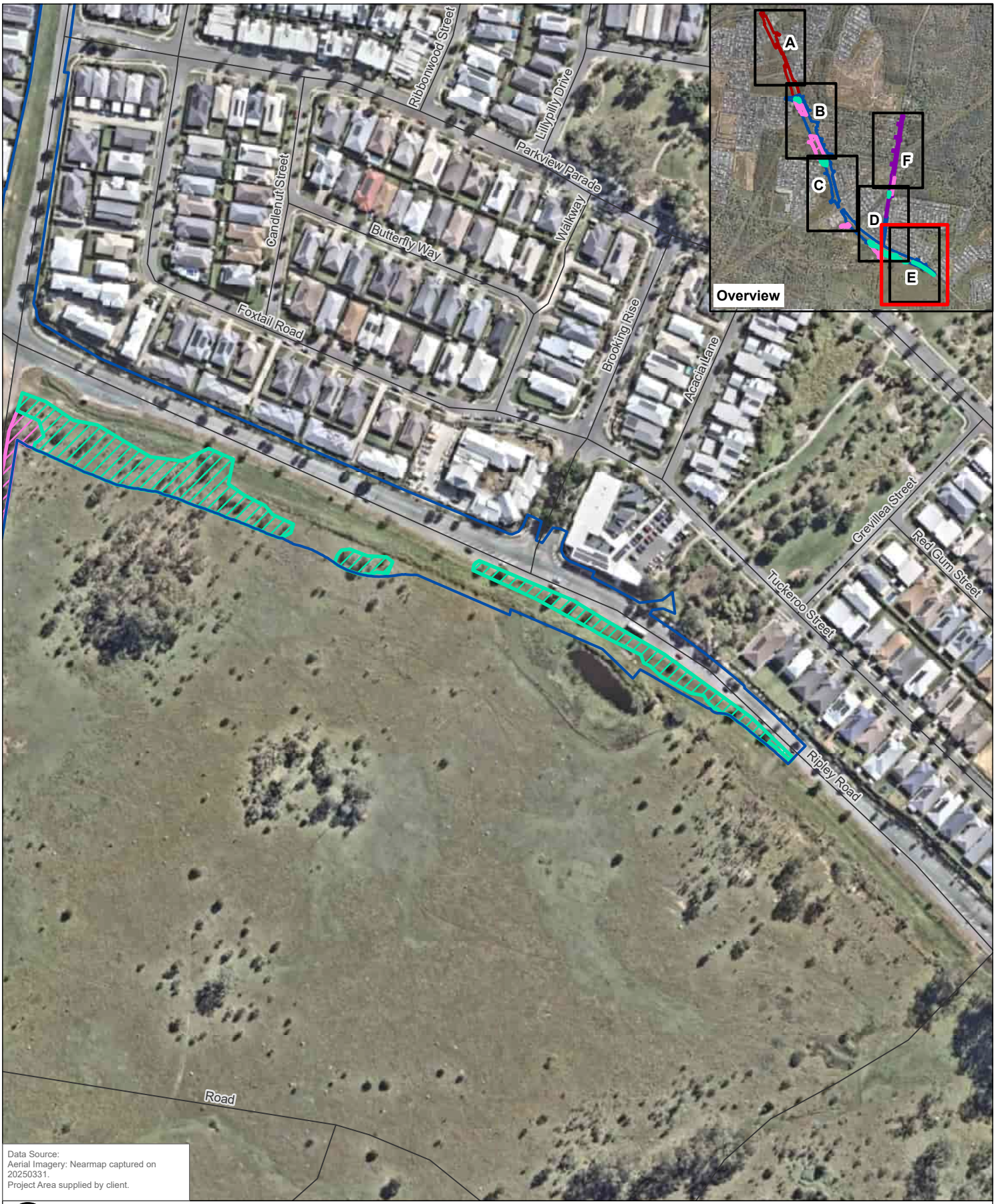
MNES SUITABLE KOALA HABITAT

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FIGURE 7-3D

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-04_Koala Habitat for MNES SIA



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

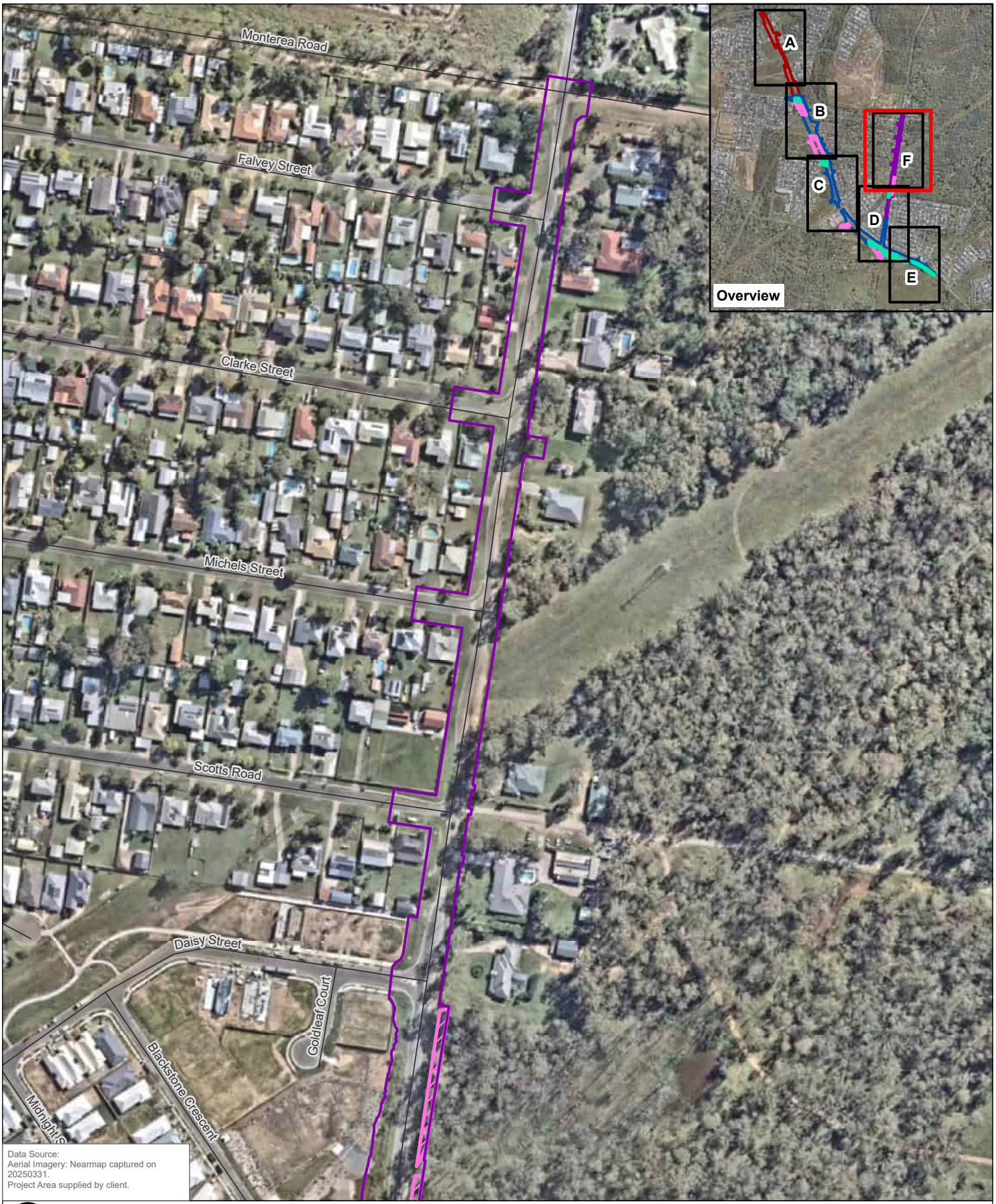
MNES SUITABLE KOALA HABITAT

SLR

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FIGURE 7-3E

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-04_Koala Habitat for MNES SIA



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:3,000 at A4
Project Number:	620.041764
Date Drawn:	22-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Stage 1
- Stage 2
- Stage 3
- Koala Foraging / Breeding Habitat
- Koala Dispersal Habitat

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

MNES SUITABLE KOALA HABITAT

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FIGURE 7-3F

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_F07-04_Koala Habitat for MNES SIA

Table 7-2 EPBC Act significant impact assessment for the endangered koala

Significant impact criteria	Stage	Assessment of project area
Lead to a long-term decrease in the size of a population	**Stage one**	**Unlikely.** The proposed stage one works area is located in an area of unsuitable koala habitat and will not clear any suitable koala habitat (foraging, breeding or dispersal habitat). The works are located outside the area identified as a potential fauna movement (biodiversity) corridor and in an area with limited dispersal habitat present due to significant urban development. This stage is unlikely to lead to a long-term decrease in the population.
	Stage two	**Likely.** The proposed stage two works area will clear up to 3.238 ha of suitable koala habitat (2.215 ha of foraging/breeding habitat and 1.023 ha of dispersal habitat). While SLR's SAT surveys during the fauna survey did not find any evidence of koalas, the limited survey effort does not suggest the absence of koalas within the project area, particularly given the species has been previously recorded (within 20 years) in the locality (Figure 7-2). The project area is located within regional and local scale corridors for fauna movement (Figure 5-1Figure 7-3) and there are records on adjacent land suggesting that koala move between this area and another fauna corridor to the east. Measures to minimize injury/mortality will include pre-clear surveys, sequential clearing and use of fauna spotter catchers to identify and allow koalas to self-relocate during construction, fencing of sensitive areas during construction (i.e. no-go zones), traffic management procedures to minimize collisions during construction (i.e. toolbox talks and education for workers regarding the potential presence of koala). The duplication of the road as proposed will increase the distance individuals must travel to move between local habitat areas. The number of records adjacent the existing road suggests there is movement between the project area and habitat to the west and east. Traffic volumes will increase in response to urban growth and this is the basis for the road upgrade. Increased traffic and a wider crossing will likely result in an increase in vehicle strike risk which would lead to a long term decrease in the population.
	Stage three	**Likely.** The proposed stage three works area will clear up to 0.096 ha of suitable koala habitat (0.063 ha of foraging/breeding habitat and 0.0335 ha of dispersal habitat). While SLR's SAT surveys across the fauna survey did not find any evidence of koalas, the limited survey effort does not suggest the absence of koalas within the project site, particularly given the species has been previously recorded (within 20 years) in the locality (Figure 7-2). Measures to minimize injury/mortality will include pre-clear surveys, sequential clearing and use of fauna spotter catchers to identify and allow koalas to self-relocate during construction, fencing of sensitive areas during construction (i.e. no-go zones), traffic management to minimize collisions during construction. The number of records adjacent the existing road suggests there is movement between the project area and habitat to the west and

Significant impact criteria	Stage	Assessment of project area
		east. The narrow, vegetated drainage line that intersects Ripley Road, Sable Road and Fischer Road likely serves as a fauna movement corridor between the larger vegetation patches to the east and west of the project area. This potential fauna movement corridor is not suitable koala foraging/breeding habitat but may be utilised as very low grade koala dispersal habitat. Fischer Road traffic volumes will increase in response to urban growth within the PDA and this is the basis for the road upgrade. While the project will slightly increase the width of the road, the level of vehicle traffic, both existing and resulting from future urban growth, contributes to the risk of vehicular strikes which would likely lead to a long term decrease in the size of the population.
	Cumulative	**Likely.** The proposed works area will clear a total of up to 3.334 ha of suitable koala habitat (2.278 ha of foraging/breeding habitat and 1.0568 ha of dispersal habitat). While SLR's SAT surveys across the fauna survey did not find any evidence of koalas, the limited survey effort does not suggest the absence of koalas within the project site, particularly given the species has been previously recorded (within 20 years) in the locality (Figure 7-2). The project area is located within a regional corridor for fauna movement and there are records on adjacent land suggesting that koala move between this area and another fauna corridor to the east. Measures to minimize direct injury/mortality will include pre-clear surveys, sequential clearing and use of fauna spotter catchers to identify and allow koalas to self-relocate during construction and fencing of sensitive areas during construction (i.e. no-go zones). Traffic management procedures to minimize collisions during construction may include toolbox talks and education for workers regarding the potential presence of koala. It is assumed that traffic volumes will increase as a result of the PDA and that this is the basis for the road upgrade. The duplication of Ripley Road as proposed will increase the distance individuals must travel to move between local habitat areas. The number of records adjacent the existing road suggest there is movement between the project area and habitat to the west and east. Increased traffic and a wider crossing will likely result in increased mortality which would lead to a long term decrease in the population. It is concluded that the Project will likely lead to a long-term decrease in the size of a population.
Reduce the area of occupancy of the species	**Stage one**	**Unlikely.** The proposed stage one works will not clear any suitable koala habitat (foraging, breeding or dispersal habitat).
	Stage two	**Likely.** The proposed stage two works will clear up to 3.238 ha of suitable koala habitat. Due to the linear nature of the proposed works (approximately 20-60 m wide) the majority of the vegetation within the project area will be removed. While no signs of koala were recorded on site, the proposed works are likely to reduce the local area of occupancy of the koala population. This will be

Significant impact criteria	Stage	Assessment of project area
		exacerbated by impacts on movement of individuals across Ripley Road to habitat to the east.
	Stage three	**Unlikely.** The proposed stage three works area will clear up to 0.096 ha of suitable koala habitat. Due to the linear nature of the proposed works (approximately 20-60 m wide) the majority of the vegetation within the project area will be removed. While no signs of koala were recorded on site, the proposed works are likely to reduce the local area of occupancy of the koala population. This will be exacerbated by potential limitation of movement of individuals across Fischer Road by increased traffic resulting from urban growth.
	Cumulative	**Likely.** The proposed works will clear a total of up to 3.334 ha of suitable koala habitat. Due to the linear nature of the proposed works (approximately 20-60 m wide) the majority of the vegetation within the project area will be removed. While no signs of koala were recorded on site, the proposed works are likely to reduce the local area of occupancy of the koala population. This will be exacerbated by impacts on movement of individuals across Ripley Road to habitat to the east.
Fragment an existing population into two or more populations	**Stage one**	**Unlikely.** Field surveys did not detect a resident population of koala within the project area. The proposed stage one works will not clear any suitable koala habitat (foraging, breeding or dispersal habitat). The northern section of the project area along Ripley Road is an area of existing fragmentation due to the roundabout on Cunningham Highway, however the proposed works are not likely to increase the fragmentation effect from the existing road.
	Stage two	**Likely.** Field surveys did not detect a resident population of koala within the project area, however it is likely the area is used for dispersal. The project is likely to increase the fragmentation of the landscape, by widening the road and installing a dividing median, creating a hindrance to koala movement across Ripley Road. As such, the proposed clearing and subsequent road works are likely to fragment koala populations in the area, and an existing population is unlikely to be fragmented into two or more populations.
	Stage three	**Likely.** Field surveys did not detect a resident population of koala within the project area however it is likely the area is used for dispersal. While the project will slightly increase the width of the road, the level of vehicle traffic, both existing and resulting from future urban growth, contributes to the risk of vehicular strikes, therefore increasing the fragmentation of the landscape.
	Cumulative	**Likely.** Field surveys did not detect a resident population of koala within the project area however it is likely the area is used for dispersal by the species. The project is likely to increase the fragmentation

Significant impact criteria	Stage	Assessment of project area
		of the landscape, by widening the road and installing a dividing median, creating a hindrance to koala movement across Ripley Road. The update to Fischer Road (stage three) will have minimal effects to fragmentation. Overall, the proposed clearing and subsequent road works are likely to fragment koala populations in the area.
Adversely affect habitat critical to the survival of a species	**Stage one**	**Unlikely** The proposed stage one works area will not clear any suitable koala habitat (foraging, breeding or dispersal habitat).
	Stage two	**Likely.** The project area provides a source of food trees and shelter for koalas in the region and the proposed stage two works will impact up to 3.238 ha of habitat resources considered critical to the survival of the species (foraging and potential breeding habitat and high quality dispersal with available refuge trees). Additional low grade dispersal habitat occurs within the project footprint, however, this is degraded without suitable refuge trees and alongside the remainder of the project area (deemed unsuitable koala habitat), is not considered critical to the survival of the species.
	Stage three	**Likely.** The project area provides a source of food trees and shelter for koalas in the region, and the proposed stage three works area will impact up to 0.096 ha of habitat resources considered critical to the survival of the species (foraging and potential breeding habitat and high quality dispersal with available refuge trees). Additional low grade dispersal habitat occurs within the project footprint, however, this is degraded without suitable refuge trees and is not considered critical to the survival of the species.
	Cumulative	**Likely.** The project area provides a source of food trees and shelter for koalas in the region and the proposed Project will impact up to 3.334 ha of habitat resources considered critical to the survival of the species (foraging and potential breeding habitat and high quality dispersal with available refuge trees). Some low grade dispersal habitat occurs within the project footprint, however, this is degraded without suitable refuge trees and, is not critical to the survival of the species.
Disrupt the breeding cycle of a population	**Stage one**	**Unlikely.** The proposed stage one works area will not clear any suitable koala habitat (foraging, breeding or dispersal habitat). Measures to mitigate impacts to breeding cycles will include traffic management procedures designed minimize collisions during construction. This could include toolbox talks, education for workers regarding the potential presence of koala, no-go zones for the protection of adjacent vegetation. Weed and pest animals will be managed in accordance with an approved CEMP.
	Stage two	**Likely.** Koala home ranges vary widely from 3-500 ha, with the home range of the dominant male overlapping with home ranges of

Significant impact criteria	Stage	Assessment of project area
		several females (DAWE, 2022). In QLD, koalas are most active during the breeding season from July to January with males seeking females and sub-adults dispersing from their mother's home range (Dique *et al.*, 2003). During this period, they are at greater risk of mortality from predation (e.g. wild or free-roaming pet dogs) and vehicle strike, especially in fragmented landscapes. Koalas do not have a defined breeding site and are known to breed in highly disturbed environments however the project area provides only low quality breeding habitat due to the limited number and distribution of suitable trees. Although, the project area provides limited potential breeding habitat, the stage two works propose to widen the road significantly and install a median divider which is likely to fragment the landscape, impacting breeding movements of individuals and dispersal of sub-adults and will reduce potential breeding habitat by up to 2.215 ha within the area. Traffic volumes will increase significantly in response to urban development in the PDA and wider Ipswich region which will increase the potential for mortality as a result of vehicle collision. The Project occurs within a highly disturbed environment, surrounded by residential and industrial development and alongside existing roads. Measures to mitigate impacts to breeding cycles will include traffic management procedures designed to minimise collisions during construction. This could include toolbox talks, education for workers regarding the potential presence of koala, establishment of no-go zones for the protection of adjacent vegetation. Clearing of potential koala habitat is recommended to be scheduled outside the breeding season (July – January) as far as possible. It is not considered that these impacts will disrupt a breeding population.
	Stage three	**Unlikely.** The stage three works area will only slightly increase the current fragmentation of the landscape caused by the existing Fischer Road and will reduce potential breeding habitat by up to 0.063 ha within the area. Traffic volumes will increase in response to urban growth and this is the basis for the road upgrade. The increased traffic on Fischer Road will increase likelihood of risk of vehicle strike, therefore impacting breeding and dispersal movements of individuals. The Project occurs within a highly disturbed environment, surrounded by residential and industrial development and alongside existing roads. While koalas do not have a defined breeding site and are known to breed in highly disturbed environments, the project area is of low quality breeding habitat at best. Measures to mitigate impacts to breeding cycles will include ongoing refinement of design to reduce clearing as much as possible, and traffic management procedures to designed minimise collisions during construction. This could include toolbox talks, education for workers regarding the potential presence of koala, establishment of no-go zones for the protection of adjacent vegetation. In addition, SLR recommends weed and pest animals to be managed in accordance with an approved CEMP. It is recommended the clearing of potential koala habitat be scheduled

Significant impact criteria	Stage	Assessment of project area
		outside the breeding season (July –January). It is unlikely that these impacts will disrupt a breeding population.
	Cumulative	**Likely.** Although, the project area provided limited potential breeding habitat, the works propose to widen the road significantly and install a median divider which is likely to fragment the landscape, impacting breeding movements of individuals and dispersal of sub-adults, and reducing potential breeding habitat by up to 2.278 ha within the area. The Project occurs within a highly disturbed environment, surrounded by residential and industrial development and alongside existing roads. While koalas do not have a defined breeding site and are known to breed in highly disturbed environments, the project area is of low quality breeding habitat at best. Measures to mitigate impacts to breeding cycles will include ongoing refinement of design to reduce clearing as much as possible, and traffic management procedures to designed minimize collisions during construction. This could include toolbox talks, education for workers regarding the potential presence of koala, establishment of no-go zones for the protection of adjacent vegetation. FSCs will be present during all clearing works to implement appropriate measures if koala, including mothers with joeys, are present. In addition, SLR recommends weed and pest animals to be managed in accordance with an approved CEMP. It is recommended the clearing of potential koala habitat be scheduled outside the breeding season (July – January). It is concluded that the Project will likely disrupt a breeding population.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	**Stage one**	**Unlikely.** The proposed stage one works area will not clear any suitable koala habitat (foraging, breeding or dispersal habitat).
	Stage two	**Unlikely.** While SLR did not find evidence of koalas, the stage two works area contain suitable koala habitat and there will be an impact of a loss of 3.238 ha of this vegetation. The stage two works contain habitat critical to the survival of the koala. Reduction in areas of koala habitat containing food tree species may reduce the availability of food resources for koalas and may lead to trees being unsustainably over-browsed or koalas leaving the area in search of new and higher quality food resources. These impacts, while possible on a local level, will not occur on a scale that will likely cause the species to decline. Measures to minimise impacts to habitat quality will include weed and pest animal management, erosion and sediment control, dust suppression and offsite rubbish disposal. While the widening of Ripley Road may impact connectivity between habitats to the east and west of the road, access is likely to remain to these areas from habitats located further away from the road, from the north-east and south-west. These vegetation patches will not become isolated, even though they will be fragmented. These patches create a potential fauna movement corridor through the project area (Figure 5-1).



Significant impact criteria	Stage	Assessment of project area
	Stage three	**Unlikely.** While SLR did not find evidence of koalas, the stage three works area contains suitable koala habitat and there will be an impact of a loss of 0.096 ha of this vegetation. The stage three works area contains habitat critical to the survival of the koala. Reduction in areas of koala habitat containing food tree species may only slightly reduce the availability of food resources for koalas in this area of the project. These impacts, while possible on a local level, will not occur on a scale that will likely cause the species to decline. The upgrade to Fischer Road will only mildly increase edge effects (such as noise disturbance), and the vegetation patches to the east of the road remain accessible. Traffic volumes will increase in response to urban growth and while the project will only slightly increase the width of the road, the level of vehicle traffic, both existing and resulting from future urban growth, contributes to the risk of vehicular strikes Measures to minimise impacts to habitat quality will include erosion and sediment control, dust suppression and offsite rubbish disposal. SLR recommends that these measures and those aimed at the management of weed and pest animals are included in an approved CEMP. While some small areas of habitat will be destroyed, the remaining habitat will not be modified or isolated to the extent that the species will decline when considered in isolation of other factors.
	Cumulative	**Unlikely.** While SLR did not find evidence of koalas, the project contains suitable koala habitat and there will be an impact of a loss of 3.238 ha of this vegetation. The project area contains habitat critical to the survival of the koala. Reduction in areas of koala habitat containing food tree species may reduce the availability of food resources for koalas and may lead to trees being unsustainably over-browsed or koalas leaving the area in search of new and higher quality food resources. These impacts, while possible on a local level, are unlikely to result in species decline when considered in isolation of other factors.
Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the critically endangered or endangered species' habitat	**Stage one**	**Unlikely.** Koalas are threatened by dogs (domestic and wild). Dogs are established within the region and the proposed activity will not result in dogs becoming further established in previously uninhabited sections of the project area. However, the Project may increase population levels of introduced predators through an increase in available food resources (e.g. inappropriately disposed rubbish) and increase movement of weeds via clearing. SLR recommends weed and pest animals be managed in accordance with an approved CEMP. Provided pest animal and weed management is undertaken, introduced predator and pest populations can be managed to avoid impacts to the koala population.



Significant impact criteria	Stage	Assessment of project area
	Stage two	**Unlikely.** Koalas are threatened by dogs (domestic and wild). Dogs are established within the region and the proposed activity will not result in dogs becoming further established in previously uninhabited sections of the project area. However, the Project may increase population levels of introduced predators through an increase in available food resources (e.g. inappropriately disposed rubbish) and increase movement of weeds via clearing. SLR recommends weed and pest animals to be managed in accordance with an approved CEMP. Provided pest animal and weed management is undertaken, introduced predator and pest populations can be managed to avoid impacts to the koala population.
	Stage three	**Unlikely.** Koalas are threatened by dogs (domestic and wild). Dogs are established within the region and the proposed activity will not result in dogs becoming further established in previously uninhabited sections of the project area. However, the Project may increase population levels of introduced predators through an increase in available food resources (e.g. inappropriately disposed rubbish) and increase movement of weeds via clearing. SLR recommends weed and pest animals to be managed in accordance with an approved CEMP. Provided pest animal and weed management is undertaken, introduced predator and pest populations can be managed to avoid impacts to the koala population.
	Cumulative	**Unlikely.** Koalas are threatened by dogs (domestic and wild). Dogs are established within the region and the proposed activity will not result in dogs becoming further established in previously uninhabited sections of the project area. However, the Project may increase population levels of introduced predators through an increase in available food resources (e.g. inappropriately disposed rubbish) and increase movement of weeds via clearing. SLR recommends weed and pest animals to be managed in accordance with an approved CEMP. Provided pest animal and weed management is undertaken, introduced predator and pest populations can be managed to avoid impacts to the koala population.
Introduce disease that may cause the species to decline	**Stage one**	**Unlikely.** Koalas have been impacted by Chlamydia and the disease is prevalent in some populations. It is likely that the disease is also prevalent throughout the local koala population and the proposed activity is unlikely to contribute to the spread of the disease.
	Stage two	**Unlikely.** Koalas have been impacted by Chlamydia and the disease is prevalent in some populations. It is likely that the disease is also prevalent throughout the local koala population and the proposed activity is unlikely to contribute to the spread of the disease.

Significant impact criteria	Stage	Assessment of project area
	Stage three	**Unlikely.** Koalas have been impacted by Chlamydia and the disease is prevalent in some populations. It is likely that the disease is also prevalent throughout the local koala population and the proposed activity is unlikely to contribute to the spread of the disease.
	Cumulative	**Unlikely.** Koalas have been impacted by Chlamydia and the disease is prevalent in some populations. It is likely that the disease is also prevalent throughout the local koala population and the proposed activity is unlikely to contribute to the spread of the disease.
Interfere substantially with the recovery of the species.	**Stage one**	**Unlikely.** The proposed stage one works will not clear any suitable koala habitat (foraging, breeding or dispersal habitat) therefore the recovery of the species will not be affected.
	Stage two	**Likely.** Key recovery targets in Queensland include stabilising koala populations in south-east Queensland, restoring and securing a net gain in koala habitat and introducing threat reductions programs (DES, 2020; DAWE, 2022). Koala habitat, including locally important koala trees (LIKT) are present in stage two. Approximately 2.215 ha of suitable koala habitat is proposed to be cleared as part of the works and while no evidence of koala was detected, the widening of Ripley Road will likely increase fragmentation of habitats and impede movement of individuals, potentially resulting in increased vehicle strike and koala mortality. This is likely to be significant at a local scale and is therefore likely to cause substantial interference with the species recovery.
	Stage three	**Likely.** Koala habitat, including locally important koala trees (LIKT) are present in stage three. Approximately 0.063 ha of suitable koala habitat is proposed to be cleared as part of the works and while no evidence of koala was detected, the upgrade of Fischer Road will disturb the local population of koalas. This is likely to be significant at a local scale and is therefore likely to cause substantial interference with the species recovery.
	Cumulative	**Likely.** Koala habitat, including LIKT for foraging are present within the project area. Approximately 2.278 ha of suitable koala habitat is proposed to be cleared as part of the works and while no evidence of koala was detected, the project will likely increase fragmentation of habitats and impede movement of individuals, potentially resulting in increased vehicle strike and koala mortality. This is likely to be significant at a local scale and is therefore likely to cause substantial interference with the species recovery.
Overall impact assessment		**The proposed project is likely to have a significant residual impact on koala, after all proposed impact mitigation measures are applied.**

7.2 MSES

7.2.1 Koala

Koala is listed as endangered under the NC Act. Based on the koala habitat mapping in South East Queensland Koala Conservation Strategy 2019-2024, the project area contains 1.324 ha of core koala habitat, not within a koala priority area (Figure 3-1). Schedule 10, Part 10, Division 3 of the Planning Regulation 2017 (the Regulation), identifies development interfering with koala habitat outside a koala priority area as assessable development (i.e., a development application is required) unless it is:

- exempted development
- assessable development under section 16C
- in an identified koala broad-hectare area and is accepted development, or assessable development, under a local categorising instrument, other than development that is for an extractive industry and is not assessable development under section 16C; or a subdivision.

Exempted development is defined in Schedule 24 of the Regulation and includes PDA-related development. The project area is located within the Ripley Valley PDA and as such the works are not assessable development. No development application will be required and no assessment against State Code 25: Development in South-East Queensland koala habitat areas is necessary.

7.2.2 Short-beaked echidna

Short-beaked echidna is listed as special least concern under the NC Act. There are no requirements to assess impacts on this species as the overall works are exempt. This species may trigger the requirement for an SMP if active breeding places are identified during pre-clear surveys or during clearing works. Given the time period for approval of an SMP (40 business days) it is recommended this be prepared well in advance of clearing works to avoid any delays.

8.0 Recommendations

Recommendations arising from this ecological assessment to minimise potential impacts to the project area's environmental values include:

- A referral under the EPBC Act should be completed with specific consideration to koala and grey-headed flying-fox to confirm whether further assessment and/or approval of impacts on MNES is required.
- Fauna connectivity should be assessed as part of any EPBC Act referral to consider impacts on the maintenance or enhancement of benchmark habitat connectivity values throughout the landscape during the construction and post construction phases of the Project.
- A Vegetation Management Plan incorporating vegetation and tree management measures should be prepared prior to vegetation clearing to ensure the protection of the remaining vegetation. An arborist is to be consulted prior to the construction commencing to ensure impacts on vegetation to be retained are minimised.
- No go zones are to be established to ensure adjacent vegetation to be retained and the adjacent wetland and associated native vegetation is protected.
- Clearly demarcate clearing areas before works commence to prevent unnecessary clearing of vegetation and minimise accidental damage.
- A koala spotter qualified FSC must be present for all vegetation clearing activities within the project area. A pre-clearance survey shall be conducted prior to clearing. Vegetation clearing must adhere to sequential clearing conditions.
- Engage a suitably qualified person (e.g., ecologist, FSC) to undertake pre-clearance surveys in areas where habitat removal is required to identify new fauna habitat values and potential breeding sites. If tampering with active breeding sites is unavoidable, a SMP will be required. A high-risk of impacts species management program is required for tampering with the breeding place of least concern colonial breeders, SLC animals (e.g. short-beaked echidna which is likely to be present) and near threatened, vulnerable, endangered, critically endangered or extinct in the wild animals. A low risk of impact SMP is required when tampering with active breeding sites of least concern animals that aren't colonial breeders. Pre-clear surveys are to be completed at the following timeframes:
    - within two weeks of clearing within each clearing area
    - immediately prior to clearing.
- For all activities where potential fauna habitat and breeding sites are to be removed or disturbed (e.g. vegetation clearing, culvert works), a FSC should be present to relocate fauna and take eggs, young and injured animals to a qualified carer (in accordance with an approved relevant Species Management Program).
- Where possible, the works should avoid the removal of habitat trees. If removal is required, hollows should be retained and used as ground resources in adjacent habitat.
- Weed hygiene measures are to be included in the CEMP to minimise the introduction and dispersal of weeds listed as restricted matter.
- Treat significant weed species prior to, during and post construction at designated intervals (treatment intervals to be determined by proposed activities and size and invasiveness of weed infestations) with waterway friendly herbicides.

- Ensure known fire ant nests have been treated prior to construction to prevent spreading of this species.
- Minimise inference to present wetland structure and continuity of drainage lines.
- During construction, appropriate erosion and sediment controls should be installed and maintained to minimise impacts to the drainage channels and existing wetland areas.
- Take measures to reduce sediment runoff causing increased turbidity.

9.0 Conclusion

This assessment has identified the presence of Commonwealth conservation significant species within the project area. These values have been identified through a desktop assessment and field surveys. The potential impacts of the proposed works to these values have been identified, assessed and an impact assessment completed where relevant. Management measures have been recommended to avoid, minimise or mitigate those impacts. Surveys confirmed the presence of grey-headed flying-fox, and suitable habitat for koala and short-beaked echidna within the project area.

- Grey-headed flying-fox was detected during the field surveys. The project area contains suitable foraging habitat for this species. The SIA under the EPBC Act determined the 2.157 ha of grey-headed flying-fox habitat that will be removed as part of the works is unlikely to be considered a significant impact on habitat critical to the survival of the grey-headed flying-fox, provided recommended mitigation measures are effectively implemented.
- While no evidence of koala was detected during field surveys, suitable habitat was identified within the project area. The project area is likely to support movement between preferred habitat patches in the wider landscape. The SIA under the EPBC Act determined the 3.334 ha of koala habitat that will be removed as part of the works is likely to be considered a significant impact on habitat critical to the survival of the koala.
- Short-beaked echidna is likely to be present and if active breeding places for this species are identified during pre-clearance surveys an approved SMP will be required to be implemented.

A referral should be completed for koala and grey-headed flying-fox (on a precautionary basis) to confirm that the Commonwealth are in agreeance with this assessment.

Pre-clear surveys are recommended prior to clearing works to detect fauna or fauna habitat present in the clearing area. During clearing a suitably qualified fauna spotter catcher should be present onsite to ensure protection of all fauna.

Ten Category 3 Restricted invasive weeds, including four WoNS were identified during the survey. It is recommended that treatment with an appropriate herbicide be undertaken to remove/reduce the density of these species.

10.0 References

BoM (2025) *Climate Data Online*.

DAWE (2008a) *Approved Conservation Advice for* Arthraxon hispidus *(Hairy-joint Grass)*.

DAWE (2008b) *Approved conservation advice for* Notelaea lloydii. Available at: http://www.epa.qld.gov.au/REMAP (Accessed: 13 June 2025).

DAWE (2008c) *Approved Conservation Advice for* Plectranthus habrophyllus. Available at: http://www.dpi.qld.gov.au/cps/rde/xbcr/dpi/IPA-Lantana-Nsplan.pdf (Accessed: 13 June 2025).

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

DCCEEW (2022a) *Approved Conservation Advice for the Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions*. Canberra.

DCCEEW (2022b) *Conservation Advice for* Petauroides volans *(greater glider (southern and central))*. Canberra.

DCCEEW (2022c) *National Recovery Plan for the Australian Painted Snipe (<i>Rostratula australis<i/>)*. Canberra. Available at: www.environment.gov.au/cgi-bin/sprat/public/sprat.pl. (Accessed: 5 March 2025).

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Appendix A Desktop Search Results

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

28 August 2025

A.1 Protected Matters Search Tool Results

Australian Government

Department of Climate Change, Energy, the Environment and Water

EPBC Act Protected Matters Report

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

Report created: 24-Mar-2025

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:	52
Listed Migratory Species:	12

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:	12
Commonwealth Heritage Places:	None
Listed Marine Species:	22
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:	2
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	53
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 buffer area only
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area	In feature area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area	In feature area
Swamp Tea-tree (Melaleuca irbyana) Forest of South-east Queensland	Critically Endangered	Community likely to occur within area	In 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 likely to 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
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[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

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Geophaps scripta scripta](#) Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area	In feature area
[Grantiella picta](#) Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat 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
FISH			
[Neoceratodus forsteri](#) Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
FROG			
[Mixophyes fleayi](#) Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area	In buffer area only
INSECT			
[Argynnis hyperbius inconstans](#) Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
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
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Roosting known to occur within area	In feature area
PLANT			
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area	In feature area
Coleus habrophyllus listed as Plectranthus habrophyllus [91378]	Endangered	Species or species habitat known to occur within area	In feature area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Cupaniopsis tomentella Boonah Tuckeroo [3322]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Fontainea venosa [24040]	Vulnerable	Species or species habitat may occur within area	In feature area
Leuzea australis listed as Rhaponticum australe Austral Cornflower, Native Thistle [9363]	Vulnerable	Species or species habitat may occur within area	In feature area
Notelaea lloydii Lloyd's Olive [15002]	Vulnerable	Species or species habitat known to occur within area	In feature area
Notelaea x ipsviciensis listed as Notelaea ipsviciensis Cooneana Olive [93460]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Picris evae Hawkweed [10839]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Planchonella eerwah			
Shiny-leaved Condoo, Black Plum, Wild Apple [17340]	Endangered	Species or species habitat may 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
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 likely to 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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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			
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
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
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 known 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 - AP89 BUFFER ZONE [31938]	QLD	In buffer area only
Defence - AMBERLEY - AP89 BUFFER ZONE [31940]	QLD	In buffer area only
Defence - AMBERLEY - AP89 BUFFER ZONE [31939]	QLD	In buffer area only
Defence - AMBERLEY - AP90 SMALL ARMS RANGE (PURGA) [31817]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31798]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31802]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31801]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31799]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31794]	QLD	In buffer area only
Defence - AMBERLEY - RAAF BASE [31800]	QLD	In buffer area only
Defence - Commonwealth Centre - 3rd Floor [31877]	QLD	In buffer area only
Defence - IPSWICH TRAINING DEPOT [31953]	QLD	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat may occur within area	In buffer area only
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
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

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 known 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 known to occur within area overfly marine area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves

[Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Denmark Hill	Conservation Park	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
Australian Super Hornet Flying Operations at RAAF Base Amberley	2008/4410		Post-Approval	In buffer area only
AW Bidco 6 Pty Ltd - Urban Development Project	2023/09690		Referral Decision	In buffer area only
Barrams Road Residential Development	2021/9005		Post-Approval	In buffer area only
Bayliss Road, South Ripley Residential Development	2025/10117		Assessment	In buffer area only
Bryants Road Residential Development	2023/09484		Assessment	In feature area
Greater Brisbane Greyhound Centre	2022/09321		Completed	In buffer area only
Greater Brisbane Greyhound Centre	2022/09252		Completed	In buffer area only
Redbank Plains Industrial Development	2023/09705		Assessment	In buffer area only
Residential Development Project	2025/10110		Assessment	In buffer area only
Ripley Residential Development Project	2024/09865		Assessment	In feature area
Ripley Valley PDA Providence East and South	2018/8347		Post-Approval	In buffer area only
Ripley View Residential Subdivision	2020/8615		Post-Approval	In feature area
South Ripley Residential Development	2023/09656		Assessment	In buffer area only
Watsons Road, South Ripley - Residential Development	2024/09861		Assessment	In buffer area only

Controlled action

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
AV JENNINGS PTY LTD - Coleman Road, South Ripley - Residential Development	2021/9061	Controlled Action	Assessment Approach	In buffer area only
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 feature area
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 feature area
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, Rawlings Road, Ripley Valley	2016/7723	Controlled Action	Post-Approval	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 feature area
Ripley Road residential development, Ripley Valley, Qld	2017/8095	Controlled Action	Post-Approval	In feature area
Southern Regional Water Pipeline	2006/2593	Controlled Action	Post-Approval	In buffer area only
Talisman Saber 2005 Military Exercise	2004/1819	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
Blackstone Power Station	2012/6252	Not Controlled Action	Completed	In buffer area only
BrisWest Holdings - Release 5 Operational Works	2021/9086	Not Controlled Action	Completed	In buffer area only
Daleys Road Residential Development	2010/5638	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Divestment of Ipswich Post Office	2006/2750	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
Grampian Drive residential development, Deebing Heights, Qld	2016/7634	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 buffer area only
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 feature area
Residential/Commercial development Binnies Road, Ripley, Qld	2016/7669	Not Controlled Action	Completed	In feature area
Residential Subdivision on Monterea Road, Ripley	2012/6644	Not Controlled Action	Completed	In feature area
Ripley Town Centre,Ipswich, QLD	2015/7471	Not Controlled Action	Completed	In feature area
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
To develop the Paradise Heights residential subdivision, QLD	2014/7310	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)				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
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.

A.2 WildNet Search Results

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Queensland status: All
Records: All
Date: All
Latitude: -27.6625
Longitude: 152.7807
Distance: 5
Email: natalie.freeman@slrconsulting.com
Date submitted: Monday 24 Mar 2025 09:15:53
Date extracted: Monday 24 Mar 2025 09:20:02

The number of records retrieved = 534

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The State of Queensland disclaims all responsibility for information contained in this product and all liability (including liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.
Information about your Species lists request is logged for quality assurance, user support and product enhancement purposes only.
The information provided should be appropriately acknowledged as being derived from WildNet database when it is used. As the WildNet Program is still in a process of collating and vetting data, it is possible the information given is not complete. Go to the WildNet database webpage (https://www.qld.gov.au/environment/plants-animals/species-information/wildnet) to find out more about WildNet and where to access other WildNet information products approved for publication. Feedback about WildNet species lists should be emailed to wildlife.online@des.qld.gov.au.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			16
animals	amphibians	Hylidae	*Litoria balatus*	slender bleating treefrog		C		5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		25
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		25
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		16
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		4
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		4
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		39
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		3
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		4
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		8
animals	amphibians	Myobatrachidae	*Crinia signifera*	clicking froglet		C		3
animals	amphibians	Myobatrachidae	*Pseudophryne coriacea*	red backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Uperoleia fusca*	dusky gungan		C		2
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		12
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		3
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		14
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		8
animals	birds	Acanthizidae	*Sericornis citreogularis*	yellow-throated scrubwren		C		1
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		17
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		11
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		5
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		9
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		10
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		3
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		4
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		7
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		10
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		3
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		6
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		7
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		14
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		2
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		5
animals	birds	Alcedinidae	*Dacelo leachii*	blue-winged kookaburra		C		6
animals	birds	Alcedinidae	*Dacelo novaeguineae*	laughing kookaburra		C		49
animals	birds	Alcedinidae	*Todiramphus macleayii*	forest kingfisher		C		4
animals	birds	Alcedinidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Alcedinidae	*Todiramphus sanctus*	sacred kingfisher		C		19
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		13
animals	birds	Anatidae	*Anas platyrhynchos*	northern mallard	Y			2
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		29
animals	birds	Anatidae	*Aythya australis*	hardhead		C		17
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		41
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		12
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		2
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		2
animals	birds	Anatidae	*Tadorna tadornoides*	Australian shelduck		C		1
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		17
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		7
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		7
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		6
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		22
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		3
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		21
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		5
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		1
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		54
animals	birds	Artamidae	*Cracticus sp.*			C		2
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		38
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		88
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		13
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		2
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		23
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		2
animals	birds	Cacatuidae	*Cacatua tenuirostris*	long-billed corella	Y	C		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		31
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		70
animals	birds	Campephagidae	*Edolisoma tenuirostre*	common cicadabird		C		4
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		3
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		11
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		4
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		3
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		26
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		10
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		36
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Columba leucomela*	white-headed pigeon		C		2
animals	birds	Columbidae	*Columba livia*	rock dove	Y			20
animals	birds	Columbidae	*Geopelia cuneata*	diamond dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		12
animals	birds	Columbidae	*Geopelia placida*	peaceful dove		C		6
animals	birds	Columbidae	*Macropygia phasianella*	brown cuckoo-dove		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		31
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Columbidae	*Spilopelia chinensis*	spotted dove	Y			59
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		19
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		102
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		12
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		1
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		11
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		2
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		20
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		17
animals	birds	Dicaeidae	*Dicaeum hirundinaceum*	mistletoebird		C		27
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		24
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		16
animals	birds	Estrildidae	*Lonchura punctulata*	nutmeg mannikin	Y			5
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		6
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		30
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		4
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		9
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		5
animals	birds	Falconidae	*Falco peregrinus macropus*	Australian peregrine falcon		C		4
animals	birds	Hirundinidae	*Cheramoeca leucosterna*	white-backed swallow		C		1
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		33
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		13
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		5
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		8
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		1
animals	birds	Locustellidae	*Cincloramphus cruralis*	brown songlark		C		1
animals	birds	Locustellidae	*Cincloramphus timoriensis*	tawny grassbird		C		12
animals	birds	Locustellidae	*Poodytes gramineus*	little grassbird		C		5
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		54
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		18
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		29
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Meliphagidae	*Anthochaera chrysoptera*	little wattlebird		C		2
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		17
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		21
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		41
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		52
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		3
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		14
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		6
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		3
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		27
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		16
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		58
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		4
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		9
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		19
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		61
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		5
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		C		1
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		2
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		5
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		8
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		47
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		9
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		18
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		23
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		45
animals	birds	Passeridae	*Passer domesticus*	house sparrow	Y			21
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		21
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		9
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		3
animals	birds	Petroicidae	*Petroica boodang*	scarlet robin		C		2
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		8
animals	birds	Phaethontidae	*Phaethon lepturus*	white-tailed tropicbird		SL		1/1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		23
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		7
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		24
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		13
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		2
animals	birds	Phasianidae	*Synoicus ypsilophorus*	brown quail		C		8
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		17
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		9
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		19
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		6

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animals	birds	Psittaculidae	*Alisterus scapularis*	Australian king-parrot		C		6
animals	birds	Psittaculidae	*Barnardius zonarius*	Australian ringneck		C		5
animals	birds	Psittaculidae	*Glossopsitta concinna*	musk lorikeet		C		2
animals	birds	Psittaculidae	*Melopsittacus undulatus*	budgerigar		C		2
animals	birds	Psittaculidae	*Parvipsitta pusilla*	little lorikeet		C		15
animals	birds	Psittaculidae	*Platycercus adscitus*	pale-headed rosella		C		43
animals	birds	Psittaculidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittaculidae	*Platycercus eximius*	eastern rosella		C		2
animals	birds	Psittaculidae	*Psephotellus pulcherrimus*	paradise parrot		PE	EX	1
animals	birds	Psittaculidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		68
animals	birds	Psittaculidae	*Trichoglossus moluccanus*	rainbow lorikeet		C		36
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		8
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		1
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		18
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		26
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		6
animals	birds	Rallidae	*Lewinia pectoralis*	Lewin's rail		C		4
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		16
animals	birds	Rallidae	*Porzana fluminea*	Australian spotted crake		C		6
animals	birds	Rallidae	*Zapornia pusilla*	Baillon's crake		C		13
animals	birds	Rallidae	*Zapornia tabuensis*	spotless crake		C		6
animals	birds	Recurvirostridae	*Himantopus leucocephalus*	pied stilt		C		10
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		30
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		55
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		C		4
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	7
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		9
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		V	V	1
animals	birds	Scolopacidae	*Calidris melanotos*	pectoral sandpiper		SL		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		V	V	6
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		E	E	4
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		8
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		2
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		1
animals	birds	Sturnidae	*Acridotheres tristis*	common myna	Y			32
animals	birds	Sturnidae	*Sturnus vulgaris*	common starling	Y			17
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		8
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		12
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		2
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		9
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		20
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		2
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		2
animals	birds	Zosteropidae	*Zosterops lateralis*	silvereye		C		72
animals	insects	Aeshnidae	*Adversaeschna brevistyla*	blue-spotted hawker				1

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animals	insects	Aeshnidae	*Anax papuensis*	Australian Emperor				1
animals	insects	Coenagrionidae	*Ischnura heterosticta heterosticta*	common bluetail				1
animals	insects	Corduliidae	*Hemicordulia australiae*	Australian emerald				2
animals	insects	Corduliidae	*Hemicordulia continentalis*	fat-bellied emerald				1
animals	insects	Hesperiidae	*Ocybadistes walkeri sothis*	green grass-dart				1
animals	insects	Hesperiidae	*Suniana sunias rectivitta*	wide-brand grass-dart				1
animals	insects	Hesperiidae	*Toxidia peron*	dingy grass-skipper				1
animals	insects	Lestidae	*Austrolestes leda*	wandering ringtail				1
animals	insects	Libellulidae	*Crocothemis nigrifrons*	black-headed skimmer				1
animals	insects	Libellulidae	*Diplacodes bipunctata*	wandering percher				1
animals	insects	Libellulidae	*Diplacodes haematodes*	scarlet percher				1
animals	insects	Libellulidae	*Diplacodes trivialis*	chalky percher				1
animals	insects	Libellulidae	*Macrodiplax cora*	wandering pennant				1
animals	insects	Libellulidae	*Orthetrum caledonicum*	blue skimmer				1
animals	insects	Libellulidae	*Orthetrum sabina*	slender skimmer				1
animals	insects	Libellulidae	*Orthetrum villosovittatum*	fiery skimmer				1
animals	insects	Libellulidae	*Pantala flavescens*	wandering glider				1
animals	insects	Libellulidae	*Tramea loewii*	common glider				1
animals	insects	Lycaenidae	*Candalides hyacinthinus hyacinthinus*	varied dusky-blue				1
animals	insects	Lycaenidae	*Catopyrops florinda*					1
animals	insects	Lycaenidae	*Lampides boeticus*	long-tailed pea-blue				1
animals	insects	Lycaenidae	*Prosotas dubiosa dubiosa*	purple line-blue				1
animals	insects	Lycaenidae	*Psychonotis caelius taygetus*	small green-banded blue				3
animals	insects	Lycaenidae	*Zizina otis labradus*	common grass-blue (Australian subspecies)				1
animals	insects	Nymphalidae	*Acraea andromacha andromacha*	glasswing				4
animals	insects	Nymphalidae	*Charaxes sempronius sempronius*	tailed emperor				5
animals	insects	Nymphalidae	*Danaus petilia*	lesser wanderer				2
animals	insects	Nymphalidae	*Danaus plexippus*	monarch	Y			5
animals	insects	Nymphalidae	*Danaus sp.*					1
animals	insects	Nymphalidae	*Euploea corinna*	common crow				8
animals	insects	Nymphalidae	*Hypocysta adiante adiante*	orange ringlet				1
animals	insects	Nymphalidae	*Junonia villida villida*	meadow argus				3
animals	insects	Nymphalidae	*Melanitis leda bankia*	evening brown				8
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				4
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				4
animals	insects	Nymphalidae	*Vanessa kershawi*	Australian painted lady				2
animals	insects	Papilionidae	*Cressida cressida cressida*	clearwing swallowtail				1
animals	insects	Papilionidae	*Graphium choredon*	blue triangle				6
animals	insects	Papilionidae	*Graphium eurypylus lycaon*	pale triangle				1
animals	insects	Papilionidae	*Papilio aegeus*					1
animals	insects	Papilionidae	*Papilio aegeus aegeus*	orchard swallowtail (Australian subspecies)				3
animals	insects	Papilionidae	*Papilio anactus*	dainty swallowtail				1
animals	insects	Papilionidae	*Papilio demoleus sthenelus*	chequered swallowtail				1

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animals	insects	Pieridae	*Belenois java teutonia*	caper white				5
animals	insects	Pieridae	*Catopsilia gorgophone gorgophone*	yellow migrant				3
animals	insects	Pieridae	*Catopsilia pomona*	lemon migrant				9
animals	insects	Pieridae	*Catopsilia pyranthe crokera*	white migrant				1
animals	insects	Pieridae	*Cepora perimale scyllara*	caper gull (Australian subspecies)				1
animals	insects	Pieridae	*Delias argenthona argenthona*	scarlet jezebel				1
animals	insects	Pieridae	*Delias nigrina*	black jezebel				1
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				5
animals	insects	Pieridae	*Eurema smilax*	small grass-yellow				1
animals	insects	Pieridae	*Pieris rapae*	cabbage white	Y			1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Canis familiaris*	dog	Y			1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				1
animals	mammals	Canidae	*Vulpes vulpes*	red fox	Y			6
animals	mammals	Dasyuridae	*Antechinus flavipes flavipes*	yellow-footed antechinus (south-east Queensland)		C		2
animals	mammals	Dasyuridae	*Phascogale tapoatafa tapoatafa*	brush-tailed phascogale		C		1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		2
animals	mammals	Felidae	*Felis catus*	cat	Y			2
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			11
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		7
animals	mammals	Macropodidae	*Macropus sp.*			C		2
animals	mammals	Macropodidae	*Notamacropus dorsalis*	black-striped wallaby		C		1
animals	mammals	Macropodidae	*Notamacropus parryi*	whiptail wallaby		C		1
animals	mammals	Macropodidae	*Notamacropus rufogriseus*	red-necked wallaby		C		9
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		5
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		1
animals	mammals	Miniopteridae	*Miniopterus orianae oceanensis*	eastern bent-wing bat		C		1
animals	mammals	Molossidae	*Austronomus australis*	white-striped freetail bat		C		8
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		1
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			3
animals	mammals	Muridae	*Rattus rattus*	black rat	Y			2
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		3
animals	mammals	Petauridae	*Petaurus breviceps sensu lato*	sugar glider		C		4
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		6
animals	mammals	Petauridae	*Petaurus sp.*			C		1
animals	mammals	Phalangeridae	*Trichosurus caninus*	short-eared possum		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		14
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	206
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		2
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		21
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	20
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		9
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1

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animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				1
animals	ray-finned fishes	Anguillidae	*Anguilla australis*	southern shortfin eel				9
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				16
animals	ray-finned fishes	Atherinidae	*Craterocephalus marjoriae*	silverstreak hardyhead				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				4
animals	ray-finned fishes	Cichlidae	*Oreochromis mossambica*	Mozambique mouthbrooder	Y			3
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				1
animals	ray-finned fishes	Eleotridae	*Gobiomorphus australis*	striped gudgeon				10
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				11
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				13
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris sp.*					1
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia duboulayi*	crimsonspotted rainbowfish				6
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				6
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				4
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			17
animals	ray-finned fishes	Poeciliidae	*Xiphophorus maculatus*	platy	Y			8
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				5
animals	ray-finned fishes	Retropinnidae	*Retropinna semoni*	Australian smelt				5
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				3
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				8
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		2
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		8
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		15
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		6
animals	reptiles	Chelidae	*Chelodina expansa*	broad-shelled river turtle		C		2
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		3
animals	reptiles	Chelidae	*Emydura macquarii macquarii*	Murray turtle		C		1
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		2
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		11
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		1
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		3
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		4
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		6
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		2
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		9
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		4
animals	reptiles	Gekkonidae	*Hemidactylus frenatus*	house gecko	Y			4
animals	reptiles	Pygopodidae	*Delma plebeia*	common delma		C		2
animals	reptiles	Scincidae	*Anomalopus verreauxii*	three-clawed worm-skink		C		8/1

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animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		2
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		2
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		2
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		10
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		8
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Scincidae	*Lampropholis amicula*	friendly sunskink		C		1
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		11
animals	reptiles	Scincidae	*Lampropholis sp.*			C		1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		2
animals	reptiles	Scincidae	*Tiliqua scincoides scincoides*	eastern bluetongue		C		5
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		3
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending				4
bacteria	blue-green algae	Aphanothecaceae	*Aphanothece elabens*			C		1/1
bacteria	blue-green algae	Microcoleaceae	*Porphyrosiphon notarisii*			C		3/3
bacteria	blue-green algae	Scytonemataceae	*Scytonema crispum*			C		1/1
fungi	Agaricomycetes	Agaricaceae	*Cyathus striatus*			C		1
fungi	Agaricomycetes	Phallaceae	*Colus pusillus*			C		1
fungi	Agaricomycetes	Phallaceae	*Phallus rubicundus*			C		1
fungi	Agaricomycetes	Suillaceae	*Suillus granulatus*			C		1/1
fungi	lecanoromycetes	Cladoniaceae	*Cladia muelleri*			C		1/1
fungi	lecanoromycetes	Teloschistaceae	*Caloplaca cinnabarina*			C		1/1
fungi	sordariomycetes	Obryzaceae	*Obryzum scabrosum*			C		1/1
plants	Compsopogonophyceae	Compsopogonaceae	*Compsopogon coeruleus*			C		1/1
plants	Florideophyceae	Acrochaetiaceae	*Audouinella*					1/1
plants	Florideophyceae	Delesseriaceae	*Caloglossa leprieurii var. angustata*			C		1/1
plants	Florideophyceae	Delesseriaceae	*Caloglossa ogasawaraensis*			C		1/1
plants	Ulvophyceae	Pithophoraceae	*Pithophora oedogonia var. oedogonia*			C		1/1
plants	Ulvophyceae	Trentepohliaceae	*Cephaleuros parasiticus*			C		1/1
plants	Ulvophyceae	Trentepohliaceae	*Trentepohlia rigidula*			C		2/2
plants	land plants	Acanthaceae	*Brunoniella australis*	blue trumpet		C		1/1
plants	land plants	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C		2/2
plants	land plants	Acanthaceae	*Ruellia simplex*		Y			3/3
plants	land plants	Aizoaceae	*Mesembryanthemum cordifolium*		Y			1/1
plants	land plants	Amaranthaceae	*Alternanthera denticulata*	lesser joyweed		C		1/1
plants	land plants	Apiaceae	*Ammi majus*	bishop's weed	Y			1/1
plants	land plants	Apiaceae	*Daucus carota*	wild carrot	Y			1/1
plants	land plants	Apocynaceae	*Cascabela thevetia*	yellow oleander	Y			1/1
plants	land plants	Apocynaceae	*Leichhardtia coronata*			V		4/4
plants	land plants	Apocynaceae	*Parsonsia brisbanensis*	broad-leaved monkey vine		C		6/6
plants	land plants	Araliaceae	*Hydrocotyle laxiflora*	stinking pennywort		C		1/1
plants	land plants	Aristolochiaceae	*Aristolochia meridionalis subsp. meridionalis*			C		1/1
plants	land plants	Asphodelaceae	*Aloe maculata*		Y			2/2
plants	land plants	Asteraceae	*Ambrosia artemisiifolia*	annual ragweed	Y			1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Asteraceae	*Cassinia straminea*			C		1/1
plants	land plants	Asteraceae	*Centaurea jacea*		Y			1/1
plants	land plants	Asteraceae	*Cichorium intybus*	chicory	Y			1/1
plants	land plants	Asteraceae	*Dimorphotheca ecklonis*		Y			1/1
plants	land plants	Asteraceae	*Erigeron canadensis*		Y			1/1
plants	land plants	Asteraceae	*Leiocarpa brevicompta*			C		1/1
plants	land plants	Asteraceae	*Ozothamnus diosmifolius*	white dogwood		C		1/1
plants	land plants	Asteraceae	*Tagetes minuta*	stinking roger	Y			1/1
plants	land plants	Asteraceae	*Thymophylla tenuiloba*		Y			1/1
plants	land plants	Asteraceae	*Verbesina encelioides var. encelioides*		Y			1/1
plants	land plants	Bignoniaceae	*Pandorea floribunda*			C		1/1
plants	land plants	Bignoniaceae	*Pyrostegia venusta*		Y			1/1
plants	land plants	Boraginaceae	*Cordia myxa*		Y			1/1
plants	land plants	Brassicaceae	*Brassica rapa*		Y			1/1
plants	land plants	Bromeliaceae	*Tillandsia usneoides*		Y			1
plants	land plants	Campanulaceae	*Wahlenbergia littoricola*			SL		1/1
plants	land plants	Cannabaceae	*Celtis sinensis*	Chinese elm	Y			1/1
plants	land plants	Casuarinaceae	*Casuarina cunninghamiana subsp. cunninghamiana*			C		1/1
plants	land plants	Casuarinaceae	*Casuarina glauca*	swamp she-oak		C		1/1
plants	land plants	Celastraceae	*Denhamia cunninghamii*			C		1/1
plants	land plants	Celastraceae	*Denhamia silvestris*			C		1/1
plants	land plants	Celastraceae	*Hippocratea barbata*	knotvine		C		1/1
plants	land plants	Chenopodiaceae	*Einadia nutans subsp. linifolia*			C		1/1
plants	land plants	Chenopodiaceae	*Maireana microphylla*			C		1/1
plants	land plants	Colchicaceae	*Iphigenia indica*			C		1/1
plants	land plants	Combretaceae	*Combretum paniculatum*		Y			2/2
plants	land plants	Commelinaceae	*Commelina benghalensis*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum daigremontianum*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum fedtschenkoi*		Y			1/1
plants	land plants	Cupressaceae	*Callitris baileyi*	Bailey's cypress		NT		1/1
plants	land plants	Cyperaceae	*Caustis blakei*			C		1
plants	land plants	Cyperaceae	*Cyperus bifax*	western nutgrass		C		1/1
plants	land plants	Cyperaceae	*Cyperus brevifolius*	Mullumbimby couch	Y			1/1
plants	land plants	Cyperaceae	*Cyperus involucratus*		Y			1/1
plants	land plants	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C		1/1
plants	land plants	Cyperaceae	*Fimbristylis microcarya*			C		1/1
plants	land plants	Euphorbiaceae	*Euphorbia cyathophora*	dwarf poinsettia	Y			1/1
plants	land plants	Euphorbiaceae	*Euphorbia hyssopifolia*		Y			2/2
plants	land plants	Euphorbiaceae	*Euphorbia ophthalmica*		Y			2/2
plants	land plants	Goodeniaceae	*Goodenia hederacea subsp. hederacea*			C		2/2
plants	land plants	Hemerocallidaceae	*Dianella longifolia var. stenophylla*			C		2/2
plants	land plants	Hypoxidaceae	*Hypoxis pratensis var. tuberculata*			C		2/2
plants	land plants	Lamiaceae	*Ajuga australis*	Australian bugle		C		1/1
plants	land plants	Lamiaceae	*Coleus habrophyllus*			E	E	1/1
plants	land plants	Lamiaceae	*Mentha satureioides*	native pennyroyal		C		2/2
plants	land plants	Lamiaceae	*Westringia eremicola*	slender westringia		C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Lauraceae	*Cassytha filiformis*	dodder laurel		C		1/1
plants	land plants	Lauraceae	*Cryptocarya triplinervis var. pubens*			C		1/1
plants	land plants	Laxmanniaceae	*Laxmannia gracilis*	slender wire lily		C		1/1
plants	land plants	Laxmanniaceae	*Lomandra confertifolia subsp. pallida*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. coriacea*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. filiformis*			C		1/1
plants	land plants	Leguminosae	*Acacia complanata*	flatstem wattle		C		2/2
plants	land plants	Leguminosae	*Acacia falcata*	sickle wattle		C		1/1
plants	land plants	Leguminosae	*Acacia glaucocarpa*	hickory wattle		C		1/1
plants	land plants	Leguminosae	*Acacia juncifolia*			C		2/2
plants	land plants	Leguminosae	*Acacia penninervis var. longiracemosa*			C		1/1
plants	land plants	Leguminosae	*Desmodium rhytidophyllum*			C		1/1
plants	land plants	Leguminosae	*Erythrina numerosa*			C		1/1
plants	land plants	Leguminosae	*Glycine*					1/1
plants	land plants	Leguminosae	*Hovea planifolia*			C		1/1
plants	land plants	Leguminosae	*Indigofera baileyi*			C		3/3
plants	land plants	Leguminosae	*Indigofera spicata*	creeping indigo	Y			1/1
plants	land plants	Leguminosae	*Sesbania cannabina var. cannabina*			C		1/1
plants	land plants	Leguminosae	*Stylosanthes scabra*		Y			2/2
plants	land plants	Leguminosae	*Swainsona brachycarpa*			C		1/1
plants	land plants	Leguminosae	*Swainsona queenslandica*			C		1/1
plants	land plants	Leguminosae	*Tephrosia glomeruliflora*	pink tephrosia	Y			1/1
plants	land plants	Leguminosae	*Tephrosia sp. (The Grampians L.H.Bird AQ565381)*			C		1/1
plants	land plants	Leguminosae	*Tipuana tipu*	tipuana	Y			1/1
plants	land plants	Loranthaceae	*Amyema miquelii*			C		1/1
plants	land plants	Malvaceae	*Gossypium hirsutum*		Y			1/1
plants	land plants	Malvaceae	*Hibiscus tridactylites*			C		1/1
plants	land plants	Malvaceae	*Pavonia hastata*	pink pavonia	Y			1/1
plants	land plants	Marsileaceae	*Marsilea hirsuta*	hairy nardoo		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus acmenoides*			C		2/2
plants	land plants	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus dura*			C		1/1
plants	land plants	Myrtaceae	*Melaleuca irbyana*			E		7/6
plants	land plants	Oleaceae	*Notelaea lloydii*	Lloyd's native olive		V	V	1/1
plants	land plants	Oleaceae	*Notelaea ovata*	forest olive		C		1/1
plants	land plants	Oleaceae	*Notelaea x ipsviciensis*	Cooneana olive		CR	CE	5/5
plants	land plants	Orchidaceae	*Chiloglottis diphylla*			SL		1/1
plants	land plants	Passifloraceae	*Passiflora pallida*		Y			1/1
plants	land plants	Phyllanthaceae	*Phyllanthus hirtellus*			C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus virgatus*			C		1/1
plants	land plants	Picrodendraceae	*Petalostigma pubescens*	quinine tree		C		1
plants	land plants	Poaceae	*Anthosachne kingiana subsp. multiflora*			C		1/1
plants	land plants	Poaceae	*Aristida calycina var. calycina*			C		1/1
plants	land plants	Poaceae	*Aristida leichhardtiana*			C		1/1
plants	land plants	Poaceae	*Aristida vagans*			C		1/1
plants	land plants	Poaceae	*Austrostipa rudis subsp. nervosa*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Poaceae	*Calyptochloa gracillima subsp. ipsviciensis*			CR		5/5
plants	land plants	Poaceae	*Cenchrus setaceus*		Y			1/1
plants	land plants	Poaceae	*Cynodon dactylon var. dactylon*		Y			1/1
plants	land plants	Poaceae	*Dichanthium annulatum*	sheda grass	Y			1/1
plants	land plants	Poaceae	*Digitaria didactyla*	Queensland blue couch	Y			1/1
plants	land plants	Poaceae	*Eremochloa bimaculata*	poverty grass		C		1/1
plants	land plants	Poaceae	*Microlaena stipoides var. stipoides*			C		1/1
plants	land plants	Poaceae	*Panicum simile*			C		2/2
plants	land plants	Poaceae	*Urochloa whiteana*			C		1/1
plants	land plants	Poaceae	*x Cynochloris macivorii*			C		1/1
plants	land plants	Polygonaceae	*Antigonon leptopus*		Y			1/1
plants	land plants	Polygonaceae	*Persicaria attenuata*			C		1/1
plants	land plants	Potamogetonaceae	*Stuckenia pectinata*			SL		1/1
plants	land plants	Proteaceae	*Grevillea robusta*			C		1/1
plants	land plants	Pteridaceae	*Acrostichum speciosum*	mangrove fern		SL		1/1
plants	land plants	Pteridaceae	*Cheilanthes distans*	bristly cloak fern		C		1/1
plants	land plants	Pteridaceae	*Cheilanthes sieberi subsp. sieberi*			C		2/2
plants	land plants	Ptychomitriaceae	*Ptychomitrium australe*			C		1/1
plants	land plants	Rhamnaceae	*Cryptandra longistaminea*			C		1/1
plants	land plants	Rosaceae	*Prunus persica var. persica*		Y			1/1
plants	land plants	Rubiaceae	*Richardia stellaris*		Y			1/1
plants	land plants	Rubiaceae	*Spermacoce multicaulis*			C		2/2
plants	land plants	Sapindaceae	*Cardiospermum grandiflorum*	heart seed vine	Y			1/1
plants	land plants	Scrophulariaceae	*Buddleja madagascariensis*	buddleia	Y			1/1
plants	land plants	Scrophulariaceae	*Eremophila debilis*	winter apple		C		1/1
plants	land plants	Solanaceae	*Solanum lasiocarpum*		Y			1/1
plants	land plants	Solanaceae	*Solanum linnaeanum*	apple of Sodom	Y			1/1
plants	land plants	Sparrmanniaceae	*Corchorus olitorius*	jute		C		1/1
plants	land plants	Stackhousiaceae	*Stackhousia muricata*			C		1/1
plants	land plants	Verbenaceae	*Lantana montevidensis*	creeping lantana	Y			1/1
plants	land plants	Viburnaceae	*Sambucus nigra*		Y			3/3
plants	land plants	Vitaceae	*Causonis clematidea*			C		1/1

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 B Likelihood of Occurrence Assessment

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

28 August 2025

SLR

Likelihood of occurring	Key criteria
Known to occur	Species positively identified during field surveys within the project area.
High	Species previously recorded within the study area and the project area contains habitat that is suitable for the species.
Moderate	Species previously recorded within the study area and the project area contains marginal / low quality habitat for the species. OR No previous records of the species within the study area, but the project area contains suitable habitat for the species and is within the known range of the species.
Low	Species previously recorded within the study area, but the project area does not contain suitable habitat for the species. OR No previous records of the species within the study area and the project area contains marginal / low quality habitat for the species or there is no suitable habitat in the project area. OR No previous records of the species within the study area and the study area is beyond the current known geographic range of the species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
Birds						
Actitis hypoleucos	common sandpiper	SLC	Mi	Shallow, pebbly, muddy or sandy edges of rivers and streams, coastal to far inland; dams, lakes, sewage ponds; margins of tidal rivers; waterways in mangroves or saltmarsh; mudflats; rocky or sandy beaches; causeways, riverside lawns, drains and street gutters (DCCEEW, 2025).	PMST/WN	**Moderate** - There are records of this species within the study area and the project area provides low quality habitat.
Anthochaera phrygia	regent honeyeater	CR	CE	This species is endemic to south-eastern Australia, where it has a patchy distribution from south-east Queensland, through New South Wales, and in the Australian Capital Territory to central Victoria. The species mostly inhabits the inland slopes of the Great Dividing Range, in areas of low to moderate relief with moist, fertile soils. It is commonly associated with box ironbark eucalypt woodland and dry sclerophyll forests but can also inhabit riparian vegetation, lowland coastal forests and other remnant patches along roadsides, farmland or in urban areas. It feeds primarily on nectar from eucalypts and mistletoe(DoE, 2016).	PMST/ALA	**Moderate** – One record for this species was returned within the study area (noting the record has 2 km spatial uncertainty). Within the project area there is some potentially suitable ironbark eucalypt woodland and forest that may provide suitable habitat for the species. However, field surveys did not record mistletoe, therefore the habitat within the project area is low quality.
Apus pacificus	fork-tailed swift	LC	Mi	The fork-tailed swift can occur in all states and territories of Australia. In Queensland, there have been records of the species in the Gulf Country, Cape York Peninsula, east of the Great Divide, near Cooktown and south to Townsville. They primarily occur over inland plains but can also sometimes occur in coastal areas or above foothills. This species mostly occurs over dry open habitat including low shrub, saltmarsh, heathland, or riparian woodland (DCCEEW, 2025).	PMST	**Low** - No records of this species within the study area. This species is highly mobile across Australia and feeds in woodland and urban habitats. This species is almost exclusively aerial and there is no suitable habitat within the project area.
Biziura lobata	musk duck	LC	-	Deep freshwater lakes, lagoons and swamp with dense reed beds and open waters, also estuaries (Ipswich City Council, 2025).	ICC	**Low -** No records of this species the study area. There is no suitable habitat within the project area. There is limited marginal, low quality habitat directly adjacent to the project area (farm dam).
Botaurus poiciloptilus	Australasian bittern	E	E	This species occurs from Yeppoon in Queensland to south-east South Australia to the south-west of Western Australia, with some scattered vagrant records through northern Australia. Habitat is generally ephemeral or permanent freshwater wetlands with tall, dense vegetation, particularly sedges, rushed, reeds or cutting grass over a muddy or peaty substrate. They prefer still, shallow water up to 0.3 m deep for foraging. The species is rarely recorded at estuaries or tidal wetlands (DCCEEW, 2025).	PMST	**Low** - No records of this species were returned from WildNet searches. The project area contains marginal habitat for this species, although there is suitable habitat present directly adjacent to the project area.
Calidris acuminata	sharp-tailed sandpiper	V	V, Mi	This species prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, saltmarsh, grass or other vegetation. They use flooded paddocks, sedgelands and ephemeral wetlands. They use intertidal mudflats in sheltered bays, estuaries or seashores and swamps and creeks lined with mangroves. The species tends to occupy mudflats after the ephemeral wetlands dry out (DCCEEW, 2025).	PMST/WN	**Moderate** - Records exist of this species within the study area. The project area contains marginal and low quality habitat for the species and there is suitable habitat present directly adjacent to the project area.
Calidris ferruginea	curlew sandpiper	CR	CE, Mi	Mainly occurs on intertidal mudflats in sheltered coastal bays, inlets, lakes, and lagoons near ponds, the coast and saltworks and sewage farms. They forage at the edges of shallow pools and drains of intertidal mudflats and sandy shores. At high tide, they forage among vegetation on saltmarshes, and sometimes forage in flooded paddocks or saltflats (DCCEEW, 2025).	PMST	**Low** - No records exist of this species within the study area. The project area does not contain suitable habitat as the species inhabits mudflats, lakes, lagoons or pools.
Calidris melanotos	pectoral sandpiper	SLC	Mi	In Queensland, most records of this species occur around Cairns. The Pectoral Sandpiper has a preference for shallow fresh to saline wetlands but can also be found on coastal lagoons, estuaries, swamps, bays, lakes, grasslands, river pools, saltmarshes, floodplains and creeks. This species prefers wetlands with open mudflats and low emergent vegetation (DCCEEW, 2025).	PMST/WN	**Moderate** - One record of this species was returned from WildNet searches. The project area contains marginal and low-quality habitat for the species.
Calyptorhynchus lathami lathami	south-eastern glossy black-cockatoo	V	V	This species occurs from Mitchell in Queensland through eastern New South Wales to East Gippsland in Victoria. The species prefers woodlands dominated by she-oak or open sclerophyll forests with a stratum of she-oak. They feed exclusively upon she-	PMST	**Low -** No records exist of this species within the study area. The project area does not contain the she-oak woodland preferred by this species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
				oak seeds and they require large hollows in mature live or dead trees, usually eucalypts, for nesting (Glossy Black Conservancy, 2022).		
Charadrius leschenaultii	greater sand plover, large sand plover	V	V, Mi	In Australia, this species occurs in the coastal areas of all states but most individuals occur along the north-west coast. Feeding usually occurs on sheltered sandy or muddy area as well as around large intertidal mudflats as well as around large mudflats, saltmarshes, coral reefs, sandbanks, rock islands or tidal lagoons (DCCEEW, 2025b).	PMST	**Low -** No records exist of this species within the study area. As the species inhabits mudflats, coral reefs, sandbanks or lagoons the project area does not contain suitable habitat for the species.
Climacteris picumnus victoriae	brown treecreeper (south-eastern)	V	V	This species is endemic to south Australia where the species occupies open eucalypt forest and woodlands. The species inhabits woodlands dominated by stringybarks or other rough barked eucalypts, usually with an open grassy understorey (DCCEEW, 2025b).	PMST	**Low -** There are no records of this species within the study area. The study area is not within the likely geographic range of the species, the nearest record is 90 km south east.
Cuculus optatus	Oriental cuckoo	SLC	Mi	Within Australia, this species uses a range of vegetated habitats such as monsoon rainforests, wet sclerophyll forest, open woodlands and appears quite often along edges of forests, or ecotones between forest types (DoE, 2015; Menkhorst et al,. 2017). This cuckoo species feeds arboreal, foraging for invertebrates on loose bark on the trunks and branches of trees, and among the foliage, including in mistletoes. It will forage from the ground, but requires shrubs or trees from which it sallies and returns to consume prey items. Caterpillars have been noted as a preferred food source. Oriental Cuckoos tend to forage individually and have only been recorded foraging in pairs when infestations of caterpillars occur (DCCEEW, 2025b).	PMST/WN	**Moderate -** One record was returned for this species from WildNet searches from 1991 The project area contains low quality habitat for this species.
Cyclopsitta diophthalma coxeni	Coxen's fig-parrot	CR	CE	The distribution of the Coxen fig-parrot is poorly known. The Coxen fig-parrot is known to occur from Gympie in Queensland to north-eastern Queensland, though potentially could occur from Rockhampton in Queensland to further south in New South Wales. There have also been reports of the Coxen fig-parrot around the Bundaberg and Rockhampton area. They are found in all rainforest habitats that have an abundance of figs and other fleshy fruited species, with a preference for alluvial areas with a staggered fruiting cycle. They require rotting wood in dead and living trees to create hollows for nesting (DCCEEW, 2025b).	PMST	**Low -** There were no records of this species returned from WildNet searches. As this species is found in rainforest with an abundance of figs and fruits, the project area does not contain suitable habitat for the species.
Erythrotriorchis radiatus	red goshawk	E	E	Occurs from the Cape York Peninsula in Queensland to the Kimberly in Western Australia, with records in south-east Queensland becoming increasingly scant since 2010. The species occurs in wooded and forested lands of tropical and warm temperate Australia. The vegetation types the red goshawk prefers includes open forest, tall open forest, eucalypt woodland, gallery rainforest, rainforest margins, and swamp sclerophyll forests. They nest in large trees normally within 1 km of permanent water (DCCEEW, 2025b).	PMST	**Low -** There were no records of this species within the study area. The project area is unlikely to provide nesting habitat but may provide low quality or marginal habitat.
Falco hypoleucos	grey falcon	V	V	This species is sparsely distributed around inland drainage systems—it is usually restricted to shrubland, grassland and wooded water courses and occasionally found in open woodlands near the coast. Often found on stony plains and Acacia shrublands (TSSC, 2020a).	PMST	**Low -** There were no records of this species within the study area. The project area does not contain suitable habitat for this species.
Gallinago hardwickii	Latham's snipe	V	V, Mi	This species occurs from the Cape York Peninsula in Queensland south to South Australia, and inland west of the Great Dividing Range. They inhabit various permanent or ephemeral wetlands, of varying salinity, though they prefer freshwater with low, dense vegetation. The species spends the non-breeding season (spring and summer) in Australia (DCCEEW, 2025b).	PMST/WN/ALA	**Moderate -** Several records of this species were returned from WildNet searches and on ALA as occurring within the study area. The project area contains marginal habitat for this species.
Geophaps scripta scripta	squatter pigeon (southern)	V	V	The potential distribution of the squatter pigeon (southern) extends southwards from the Burdekin-Lynd divide to south-east Queensland, south-west to Stanthorpe, south along the western slopes of the Great Dividing Range to the area around Glen Innes, NSW, west to Bellata, and north-westwards to Charleville (TSSC, 2015). Townsville is the north-eastern extent of this sub-species. This species inhabits the grassy understorey of open eucalypt woodland, and less often savannas typically near permanent water .	PMST	**Low -** No records of this species were returned from WildNet searches as occurring within the study area. The project area does not contain suitable habitat for this species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
Grantiella picta	painted honeyeater	V	V	The painted honeyeater occurs sporadically from south-eastern and north-western Queensland across to eastern Northern Territory. They are found in eucalypt, melaleuca, acacia and casuarina forests and woodlands that have an abundance of mature trees with mistletoes present (their primary food source). They prefer larger sections of intact habitat over strips of remnant vegetation (such as road reserve) though exceptions have been recorded when mistletoes are present in particularly high abundance. Nesting also occurs where mistletoes are abundant (DCCEEW, 2022c).	PMST	**Low -** No records of this species were returned from WildNet searches as occurring within the study area. The project area contains low quality, marginal suitable habitat for this species as surveys did not detect any mistletoe.
Hirundapus caudacutus	white-throated needletail	V	V, Mi	The white-throated needletail breeds in the Northern Hemisphere but is widespread in eastern and south-eastern Australia during summer months. There are sporadic records of this species found in inland Australia with the majority occurring along the coast and western edge of the Great Dividing Range. The white-throated needletail is thought to be almost completely aerial when in Australia and large flocks typically follow low pressure systems (TSSC, 2019a). Although they occur over most types of habitat, they are probably recorded most often above wooded areas, including open forest and rainforest (TSSC, 2019a).	PMST/WN	**Moderate -** This species feeds over woodland and urban habitat. Four records occur within the study area. As this species forages aerial, some marginal habitat may be present within the project area.
Lathamus discolor	swift parrot	E	CE	The swift parrot breeds in Tasmania during the summer and the entire population migrates north to mainland Australia for the winter. They occupy habitats across all tenures, with the majority of habitats occurring outside formal conservation reserves. Swift parrots breed in forest with suitable tree-hollows and that are relatively close in proximity to their main food source, flowering Tasmanian blue gum. Their distribution fluctuates with food availability as they feed on psyllid lerps, seeds and fruit. Non-breeding birds preferentially feed in inland box-ironbark, grassy woodlands, coastal swamp mahogany (*Eucalyptus robusta*) or spotted gum (*Corymbia maculata*) woodland when in flower (DCCEEW, 2025b).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat with the project area.
Limosa limosa	black-tailed godwit	E	E, Mi	This species forages in areas of soft mud or wet sand within intertidal mudflats, saltmarshes, sandflats and beaches. They roost in sheltered bays, lagoons, muddy lakes and within wetlands that are less than 10 cm deep (DCCEEW, 2025b).	WN	**Moderate -** There were 4 records of this species returned from WildNet searches as occurring within the study area. The project area contains marginal suitable habitat for this species.
Melithreptus gularis	black-chinned honeyeater	LC	-	Highly mobile; open eucalypt forests and woodlands dominated by eucalypts and wattles, often along waterways (Ipswich City Council, 2025).	ICC	**High –** There were 6 records of this species within 5 km of the project area. The project area contains suitable habitat for this species**.**
Motacilla flava	yellow wagtail	SLC	Mi	This species occurs from the Cape York Peninsula in Queensland south South Australia, and inland west of the Great Dividing Range. They inhabit various permanent or ephemeral wetlands, of varying salinity, though they prefer freshwater with low, dense vegetation. The species spends the non breeding season (spring and summer) in Australia (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. The project area contains limited marginal habitat for this species.
Ninox strenua	powerful owl	V	-	This species inhabits eucalypt forests and woodland, inland riverine woodland and gallery rainforest. It roosts and nests typically in dense gully eucalypt forest (Loyn, Mcnabb and Machunter, 2011).	WN	**Moderate –** WildNet searches returned one record of this species occurring within the study area. While the project area does not contain suitable breeding habitat, it may provide marginal foraging habitat as there are densely vegetated forests surrounding the local vicinity.
Oxyura australis	Blue-billed duck	LC	-	Large, deep open freshwater dams and lakes (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat within the project area.
Pandion haliaetus	osprey	LC	Mi	The osprey is thinly distributed around the coast of Australia where they forage for fish in fresh, brackish, or saline waters of rivers, lakes, estuaries and inshore coastal waters (DCCEEW, 2025). Nests are usually located near a suitable area of foraging habitat and are a bulky structure made from piled sticks, often positioned in a tall dead tree or artificial structures such as telecommunication towers or poles. Breeding pairs defend breeding territory against other Ospreys, and active nests are usually more than 1 km apart (DCCEEW, 2025).	PMST	**Low -** No records of this species returned from WildNet searches as occurring within the study area. There is not suitable habitat for this species in the project area.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
Phaethon lepturus	white-tailed tropicbird	SLC	Mi	The white-tailed tropicbird occupies marine habitats in tropical waters with sea-surface temperatures of more than 22 degrees. This species breeds on island and atolls, where it nests in a variety of habitats including the bare sandy ground, in closed-canopy rainforests, on rocky cliffs and in quarries (DCCEEW, 2025).	WN	**Low -** WildNet searches returned one record of this species occurring within the study area. There is no suitable habitat for this species in the project area.
Plegadis falcinellus	glossy ibis	SLC	Mi	This species feeds in shallow water and nests in brackish or freshwater wetlands with tall dense stands in very shallow water and low bushes or trees. The species shows a preference for marshes on the edges of rivers and lakes as well as floodplains, wet meadows, lagoons, swamps, rice-fields, sewage ponds, and irrigated cultivation (Taylor and Taylor, 2015). The species also sometimes occurs in deltas, estuaries, saltmarshes, and coastal lagoons. Roosting occurs in large trees that can be far from water. Breeding occurs in tall dense stands on emergent vegetation, bushes over water, or low trees (Taylor and Taylor, 2015).	WN	**Low -** Two records of this species were returned from WildNet searches as occurring within the study area. There is no suitable habitat for this species in the project area.
Pomatostomus temporalis	grey crowned babbler	LC	-	Dry open forests and woodlands, favouring inland plains with open shrub layer, little ground cover and plenty of fallen timber and leaf litter (Ipswich City Council, 2025).	ICC	**Moderate -** Several records of this species were returned from WildNet searches and on ALA as occurring within the study area. The project area may provide marginal or low-quality habitat for the species.
Rostratula australis	Australian painted snipe	E	E	Occurs across Australia though is more common in eastern Australia. It inhabits permanent and ephemeral wetlands, preferably freshwater though occasionally brackish, that typically have emergent, fringing vegetation. They will sometimes use areas lined with trees. Required breeding habitat is shallow freshwater wetlands (often islands within wetlands) with wet mud, dense low cover, and upper and canopy cover nearby (DCCEEW, 2022c).	PMST/WN	**Moderate -** Several records of this species were returned from WildNet searches and on ALA as occurring within the study area. The project area may provide marginal or low-quality habitat for the species and there is potentially suitable habitat adjacent to the project area.
Stagonopleura guttata	diamond firetail	V	V	Occurs from southern Queensland to the Eyre Peninsula, South Australia, and up to 300 km inland. They inhabit woodlands, open forests and other lightly timbered habitats dominated by eucalypts, acacias of casuarinas. They exhibit a preference for high grass coverage, low tree density and low coarse woody debris and litter (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Tringa nebularia	common greenshank, greenshank	E	E, Mi	Occurs along most of the Australian coastline and sporadically inland, in all types of wetlands. They prefer wetlands with muddy or clay edges, occasionally sand, with either bare, emergent, or fringing vegetation. The species spends the non-breeding season (spring and summer) in Australia (DCCEEW, 2025).	PMST	**Low -** No records were returned for this species from WildNet searches as within the study area. The project area may provide marginal or low-quality habitat for this species.
Tringa stagnatilis	marsh sandpiper	SLC	Mi	The marsh sandpiper occurs on inland and coastal wetlands throughout Australia. The species inhabits permanent or ephemeral wetlands including billabongs, saltmarshes, lagoons, pools on inundated floodplains, estuaries, intertidal mudflats and on sewage farms and saltworks. This species forages in shallow water on the edge of wetlands (DCCEEW, 2025).They have been recorded roosting or loafing on tidal mudflats, around inland swamps and near low saltmarsh.	WN	**Moderate -** While one record was returned from WildNet searches as occurring within the study area, this record was from 1990. The project area may provide limited, low quality marginal habitat for this species.
Turnix melanogaster	black-breasted button-quail	V	V	Black-breasted button-quail are found throughout south-eastern Queensland. They are most commonly found in vine thicket rainforests with a deep litter layer and closed canopy (Smyth and Young, 1996).	PMST	**Low -** No records of this species occur within the study area. No suitable habitat is found in the project area for this species.
Fish						
Neoceratodus forsteri	Australian lungfish, Queensland lungfish	V	V	The Australian lungfish is native only to the Mary and Burnett River systems in south-eastern Queensland. It has been successfully distributed to other, more southerly rivers, including the Brisbane, Albert, Stanley, and Coomera Rivers, and the Enoggera Reservoir in the past century. The Australian lungfish has also been introduced to the Pine, Caboolture, and Condamine Rivers, but current survival and breeding success are unknown. Formerly widespread, at one time at least seven species of lungfish were in Australia. This species lives in slow-flowing rivers and still water (including reservoirs) that have some aquatic vegetation on banks. It occurs over mud, sand, or gravel bottoms. Australian lungfish are commonly found in deep pools of 3–10 m (9.8–32.8 ft) depth and live in small groups under submerged logs, in dense banks of	PMST	**Low -** There are no records of this species within the study area. The project area does not contain suitable habitat for this species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
				aquatic macrophytes, or in underwater caves formed by soil being washed away under tree roots on river banks (DoEE, 2017).		
Amphibians						
Cyclorana alboguttata	green stripe frog, striped burrowing frog	LC	-	Temporarily inundated grasslands and open woodland (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is limited low-quality habitat for this species within the project area.
Cyclorana brevipes	superb collared frog, short-footed frog	LC	-	Open grassland and dry woodland /open forest on black soil plains and semi-desert areas (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. The project area does not contain suitable habitat for this species.
Limnodynastes salmini	salmon striped frog	LC	-	Found in a variety of habitats including lowland flooded grassland and swamps (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is limited low quality habitat for this species within the project area.
Litoria tyleri	Tyler's tree frog, southern laughing tree frog	LC	-	Wet and dry sclerophyll forests, especially near wetlands (Ipswich City Council, 2025).	ICC	**Moderate -** There are no records of this species within the study area. There is limited suitable habitat for this species in the project area.
Mixophyes fleayi	Fleay's frog	E	E	This species occurs in montane areas in far south-east Queensland and north-east New South Wales. This frog inhabits montane rainforest and adjoining wet sclerophyll forest habitat (TSSC, 2021).	PMST	**Low -** There are no records of this species the study area. The project area does not contain suitable habitat for this species.
Insects						
Argynnis hyperbius inconstans	Australian fritillary	E	CE	This species has been recorded across south-east Queensland and north-east New South Wales. The species occurs around river estuaries or open, swampy coastal regions (TSSC, 2017).	PMST	**Low -** The closest record of this species is located near Nambour over 100 km away (ALA, 2025). Given this species occurs around river estuaries or swampy coastal region, the project area does not contain suitable habitat.
Mammals						
Aepyprymnus rufescens	rufous bettong	LC	-	Coastal eucalypt forest, tall wet sclerophyll forest and dry open woodlands with sparse or grassy understorey (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Chalinolobus dwyeri	large-eared pied bat	E	E	This species has a fragmented distributed in central-eastern New South Wales and Queensland. The species is usually found in areas with escarpments, cliffs, or rocky outcrops for roosting, although the presence of suitable caves, overhangs and cracks are likely more important than the precise geology (DERM, 2011).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Chalinolobus picatus	little pied bat	LC	-	Dry forest, woodland and mallee (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is potential low-quality foraging habitat within the project area, but there is unlikely to be roosting habitat.
Dasyurus hallucatus	northern quoll	E	E	The distribution of this species is highly fragmented in Queensland and surveys indicate severe reductions from the species former distribution. This species occupies a diversity of habitats across its range, including rocky areas, forests, woodlands, rainforests, sandy lowlands and beaches, shrubland, grasslands and desert (Hill and Ward, 2010)	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Dasyurus maculatus maculatus (SE mainland population)	spot-tailed quoll (southeastern mainland population)	LC	E	Utilises a range of habitats including rainforest, damp forest, open forest and open woodland. Commonly associated with gullies, rocky escarpments and outcrops (DPIE, 2020).	PMST	**Low -** There are no records of this species within the study area. The project area does not contain suitable habitat for this species.
Macroderma gigas	ghost bat	E	V	This species currently has a disjunct geographical range occurring from Cape York to near Rockhampton in Queensland, northern Territory, the Pilbara and Kimberley in	PMST	**Low -** There are no records of this species within the study area. The study area is outside the known geographic

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
				Western Australia. The bat current inhabits habitats ranging from tropical savanna woodlands to rainforests (Hourigan, 2011).		extent of the species and the project area does not contain suitable habitat.
Macropus dorsalis	black striped wallaby	LC	-	Eucalypt and acacia forests with a dense understorey, often in areas infested with lantana (Ipswich City Council, 2025).	ICC	**High –** There were 6 records of this species within the study area. The project area contains suitable habitat for this species**.**
Petauroides volans	greater glider (southern and central)	E	E	This species occurs in eastern Australian from Proserpine in Queensland, south to Victoria, inhabiting eucalypt-dominated low open forests on the coast to tall forests in the ranges and low woodlands west of the Great Dividing Range (DCCEEW, 2022b).	PMST	**Low -** There are no records of this species within the study area. There is marginally suitable foraging habitat for this species in the project area, however there is no suitable breeding habitat.
Petaurus australis australis	yellow-bellied glider (south-eastern)	V	V	The yellow-bellied glider (southeastern) has a patchy distribution from southeast Queensland to far southeast South Australia to South Australia and Victorian border. The species occurs in woodlands and forests, both wet and dry sclerophyll, dominated by eucalyptus. The subspecies prefers patches of mature old growth forest and forests with plenty of winter-flowering and smooth barked eucalyptus (Taylor and Rohweder, 2020).	PMST	**Low -** There are no records of this species within the study area. There is marginally suitable foraging habitat for this species in the project area, however there is no breeding habitat.
Petrogale penicillata	brush-tailed rock-wallaby	V	V	The brush-tailed rock-wallaby is mostly known to occur from Yarraman, in southeast QLD, to the Grampians, in western Victoria, as well as the Great Dividing Range. The species is associated with rugged rocky areas, rock faces, north-facing fissures, ledges and caves and forages in woodland habitats, grassy forest, pastures, and artificial clearings (Menkhorst and Hynes, 2010).	PMST/ICC	**Low -** There are no records of this species the study area. There is no suitable habitat for this species in the project area.
Phascogale tapoatafa	brush tailed phascogale	LC	-	Drier forest and woodlands with hollow-bearing trees and sparse ground cover. Also can occur in rainforest (Ipswich City Council, 2025).	ICC	**Moderate –** There was one record of this species within the study area. The project area contains marginal suitable habitat for this species**.**
Phascolarctos cinereus	koala	E	E	The koala is endemic to Australia. The biological species range extends from north-eastern QLD to the south-east corner of SA. Koalas naturally inhabit a range of temperate, subtropical and tropical forests, woodland and semi-arid community's dominated by Eucalyptus species. Their habitat can broadly be defined as any forest or woodland containing species that are a known koala food tree, or shrubland with emergent food trees (White, 1999; DAWE, 2022).	PMST/WN/ICC	**High -** There were 206 records of this species returned within the study area, including numerous records located within the project area (ALA, 2025). The project area contains suitable habitat for this species.
Potorous tridactylus tridactylus	long-nosed potoroo (northern)	V	V	The long-nosed potoroo has a fragmented, broad distribution across southeast Queensland as well as the north coast of New South Wales. The species occurs between Many Peaks Range, near Gladstone, to the northern boundaries of the Sydney Basin (TSSC, 2019b). The long-nosed potoroo occurs in a range of vegetation including: coastal shrub, heathy woodland, wet sclerophyll forest and rainforest. This species optimum habitat has a dense layer of understorey and open space under the canopy for foraging. The species can also occur in gullies, near creeks, on highland, plateau, and escarpment landscapes as well as heath, sedge lands and subtropical rainforest (TSSC, 2019b).	PMST	**Low -** There are no records of this species the study area. There is no suitable habitat for this species in the project area.
Pteropus poliocephalus	grey-headed flying-fox	LC	V	The range of this species extends from Bundaberg in Queensland to Melbourne in Victoria as well as the coast inland to the western slopes of New South Wales (DEW, 2021). This species uses vegetation communities including open forests, rainforests, open and closed woodlands, Banskia woodland and Melaleuca swamps. Roost vegetation includes stands of Melaleuca, mangroves, riparian vegetation and rainforest patches (DEW, 2021).	PMST/WN	**Known –** This species was observed foraging within the project area and there are 20 WildNet records recorded within the study area.
Tachyglossus aculeatus	short-beaked echidna	SLC	-	The short-beaked echidna lives in forest and woodlands, heath, grasslands and arid environments. It is found throughout Australia, including Tasmania. Although it is found all over Australia, it is not as common in Sydney as it once was (Nicol and Andersen, 2007).	WN	**High** - There were several records of this species returned from WildNet searches within the study area and there is suitable habitat within the project area for this species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
Plants						
Acacia obtusifolia	blunt leaf wattle	LC	-	Grows in dry and wet sclerophyll forest, margins of rainforest, woodland and heath, in sandy and loam soils, mostly on sandstone but also basalt and other substrates (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is marginal habitat for this species within the project area.
Arthraxon hispidus	hairy-joint grass	V	V	This species has been recorded from scattered locations throughout Queensland and on the northern tablelands and north coast of NSW. Hairy-joint grass is found in or on the edges of rainforest and in wet eucalypt forest, often near creeks or swamps (DAWE, 2008a).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Asplenium paleaceum	scaly asplenium	LC	-	Commonly found amongst boulders and rocks in rainforest (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Atalaya hemiglauca	whitewood	LC	-	Common on dark deep cracking soils, often associated with brigalow scrubs and poplar box woodlands (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Bosistoa transversa	three-leaved bosistoa, yellow satinheart	LC	V	This species is known from the Richmond River, New South Wales, to Mt Larcom near Gladstone Queensland. This species grows on wet sclerophyll forest, dry sclerophyll forest and rainforest up to 300 m in altitude (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Callitris baileyi	Bailey's cypress	NT	-	This species is found sporadically through southeast Queensland. The species grows on rocky slopes, hills or mountainous areas, in shallow and often clay soils. It is found in eucalypt woodland where it is commonly associated with blue gum, iron bark, and spotted gum. A small population also exists in northern New South Wales (DCCEEW, 2025).	WN	**Low -** There was one record of this species within the study area. There is no suitable habitat for this species in the project area.
Calyptochloa gracillima subsp. *ipsviciensis*	N/A	CR	-	This species is found in southeast Queensland around Ipswich. It is found in woodlands dominated by Eucalyptus species including *E. crebra* and *E. moluccana* and or *Corymbia citriodora.* It grows on loam to clay loam duplex soils on undulating to hill terrain (Thompson and Simon, 2012).	WN	**High –** There were six records of this species returned from WildNet searches as occurring within the study area. There is potentially suitable habitat within the project area.
Coleus habrophyllus	N/A	E	E	This species is only known from selected locations between Ipswich and Ormeau in southeast Queensland. The species occurs on rock outcrops of sandstone or chert in shaded situations in eucalypt woodland often close to vine forest (DAWE, 2008c).	PMST/WN	**Low -** There was one record of this species returned from WildNet searches as occurring within the study area. As this species occurs on rock outcrops of sandstone or chert, the project area does not contain suitable habitat.
Cryptostylis hunteriana	leafless tongue-orchid	LC	V	This species from Victoria to southeast Queensland. The species has been recorded in a variety of habitats including heathlands, sedgelands, *Xanthorrheoa* spp. plains, dry sclerophyll forests, forested woodlands, freshwater wetlands, grasslands, grassy woodlands, rainforest and wet sclerophyll forest (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area There is potential marginal habitat within the project area.
Cupaniopsis shirleyana	wedge-leaf tuckeroo	V	V	This species is known from south-east Queensland between Brisbane and Curtis Island. This species occurs in dry rainforest and scrubby urbanised areas on moderate to very steep slopes, scree slope gullies and rocky stream channels at elevations of 55-550 m above sea level (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Cupaniopsis tomentella	Boonah tuckeroo	V	V	This species is known from an area between Boonah and Ipswich in southeast Queensland. It grows in vine thickets predominantly on fertile clay soils and the only known occurrences of the species are confined to small isolated remnants on scree slopes and roadsides (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable vine thicket habitat within the project area.
Dichanthium setosum	bluegrass	LC	V	*Dichanthium setosum* occurs in heavy soils (predominantly cracking clays or alluvium, often in gilgai) in woodland or open woodland usually dominated by *Acacia harpophylla* (brigalow) and/or Eucalyptus spp. (Booth 2012). The species is often found in moderately disturbed areas such as cleared woodland, grassy roadside remnants and highly disturbed pasture but it is unknown if the species tolerates or benefits from disturbance, or disturbance is just indicative of threatening processes in its habitat (DCCEEW, 2025).	PMST	**Moderate -** There are no records of this species within the study area. There is limited area of disturbed vegetation on alluvium soils dominated by *Eucalyptus* spp within the project are. This could provide potential marginal habitat for this species.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
Elattostachys bidwillii	northern white tamarind	LC	-	Small tree in dry rainforest and vine thickets (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Eleocharis dulcis	water chestnut	LC	-	Grows in permanent, more or less still fresh water (Ipswich City Council, 2025).	ICC	**Known** – This species was detected within the project area.
Ficus rubiginosa forma *rubiginosa*	small leaved fig	LC	-	Commonly scattered in rocky sites on dry hills in open forest or in dry, littoral or rarely subtropical rainforest (Ipswich City Council, 2025).	ICC	**Known** – This species was detected within the project area.
Fontainea venosa	N/A	V	V	This species occurs southwest of Beenleigh near Brisbane, along the Koolkooroon Creek in the Boyne Valley, and near Littlemore, in Queensland. It occurs in Aracaurian microphyll vine forest on alluvial soil along creeks (DEWHA, 2008).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Grahamia Australiana	Grahamia	LC	-	Chiefly found in arid shrubland, usually in skeletal soils on rocky hillsides and plains. Often on exposed western rock outcrops (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Indigofera baileyi	Bailey's indigo	LC	-	Grows in open woodlands on granite or basalt soils (Ipswich City Council, 2025).	ICC	**Low –** There were three records of this species within the study area. There is no suitable habitat for this species in the project area.
Leichhardtia coronata	N/A	V		This species is endemic to south-east Queensland, occurring as far north as Gympie to the ranges forming the New South Wales – Queensland border. It grows in rainforest or moist, open forests, especially eucalypt, typically on sandstone and stony soils (TSSC, 2013).	WN	**Moderate –** There were four species returned from WN searches as occurring within the study area. There is low quality potential eucalypt habitat within the project area.
Leuzea australis	Austral cornflower, native thistle	V	V	This species is currently confined to Queensland, where its distributions extends from Allora (north of Warwick) to Callie (north-west of Biloela). This species usually grows on heavy black or red-brown clay, or clay loams derived from basalt. It is often found in association with *Eucalyptus crebra, E. orgadophila, E. populnea, E. tereticornis* and *E. melanophloia* (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Melaleuca comboyensis	cliff bottlebrush	LC	-	Grows mostly on rock outcrops and crevices above 550 m altitude; coastal ranges (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Melaleuca irbyana	swamp tea-tree	E	CE	*Melaleuca irbyana is* found from Gatton in south-east QLD, east to Brisbane and also north of Injune, south to near Casino to north-eastern NSW. This species grows in flat areas that are periodically waterlogged, in eucalypt forest, mixed forest and Melaleuca woodland with a sparse and grassy understory. It grows on poorly draining, heavy clay soils (DCCEEW, 2025).	WN	**Moderate –** There were 13 records of this species returned from WildNet as occurring within the study area. Limited marginal habitat may be present within the project area.
Melaleuca quinquenervia	broad-leaved paperbark, swamp paperbark	LC	-	Widespread in coastal swamps and around lake margins (Ipswich City Council, 2025).	ICC	**Moderate** – species was detected outside the project area incidentally during surveys. The project area contains marginal suitable habitat for this species.
Notelaea lloydii	Lloyd's native olive	V	V	This species is endemic to south-east Queensland and commonly occurs in open eucalypt forests near vine thicket, vine forests and softwood scrub. The species is usually found on shallow, stony, and rocky soils, often on steep slopes or near drainage lines (DAWE, 2008b).	PMST/WN	**Moderate –** There was one record of this species within the study area. There is no suitable habitat for this species in the project area.
Notelaea x ipsviciensis	Cooneana olive	CR	CE	This species is known from clustered sub-populations in the Ipswich area of southern Queensland. The species occurs in degraded eucalypt dominated dry sclerophyll vegetation communities, in areas of low fertility, sandstone based soil. This species prefers woodland communities with open canopies (DCCEEW, 2025).	PMST/WN/ICC	**Moderate –** Five records of this species were recorded from WildNet searches as occurring within the study area. Limited marginal habitat is present within the project area.
Picris evae	hawkweed	V	V	Hawkweed occurs north of the Inverell area in NSW, as well as at 30 sites in the Darling Downs and Moreton pastoral districts in south-east Queensland. Hawkweed occurs in Eucalyptus open woodland with a grassy understorey composed of *Dichanthium* spp. Upper stratum species include *Eucalyptus melliodora, E. crebra, E.*	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
				populnea, E. albens, Angophora subvelutina, Allocasuarina torulosa, and *Casuarina cunninghamiana*. Collections have been made along roadsides and in cultivated areas, such as paddocks, on black, dark grey or red-brown soils, reddish clay-loam or medium clay soils (DCCEEW, 2025).		
Planchonella eerwah	shiny-leaved condoo	E	E	This species is restricted to three areas of south-east Queensland: the Ipswich–Beaudesert area south-west of Brisbane; the Beenleigh–Ormeau–Pimpama area, south-east of Brisbane; and the Nambour–Maleny district on the Sunshine coast. This species occurs about 80-420 m above sea level. Populations are known to occur on a variety of soils including nutrient poor soils derived from metasediments, well drained basaltic and dark sandy loams. Populations have been recorded in Araucarian Notophyll Vine Forest, Araucarian Microphyll Vine Forest and Complex Notophyll Vine Forest (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Rhodamnia rubescens	scrub turpentine	CR	CE	Scrub turpentine is known to occur from the coastal districts of New South Wales through to Bundaberg in Queensland. The species commonly occurs in all rainforest sub forms with the exception of cool temperate rainforest. The species occupies sedimentary soil and is a common pioneer of eucalypt forest. Populations of the species are often found in wet sclerophyll associations in rainforest transition zones and creekside riparian associations (TSSC, 2020b).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Rhodomyrtus psidioides	native guava	CR	CE	Native guava is known to occur from coastal districts of New South Wales to Maryborough in Queensland. The habitat of native guava is likely to include subtropical rainforests, warm temperate rainforests, littoral rainforests, and wet sclerophyll rainforests (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Samadera bidwillii	quassia	V	V	Quassia is endemic to Queensland and is currently known to occur in lowland rainforest or on rainforest margins. The species is commonly found adjacent to permanent or temporary watercourses in locations up to 510m in altitude (DCCEEW, 2025).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Stephania renifolia	kidney leaved snake vine	LC	-	Found growing in softwood scrub, dry rainforest and vine thickets (Ipswich City Council, 2025.	ICC	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Tephrosia juncea	rush leaved tephrosia	LC	-	Locally common in northern eucalypt woodlands (Ipswich City Council, 2025).	ICC	**Moderate -** There are no records of this species within the study area. There is suitable habitat within the project area.
Thesium australe	Austral toadflax, toadflax	V	V	*Thesium australe* grows in grassland or woodland, often in damp sites. Examples of associated vegetation includes: open woodland with *Eucalyptus tereticornis* and *E. tindaliae* on skeletal soils; on heavy alluvium soil in grassy *E. populnea* woodland; on black cracking clay in grassland of *Dichanthium sericeum*; and grassland dominated by *Themeda triandra* and *Heteropogon contortus* on basaltic, rocky soils. Its current distribution is sporadic but widespread occurring between the Bunya Mountains in south-east Queensland to north-east Victoria and as far inland as the southern, central and northern tablelands in New South Wales and the Toowoomba region. It was considered extinct in Queensland prior to the 1990s, however, many more collections have been made in the state since (DoE, 2013a).	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.
Zornia floribunda	narrow leaved zornia	LC	-	Grows in grassland in dry sclerophyll forest (Ipswich City Council, 2025).	ICC	**Low -** There are no records of this species within the study area. There is marginal or low-quality habitat within the project area.
Reptiles						
Delma torquata	adorned delma, collared delma	V	V	The adorned delma is endemic to Queensland and has a fragmented and restricted distribution, largely within the western suburbs of Brisbane. The species has been recorded at: Blackdown Tableland National Park, Bullyard Conservation Park, Expedition National Park, the Bunya Mountains, D'Aguilar Range National Park, the	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.

Scientific name	Common name	NC Act	EPBC Act	Habitat and ecology	Source	Justification
				Toowoomba Range, Western Creek near Millmerran, and the Naumgna and Locker Forest Reserves (DEWHA, 2008). The species typically inhabits woodlands dominated by eucalypt and open forest where it is commonly associated with exposed rocky outcrops (DEWHA, 2008).		
Furina dunmalli	Dunmall's snake	V	V	In Queensland, Dunmall's Snake has a range that extends from the Expedition Range and Yeppoon to Glenmorgan, Oakey, and Inglewood in the south. This species is found in open forest, typically in brigalow forest and woodland growing on floodplains of clay loam soils and deep-cracking black clay (DCCEEW, 2023).	PMST	**Low -** There are no records of this species the study area. There is no suitable habitat for this species in the project area.
Hemiaspis damelii	grey snake	E	E	The distribution of the grey snake ranges from southeast Queensland to southern New South Wales (Rowland, 2012). The snake inhabits Brigalow (*Acacia harpophylla*) and Belah (*Casuarina cristata*) woodlands. In Queensland, the species habitat can also include Queensland bluegrass and/or Mitchell grass grassland on alluvial plains.	PMST	**Low -** There are no records of this species within the study area. There is no suitable habitat for this species in the project area.

EPBC Act: CE – Critically Endangered, E – Endangered, V – Vulnerable. Mi - Migratory

NC Act: CR – Critically Endangered, E – Endangered, V – Vulnerable, NT – Near threatened, SLC – special least concern, LC – Least Concern

ICC: Ipswich City Council strategic or locally significant priority species

Appendix C Species Lists

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

28 August 2025

Table 10-1 Flora Species List

Species name	Weed status^	NC Act	EPBC Act	MLES	Biosecurity Act	WoNS
Acacia concurrens		LC				
Acacia disparrima		LC				
Acacia fimbriata		LC				
Acacia leiocalyx		LC				
Achyranthes aspera		LC				
Ageratum houstonianum	W					
Alphitonia excelsa		LC				
Alstonia constricta		LC				
Alternanthera denticulata		LC				
Alternanthera nana		LC				
Angophora leiocarpa		LC				
Aristida acuta		LC				
Aristida sp.		LC				
Asparagus aethiopicus	W				Category 3	WoNS
Asparagus africanus	W				Category 3	
Axonopus compressus	W					
Axonopus fissifolius	W					
Baccharis halimifolia	W				Category 3	
Bidens pilosa	W					
Breynia oblongifolia		LC				
Bryophyllum delagoense	W				Category 3	
Callisia repens	W					
Calyptocarpus vialis	W					
Carex inversa		LC				
Casuarina cunninghamiana		LC				
Celtis sinensis	W				Category 3	
Centella asiatica		LC				
Chloris gayana	W					
Cirsium vulgare	W					
Commelina benghalensis	W					
Commelina diffusa		LC				
Cortaderia selloana	W					
Corymbia citriodora		LC				
Corymbia intermedia		LC				

Species name	Weed status^	NC Act	EPBC Act	MLES	Biosecurity Act	WoNS
Corymbia tessellaris		LC				
Corymbia torelliana		LC				
Crotalaria lanceolata	W					
Cupaniopsis anacardioides		LC				
Cuphea carthagenensis	W					
Cynodon dactylon	W					
Cyperus distans		LC				
Cyperus gracilis		LC				
Cyperus polystachyos	W					
Dianella caerulea		LC				
Dichanthium aristatum	W					
Digitaria didactyla		LC				
Dodonaea triquetra		LC				
Dyschoriste depressa	W					
Echinopogon nutans		LC				
Eclipta platyglossa		LC				
Eclipta prostrata		LC				
Eleocharis dulcis		LC		Yes		
Eleusine tristachya	W					
Emilia sonchifolia	W					
Eragrostis brownii		LC				
Erigeron sumatrensis	W					
Eucalyptus crebra		LC				
Eucalyptus tereticornis		LC				
Eustrephus latifolius		LC				
Ficus benjamina		LC				
Ficus microcarpa		LC				
Ficus opposita		LC				
Ficus rubiginosa		LC		Yes		
Fimbristylis dichotoma		LC				
Gahnia aspera		LC				
Gahnia sieberiana		LC				
Geitonoplesium cymosum		LC				
Glochidion ferdinandi		LC				
Glycine sp. 1		LC				

Species name	Weed status^	NC Act	EPBC Act	MLES	Biosecurity Act	WoNS
Glycine tabacina		LC				
Gomphocarpus physocarpus	W					
Gomphrena celosioides	W					
Grevillea sp. 'Honey Gem'		LC				
Imperata cylindrica		LC				
Ipomoea alba	W					
Juncus usitatus		LC				
Lantana camara	W				Category 3	
Lantana montevidensis	W				Category 3	
Leersia hexandra		LC				
Lobelia concolor		SLC				
Lobelia purpurascens		SLC				
Lobelia stenophylla		SLC				
Lomandra confertifolia		LC				
Lomandra filiformis subsp. *filiformis*		LC				
Lomandra longifolia		LC				
Lomandra multiflora		LC				
Lophostemon confertus		LC				
Lophostemon suaveolens		LC				
Ludwigia octovalvis		LC				
Ludwigia peploides	W					
Macroptilium atropurpureum	W					
Macroptilium lathyroides	W					
Megathyrsus maximus var. maximus	W					
Melaleuca linariifolia		LC				
Melaleuca quinquenervia		LC		Yes		
Melaleuca viminalis		LC				
Melinis repens	W					
Murdannia graminea		LC				
Murraya koenigii	W					
Murraya paniculata	W					
Myoporum acuminatum		LC				
Nymphaea violacea		SLC				
Nymphoides indica		SLC				

Species name	Weed status^	NC Act	EPBC Act	MLES	Biosecurity Act	WoNS
Opuntia tomentosa	W				Category 3	WoNS
Parsonsia straminea		LC				
Paspalum urvillei	W					
Passiflora suberosa	W					
Passiflora subpeltata	W					
Persicaria attenuata	W					
Persicaria decipiens		LC				
Philydrum lanuginosum		LC				
Phyllanthus virgatus		LC				
Pigea stellarioides		LC				
Plantago lanceolata	W					
Poaceae sp. 1		LC				
Poaceae sp. 2		LC				
Portulaca pilosa	W					
Praxelis clematidea	W					
Rivina humilis	W					
Sacciolepis indica		LC				
Schoenoplectiella mucronata		LC				
Schoenoplectus tabernaemontani		LC				
Senecio madagascariensis	W				Category 3	WoNS
Senna pendula	W					
Setaria sphacelata	W					
Sida cordifolia	W					
Sida rhombifolia	W					
Solanum mauritianum	W					
Solanum nigrum	W					
Solanum seaforthianum	W					
Sorghum halepense	W					
Sporobolus natalensis	W					
Sporobolus pyramidalis	W				Category 3	
Syagrus romanzoffiana	W					
Symphyotrichum subulatum	W					
Tephrosia sp.		LC				
Typha orientalis	W					

Species name	Weed status^	NC Act	EPBC Act	MLES	Biosecurity Act	WoNS
Urochloa decumbens	W					
Verbena bonariensis	W					
Verbena litoralis	W					

^ weed status: w = exotic species

NC Act listing: LC = least concern, SLC = special least concern

Table 10-2 Fauna Species List

Scientific name	Common name	NC Act	EPBC Act	MLES
Alisterus scapularis	Australian king-parrot	LC	-	
Gymnorhina tibicen	Australian magpie	LC	-	
Chenonetta jubata	Australian wood duck	LC	-	
Pogona barbata	bearded dragon	LC	-	
Milvus migrans	black kite	LC	-	
Coracina novaehollandiae	black-faced cuckoo-shrike	LC	-	
Elanus axillaris	black-shouldered kite	LC	-	
Entomyzon cyanotis	blue-faced honeyeater	LC	-	
Synoicus ypsilophorus	brown quail	LC	-	
Bubulcus ibis	cattle egret	LC	-	
Trichosurus vulpecula	common brushtail possum	LC	-	
*Acridotheres tristis**	common myna	LC	-	
Ocyphaps lophotes	crested pigeon	LC	-	
Macropus giganteus	eastern grey kangaroo	LC	-	
Oryctolagus cuniculus	European rabbit	LC	-	
Eolophus roseicapilla	galah	LC	-	
Cracticus torquatus	grey butcherbird	LC	-	
Pteropus poliocephalus	grey-headed flying-fox	LC	V	
Hemidactylus frenatus	house gecko	LC	-	
Dacelo novaeguineae	laughing kookaburra	LC	-	
Cacatua sanguinea	little corella	LC	-	
Philemon citreogularis	little friarbird	LC	-	
Microcarbo melanoleucos	little pied cormorant	LC	-	
Grallina cyanoleuca	magpie-lark	LC	-	
Vanellus miles	masked lapwing	LC	-	
Falco cenchroides	nankeen kestrel	LC	-	
Manorina melanocephala	noisy miner	LC	-	
Anas superciliosa	Pacific black duck	LC	-	

Scientific name	Common name	NC Act	EPBC Act	MLES
Centropus phasianinus	pheasant coucal	LC	-	
Cracticus nigrogularis	pied butcherbird	LC	-	
Porphyrio melanotus	purple swamphen	LC	-	
Trichoglossus moluccanus	rainbow lorikeet	LC	-	
Trichoglossus chlorolepidotus	scaly-breasted lorikeet	LC	-	
Threskiornis spinicollis	straw-necked ibis	LC	-	
Cacatua galerita	sulphur-crested cockatoo	LC	-	
Malurus cyaneus	superb fairy-wren	LC	-	
Cincloramphus timoriensis	tawny grassbird	LC	-	
Corvus orru	Torresian crow	LC	-	
Hirundo neoxena	welcome swallow	LC	-	

NC Act listing: LC = least concern

EPBC Act listing: V = vulnerable

*=invasive species

Appendix D Regional Ecosystem Verification Survey Results

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

28 August 2025

Table 3 Flora survey results site F1

Attribute		Description
Site		F1
Coordinates		-27.6572498267, 152.777976549
Survey type		Quaternary
Mapped RE		HVR 12.9-10.2/12.9-10.7/12.9-10.16
Ground-truthed RE		HVR 12.9-10.2
VM Act class		Of Concern
Canopy (T1) layer	Species	*Blakella citriodora, Eucalyptus crebra*
	Height (m)	12 m
Sub canopy (T2) layer	Species	*Acacia disparrima* subsp. *disparrima, Blakella citriodora, Acacia leiocalyx*
	Height (m)	6 m
Shrub layer		*Lantana camara*, Solanum mauritianum**
Ground layer		*Megathyrsus maximus**
 North		 East
 South		 West

*Introduced species.

Table 4 Flora survey results site F2

Attribute	Description
Site	F2

Attribute	Description
Coordinates	-27.6626144313264, 152.781078214983
Survey type	Quaternary
Mapped RE	Non-remnant
Ground-truthed RE	Non-remnant within project area (vegetation to the east is regrowth).
VM Act class	Non-remnant
Canopy (T1) layer	*Angophora leiocarpa*
Sub canopy (T2) layer	*Acacia disparrima* subsp. *disparrima*
Ground layer	*Urochloa decumbens**
 North	 East
 South	 West

*Introduced species.

Table 5 Flora survey results site F3

Attribute	Description
Site	F3
Coordinates	-27.6642956910913, 152.781334351891
Survey type	Tertiary
Soil, landzone	Sandstone, sedimentary rock (landzone 9-10).
Slope	Gentle incline (3-6°)
Landform	Upper slope

Attribute		Description
Mapped RE		Non-remnant
Ground-truthed RE		Remnant RE 12.9-10.2
VM Act class		Least concern
Canopy (T1) layer	Species	*Blakella citriodora*
	Cover	Mid-dense (50-80%)
	Height (m)	20
Sub canopy (T2) layer	Species	*Eucalyptus tereticornis, Corymbia intermedia, Acacia disparrima* subsp. *disparrima*
	Cover	Mid-dense (50-80%)
	Height (m)	15
Shrub layer	Species	*Acacia disparrima* subsp. *disparrima*, *Alphitonia excelsa, Alstonia constricta, Celtis sinensis*, Lantana camara**
	Cover	Sparse (20-50%)
	Height (m)	3
Ground layer	Species	*Megathyrsus maximus*, Asparagus aethiopicus*, Lantana montevidensis*, Lomandra filiformis* subsp. *filiformis, Passiflora subpeltata*, Dianella caerulea, Lomandra multiflora*
	Cover	Sparse (20-50%)
	Height (m)	0.7
Weed cover		75%
Disturbances		Fire scars, rubbish



North



East





Attribute	Description
South	West

*Introduced species.

Table 6 Flora survey results site F4

Attribute		Description
Site		F4 (assessed from the road, no access to Lot 348S3173)
Coordinates		-27.6672892151334, 152.78322
Survey type		Tertiary
Soil, landzone		Sandy soil, sedimentary rock (landzone 9-10)
Slope		Very gentle (1-2◦)
Landform		Lower slope
Mapped RE		HVR 12.9-10.2/12.9-10.7/12.9-10.16
Ground-truthed RE		Remnant RE 12.9-10.7
VM Act class		Of concern
Canopy (T1) layer	Species	*Eucalyptus tereticornis, Eucalyptus crebra*
	Cover	Mid dense (50-80%)
	Height (m)	18
Sub canopy (T2) layer	Species	*Blakella tessellaris, Acacia disparrima* subsp. *disparrima, Alphitonia excelsa*
	Cover	Mid dense (50-80%)
	Height (m)	12
Shrub layer	Species	*Acacia disparrima* subsp. *disparrima*, *Lantana camara*,
	Cover	Sparse (20-50%)
	Height (m)	3
Ground layer	Species	*Chloris gayana*, Melinis repens*, Imperata cylindrica*
	Cover	Dense (>80%)
	Height (m)	0.5
Weed cover		15%
Disturbances		Vehicle track, fence, rubbish

Attribute	Description
 North	 East
 South	 West

*Introduced species.

Table 7 Flora survey results site F5

Attribute		Description
Site		F5
Coordinates		-27.6717931037111, 152.784462051864
Survey type		Quaternary
Mapped RE		Non-remnant
Ground-truthed RE		Non-remnant
VM Act class		Non-remnant
Canopy (T1) layer		*Absent*
Sub canopy (T2) layer		*Absent*
Ground layer	Species	*Setaria sphacelata*, Chloris gayana**
	Cover	Dense (>80%)
	Height (m)	1.25

Attribute	Description
 North	 East
 South	 West

*Introduced species.

Table 8 Flora survey results site F6

Attribute		Description
Site		F6
Coordinates		-27.6736041770103, 152.785323297712
Survey type		Tertiary
Geology, landzone		Clay loam soil, alluvial (landzone 3)
Slope		Very gentle slope to the east (1-2◦)
Landform		Stream
Mapped RE		Non-remnant
Ground-truthed RE		Regrowth RE 12.3.3
VM Act status		Endangered
Canopy (T1) layer	Species	*Eucalyptus tereticornis*, *Eucalyptus crebra*
	Cover	Mid dense (50-80%)
	Height (m)	22
Sub canopy (T2) layer	Species	*Eucalyptus tereticornis*, *Angophora leiocarpa*, *Corymbia intermedia, Parsonsia straminea*
	Cover	Very sparse (0.25-20%)

Attribute		Description
	Height (m)	10
Shrub layer	Species	*Acacia leiocalyx*, *Lantana camara**, *Lophostemon suaveolens*, *Blakella tessellaris, Alphitonia excelsa*, *Baccharis halimifolia**.
	Cover	Sparse (20-50%)
	Height (m)	2
Ground layer	Species	*Megathyrsus maximus* var. *maximus**, *Setaria sphacelata**, *Cynodon dactylon*, *Bidens pilosa**, *Bryophyllum delagoense**, *Chloris gayana**, *Eclipta prostrata**, *Dichanthium aristatum**, *Lomandra confertifolia*, *Cyperus polystachyos**, *Cyperus gracilis*, *Emilia sonchifolia*, *Centella asiatica*, *Dianella caerulea*, *Murdannia graminea*, *Melinis repens**, *Fimbristylis dichotoma*, *Poaceae* sp., *Sporobolus natalensis**, *Poaceae* sp. 2, *Eragrostis* sp., *Verbena bonariensis**, *Lobelia concolor*, *Sida cordifolia**, *Phyllanthus virgatus*, *Ludwigia octovalvis*, *Glycine* sp., *Eleocharis dulcis*, *Lobelia purpurascens*, *Dyschoriste depressa**, *Plantago lanceolata**, *Tephrosia* sp., *Cuphea carthagenensis**, *Ipomoea alba**, *Calyptocarpus vialis**, *Juncus usitatus*, *Macroptilium lathyroides**, *Cyperus distans, Apium prostratum*, *Alternanthera* sp., *Glycine* tabacina, *Gomphrena celosioides**, *Cupaniopsis anacardioides*, *Commelina diffusa**, *Carex inversa*, *Symphyotrichum subulatum**, *Aristida* sp., *Sacciolepis indica*
	Cover	Mid dense (50-80%)
	Height (m)	1.75
Weed cover (%)		74%
Disturbances		Vehicle track, fence, rubbish, timber-cutting
 North		 East

Attribute	Description
 South	 West

Table 9 Flora survey results site F8

Attribute		Description
Site		F8 (assessed from the road, no access to Lot 359S3173)
Coordinates		-27.6755552222845, 152.788484360768
Survey type		Tertiary
Soil, landzone		Brown loamy clay soil, Sedimentary (landzone 9-10)
Slope		Very gentle (1-2◦)
Landform		Mid slope
Mapped RE		Non-remnant
Ground-truthed RE		remnant 12.9-10.7
VM Act class		Of concern
Canopy (T1) layer	Species	*Eucalyptus crebra, Eucalyptus tereticornis*
	Cover	Mid dense (50-80%)
	Height (m)	20
Sub canopy (T2) layer	Species	*Eucalyptus crebra, Eucalyptus tereticornis, Blakella tessellaris*
	Cover	Mid dense (50-80%)
	Height (m)	8
Shrub layer	Species	*Acacia concurrens, Acacia leiocalyx, Blakella tessellaris, Eucalyptus crebra, Lantana camara**
	Cover	Very sparse (0.25-20%)
	Height (m)	1.75
Ground layer	Species	Chloris gayana*, Melinis repens*
	Cover	Dense (>80%)
	Height (m)	1
Weed cover		50%

Attribute	Description
Disturbances	Vehicle track, fence, rubbish, timber-cutting
 North	 East
 South	 West

*Introduced species.

Table 10 Flora survey results site F9

Attribute		Description
Site		F9
Coordinates		-27.675791164711, 152.7886432
Survey type		Quaternary
Mapped RE		Non-remnant
Ground-truthed RE		Remnant 12.9-10.7
VM Act class		Of concern
Canopy (T1) layer	Species	*Eucalyptus crebra, Blakella citriodora*
	Height (m)	16.5
Sub canopy (T2) layer		*Blakella tessellaris*
Shrub layer		*Acacia leiocalyx, Acacia disparrima* subsp. *disparrima*
Ground layer		*Megathyrsus maximus**

Attribute	Description
 North	 East
 South	 West

*Introduced species.

Table 11 Flora survey results site F10

Attribute		Description
Site		F10
Coordinates		-27.6699386971068, 152.789849060015
Survey type		Quaternary
Soil, landzone		Sandy loam, sedimentary rock (landzone 9-10)
Slope		Very gentle (1-2◦)
Landform		Lower slope
Mapped RE		HVR 12.9-10.2/12.9-10.7/12.9-10.16
Ground-truthed RE		Remnant RE 12.9-10.2
VM Act status		Least concern
Canopy (T1) layer	Species	*Blakella citriodora, Eucalyptus tereticornis*
	Cover	Mid-dense (50-80%)
	Height (m)	20
Sub canopy (T2) layer	Species	*Alphitonia excelsa, Angophora leiocarpa, Corymbia intermedia, Blakella tessellaris, Blakella torelliana, Eucalyptus crebra, Lophostemon suaveolens, Parsonsia straminea*

Attribute		Description
	Cover	Mid-dense (50-80%)
	Height (m)	15
Shrub layer	Species	*Acacia disparrima subsp. disparrima, Acacia leiocalyx, Breynia oblongifolia, Cupaniopsis anacardioides, Dodonaea triquetra, Lantana camara*, Murraya paniculata*,*
	Cover	Sparse (20-50%)
	Height (m)	4
Ground layer	Species	*Megathyrsus maximus*, Aristida acuta, Achyranthes aspera*, Ageratum houstonianum*,Alternanthera nana, Asparagus Aethiopicus*, Asparagus africanus*, Bidens pilosa*, Calyptocarpus vialis*, Commelina benghalensis*, Commelina diffusa, Cuphea carthagenensis*, Sporobolus pyramidalis*,*
	Cover	Sparse (20-50%)
	Height (m)	0.5



North



East



South



West

*Introduced species.

Table 12 Flora survey results site F13

Attribute	Description
Site	F13
Coordinates	-27.6682184878107, 152.789944296134
Survey type	Incidental
Mapped RE	Non-remnant
Ground-truthed RE	Non-remnant within project area, vegetation present to the east of the project area may be remnant RE 12.9-10.2.
VM Act class	Non-remnant
Notes	Vegetation within project area is regularly mown lawn. Vegetation to the east of project area includes *Eucalyptus crebra, Eucalyptus tereticornis* and *Corymbia intermedia*.
 North	 East
 South	 West

Table 13 Flora survey results site F14

Attribute	Description
Site	F14
Coordinates	-27.6676778680884, 152.790042388326
Survey type	Incidental
Mapped RE	Non-remnant

Attribute	Description
Ground-truthed RE	Non-remnant within project area, vegetation present to the east of the project area may be remnant RE 12.9-10.2.
VM Act class	Non-remnant
Notes	Vegetation within project area is regularly mown lawn. Vegetation to the east of project area includes *Eucalyptus crebra, Eucalyptus tereticornis* and *Corymbia intermedia*.
 North	 East
 South	 West

Table 14 Flora survey results site F15

Attribute	Description
Site	F15
Coordinates	-27.6645911572781, 152.790429350215
Survey type	Tertiary
Soil, landzone	Sandy loam, sedimentary (landzone 9-10)
Slope	Gentle (3-6°)
Landform	Upper slope
Mapped RE	Remnant 12.9-10.2/12.9-10.7/12.9-10.16
Ground-truthed RE	Remnant 12.9-10.2
VM Act status	Least concern

Attribute		Description
Canopy (T1) layer	Species	*Eucalyptus tereticornis, Corymbia intermedia*
	Cover	Mid dense (50-80%)
	Height (m)	20 m
Sub canopy (T2) layer	Species	*Angophora leiocarpa, Acacia disparrima* subsp. *disparrima*
	Cover	Sparse (20-50%)
Shrub layer	Species	*Breynia oblongifolia*
	Cover	Very sparse (0.25-20%)
Ground layer	Species	*Megathyrsus maximus* Melinis repens**
	Cover	Mid dense (50-80%)



North



East



South



West

*Introduced species.

Appendix E Protected Plant Flora Survey Report

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

28 August 2025

SLR

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

Prepared by:

SLR Consulting Australia

SLR Project No.: 620.041764.00008

Client Reference No.: 2.0

22 August 2025

Revision: V2.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
1.0	24 June 2025	Lucas Wilson	Natalie Toon	Natalie Toon
2.0	22 August 2025	Emily Hancock	Leigh Knight	Natalie Freeman

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Ipswich City Council (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

Certification of a suitably qualified person

As a suitably qualified person under section 4.2 of the Flora Survey Guidelines – Protected Plants version 2.03 (DETSI, 2025), detailed in the table below, I certify that:

a) I have adhered to all statutory requirements and flora survey guideline requirements.

b) In the area surveyed I have found plants (as detailed in this report) that are currently listed as extinct, extinct in the wild, critically endangered, endangered, vulnerable or near threatened in the Nature Conservation (Plants) Regulation 2020.

c) The flora survey report is an accurate and full account of the flora survey.

Full name	Lucas Wilson
Signature	
Date signed	22/08/2025

Documentation to support a suitably qualified person

A suitably qualified person is—

a) A person who has 100 points or more, according to the self-assessment grading system in Table 1 below.

b) A person whom the chief executive has agreed in writing is a suitably qualified person, due to the person possessing a very high standard of appropriate skills and/or experience.

As per the table below, I am a suitably qualified person as I have more than 100 points according to the self-assessment grading system. A copy of my CV is included in Appendix A.

Suitably qualified person self-assessment grading system

Qualification and experience	Conditions	Points	Details
A relevant qualification from a recognised institution (e.g. University, TAFE) that results in a thorough knowledge of plant identification and flora surveys.	General training (not Australia or Qld focussed) OR	30	Cert III in Conservation Land Management, Conservation Skills Centre Bachelor of Environmental Science, Griffith University
	Australian focussed training OR	40	
	Qld focussed training	**50**	
Regional ecosystem training by a recognised and qualified institution, such as the Queensland Herbarium		**5**	BioCondition and Regional Ecosystem Training, Oberonia Pty Ltd
Member of a recognised group / certificate program relevant to ecology/botany, where skills/knowledge are demonstrated to be		5	

Qualification and experience	Conditions	Points	Details
granted membership. E.g. Certified Environmental Practitioner Program			
Lead author of articles/papers published in peer reviewed journals in relation to Qld flora surveys, Qld plant identification, or Qld threatened plants or near threatened plants	10 points per paper to a maximum of 50 points		
Experience within the last 2 years and a total of at least 5 years at leading flora surveys in a field-based environment at a rate of no less than 5 comprehensive botanical surveys that focus on locating and identifying threatened plant or near threatened plants, per year.	General (not Australian based) OR	40	Seven years leading field- based flora surveys in NSW, Qld and NT. See CV in Appendix A for details of surveys over the last two years.
	Australian based survey experience OR	**50**	
	Queensland based survey experience	60	
Number of plant specimens you have collected that have been retained/incorporated into the Queensland Herbarium collection.	5 points per 5 plant specimens retained/incorporated, to a maximum of 40 points	5	
Total		**105**	Meets the requirements of a suitably qualified person (greater than 100 points in the self-assessment grading system)

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Appendix B **Protected plant trigger area map**

Appendix C **GIS Shapefiles**

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Acronyms and Abbreviations

CIA	Clearing impact area
DETSI	Department of Environment, Tourism, Science and Innovation
EVNT	Critically endangered, endangered, vulnerable or near-threatened
Guidelines	Flora Survey Guidelines—Protected Plants version 2.01 (DES, 2020)
ICC	Ipswich City Council
RE	Regional ecosystem
Regulations	Nature Conservation (Plants) Regulation 2020
SLR	SLR Consulting Pty Ltd
TMS	Timed meander survey

1.0 Introduction

BG&E Pty Limited engaged SLR Consulting Pty Ltd (SLR) to conduct a Protected Plants Flora Survey for the proposed Ripley Road & Fischer Road upgrade at Ripley, an outer suburb of the Ipswich City Council (ICC) local government area. The Project will see the construction of approximately 4.2 km of road and associated ancillary structures along the existing alignment. In some areas the road corridor will be widened, resulting in the removal of a small area of native vegetation included on the protected plants flora survey trigger map. The project area and trigger mapping are shown in Figure 1.

Approximately 0.055 ha of the project area and proposed clearing area is mapped as high-risk for protected plants (a high-risk area) on the flora survey trigger map provided by the Department of Environment, Tourism, Science and Innovation (DETSI). Refer to Figure 2. The high-risk area identifies those areas where critically endangered, endangered, vulnerable or near-threatened plants (EVNT) are known or are considered likely to occur. Vegetation clearing within these areas must meet Chapter 6 of the Nature Conservation (Plants) Regulation 2020 (the Regulations).

Under Chapter 6, assessment is required, in accordance with the Flora Survey Guidelines—Protected Plants version 2.03 (DETSI 2025), hereafter referred to as 'the Guidelines'. The Guidelines state that "the extent of an area to be surveyed is the clearing impact area, which includes both the 'area to be cleared' (to the extent it is within a high risk area) and a 'buffer zone' (that is an additional area of 100 m in width around boundary of the area, or less than 100 m if agreed by the chief executive)''. The clearing impact area will herein be referred to as CIA and is shown in Figure 2.

This flora survey report addresses the requirements of Chapter 6 of the Regulations and the Guidelines.

The field survey was conducted in accordance with the guidelines and did not record any flora species listed as EVNT under the Regulations within the CIA.

1.1 Location and study area description

The project area is located along Ripley Road and Fischer Road, in Ripley approximately 4.5 km south of Ipswich in the southeast Queensland Bioregion (Figure 1). The broader landscape is largely urban, and comprised mostly of residential dwellings, commercial buildings, as well as scattered patches of remnant vegetation. Ripley Road joins the Cunningham Highway at the north of the project area.

Table 1 provides the central geographic coordinates and extent of the clearing area that lies within the mapped protected plants flora trigger area. Figure 2 shows the clearing area within the high-risk area and the 100 m buffer (the 'CIA').

Table 1 Size and location of clearing area

Latitude	Longitude	Location	Clearing extent within the high-risk area (ha)
-27.671236	152.784510	Ripley Road and Fischer Road, Ripley, Ipswich	0.055

1.2 Reporting requirements

Section 7.2 of the Guidelines detail the reporting requirements for a flora survey report for clearing within vegetation mapped as a high-risk area. These requirements are outlined in Table 2.

Table 2 Reporting requirements under Section 7.2 of the Guidelines

Reporting requirement	Sections within this report
Suitably qualified person • Full name and signature of suitably qualified person, and date of signing • Certification of suitably qualified person • Documentation to support they are suitably qualified	Page ii, iii, and Appendix A.
Extent of the area to be surveyed	
A detailed map or plan of the area, showing the area to be cleared, the buffer zone, properties included and excluded from the survey area.	A map of the area to be cleared, the buffer zone and the included and excluded properties are shown in Figure 2. The buffer zone is identified as the CIA.
Justification/s for removing any area/s from the buffer zone under Section 134(2), or Section 5.2 of this Guideline.	Areas excluded from the survey are justified in Section 2.1 and shown in Figure 2. A summary of landholder contact information is provided in Table 3.
A GIS shapefile showing the area to be cleared, the clearing impact area and the extent of the on-ground surveys undertaken.	GIS shapefiles showing the area to be cleared, included and excluded clearing impact area, and survey tracks showing the extent of on-ground surveys are identified in Appendix C..
Flora survey methods and findings	
The lists compiled during desktop assessment of habitat types and EVNT plants that may occur in these habitat types.	Section 2.2 A WildNet species list for a 5 km buffer around the project area is shown in Appendix D
The flora survey method selected and justification that the method was appropriately comprehensive considering the lists compiled during desktop assessment.	The timed meander survey was selected (Section 3.2). Methods and survey effort are justified in Section 3.2.
A detailed map or plan of the area, showing the habitat types, the location of EVNT plants and possible EVNT plants found.	A detailed map of the habitat types is shown in Figure 2. GIS shapefiles of habitat types in the CIA are identified in Appendix C. The route taken during each TMS is mapped in Figure 3. No EVNT plants were identified.
A copy of the WildNet data entry form that was submitted to WildNet@science.dsitia.qld.gov.au, including all identified EVNT plants.	No EVNT plants were identified.
Details from EVNT population/plot surveys for each EVNT plant and possible EVNT plant found.	No EVNT plants were identified.
A description of all possible EVNT plants found, including their supporting habitat.	No possible EVNT plants were identified.

Reporting requirement	Sections within this report
Justification of the timing of the flora survey and detail of any limitations associated with the timing of the survey.	Section 2.2.2.
Justification for any alternative plot size used.	Not applicable, no alternative plot/application processes used.
Other	
The date or dates any clearing is proposed to occur.	To be advised



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 25 50 m

Coordinate System:	ICC Terrain 2001
Scale:	1:2,000 at A4
Project Number:	620.041764
Date Drawn:	21-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Project Area
- Protected Plants High-Risk Trigger Area

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE FLORA SURVEY REPORT

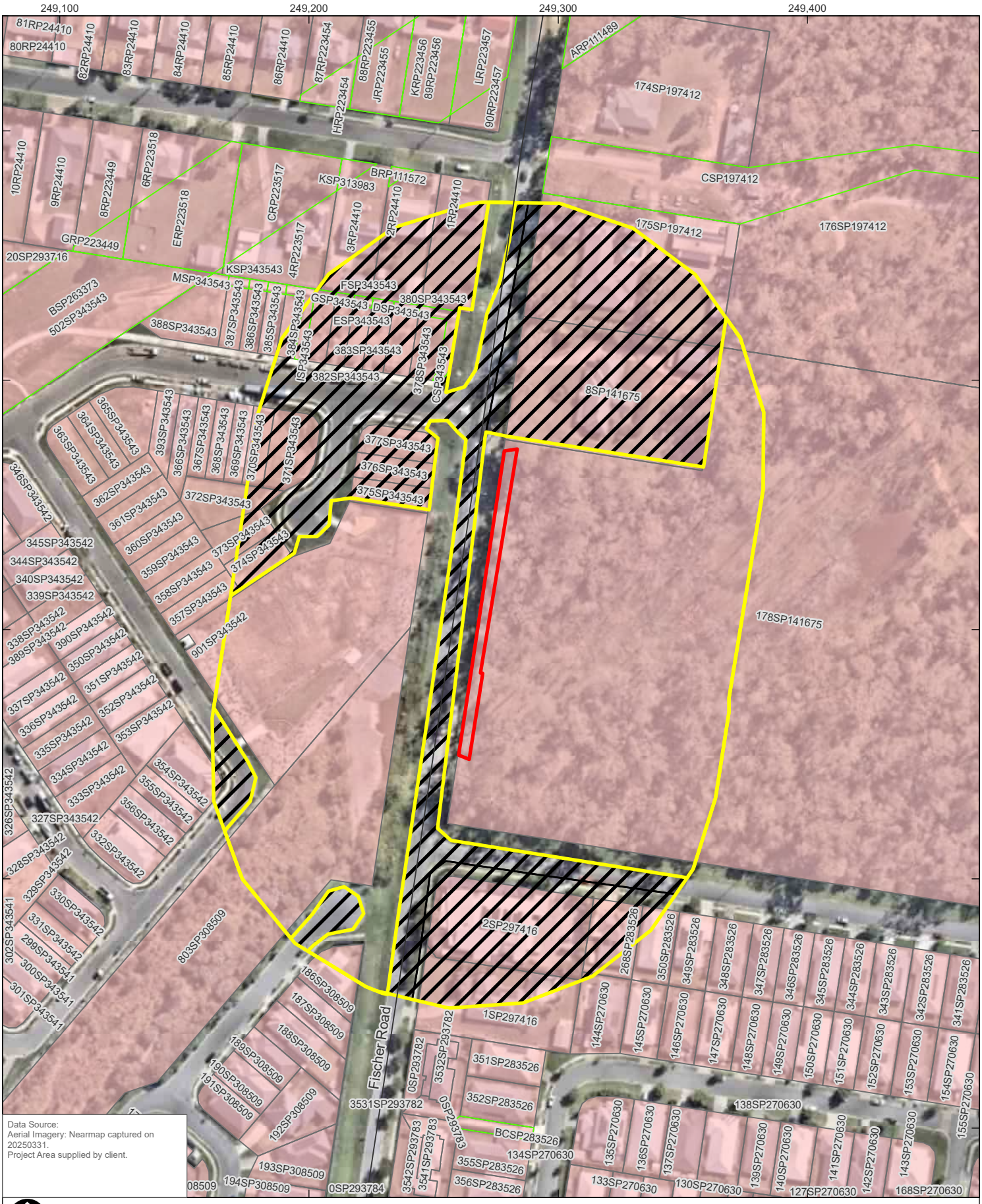
PROJECT AREA AND HIGH-RISK TRIGGER MAPPING

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 1

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_FSR_F01_Project Area and High-Risk Trigger Mapping



0 25 50 m

Coordinate System:	ICC Terrain 2001
Scale:	1:2,000 at A4
Project Number:	620.041764
Date Drawn:	21-Aug-2025
Drawn by:	RB

LEGEND

- Road
- Clearing Area

CIA

- Excluded
- Included

Land Tenure

- Easement
- Freehold

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE FLORA SURVEY REPORT

CLEARING AREA AND CIA

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 2

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_FSR_F02_Clearing Area and Clearing Impact Area

2.0 Methods

2.1 Extent of area to be surveyed

The Guidelines define the extent of the area to be surveyed as the CIA, which incorporates:

- the area to be cleared (to the extent that it is within a high-risk area for protected plants)
- a buffer zone of 100 m around the area to be cleared (to the extent that it is within a high-risk area for protected plants).

The entire CIA is 5.74 ha and contains freehold properties and road reserve (Table 3). In accordance with Section 134 of the Regulations and the Guidelines, the chief executive authorises a reduced buffer zone where:

- landholder consent cannot be obtained despite all reasonable attempts the property is less than 1,000 m^2 and contains a permanent building
- the area is a highly modified environment e.g. road, impervious surface, regularly mowed, slashed or ploughed
- the chief executive agrees that a 100 m buffer is not reasonably practical.

Table 3 lists all properties within the CIA buffer, and justification for any exclusion from the survey. A total of 28 properties were excluded due to being highly modified and one property was excluded due to lack of landholder consent.

Table 3 Properties within 100 m buffer and survey justification

Lot/Plan	Tenure	Area of property (ha)	Surveyed (Yes/No)	Justification/Comment
Fischer Rd	Road Parcel	0.822	Yes	All vegetation surveyed. Sealed or denuded surfaces excluded
Blackstone Crescent	Road Parcel	0.074	Yes	All vegetation surveyed. Sealed or denuded surfaces excluded
Daisy Street	Road Parcel	0.151	No	Highly modified: road and regularly mowed lawn.
Ebony Close	Road Parcel	0.07	Yes	All vegetation surveyed. Sealed or denuded surfaces excluded
Goldleaf Court	Road Parcel	0.116	No	Highly modified: road and regularly mowed lawn.
Nevis Road	Road Parcel	0.194	Yes	All vegetation surveyed. Sealed or denuded surfaces excluded
178SP141675	Freehold	1.713	Yes	-
901SP343542	Freehold	0.542	Yes	-
8SP141675	Freehold	0.400	No	Highly modified: Residential. Slashed/mown
803SP308509	Drainage Reserve	0.393	Yes	-
175SP197412	Freehold	0.280	No	Highly modified: Residential. Slashed/mown

Lot/Plan	Tenure	Area of property (ha)	Surveyed (Yes/No)	Justification/Comment
2SP297416	Freehold	0.208	No	Highly modified. Childcare centre.
1SP297416	Freehold	0.093	No	Access Denied: Landowner did not give consent
1RP24410	Freehold	0.081	No	Highly modified: Residential. Slashed/mown
2RP24410	Freehold	0.061	No	Highly modified: Residential. Slashed/mown
371SP343543	Freehold	0.056	No	Highly modified: Construction site. No vegetation
357SP343543	Freehold	0.002	No	Highly modified: Construction site. No vegetation
268SP283526	Freehold	0.050	No	Highly modified: Residential. Slashed/mown
144SP270630	Freehold	0.002	No	Highly modified: Residential. Slashed/mown
354SP343542	Freehold	0.004	No	Highly modified: Construction site. No vegetation
378SP343543	Freehold	0.044	No	Highly modified: Construction site. No vegetation
377SP343543	Freehold	0.036	No	Highly modified: Construction site. No vegetation
376SP343543	Freehold	0.032	No	Highly modified: Construction site. No vegetation
375SP343543	Freehold	0.032	No	Highly modified: Construction site. No vegetation
379SP343543	Freehold	0.030	No	Highly modified: Construction site. No vegetation
3RP24410	Freehold	0.028	No	Highly modified: Residential. Slashed/mown
374SP343543	Freehold	0.03	No	Highly modified: Construction site. No vegetation
380SP343543	Freehold	0.025	No	Highly modified: Construction site. No vegetation
383SP34354	Freehold	0.025	No	Highly modified: Construction site. No vegetation
381SP34354	Freehold	0.022	No	Highly modified: Construction site. No vegetation
382SP343543	Freehold	0.022	No	Highly modified: Construction site. No vegetation
370SP343543	Freehold	0.022	No	Highly modified: Construction site. No vegetation
384SP343543	Freehold	0.018	No	Highly modified: Construction site. No vegetation

Lot/Plan	Tenure	Area of property (ha)	Surveyed (Yes/No)	Justification/Comment
186SP308509	Freehold	0.019	No	Highly modified: Residential. Slashed/mown
373SP34354	Freehold	0.016	No	Highly modified: Construction site. No vegetation
350SP283526	Freehold	0.008	No	Highly modified: Residential. Slashed/mown
372SP343543	Freehold	0.011	No	Highly modified: Construction site. No vegetation
176SP197412	Freehold	0.005	No	Highly modified: Residential. Slashed/mown

Approximately 2.47 ha was excluded from the CIA for the reasons described above. The remaining 3.27 ha (referred to as the included CIA) was surveyed for protected plants. Excluded and included areas within the CIA are shown in Figure 2.

2.2 Desktop assessment

The desktop assessment involved a review of relevant mapping, databases, legislation and associated plans and policies to identify potential matters of ecological significance including species and communities, other ecological features that may occur on or near the project area, and to inform survey methods and effort. The following information was reviewed:

- Flora Survey Trigger Map (DETSI 2025b)
- Queensland Government WildNet database – 5 km buffer around central co-ordinates (-27.97254, 153.35343) (DETSI 2025a)
- Regional Ecosystem (RE) mapping of the CIA and surrounding areas (extant and preclear)
- RE description database to describe REs within the CIA (Queensland Herbarium, 2025)
- Information on EVNT flora including botanical texts, journal, websites and databases (DCCEW2024, DESI 2024, Harden et al. 2014, Leiper et al. 2023)
- Inspection of aerial imagery from Google Maps, Queensland Globe, Nearmaps and QImagery
- Other relevant Queensland state government mapping overlays.

2.2.1 Habitat types within the CIA

The CIA is mapped as containing areas of high value regrowth vegetation to the east of Fischer Road. This vegetation has been assigned to a preclear mosaic polygon consisting of RE 12.9-10.2/12.9-10.7/12.9-10.16 at a ratio of 70, 25 and 5 percent. The remainder of the CIA was mapped as non-remnant having been cleared more recently and containing bare soil, planted stormwater infrastructure and residential garden/lawns.

REs and non-remnant habitat types mapped within the CIA are described in Table 4.

Table 4 REs mapped within the CIA and ground-truthed extent

RE	Description	Confirmed during surveys	Mapped area (ha)	Ground-truthed area (ha)
12.9-10.2 / 12.9-10.7 / 12.9-10.16 (HVR)	**12.9-10.2** - *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. **12.9-10.7** - *Eucalyptus crebra* +/- *E. tereticornis, Corymbia tessellaris, Angophora leiocarpa, E. melanophloia* woodland. Occurs on Cainozoic and Mesozoic sediments. Not a Wetland. Vegetation communities in this RE 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. **12.9-10.16** - Microphyll to notophyll vine forest +/- *Araucaria cunninghamii.* Characteristic species include *Argyrodendron* sp. (Kin Kin W.D.Francis AQ81198), *Araucaria cunninghamii, Agathis robusta, Backhousia myrtifolia, Cupaniopsis parvifolia, Dendrocnide photiniphylla, Rhodosphaera rhodanthema, Flindersia australis, F. xanthoxyla, Drypetes deplanchei, Olea paniculata, Diospyros geminata, Gossia bidwillii, Excoecaria dallachyana* and *Vitex lignum-vitae*. *Archontophoenix cunninghamiana* often present in gully floors. Occurs on Cainozoic and Mesozoic sediments. Not a Wetland.	Only 12.9-10.2 confirmed (remnant)	1.524	1.144 (remnant)
Non-remnant	Non-remnant vegetation consisting of: • road parcel • recently cleared bare soil • established vegetated stormwater swale • recently planted bio-retention basin • residential gardens/lawns.	Yes	4.211	4.592

2.2.2 Potential EVNT flora species within the CIA

The WildNet database identified a total of seven EVNT species recorded within 5 km of the project area. Each EVNT species and their likelihood of occurring within the CIA is provided in Table 5. The assessment concluded that these species could be adequately detected during the current survey.

Table 5 Potential EVNT flora species within the CIA

Potential EVNT species	NC Act status*	Habitat	Likelihood of occurring within CIA	Potential timeframe limitations in locating EVNT
Callitris baileyi	NT	This species is found sporadically through southeast Queensland. The species grows on rocky slopes, hills or mountainous areas, in shallow and often clay soils. It is found in eucalypt woodland where it is commonly associated with blue gum, iron bark, and spotted gum. A small population also exists in northern New South Wales (DCCEEW, 2025).	Low	None, can be identified at any time of year.
Calyptochloa gracillima subsp. ipsviciensis	CR	This species is found in southeast Queensland around Ipswich. It is found in woodlands dominated by *Eucalyptus* species *including E. crebra* and *E. moluccana* and or *Corymbia citriodora.* It grows on loam to clay loam duplex soils on undulating to hill terrain.	High	None, can be identified at any time of year.
Coleus habrophyllus	E	This species is only known from selected locations between Ipswich and Ormeau in southeast Queensland. The species occurs on rock outcrops of sandstone or chert in shaded situations in eucalypt woodland often close to vine forest (DAWE, 2008).	Low	None, can be identified at any time of year.
Leichhardtia coronata	V	This species is endemic to south-east Queensland, occurring as far north as Gympie to the ranges forming the New South Wales – Queensland border. It grows in rainforest or moist, open forests, especially eucalypt, typically on sandstone and stony soils.	Moderate	None, can be identified at any time of year.
Melaleuca irbyana	E	*Melaleuca irbyana* is found from Gatton in south-east QLD, east to Brisbane and also north of Injune, south to near Casino to north-eastern NSW. This species grows in flat areas that are periodically waterlogged, in eucalypt forest, mixed forest and Melaleuca woodland with a sparse and grassy understory. It grows on poorly draining, heavy clay soils (DETSI - Species Search, 2025).	Moderate	None, can be identified at any time of year.
Notelaea lloydii	V	This species is endemic to south-east Queensland and commonly occurs in open eucalypt forests near vine thicket, vine forests and softwood scrub. The species is usually found on shallow, stony, and rocky soils, often	Moderate	None, can be identified at any time of year.

Potential EVNT species	NC Act status*	Habitat	Likelihood of occurring within CIA	Potential timeframe limitations in locating EVNT
		on steep slopes or near drainage lines (DEWHA, 2008).		
Notelaea x ipsviciensis	CR	This species is known from clustered sub-populations in the Ipswich area of southern Queensland. The species occurs in degraded eucalypt dominated dry sclerophyll vegetation communities, in areas of low fertility, sandstone based soil. This species prefers woodland communities with open canopies (DCCEEW, 2025).	Moderate	None, can be identified at any time of year.

*NC Act: CR – Critically Endangered, E – Endangered, V – Vulnerable, NT – Near Threatened

3.0 Site Assessment

3.1 Field Verification of Habitat Types

Surveys within the CIA confirmed three habitat types; RE 12.9-10.2, a non-remnant wetland and a non-remnant cleared area. Each of these habitat types are described below and mapped in Figure 3.

3.1.1 RE 12.9-10.2

The RE 12.9-10.2 occurred in an ecotonal area either side of the watercourse that runs through the CIA to the north-east. Whilst this community aligned primarily with 12.9-10.2 occurring on sediments, the species composition was also influenced by the adjoining land zone 3. As such, the proportion of *Corymbia citriodora* subsp. *citriodora* was significantly reduced within the CIA as opposed to other patches which were observed further from the watercourse.

These areas appear to have been subject to selective clearing in the past with a few retained *Eucalyptus tereticornis* and *E. crebra* present as an emergent layer. The main canopy was dominated by these two species and there has seen sufficient growth since clearing to achieve remnant status under the *Vegetation Management Act 1999* (VM Act). The sub-canopy was predominantly *Lophostemon suaveolens* with other eucalypts *Corymbia citriodora* subsp*. citriodora*, *C. tessellaris* and *C. intermedia* scattered throughout. The shrub layer contained a mix of native *Alstonia constricta, Alphitonia excelsa* and *Acacia disparrima* subsp. *disparrima* and exotic *Latana camara.* The ground stratum contained a range of weeds with *Megathyrsus maximus* var *pubiglumis* dominating with *Commelina benghalensis, Ageratum houstonianum* and *Praxelis clematidea* also common. Native species were rare and included *Gahnia aspera*, *Commelina diffusa* and *Aristida* sp. *Parsonsia straminea* was also prevalent throughout the lower strata.

3.1.2 Non-remnant (riparian)

The vegetation along the watercourse is best aligned with RE 12.3.3, however this area has suffered significant dieback due to waterlogging associated with an artificial dam to the east. A number of large stags were observed in the dam, and it was deemed unlikely that this area would qualify as remnant under the VM Act. The dam and the shallow water at its edges

provided suitable habitat for a range of native aquatic flora including but not limited to *Persicaria decipiens*, *Nymphoides indica* and *Schoenoplectiella mucronate.*

3.1.3 Non-remnant (cleared)

The third habitat type was also non-remnant, containing an assortment of construction sites and trunk infrastructure, associated with the residential development to the west of Fischer Road. These areas contained very little vegetation apart from a planted stormwater swale. The swale contained mature *Acacia* sp. and juvenile *Melaleuca quinquenervia* along with a range of phytoremedial plants such as *Juncus usitatus*, *Eleocharis dulcis* and *Imperata cylindrica.*

3.2 Survey methodology

In accordance with the Guidelines (DETSI, 2025) the following timed meander survey (TMS) methodology was applied to the flora surveys.

Each habitat type (not solely those known to be habitat for expected EVNT plants) must be sampled as per the following steps:

1 Choose a starting point within a habitat type and record the time. The choice of starting point is determined by the suitably qualified person based on their experience.

2 Traverse the habitat type in a random manner so as to maximise the coverage of habitat and the encounter rate of different species.

3 Record the identities of any EVNT plants observed and collect specimens and locational data. Also collect specimens and locational data for any possible EVNT plants.

4 Record the time every two to five minutes. If the survey needs to be interrupted, do not include this time in the results.

5 Continue searching a habitat type until no new EVNT species has been recorded for 30 minutes or when the entire area of habitat type is surveyed, whichever happens sooner.

6 Meanders must be undertaken (at a minimum) at the following rate per area of habitat type:

- <2 ha, one meander
- Between 2 ha and 10 ha, two meanders
- Between 10 ha and 100 ha, four meanders
- >100 ha, six meanders.

Areas of non-remnant vegetation which included bitumen surfaces, roads, housing and parks were deemed to be ‘highly modified environments’. In the Guidelines, a highly modified environment is defined as:

a) A gravel or bitumen road

b) An impervious surface

c) Land that is regularly being mowed, slashed or ploughed; or

d) Any combination of (a), (b) and (c) in this list.

TMS were undertaken throughout the CIA in the extent to be surveyed (minus the 2.47 ha of excluded areas, refer Section 2.1), Table 6 summarises the TMS statistics which includes

total area (ha), number of meanders required and undertaken, and the approximate proportion of the habitat covered by meanders. The non-remnant areas were either constructed roads, stormwater infrastructure, gardens, mown lawns or open waterbodies and considered likely to meet the definition of highly modified environment. One TMS was conducted in each of the other habitat types, and effectively surveyed the CIA.

Table 6 Area and survey effort within each habitat

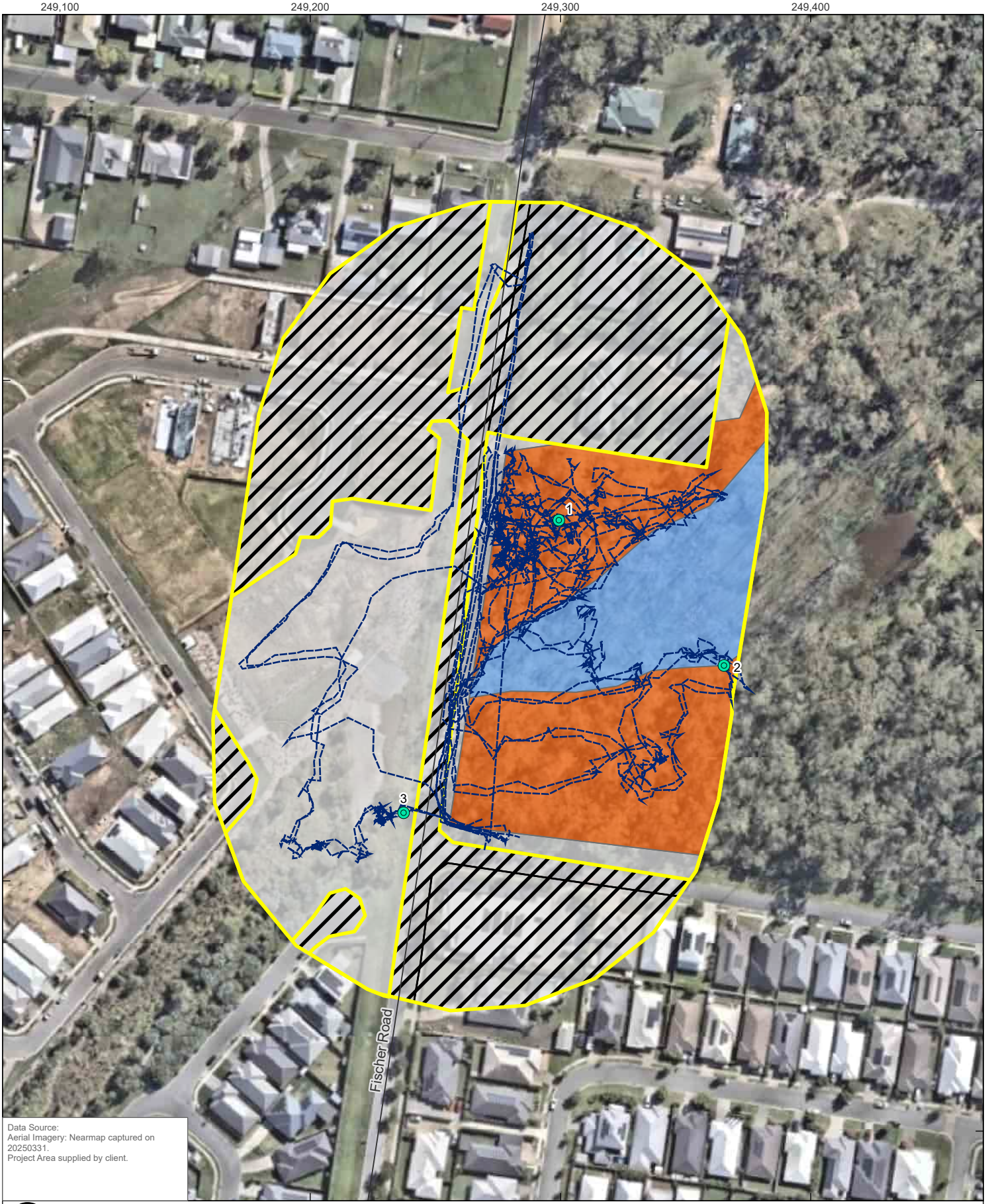
Ground-truthed habitat type	Area in included CIA (ha)	Number of TMS required	Number of TMS undertaken	Proportion of habitat covered
12.9-10.2 (remnant)	1.144	1	1	90%
Non-remnant - riparian	0.525	1	1	90%
Non-remnant- cleared	1.600	1	1	90%

3.3 Survey results

The TMS tracks within each habitat of the CIA is shown in Figure 3. The survey identified 113 species, including 59 native and 54 introduced species. Appendix E lists the flora species identified during each TMS. Table 7 summarises each TMS detail.

Table 7 Details of TMS

TMS	Start		Ground-truthed habitat	Duration (min)	EVNT species detected
	Latitude	Longitude			
1	-27.67002642	152.7899134	12.9-10.7	91	None recorded
2	-27.67051217	152.7905524	Non-remnant (riparian)	117	None recorded
3	-27.67104873	152.7892555,	Non-remnant (Bioretention basin, road reserve and vacant land)	56	None recorded



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 25 50 m

Coordinate System:	ICC Terrain 2001
Scale:	1:2,000 at A4
Project Number:	620.041764
Date Drawn:	21-Aug-2025
Drawn by:	RB

LEGEND

Road

CIA

Excluded

Included

TMS Start

TMS Track

Habitat Type

Non-remnant (cleared)

Non-remnant (riparian)

RE 12.9-10.2

ICC RIPLEY ROAD AND FISCHER ROAD UPGRADE FLORA SURVEY REPORT

TMS TRACKS AND HABITAT TYPES

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 3

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_FSR_F03_TMS Tracks and Habitat Types

4.0 Conclusion

This flora survey report provides an accurate and full account of flora surveys completed to meeting the requirements of the Guidelines and the Regulations.

As surveys did not detect any EVNT within the CIA, the following conditions will apply:

- An exemption clearing notification (protected plants) must be submitted. The exemption notification must include:
  - Exemption clearing notification form.
  - Flora Survey Report that complies with the Guidelines.

The exemption notification must be submitted to the DETSI email address palm@des.qld.gov.au.

The flora survey report must be submitted no later than 12 months after the flora survey was completed.

Clearing must be undertaken within two years of submitting the flora survey report.

5.0 References

DAWE (2008) *Approved Conservation Advice for* Plectranthus habrophyllus. Available at: http://www.dpi.qld.gov.au/cps/rde/xbcr/dpi/IPA-Lantana-Nsplan.pdf (Accessed: 13 June 2025).

DCCEEW (2025) Species Profiles and Threats Database (SPRAT), Department of Climate Change, Energy, the Environment and Water. jurisdiction=Commonwealth of Australia; corporateName=Department of the Environment. Available at: https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl (Accessed: 5 March 2025).

DES 2025, *Flora survey guidelines – Protected Plants – Nature Conservation Act 1992,* version 2.03, Department of Environment and Science, Brisbane.

DES 2021, *Protected Plants Assessment Guidelines - Nature Conservation (Plants) Regulation 2020*, Department of Environment and Science, Brisbane.

DETSI 2025a, Protected plants flora survey trigger map, Department of Environment, Tourism, Science and Innovation, Brisbane.

DETSI 2025b, WildNet species list, Department of Environment, Tourism, Science and Innovation, Brisbane.

Queensland Herbarium 2025, Regional Ecosystem Description Database (REDD). Version 13.1, Queensland Department of Science, Information Technology and Innovation, Brisbane, https://environment.ehp.qld.gov.au/regional-ecosystems.

Appendix A Curriculum vitae of Lucas Wilson

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

22 August 2025

Lucas is a Botanist based in Brisbane, Queensland. He has a Bachelor of Environmental Science, a Graduate Certificate in Integrated Water Resource Management and is a BAM Accredited Assessor (BAAS24017).

Lucas has seven years environmental consulting experience undertaking and managing ecological components associated with urban development and mining in Queensland, NSW and the Northern Territory. His skills are primarily based in botany, ecological restoration, and vegetation management with a background in delivery of restoration and management projects from which he brings a strong understanding of the practical implications of planning documents.

Education

- Graduate Certificate in Integrated Water Resource Management, University of Queensland (2016)
- Bachelor of Environmental Science, Griffith University (2012) Additional Training
- Advanced Plant Identification, Centre for Ecosystem Science UNSW, 2024
- BAM Accredited Assessor Training, DPE, 2023
- BioCondition Training, Oberonia Botanical Services, 2019
- Regional Ecosystem Training, Oberonia Botanical Services, 2019
- Certificate III in Conservation and Land Management, Conservation Skills Centre, 2009
- First Aid Certificate 2023
- Operate and maintain a 4wd vehicle 2023
- ACDC/Chemcert Commercial Operator's Licence, 2008
- Maintain Chainsaws, Basic Felling, Trim and Cut Felled Trees, Training for Trees, 2008
- Chain of Responsibility, Fatigue Management and Secure Cargo, Transqual, 2006

Targeted flora experience within the last five years

Location	Target Species	Timing
Julian Place, Wategos Beach, NSW	*Acronychia littoralis* (detected), *Anthraxon hispidus, Archidendron hendersonii, Macadamia tetraphylla, Cryptocarya foetida* (detected) *Rhodomyrtus psidioides, Syzigium moorei* (detected) *Xylosma terrae-reginae*	March 2025
Lagoon Road, Lorde Howe Island	*Caesalpinia bonduc, Calystegia affinis, Carmichaelia exsul, Chamaesyce psammogeton, Coprosma inopinata, Geniostoma huttonii, Hypolepis elegans, Lepidorrhachis mooreana, Polystichum moorei, Xylosma parvifoli, Anthosachne kingiana* subsp. *kingiana*	December 2024
Enterprise Avenue, Tweed Heads South	*Archidendron hendersonii* (detected)	August 2024
Southern Lease, Groote Eylandt	*Utricularia singeriana* (detected)	May 2024
Scenic Drive, Bilambil Heights	*Archidendron hendersonii, Drynaria rigidula, Lepiderema pulchella, Cassia marksiana*	January 2024

Location	Target Species	Timing
Creek Street, Hastings Point	*Acacia bakeri, Acronychia littoralis, Archidendron hendersonii, Caesalpinia bonduc, Corokia whiteana, Grevillea hilliana, Lindsaea fraseri, Endiandra mulleri* subsp. *bracteata, Oberonia complanata, Syzigium moorei* (detected)*, Pterostylis nigricans, Randia moorei, rhodomyrtus psidioides, Xyloma terrae-reginae*	December 2023
Burns Point Ferry Road, Ballina	*Acalypha eremorum, Acronychia littoralis, Archidendron hendersonii, Belvisia mucronata, Centranthera cochinchinensis, Clematis fawcettii, Cynanchum elegans, Dendrobium elaleucaphilum, Desmodium acanthocladum, Drynaria rigidula, Myrsine richmondensis, Oberonia titania, Oberonia complanata, Niemeyera whitei, Myrsine richmondensis, Rhodamnia rubescens, Rhodomyrtus psidioides, Senna acclinis, Sophora fraseri, Syzygium hodgkinsoniae, Tinospora tinosporoides*	November 2023
Scenic Drive, Bilambil Heights	*Archidendron hendersonii* (detected), *Cassia marksiana* (detected) *Grevillea hilliana* (detected), *Lepiderema pulchella* (detected), *Macadamia tetraphylla* (detected), *Rhodamina maideniana (detected), Rhodamnia rubescens* (detected), *Rhodomyrtus psidioides* (detected), *Syzigium moorei* (detected) + *46 others spp.* (undetected)	September 2023
Southern Lease, Groote Eylandt	*Utricularia singeriana* (detected)*, Eleocharis retroflexa*	April 2023
Burns Point Ferry Road, Ballina	*Acalypha eremorum, Aldrovanda vesiculosa, Arthraxon hispidus, Centranthera cochinchinensis, Cyperus aquatilis, Geodorum densiflorum, Lindernia alsinoides, Marsdenia longiloba, Maundia triglochinoides, Oldenlandia galioides, Persicaria elatior, Prostanthera palustris, Rotala tripartita*	Jan 2023
56 Hilldowns Road, Kalkite	*Caladenia tessellata, Calotis glandulosa, Dillwynia glaucula, Discaria nitida, Diuris aequalis, Dodonaea procumbens, Eucalyptus aggregata, Glycine latrobeana, Leucochrysum albicans* subsp. *Tricolor, Monotoca rotundifolia, Pimelea bracteata, Prasophyllum bagoense*	December 2022
Clifford Street, Suffolk Park	*Acronychia littoralis, Caesalpinia bonduc, Oberonia complanata*	November 2022
Burns Point Ferry Road, Ballina	*Acalypha eremorum, Acronychia littoralis, Archidendron hendersonii, Clematis fawcettii, Cryptocarya foetida, Cynanchum elegans, +25 other species*	October 2022
Kyogle Road, Kunghur	*Arthraxon hispidus, Belvisia mucronata, Cassia marksiana, Clematis fawcettii, Corokia whiteana, Cupaniopsis newmanii, Davidsonia jerseyana* (detected), *Diospyros mabacea, Endiandra hayesii, Endiandra muelleri* subsp. *bracteata* (detected), *Rhodamnia rubescens* (detected), *Syzygium moorei* (detected) + 16 other species	August 2022
Moggil Road, Moggil	*Calitris baileyi, Corchorus cunninghamii, Eucalyptus curtsii, Gossia hillii, Gossia gonoclada, Hernandia bivalvis Marsdenia coronata, Notelaea lloydii, Symplocos harroldii, Rhodomyrtus psidioides, Solanum mertinens*	August 2019

Location	Target Species	Timing
7 Brisbane Road, Riverview	*Acronychia littoralis, Blepharoglossum condylobulbon, Callitris baileyi, Calyptochloa gracillima* subsp. *ipsviciensis, Clematis fawcettii, Eucalyptus curtisii, Hernandia bivalvis, Lagenophora fimbriata, Marsdeniacoronata, Notelaea ipsviciensis, Notelaea lloydii* (detected), *Picris conyzoides, Plectranthus habrophyllus, Solanum mentiens*	July 2019
Bunyaville Conservation Park	*Calyptochloa gracillima* subsp. *Ipsviciensis, Eucalyptus curtsii, Macadamia integrifolia, Macadamia tetraphylla, Marsdenia coronata, Notelaea ipsviciensis, Notelaea lloydii,*	November 2018
Seaworld Dr, Main Beach	*Acacia attenuata, Baloghia marmorata, Cassia marksiana, Eucalyptus curtisii, Rhodamnia rubescens,*	August 2018

Appendix B Protected plant trigger area map

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

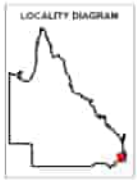
22 August 2025



Protected Plants Flora Survey Trigger Map

- High risk area
- Other land parcel boundaries
- Freeways / motorways / highways
- Secondary roads / streets
- Coordinates

LOCALITY DIAGRAM



N

0 480 960 1,440 1,920 2,400 m

This product is displayed in: GDA2020

This map shows areas where particular provisions of the Nature Conservation Act 1992 apply to the clearing of protected plants.

Land parcel boundaries are provided as locational aid only.

This map is produced at a scale relevant to the size of the area selected and should be printed as A4 size in portrait orientation.

For further information or assistance with interpretation of this product, please contact the Department of the Environment, Tourism, Science and Innovation at palm@des.qld.gov.au

Disclaimer: While every care is taken to ensure the accuracy of the data used to generate this product, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaim all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damages) and costs which might be incurred as a consequence of reliance on the data, or as a result of the data being inaccurate or incomplete in any way and for any reason.

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Protected plants flora survey trigger map

The protected plants flora survey trigger map identifies 'high risk areas' where endangered, vulnerable or near threatened plants are known to exist or are likely to exist. Under the *Nature Conservation Act 1992* (the Act) it is an offence to clear protected plants that are 'in the wild' unless you are authorised or the clearing is exempt, for more information see section 89 of the Act.

Please see the Department of the Environment, Tourism, Science and Innovation webpage on the clearing of protected plants for information on what exemptions may apply in your circumstances, whether you may need to undertake a flora survey, and whether you may need a protected plants clearing permit.

Updates to the data informing the flora survey trigger map
The flora survey trigger map will be reviewed, and updated if necessary, at least every 12 months to ensure the map reflects the most up-to-date and accurate data available.

Species information
Please note that flora survey trigger maps do not identify species associated with 'high risk areas'. While some species information may be publicly available, for example via the Queensland Spatial Catalogue, the Department of the Environment, Tourism, Science and Innovation does not provide species information on request. Regardless of whether species information is available for a particular high risk area, clearing plants in a high risk area may require a flora survey and/or clearing permit. Please see the Department of the Environment, Tourism, Science and Innovation webpage on the clearing of protected plants for more information.

Appendix C GIS Shapefiles

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

22 August 2025

GIS Shapefiles

The below table is a list of GPS and GIS shapefiles included with the report.

The author of the report can be contacted at Lucas.wilson@slrconsulting.com or (07) 3858 4800 if further clarification of data is required.

File name	Details
Clearing_Area_20250821	GIS shapefile of the area in which clearing will occur to the extent it is within a high-risk trigger area for protected plants.
CIA_20250821	GIS shapefile identifying the CIA boundaries and included and excluded areas within the CIA.
Habitat_Types_20250821	GIS shapefile identifying the habitat types within the CIA.
TMS_20250821	GIS shapefile of the GPS track data identifying the tracks of the timed meander surveys.

Appendix D WildNet records

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

22 August 2025

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Queensland status: All
Records: All
Date: All
Latitude: -27.6625
Longitude: 152.7807
Distance: 5
Email: natalie.freeman@slrconsulting.com
Date submitted: Monday 24 Mar 2025 09:15:53
Date extracted: Monday 24 Mar 2025 09:20:02

The number of records retrieved = 534

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Information about your Species lists request is logged for quality assurance, user support and product enhancement purposes only.
The information provided should be appropriately acknowledged as being derived from WildNet database when it is used. As the WildNet Program is still in a process of collating and vetting data, it is possible the information given is not complete. Go to the WildNet database webpage (https://www.qld.gov.au/environment/plants-animals/species-information/wildnet) to find out more about WildNet and where to access other WildNet information products approved for publication. Feedback about WildNet species lists should be emailed to wildlife.online@des.qld.gov.au.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			16
animals	amphibians	Hylidae	*Litoria balatus*	slender bleating treefrog		C		5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		25
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		25
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		16
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		4
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		4
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		39
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		3
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		4
animals	amphibians	Myobatrachidae	*Crinia parinsignifera*	beeping froglet		C		8
animals	amphibians	Myobatrachidae	*Crinia signifera*	clicking froglet		C		3
animals	amphibians	Myobatrachidae	*Pseudophryne coriacea*	red backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Uperoleia fusca*	dusky gungan		C		2
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		12
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		3
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone mouki*	brown gerygone		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		14
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		8
animals	birds	Acanthizidae	*Sericornis citreogularis*	yellow-throated scrubwren		C		1
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		17
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		11
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		5
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		9
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		10
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		3
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		4
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		7
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		10
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		3
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		6
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		7
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		14
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		2
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		5
animals	birds	Alcedinidae	*Dacelo leachii*	blue-winged kookaburra		C		6
animals	birds	Alcedinidae	*Dacelo novaeguineae*	laughing kookaburra		C		49
animals	birds	Alcedinidae	*Todiramphus macleayii*	forest kingfisher		C		4
animals	birds	Alcedinidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Alcedinidae	*Todiramphus sanctus*	sacred kingfisher		C		19
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		13
animals	birds	Anatidae	*Anas platyrhynchos*	northern mallard	Y			2
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		29
animals	birds	Anatidae	*Aythya australis*	hardhead		C		17
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		41
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		12
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		2
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		2
animals	birds	Anatidae	*Tadorna tadornoides*	Australian shelduck		C		1
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		17
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		7
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		7
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		6
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		22
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		3
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		21
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		5
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		1
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		54
animals	birds	Artamidae	*Cracticus sp.*			C		2
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		38
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		88
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		13
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		2
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		23
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		2
animals	birds	Cacatuidae	*Cacatua tenuirostris*	long-billed corella	Y	C		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		31
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		70
animals	birds	Campephagidae	*Edolisoma tenuirostre*	common cicadabird		C		4
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		3
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		11
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		4
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		3
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		26
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		10
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		36
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Columba leucomela*	white-headed pigeon		C		2
animals	birds	Columbidae	*Columba livia*	rock dove	Y			20
animals	birds	Columbidae	*Geopelia cuneata*	diamond dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		12
animals	birds	Columbidae	*Geopelia placida*	peaceful dove		C		6
animals	birds	Columbidae	*Macropygia phasianella*	brown cuckoo-dove		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		31
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Columbidae	*Spilopelia chinensis*	spotted dove	Y			59
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		19
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		102
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		12
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		1
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		11
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		2
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		20
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		17
animals	birds	Dicaeidae	*Dicaeum hirundinaceum*	mistletoebird		C		27
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		24
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		16
animals	birds	Estrildidae	*Lonchura punctulata*	nutmeg mannikin	Y			5
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		6
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		30
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		4
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		9
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		5
animals	birds	Falconidae	*Falco peregrinus macropus*	Australian peregrine falcon		C		4
animals	birds	Hirundinidae	*Cheramoeca leucosterna*	white-backed swallow		C		1
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		33
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		13
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		5
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		8
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		1
animals	birds	Locustellidae	*Cincloramphus cruralis*	brown songlark		C		1
animals	birds	Locustellidae	*Cincloramphus timoriensis*	tawny grassbird		C		12
animals	birds	Locustellidae	*Poodytes gramineus*	little grassbird		C		5
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		54
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		18
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		29
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Meliphagidae	*Anthochaera chrysoptera*	little wattlebird		C		2
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		17
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		21
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		41
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		52
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		3
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		14
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		6
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		3
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		27
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		16
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		58
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		4
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		9
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		19
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		61
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		5
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		C		1
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		2
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		5
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		8
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		47
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		9
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		18
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		23
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		45
animals	birds	Passeridae	*Passer domesticus*	house sparrow	Y			21
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		21
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		9
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		3
animals	birds	Petroicidae	*Petroica boodang*	scarlet robin		C		2
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		8
animals	birds	Phaethontidae	*Phaethon lepturus*	white-tailed tropicbird		SL		1/1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		23
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		7
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		24
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		13
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		2
animals	birds	Phasianidae	*Synoicus ypsilophorus*	brown quail		C		8
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		17
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		9
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		19
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		6

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Psittaculidae	*Alisterus scapularis*	Australian king-parrot		C		6
animals	birds	Psittaculidae	*Barnardius zonarius*	Australian ringneck		C		5
animals	birds	Psittaculidae	*Glossopsitta concinna*	musk lorikeet		C		2
animals	birds	Psittaculidae	*Melopsittacus undulatus*	budgerigar		C		2
animals	birds	Psittaculidae	*Parvipsitta pusilla*	little lorikeet		C		15
animals	birds	Psittaculidae	*Platycercus adscitus*	pale-headed rosella		C		43
animals	birds	Psittaculidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittaculidae	*Platycercus eximius*	eastern rosella		C		2
animals	birds	Psittaculidae	*Psephotellus pulcherrimus*	paradise parrot		PE	EX	1
animals	birds	Psittaculidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		68
animals	birds	Psittaculidae	*Trichoglossus moluccanus*	rainbow lorikeet		C		36
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		8
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		1
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		18
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		26
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		6
animals	birds	Rallidae	*Lewinia pectoralis*	Lewin's rail		C		4
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		16
animals	birds	Rallidae	*Porzana fluminea*	Australian spotted crake		C		6
animals	birds	Rallidae	*Zapornia pusilla*	Baillon's crake		C		13
animals	birds	Rallidae	*Zapornia tabuensis*	spotless crake		C		6
animals	birds	Recurvirostridae	*Himantopus leucocephalus*	pied stilt		C		10
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		30
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		55
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		C		4
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted-snipe		E	E	7
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		9
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		V	V	1
animals	birds	Scolopacidae	*Calidris melanotos*	pectoral sandpiper		SL		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		V	V	6
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		E	E	4
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		8
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		2
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		1
animals	birds	Sturnidae	*Acridotheres tristis*	common myna	Y			32
animals	birds	Sturnidae	*Sturnus vulgaris*	common starling	Y			17
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		8
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		12
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		2
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		9
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		20
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		2
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		2
animals	birds	Zosteropidae	*Zosterops lateralis*	silvereye		C		72
animals	insects	Aeshnidae	*Adversaeschna brevistyla*	blue-spotted hawker				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	insects	Aeshnidae	*Anax papuensis*	Australian Emperor				1
animals	insects	Coenagrionidae	*Ischnura heterosticta heterosticta*	common bluetail				1
animals	insects	Corduliidae	*Hemicordulia australiae*	Australian emerald				2
animals	insects	Corduliidae	*Hemicordulia continentalis*	fat-bellied emerald				1
animals	insects	Hesperiidae	*Ocybadistes walkeri sothis*	green grass-dart				1
animals	insects	Hesperiidae	*Suniana sunias rectivitta*	wide-brand grass-dart				1
animals	insects	Hesperiidae	*Toxidia peron*	dingy grass-skipper				1
animals	insects	Lestidae	*Austrolestes leda*	wandering ringtail				1
animals	insects	Libellulidae	*Crocothemis nigrifrons*	black-headed skimmer				1
animals	insects	Libellulidae	*Diplacodes bipunctata*	wandering percher				1
animals	insects	Libellulidae	*Diplacodes haematodes*	scarlet percher				1
animals	insects	Libellulidae	*Diplacodes trivialis*	chalky percher				1
animals	insects	Libellulidae	*Macrodiplax cora*	wandering pennant				1
animals	insects	Libellulidae	*Orthetrum caledonicum*	blue skimmer				1
animals	insects	Libellulidae	*Orthetrum sabina*	slender skimmer				1
animals	insects	Libellulidae	*Orthetrum villosovittatum*	fiery skimmer				1
animals	insects	Libellulidae	*Pantala flavescens*	wandering glider				1
animals	insects	Libellulidae	*Tramea loewii*	common glider				1
animals	insects	Lycaenidae	*Candalides hyacinthinus hyacinthinus*	varied dusky-blue				1
animals	insects	Lycaenidae	*Catopyrops florinda*					1
animals	insects	Lycaenidae	*Lampides boeticus*	long-tailed pea-blue				1
animals	insects	Lycaenidae	*Prosotas dubiosa dubiosa*	purple line-blue				1
animals	insects	Lycaenidae	*Psychonotis caelius taygetus*	small green-banded blue				3
animals	insects	Lycaenidae	*Zizina otis labradus*	common grass-blue (Australian subspecies)				1
animals	insects	Nymphalidae	*Acraea andromacha andromacha*	glasswing				4
animals	insects	Nymphalidae	*Charaxes sempronius sempronius*	tailed emperor				5
animals	insects	Nymphalidae	*Danaus petilia*	lesser wanderer				2
animals	insects	Nymphalidae	*Danaus plexippus*	monarch	Y			5
animals	insects	Nymphalidae	*Danaus sp.*					1
animals	insects	Nymphalidae	*Euploea corinna*	common crow				8
animals	insects	Nymphalidae	*Hypocysta adiante adiante*	orange ringlet				1
animals	insects	Nymphalidae	*Junonia villida villida*	meadow argus				3
animals	insects	Nymphalidae	*Melanitis leda bankia*	evening brown				8
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				4
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				4
animals	insects	Nymphalidae	*Vanessa kershawi*	Australian painted lady				2
animals	insects	Papilionidae	*Cressida cressida cressida*	clearwing swallowtail				1
animals	insects	Papilionidae	*Graphium choredon*	blue triangle				6
animals	insects	Papilionidae	*Graphium eurypylus lycaon*	pale triangle				1
animals	insects	Papilionidae	*Papilio aegeus*					1
animals	insects	Papilionidae	*Papilio aegeus aegeus*	orchard swallowtail (Australian subspecies)				3
animals	insects	Papilionidae	*Papilio anactus*	dainty swallowtail				1
animals	insects	Papilionidae	*Papilio demoleus sthenelus*	chequered swallowtail				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	insects	Pieridae	*Belenois java teutonia*	caper white				5
animals	insects	Pieridae	*Catopsilia gorgophone gorgophone*	yellow migrant				3
animals	insects	Pieridae	*Catopsilia pomona*	lemon migrant				9
animals	insects	Pieridae	*Catopsilia pyranthe crokera*	white migrant				1
animals	insects	Pieridae	*Cepora perimale scyllara*	caper gull (Australian subspecies)				1
animals	insects	Pieridae	*Delias argenthona argenthona*	scarlet jezebel				1
animals	insects	Pieridae	*Delias nigrina*	black jezebel				1
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				5
animals	insects	Pieridae	*Eurema smilax*	small grass-yellow				1
animals	insects	Pieridae	*Pieris rapae*	cabbage white	Y			1
animals	mammals	Acrobatidae	*Acrobates pygmaeus*	feathertail glider		C		1
animals	mammals	Canidae	*Canis familiaris*	dog	Y			1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				1
animals	mammals	Canidae	*Vulpes vulpes*	red fox	Y			6
animals	mammals	Dasyuridae	*Antechinus flavipes flavipes*	yellow-footed antechinus (south-east Queensland)		C		2
animals	mammals	Dasyuridae	*Phascogale tapoatafa tapoatafa*	brush-tailed phascogale		C		1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		2
animals	mammals	Felidae	*Felis catus*	cat	Y			2
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			11
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		7
animals	mammals	Macropodidae	*Macropus sp.*			C		2
animals	mammals	Macropodidae	*Notamacropus dorsalis*	black-striped wallaby		C		1
animals	mammals	Macropodidae	*Notamacropus parryi*	whiptail wallaby		C		1
animals	mammals	Macropodidae	*Notamacropus rufogriseus*	red-necked wallaby		C		9
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		5
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		1
animals	mammals	Miniopteridae	*Miniopterus orianae oceanensis*	eastern bent-wing bat		C		1
animals	mammals	Molossidae	*Austronomus australis*	white-striped freetail bat		C		8
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		1
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			3
animals	mammals	Muridae	*Rattus rattus*	black rat	Y			2
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		3
animals	mammals	Petauridae	*Petaurus breviceps sensu lato*	sugar glider		C		4
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		6
animals	mammals	Petauridae	*Petaurus sp.*			C		1
animals	mammals	Phalangeridae	*Trichosurus caninus*	short-eared possum		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		14
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	206
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		2
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		21
animals	mammals	Pteropodidae	*Pteropus poliocephalus*	grey-headed flying-fox		C	V	20
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		9
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				1
animals	ray-finned fishes	Anguillidae	*Anguilla australis*	southern shortfin eel				9
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				16
animals	ray-finned fishes	Atherinidae	*Craterocephalus marjoriae*	silverstreak hardyhead				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				4
animals	ray-finned fishes	Cichlidae	*Oreochromis mossambica*	Mozambique mouthbrooder	Y			3
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				1
animals	ray-finned fishes	Eleotridae	*Gobiomorphus australis*	striped gudgeon				10
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				11
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				13
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris sp.*					1
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia duboulayi*	crimsonspotted rainbowfish				6
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				6
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				4
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			17
animals	ray-finned fishes	Poeciliidae	*Xiphophorus maculatus*	platy	Y			8
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				5
animals	ray-finned fishes	Retropinnidae	*Retropinna semoni*	Australian smelt				5
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				3
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				8
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		2
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		8
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		15
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		6
animals	reptiles	Chelidae	*Chelodina expansa*	broad-shelled river turtle		C		2
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		3
animals	reptiles	Chelidae	*Emydura macquarii macquarii*	Murray turtle		C		1
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		2
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		11
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		1
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		3
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		4
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		6
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		2
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		9
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		4
animals	reptiles	Gekkonidae	*Hemidactylus frenatus*	house gecko	Y			4
animals	reptiles	Pygopodidae	*Delma plebeia*	common delma		C		2
animals	reptiles	Scincidae	*Anomalopus verreauxii*	three-clawed worm-skink		C		8/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		2
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		2
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		2
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		10
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		8
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		1
animals	reptiles	Scincidae	*Lampropholis amicula*	friendly sunskink		C		1
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		11
animals	reptiles	Scincidae	*Lampropholis sp.*			C		1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		2
animals	reptiles	Scincidae	*Tiliqua scincoides scincoides*	eastern bluetongue		C		5
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		3
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending				4
bacteria	blue-green algae	Aphanothecaceae	*Aphanothece elabens*			C		1/1
bacteria	blue-green algae	Microcoleaceae	*Porphyrosiphon notarisii*			C		3/3
bacteria	blue-green algae	Scytonemataceae	*Scytonema crispum*			C		1/1
fungi	Agaricomycetes	Agaricaceae	*Cyathus striatus*			C		1
fungi	Agaricomycetes	Phallaceae	*Colus pusillus*			C		1
fungi	Agaricomycetes	Phallaceae	*Phallus rubicundus*			C		1
fungi	Agaricomycetes	Suillaceae	*Suillus granulatus*			C		1/1
fungi	lecanoromycetes	Cladoniaceae	*Cladia muelleri*			C		1/1
fungi	lecanoromycetes	Teloschistaceae	*Caloplaca cinnabarina*			C		1/1
fungi	sordariomycetes	Obryzaceae	*Obryzum scabrosum*			C		1/1
plants	Compsopogonophyceae	Compsopogonaceae	*Compsopogon coeruleus*			C		1/1
plants	Florideophyceae	Acrochaetiaceae	*Audouinella*					1/1
plants	Florideophyceae	Delesseriaceae	*Caloglossa leprieurii var. angustata*			C		1/1
plants	Florideophyceae	Delesseriaceae	*Caloglossa ogasawaraensis*			C		1/1
plants	Ulvophyceae	Pithophoraceae	*Pithophora oedogonia var. oedogonia*			C		1/1
plants	Ulvophyceae	Trentepohliaceae	*Cephaleuros parasiticus*			C		1/1
plants	Ulvophyceae	Trentepohliaceae	*Trentepohlia rigidula*			C		2/2
plants	land plants	Acanthaceae	*Brunoniella australis*	blue trumpet		C		1/1
plants	land plants	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C		2/2
plants	land plants	Acanthaceae	*Ruellia simplex*		Y			3/3
plants	land plants	Aizoaceae	*Mesembryanthemum cordifolium*		Y			1/1
plants	land plants	Amaranthaceae	*Alternanthera denticulata*	lesser joyweed		C		1/1
plants	land plants	Apiaceae	*Ammi majus*	bishop's weed	Y			1/1
plants	land plants	Apiaceae	*Daucus carota*	wild carrot	Y			1/1
plants	land plants	Apocynaceae	*Cascabela thevetia*	yellow oleander	Y			1/1
plants	land plants	Apocynaceae	*Leichhardtia coronata*			V		4/4
plants	land plants	Apocynaceae	*Parsonsia brisbanensis*	broad-leaved monkey vine		C		6/6
plants	land plants	Araliaceae	*Hydrocotyle laxiflora*	stinking pennywort		C		1/1
plants	land plants	Aristolochiaceae	*Aristolochia meridionalis subsp. meridionalis*			C		1/1
plants	land plants	Asphodelaceae	*Aloe maculata*		Y			2/2
plants	land plants	Asteraceae	*Ambrosia artemisiifolia*	annual ragweed	Y			1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Asteraceae	*Cassinia straminea*			C		1/1
plants	land plants	Asteraceae	*Centaurea jacea*		Y			1/1
plants	land plants	Asteraceae	*Cichorium intybus*	chicory	Y			1/1
plants	land plants	Asteraceae	*Dimorphotheca ecklonis*		Y			1/1
plants	land plants	Asteraceae	*Erigeron canadensis*		Y			1/1
plants	land plants	Asteraceae	*Leiocarpa brevicompta*			C		1/1
plants	land plants	Asteraceae	*Ozothamnus diosmifolius*	white dogwood		C		1/1
plants	land plants	Asteraceae	*Tagetes minuta*	stinking roger	Y			1/1
plants	land plants	Asteraceae	*Thymophylla tenuiloba*		Y			1/1
plants	land plants	Asteraceae	*Verbesina encelioides var. encelioides*		Y			1/1
plants	land plants	Bignoniaceae	*Pandorea floribunda*			C		1/1
plants	land plants	Bignoniaceae	*Pyrostegia venusta*		Y			1/1
plants	land plants	Boraginaceae	*Cordia myxa*		Y			1/1
plants	land plants	Brassicaceae	*Brassica rapa*		Y			1/1
plants	land plants	Bromeliaceae	*Tillandsia usneoides*		Y			1
plants	land plants	Campanulaceae	*Wahlenbergia littoricola*			SL		1/1
plants	land plants	Cannabaceae	*Celtis sinensis*	Chinese elm	Y			1/1
plants	land plants	Casuarinaceae	*Casuarina cunninghamiana subsp. cunninghamiana*			C		1/1
plants	land plants	Casuarinaceae	*Casuarina glauca*	swamp she-oak		C		1/1
plants	land plants	Celastraceae	*Denhamia cunninghamii*			C		1/1
plants	land plants	Celastraceae	*Denhamia silvestris*			C		1/1
plants	land plants	Celastraceae	*Hippocratea barbata*	knotvine		C		1/1
plants	land plants	Chenopodiaceae	*Einadia nutans subsp. linifolia*			C		1/1
plants	land plants	Chenopodiaceae	*Maireana microphylla*			C		1/1
plants	land plants	Colchicaceae	*Iphigenia indica*			C		1/1
plants	land plants	Combretaceae	*Combretum paniculatum*		Y			2/2
plants	land plants	Commelinaceae	*Commelina benghalensis*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum daigremontianum*		Y			1/1
plants	land plants	Crassulaceae	*Bryophyllum fedtschenkoi*		Y			1/1
plants	land plants	Cupressaceae	*Callitris baileyi*	Bailey's cypress		NT		1/1
plants	land plants	Cyperaceae	*Caustis blakei*			C		1
plants	land plants	Cyperaceae	*Cyperus bifax*	western nutgrass		C		1/1
plants	land plants	Cyperaceae	*Cyperus brevifolius*	Mullumbimby couch	Y			1/1
plants	land plants	Cyperaceae	*Cyperus involucratus*		Y			1/1
plants	land plants	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C		1/1
plants	land plants	Cyperaceae	*Fimbristylis microcarya*			C		1/1
plants	land plants	Euphorbiaceae	*Euphorbia cyathophora*	dwarf poinsettia	Y			1/1
plants	land plants	Euphorbiaceae	*Euphorbia hyssopifolia*		Y			2/2
plants	land plants	Euphorbiaceae	*Euphorbia ophthalmica*		Y			2/2
plants	land plants	Goodeniaceae	*Goodenia hederacea subsp. hederacea*			C		2/2
plants	land plants	Hemerocallidaceae	*Dianella longifolia var. stenophylla*			C		2/2
plants	land plants	Hypoxidaceae	*Hypoxis pratensis var. tuberculata*			C		2/2
plants	land plants	Lamiaceae	*Ajuga australis*	Australian bugle		C		1/1
plants	land plants	Lamiaceae	*Coleus habrophyllus*			E	E	1/1
plants	land plants	Lamiaceae	*Mentha satureioides*	native pennyroyal		C		2/2
plants	land plants	Lamiaceae	*Westringia eremicola*	slender westringia		C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Lauraceae	*Cassytha filiformis*	dodder laurel		C		1/1
plants	land plants	Lauraceae	*Cryptocarya triplinervis var. pubens*			C		1/1
plants	land plants	Laxmanniaceae	*Laxmannia gracilis*	slender wire lily		C		1/1
plants	land plants	Laxmanniaceae	*Lomandra confertifolia subsp. pallida*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. coriacea*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. filiformis*			C		1/1
plants	land plants	Leguminosae	*Acacia complanata*	flatstem wattle		C		2/2
plants	land plants	Leguminosae	*Acacia falcata*	sickle wattle		C		1/1
plants	land plants	Leguminosae	*Acacia glaucocarpa*	hickory wattle		C		1/1
plants	land plants	Leguminosae	*Acacia juncifolia*			C		2/2
plants	land plants	Leguminosae	*Acacia penninervis var. longiracemosa*			C		1/1
plants	land plants	Leguminosae	*Desmodium rhytidophyllum*			C		1/1
plants	land plants	Leguminosae	*Erythrina numerosa*			C		1/1
plants	land plants	Leguminosae	*Glycine*					1/1
plants	land plants	Leguminosae	*Hovea planifolia*			C		1/1
plants	land plants	Leguminosae	*Indigofera baileyi*			C		3/3
plants	land plants	Leguminosae	*Indigofera spicata*	creeping indigo	Y			1/1
plants	land plants	Leguminosae	*Sesbania cannabina var. cannabina*			C		1/1
plants	land plants	Leguminosae	*Stylosanthes scabra*		Y			2/2
plants	land plants	Leguminosae	*Swainsona brachycarpa*			C		1/1
plants	land plants	Leguminosae	*Swainsona queenslandica*			C		1/1
plants	land plants	Leguminosae	*Tephrosia glomeruliflora*	pink tephrosia	Y			1/1
plants	land plants	Leguminosae	*Tephrosia sp. (The Grampians L.H.Bird AQ565381)*			C		1/1
plants	land plants	Leguminosae	*Tipuana tipu*	tipuana	Y			1/1
plants	land plants	Loranthaceae	*Amyema miquelii*			C		1/1
plants	land plants	Malvaceae	*Gossypium hirsutum*		Y			1/1
plants	land plants	Malvaceae	*Hibiscus tridactylites*			C		1/1
plants	land plants	Malvaceae	*Pavonia hastata*	pink pavonia	Y			1/1
plants	land plants	Marsileaceae	*Marsilea hirsuta*	hairy nardoo		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus acmenoides*			C		2/2
plants	land plants	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus dura*			C		1/1
plants	land plants	Myrtaceae	*Melaleuca irbyana*			E		7/6
plants	land plants	Oleaceae	*Notelaea lloydii*	Lloyd's native olive		V	V	1/1
plants	land plants	Oleaceae	*Notelaea ovata*	forest olive		C		1/1
plants	land plants	Oleaceae	*Notelaea x ipsviciensis*	Cooneana olive		CR	CE	5/5
plants	land plants	Orchidaceae	*Chiloglottis diphylla*			SL		1/1
plants	land plants	Passifloraceae	*Passiflora pallida*		Y			1/1
plants	land plants	Phyllanthaceae	*Phyllanthus hirtellus*			C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus virgatus*			C		1/1
plants	land plants	Picrodendraceae	*Petalostigma pubescens*	quinine tree		C		1
plants	land plants	Poaceae	*Anthosachne kingiana subsp. multiflora*			C		1/1
plants	land plants	Poaceae	*Aristida calycina var. calycina*			C		1/1
plants	land plants	Poaceae	*Aristida leichhardtiana*			C		1/1
plants	land plants	Poaceae	*Aristida vagans*			C		1/1
plants	land plants	Poaceae	*Austrostipa rudis subsp. nervosa*			C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Poaceae	*Calyptochloa gracillima subsp. ipsviciensis*			CR		5/5
plants	land plants	Poaceae	*Cenchrus setaceus*		Y			1/1
plants	land plants	Poaceae	*Cynodon dactylon var. dactylon*		Y			1/1
plants	land plants	Poaceae	*Dichanthium annulatum*	sheda grass	Y			1/1
plants	land plants	Poaceae	*Digitaria didactyla*	Queensland blue couch	Y			1/1
plants	land plants	Poaceae	*Eremochloa bimaculata*	poverty grass		C		1/1
plants	land plants	Poaceae	*Microlaena stipoides var. stipoides*			C		1/1
plants	land plants	Poaceae	*Panicum simile*			C		2/2
plants	land plants	Poaceae	*Urochloa whiteana*			C		1/1
plants	land plants	Poaceae	*x Cynochloris macivorii*			C		1/1
plants	land plants	Polygonaceae	*Antigonon leptopus*		Y			1/1
plants	land plants	Polygonaceae	*Persicaria attenuata*			C		1/1
plants	land plants	Potamogetonaceae	*Stuckenia pectinata*			SL		1/1
plants	land plants	Proteaceae	*Grevillea robusta*			C		1/1
plants	land plants	Pteridaceae	*Acrostichum speciosum*	mangrove fern		SL		1/1
plants	land plants	Pteridaceae	*Cheilanthes distans*	bristly cloak fern		C		1/1
plants	land plants	Pteridaceae	*Cheilanthes sieberi subsp. sieberi*			C		2/2
plants	land plants	Ptychomitriaceae	*Ptychomitrium australe*			C		1/1
plants	land plants	Rhamnaceae	*Cryptandra longistaminea*			C		1/1
plants	land plants	Rosaceae	*Prunus persica var. persica*		Y			1/1
plants	land plants	Rubiaceae	*Richardia stellaris*		Y			1/1
plants	land plants	Rubiaceae	*Spermacoce multicaulis*			C		2/2
plants	land plants	Sapindaceae	*Cardiospermum grandiflorum*	heart seed vine	Y			1/1
plants	land plants	Scrophulariaceae	*Buddleja madagascariensis*	buddleia	Y			1/1
plants	land plants	Scrophulariaceae	*Eremophila debilis*	winter apple		C		1/1
plants	land plants	Solanaceae	*Solanum lasiocarpum*		Y			1/1
plants	land plants	Solanaceae	*Solanum linnaeanum*	apple of Sodom	Y			1/1
plants	land plants	Sparrmanniaceae	*Corchorus olitorius*	jute		C		1/1
plants	land plants	Stackhousiaceae	*Stackhousia muricata*			C		1/1
plants	land plants	Verbenaceae	*Lantana montevidensis*	creeping lantana	Y			1/1
plants	land plants	Viburnaceae	*Sambucus nigra*		Y			3/3
plants	land plants	Vitaceae	*Causonis clematidea*			C		1/1

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 E List of flora species identified

Flora Survey Report

ICC Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR Project No.: 620.041764.00008

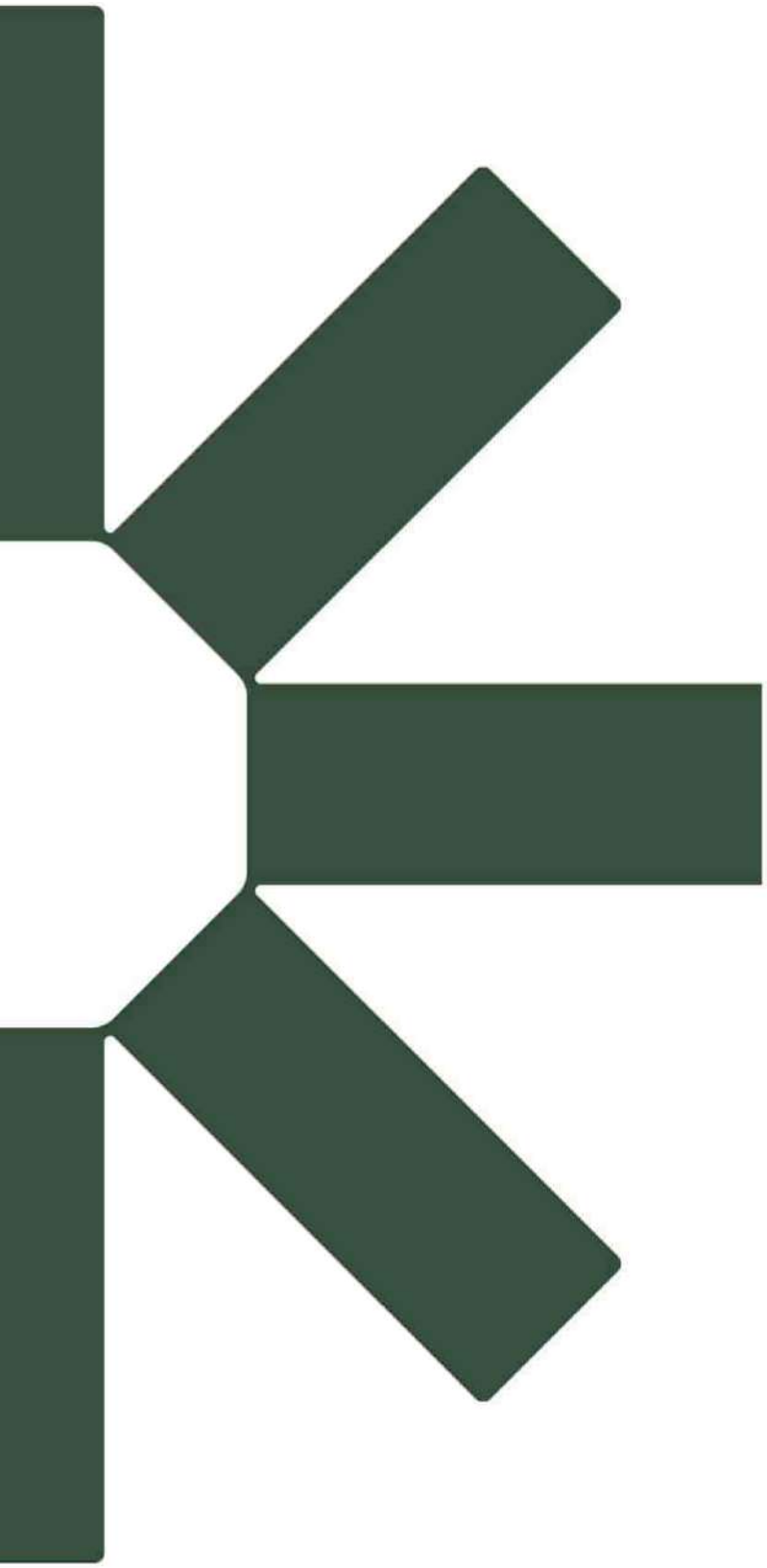
22 August 2025

Species	Status	TMS1	TMS2	TMS3
Acacia disparrima	Native	*		
Acacia fimbriata	Native			*
Acacia leiocalyx	Native	*	*	
Achyranthes aspera	Exotic	*		
Ageratum houstonianum	Exotic	*		
Alphitonia excelsa	Native	*		
Alstonia constricta	Native	*		
Alternanthera denticulata	Native		*	
Alternanthera nana	Native	*		
Angophora leiocarpa	Native	*		
Aristida acuta	Native	*		
Asparagus aethiopicus	Exotic	*		
Asparagus africanus	Exotic	*		
Axonopus compressus	Exotic		*	
Axonopus fissifolius	Exotic		*	
Baccharis halimifolia	Exotic		*	
Bidens pilosa	Exotic	*		
Breynia oblongifolia	Native	*		*
Bryophyllum delagoense	Exotic	*		
Callisia repens	Exotic	*		
Calyptocarpus vialis	Exotic	*		
Casuarina cunninghamiana	Native			*
Centella asiatica	Native		*	
Chloris gayana	Exotic		*	
Cirsium vulgare	Exotic		*	
Commelina benghalensis	Exotic	*		
Commelina diffusa	Native	*		
Cortaderia selloana	Exotic			*
Corymbia intermedia	Native	*		
Corymbia tessellaris	Native	*	*	
Corymbia torelliana	Native	*		
Crotalaria lanceolata	Exotic			*
Cupaniopsis anacardioides	Native	*		
Cuphea carthagenensis	Exotic	*		
Cynodon dactylon	Exotic		*	*
Cyperus gracilis	Native	*		
Cyperus polystachyos	Exotic	*		*

Species	Status	TMS1	TMS2	TMS3
Dianella caerulea	Native	*		
Digitaria didactyla	Native		*	
Dodonaea triquetra	Native	*		
Dyschoriste depressa	Exotic	*		
Echinopogon nutans	Native	*		
Eclipta platyglossa	Native		*	
Eclipta prostrata	Native		*	
Eleocharis dulcis	Native	*		
Eleusine tristachya	Exotic	*		
Emilia sonchifolia	Exotic	*		
Erigeron sumatrensis	Exotic			*
Eucalyptus crebra	Native	*		
Eucalyptus tereticornis	Native	*	*	
Eustrephus latifolius	Native			*
Ficus benjamina	Native		*	
Ficus microcarpa	Native			*
Ficus opposita	Native	*	*	
Fimbristylis dichotoma	Native	*		
Gahnia aspera	Native	*		
Gahnia sieberiana	Native			*
Geitonoplesium cymosum	Native	*		
Glochidion ferdinandi	Native	*		
Glycine tabacina	Native	*		
Gomphocarpus physocarpus	Exotic	*		
Grevillea sp.	Native			*
Imperata cylindrica	Native			*
Juncus usitatus	Native	*		
Lantana camara	Exotic	*		
Lantana montevidensis	Exotic	*		
Leersia hexandra	Native		*	
Lobelia concolor	Native		*	
Lobelia purpurascens	Native	*		
Lobelia stenophylla	Native		*	
Lomandra longifolia	Native			*
Lophostemon suaveolens	Native	*		
Ludwigia octovalvis	Native		*	
Ludwigia peploides	Exotic		*	

Species	Status	TMS1	TMS2	TMS3
Macroptilium atropurpureum	Exotic	*		*
Macroptilium lathyroides	Exotic			*
Megathyrsus maximus var. maximus	Exotic	*		
Melaleuca linariifolia	Native			*
Melaleuca quinquenervia	Native			*
Melaleuca viminalis	Native			*
Murdannia graminea	Native	*		
Murraya koenigii	Exotic	*		
Murraya paniculata	Exotic	*		
Myoporum acuminatum	Native			*
Nymphaea violacea	Exotic		*	
Nymphoides indica	Exotic		*	
Opuntia tomentosa	Exotic	*		
Parsonsia straminea	Native	*		
Paspalum urvillei	Native			*
Passiflora suberosa	Exotic	*		
Persicaria attenuata	Exotic		*	
Persicaria decipiens	Native	*	*	
Philydrum lanuginosum	Native		*	
Phyllanthus virgatus	Native	*		
Pigea stellarioides	Native	*		
Portulaca pilosa	Exotic	*		
Praxelis clematidea	Exotic	*		
Rivina humilis	Exotic	*		
Schoenoplectiella mucronata	Native	*		
Schoenoplectus tabernaemontani	Native			*
Senecio madagascariensis	Exotic	*	*	
Senna pendula	Exotic	*		
Setaria sphacelata	Exotic			*
Sida cordifolia	Exotic	*		
Sida rhombifolia	Exotic	*		
Solanum mauritianum	Exotic	*		
Solanum nigrum	Exotic	*		
Solanum seaforthianum	Exotic	*		
Sorghum halepense	Exotic			*
Sporobolus pyramidalis	Exotic	*		
Syagrus romanzoffiana	Exotic	*		

Species	Status	TMS1	TMS2	TMS3
Typha orientalis	Exotic		*	
Verbena litoralis	Exotic			*



Making Sustainability Happen

Appendix F Koala SAT tree data

Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

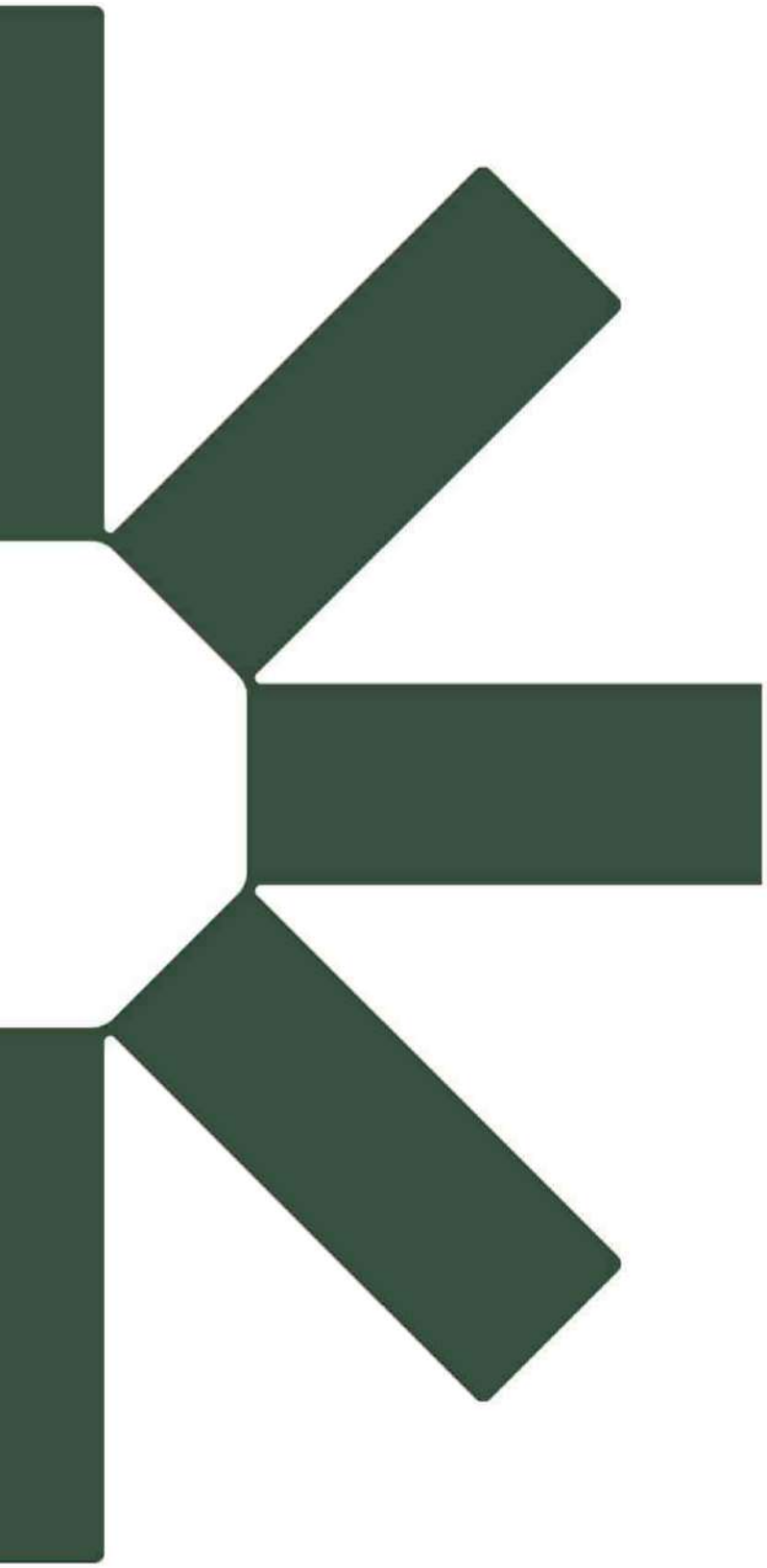
SLR Project No.: 620.041764.00008

28 August 2025

SAT site	Tree number	Tree species	DBH	Koala present?	Scat present?
1	1	*Eucalyptus tereticornis*	44	No koala	No fecal pellet
1	2	*Lophostemon suaveolens*	16	No koala	No fecal pellet
1	3	*Lophostemon suaveolens*	19	No koala	No fecal pellet
1	4	*Eucalyptus tereticornis*	40	No koala	No fecal pellet
1	5	*Corymbia tessellaris*	14	No koala	No fecal pellet
1	6	*Eucalyptus tereticornis*	28	No koala	No fecal pellet
1	7	*Corymbia tessellaris*	18	No koala	No fecal pellet
1	8	*Corymbia tessellaris*	31	No koala	No fecal pellet
1	9	*Corymbia intermedia*	13	No koala	No fecal pellet
1	10	*Eucalyptus tereticornis*	38	No koala	No fecal pellet
1	11	*Corymbia tessellaris*	18	No koala	No fecal pellet
1	12	*Corymbia tessellaris*	20	No koala	No fecal pellet
1	13	*Lophostemon suaveolens*	15	No koala	No fecal pellet
1	14	*Eucalyptus tereticornis*	28	No koala	No fecal pellet
1	15	*Corymbia tessellaris*	28	No koala	No fecal pellet
1	16	*Corymbia tessellaris*	23	No koala	No fecal pellet
1	17	*Eucalyptus tereticornis*	76	No koala	No fecal pellet
1	18	*Corymbia intermedia*	20	No koala	No fecal pellet
1	19	*Lophostemon suaveolens*	18	No koala	No fecal pellet
1	20	*Eucalyptus tereticornis*	36	No koala	No fecal pellet
1	21	*Eucalyptus tereticornis*	38	No koala	No fecal pellet
1	22	*Corymbia tessellaris*	20	No koala	No fecal pellet
1	23	*Lophostemon suaveolens*	16	No koala	No fecal pellet
1	24	*Eucalyptus tereticornis*	33	No koala	No fecal pellet
1	25	*Lophostemon suaveolens*	24	No koala	No fecal pellet
1	26	*Corymbia intermedia*	32	No koala	No fecal pellet
1	27	*Lophostemon suaveolens*	18	No koala	No fecal pellet
1	28	*Corymbia intermedia*	23	No koala	No fecal pellet
1	29	*Eucalyptus tereticornis*	28	No koala	No fecal pellet
1	30	*Eucalyptus tereticornis*	52	No koala	No fecal pellet
2	31	*Corymbia citriodora* subsp. *variegata*	34	No koala	No fecal pellet
2	32	*Corymbia intermedia*	13	No koala	No fecal pellet
2	33	*Corymbia intermedia*	31	No koala	No fecal pellet
2	34	*Corymbia intermedia*	25	No koala	No fecal pellet

SAT site	Tree number	Tree species	DBH	Koala present?	Scat present?
2	35	*Corymbia intermedia*	37	No koala	No fecal pellet
2	36	*Corymbia intermedia*	31	No koala	No fecal pellet
2	37	*Eucalyptus tereticornis*	22	No koala	No fecal pellet
2	38	*Lophostemon suaveolens*	21	No koala	No fecal pellet
2	39	*Eucalyptus tereticornis*	27	No koala	No fecal pellet
2	40	*Eucalyptus tereticornis*	12	No koala	No fecal pellet
2	41	*Corymbia intermedia*	18	No koala	No fecal pellet
2	42	*Angophora leiocarpa*	19	No koala	No fecal pellet
2	43	*Angophora leiocarpa*	28	No koala	No fecal pellet
2	44	*Corymbia tessellaris*	17	No koala	No fecal pellet
2	45	*Eucalyptus tereticornis*	21	No koala	No fecal pellet
2	46	*Eucalyptus tereticornis*	26	No koala	No fecal pellet
2	47	*Eucalyptus tereticornis*	25	No koala	No fecal pellet
2	48	*Angophora leiocarpa*	22	No koala	No fecal pellet
2	49	*Corymbia intermedia*	29	No koala	No fecal pellet
2	50	*Eucalyptus tereticornis*	14	No koala	No fecal pellet
2	51	*Corymbia intermedia*	32	No koala	No fecal pellet
2	52	*Corymbia intermedia*	32	No koala	No fecal pellet
2	53	*Eucalyptus tereticornis*	37	No koala	No fecal pellet
2	54	*Corymbia intermedia*	27	No koala	No fecal pellet
2	55	*Corymbia tessellaris*	39	No koala	No fecal pellet
2	56	*Eucalyptus tereticornis*	69	No koala	No fecal pellet
2	57	*Eucalyptus tereticornis*	47	No koala	No fecal pellet
2	58	*Corymbia tessellaris*	46	No koala	No fecal pellet
2	59	*Eucalyptus tereticornis*	29	No koala	No fecal pellet
2	60	*Eucalyptus tereticornis*	17	No koala	No fecal pellet
3	61	*Corymbia intermedia*	50	No koala	No fecal pellet
3	62	*Eucalyptus tereticornis*	16	No koala	No fecal pellet
3	63	*Corymbia citriodora* subsp. *variegata*	38	No koala	No fecal pellet
3	64	*Eucalyptus tereticornis*	28	No koala	No fecal pellet
3	65	*Eucalyptus tereticornis*	25	No koala	No fecal pellet
3	66	*Eucalyptus tereticornis*	10	No koala	No fecal pellet
3	67	*Corymbia citriodora* subsp. *variegata*	22	No koala	No fecal pellet
3	68	*Eucalyptus tereticornis*	11	No koala	No fecal pellet

SAT site	Tree number	Tree species	DBH	Koala present?	Scat present?
3	69	*Eucalyptus tereticornis*	19	No koala	No fecal pellet
3	70	*Corymbia citriodora* subsp. *variegata*	49	No koala	No fecal pellet
3	71	*Eucalyptus tereticornis*	21	No koala	No fecal pellet
3	72	*Eucalyptus tereticornis*	13	No koala	No fecal pellet
3	73	*Eucalyptus tereticornis*	28	No koala	No fecal pellet
3	74	*Eucalyptus tereticornis*	13	No koala	No fecal pellet
3	75	*Eucalyptus tereticornis*	16	No koala	No fecal pellet
3	76	*Eucalyptus tereticornis*	26	No koala	No fecal pellet
3	77	*Corymbia intermedia*	15	No koala	No fecal pellet
3	78	*Eucalyptus tereticornis*	20	No koala	No fecal pellet
3	79	*Eucalyptus tereticornis*	24	No koala	No fecal pellet
3	80	*Eucalyptus tereticornis*	17	No koala	No fecal pellet
3	81	*Corymbia citriodora* subsp. *variegata*	29	No koala	No fecal pellet
3	82	*Corymbia citriodora* subsp. *variegata*	17	No koala	No fecal pellet
3	83	*Corymbia citriodora* subsp. *variegata*	14	No koala	No fecal pellet
3	84	*Eucalyptus tereticornis*	18.5	No koala	No fecal pellet
3	85	*Eucalyptus tereticornis*	22	No koala	No fecal pellet
3	86	*Lophostemon suaveolens*	17	No koala	No fecal pellet
3	87	*Eucalyptus tereticornis*	34	No koala	No fecal pellet
3	88	*Eucalyptus tereticornis*	38	No koala	No fecal pellet
3	89	*Eucalyptus tereticornis*	23.5	No koala	No fecal pellet
3	90	*Corymbia intermedia*	17	No koala	No fecal pellet



Making Sustainability Happen

Attachment E TEAR Addendum

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

Addendum to the Terrestrial Ecological Assessment Report

Ripley Road & Fischer Road Upgrade

Ipswich City Council

Prepared by:

SLR Consulting Australia Pty Ltd

SLR Project No.: 620.041764.00008

Client Reference No.: Cultural Heritage and Environmental Management: Ripley Road & Fischer Road Upgrade: 27.3.2.1 (b) (i)

22 September 2025

Revision: V1.0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
V1.0	22 September 2025	Emily Hancock	Dr Natalie Freeman	Leigh Knight

Basis of Report

This addendum to the Ripley Road & Fischer Road Upgrade Terrestrial Ecological Assessment Report[1] has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Ipswich City Council (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This addendum is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

[1] SLR. (2025) *Ripley Road & Fischer Road Upgrade Terrestrial Ecological Assessment Report,* report to Ipswich City Council.

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Acronyms and Abbreviations

DBH	Diameter at breast height
ICC	Ipswich City Council
MNES	Matters of National Environmental Significance
SLR	SLR Consulting Australia Pty Ltd

1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) have been engaged by BG&E Pty Limited & Bielby Holdings Pty Ltd on behalf of Ipswich City Council (ICC) to undertake additional vegetation and habitat assessment surveys to form an addendum to the Terrestrial Ecological Assessment Report (TEAR; SLR 2025) for the proposed upgrade of Ripley Road and Fischer Road (the Project).

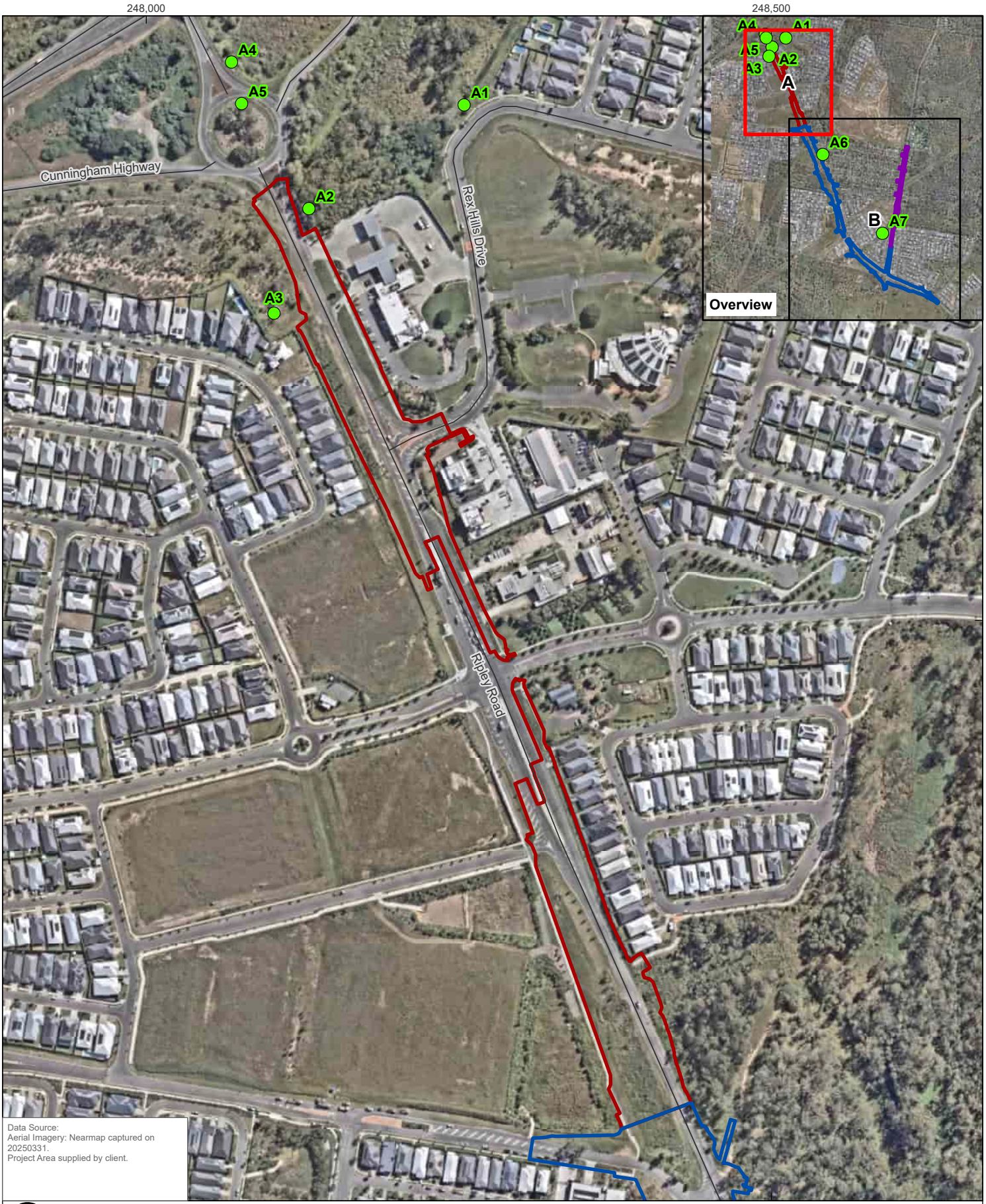
2.0 Methods

The field survey was conducted on 16 September 2025 by SLR Senior and Associate Ecologists. The scope of works was to provide additional information regarding the environmental context of the Stage 1 Project Area and habitat values in the wider landscape. Field surveys included:

- Quaternary flora assessments of vegetation type in accordance with the *Methodology for Survey and Mapping of Regional Ecosystems and Vegetation Communities in Queensland*[2].
- Habitat assessments focussing on the suitability of vegetation to provide habitat for Matters of National Environmental Significance (MNES), including koala *(Phascolarctos cinereus)* and grey-headed flying-fox *(Pteropus poliocephalus).*

Due to land access restrictions, the surveys were conducted from publicly accessible easements and ICC land. Survey site locations are presented in Figure 1. The site assessment included an inspection of potential fauna movement corridors identified in the TEAR.

[2] Neldner, V. J., Wilson, B. A., Dillewaard, H. A., Ryan, Tim., Butler, D. W., McDonald, W. J. F., Addicott, Eda., & Appelman, C. N. (2022). *Methodology for surveying and mapping regional ecosystems and vegetation communities in Queensland, version 6.0*. Queensland Herbarium, Department of Environment and Science.



Data Source:
Aerial Imagery: Nearmap captured on 20250331.
Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:4,000 at A4
Project Number:	620.041764
Date Drawn:	17-Sep-2025
Drawn by:	RB

LEGEND

- Additional Survey Site
- Road
- Stage 1
- Stage 2
- Stage 3

ADDENDUM TO RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

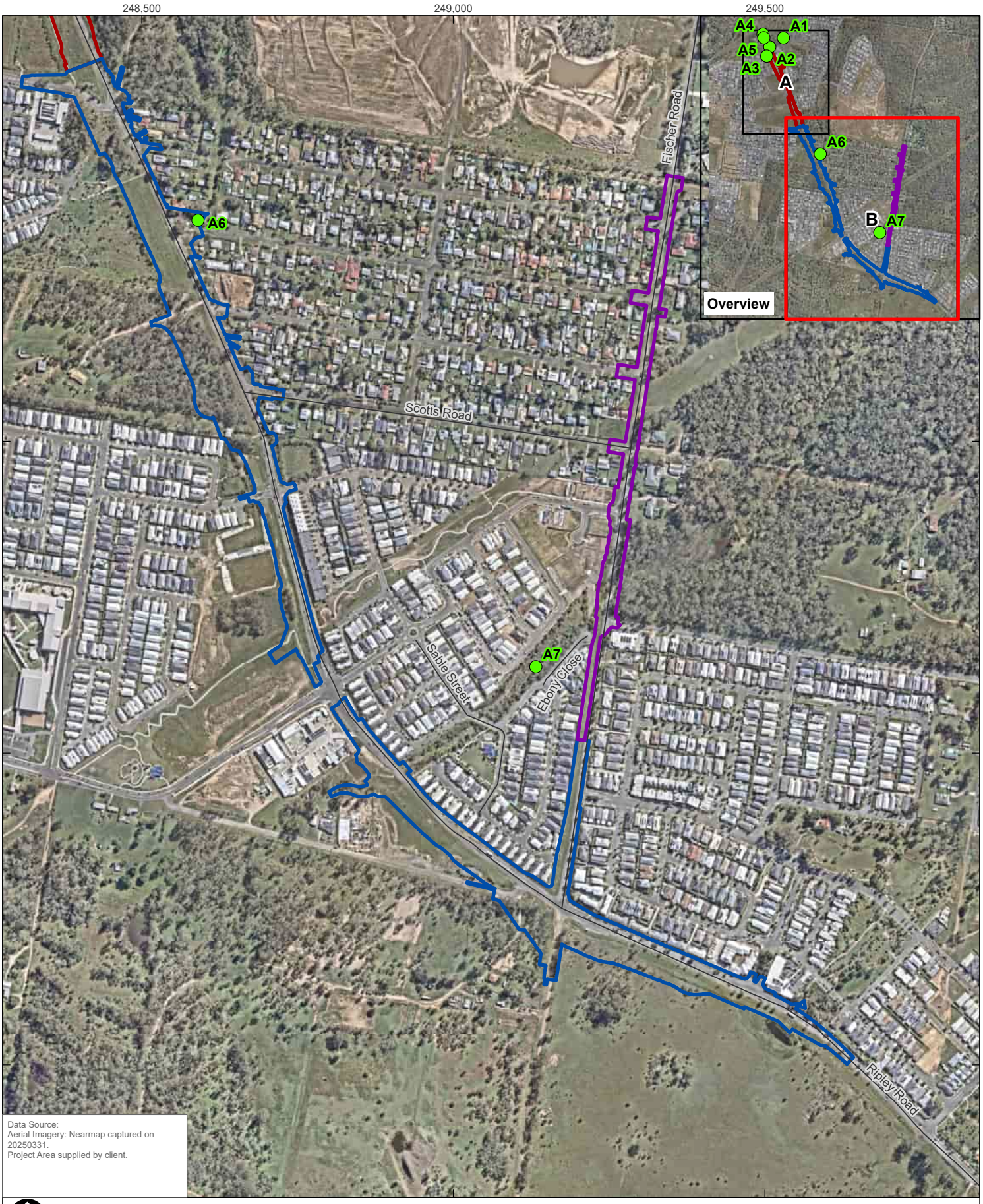
FLORA SURVEY EFFORT

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 1A

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_ADD_F01-01_Additional Survey Sites



Data Source:
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Project Area supplied by client.

0 50 100 m

Coordinate System:	ICC Terrain 2001
Scale:	1:8,000 at A4
Project Number:	620.041764
Date Drawn:	17-Sep-2025
Drawn by:	RB

LEGEND

- Additional Survey Site
- Road
- Stage 1
- Stage 2
- Stage 3

ADDENDUM TO RIPLEY ROAD AND FISCHER ROAD UPGRADE TERRESTRIAL ECOLOGICAL ASSESSMENT REPORT

FLORA SURVEY EFFORT

SLR

DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 1B

Path: H:\Projects-SLR\620-BNE\620-BNE\620.041764.00001 ICC Ripley and Fisher Road Upg\06 SLR Data\01 GIS\GIS\ICC Ripley and Fischer Road Upgrade\ICC Ripley and Fischer Road Upgrade.aprx\620041764_ECO_TEAR_ADD_F01-01_Additional Survey Sites

3.0 Results

The results of the flora and habitat assessment surveys are presented in Table 1 to Table 7. The survey indicated that the vegetation adjacent to the northern extent of the Project Area (survey site A1, A2, A3) is likely to provide koala dispersal habitat (rather than foraging/breeding habitat) and grey-headed flying-fox foraging habitat.

Table 1 Field survey results site A1

Attribute	Description
Location	A1: North of Rex Hills Drive
Slope	Northeast
Landform	Lower slope / drainage line
Mapped RE	Non-remnant
Vegetation description	Small patch of regrowth eucalypts, dominated by *Eucalyptus tereticornis* with occasional *Blakella tessellaris* among other eucalypts. Shrub layer dominated by *Leucaena leucocephala*, Lantana camara** and recruiting eucalypts. Grassy ground layer dominated by *Chloris gayana*.* Average canopy (T1) height of 23 m and subcanopy (T2) height of 10 m. *Typha orientalis** and *Baccharis halimifolia** present along drainage line. Cleared area surrounding the small eucalypt patch is infested with *Leucaena leucocephala*, Lantana camara*, Baccharis halimifolia*, Bidens pilosa** and *Chloris gayana*.*
 North west	 North

*Introduced species.

Table 2 Field survey results site A2

Attribute	Description
Location	A2: North of Ampol at 332 Ripley Road, Ripley QLD 4306
Slope	Northeast
Landform	Mid slope
Mapped RE	Non-remnant

Attribute	Description
Vegetation description	*Blakella citriodora* regrowth woodland. Dense Citriodora regrowth with median T1 height of 12 m and average diameter at breast height (DBH) of *B. citriodora* <15 cm. Mid-dense shrub layer of recruiting *B. citriodora*, *Leucaena leucocephala*, Lantana camara** and isolated *Lomandra longifolia.* Approximately nine trees with DBH >20 cm observed from edge of patch.
 North	 East
 South	

*Introduced species.

Table 3 Field survey results site A3

Attribute	Description
Location	A3: Corner of Ripley Road and Cunningham Highway on-ramp
Slope	North
Landform	Mid slope
Mapped RE	High value regrowth Regional Ecosystem 12.9-10.2/12.9-10.7/12.9-10.16
Vegetation description	Vegetation is consistent with flora survey site F1 but is sparser on the upper slope/top of the hill. *Blakella citriodora* and *Eucalyptus crebra* in the canopy with a subcanopy of *Acacia disparrima* subsp. *disparrima*, *Acacia leiocalyx* and recruiting eucalypts.

Attribute	Description
	Shrub layer of *Lantana camara** and *Solanum mauritianum** and a ground layer dominated by *Megathyrsus maximus**.
 North	 South (taken from northern side of roundabout)

*Introduced species.

Table 4 Field survey results site A4

Attribute	Description
Location	A4: Between Cunningham Highway and Ripley Road off-ramp from Cunningham Highway.
Mapped RE	Non-remnant
Vegetation description	Dense shrub cover of *Acacia leiocalyx, Lantana camara*, Ricinus communis** and *Leucaena leucocephala*.* Ground cover dominated by *Megathyrsus maximus** with occasional *Macroptilium atropurpureum*.*
 North	 East

*Introduced species.

Table 5 Field survey results site A5

Attribute	Description
Location	A5: Cunningham Highway overpass roundabout
Mapped RE	Non-remnant
Vegetation description	Regularly maintained garden of *Melaleuca viminalis* with isolated emergent eucalypts and a sparse ground layer of *Lomandra longifolia.*

Attribute	Description
 South	

Table 6 Field survey results site A6

Attribute	Description
Location	A6: Scotts Park culvert
Landform	Drainage line
Mapped RE	Non-remnant
Vegetation description	Isolated *Melaleuca viminalis* and *Melaleuca quinquenervia* in cleared, regularly mowed park.
Fauna habitat notes	Scotts Park investigated as potential fauna movement corridor. The culvert with standing water was long and had a curve in it (other side was not visible when looking through it) and was not suitable to be retrofitted to be koala-friendly. Trees suitable to support koala dispersal were sparse and overhanging private backyards with large dogs observed in adjacent backyards.
 North	 West

Table 7 Field survey results site A7

Attribute	Description
Location	A7: Drainage line (fauna movement corridor) between Sable Street and Fischer Road
Landform	Drainage line

Attribute	Description
Mapped RE	Non-remnant
Vegetation description	Non-remnant, planted, drainage line vegetation. Short (6-8 m) canopy dominated by Acacia spp., with occasional Casuarina spp., and juvenile eucalypts including *Eucalyptus tereticornis* and *Blakella tessellaris.* Ground layer is dominated by *Lomandra longifolia* and *Typha orientalis*, Carex* sp. and *Chloris gayana** are occasional.
Fauna habitat notes	Drainage line assessed as potential fauna movement corridor. Vegetation is suitable as a fauna movement corridor, but unlikely to be suitable for koala movement. The corridor lacks medium to large trees, with most trees having a DBH of less than 15 cm and an average height of 6-8 m. The fauna corridor is not continuous and is interrupted by Sable Street, which also borders Bumble Bee Park, a high-use children's park.
 Southwest (taken from Sable Street)	 North (taken north of Sable Street)
 Southwest (taken from Ebony Close)	 Northeast (taken near Ebony Close)

*Introduced species.

4.0 Conclusions

Vegetation to the west of the Project Area (survey site A3) was generally consistent with the previously surveyed regrowth vegetation that was identified as koala dispersal habitat and grey-headed flying fox foraging habitat (and was subsequently excluded from the Project Area). Vegetation was notably sparser on top of the small hill in this location and only a thin band of trees was present adjacent to the Cunningham Highway on-ramp.

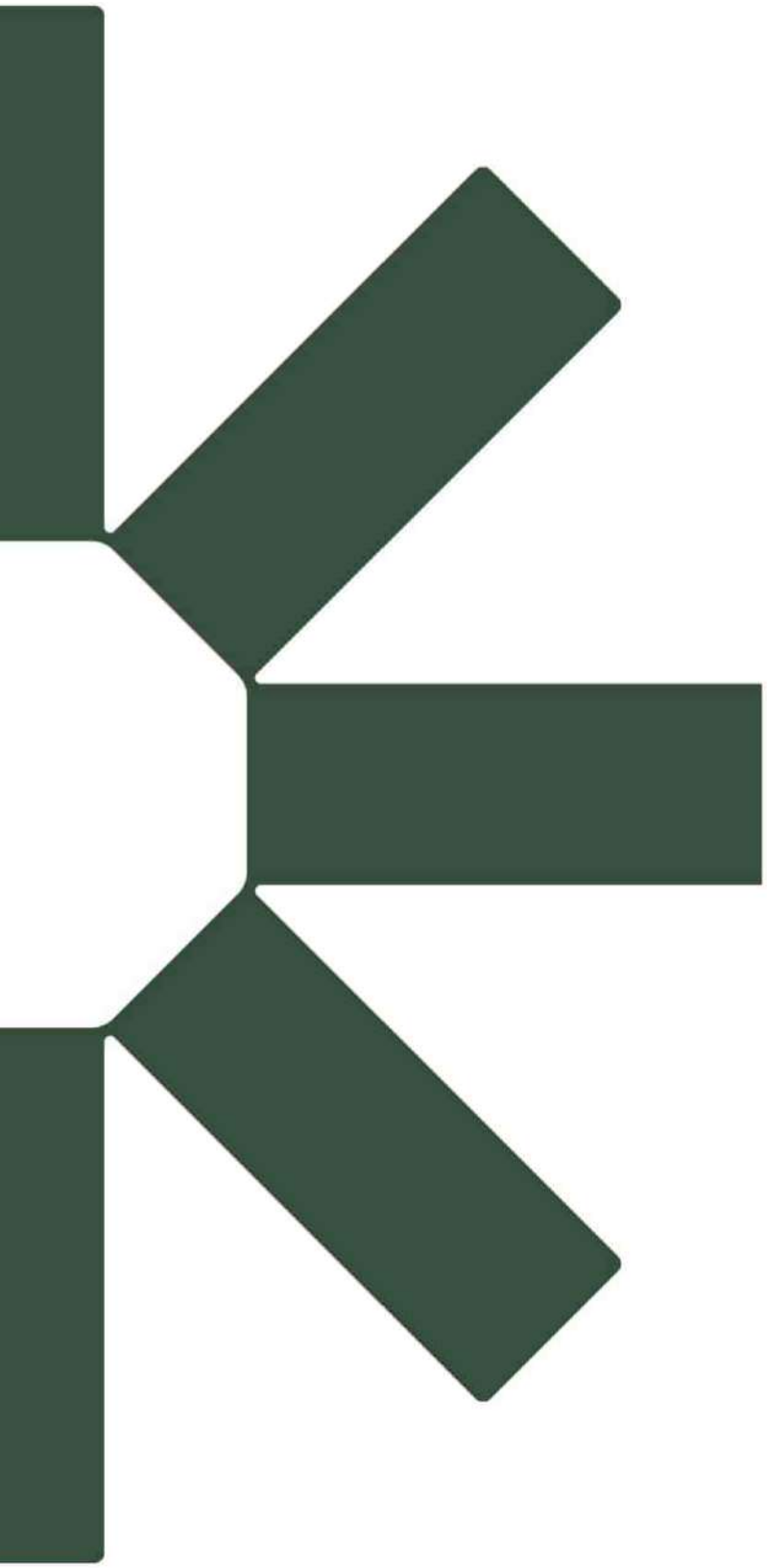
Vegetation directly east of the Project Area (survey site A2) was identified as regrowth spotted gum *(Blakella citriodora)* woodland. This patch had a high stem density of spotted gum, with a median height of approximately 12 m. However, most stems were of small DBH, with only approximately nine trees identified with a DBH >20 cm. This vegetation provides koala dispersal habitat and grey-headed flying-fox foraging habitat.

Vegetation further east of the Project Area (survey site A1) was dominated by dense weed cover in the ground and shrub layers, including *Leucaena leucocephala, Lantana camara* and *Chloris gayana.* Generally, the vegetation had an absent canopy layer, except from a relatively small patch that contained large eucalypts, including *Eucalyptus tereticornis* and *Blakella tessellaris*. This vegetation provides koala dispersal habitat and grey-headed flying-fox foraging habitat.

Vegetation to the north of the roundabout contained a dense shrub cover of *Acacia leiocalyx* and was severely impacted by weeds. The roundabout itself is landscaped and maintained. Neither of these areas provide habitat for koala or grey-headed flying-fox.

Scotts Park (survey site A6) and the drainage line traversing Ripley Road, Sable Street and Fischer Road (survey site A7) were assessed for their potential as fauna movement corridors. The survey identified that the existing culvert at Scotts Park under Ripley Road contained standing water and was lengthy with a curve in it, therefore unlikely to be used by koala. The trees along the easement that extends north from Scotts Park were sparse and overhanging backyards with large dogs in them. Whilst this area may form a low-quality fauna movement corridor, it has very limited suitability for koala.

Surveys confirmed that the Sable Street drainage line lacks medium to large trees, with most trees having a DBH of less than 15 cm and a median height of 6-8 m. The drainage line is likely a fauna movement corridor, but unlikely to be suitable for koala movement. Any fauna moving along the drainage line would need to traverse Sable Road, which also runs parallel with a high-use children’s park.



Making Sustainability Happen

Attachment F Ipswich City Council Environmental Framework Documents

EPBC Act Referral

Ripley Road & Fischer Road Upgrade

Ipswich City Council

SLR

Environmental Protection Policy

Collaboration Communication Integrity Efficiency Leadership

Version Control and Objective ID	Version No: 1	Objective ID: A10383357
Adopted at Council Ordinary Meeting on	27 February 2025	
Date of Review	27 February 2029	

1. Statement

Ipswich City Council will be a leader in environmental excellence by identifying, preventing, and managing any potential adverse environmental impacts associated with the delivery of its operations, activities, products, and services. Environmental best practice is an important objective for all our community, including those who work and do business in Ipswich, and for Council.

2. Purpose and Principles

This policy directs the Council's decision-making by prioritizing the protection of the environment, its inherent values, and ecosystem functions. It ensures compliance with regulatory obligations and fosters continuous improvement in environmental management to enhance the city's overall environmental performance.

The following principles underpin Council's commitment to environmental protection:

- Plan – Do, Check, Act
- Understand – Potential impacts of actions and activities
- Protect – the environment by preventing or mitigating adverse environmental impacts
- Comply – with all relevant environmental legal obligations
- Regulate – Undertake its duties as a Regulatory Authority for development and land use activities in accordance with all relevant obligations and standards
- Manage – environmental-related risk effectively and in a manner that is integrated with other risks across Council
- Continually improve – the suitability, adequacy, and effectiveness of environmental management to enhance environmental condition outcomes and performance
- Encourage – responsible environmental practice by all stakeholders across Ipswich
- Commit – to best practice environmental incident control, rectification, and reporting
- Achieve – environmental objectives
- Strive – For better environmental compliance and environmental outcomes for development and land use across Ipswich beyond compliance

3. Strategic Plan Links

This policy delivers against the following iFuture 2021-2026 Corporate Plan theme/s:

- Safe, Inclusive and Creative
- Natural and Sustainable

- A Trusted and Leading Organisation

4. Regulatory Authority

Implementation, application, and governance of this policy will consider the following regulatory instruments:

Queensland:

- Environmental Protection Act 1994
  - Environmental Protection (Air) Policy 2019
  - Environmental Protection (Noise) Policy 2019
  - Environmental Protection (Water and Wetland Biodiversity) Policy 2019
  - Environmental Protection Regulation 2019
- Water Act 2000
- Fisheries Act 1994
- Aboriginal Cultural Heritage Act 2003
- Queensland Heritage Act 1992
- Vegetation Management Act 1999
- Biosecurity Act 2014
- Planning Act 2016
- Local Government Act 2009
- Nature Conservation Act 1992
- Work Health and Safety Act 2011
- Coastal Protection and Management Act 1995
- Environmental Offsets Act 2014
- Other associated subordinate documents

Australia:

- Environment Protection and Biodiversity Conservation Act 1999
- Native Title Act 1993
- Airports Act 1996
- Other associated subordinate documents

5. Human Rights Commitment

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

6. Scope

- This policy applies to all council staff, contractors, and others working on Council's behalf to ensure they work in accordance with the policy principles and in accordance with the relevant legislation.

- This policy applies to all of Council business or activities which have the potential to cause adverse environmental impact or influence functions including pollution, contamination, damage, biosecurity impacts, and issues affecting soil, air, water, land, flora, fauna and humans including cultural heritage, cultural landscapes and their interrelations.
- This policy applies to environmental protection within Council's legislative requirements and responsibilities. This policy does not apply to activities that are outside of Council's control.
- This policy does not apply to Federal or State matters e.g., investigation, management, regulations, licenses and permits which sit with the QLD Department of Environment, Tourism, Science, and Innovation.

7. Roles and Responsibilities

Role	Responsibility
Councillors	The Councillors are responsible for advocating, promoting, and supporting the principles of the Environmental Protection Policy
Chief Executive Officer and General Managers	The CEO and General Managers are responsible for advocating, promoting and supporting the principles of the Environmental Protection Policy and embedding the principles as a business-as-usual practice.
Environment and Sustainability Department	<u>General Manager/Manager Natural Environment</u> Responsible for the overall development, implementation, and monitoring of the Environmental Protection Policy <u>Strategic Catchment and Conservation Planning Team</u> • Responsible for advising on the development, drafting, implementation, monitoring and review of the Environmental Protection Policy and associated strategies, plans and procedures in consultations with key stakeholders • Provision of technical support and expertise to assist in the implementation of this policy • Provision of liaison and education with key internal stakeholders • Collecting data on impacts and issues
Branch and Section Managers	• Responsible for the implementation and monitoring of the Environmental Protection Policy within their work areas • Responsible for the development, implementation and monitoring of associated standards, guidelines, manuals, work instruction and plans required for implementation of the Environmental Protection Policy within their work areas
All Ipswich City Council Employees, Contractors and others working on behalf of Council	Responsible for understanding the principles outlined in the Environmental Protection Policy and applying these principles throughout their work including in planning, decision-making, operations, monitoring, construction, maintenance, compliance and reporting of any issues or potential issues which arise

Everyone including the community, people who work and do business in Ipswich and all of Council	The Environmental Protection Act 1994 (the Act) states that everyone has a general environmental duty (GED). This means that everyone is responsible for the actions they take that affect the environment.

8. Key Stakeholders

The policy applies broadly across all Council departments. Key stakeholders who will be consulted during the review process include:

- Environment and Sustainability Department
  - Land Management and Natural Areas Planning
  - Strategic Catchment and Conservation Planning
  - Resource Recovery
  - Environment and Sustainability Education and Awareness
- Asset and Infrastructure Services Department
  - Infrastructure Strategy
  - Capital Delivery
  - Works and Field Services
- Planning and Regulatory Services Department
  - City Design
  - Engineering, Health, and Environment
  - Development Planning
  - Compliance

9. Monitoring and Evaluation

The following measures will determine the success and effectiveness of the policy:

- Broad staff participation in training that builds understanding and adoption of the policy and subsidiary documents
- Environmental Protection Policy principles and requirements embedded in Council's corporate documentation and ProMapps
- Effective reporting and a reduction of environmental incidents and complaints

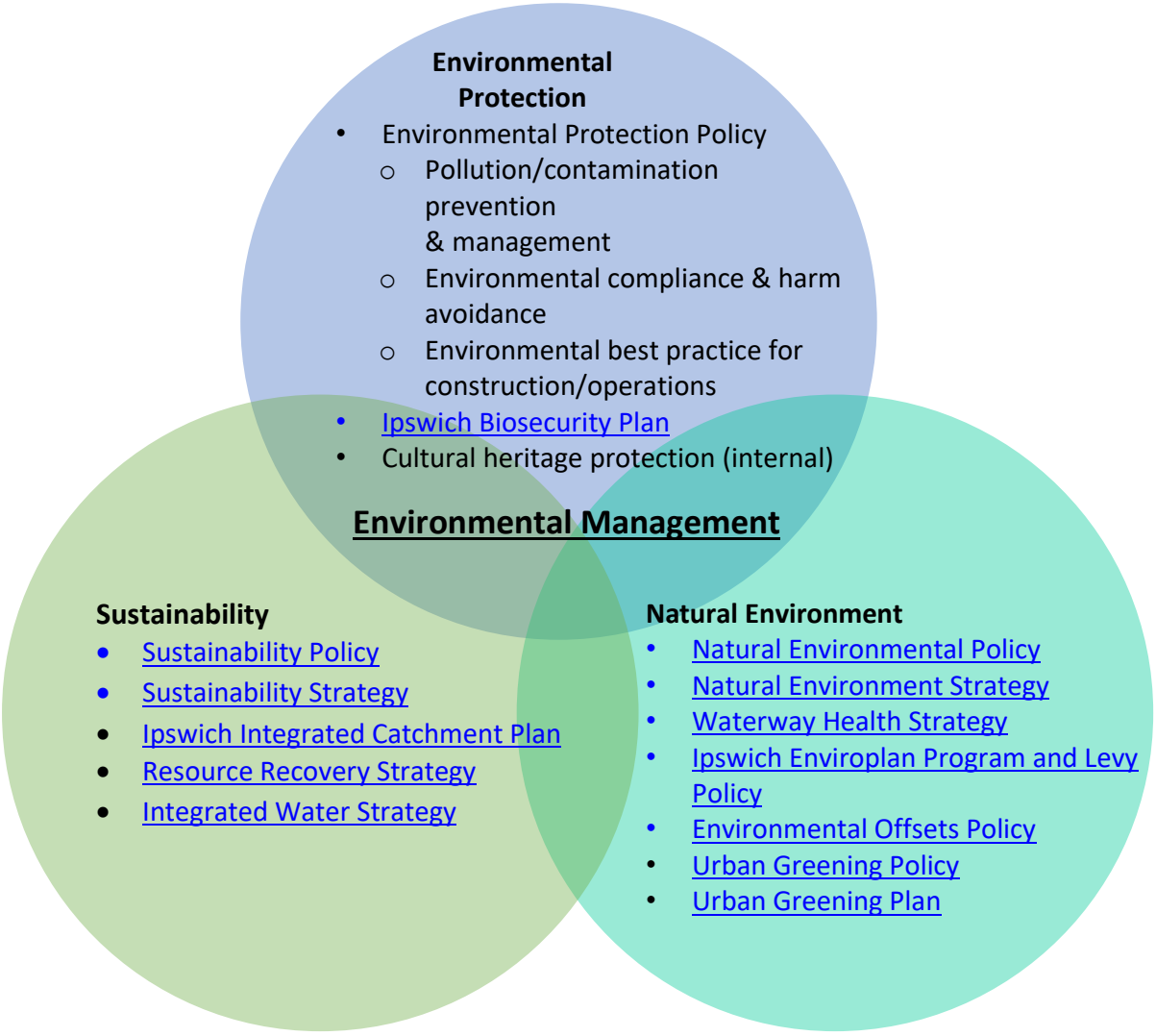
10. Definitions

Key Term	Definitions (from AS/NZS ISO 14001:2016)
Environment	Surroundings in which an organisation operates, including, air, water, land, natural resources, flora, fauna, humans, and their interrelations
Environmental Impacts	Changes to the environment, whether adverse or beneficial, wholly, or partially resulting from an organisation's environmental aspects

Environmental Aspect	Element of an organisation's activities or products or services that interacts or can interact with the environment
Environmental Condition	State or characteristic of the environment as determined at a certain point in time

11. Related Documents

Environmental Management has been allocated to three interlinking aspects and their associated documentation: Environmental Protection, Sustainability and Natural Environment.



12. Policy Owner

The General Manager (Environment and Sustainability) is the policy owner, and the Manager (Natural Environment) is responsible for authoring and reviewing this policy.

Natural Environment Policy

Collaboration Communication Integrity Efficiency Leadership

Version Control and Objective ID	Version No: 1	Objective ID: A7577068
Adopted at Council Ordinary Meeting on	16 September 2021	
Date of Review	16 September 2025	

1. Statement

Council is committed to conserve, protect, enhance and restore the health of the City's natural environment values both on public and private lands for the benefit, use and lifestyle of current and future generations.

That protecting the natural environment for its own intrinsic value is an important objective for all the community and for Council.

Council acknowledges a healthy natural environment is fundamental to cultural, social, physical and economic wellbeing of the community.

By continuing to operate a proactive and evidence-based approach, we will strive to ensure improvement to the natural environment.

Council recognises the important contribution a healthy natural environment makes in transitioning to a Sustainable City.

2. Purpose and Principles

The purpose of the policy is to strengthen council's commitment to conserve, protect, enhance and restore the natural environment and its values, through the following seven focus areas and associated principles:

1. Biodiversity & Threatened Species Recovery

- Identify, protect, maintain & rehabilitate priority natural environment values of the city.
- Protect and improve habitat value within large areas of intact threatened species andpriority wildlife habitat, including koalas.
- Enhance and protect key habitat corridors to maintain or increase regional and local connectivity for threatened species and priority wildlife.
- Understand, identify and reduce the impact of threats to threatened species and priority wildlife, including koalas.
- Gather data, prioritise, plan and support other government initiatives for threatened species and priority wildlife, including locally significant wildlife.

- Further incorporate natural value importance into council's planning activities and general business operations.
- Implement sustainable land-use planning practices that concentrates urban development within the urban footprint in a compact development form as a desirable outcome, relative to meeting the need for housing, employment and other facilities and services for the city's growing community.
- Develop and implement regulatory (e.g. local laws) and non-regulatory (e.g. incentives) tools that supports natural environment outcomes on public and private land.
- Seek an approach whereby negative impacts are first avoided, minimised or mitigated before any remaining impacts are offset.

2. Wetlands & Waterways Improvement

- Protect, rehabilitate and maintain wetlands and waterways, including their associated corridors, for the benefit of aquatic and terrestrial wildlife, community liveability and continuation of traditional cultural practices.
- Invest in waterway recovery projects at priority sites targeting improved in-stream habitat condition, aquatic connectivity and riparian weed management and revegetation.
- Monitor aquatic communities and connectivity of the region's waterways to quantify threats, as well as measure the outcomes of remediation activities.
- Identify and address key sources of sediment which impact aquatic communities through poor water quality and degraded stream morphology.
- Improve streambank stabilisation at strategic locations supporting habitat conditions for priority wildlife, including platypus.
- Increase community education and awareness of key issues impacting aquatic biodiversity to encourage behavioural change and stewardship of the city's waterwaysand wetlands.

3. Urban Biodiversity Enhancement

- Catalogue, conserve and enhance urban biodiversity values and the ecological systems that support them.
- Create and enhance corridors in urban areas to provide connectivity and refuge for wildlife and ecosystem services functions.

4. Natural Area Restoration & Protection

- Invest in strategic restoration activities to re-establish corridor linkages through the landscape, including using offsets or partnerships programs.
- Implement sound environmental management principles on Council owned or managed land, focusing on long term protection, practical actions with foreseeable outcomes.

- Manage protected natural areas and partner with private landholders in core habitat areas to provide refuge for native plants and animals from the impacts of changing climate.

5. Experiencing Nature

- Support Traditional owners with maintaining connection to cultural lands and sites.
- Encourage community to connect with nature to foster a conservation ethic and develop environmental stewards.
- Promote and provide for sustainable outdoor/nature-based recreational activities, environmental education and eco-tourism opportunities within natural areas, recognising the significant community benefit these areas provide.
- Invest in infrastructure and management activities that supports sustainable provisionof nature experiences.
- Provide, plan, develop, manage, maintain and activate high quality sustainable outdoor/nature-based recreation opportunities in natural areas.
- Assess the need for the provision of outdoor/nature-based recreation activities based on demand and the identification of suitable sites to ensure a sustainable fit between natural values and outdoor/nature-based recreation activities.
- Provide, manage and maintain outdoor/nature-based recreation activities, facilities and settings that are complementary to and protect the natural values of the settings within which they are positioned.

6. Community Awareness & Support

- Embrace opportunities to partner with Indigenous Land Management Businesses, government agencies, universities, research organisations, regional bodies and other local governments on collaborative projects.
- Work closely with the community through collaboration, partnerships and support programs that empower and build capacity as environmental stewards.
- Support community contribution of information through citizen science programs.
- Increase recognition within the community and council of natural environment ecosystem services as well as Cultural Heritage and Cultural Landscape values.

7. Governance, Measuring & Reporting

- Implement outcome based, priority driven and adaptive investment of council funds, including Ipswich Enviroplan Levy, general revenue and external grants.
- Comply with relevant statutory responsibilities, legislation, policy & plans, while pursuing new approaches, continual improvement, environmental excellence and demonstrating leadership in operations and activities.

- Identify, collect, monitor, review and report about natural values, environmental performance and visitation.
- Operate programs and undertake priorities driven by best available knowledge and data, cross-referenced with community interest and capability to ensure confidence inachieving outcomes.

3. Strategic Plan Links

This policy aligns with the following iFuture 2021-2026 Corporate Plan theme:

- Natural and Sustainable

4. Regulatory Authority

Implementation, application and governance of the policy will give consideration to the following regulatory instruments:

- *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*
- *Environmental Protection Act 1994*
- *Environmental Protection & Biodiversity Conservation Act 1999*
- *Fisheries Act 1994*
- *Local Government Act 2009*
- *Native Title Act 1993*
- *Nature Conservation Act 1992*
- *Planning Act 2016*
- *The Biosecurity Act 2014*
- *Vegetation Management Act 1999*
- *Water Act 2000*

5. Human Rights Commitment

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

6. Scope

The policy relates to council's natural environment management activities including delivery of services, strategic planning, regulation, facilitation, advocacy, education and facilities.

The policy guides decision making and the development of all future council policy, strategy and plans in relation to the natural environment.

The policy applies to all councillors, council staff, contractors, and others that act on Council's behalf to ensure they work in accordance with the policy principles and in accordance with the relevant legislation.

These policy principles are also aspirational for Ipswich's community whereby, through the commitment and actions of Council, they will be realised.

7. Roles and Responsibilities

Role	Responsibility
Chief Executive Officer and General Managers	The CEO and General Managers' are responsible for advocating, promoting and supporting the principles of the Natural Environment Policy as a business as usual practice.
Environment & Sustainability Branch	<u>Branch/ Natural Environment & Land Management Section Manager</u> Responsible for overall development, implementation and monitoring of the Natural Environment Policy. <u>Natural Environment & Land Management Section</u> • Responsible for the development, drafting and implementation and review of the policy and its related strategies, plans and programs. • Provision of technical support and expertise to assist in the implementation of this policy. • Provision of regular reporting and analytics. • Liaison and education with key internal and external stakeholders.
All Ipswich City Council Employees	Responsible for understanding the principles outlined in the policy and applying these principles in planning, decision making, delivery activities and reporting.

8. Key Stakeholders

The policy applies broadly across all Council departments. Key stakeholders sit within each department and branch. However, stakeholders of note are those in the following teams:

- Asset and Infrastructure Services Department – City Maintenance, Infrastructure Strategy, Emergency Management & Sustainability and Natural Environment & Land Section.
- Planning & Regulatory Services Department – Strategic Planning, Local Laws &Regulated Parking and Environment Assessment.
- Coordination & Performance Department – Integrated Planning & Reporting.
- Community, Cultural & Economic Development Branch – Sport & Recreation and Destination Development.

9. Monitoring and Evaluation

The following measures will determine the success and effectiveness of the policy:

- Access to the natural environment;
- Progress implementing strategies;
- Increased connected corridors;
- Extent of protected area;

- Increased nature-based recreation opportunities and activation;
- Improvement in waterway condition;
- Extent of protection of Aboriginal cultural heritage and cultural landscape features;
- Preservation of traditional cultural practices;
- Improvement of natural environment health;
- Amount of area under active restoration;
- Extent if canopy cover;
- Level of staff awareness of the importance of natural environment.

An annual update about policies implementation and council's performance will be published on council's web, and the community made aware of its availability.

10. Definitions

Conserve/conservation (nature): terms generally used to describe an approach to protect natural resources and their values and seeks for the proper, sustainable and renewable use of nature – ensuring its continued availability.

Manager: includes persons appointed to positions with the title Supervisor, Principal, Section Manager, General Manager and Chief Executive Officer.

Natural Environment: With reference to this policy, the natural environment is a collective term used to describe the diverse terrestrial and aquatic ecosystems that make up the city's habitat network.

Natural Values: With reference to this policy, natural values are special qualities such as uniqueness, rarity, typicality, representivity, scientific or education importance, have useful features or recreation value. Includes:

- habitat for iconic, significant and threatened species;
- core habitat areas as home for a diverse range of wildlife;
- nodes of remnant vegetation in urban areas providing wildlife refuge;
- strategic remnants vegetation patches as stepping stones for wildlife movement;
- corridors providing connectivity for wildlife, recreation and active transport;
- increasing vegetation condition and animal abundance within core habitat areas;
- biological diversity, natural capital and ecosystem services;
- waterways, wetlands, riparian and aquatic ecosystems and floodplains;
- improving health of waterways;
- Aboriginal cultural heritage and cultural landscape features; and
- scenic amenity.

Sound Environmental Management Principles: With reference to this policy, sound environmental management principles includes:

- Natural values should be protected, managed and enhanced to conserve their natural condition;
- Best practice pest plant, animal and fire management should be implemented;
- Maintaining and enhancing natural values and cultural landscapes for inspirational, educational, cultural and nature-based recreation; and
- Scientific and educational enquiry should be provided and promoted at ecologically sustainable levels.

Urban Biodiversity: Refers to the variety and variability among living organisms found in the city's highly developed areas and the ecological systems in which they are found.

11. Related Documents

The policy shares links with the following key corporate documents:

- Employee Code of Conduct
- Ipswich Enviroplan Program & Levy Policy (and Procedure)
- Ipswich Planning Scheme
- Nature Conservation Strategy
- Open Space & Recreation Strategy
- Sustainability Policy
- Waterway Health Strategy

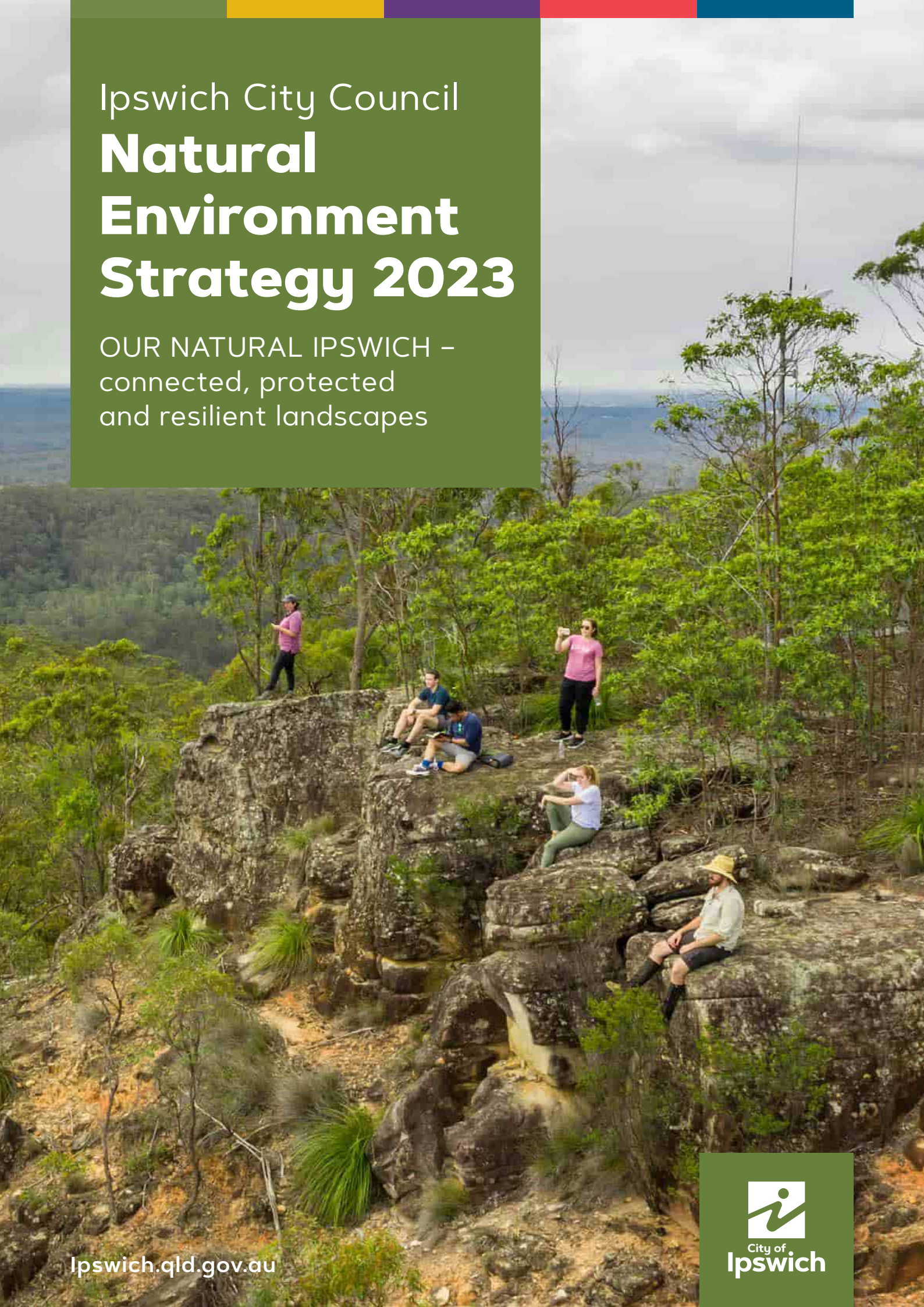
12. Policy Owner

The General Manager (Environment and Sustainability) is the policy owner and the Manager, Natural Environment and Land Management is responsible for authoring and reviewing this policy.

Ipswich City Council

Natural Environment Strategy 2023

OUR NATURAL IPSWICH – connected, protected and resilient landscapes



Ipswich.qld.gov.au

City of Ipswich

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ACKNOWLEDGEMENT OF COUNTRY

Trails across Ipswich and beyond traverse the cultural landscape of the Traditional Owners. Ipswich City has cultural significance for the Traditional Owners who have always had and have maintained a spiritual connection with their country. This relationship remains strong and important to the people today.

Ipswich City Council recognises and respects the connection between Traditional Owners and their country.

INTRODUCTION

What do we mean by Ipswich's natural environment?

The natural environment is defined as a collective term used to describe the diverse land and water ecosystems that make up the city's habitat network. The natural environment includes:

- habitat for iconic, significant and threatened species
- vegetated spaces providing refuge for wildlife
- corridors of natural areas providing connectivity for wildlife and people
- biological diversity, natural capital and ecosystem services
- waterways, wetlands, riparian and aquatic ecosystems and floodplains
- healthy soils and productive lands
- Aboriginal cultural heritage and cultural landscape features
- recreation and scenic amenity.



Photo comp entrant: Want G, Grasstree Sunset, Queens Park



These natural areas are spread across the region, crossing rural and urban lands which are both privately and publicly owned and managed (Figure 1).



Photo courtesy: Hepburn L, Gone Fishing, Armstrong Park



This strategy provides the overarching strategic direction for the natural environment across Ipswich which considers waterways and wetlands, biodiversity and threatened species, Aboriginal cultural heritage and cultural landscape values, urban and rural biodiversity, and sustainable nature-based recreation. It will guide the delivery and co-ordination of actions and activities undertaken across different council programs and plans which influence the natural environment. This will range from the development and delivery of conservation and recovery plans for threatened species through to the planning of multi-functional open space areas.

Natural Environment Strategy

Waterways and wetlands	Biodiversity and threatened species	Aboriginal cultural heritage and cultural landscape values	Urban biodiversity	Rural biodiversity	Sustainable nature-based recreation

This document should be read in conjunction with the *Natural Environment Strategy 2022 – Background Report* which provides additional information on the natural environment values, threats and best practice management approaches.

Why is it important?

Ipswich's natural environment is recognised as critically vital to the viability and liveability of the city due to the many ecosystem services it provides including:

- providing habitat to a diversity of native flora and fauna
- supporting the lifestyle and health of the Ipswich community
- improving air and water quality
- providing carbon sequestration and storage
- regulating temperatures and flooding impacts
- providing landscape amenity and enhancing land values
- attracting tourists and increasing economic development
- enabling continued cultural and spiritual connection and ongoing cultural practices by the Traditional Owner community.

IPSWICH'S DIVERSE NATURAL ENVIRONMENTAL VALUES INCLUDES:



46
rare and threatened species of fauna and flora



Over
11,000km
of waterways



219
nature reserves maintained

21%
remnant vegetation cover across the Local Government Area



6,646ha
of conservation estates



Over
2,000
recorded species of native plants and animals



Over
7,000ha
of natural areas owned and/or managed by council



A study in 2011 found that avoiding further decline in SEQ waterways over 20 years could save approximately **$2 billion**[1]



A study in 2012 identified SEQ households were willing to pay almost **$11,000** for one-step improvement in local ecosystem diversity[2]

1 Binney, J. & James, D. (2011). Sharing the load: a collaborative approach to investing in South East Queensland's Waterways. Mainstream Economics

2 2012–10: Valuing ecosystem diversity in South East Queensland: A life satisfaction approach (Working paper) Author Ambrey, Christopher L., Fleming, Christopher M.

Figure 1 – Map showing a number of key natural features across Ipswich

Hillview Drive Reserve
Linking land and river habitat



A predominately dry eucalypt forest with a rainforest gully, visitors can enjoy this natural environment through a 6.5km mountain bike trail which is also suitable for bushwalking.

Pteropus Conservation Park
Home to Ipswich's flying fox colony



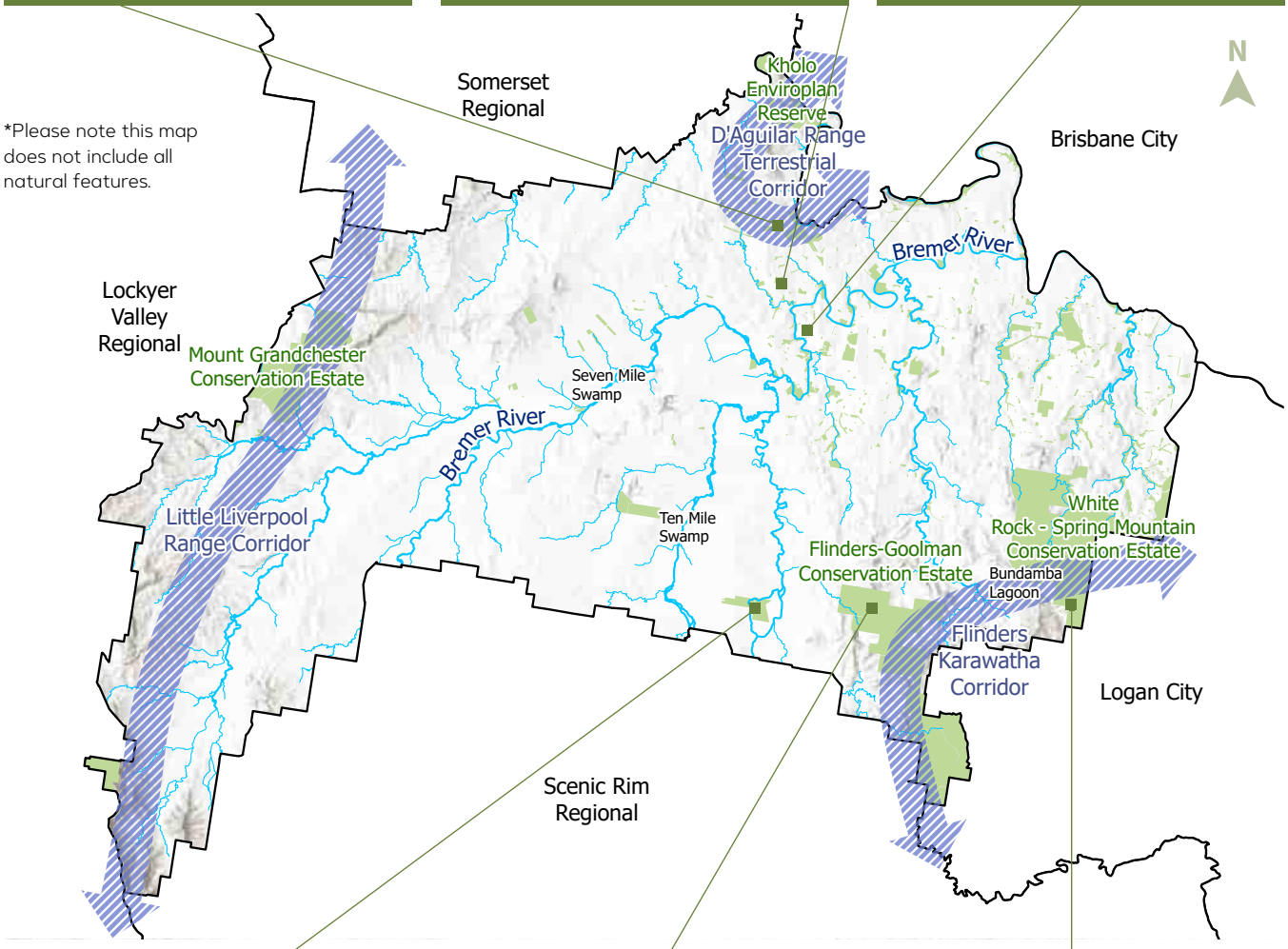
Commonly known as Woodend Nature Centre, this conservation area is home to a flying fox colony and has been featured on the BBC and David Attenborough's 'Life on Earth' series.

Denmark Hill Conservation Reserve
City views amongst natural wonders



A natural wonderland in the heart of the city, visitors can take in panoramic views of the city and explore a number of walking circuits through idyllic native bushland, with part of the walking trails following the former coal-skip tramway.

*Please note this map does not include all natural features.



Purga Nature Reserve
The largest protected Swamp Tea-Tree forest



Photo comp entrant: L Oliver, Swamp Tea Trees, Purga Reserve

This Reserve is a 140 hectare tract of Swamp Tea-tree, flood plains and wetlands. The reserve is an important habitat for the region's Koala and Wallaby populations and the critically endangered Swamp Tea-Tree forest.

Flinders - Goolman Conservation Estate
Ipswich's highest peak



Rugged volcanic peaks and steep slopes of this 2,250 hectare estate make this a unique and breathtaking landscape.

White Rock - Spring Mountain Conservation Estate
Home of the sacred White Rock



Photo comp entrant: Smith K, Rock Faces, White Rock Cons Park

Spanning over 2,500 hectares, White Rock - Spring Mountain features unique rocky outcrops and lookout points with views stretching as far as Stradbroke Island.

Importance of the natural environment to the Ipswich community

The following is a summary of the outcomes from the engagement undertaken for both the *Natural Environment Policy* (2021) and *Natural Environment Strategy* (2022).

200+ participants

Shapeyouripswich.com.au, community panel and external stakeholder workshops

What's great about **Ipswich's natural environment?**

1. **Extent of green space and natural areas**
2. **Amount of biodiversity, wildlife and habitat**
3. **Its rivers and waterways**

What are your favourite **natural environment areas?**



1. **White Rock and White Rock - Spring Mountain Conservation Estate**



2. **Flinders Peak and Flinders - Goolman Conservation Estate**



3. **Bremer River**

Key threats

The ability of the natural environment across Ipswich to continue to deliver these services is under threat from key city pressures including:

- **Population growth and urbanisation** – Ipswich has the fastest population growth rate in Queensland which requires new housing, employment and other supporting facilities and infrastructure to be developed. This places pressure on the natural environment due to vegetation clearing, landscape fragmentation, changed flow conditions, increased pollutant loads and introduced animals and plants.
- **Climate change** – the region is also experiencing a changing climate with expected increased temperatures, longer drought periods, more frequent floods and harsher fire-weather climates. These changes are placing additional pressure on Ipswich's native plants and animals.
- **Land management and planning** – inappropriate planning and land management practices can result in vegetation loss, introduction of pest plants and animals and degraded natural, cultural and water landscapes.

Now is a critical point in time to protect and restore Ipswich's natural environmental values to build its resilience to future threats associated with urbanisation and climate change. A sharpening of priority outcomes and a step-change in approaches is needed and is the key focus of this strategy.

What do we want to achieve?

A connected and protected natural environment landscape is critical to preserve and restore resilient populations of native species which are under threat from existing and future impacts.

The Natural Environment Strategy identifies priority objectives and approaches to conserve and protect values and restore ecosystems to achieve more resilient landscapes.

Importantly, this strategy describes how the different themes can be delivered in an integrated manner to optimise the benefits achieved from investment decisions. It also recognises that these outcomes cannot be achieved by council alone and that partnerships and education will be critical.

This strategy has been developed to guide the delivery of a protected, connected and resilient natural environment landscape across Ipswich.

What role can we all play?

Council's core role

The protection and restoration of the natural environment is achieved through council's core functions including:

- strategic land use planning and development assessments
- regulation of environmental risk
- acquisition and management of priority natural areas
- construction and maintenance of public infrastructure/areas
- supporting others to protect and restore the natural environment (e.g. landholder support programs, environmental education and natural resource management).

The role of others

Council recognises the important role that others play in the protection and restoration of Ipswich's natural environment. This includes Federal and State Government agencies, NRM groups, local community and businesses.



1 Waterways and wetland health improvement

Improving the health and resilience of Ipswich's waterways and wetlands by focusing on reducing sediment loads and improving riparian vegetation condition.

Ipswich contains a diversity of waterway and wetland environments which includes rivers, creeks, streams, watercourses, lagoons, swamps, low-lying areas, floodplains, and adjacent riparian vegetation. These waterway and wetland environments support many native plants and animals as well as help to sustain our way of life, playing a key role in water supply and conveyance, providing opportunities for recreation, urban amenity and cooling.

Most waterways in Ipswich have been significantly modified or altered from the pre-European state. Very few waterways still have the natural features, biodiversity and ecosystem functions to be considered in a 'healthy natural state'. Key threats to Ipswich waterways include riparian vegetation loss, loss of floodplain wetlands, changes in water quality and flow conditions, creation of fish barriers and pest plants and animals. Council's *Waterway Health Strategy 2020* provides more detail on the current condition, key threats and priority actions required across Ipswich's catchments to improve waterway and wetland health.

High sediment loads and degraded riparian corridors are significant issues impacting the health of Ipswich waterways and are a key focus for this strategy. The primary sources of sediment entering waterways in Ipswich is runoff from cleared building/construction sites and poorly managed agricultural land. The condition and extent of riparian areas are being impacted by clearing of vegetation and invasion by exotic grasses and woody weed species.



Photo comp entrant: A Brimecombe, Swanbank

Increased sediment loads likely due to climate change

Increased frequency and intensity of rainfall events due to climate change are likely to increase the risk and impact of erosion and sedimentation across the catchments of Ipswich.

Priority objective 1: Reduce sediment entering our waterways and wetlands

Indicator: *Sediment load reduction (kg/yr) due to council led projects.*

Current state	339,090kg/yr of sediment removed to-date through stormwater offsets projects
Milestone	342,000kg/yr reduction in sediment loads entering waterways and wetlands across Ipswich
Strategy target	345,000kg/yr reduction in sediment loads entering waterways and wetlands across Ipswich

Approach to be taken

To reduce the amount of sediment entering waterways and wetlands, council will take a catchment wide approach to support works across urban and rural landscapes using the following approaches:

- **Urban sediment control:**
  - improved erosion and sediment control compliance on new urban developments and projects.
  - stormwater management in new and existing urban areas to control catchment stormwater quality, flow volumes and velocities in new development areas.
- **Rural landscape stabilisation:**
  - supporting landholders to improve land management practices to reduce soil erosion and loss.
  - stabilising rural stream banks in high erosion risk areas.

Priority objective 2: Increase extent and condition of vegetation cover around waterways

Indicator: *Riparian extent as measured by the Healthy Land and Water report card. This will be supplemented in the future with council mapping and data of riparian extent and condition as data becomes available.*

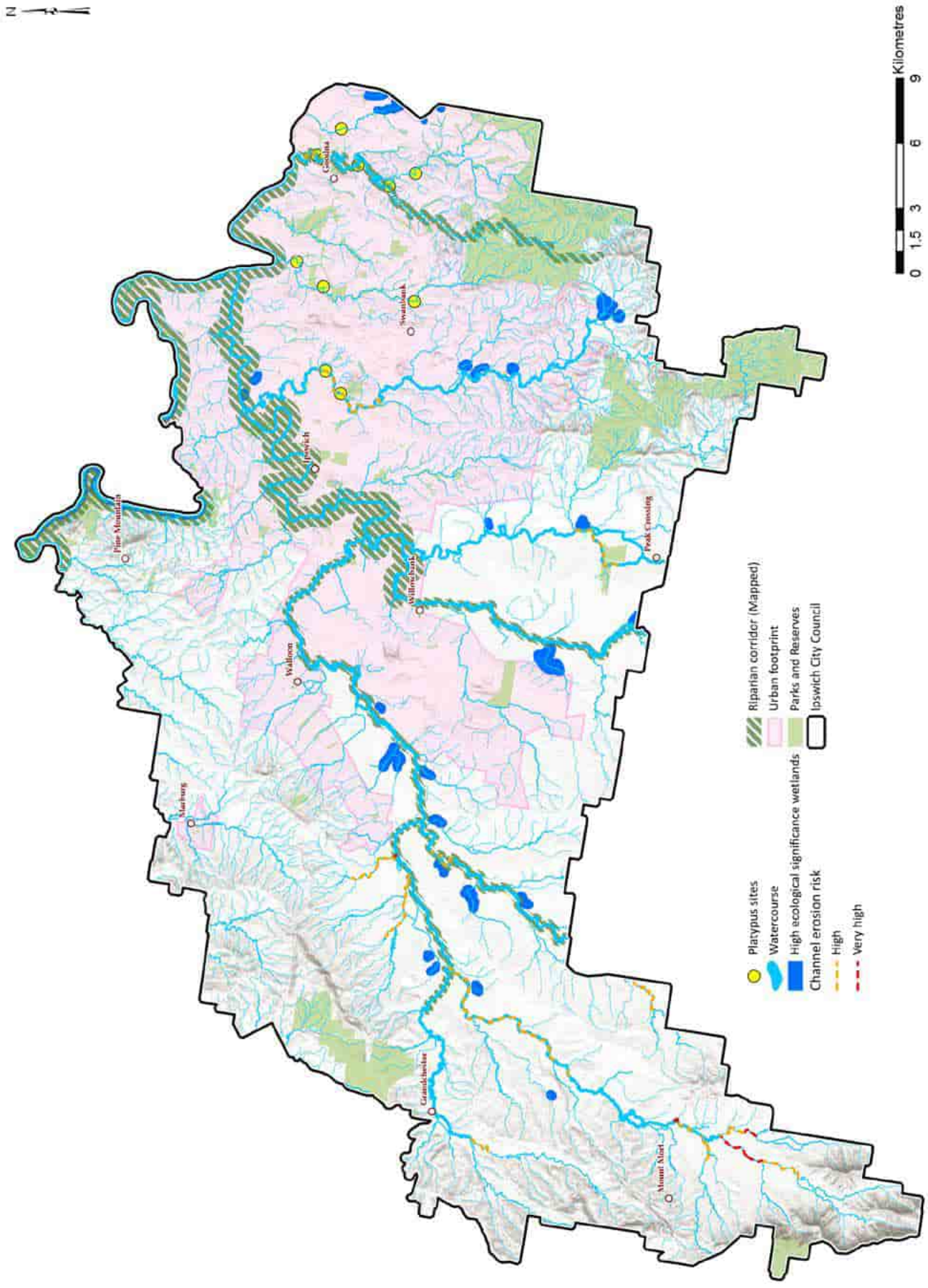
Current state	55.2% riparian extent for the Bremer River (HLW Report Card 2021)
Milestone	Improved understanding of ICC riparian extent and condition
Strategy target	>56% riparian extent with improved condition

Approach to be taken

To increase the extent and condition of riparian vegetation cover along waterways across Ipswich, council will improve the understanding of the current condition and restoration requirements for the riparian zones to inform appropriate protection measures and on-ground works.

Map 1 – Ipswich's mapped waterway and riparian corridors showing high value wetlands and platypus sites. This map also highlights the location of high and very-high erosion-risk channels where channel stabilisation is required and urban areas where erosion and sediment control, as well as stormwater management, will be important. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all waterways, wetlands or riparian corridors.*



2 | Biodiversity and threatened species recovery

Protecting and connecting natural habitat areas to improve the health and resilience of Ipswich's biodiversity.

Ipswich boasts one of the most diverse ranges of natural vegetation types in South-East Queensland, including rainforest, dry-vine forest, open forests, woodlands, wetlands and grasslands. A number of these vegetation communities are threatened with some ecosystems only being found in Ipswich, such as the semi-evergreen vine thicket ecosystem at Kholo Enviroplan Reserve, Saplings Pocket, which is the largest remaining area of this vegetation community within South-East Queensland.

This large extent of natural vegetation communities across Ipswich also supports an equally diverse range of wildlife, including numerous rare and threatened species including the brush-tailed rock wallaby and koala.

Vegetation loss, climate change, pest species and incompatible activities within and adjacent to natural areas are key threats to the biodiversity of Ipswich. The *Nature Conservation Strategy 2015* provides more detail on the current condition, key threats and priority actions to improve biodiversity across Ipswich.

The protection and restoration of natural habitat areas and the ecological corridors which connect them are a key focus for this strategy. Natural habitat areas should be large, contiguous tracts of vegetation with a reduced proportion of edges to their total area. These natural habitat areas should be connected across the landscape with corridors which are wide enough and contain a diversity of native species to support the needs and safe movement of the targeted native species.



Priority objective 1: Increased protection and restoration of natural habitat areas across Ipswich

Indicator: *Extent of natural habitat area which is protected.*

Current state	10,493ha of natural habitat areas protected
Milestone	Improved understanding of protected area condition through assessments
Strategy target	11,500ha of natural habitat areas protected across Ipswich

Approach to be taken

Council will take a coordinated and targeted approach to restore and protect natural habitat areas on both public and private lands across Ipswich including:

- protection of high value habitat areas and native vegetation through government ownership and management, legislative regulations, planning scheme zoning and local laws (i.e. vegetation protection orders).
- restoration of natural habitat areas across public and private land to enhance climate change resilience and ecological value including fire and pest species management.

Priority objective 2: Increase in ecological corridor land protected and restored across Ipswich

Indicator: *Area of mapped corridors (including riparian, urban habitat and ecological corridor areas) which has had restoration works undertaken.*

Current state	11,018ha of ecological corridors protected
Milestone	Improved understanding of protected area condition through assessments
Strategy target	Restoration of over 400ha of ecological corridor area each year

Approach to be taken

To increase the protected and restored ecological corridor land across Ipswich, council will improve the understanding of the current condition and restoration requirements for the ecological corridors to inform appropriate protection measures and on-ground restoration works.

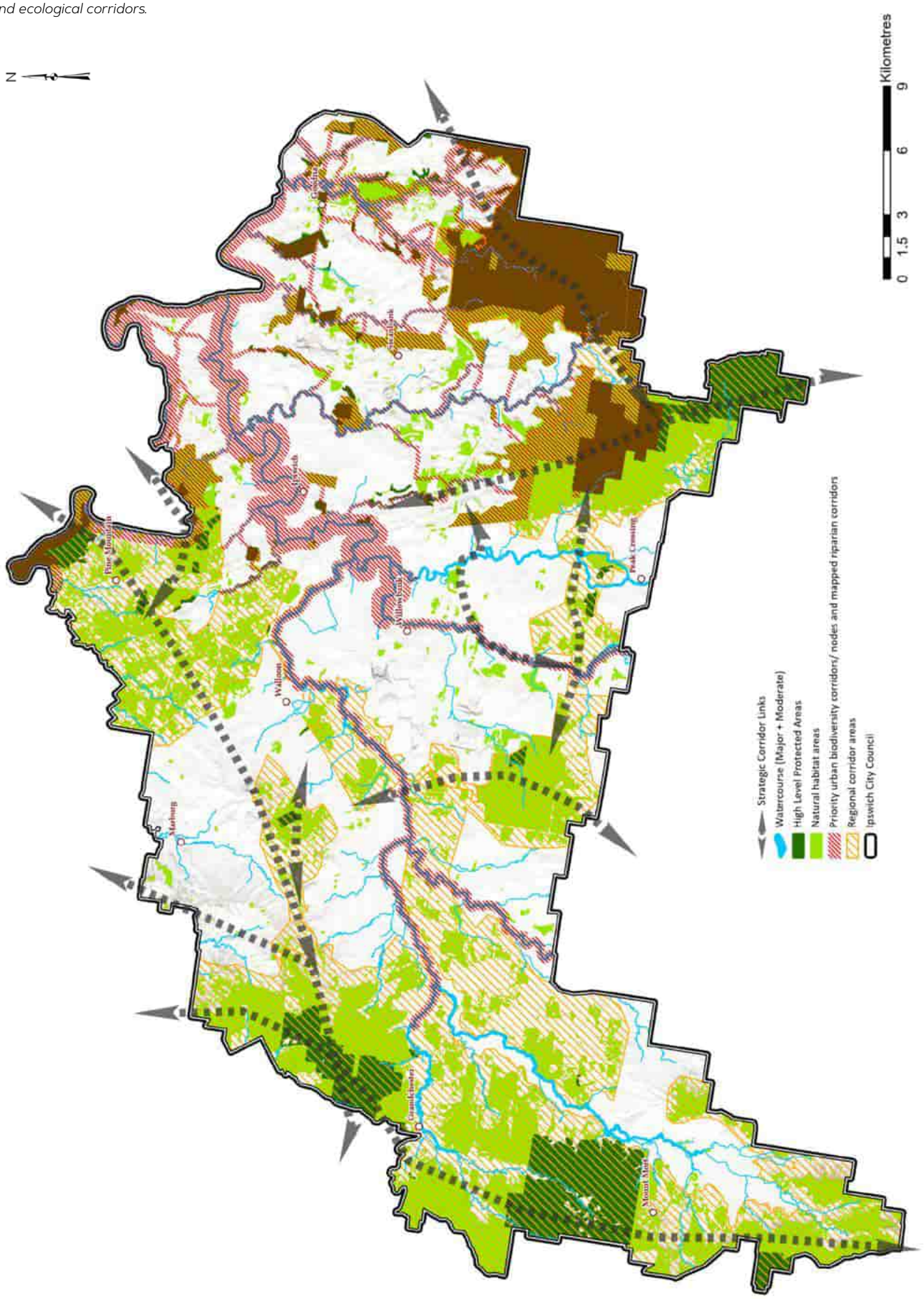
Climate risk and adaptation – what is the risk and what is needed?

Climate change is a key threat to Ipswich's biodiversity as it will impact species' ability to adapt – either favourably or unfavourably. This may lead to biodiversity in Ipswich experiencing changes such as: shifts in genetic composition, changes in migration patterns of some birds, altered life cycles, changes in vegetation compositions, increased extinction risks and changes in fire regimes, leading to severe losses of ecosystem services. Council's strategic direction gives due consideration to climate change impacts and adaptive management responses based on science and priority management principles, including:

- **Building knowledge** – knowing what the impacts are specifically to the city's biodiversity
- **Building corridors** – linking corridors across the city – especially in urban areas
- **Increased adaptive management effort** – more targeted restoration, fire and pest management.

Map 2 – Ipswich's natural habitat areas and ecological corridors showing areas with existing high level of protection due to council ownership and management. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all natural habitat areas and ecological corridors.*



3 Aboriginal cultural heritage and cultural landscape values recognition

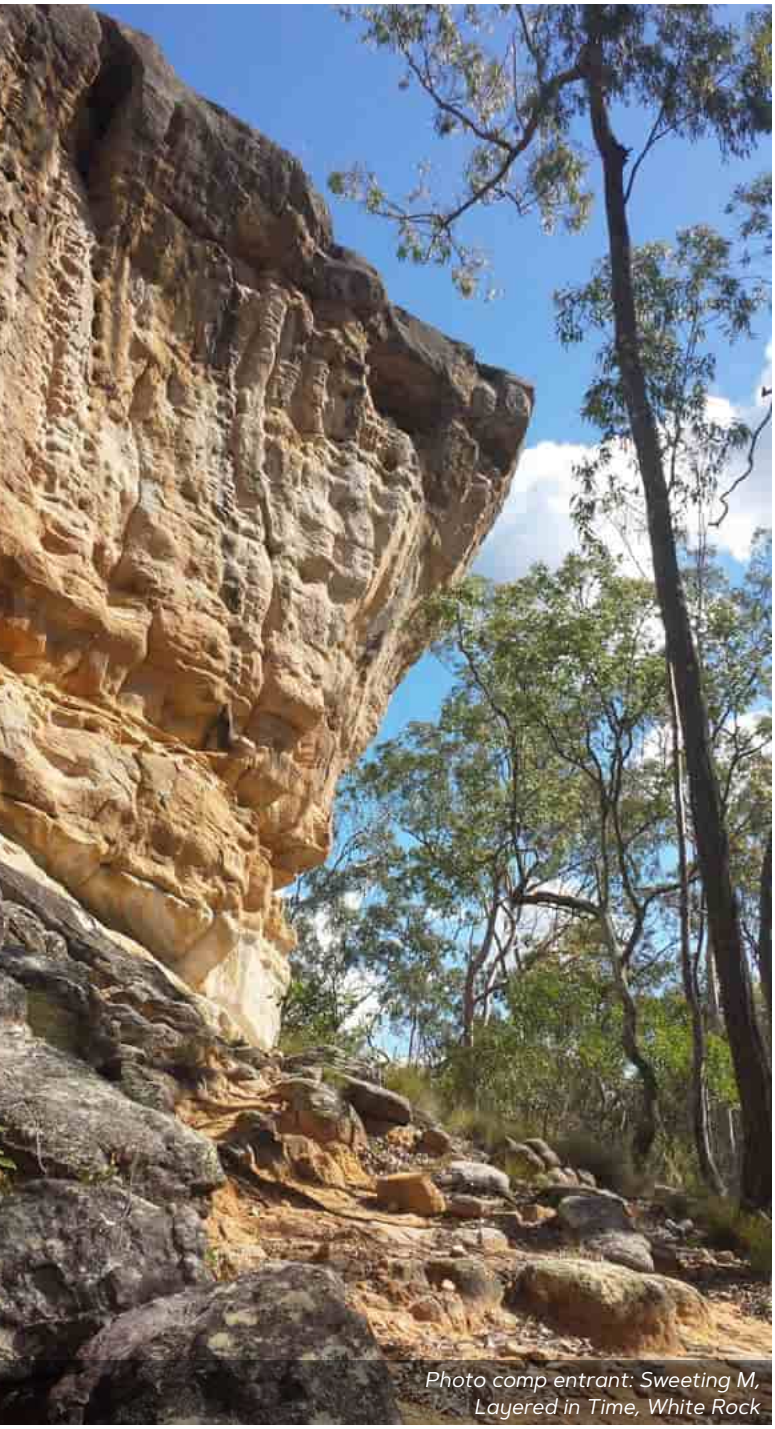


Photo comp entrant: Sweeting M, Layered in Time, White Rock

Recognising and embedding the important relationship between the natural environment and the Traditional Owners of Ipswich.

Aboriginal and Torres Strait Islander people have a connection to country that is deeply spiritual and meaningful. There is both a physical connection to the land, waterways and other natural features; and a connection to the natural environment that defines a sense of belonging, identity, custom, relationship and spiritual belief.

There is an extensive network of natural landscapes across Ipswich which are significant Aboriginal areas as they are places where important Aboriginal traditions, observances, customs and beliefs of the Aboriginal people are held including waterways, wetlands, waterholes, rock outcrops, caves, ridges, sandy terraces, gravel bars and food trees.

If these Aboriginal cultural heritage areas and cultural landscape values are not recognised, there is the risk they will be lost or degraded due to a lack of awareness and inappropriate management. Incorporating Aboriginal ecological knowledge into the management of Ipswich's natural areas can improve the health of the environment but can also strengthen the local First Nations businesses and/or persons connection to country when they are empowered and enabled to deliver these traditional practices.

Ipswich City Council is committed to working together with the Aboriginal and Torres Strait Islander peoples and communities in Ipswich and has identified that increased recognition of cultural values and involvement in programs for Traditional Owners to care for country are important actions in the 2020–2025 Indigenous Accord. The recognition of Aboriginal cultural heritage and cultural landscape values within natural areas and the incorporation of Aboriginal ecological knowledge into the management of Ipswich natural areas are a key focus for this strategy.

Threats to Aboriginal cultural landscape features due to climate change

Droughts and floods can lead to significant impacts on important Aboriginal cultural landscape features (such as wetlands and waterways). Cultural burning can help to manage fuel loads in vegetated areas and reduce the risk of hot and rapid bushfires.

Priority objective 1: Improved recognition of Aboriginal cultural heritage and cultural landscape values across Ipswich's natural areas

Indicator: *Combination of datasets including number of cultural interpretive signage in council natural areas, Aboriginal cultural events and number of cultural heritage assessments and cultural landscape investigations undertaken as part of council projects in natural areas.*

Current state	First cultural landscape investigation and reporting being undertaken for White Rock - Spring Mountain Conservation Estate
Milestone	Interpretive signage developed to communicate cultural heritage and cultural landscape values within council owned and managed land
Strategy target	Cultural landscape investigation and reporting across Ipswich region, in locations of known cultural significance (conservation estates and reserves)

Approach to be taken

Council will improve the understanding of Ipswich's Aboriginal cultural heritage and cultural landscapes across Ipswich's natural areas to allow improved recognition, awareness and protection of Aboriginal cultural heritage and cultural landscapes including provision of cultural interpretive signage, community events and suitable embellishments, pathways and protection of significant cultural heritage and cultural landscape features.

The importance of community and partnerships

The involvement of the local First Nations businesses and/or persons will be critical to improve the recognition of Aboriginal cultural heritage and cultural landscapes across Ipswich, being heavily involved in decision-making, planning and management of significant sites, landscape and flow assessments, and development of appropriate interpretive signage.

Priority objective 2: Increased use of Aboriginal ecological knowledge in the management of Ipswich's natural environment

Indicator: *Combination of datasets including training for local First Nations businesses and/or persons in Aboriginal ecological knowledge approaches and delivery of land management by Traditional Owners.*

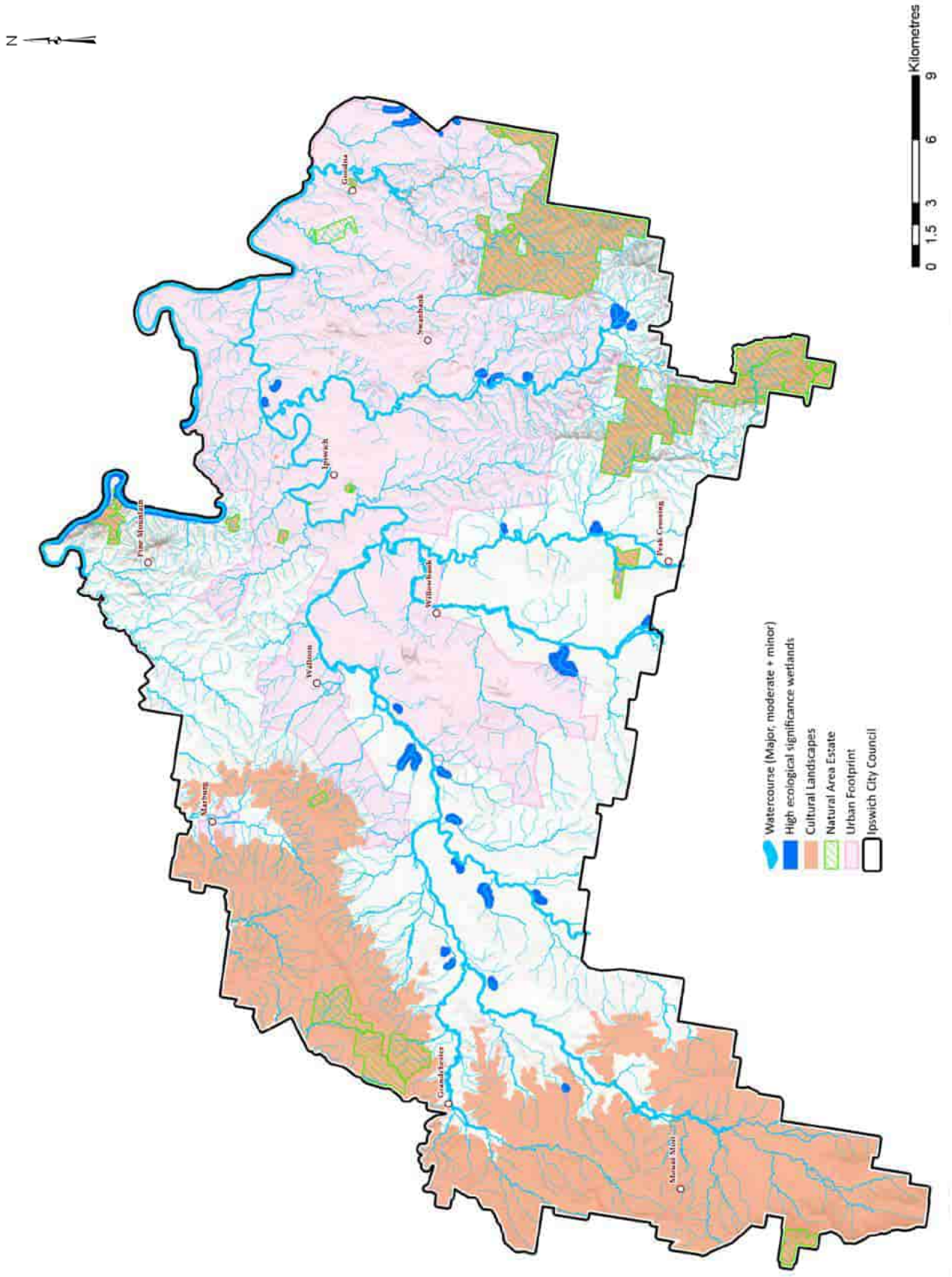
Current state	Funding received to support First Nations businesses fire management capacity building and training and to deliver cultural burning techniques and programs
Milestone	First Nations businesses and/or persons engaged to undertake land management using traditional ecological approaches
Strategy target	Local First Nations businesses and/or persons leading the management of council owned or managed land that contains Aboriginal cultural heritage and/or cultural landscape values

Approach to be taken

Council will continue to work with the local First Nations businesses and/or persons to improve the delivery of traditional land management practices across Ipswich's cultural landscapes.

Map 3 – Ipswich's Aboriginal cultural heritage and cultural landscape values. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all Aboriginal cultural heritage and cultural landscape values.*



4 Urban biodiversity enhancement

Creating a connected and functional urban biodiversity network to support local plants and animals.

The natural environment landscape within the Ipswich urban footprint supports significant local priority species, connects important habitat areas as well as provides the community with cooler, healthier and more diverse areas to relax, recreate and live. Significant species found in these urban natural landscapes include koalas, platypus, white-bellied sea eagle, vulnerable powerful owl and locally significant frogs.



Photo comp entrant: S Anderson, In our Backyard

Key threats to urban biodiversity and urban biodiversity corridors include the removal of vegetation, pest species, disease, lack of adequate growing conditions, barriers to movement and climate change.

The provision of native canopy cover and urban habitat corridors are a key focus for this strategy. Ideally the canopy cover will contain a mix of native shrub and trees species, and be in larger urban forests rather than spread out as isolated trees and other vegetation. Urban habitat corridors are likely to be smaller in size and width than larger regional ecological corridors, but they can still support habitat, air and water quality improvement, fauna movement and pollination.

Importance of urban biodiversity in a changing climate

Evidence and research are increasingly recognising the biological value and ecological importance that urban natural environment areas are providing in the broader landscape. The abundance and diversity of species in urban areas, particularly pollinators, is evidence of the important contribution these species and areas will play in a changing climate.

Priority objective 1: Increased native canopy in urban areas

Indicator: *% canopy cover in the urban footprint (above 2m) and use of local native species in council urban greening projects within priority urban habitat area nodes and corridors.*

Current state	27% canopy cover in urban footprint
Milestone	Improved understanding of urban canopy biodiversity values
Strategy target	Local native planting used for all urban greening projects in priority urban habitat areas and corridors

Approach to be taken

Council will work with landholders and developers to increase the % native canopy cover across Ipswich's urban areas by improving the understanding of the current extent and condition of Ipswich's urban native vegetation to guide the development of a clear canopy target to support urban vegetation protection and planting on public and private land.

Priority objective 2: Increase the extent and condition of protected urban habitat corridors

Indicator: *Area of urban habitat corridors protected and enhanced through restoration works.*

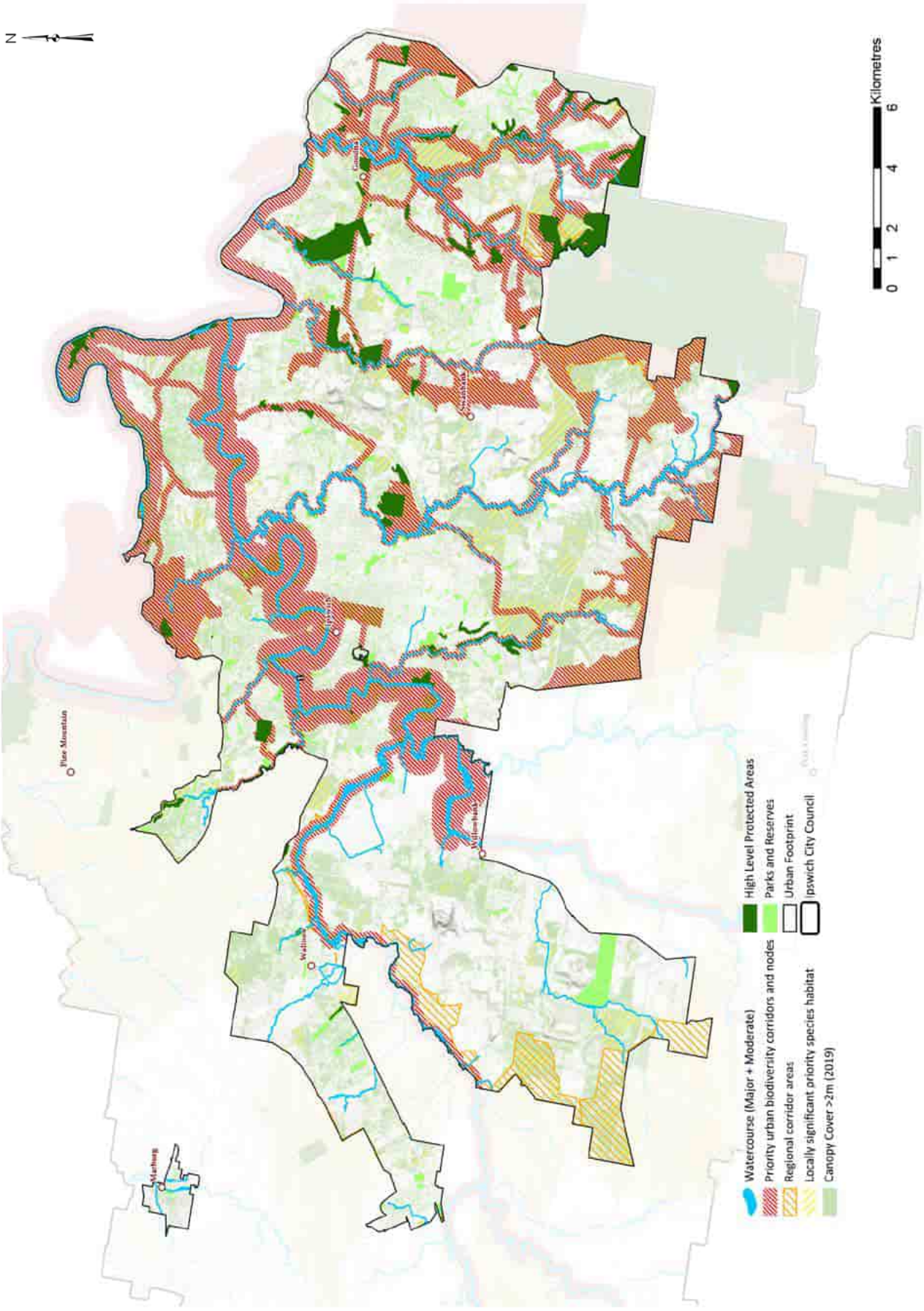
Current state	759ha of urban habitat corridors protected
Milestone	Improved understanding of protected area condition through assessments
Strategy target	Restoration of over 10ha of urban habitat corridor area each year

Approach to be taken

Council will work with landholders and developers to increase the extent and condition of urban habitat corridors by improving the understanding of the current condition of vegetation within these corridors to inform appropriate protection and restoration of these areas.

Map 4 – Ipswich's urban habitat areas and corridors showing areas with existing high level of protection due to council ownership and management. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all urban habitat areas and corridors.*



5 Rural biodiversity enhancement

Connecting vegetation, water and soil to improve the productivity and biodiversity of our rural lands.

Ipswich has a rich rural history and contains high value agricultural land, especially in the floodplain areas along the Bremer River, Franklin Vale Creek, Western Creek, Warrill Creek and Purga Creek. The rural landscape contains many important natural environment features including remnant vegetation, ecological corridors, waterways and wetlands. It also provides habitat for significant species such as koalas, flying foxes and Powerful Owls.

Increasing biodiversity and floodplain function of the rural landscape across Ipswich will support natural environment resilience and increase productivity. Productivity should be enhanced by expanding carbon stores (through soil organic matter), improving soil condition, reducing erosion, providing shade for stock, improved water quality and reduced flooding impacts.



Photo comp entrant: S McMahon, Spoonbill Heron

Key threats to rural land productivity, biodiversity and floodplains includes pest species, poor land management practices, vegetation removal, eroding waterway bed and banks, salinity, peri-urbanisation, climate change and mining.

The restoration of functional rural ecological corridors and floodplains are a key focus for this strategy. Ecological corridors should contain a vertical and structural diversity of native vegetation and be wide enough to support movement of target species and minimise edge impacts. Functional floodplains will be well connected to the waterway flows and support a diversity of native vegetation which is capable of responding to the different frequencies of inundation.

Floodplain wetlands can help to buffer flood impacts

Floodplains and wetlands can mitigate the impacts of floods by absorbing excess water and retaining it or returning it to groundwater. Restoring these functions in the upper catchments can help to reduce existing and future flooding impacts for the more urbanised areas downstream.

Priority objective 1: Restoration and protection of rural ecological corridors

Indicator: *Area of ecological corridors on rural lands that have had restoration works undertaken.*

Current state	10,082ha of ecological corridors across rural landscapes with high level protection
Milestone	Increase understanding of extent and requirements for rural ecological corridors
Strategy target	Restoration of over 390ha of ecological corridor area each year

Approach to be taken

Council will work with landholders to restore rural ecological corridors by improving the understanding of condition and importance of these corridors to guide appropriate protection and restoration of these areas.

Priority objective 2: Restoration and protection of functional floodplains on rural land

Indicator: *Rural floodplain extent and area of this protected and/or restored through re-engagement or revegetation works.*

Current state	135ha of rural floodplain protected
Milestone	Improved understanding of floodplain condition and function
Strategy target	50ha of rural floodplain restored

Approach to be taken

Council will take a coordinated and targeted approach to restore and protect rural floodplains across Ipswich including:

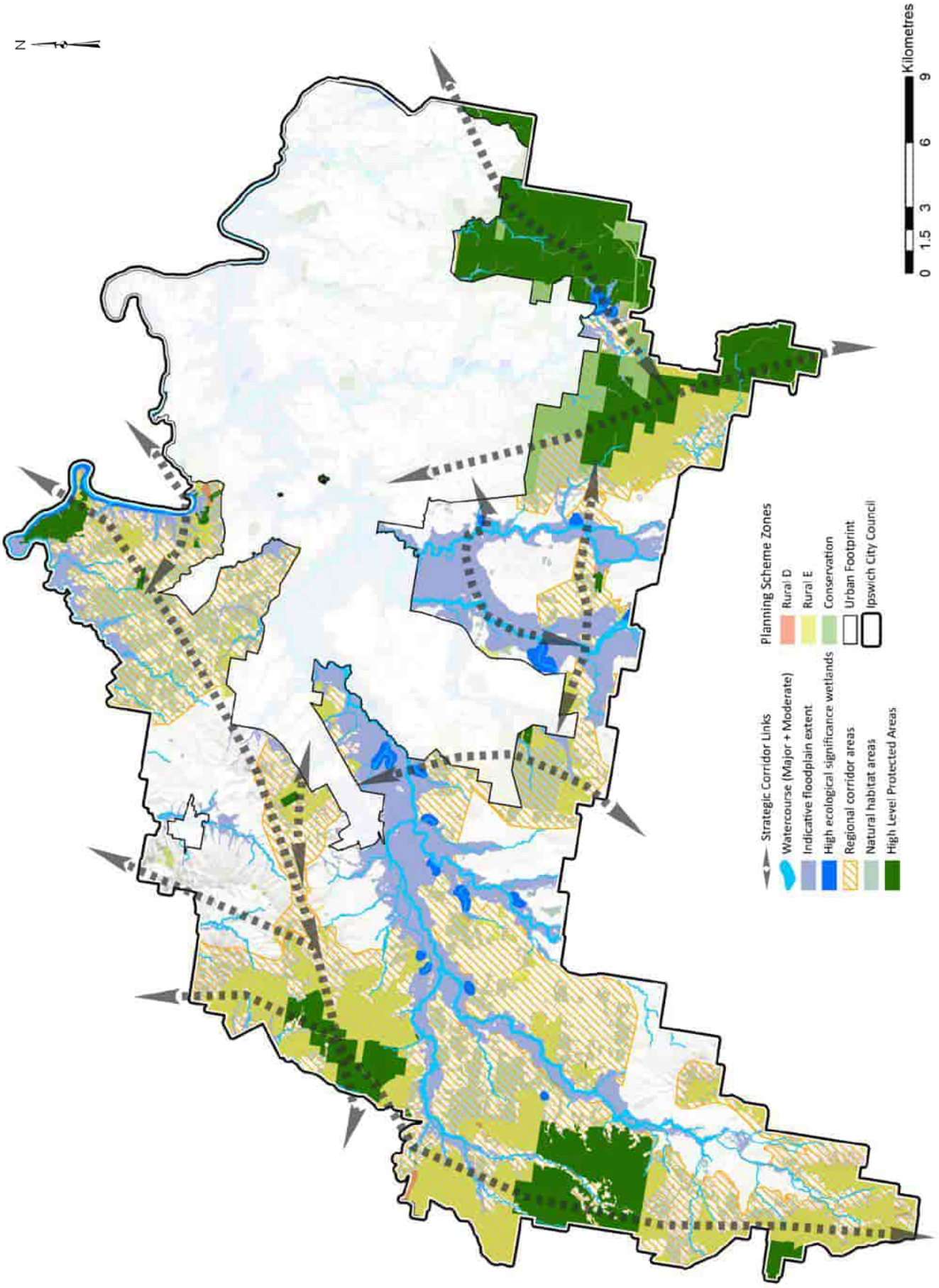
- protection of high value floodplains and wetlands.
- strategic investment in floodplain areas which will deliver multiple benefits including flood mitigation and biodiversity.
- landholder engagement, guidance and support to improve the understanding and management of floodplains and wetlands.

The importance of rural landholder participation

The restoration of the ecological values on rural land can only be achieved in partnership with the landholders. Council supports landholders in the protection and enhancement of ecological values on rural land through agreements such as corridor conservation agreements. These aim to restore landscape and waterway corridors across land that is not currently zoned for conservation in the planning scheme.

Map 5 – Ipswich's rural ecological corridors and floodplains showing areas with existing high level of protection due to council ownership and management. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all rural ecological areas and corridors.*



6 Sustainable nature-based recreation

Creating and encouraging opportunities for the community to sustainably connect with nature.

The provision of opportunities for people to connect with nature is important for physical and mental wellbeing. It also assists in improving people's appreciation and understanding of the value of natural areas. It is therefore recognised that by experiencing nature, people are far more inspired to protect the natural environment.

Sustainable nature-based recreation refers to providing a range of opportunities for the Ipswich community and visitors to connect with nature in a way that minimises impact on the natural environment values. These activities can range from organised group events to individual experiences. Ipswich's open space network includes a range of green spaces, from sportsgrounds, local parks and natural areas. It also supports a range of nature-based recreation activities and programs. It is important that the availability and awareness of these nature-based recreation opportunities is provided across the region.

In the last 10 years, and most recently since the outbreak of the Covid 19 pandemic, several areas within the network experienced a significant increase in demand for recreation. This has helped to support community wellbeing and appreciation of the natural environment, however a number of key threats to the condition of these natural areas have also been observed due to unmanaged access, vandalism, damage, litter and antisocial behaviour associated with this increased use.

Council seeks to provide sustainable nature-based recreation across the natural area network that is environmentally and culturally sensitive, balances demand and impact, is monitored and maintained and includes interpretive signage and partnerships with community recreation groups to improve stewardship. Ideally, it will provide a range of nature-based recreational experiences to cater for different user needs ranging from provision of pathways and picnic areas through to organised events and activities to self-guided experiences.

Priority objective 1: Increase in sustainable nature-based recreation opportunities across Ipswich

Indicator: *Combination of trail lengths, trail heads, canoe launch and other nature-based recreational facilities which have been designed to protect the sites' natural and cultural values.*

Current state	129km of trails provided
Milestone	Improved understanding of condition, threats and appropriate recreation activities and facilities that protect site values
Strategy target	Recreation infrastructure manages increased nature-based activities and protects the sites natural, cultural heritage and cultural landscape values

Approach to be taken

Council will work with partners to support an increase in sustainable nature-based recreation opportunities across Ipswich by providing and maintaining recreation assets and activities across natural areas which balance the existing and future use requirements, potential impacts and protection of natural environment and cultural values. Opportunities will also be sought to improve community appreciation and stewardship of these areas.

Priority objective 2: Increased community participation in nature-based activities

Indicator: *Visitation rates and participation rates in experience nature events.*

Current state	Over 155,000 visitors across White Rock, Mount Flinders, Castle Hill and Hillview natural area estates in 2021
Milestone	Improved understanding of visitation and participation rates in nature-based events and activities
Strategy target	5% increase in participation in nature-based activities across Ipswich

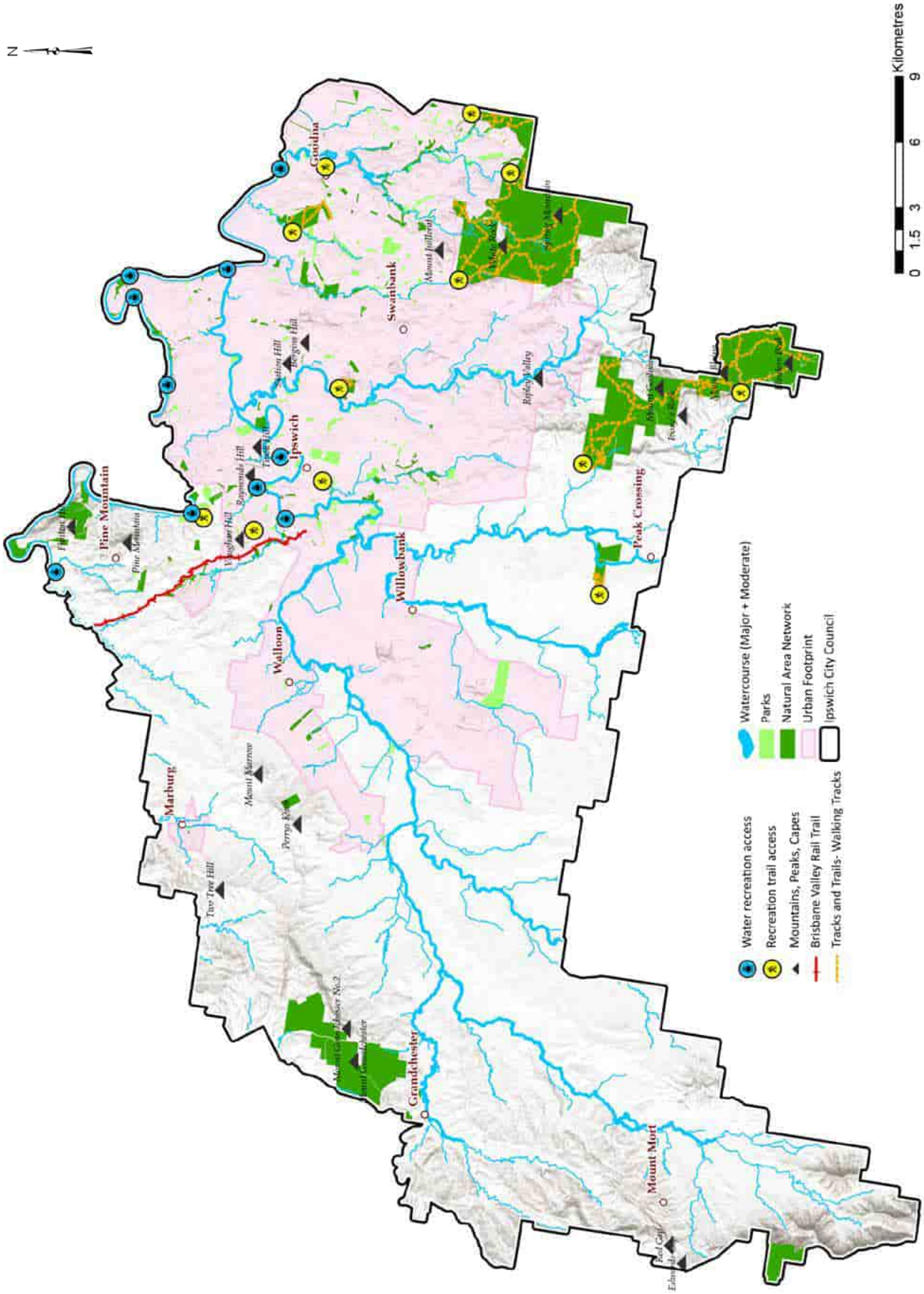
Approach to be taken

To achieve an increase in participation rates in sustainable nature-based recreation activities, council will improve the understanding of current use and additional demand to guide the provision of a diversity of facilities, programs and activities to suit user needs.



Map 6 – Ipswich's nature-based recreation network showing public park network, natural area network and existing trails and access points. This is based on available mapping data as described in the Natural Environment Strategy 2022 – Background Report.

**Please note the information presented is based on a range of available mapping data and doesn't represent all rural ecological areas and corridors.*



DELIVERING INTEGRATED OUTCOMES

The Natural Environment Strategy highlights the vast number of natural environmental values and services which are provided across the Ipswich landscape. It is recognised that to deliver optimal outcomes for the environment and community across Ipswich, an integrated approach to natural environment planning and management is required.

Integrated management requires all of the existing and potential environmental values and threats across the region to be understood. This allows potential synergies and also conflicts to be identified and appropriately managed. Map 7 provides a summary of the main natural environment values and threats across Ipswich including:

- **waterways, wetlands and floodplains** – including channel erosion risk and high ecological value wetlands
- **natural habitat areas and corridors** – across both rural and urban areas (including urban expansion areas)
- **Aboriginal cultural heritage and cultural landscape features** – including areas currently protected
- **parks and natural areas** – including where the natural areas managed by council are currently accessed by the community.

Map 7 also presents a number of key strategic locations where many of these natural environment values overlap. This strategy outlines the specific approaches which will be undertaken to improve the natural environment values for Ipswich. Table 1 outlines the priority outcomes in each of the priority areas which can be used to guide decision making around suitable approaches and future investment in these locations.

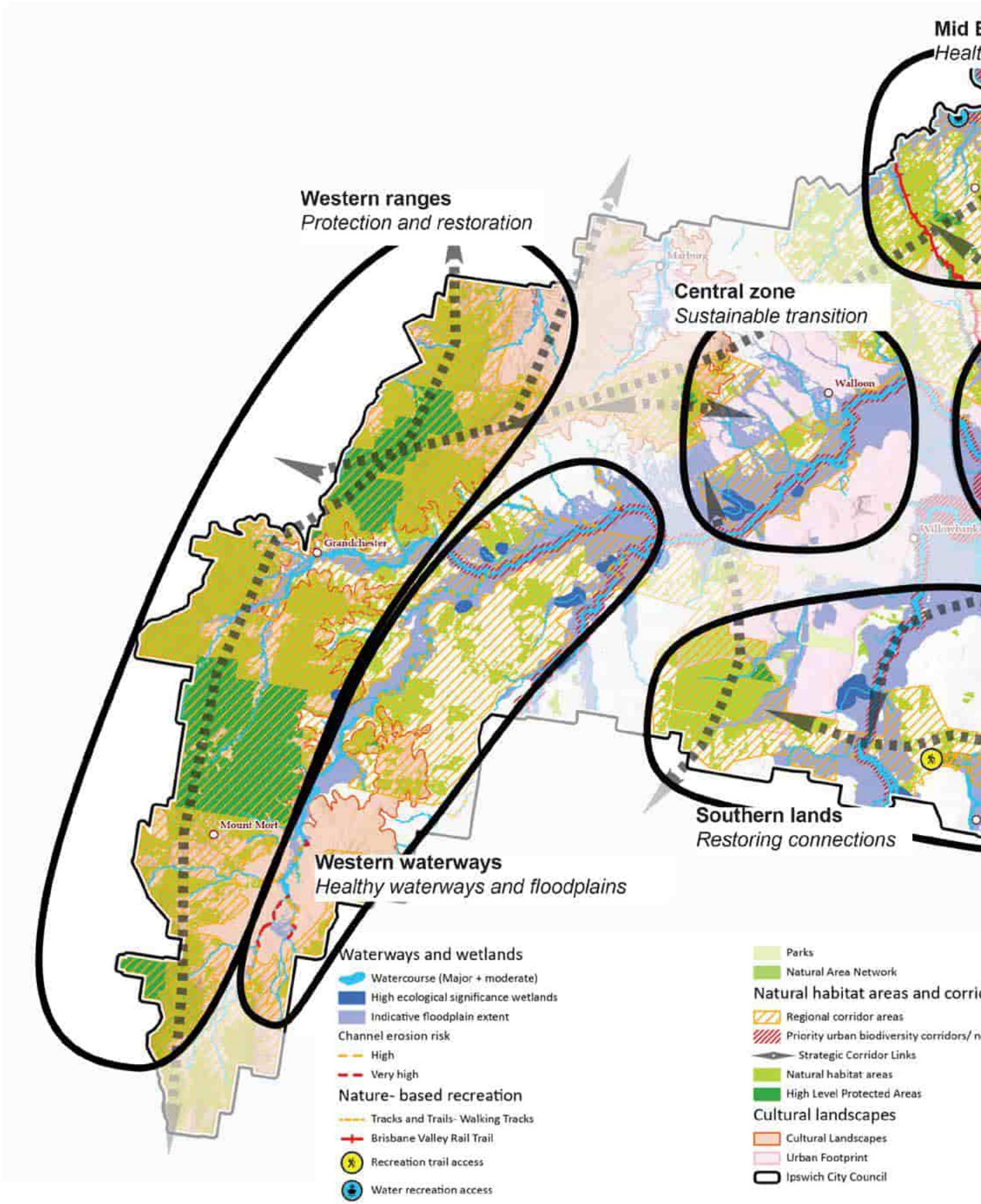
A coordinated and focused approach between council, community and private landowners will be critical to ensure these priority outcomes are delivered. Opportunities for targeted co-funding and collaboration will be sought to help deliver these integrated outcomes in a timely manner.

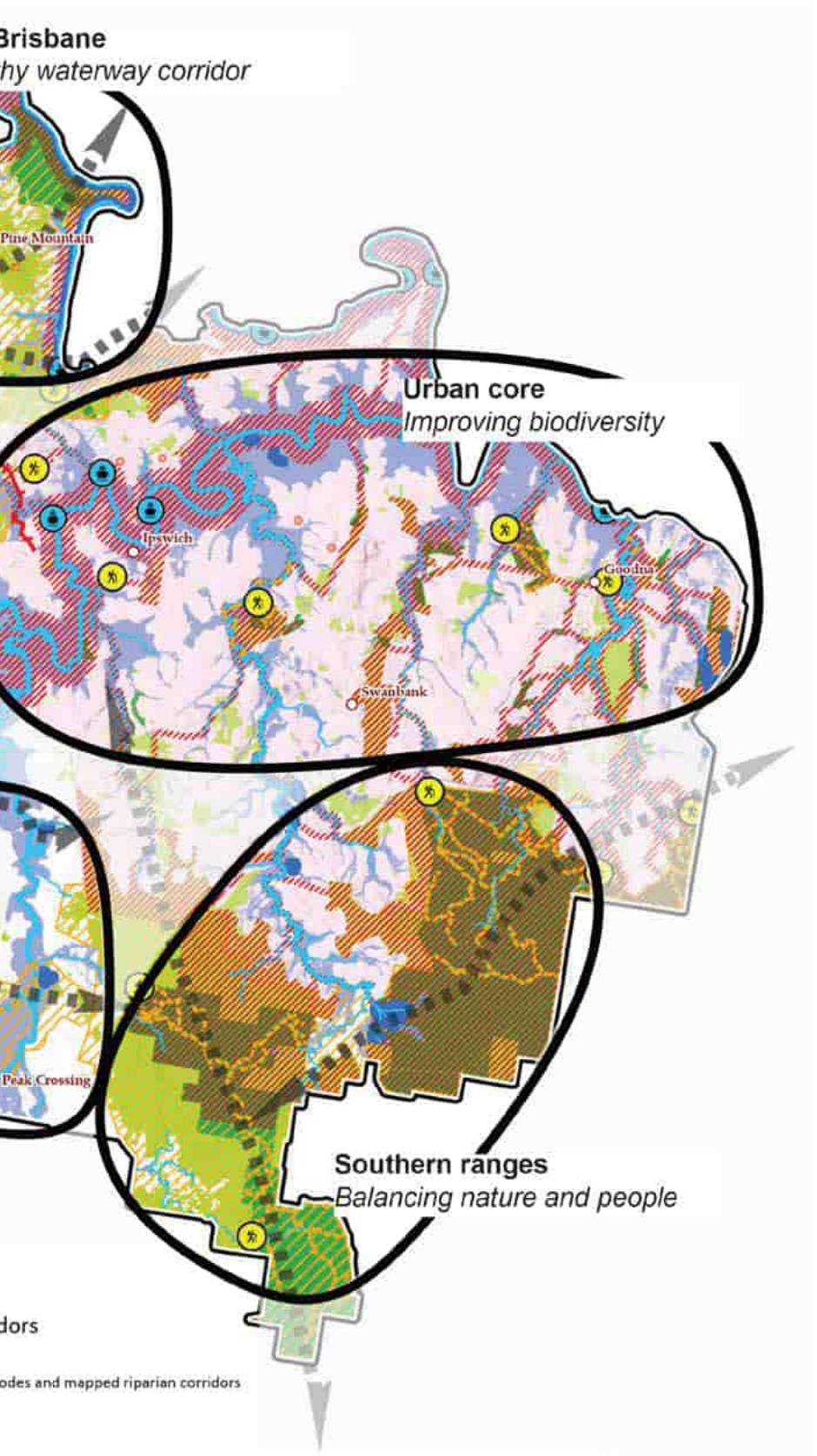
Implementation of priority projects and actions will support the strategy. These will be developed, and updated, on an annual basis for consideration as part of council's operational planning and budget process.

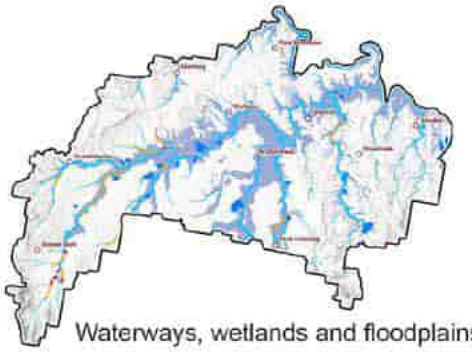
Table 1 – Priority areas and outcomes sought across Ipswich's natural environment

PRIORITY AREAS	PRIORITY OUTCOMES SOUGHT	STRATEGIC LOCATIONS
Western ranges *Protection and restoration*	Protection of natural habitat areas and culturally significant landscapes and restoration of native vegetation and ecological corridors.	Mount Grandchester Park
Western waterways *Healthy waterways and floodplains*	Stabilisation of eroding waterways and re-engagement with vegetated floodplains.	High risk erosion locations e.g. Franklin Vale Creek
Southern lands *Restore connections*	Improve connectivity between channel and floodplains and restore ecological corridors with protection and restoration of native vegetation.	Ecological corridors Floodplain and wetlands
Southern ranges *Balancing nature and people*	Improved ecological connection between conservation areas and across the Bundamba Creek floodplain and sustainable nature-based recreation supported in these natural areas.	Flinders - Goolman Conservation Estate and White Rock – Spring Mountain Conservation Estate. Upper Bundamba Creek floodplains
Urban core *Improving biodiversity*	Native planting to improve urban biodiversity outcomes in areas with high existing or potential ecological value.	Urban habitat corridors
Central zone *Sustainable transition*	Protection, restoration and connection of native ecological communities and floodplain function and supporting sustainable community access into these natural areas in an area transitioning into a more urban environment.	Ecological corridors Floodplain wetlands
Mid Brisbane *Healthy waterway corridor*	Improved water quality and waterway stability with controlled and managed public access to protect high value sites.	Mid Brisbane River and adjacent natural habitat areas

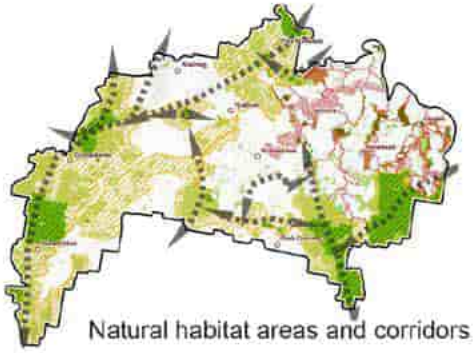
Map 7 – Ipswich's consolidated natural environment network showing priority areas for integrated outcomes







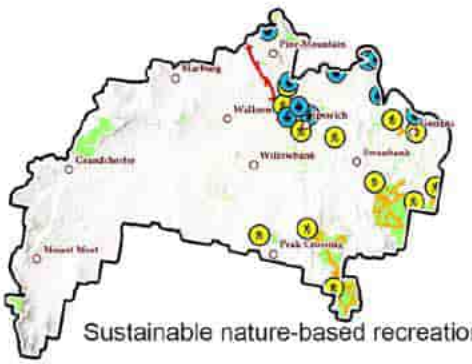
Waterways, wetlands and floodplains



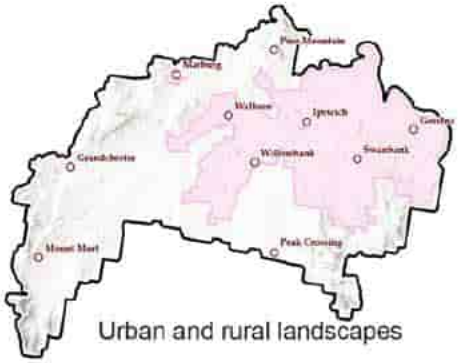
Natural habitat areas and corridors



Aboriginal cutlural landscapes



Sustainable nature-based recreation



Urban and rural landscapes



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Environmental Offsets Policy

Collaboration Communication Integrity Efficiency Leadership

Version Control and Objective ID	Version No: 1	Objective ID: A7437473
Adopted at Council Ordinary Meeting on	22 July 2021	
Date of Review	22 July 2024	

1. Statement

Environmental offsets for Matters of National Environmental Significance (MNES), Matters of State Environmental Significance (MSES) and Matters of Local Environmental Significance (MLES) are all applicable in the Ipswich LGA. These are collectively 'environmental offsets'

Council recognises that 'environmental offsets' are an important mechanism to mitigate and compensate for the loss of natural environmental values where:

- It has been established that all opportunities to avoid and mitigate impacts have been exhausted; and
- The impacts will not significantly affect the conservation status of natural environment value(s).

2. Purpose and Principles

This policy guides Council's assessment and decision making in relation to the use of environmental offsets and is underpinned by the following principles:

- **Environmental offsets must be undertaken transparently.**
  - Good governance will be maintained at all times through the consistent application of this policy and associated systems and processes such as record keeping, procedures, guidelines, registers and maps.
  - Records regarding environmental offsets will be stored electronically on Council's document management system – Objective.
  - Information regarding environmental offsets involving Council will be easily accessible to the public through publishing on Council's website.
  - Offsets will be carried out in a consistent manner and in such a way that all stakeholders are able to see what arrangements have been made and what actions are to be performed.
- **Council will set and maintain Matters of Local Environmental Significance (MLES) and include it in the Ipswich Planning Scheme.**
  - Council will maintain a register of 'Matters of Local Environmental Significance (MLES)' and an associated map - in accordance with the *Environmental Offsets Act 2014 (Qld).*
  - MLES mapping will form an overlay in the Ipswich Planning Scheme.

- Activities likely to impact on a MLES value or mapped area will be subject to Council assessment and may trigger the requirement for an offset.

- **Environmental offsets will only be considered after avoidance and mitigation options have been pursued.**
  - Offsets will only be conditioned or accepted when suitable avoidance and mitigate of impacts has been demonstrated - consistent with the State *Environmental Offsets Act 2014*.
- **Environmental offsets are not appropriate for all activities or impacts.**
  - Certain impacts to environmental values are irreversible and cannot be offset; meaning there is no acceptable outcome. This may occur where a species is unique, restricted to a discrete area, no other habitat is available, or an action may send a species locally extinct.
- **Environmental offsets must achieve a net gain in the extent and quality of an environmental value and be legally secured and effectively managed.**
  - The difficulty in replacing the true environmental value must be taken into account in the conditioning and delivery of environmental offsets.
  - In order to compensate for difficulties with replacing like-for-like values and the time-lag between value impact and delivery, Council requires that offsets replace comprehensively more than the total calculated impact.
- **On ground delivery of environmental offsets must be relevant and proportionate to the significance of the environmental value being impacted.**
  - Offsets should as much as practical, replace the value that has been impacted as a like-for-like.
  - Recognising that some species are more vulnerable to disturbance or poor at recolonising new habitat; offsets are to be delivered at a higher ratio than what is disturbed at the impact site[1].
- **Environmental offsets must only be delivered in locations where the land tenure is suitable for establishing vegetation and protecting it in perpetuity**
  - For example, an offset should not be delivered on a parcel of land dedicated as a future park or open space as the requirements of the offset are not likely to be in keeping with the lands purpose.
- **Council will maintain an 'Offset Register' that is publicly available and easily accessible.**
  - Council will maintain a register of environmental offsets including details of impacts - as required by the *Environmental Offsets Act 2014.*
  - Environmental offsets and referrals associated with the *Environment Protection and Biodiversity Conservation Act 1999* will also be included in the register for reference where these are known and publicly available.

[1] Greater Glider *Petauroides volans* is an example of a marsupial species that typically struggles recolonising new habitat once it has been disturbed

- **All funds collected through natural environment offsets is held and accounted for separately from Council's general revenue.**
  - Natural environment offset funds should not be available at any time for expenditure as general revenue.
- **Environmental offsets may be delivered through partnerships between Council and external entities that require ecological restoration works to occur in order to compensate for their impacts on matters of National or State environmental significance[2].**
  - Council will undertake a clear and transparent governance process to assess, negotiate, enter into agreement and deliver offsets funded by an external agency.
  - Council will not take on the external entity's offset liability or legislated requirements. Rather it may assist the external entity to implement the liability through undertaking ecological restoration works on Council owned or management land, or makes available land for ecological restoration where suitable through a transparent and approved process.
  - Where an external entity's offset is delivered through a partnership on Council owned or managed land, all principles of this policy apply and the offset must align with Councils strategic environmental objectives e.g. the objectives of the Natural Environment Policy and associated strategies.
  - Council maintains the right to not enter into a partnership with an external entity.
- **Environmental offsets must follow best practice, achieve additionality and keep up to date with modern scientific research into environmental offsets.**
  - Offsets must be used to enhance existing habitat or build strategic linkages.
  - Council will not accept offsets proposals that:
    - Attempt to create new habitat where there is no opportunity for expansion or connectivity.
    - Put forward habitat improvement works that could be achieved through standard natural area maintenance activities.
    - Protect intact vegetation not at risk of being cleared or degraded.
- **Environmental offsets will be focussed on longer term strategic outcomes.**
  - Council recognises offsets are a practical tool that complement its environmental programs and initiatives to achieve strategic environmental objectives.
  - While offsets cannot entirely replace natural environmental values, Council recognises they can support with delivering revegetation where funding or opportunities are limited.
  - Where reasonably practical offsets are implemented to complement previous offset deliveries or environmental programs and initiatives.

[2] This may be for matters that are impacted both within and external to Ipswich.

- **Environmental offsets will be consistently applied and integrated into operations and strategic planning through a designated offsets framework**
  - Council applies a framework with strong links between Council's sections for strategic nature conservation & biodiversity planning, citywide land use planning and natural area management.

3. Strategic Plan Links

This policy aligns with the following iFuture 2021-2026 Corporate Plan themes:

- Vibrant and Growing
- Natural and Sustainable
- A Trusted and Leading Organisation

4. Regulatory Authority

- *Local Government Act 2009 (Qld)*
- *Local Government Regulation 2012 (Qld)*
- *State Planning Policy 2014*
- *Nature Conservation Act 1992 (Qld)*
- *Environmental Offsets Act 2014 (Qld)*
- *Environmental Offsets Regulation 2014 (Qld)*
- *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)*

Related Documents

- Natural Environment Offset Delivery Procedure
- Natural Environment Offset External Investment Management Guideline

5. Human Rights Commitment

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

6. Scope

- Offset polices exist at all levels of government. Council has a *Biodiversity Offset Planning Scheme Policy* as part of the Ipswich Planning Scheme (is currently in development). The Commonwealth Government have offset mechanisms under the *Environmental Protection and Biodiversity Act 1999*(and policy) and the State Government has a *Queensland Environmental Offsets Act 2014* (and policy).
- Under the *Environmental Offsets Act 2014*, local governments have the ability to implement an offsets trigger into their local planning instruments for impacts to Matters of Local Environmental Significance.
- This policy applies to:
  - All applications assessed under the Ipswich Planning Scheme, including for impacts to MLES; and

- Situations where Council may enter into a partnership with an external entity that have offset liabilities for MNES or MSES arising from Commonwealth and State Government legislation

- All council staff, contractors, and others that act on Council's behalf are to ensure they work in accordance with the policy principles and in accordance with the relevant legislation.
- This policy does not apply to Voluntary Storm Water Quality Contributions through the Ipswich Planning Scheme.

7. Roles and Responsibilities

Engineering and Environment Branch – implementation of relevant planning scheme policies and conditioning of offsets through the development application process.

City Design Branch – ownership of planning scheme policies and associated guidelines.

Environment and Sustainability Branch – ownership and updates of the environmental offsets framework, technical supporting documents and Matters of Local Environmental Significance.

Works and Field Services Branch – role in on ground delivery and/or oversight and contractor management offset plantings.

8. Key Stakeholders

The following will be consulted during the review process:

- City Design Branch, Planning and Regulatory Services Department
- Engineering, Health and Environment Branch, Planning and Regulatory Services Department
- Sustainability Branch, Environment and Sustainability Department
- Legal and Governance Branch, Corporate Governance Department

9. Monitoring and Evaluation

The following actions will be used to measures the policies success:

- An annual review and three yearly external review audit of the offsets program to determine compliance of Council's offsets with Councils requirements under the *Environmental Offsets Act 2014*. All reviews to be published on Council's external web site.
- An assessment of all offsets on Councils offset register every two years. The assessment will evaluate all offsets against the principles in the policy
- A review of this policy every three years (or as required) to accommodate necessary changes based on learnings from its implementation or any changes to the *Environmental Offset Act 2014*, its associated regulations and policy.

10. Definitions

- **Additionality –** assessment of whether a proposed offset creates additional opportunities that would never have occurred in the absence of the offset.
- **Condition –** a requirement placed on an environmental approval that a proponent is required to implement in order to continue the primary purpose of their approval

- **Council –** Ipswich City Council, the legal entity.
- **Council Owned or Managed Land –** Land owned or managed by Council and mapped as either Conservation Estate, Park Reserve or other land suitable for planting native vegetation
- **Environmental Offsets -** For the purpose of this policy, environmental offsets is an action (such as tree planting) or monetary contribution that compensates for the residual adverse impacts of an action on the natural environment, when alternatives and options to avoid those impacts have been exhausted and it is still considered desirable for other economic, social or environmental reasons for the action to proceed. Voluntary Storm Water Quality Contributions through the Ipswich Planning Scheme do not form part of this policy definition.
- **External Entities -** A company, corporation or agency including the following:
    - Infrastructure and utility providers
    - Land developers
    - Commonwealth Government or associated entities (including organisations working on behalf of a government program)
    - State Government or State-owned corporations; and
    - Other entities that provide a private or public benefit or service
- **Infrastructure providers -** Includes essential and community-based infrastructure, in addition to nationwide and state infrastructure projects where it is deemed to be of a public benefit. E.g. NBN, Energex and Powerlink.
- **Legally secured -** A mechanism that provides protection in perpetuity including (but not limited to):
    - Statutory environmental covenants under the *Land Titles Act 1994 (Qld)*
    - Nature refuges under the *Nature Conservation Act 1992 (Qld)*
    - Environmental offset protection area under section 30 of the *Environmental Offsets Act 2014 (Qld).*
    - Voluntary declarations made under the *Vegetation Management Act 1999 (Qld).*
- **Like-for-like –** Attempting to replace a lost environmental value as similar as possible to the original value.
- **Matters of Local Environmental Significance (MLES) -** a matter prescribed under a local planning instrument for which an offset can be taken under the *Environmental Offsets Act 2014*.
- **Matters of National Environmental Significance (MNES) -** matters including world heritage, migratory species and threatened species for which an offset can be taken under the *Environment Protection and Biodiversity Conservation Act 1999*.
- **Matters of State Environmental Significance (MSES) -** represents State biodiversity interests including regulated vegetation, wetlands, protected areas, marine parks, fish habitat and threatened species habitat for which an offset can be taken under the *Environmental Offsets Act 2014*.

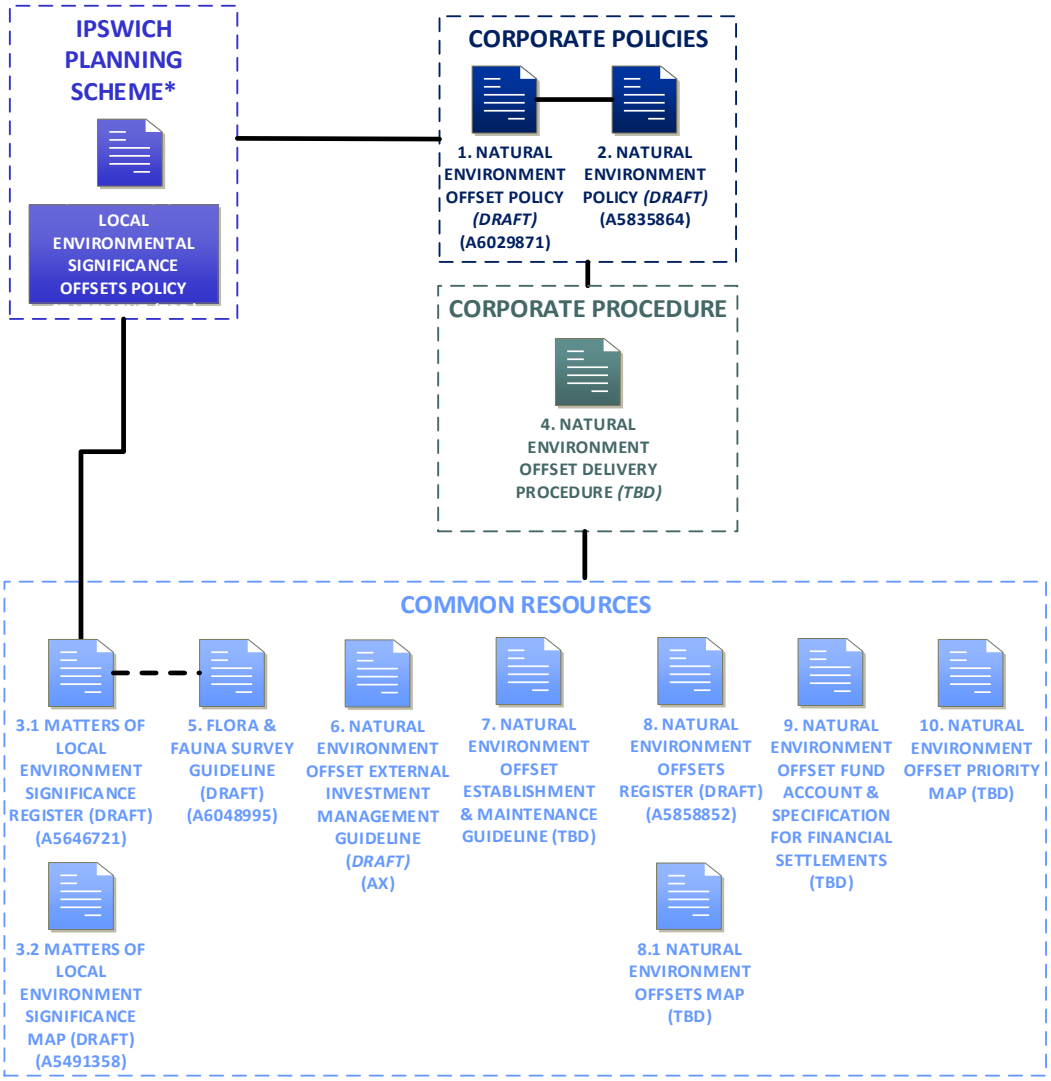
- **Offset Requirement -** Legislative requirement to undertake ecological restoration to offset unavoidable impacts to prescribed environmental matter
- **Partnership -** an arrangement between Council and one or more third parties to deliver on offset obligation. For example, where Council provides land for a third party to deliver an offset obligation on. The tenure of the land remains in public ownership and does not transfer to the third part through the delivery of an offset obligation.
- **Public benefit -** a project provides a public benefit when new or improved public infrastructure is provided, and no commercial gain is achieved for the external entity. In most instances, government agencies providing infrastructure will automatically be deemed to be providing a public benefit. Infrastructure works conditioned through the development assessment process, to be delivered by a non-government external entity, cannot be defined as providing a public benefit
- **Prescribed Environmental Matter -** a collective term that for the purpose of this policy, defines all matters that an offset may apply to. This includes Matters of National Environmental Significance, Matters of State Environmental Significance, Matters of Local Environmental Significance or others matters within the scope of this policy. For example, koala habitat.
- **Time Lag –** the difference in time between where an approved impact to a value has occurred and time taken to replace the value like-for-like through an offset

11. Policy Owner

The General Manager (Environment and Sustainability) is the policy owner and the Manager, Natural Environment and Land Management is responsible for authoring and reviewing this policy.

Appendix 1: Governance Framework Diagram

Natural Environment Offset Policy – Governance Framework Diagram



Explanatory Notes:

1. Natural Environment Offset Policy: Sets corporate direction and principles for engagement in environmental offsets at all levels.
2. Natural Environment Policy: Sets corporate direction and principles for management of the natural environment across the city.
3. Matters of Local Environmental Significance (MLES) Offsets Policy Statement *(within Ipswich Planning Scheme)*: Outlines a framework for assessing impacts on MLES, determining significant residual impacts and potential offset requirements - in accordance with the State *Environmental Offsets Act 2014*.
3.1 Matters of Local Environment Significance Register: List and details all MLES, including justification and selection criteria.
3.2 Matters of Local Environment Significance Map: Geospatial layer/map used as a trigger during development assessment, developed directly from the MLES register using a method endorsed through State Interest checks.
4. Natural Environment Offset Delivery Procedure: Details direction and principles on Council delivery of offsets and funds acquired through financial settlement.
5.Flora and Fauna Survey Guideline: Specifies requirements for proponents when developing a flora and fauna assessment as part of a development application.
6. Natural Environment Offset External Investment Management Guideline: Assist Council officers in guidance when determining whether a potential offset agreement/partnership aligns with the principles of Councils *Natural Environment Offsets Policy.*
7. Natural Environment Offset Establishment & Maintenance Guideline: Details practical and best practice methods for establishment and maintenance during on-ground offset delivery.
8. Natural Environment Offsets Register: Legally required register of all offsets conditioned by Council in accordance through the *Environmental Offsets Act 2014* – stored in Objective.
8.1 Natural Environment Offsets Map: Geospatial layer/map of known offsets within the city.
9. Natural Environment Offset Fund Account for Financial Settlements: Sets internal governance and legal framework and associated specifications for managing financial settlement offset payments.
10. Natural Environment Offset Priority Map: Geospatial layer/map of Council strategic priority areas for offset delivery.

TBD – To be developed *** - Under review** **Objective ID: A6029027**